

# BIRCHCLIFF

## ENERGY

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### BIRCHCLIFF ENERGY LTD. ANNOUNCES UNAUDITED 2019 YEAR-END AND FOURTH QUARTER RESULTS AND 2019 RESERVES HIGHLIGHTS

**Calgary, Alberta (February 12, 2020)** – Birchcliff Energy Ltd. (“**Birchcliff**” or the “**Corporation**”) (TSX: BIR) is pleased to announce its unaudited 2019 year-end and fourth quarter financial and operational results and highlights from its independent reserves evaluations effective December 31, 2019.

Jeff Tonken, President and Chief Executive Officer of Birchcliff commented: “2019 was an excellent year for Birchcliff. We executed on our capital plan, achieving record annual average production of 77,977 boe/d and record low annual operating costs of \$3.09 per/boe, both of which were in-line with or better than our 2019 guidance. Our annual average production in 2019 increased by 1% from 2018 and our operating costs decreased by 12% from 2018, reflecting the significant efforts by our team to continue to sustainably grow our production while bringing down per unit costs in order to remain one of industry’s lowest-cost producers. Birchcliff delivered \$334.5 million of adjusted funds flow and \$78.1 million of free funds flow in 2019, in spite of a challenging commodity price environment. In addition, we successfully added profitable production with positive recycle ratios in 2019.”

#### 2019 Year-End Highlights

- Generated \$78.1 million of free funds flow in 2019, an increase from \$13.3 million in 2018.
- Achieved record annual average production of 77,977 boe/d, a 1% increase from 2018.
- Liquids accounted for approximately 22% of Birchcliff’s total production in 2019 as compared to approximately 20% in 2018, with total liquids production increasing by 14% from 2018.
- Delivered \$334.5 million of adjusted funds flow, or \$1.26 per basic common share, each a 7% increase from 2018.
- Recorded a net loss to common shareholders of \$59.6 million, or \$0.22 per basic common share, as compared to net income to common shareholders of \$98.0 million and \$0.37 per basic common share in 2018.
- Achieved record low annual operating expense of \$3.09/boe, a 12% decrease from 2018.
- Realized an operating netback of \$13.07/boe, a 3% decrease from 2018.
- Successfully executed the Corporation’s 2019 capital program, drilling a total of 30 (30.0 net) wells and bringing 33 (33.0 net) wells on production. F&D capital expenditures were \$256.4 million in 2019.
- Total capital expenditures were \$300.2 million in 2019, which included the \$39 million acquisition of 18 gross (15.1 net) contiguous sections of Montney land located between Birchcliff’s existing Pouce Coupe and Gordondale properties (the “**Acquisition**”). Birchcliff drilled 8 (8.0 net) wells and completed and brought on production 6 (6.0 net) successful condensate-rich natural gas wells on the acquired lands in 2019.
- Paid \$27.9 million in common share dividends in 2019.

#### Q4 2019 Highlights

- Achieved quarterly average production of 77,962 boe/d, a 2% increase from Q4 2018.
- Liquids accounted for approximately 22% of Birchcliff’s total production in Q4 2019 as compared to approximately 21% in Q4 2018, with total liquids production increasing by 9% from Q4 2018.
- Delivered \$80.9 million of adjusted funds flow, or \$0.30 per basic common share, a 1% decrease and a 3% decrease, respectively, from Q4 2018.
- Generated \$24.1 million of free funds flow in Q4 2019, a decrease from \$29.2 million in Q4 2018.
- Recorded a net loss to common shareholders of \$19.0 million, or \$0.07 per basic common share, as compared to net income to common shareholders of \$70.9 million and \$0.27 per basic common share in Q4 2018.
- Achieved operating expense of \$3.06/boe, a 13% decrease from Q4 2018.

- Realized an operating netback of \$14.25/boe, a 6% increase from Q4 2018.
- Total capital expenditures of \$58.1 million. During the quarter, Birchcliff drilled 7 (7.0 net) wells.

### 2019 Reserves, F&D Costs and Recycle Ratio Highlights

- The following table summarizes the estimates of Birchcliff's gross reserves at December 31, 2019 and December 31, 2018, as estimated by Birchcliff's independent qualified reserves evaluators using the forecast price and cost assumptions in effect as at the effective dates of the applicable reserves evaluations:

Reserves Category	December 31, 2019 (Mboe)	December 31, 2018 (Mboe)	Change from December 31, 2018
Proved Developed Producing	206,922.4	203,631.0	2%
Total Proved	709,061.2	689,674.1	3%
Probable	323,133.5	312,396.0	3%
Total Proved Plus Probable	1,032,194.7	1,002,070.1	3%

- Birchcliff's proved developed producing reserves increased by 29,649.3 Mboe during 2019, before including the effects of acquisitions and dispositions and adding back 2019 actual production of 28,461.6 Mboe.
- Birchcliff's proved developed producing reserves increased by 1.04 boe for each boe that was produced in 2019, before including the effects of acquisitions and dispositions and adding back 2019 actual production.
- Birchcliff's NGLs reserves, which include condensate, increased by 29% on a proved basis and 24% on a proved plus probable basis, as a result of its focus on extracting more high-value liquids in 2019.
- Birchcliff's total light and medium crude oil and NGLs weighting of its proved developed producing, proved and proved plus probable reserves increased to 20%, 16% and 17% of total boes, respectively.
- The estimated net present value at December 31, 2019 (before taxes, discounted at 10%) was \$1.9 billion for Birchcliff's proved developed producing reserves (December 31, 2018: \$2.3 billion), \$4.1 billion for its proved reserves (December 31, 2018: \$4.7 billion) and \$5.3 billion for its proved plus probable reserves (December 31, 2018: \$6.1 billion).
- Reserves life index of 7.0 years on a proved developed producing basis, 24.0 years on a proved basis and 34.9 years on a proved plus probable basis, based on a forecast production rate of 81,000 boe/d (which represents the mid-point of Birchcliff's annual average production guidance range for 2020).
- During 2019, Birchcliff's F&D capital expenditures were \$256.4 million and its FD&A capital expenditures were \$297.8 million. The following table sets forth Birchcliff's F&D costs and FD&A costs per boe for 2019, 2018 and 2017, excluding and including FDC:

Excluding FDC (\$/boe) <sup>(1)</sup>	2019	2018	2017	3-Year Average
F&D – Proved Developed Producing	\$8.65	\$8.75	\$6.29	\$7.48
F&D – Proved	\$5.13	\$5.56	\$2.53	\$3.63
F&D – Proved Plus Probable	\$3.55	\$5.57	\$2.54	\$3.36
FD&A – Proved Developed Producing	\$9.38	\$8.75	\$4.79	\$7.07
FD&A – Proved	\$6.22	\$5.55	\$1.95	\$3.59
FD&A – Proved Plus Probable	\$5.08	\$5.13	\$2.35	\$3.72

Including FDC (\$/boe) <sup>(1)</sup>	2019 <sup>(2)</sup>	2018 <sup>(3)</sup>	2017 <sup>(4)</sup>	3-Year Average
F&D – Proved	\$7.84	\$0.64	\$8.14	\$6.57
F&D – Proved Plus Probable	\$6.22	\$1.27	\$7.27	\$5.89
FD&A – Proved	\$8.71	\$0.45	\$7.16	\$5.98
FD&A – Proved Plus Probable	\$7.25	\$1.47	\$5.37	\$4.88

(1) See "Advisories – Oil and Gas Metrics" for a description of the methodology used to calculate F&D and FD&A costs.

(2) Reflects the 2019 increase in FDC from 2018 of \$118.8 million on a proved basis and \$127.0 million on a proved plus probable basis.

(3) Reflects the 2018 decrease in FDC from 2017 of \$272.2 million on a proved basis and \$211.2 million on a proved plus probable basis.

(4) Reflects the 2017 increase in FDC from 2016 of \$732.9 million on a proved basis and \$352.9 million on a proved plus probable basis.

- Birchcliff had positive recycle ratios for its proved developed producing reserves, notwithstanding that its F&D capital expenditures included \$57 million of facilities and infrastructure and drilling and development capital spent in 2019, which did not result in the addition of proved developed producing reserves at year-end 2019.
- The following table sets forth Birchcliff's recycle ratios for its operating and adjusted funds flow netbacks for 2019 and 2018, excluding and including FDC:

	Operating Netback Recycle Ratio <sup>(1)(2)</sup>		Adjusted Funds Flow Netback Recycle Ratio <sup>(1)(3)</sup>	
	2019	2018	2019	2018
<b>Excluding FDC</b>				
F&D – Proved Developed Producing	1.5	1.5	1.4	1.3
FD&A – Proved Developed Producing	1.4	1.5	1.3	1.3
F&D – Proved	2.5	2.4	2.3	2.0
FD&A – Proved	2.1	2.4	1.9	2.0
F&D – Proved Plus Probable	3.7	2.4	3.3	2.0
FD&A – Proved Plus Probable	2.6	2.6	2.3	2.2
<b>Including FDC</b>				
F&D – Proved	1.7	21.2	1.5	17.4
FD&A – Proved	1.5	30.3	1.3	24.9
F&D – Proved Plus Probable	2.1	10.7	1.9	8.8
FD&A – Proved Plus Probable	1.8	9.2	1.6	7.6

(1) See “Advisories – Oil and Gas Metrics” for a description of the methodology used to calculate recycle ratios.

(2) Birchcliff’s operating netback was \$13.07/boe in 2019, as compared to \$13.52/boe in 2018.

(3) Birchcliff’s adjusted funds flow netback was \$11.75/boe in 2019, as compared to \$11.12/boe in 2018.

Birchcliff anticipates filing its annual information form and audited financial statements and related management’s discussion and analysis for the year ended December 31, 2019 on March 11, 2020.

*This press release contains forward-looking statements within the meaning of applicable securities laws. For further information regarding the forward-looking statements contained herein, see “Advisories – Forward-Looking Statements”. In addition, this press release contains references to “adjusted funds flow”, “adjusted funds flow per basic common share”, “free funds flow”, “operating netback”, “adjusted funds flow netback”, “total cash costs”, “adjusted working capital deficit” and “total debt”, which do not have standardized meanings prescribed by GAAP. For further information regarding these non-GAAP measures, including reconciliations to the most directly comparable GAAP measure where applicable, see “Non-GAAP Measures”. This press release also contains metrics commonly used in the oil and natural gas industry, including “netbacks”, “reserves life index”, “recycle ratio”, “reserves replacement”, “F&D costs” and “FD&A costs”, which do not have any standardized meanings. See “Advisories – Oil and Gas Metrics”. All financial and operating information for the fourth quarter and year ended December 31, 2019 is unaudited. See “Advisories – Unaudited Information”. With respect to the disclosure of Birchcliff’s production contained in this press release, see “Advisories – Production”.*

## 2019 UNAUDITED FINANCIAL AND OPERATIONAL HIGHLIGHTS

	Three months ended December 31,		Twelve months ended December 31,	
	2019	2018 <sup>(5)</sup>	2019	2018 <sup>(5)</sup>
<b>OPERATING</b>				
Average production				
Light oil – (bbls/d)	4,435	4,788	4,742	4,873
Condensate – (bbls/d) <sup>(1)</sup>	4,906	4,207	5,145	4,072
NGLs – (bbls/d) <sup>(1)</sup>	7,814	6,814	7,264	6,123
Natural gas – (Mcf/d)	364,847	363,596	364,958	372,170
<b>Total – boe/d</b>	<b>77,962</b>	<b>76,408</b>	<b>77,977</b>	<b>77,096</b>
Average realized sales price (CDN\$) <sup>(2)</sup>				
Light oil – (per bbl)	67.58	41.39	68.29	68.66
Condensate – (per bbl) <sup>(1)</sup>	68.80	55.99	68.06	77.36
NGLs – (per bbl) <sup>(1)</sup>	16.62	21.60	13.76	22.92
Natural gas – (per Mcf)	2.81	3.03	2.48	2.45
<b>Total – per boe</b>	<b>22.97</b>	<b>22.01</b>	<b>21.55</b>	<b>22.08</b>
<b>NETBACK AND COST (\$/boe)</b>				
Petroleum and natural gas revenue <sup>(2)</sup>	22.97	22.01	21.56	22.08
Royalty expense	(1.15)	(0.96)	(0.96)	(1.36)
Operating expense	(3.06)	(3.51)	(3.09)	(3.52)
Transportation and other expense	(4.51)	(4.07)	(4.44)	(3.68)
<b>Operating netback (\$/boe)</b>	<b>14.25</b>	<b>13.47</b>	<b>13.07</b>	<b>13.52</b>
G&A expense, net	(1.26)	(1.08)	(0.94)	(0.87)
Interest expense	(0.82)	(1.06)	(0.88)	(0.99)
Realized gain (loss) on financial instruments	(0.92)	0.24	0.48	(0.56)
Other income	0.03	0.03	0.02	0.02
<b>Adjusted funds flow netback (\$/boe)</b>	<b>11.28</b>	<b>11.60</b>	<b>11.75</b>	<b>11.12</b>
Depletion and depreciation expense	(7.49)	(7.29)	(7.50)	(7.42)
Unrealized gain (loss) on financial instruments	(6.50)	11.02	(6.77)	2.28
Other expenses <sup>(3)</sup>	(0.28)	(1.21)	(0.51)	(0.79)
Dividends on preferred shares	(0.27)	(0.26)	(0.27)	(0.27)
Income tax recovery (expense)	0.61	(3.77)	1.21	(1.44)
<b>Net income (loss) to common shareholders (\$/boe)</b>	<b>(2.65)</b>	<b>10.09</b>	<b>(2.09)</b>	<b>3.48</b>
<b>FINANCIAL</b>				
Petroleum and natural gas revenue (\$000s) <sup>(2)</sup>	164,759	154,720	613,559	621,421
Cash flow from operating activities (\$000s)	85,557	92,200	327,066	324,434
Adjusted funds flow (\$000s)	80,941	81,517	334,504	312,922
Per basic common share (\$)	0.30	0.31	1.26	1.18
Net income (loss) to common shareholders (\$000s)	(18,984)	70,900	(59,579)	98,025
Per basic common share (\$)	(0.07)	0.27	(0.22)	0.37
End of period basic common shares (000s)	265,935	265,911	265,935	265,911
Weighted average basic common shares (000s)	265,935	265,910	265,930	265,852
Dividends on common shares (\$000s)	6,981	6,648	27,923	26,586
Dividends on preferred shares (\$000s)	1,922	1,922	7,687	7,687
Total capital expenditures (\$000s) <sup>(4)</sup>	58,136	52,886	300,246	298,018
Long-term debt (\$000s)	609,177	605,267	609,177	605,267
Total debt (\$000s)	632,582	626,454	632,582	626,454

(1) Beginning in Q1 2019, Birchcliff began presenting condensate and NGLs separately. Prior period sales and volumes have been adjusted to conform to this current period presentation. See "Advisories – Production".

(2) Excludes the effects of financial instruments but includes the effects of physical delivery contracts.

(3) Includes non-cash expenses such as compensation, accretion, amortization of deferred financing fees and other losses.

(4) Total capital expenditures for the year ended December 31, 2019 include the \$39 million Acquisition. See "Advisories – Capital Expenditures".

(5) Birchcliff adopted IFRS 16: Leases effective January 1, 2019 using the modified retrospective approach; therefore 2018 comparative information has not been restated.

## Q4 AND FULL-YEAR 2019 UNAUDITED FINANCIAL AND OPERATIONAL RESULTS

### Production

Birchcliff's production averaged 77,962 boe/d in Q4 2019, a 2% increase from 76,408 boe/d in Q4 2018. Birchcliff's full-year 2019 production averaged 77,977 boe/d, a 1% increase from 77,096 boe/d in 2018, in line with its guidance of 77,000 to 79,000 boe/d. The increases were primarily due to the success of Birchcliff's capital program which resulted in incremental production from new horizontal oil wells brought on production in Gordondale and horizontal condensate-rich natural gas wells in Pouce Coupe, partially offset by natural production declines.

Liquids accounted for approximately 22% of Birchcliff's total production in Q4 2019 (12% light oil and condensate and 10% NGLs) as compared to approximately 21% in Q4 2018 (12% light oil and condensate and 9% NGLs), with total liquids production increasing by 9% from Q4 2018. For the full-year 2019, liquids accounted for approximately 22% of Birchcliff's total production (13% light oil and condensate and 9% NGLs) as compared to approximately 20% in 2018 (11% light oil and condensate and 9% NGLs), in line with its guidance of 22% liquids. Total liquids production for the full-year 2019 increased by 14% from 2018. The change in the commodity production mix was primarily due to the addition of condensate-rich natural gas wells in Pouce Coupe and an increase in C3+ extracted from the natural gas stream at the Corporation's 100% owned and operated natural gas processing plant in Pouce Coupe (the "**Pouce Coupe Gas Plant**").

### Adjusted Funds Flow

Birchcliff's adjusted funds flow for Q4 2019 was \$80.9 million, or \$0.30 per basic common share, a 1% decrease and a 3% decrease, respectively, from \$81.5 million and \$0.31 per basic common share in Q4 2018. The decrease was primarily due to a realized loss on financial instruments and an increase in transportation and other expense as a result of Birchcliff's increased Dawn and AECO firm service, partially offset by higher reported revenue and lower operating expense. Revenue received by the Corporation was higher primarily due to an increase in total liquids production and a higher average realized liquids sales price, partially offset by a lower average realized natural gas sales price.

Birchcliff's full-year 2019 adjusted funds flow was \$334.5 million, or \$1.26 per basic common share, each a 7% increase from \$312.9 million and \$1.18 per basic common share in 2018, in line with its guidance of \$335 million. The increases were primarily due to lower operating and royalty expenses and a realized gain on financial instruments as compared to a realized loss on financial instruments in 2018, partially offset by lower reported revenue and an increase in transportation and other expense as a result of Birchcliff's increased Dawn and AECO firm service. Revenue received by the Corporation was lower primarily due to a lower average realized liquids sales price, partially offset by higher total liquids production.

### Net Loss to Common Shareholders

Birchcliff recorded a net loss to common shareholders of \$19.0 million, or \$0.07 per basic common share, in Q4 2019, as compared to net income to common shareholders of \$70.9 million and \$0.27 per basic common share in Q4 2018. The change from a net income to a net loss position was primarily due to a \$46.6 million unrealized mark-to-market loss on financial instruments recorded in Q4 2019 as compared to a \$77.4 million unrealized mark-to-market gain on financial instruments in Q4 2018, resulting in a period-over-period change of \$124.0 million (or \$91.1 million on an after-tax basis). See "*Risk Management*".

Birchcliff recorded a net loss to common shareholders of \$59.6 million, or \$0.22 per basic common share, in 2019 as compared to net income to common shareholders of \$98.0 million and \$0.37 per basic common share in 2018. The change from a net income to a net loss position was primarily due to a \$192.8 million unrealized mark-to-market loss on financial instruments recorded in 2019 as compared to a \$64.2 million unrealized mark-to-market gain on financial instruments in 2018, resulting in a year-over-year change of \$257.0 million (or \$188.9 million on an after-tax basis), partially offset by higher adjusted funds flow. See "*Risk Management*".

## Operating Expense

The Corporation remained focused on reducing its operating costs in 2019, resulting in a quarterly operating expense of \$3.06/boe in Q4 2019, a 13% decrease from \$3.51/boe in Q4 2018, and record low operating expense for the full-year 2019 of \$3.09/boe, a 12% decrease from \$3.52/boe in 2018. Birchcliff's full-year annual operating expense was better than its guidance of \$3.15/boe to \$3.35/boe. The decreases were primarily due to: (i) a step-down reduction in natural gas processing fees which became effective January 1, 2019 at AltaGas' deep-cut sour gas processing facility in Gordondale; (ii) reduced take-or-pay processing commitments in Pouce Coupe beginning in November 2018 which resulted in natural gas being redirected from third-party facilities to the Pouce Coupe Gas Plant; and (iii) increased operating efficiencies resulting from expanded liquids-handling capabilities in Pouce Coupe.

## Operating Netback

Birchcliff's operating netback was \$14.25/boe in Q4 2019, a 6% increase from \$13.47/boe in Q4 2018. Birchcliff's full-year 2019 operating netback was \$13.07/boe, a 3% decrease from \$13.52/boe in 2018. The increase in Q4 2019 was primarily due to a higher average realized commodity sales price and lower per boe operating expense, partially offset by higher per boe royalty and transportation and other expenses. The decrease in the full-year 2019 was primarily due to a lower average realized commodity sales price and higher per boe transportation and other expense, partially offset by lower per boe royalty and operating expenses.

## Total Cash Costs

Birchcliff's total cash costs were \$10.80/boe in Q4 2019, a 1% increase from \$10.68/boe in Q4 2018. Birchcliff's full-year 2019 total cash costs were \$10.31/boe, a 1% decrease from \$10.42/boe in 2018. The reasons for the changes in total cash costs are consistent with the explanation for operating netback, and include higher per boe G&A expense, partially offset by lower per boe interest expense in both periods.

## Pouce Coupe Gas Plant Netbacks

During 2019, Birchcliff processed approximately 72% of its total corporate natural gas production and 62% of its total corporate production through the Pouce Coupe Gas Plant as compared to 67% and 57%, respectively, during 2018. The following table sets forth Birchcliff's average daily production and operating netback for wells producing to the Pouce Coupe Gas Plant for the periods indicated:

	2019		2018	
<i>Average production:</i>				
Condensate (bbls/d)		3,801		2,430
NGLs (bbls/d)		934		179
Natural gas (Mcf/d)		263,108		250,011
<b>Total (boe/d)</b>		<b>48,587</b>		<b>44,278</b>
<b>Liquids-to-gas ratio (bbls/MMcf)<sup>(1)</sup></b>		<b>18.0</b>		<b>10.4</b>
<i>Netback and cost:</i>				
		<i>\$/Mcf</i>	<i>\$/boe</i>	<i>\$/Mcf</i>
Petroleum and natural gas revenue <sup>(2)</sup>		3.20	19.17	3.02
Royalty expense		(0.07)	(0.42)	(0.05)
Operating expense <sup>(3)</sup>		(0.34)	(2.05)	(0.34)
Transportation and other expense		(0.76)	(4.54)	(0.59)
<b>Operating netback</b>		<b>\$2.03</b>	<b>\$12.16</b>	<b>\$2.04</b>
<b>Operating margin<sup>(4)</sup></b>		<b>63%</b>	<b>63%</b>	<b>68%</b>

(1) "Liquids" consists of NGLs, including condensate.

(2) Excludes the effects of financial instruments but includes the effects of physical delivery contracts.

(3) Represents plant and field operating expense.

(4) Operating margin is calculated by dividing the operating netback for the period by the petroleum and natural gas revenue for the period.

Birchcliff's liquids-to-gas ratio increased by 73% as compared to 2018 primarily due to: (i) specifically targeted condensate-rich natural gas wells that were brought on production in Pouce Coupe in 2019; and (ii) the re-configuration of Phases V and VI of the Pouce Coupe Gas Plant in Q4 2018 which provided for shallow-cut capability, allowing Birchcliff to extract C3+ from the natural gas stream. The amount of condensate from Montney horizontal

natural gas wells being produced to the Pouce Coupe Gas Plant increased by 56% to 3,801 bbls/d in 2019 from 2,430 bbls/d in 2018. The increase in the liquids-to-gas ratio improved Birchcliff's average realized sales price at the Pouce Coupe Gas Plant.

## Debt

At December 31, 2019, Birchcliff had significant liquidity with long-term debt of \$609.2 million (December 31, 2018: \$605.3 million) from available credit facilities of \$1.0 billion (December 31, 2018: \$950 million), leaving \$384.3 million of unutilized credit capacity after adjusting for outstanding letters of credit and unamortized interest and fees. Total debt at December 31, 2019 was \$632.6 million as compared to \$626.5 million at December 31, 2018.

Birchcliff's credit facilities mature on May 11, 2022 and do not contain any financial maintenance covenants.

## Commodity Prices

The following table sets forth the average benchmark index prices for the periods indicated:

	Three months ended December 31,			Twelve months ended December 31,		
	2019	2018	% Change	2019	2018	% Change
<i>Average benchmark index prices:</i>						
Light oil – WTI Cushing (US\$/bbl)	56.96	58.81	(3%)	57.03	64.77	(12%)
Light oil – MSW (Mixed Sweet) (CDN\$/bbl)	67.66	42.42	60%	68.72	69.04	-
Natural gas – NYMEX HH (US\$/MMBtu) <sup>(1)</sup>	2.50	3.76	(34%)	2.63	3.07	(14%)
Natural gas – AECO 5A Daily (CDN\$/GJ)	2.35	1.48	59%	1.67	1.42	18%
Natural gas – AECO 7A Month Ahead (US\$/MMBtu) <sup>(1)</sup>	1.77	1.45	22%	1.22	1.54	(21%)
Natural gas – Dawn Day Ahead (US\$/MMBtu) <sup>(1)</sup>	2.23	3.78	(41%)	2.40	3.12	(23%)
Natural gas – ATP 5A Day Ahead (CDN\$/GJ)	1.92	2.57	(25%)	1.66	2.07	(20%)
Exchange rate (CDN\$ to US\$1)	1.3201	1.3215	-	1.3269	1.2961	2%
Exchange rate (US\$ to CDN\$1)	0.7575	0.7567	-	0.7536	0.7715	(2%)

(1) \$1.00/MMBtu = \$1.00/Mcf based on a standard heat value Mcf. See "Advisories – MMBtu Pricing Conversions".

## Risk Management

Birchcliff engages in risk management activities by utilizing various financial instruments and physical delivery contracts to diversify its sales points or fix commodity prices and market interest rates, including NYMEX/AECO basis swaps which fix the basis differential between AECO and NYMEX HH prices, effectively providing for a floating NYMEX HH price.

Birchcliff realized a cash loss on financial instruments of \$6.6 million in Q4 2019 as compared to a realized cash gain on financial instruments of \$1.7 million in Q4 2018. In the full-year 2019, Birchcliff realized a cash gain on financial instruments of \$13.7 million as compared to a realized cash loss of \$15.8 million in 2018. The realized cash gain and loss reported in the full-year 2019 and Q4 2019 periods, respectively, were primarily due to the settlement of financial NYMEX/AECO basis swap contracts that were outstanding in the periods.

Birchcliff recorded an unrealized non-cash loss on financial instruments of \$46.6 million in Q4 2019 and an unrealized non-cash loss on financial instruments of \$192.8 million in the full-year 2019. The unrealized non-cash losses on financial instruments reported in the 2019 periods were primarily due to the decrease in the fair value of the Corporation's financial instruments to a liability position of \$132.6 million at December 31, 2019. The fair value of the liability is the estimated discounted value to settle outstanding financial contracts at a point in time. The decrease in the fair value of Birchcliff's financial instruments during 2019 was primarily attributable to: (i) the decrease in the forward basis spread between NYMEX HH and AECO 7A for contracts outstanding at December 31, 2019 as compared to the fair value previously assessed at September 30, 2019 and December 31, 2018; and (ii) the settlement of financial NYMEX/AECO basis swap contracts in 2019.

The unrealized gains and losses on financial NYMEX HH basis contracts can fluctuate materially from period-to-period due to movement in the forward NYMEX HH and AECO 7A strip prices. Unrealized gains and losses on financial instruments do not impact adjusted funds flow and may differ materially from the actual gains or losses realized on the eventual cash settlement of financial contracts in a period.

## Marketing and Natural Gas Market Diversification

Birchcliff's physical natural gas sales exposure primarily consists of the AECO, Dawn and Alliance markets. Effective November 1, 2019, Birchcliff's level of firm service on TCPL's Canadian Mainline to Dawn increased to 175,000 GJ/d from 150,000 GJ/d. In addition, the Corporation has various financial instruments outstanding that provide it with exposure to NYMEX HH pricing.

The following table details Birchcliff's effective sales, production and average realized sales price for natural gas and liquids for Q4 2019, after taking into account the Corporation's financial instruments:

Three months ended December 31, 2019						
	Effective sales (CDN\$000s)	Percentage of total sales (%)	Effective production (per day)	Percentage of total natural gas production (%)	Percentage of total corporate production (%)	Effective average realized sales price (CDN\$)
<b>Markets</b>						
AECO <sup>(1)</sup>	27,536	17	113,196 Mcf	31	24	2.64/Mcf
Dawn <sup>(2)</sup>	43,706	28	152,115 Mcf	42	33	3.12/Mcf
Alliance <sup>(3)</sup>	1,507	1	8,271 Mcf	2	2	1.98/Mcf
NYMEX HH <sup>(1)</sup>	14,875	9	91,265 Mcf	25	19	1.77/Mcf
<b>Total natural gas</b>	<b>87,624</b>	<b>55</b>	<b>364,847 Mcf</b>	<b>100</b>	<b>78</b>	<b>2.61/Mcf</b>
Light oil	27,571	17	4,435 bbls		6	67.58/bbl
Condensate	31,050	20	4,906 bbls		6	68.80/bbl
NGLs	11,944	8	7,814 bbls		10	16.62/bbl
<b>Total liquids</b>	<b>70,565</b>	<b>45</b>	<b>17,155 bbls</b>		<b>22</b>	<b>44.71/bbl</b>
<b>Total corporate</b>	<b>158,189</b>	<b>100</b>	<b>77,962 boe</b>		<b>100</b>	<b>22.05/boe</b>

- (1) A portion of AECO 5A sales and production that effectively received NYMEX HH pricing under Birchcliff's long-term physical and financial NYMEX/AECO 7A basis swap contracts has been included as effective sales and production in NYMEX HH markets. Birchcliff sold financial and physical AECO 7A basis swaps for 100,000 MMBtu/d at an average contract price of NYMEX HH less US\$1.28/MMBtu during Q4 2019.
- (2) Birchcliff has agreements for the firm service transportation of an aggregate of 175,000 GJ/d of natural gas on TCPL's Canadian Mainline, whereby natural gas is transported to the Dawn trading hub in Southern Ontario. The first tranche of this service (120,000 GJ/d) became available on November 1, 2017, the second tranche (30,000 GJ/d) became available on November 1, 2018 and the third tranche (25,000 GJ/d) became available on November 1, 2019. Each tranche has a 10-year term.
- (3) Birchcliff has sales agreements with a third party marketer to sell and deliver into the Alliance pipeline system until October 31, 2020. Alliance sales are recorded net of transportation tolls.

Effectively 83% of the Corporation's sales revenue, representing 69% of its total natural gas production and 76% of its total corporate production, was generated from markets outside of AECO in Q4 2019, after taking into account its liquids sales and long-term financial NYMEX/AECO basis swap position.

The following tables set forth Birchcliff's sales, production, average realized sales price, transportation costs and natural gas sales netback by natural gas market for the periods indicated, before taking into account the Corporation's financial instruments:

Three months ended December 31, 2019							
	Natural gas sales <sup>(1)</sup> (\$000s)	Percentage of natural gas sales (%)	Natural gas production (Mcf/d)	Percentage of natural gas production (%)	Average realized natural gas sales price <sup>(1)</sup> (\$/Mcf)	Natural gas transportation costs <sup>(2)</sup> (\$/Mcf)	Natural gas sales netback <sup>(3)</sup> (\$/Mcf)
AECO	48,976	52	204,461	56	2.60	0.34	2.26
Dawn <sup>(4)</sup>	43,706	46	152,115	42	3.12	1.37	1.75
Alliance <sup>(5)</sup>	1,507	2	8,271	2	1.98	-	1.98
<b>Total</b>	<b>94,189</b>	<b>100</b>	<b>364,847</b>	<b>100</b>	<b>2.81</b>	<b>0.77</b>	<b>2.04</b>
Three months ended December 31, 2018							
	Natural gas sales <sup>(1)</sup> (\$000s)	Percentage of natural gas sales (%)	Natural gas production (Mcf/d)	Percentage of natural gas production (%)	Average realized natural gas sales price <sup>(1)</sup> (\$/Mcf)	Natural gas transportation costs <sup>(2)</sup> (\$/Mcf)	Natural gas sales netback <sup>(3)</sup> (\$/Mcf)
AECO	33,788	33	223,261	61	1.67	0.31	1.36
Dawn <sup>(4)</sup>	64,969	64	127,211	35	5.55	1.34	4.21
Alliance <sup>(5)</sup>	2,492	3	13,124	4	2.06	-	2.06
<b>Total</b>	<b>101,249</b>	<b>100</b>	<b>363,596</b>	<b>100</b>	<b>3.03</b>	<b>0.66</b>	<b>2.37</b>



- (1) Excludes the effects of financial instruments but includes the effects of physical delivery contracts.
- (2) Reflects costs to transport natural gas from the field receipt point to the delivery sales trading hub.
- (3) Natural gas sales netback denotes the average realized natural gas sales price less natural gas transportation costs.
- (4) During Q4 2018, Birchcliff entered into physical natural gas delivery contracts at Dawn for 50,000 MMBtu/d at an average contract price of US\$5.05/MMBtu for the period from December 1, 2018 to March 31, 2019. There were no physical delivery contracts in place at Dawn subsequent to March 31, 2019.
- (5) Alliance transportation tolls are recorded net of sales price.

## Capital Activities and Investment

Birchcliff's successful 2019 capital program (the "2019 Capital Program") was focused on the drilling of high-value light oil wells in Gordondale and condensate-rich and low-cost natural gas wells in Pouce Coupe. In addition, the 2019 Capital Program advanced the Corporation's 20,000 bbls/d (50% condensate, 50% water) inlet liquids-handling facility at the Pouce Coupe Gas Plant (the "Inlet Liquids-Handling Facility") and directed funds towards other infrastructure enhancement projects. The 2019 Capital Program was strategically front-end loaded resulting in a more efficient capital spending and production profile during the year. This allowed Birchcliff to realize numerous capital cost savings and bring new wells on production relatively early in the year, optimizing producing days in the year for the capital spent.

During 2019, Birchcliff drilled 30 (30.0 net) horizontal wells, 7 (7.0 net) of which were drilled in Q4 2019 to help ensure the efficient execution of the Corporation's 2020 capital program. Of these, 5 (5.0 net) were condensate-rich natural gas wells in Pouce Coupe and 2 (2.0 net) were oil wells in Gordondale. The Corporation brought on production 33 (33.0 net) wells during 2019, including 9 (9.0 net) wells that were drilled in Q4 2018 and 1 of the 7 wells drilled in Q4 2019, the remaining 6 of which will be brought on production in Q1 and Q2 2020. All wells drilled in 2019 were drilled on multi-well pads, which allows Birchcliff to reduce its per well costs and environmental footprint. The following table summarizes the number of wells Birchcliff drilled and brought on production in 2019:

Area	Total wells drilled in 2019 <sup>(1)</sup>	Total wells brought on production in 2019 <sup>(2)</sup>
<b>Pouce Coupe</b>		
Montney D1 horizontal natural gas wells	9	14
Montney D2 horizontal natural gas wells	5	2
Montney C horizontal natural gas wells	2	1
<b>Total – Pouce Coupe</b>	<b>16</b>	<b>17</b>
<b>Gordondale</b>		
Montney D4 horizontal oil wells	1	0
Montney D2 horizontal oil wells	7	9
Montney D1 horizontal oil wells	6	7
<b>Total – Gordondale</b>	<b>14</b>	<b>16</b>
<b>TOTAL – COMBINED</b>	<b>30</b>	<b>33</b>

(1) Includes the 6 additional wells drilled in Q4 2019.

(2) Does not include the 6 additional wells drilled in Q4 2019 as none of these wells were brought on production in 2019. In addition, the 2019 Capital Program included the capital associated with 9 Montney/Doig wells (5 in Pouce Coupe and 4 in Gordondale) that were drilled in Q4 2018 and subsequently brought on production in 2019.

Total capital expenditures for 2019 were \$300.2 million, including F&D capital expenditures of \$256.4 million, as compared to Birchcliff's guidance of \$283.0 million and \$242.0 million, respectively. Total capital expenditures were \$58.1 million in Q4 2019.

### Pouce Coupe

Key focus areas for Pouce Coupe in 2019 were the drilling of condensate-rich natural gas wells and the further exploitation and delineation of condensate-rich trends in the Montney D1, D2 and C intervals. In 2019, the Corporation drilled 16 (16.0 net) wells and brought on production 17 (17.0 net) wells. Birchcliff has been encouraged with the results of the wells brought on production in 2019, with strong condensate rates and the benefits from improved prices at AECO in Q4 2019. For details regarding Birchcliff's drilling results, see its updated corporate presentation available on its website at [www.birchcliffenergy.com/investors/corporate-presentation/](http://www.birchcliffenergy.com/investors/corporate-presentation/).

Birchcliff also initiated the construction of the Inlet Liquids-Handling Facility in 2019 in order to handle increased condensate volumes in the area. Once completed, this facility will give Birchcliff the ability to increase its condensate

production in the Pouce Coupe area to approximately 10,000 bbls/d (2019: 3,801 bbls/d). Fabrication of the various components and site preparation are underway. The facility is anticipated to be online in Q3 2020.

On January 3, 2019, Birchcliff completed the Acquisition of 18 gross (15.1 net) contiguous sections of Montney land located between its existing Pouce Coupe and Gordondale properties. The Acquisition demonstrates the highly functional integrated teams working together at Birchcliff. The Acquisition was directly related to the learnings from the offsetting 2018 science and technology pad, which led to the evaluation and acquisition of these lands. That, in turn, allowed Birchcliff's operations team to quickly and efficiently drill, complete and bring on production 6 wells on the acquired lands in early 2019, targeting condensate-rich natural gas. The wells were drilled in three different intervals (4 in the Montney D1, 1 in the Montney D2 and 1 in the Montney C) and have shown strong production results, including high condensate-to-gas ratios.

With the positive results of the first 6 wells on the acquired lands, specifically in the new Montney D2 and C drilling intervals, Birchcliff returned to this pad in Q4 2019 to drill an additional 6 (6.0 net) wells, 3 Montney D2 and 3 Montney C wells, 2 of which were drilled by year-end 2019. These 6 wells will be brought on production in Q2 2020.

### ***Gordondale***

Key focus areas for Gordondale in 2019 were the drilling of crude oil wells and the further exploitation and delineation of oil in the Montney D1 and D2 intervals, specifically in the southeastern part of the Gordondale field. Birchcliff drilled 14 (14.0 net) horizontal wells and brought 16 (16.0 net) wells on production in Gordondale in 2019.

Due to the Corporation's success in the southeastern part of the Gordondale field and the targeted activity expected in 2020, Birchcliff commenced the engineering and procurement for the addition of natural gas compression at both of its 100% owned and operated oil batteries in Gordondale in 2019. The Corporation also initiated the construction of a significant trunk line to transport oil, natural gas and water to these batteries from the southeastern portion of the field. Both projects are expected to be completed in Q2 2020, in conjunction with the bringing on production of 10 wells in the southeastern part of the field.

For details regarding Birchcliff's drilling results, see its updated corporate presentation available on its website at [www.birchcliffenergy.com/investors/corporate-presentation/](http://www.birchcliffenergy.com/investors/corporate-presentation/).

### ***Potential Future Drilling Opportunities on the Montney/Doig Resource Play***

As at December 31, 2019, Birchcliff held 413.2 sections of land that have potential for the Montney/Doig Resource Play. Of these lands, 408.2 (378.3 net) sections have potential for the Basal Doig/Upper Montney interval, 381.7 (368.9 net) sections have potential for the Montney D4 interval, 387.4 (373.5 net) sections have potential for the Montney D2 interval, 385.9 (372.0 net) sections have potential for the Montney D1 interval and 386.8 (372.8 net) sections have potential for the Montney C interval. As at December 31, 2019, Birchcliff's total land holdings on these five intervals were 1,950.0 (1,865.5 net) sections. Assuming full development of four horizontal wells per section per drilling interval, Birchcliff has 7,462.0 net existing horizontal wells and potential net future horizontal drilling locations in respect of the Basal Doig/Upper Montney and the Montney D1, D2, D4 and C intervals as at December 31, 2019. With 425 (417.4 net) horizontal locations drilled at the end of 2019, there remains 7,044.6<sup>(1)</sup> potential net future horizontal drilling locations as at December 31, 2019, up from 6,365.8 at year-end 2018. This increase is largely due to the acquisition of third party and crown lands within Birchcliff's key focus areas.

Birchcliff's consolidated reserves report effective December 31, 2019 attributed proved reserves to 939.3 net existing wells and potential net future horizontal drilling locations (of which 533.1 net wells are potential future drilling locations) and proved plus probable reserves to 1,175.1 net existing wells and potential net future horizontal drilling locations (of which 768.9 net wells are potential future drilling locations). The remaining 6,286.9 potential net future horizontal drilling locations have not yet had any proved or probable reserves attributed to them by Birchcliff's independent qualified reserves evaluators. See "2019 Year-End Reserves" and "Advisories – Drilling Locations".

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<sup>1</sup> This does not include any potential net future horizontal drilling locations for the other prospective Montney interval, the Montney D3.

## 2019 YEAR-END RESERVES

Birchcliff retained two independent qualified reserves evaluators, Deloitte LLP (“**Deloitte**”) and McDaniel & Associates Consultants Ltd. (“**McDaniel**”), to evaluate and prepare reports on 100% of Birchcliff’s light crude oil and medium crude oil, conventional natural gas, shale gas and NGLs reserves. Deloitte evaluated all of Birchcliff’s properties other than the Corporation’s assets in Gordondale and Progress, representing approximately 80% of the assigned total proved plus probable reserves, and McDaniel evaluated the reserves attributable to the Corporation’s assets in Gordondale and Progress, representing approximately 20% of the assigned total proved plus probable reserves.

The reserves data set forth below at December 31, 2019 is based upon the evaluations by Deloitte with an effective date of December 31, 2019 as contained in the report of Deloitte dated February 12, 2020 (the “**2019 Deloitte Reserves Report**”) and the evaluation by McDaniel with an effective date of December 31, 2019 as contained in the report of McDaniel dated February 12, 2020 (the “**2019 McDaniel Reserves Report**”), which are contained in the consolidated report of Deloitte dated February 12, 2020 with an effective date of December 31, 2019 (the “**2019 Consolidated Reserves Report**”). Deloitte prepared the 2019 Consolidated Reserves Report by consolidating the properties evaluated by Deloitte in the 2019 Deloitte Reserves Report with the properties evaluated by McDaniel in the 2019 McDaniel Reserves Report. The forecast commodity prices, inflation and exchange rates utilized were computed using the average of forecasts from Deloitte, McDaniel, GLJ Petroleum Consultants Ltd. and Sproule Associates Ltd. effective January 1, 2020 (the “**2019 IQRE Price Forecast**”).

Deloitte also prepared an evaluation with an effective date of December 31, 2018 as contained in the report of Deloitte dated February 13, 2019 (the “**2018 Deloitte Reserves Report**”) and McDaniel prepared an evaluation with an effective date of December 31, 2018 as contained in the report of McDaniel dated February 13, 2019 (the “**2018 McDaniel Reserves Report**”), which are contained in the consolidated report of Deloitte with an effective date of December 31, 2018 (the “**2018 Consolidated Reserves Report**”). Deloitte prepared the 2018 Consolidated Reserves Report by consolidating the properties evaluated by Deloitte in the 2018 Deloitte Reserves Report with the properties evaluated by McDaniel in the 2018 McDaniel Reserves Report, in each case using Deloitte’s forecast price and cost assumptions effective December 31, 2018 (the “**2018 Deloitte Price Forecast**”).

All of the above-noted reserves reports were prepared in accordance with the standards contained in the Canadian Oil and Gas Evaluation Handbook (the “**COGE Handbook**”) and National Instrument 51-101 – *Standards of Disclosure for Oil and Gas Activities* (“**NI 51-101**”) in effect at the relevant time.

For additional information regarding the presentation of Birchcliff’s reserves disclosure contained herein, see “*Presentation of Oil and Gas Reserves*” and “*Advisories*” in this press release. The reserves data provided in this press release presents only a portion of the disclosure required under NI 51-101. The disclosure required under NI 51-101 will be contained in Birchcliff’s Annual Information Form for the year ended December 31, 2019, which is expected to be filed on the System for Electronic Document Analysis and Retrieval ([www.sedar.com](http://www.sedar.com)) on March 11, 2020. In certain of the tables below, numbers may not add due to rounding.

### Reserves Summary

The following table summarizes the estimates of Birchcliff’s gross reserves at December 31, 2019 and December 31, 2018, estimated using the forecast price and cost assumptions in effect as at the effective dates of the applicable reserves evaluations:

**Summary of Gross Reserves  
(Forecast Prices and Costs)**

Reserves Category	December 31, 2019 (Mboe)	December 31, 2018 (Mboe)	Change from December 31, 2018
Proved Developed Producing	206,922.4	203,631.0	2%
Total Proved	709,061.2	689,674.1	3%
Probable	323,133.5	312,396.0	3%
Total Proved Plus Probable	1,032,194.7	1,002,070.1	3%

The following table sets forth Birchcliff's light crude oil and medium crude oil, conventional natural gas, shale gas and NGLs reserves at December 31, 2019, estimated using the 2019 IQRE Price Forecast:

**Summary of Reserves at December 31, 2019**  
(Forecast Prices and Costs)

Reserves Category	Light Crude Oil and Medium Crude Oil		Conventional Natural Gas		Shale Gas		NGLs <sup>(1)</sup>		Total Boe	
	Gross (Mbbbls)	Net (Mbbbls)	Gross (MMcf)	Net (MMcf)	Gross (MMcf)	Net (MMcf)	Gross (Mbbbls)	Net (Mbbbls)	Gross (Mboe)	Net (Mboe)
Proved										
Developed Producing	9,695.0	7,951.6	7,814.9	7,266.9	982,141.3	922,927.5	32,234.6	25,443.1	206,922.4	188,427.2
Developed Non-Producing	0.0	0.0	781.0	726.3	21,756.0	20,362.1	650.9	547.0	4,407.1	4,061.8
Undeveloped	11,358.3	9,801.8	2,870.5	2,624.0	2,576,268.7	2,414,085.0	56,516.9	46,590.6	497,731.7	459,177.2
Total Proved	21,053.3	17,753.5	11,466.4	10,617.2	3,580,166.0	3,357,374.6	89,402.5	72,580.7	709,061.2	651,666.1
Probable	12,543.4	10,172.4	8,348.4	7,850.7	1,553,306.8	1,437,876.2	50,314.2	39,829.8	323,133.5	290,956.6
Total Proved Plus Probable	33,596.8	27,925.8	19,814.8	18,467.9	5,133,472.7	4,795,250.8	139,716.7	112,410.5	1,032,194.7	942,622.8

(1) NGLs includes condensate.

**Net Present Values of Future Net Revenue**

The following table sets forth the net present values of future net revenue attributable to Birchcliff's reserves at December 31, 2019, estimated using the 2019 IQRE Price Forecast, before deducting future income tax expenses and calculated at various discount rates:

**Summary of Net Present Values of Future Net Revenue at December 31, 2019<sup>(1)(2)</sup>**  
(Forecast Prices and Costs)

Reserves Category	Before Income Taxes Discounted At (%/year)					Unit Value Discounted at 10%/year (\$/boe) <sup>(3)</sup>
	0 (MM\$)	5 (MM\$)	10 (MM\$)	15 (MM\$)	20 (MM\$)	
Proved						
Developed Producing	3,258.4	2,462.2	1,938.5	1,594.6	1,357.2	10.29
Developed Non-Producing	79.2	39.8	19.5	7.7	0.3	4.80
Undeveloped	7,044.1	3,759.9	2,148.9	1,271.7	755.5	4.68
Total Proved	10,381.7	6,261.9	4,106.9	2,874.0	2,113.1	6.30
Probable	5,890.7	2,481.5	1,207.6	654.3	383.8	4.15
Total Proved Plus Probable	16,272.4	8,743.3	5,314.5	3,528.3	2,496.9	5.64

(1) Estimates of future net revenue, whether calculated without discount or using a discount rate, do not represent fair market value.

(2) Includes abandonment, decommissioning and reclamation costs for all oil and natural gas assets, including all wells, gathering systems, pipelines, facilities and surface land development.

(3) Unit values are based on net reserves.

## Pricing Assumptions

The following table sets forth the 2019 IQRE Price Forecast used in the 2019 Consolidated Reserves Report:

### 2019 IQRE Price Forecast

Year	Crude Oil		Natural Gas <sup>(1)</sup>			NGLs				Currency Exchange Rate (CDN\$/US\$)	Price and Cost Inflation Rates (%)
	WTI at Cushing Oklahoma (US\$/bbl)	Edmonton City Gate (CDN\$/bbl)	Alberta AECO Average Price (CDN\$/Mcf)	Ontario Dawn Reference Point (CDN\$/Mcf)	NYMEX Henry Hub (US\$/Mcf)	Edmonton Ethane (CDN\$/bbl)	Edmonton Propane (CDN\$/bbl)	Edmonton Butane (CDN\$/bbl)	Edmonton Pentanes + Condensate (CDN\$/bbl)		
2020	60.25	71.58	2.05	3.27	2.57	6.29	24.04	37.56	74.21	0.760	0.0
2021	63.11	75.33	2.32	3.62	2.79	7.17	28.75	44.41	78.15	0.768	2.0
2022	66.02	77.51	2.60	3.80	2.99	8.04	33.14	50.19	80.48	0.779	2.0
2023	67.64	79.77	2.74	3.94	3.15	8.45	34.16	51.67	82.77	0.789	2.0
2024	69.16	81.60	2.82	4.05	3.22	8.73	35.00	52.88	84.66	0.786	2.0
2025	70.69	83.46	2.91	4.14	3.29	8.97	35.85	54.09	86.56	0.789	2.0
2026	72.25	85.34	2.97	4.23	3.35	9.18	36.71	55.33	88.49	0.789	2.0
2027	73.77	87.19	3.03	4.31	3.43	9.38	37.55	56.53	90.40	0.789	2.0
2028	75.25	88.97	3.10	4.40	3.49	9.58	38.37	57.69	92.22	0.789	2.0
2029	76.76	90.79	3.16	4.48	3.56	9.81	39.19	58.87	94.09	0.789	2.0
2030	78.29	92.61	3.24	4.57	3.64	10.01	40.03	60.05	96.00	0.789	2.0
2031	79.86	94.46	3.30	4.67	3.71	10.22	40.83	61.25	97.91	0.789	2.0
2032	81.45	96.34	3.36	4.76	3.79	10.43	41.65	62.47	99.87	0.789	2.0
2033	83.08	98.27	3.44	4.85	3.86	10.62	42.48	63.72	101.87	0.789	2.0
2034	84.75	100.23	3.50	4.95	3.94	10.84	43.34	64.99	103.90	0.789	2.0
2035	86.44	102.25	3.57	5.05	4.01	11.06	44.20	66.29	105.99	0.789	2.0
2036	88.17	104.29	3.65	5.15	4.10	11.28	45.08	67.63	108.11	0.789	2.0
2037	89.93	106.37	3.71	5.26	4.17	11.50	45.98	68.97	110.26	0.789	2.0
2038	91.73	108.50	3.79	5.36	4.26	11.73	46.91	70.35	112.47	0.789	2.0
2039	93.57	110.66	3.86	5.47	4.34	11.98	47.84	71.76	114.71	0.789	2.0
2039+	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	0.789	2.0

(1) 1 Mcf = 1 MMBtu.

In comparison to the 2018 Deloitte Price Forecast, the AECO natural gas price forecast for 2020 decreased by 7%, the Dawn natural gas price forecast for 2020 decreased by 21%, the NYMEX HH natural gas price forecast for 2020 decreased by 18% and the Edmonton City Gate oil price forecast for 2020 decreased by 1%.

### Reconciliation of Changes in Reserves

The following table sets forth a reconciliation of Birchcliff's gross reserves at December 31, 2019 as set forth in the 2019 Consolidated Reserves Report, estimated using the 2019 IQRE Price Forecast, to Birchcliff's gross reserves at December 31, 2018 as set forth in the 2018 Consolidated Reserves Report, estimated using the 2018 Deloitte Price Forecast:

**Reconciliation of Gross Reserves from December 31, 2018 to December 31, 2019  
(Forecast Prices and Costs)**

Factors	Light Crude Oil and Medium Crude Oil (Mbbbls)	Conventional Natural Gas (MMcf)	Shale Gas (MMcf)	NGLs (Mbbbls)	Oil Equivalent (Mboe)
<b>GROSS TOTAL PROVED</b>					
<b>Opening balance December 31, 2018</b>	<b>20,513.9</b>	<b>9,479.7</b>	<b>3,588,937.0</b>	<b>69,424.1</b>	<b>689,674.1</b>
Extensions and Improved Recovery <sup>(1)</sup>	2,700.4	0.0	274,162.5	9,974.3	58,368.5
Technical Revisions <sup>(2)</sup>	(494.6)	957.6	(90,222.7)	14,979.7	(392.4)
Discoveries <sup>(3)</sup>	0.0	0.0	0.0	0.0	0.0
Acquisitions <sup>(4)</sup>	257.4	2,805.3	11,985.5	402.8	3,125.3
Dispositions <sup>(5)</sup>	0.0	0.0	(29,912.5)	(302.4)	(5,287.8)
Economic Factors <sup>(6)</sup>	(193.1)	(779.2)	(42,571.1)	(546.8)	(7,964.9)
Production <sup>(7)</sup>	(1,730.7)	(996.9)	(132,212.8)	(4,529.3)	(28,461.6)
<b>Closing balance December 31, 2019</b>	<b>21,053.3</b>	<b>11,466.4</b>	<b>3,580,166.0</b>	<b>89,402.5</b>	<b>709,061.2</b>
<b>GROSS TOTAL PROBABLE</b>					
<b>Opening balance December 31, 2018</b>	<b>14,318.3</b>	<b>8,546.2</b>	<b>1,519,533.0</b>	<b>43,397.8</b>	<b>312,396.0</b>
Extensions and Improved Recovery <sup>(1)</sup>	536.4	0.0	174,021.8	6,914.4	36,454.4
Technical Revisions <sup>(2)</sup>	(2,367.0)	(439.8)	(30,056.7)	2,762.1	(4,687.7)
Discoveries <sup>(3)</sup>	0.0	0.0	0.0	0.0	0.0
Acquisitions <sup>(4)</sup>	365.8	475.6	11,093.7	397.8	2,691.8
Dispositions <sup>(5)</sup>	(241.0)	0.0	(69,341.2)	(2,462.6)	(14,260.5)
Economic Factors <sup>(6)</sup>	(69.0)	(233.6)	(51,943.8)	(695.2)	(9,460.4)
Production <sup>(7)</sup>	0.0	0.0	0.0	0.0	0.0
<b>Closing balance December 31, 2019</b>	<b>12,543.4</b>	<b>8,348.4</b>	<b>1,553,306.8</b>	<b>50,314.2</b>	<b>323,133.5</b>
<b>GROSS TOTAL PROVED PLUS PROBABLE</b>					
<b>Opening balance December 31, 2018</b>	<b>34,832.2</b>	<b>18,025.9</b>	<b>5,108,470.0</b>	<b>112,821.9</b>	<b>1,002,070.1</b>
Extensions and Improved Recovery <sup>(1)</sup>	3,236.8	0.0	448,184.3	16,888.7	94,822.9
Technical Revisions <sup>(2)</sup>	(2,861.6)	517.8	(120,279.3)	17,741.8	(5,080.1)
Discoveries <sup>(3)</sup>	0.0	0.0	0.0	0.0	0.0
Acquisitions <sup>(4)</sup>	623.2	3,280.9	23,079.2	800.5	5,817.1
Dispositions <sup>(5)</sup>	(241.0)	0.0	(99,253.8)	(2,765.0)	(19,548.3)
Economic Factors <sup>(6)</sup>	(262.2)	(1,012.8)	(94,514.9)	(1,241.9)	(17,425.4)
Production <sup>(7)</sup>	(1,730.7)	(996.9)	(132,212.8)	(4,529.3)	(28,461.6)
<b>Closing balance December 31, 2019</b>	<b>33,596.8</b>	<b>19,814.8</b>	<b>5,133,472.7</b>	<b>139,716.7</b>	<b>1,032,194.7</b>

- (1) Additions to volumes resulting from capital expenditures for: (i) step-out drilling in previously discovered reservoirs; (ii) infill drilling in previously discovered reservoirs that were not drilled as part of an enhanced recovery scheme; and (iii) the installation of improved recovery schemes.
- (2) Positive or negative volume revisions to an estimate resulting from new technical data or revised interpretations on previously assigned volumes, performance and operating costs.
- (3) Additions to volumes in reservoirs where no reserves were previously booked.
- (4) Positive additions to volume estimates because of purchasing interests in oil and gas properties.
- (5) Reductions in volume estimates because of selling all or a portion of an interest in oil and gas properties.
- (6) Changes to volumes resulting from different price forecasts, inflation rates and regulatory changes.
- (7) Reductions in the volume estimates due to actual production.

Key highlights include the following:

- Extensions and Improved Recovery – Reserves were added due to the wells that were drilled and brought on production pursuant to the Corporation’s successful 2019 Capital Program, which also resulted in the assignment of reserves to potential future drilling locations offsetting those wells.
- Technical Revisions – The technical revisions in all reserves categories for light and medium crude oil were mainly a result of: (i) the performance of the existing producing oil wells; (ii) adjustments to the future well layouts in the development plan; and (iii) future well location adjustments based on offsetting well performance. The technical revisions in all reserves categories for shale gas were mainly a result of: (i) gas shrinkage as a result of higher NGLs extraction in the Pouce Coupe Gas Plant; and (ii) adjustments to the producing oil and gas wells and future oil and gas locations. The technical revisions in all reserves categories for NGLs were a mainly result of: (i) improved performance of the existing C3+ recoveries at Phases V and VI of the Pouce Coupe Gas Plant; (ii) increased condensate from the producing wells and future locations in Pouce Coupe; and (iii) additional C3+ extraction assumed for Phases I to IV of the Pouce Coupe Gas Plant.

- Acquisitions – Changes were the result of the Acquisition, which occurred in January 2019, as well as various other minor acquisitions Birchcliff completed in the Gordondale and Pouce Coupe areas in 2019.
- Dispositions – Changes were the result of various non-core dispositions Birchcliff completed in 2019.
- Economic Factors – The forecast prices for each product type were lower in the 2019 IQRE Price Forecast than the 2018 Deloitte Price Forecast, which resulted in the economic limit at the end of a well's life being achieved earlier and therefore a reduction of the reserves volumes in all reserves categories. The reduced price forecast also resulted in the loss of reserves for 4 gross (2.5 net) proved undeveloped future natural gas locations and 11 gross (6.6 net) probable future natural gas locations, primarily in Elmworth, that did not generate a positive net present value at a 10% discount rate.

### Future Development Costs

FDC reflects the independent reserves evaluators' best estimate of what it will cost to bring the proved and proved plus probable reserves on production. Changes in forecast FDC occur annually as a result of development activities, acquisition and disposition activities and capital cost estimates. The following table sets forth development costs deducted in the estimation of Birchcliff's future net revenue attributable to the reserves categories noted below:

**Future Development Costs  
(Forecast Prices and Costs)**

	Proved (MM\$)	Proved Plus Probable (MM\$)
2020	322.5	322.5
2021	411.8	475.4
2022	555.8	611.9
2023	775.8	818.0
2024	405.0	508.3
Thereafter	609.7	1,682.8
<b>Total undiscounted</b>	<b>3,080.6</b>	<b>4,418.9</b>

FDC for total proved reserves increased to \$3.08 billion at December 31, 2019 from \$2.96 billion at December 31, 2018. FDC for total proved plus probable reserves increased to \$4.42 billion at December 31, 2019 from \$4.29 billion at December 31, 2018. The increases in FDC for both proved and proved plus probable reserves were largely due to: (i) the addition of the Inlet Liquids-Handling Facility; (ii) the additional compression and line looping scheduled in 2020 in Gordondale; (iii) and the FDC associated with a net increase in Montney/Doig potential net future drilling locations added in each category of reserves as a result of Birchcliff's successful 2019 drilling program.

The FDC for both proved and proved plus probable reserves are primarily the capital costs required to drill, complete, equip and tie-in the net undeveloped locations. The estimates of FDC on a proved and proved plus probable basis also include approximately \$374 million (unescalated) for the continued expansion of the Pouce Coupe Gas Plant from the existing 340 MMcf/d to 660 MMcf/d of total throughput. The FDC for the expansions of the Pouce Coupe Gas Plant also include the costs of the related gathering pipelines and maintenance capital.

The following table sets forth the average cost to drill, complete, equip and tie-in a multi-stage fractured horizontal well as estimated by Deloitte and McDaniel:

Average Well Cost, as Estimated by Deloitte or McDaniel	December 31, 2019 (MM\$)	December 31, 2018 (MM\$)
Pouce Coupe <sup>(1)</sup>	4.7	4.7
Gordondale <sup>(2)</sup>	5.4	5.4

(1) Estimated by Deloitte.

(2) Estimated by McDaniel.

## Reserves Replacement

The following table sets forth Birchcliff's 2019 reserves replacement ratios:

Reserves Category	2019 Reserves Replacement, Excluding the Effects of Acquisitions and Dispositions <sup>(1)</sup>	2019 Reserves Replacement, Including the Effects of Acquisitions and Dispositions <sup>(1)</sup>
Proved Developed Producing	104%	112%
Proved	176%	168%
Proved Plus Probable	254%	206%

(1) See "Advisories – Oil and Gas Metrics" for a description of the methodology used to calculate reserves replacement.

## Reserves Life Index

The following table sets forth Birchcliff's 2019 reserves life index:

Reserves Category	2019 Reserves Life Index <sup>(1)</sup>
Proved Developed Producing	7.0 years
Total Proved	24.0 years
Total Proved Plus Probable	34.9 years

(1) Based on a forecast production rate of 81,000 boe/d, which represents the mid-point of Birchcliff's annual average production guidance range for 2020. See "Advisories – Oil and Gas Metrics" for a description of the methodology used to calculate reserves life index.

## Reserves on the Montney/Doig Resource Play

The following table summarizes the estimates of reserves attributable to Birchcliff's horizontal wells on the Montney/Doig Resource Play as contained in the 2019 Consolidated Reserves Report and the number of horizontal wells to which reserves were attributed:

### Montney/Doig Resource Play Reserves Data<sup>(1)(2)</sup>

Reserves Category	Shale Gas (Bcf)		Light Crude Oil and Medium Crude Oil Combined (Mbbbls)		NGLs (Mbbbls)		Total (Mboe)		Existing Horizontal Wells and Potential Future Horizontal Well Locations			
	2019	2018	2019	2018	2019	2018	2019	2018	(Gross)		(Net)	
Proved Developed Producing	969.2	973.4	9,620.4	9,239.1	31,793.7	27,923.0	202,945.5	199,396.1	410 <sup>(3)</sup>	368	403.2 <sup>(3)</sup>	364.3
Total Proved	3,567.2	3,572.8	20,978.7	20,460.2	88,638.2	68,779.3	704,152.4	684,710.4	953	903	939.3	888.8
Total Proved Plus Probable	5,117.5	5,088.6	33,502.5	34,758.7	138,737.4	111,985.9	1,025,152.8	994,848.1	1,199	1,154	1,175.1	1,121.8

(1) Estimates of reserves and future net revenue for individual properties may not reflect the same confidence level as estimates of reserves and future net revenue for all properties, due to the effects of aggregation.

(2) At December 31, 2019, the estimated FDC for Birchcliff's reserves on its Montney/Doig Resource Play is \$12.6 million on a proved developed producing basis (as compared to \$0.0 million at December 31, 2018), \$3,077.6 million on a proved basis (as compared to \$2,958.7 million at December 31, 2018) and \$4,409.8 million on a proved plus probable basis (as compared to \$4,282.9 million at December 31, 2018).

(3) Does not include three 100% working interest proved non-producing wells.

## ABBREVIATIONS

AECO	benchmark price for natural gas determined at the AECO 'C' hub in southeast Alberta
bbl	barrel
bbls	barrels
bbls/d	barrels per day
Bcf	billion cubic feet
boe	barrel of oil equivalent
boe/d	barrel of oil equivalent per day
C3+	propane plus
condensate	pentanes plus (C5+)
F&D	finding and development



FD&A	finding, development and acquisition
FDC	future development costs
G&A	general and administrative
GAAP	generally accepted accounting principles for Canadian public companies which are currently IFRS
GJ	gigajoule
GJ/d	gigajoules per day
HH	Henry Hub
IFRS	International Financial Reporting Standards as issued by the International Accounting Standards Board
Mbbbls	thousand barrels
Mboe	thousand barrels of oil equivalent
Mcf	thousand cubic feet
Mcf/d	thousand cubic feet per day
Mcfe	thousand cubic feet of gas equivalent
MM\$	millions of dollars
MMBtu	million British thermal units
MMBtu/d	million British thermal units per day
MMcf	million cubic feet
MMcf/d	million cubic feet per day
MSW	price for mixed sweet crude oil at Edmonton, Alberta
NGLs	natural gas liquids
NYMEX	New York Mercantile Exchange
TCPL	TransCanada PipeLines
WTI	West Texas Intermediate, the reference price paid in U.S. dollars at Cushing, Oklahoma, for crude oil of standard grade
000s	thousands
\$000s	thousands of dollars

## NON-GAAP MEASURES

This press release uses “adjusted funds flow”, “adjusted funds flow per basic common share”, “free funds flow”, “operating netback”, “adjusted funds flow netback”, “adjusted working capital deficit”, “total cash costs” and “total debt”. These measures do not have standardized meanings prescribed by GAAP and therefore may not be comparable to similar measures presented by other companies where similar terminology is used. Management believes that these non-GAAP measures assist management and investors in assessing Birchcliff’s profitability, efficiency, liquidity and overall performance. Each of these measures is discussed in further detail below.

“Adjusted funds flow” denotes cash flow from operating activities before the effects of decommissioning expenditures and changes in non-cash operating working capital and “adjusted funds flow per basic common share” denotes adjusted funds flow divided by the basic weighted average number of common shares outstanding for the period. Birchcliff eliminates settlements of decommissioning expenditures from cash flow from operating activities as the amounts can be discretionary and may vary from period-to-period depending on its capital programs and the maturity of its operating areas. The settlement of decommissioning expenditures is managed with Birchcliff’s capital budgeting process which considers available adjusted funds flow. Changes in non-cash operating working capital are eliminated in the determination of adjusted funds flow as the timing of collection and payment are variable and by excluding them from the calculation, the Corporation believes that it is able to provide a more meaningful measure of its operations and ability to generate cash on a continuing basis. Management believes that adjusted funds flow and adjusted funds flow per common share assist management and investors in assessing Birchcliff’s operating performance, as well as its ability to generate cash necessary to fund sustaining and/or growth capital expenditures, repay debt, settle decommissioning obligations and pay common share and preferred share dividends. Investors are cautioned that adjusted funds flow should not be construed as an alternative to or more meaningful than cash flow from operating activities or net income or loss as determined in accordance with GAAP as an indicator of Birchcliff’s performance.

“Free funds flow” denotes adjusted funds flow less F&D capital expenditures. Management believes that free funds flow assists management and investors in assessing Birchcliff’s ability to further generate shareholder returns through a number of initiatives, including but not limited to, potential debt repayment, common share repurchases, future dividend increases and acquisitions.

The following table provides a reconciliation of cash flow from operating activities, as determined in accordance with GAAP, to adjusted funds flow and free funds flow for the periods indicated:

(\$000s)	Three months ended December 31,		Twelve months ended December 31,	
	2019	2018	2019	2018
Cash flow from operating activities	85,557	92,200	327,066	324,434
Change in non-cash operating working capital	(5,058)	(10,838)	5,153	(12,591)
Decommissioning expenditures	442	155	2,285	1,079
<b>Adjusted funds flow</b>	<b>80,941</b>	<b>81,517</b>	<b>334,504</b>	<b>312,922</b>
F&D capital expenditures	(56,800)	(52,321)	(256,395)	(299,654)
<b>Free funds flow</b>	<b>24,141</b>	<b>29,196</b>	<b>78,109</b>	<b>13,268</b>

“Operating netback” denotes petroleum and natural gas revenue less royalty expense, less operating expense and less transportation and other expense. “Adjusted funds flow netback” denotes petroleum and natural gas revenue less royalty expense, less operating expense, less transportation and other expense, less net G&A expense, less interest expense and less any realized losses (plus realized gains) on financial instruments and plus any other cash income sources. All netbacks are calculated on a per unit basis, unless otherwise indicated. Management believes that operating netback and adjusted funds flow netback assist management and investors in assessing Birchcliff’s operating results by isolating the impact of production volumes to better analyze its performance against prior periods on a comparable basis. The following table provides a breakdown of Birchcliff’s operating netback and adjusted funds flow netback for the periods indicated:

	Three months ended December 31,				Twelve months ended December 31,			
	2019		2018		2019		2018	
	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)
Petroleum and natural gas revenue	164,759	22.97	154,720	22.01	613,559	21.56	621,421	22.08
Royalty expense	(8,263)	(1.15)	(6,763)	(0.96)	(27,452)	(0.96)	(38,306)	(1.36)
Operating expense	(21,977)	(3.06)	(24,677)	(3.51)	(87,903)	(3.09)	(99,104)	(3.52)
Transportation and other expense	(32,278)	(4.51)	(28,567)	(4.07)	(126,135)	(4.44)	(103,547)	(3.68)
<b>Operating netback</b>	<b>102,241</b>	<b>14.25</b>	<b>94,713</b>	<b>13.47</b>	<b>372,069</b>	<b>13.07</b>	<b>380,464</b>	<b>13.52</b>
G&A, net	(9,035)	(1.26)	(7,618)	(1.08)	(26,815)	(0.94)	(24,602)	(0.87)
Interest expense	(5,852)	(0.82)	(7,437)	(1.06)	(25,073)	(0.88)	(27,969)	(0.99)
Realized gain (loss) on financial instruments	(6,565)	(0.92)	1,658	0.24	13,673	0.48	(15,771)	(0.56)
Other income	152	0.03	201	0.03	650	0.02	800	0.02
<b>Adjusted funds flow netback</b>	<b>80,941</b>	<b>11.28</b>	<b>81,517</b>	<b>11.60</b>	<b>334,504</b>	<b>11.75</b>	<b>312,922</b>	<b>11.12</b>

(1) All per boe amounts are calculated by dividing each aggregate financial amount by the production (boe) in the respective period.

The reconciliation for the operating netback of the Pouce Coupe Gas Plant is provided under the heading “Q4 and Full-Year 2019 Unaudited Financial and Operational Results – Pouce Coupe Gas Plant Netbacks”.

“Total cash costs” are comprised of royalty, operating, transportation and other, G&A and interest expenses. Total cash costs are calculated on a per unit basis. Management believes that total cash costs assists management and investors in assessing Birchcliff’s efficiency and overall cash cost structure.

“Adjusted working capital deficit” is calculated as current assets minus current liabilities excluding the effects of any current portion of financial instruments and capital securities. In 2018, Birchcliff’s capital securities were long-term in nature and therefore no adjustment for capital securities was made to adjusted working capital deficit for that period. Management believes that adjusted working capital deficit assists management and investors in assessing Birchcliff’s short-term liquidity. The following table reconciles working capital deficit (current assets minus current liabilities), as determined in accordance with GAAP, to adjusted working capital deficit:

<i>As at, (\$000s)</i>	<b>December 31, 2019</b>	<b>December 31, 2018</b>
Working capital deficit (surplus)	100,199	(15,611)
Financial instrument – current asset	-	36,798
Financial instrument – current liability	(26,949)	-
Capital securities – current liability	(49,845)	-
<b>Adjusted working capital deficit</b>	<b>23,405</b>	<b>21,187</b>

“Total debt” is calculated as the revolving term credit facilities plus adjusted working capital deficit. Management believes that total debt assists management and investors in assessing Birchcliff’s liquidity. The following table provides a reconciliation of the revolving term credit facilities, as determined in accordance with GAAP, to total debt:

<i>As at, (\$000s)</i>	<b>December 31, 2019</b>	<b>December 31, 2018</b>
Revolving term credit facilities	609,177	605,267
Adjusted working capital deficit	23,405	21,187
<b>Total debt</b>	<b>632,582</b>	<b>626,454</b>

## PRESENTATION OF OIL AND GAS RESERVES

Deloitte prepared the 2019 Consolidated Reserves Report, the 2018 Consolidated Reserves Report, the 2019 Deloitte Reserves Report and the 2018 Deloitte Reserves Report. McDaniel prepared the 2019 McDaniel Reserves Report and the 2018 McDaniel Reserves Report. In addition, Deloitte prepared a reserves evaluation in respect of Birchcliff’s oil and natural gas properties effective December 31, 2017. Such evaluations were prepared in accordance with the standards contained in NI 51-101 and the COGE Handbook that were in effect at the relevant time. Reserves estimates stated herein are extracted from the relevant evaluation.

There are numerous uncertainties inherent in estimating quantities of oil, natural gas and NGLs reserves and the future net revenue attributed to such reserves, including many factors beyond the control of Birchcliff. The reserves and associated future net revenue information set forth in this press release are estimates only. In general, estimates of economically recoverable oil, natural gas and NGLs reserves and the future net revenue therefrom are based upon a number of variable factors and assumptions, such as historical production from the properties, production rates, ultimate reserves recovery, the timing and amount of capital expenditures, marketability of oil, natural gas and NGLs, royalty rates, the assumed effects of regulation by governmental agencies and future operating costs, all of which may vary materially from actual results. For these reasons, estimates of the economically recoverable oil, natural gas and NGLs reserves attributable to any particular group of properties, the classification of such reserves based on risk of recovery and estimates of future net revenue associated with reserves prepared by different engineers, or by the same engineer at different times, may vary. Birchcliff’s actual production, revenue, taxes and development and operating expenditures with respect to its reserves will vary from estimates thereof and such variations could be material.

It should not be assumed that the undiscounted or discounted net present value of future net revenue attributable to the Corporation’s reserves estimated by the Corporation’s independent qualified reserves evaluators represent the fair market value of those reserves. There is no assurance that the forecast prices and costs assumptions will be attained and variances could be material. Actual oil, natural gas and NGLs reserves may be greater than or less than the estimates provided herein and variances could be material. With respect to the disclosure of reserves contained herein relating to portions of Birchcliff’s properties, the estimates of reserves and future net revenue for individual properties may not reflect the same confidence level as estimates of reserves and future net revenue for all properties, due to the effects of aggregation.

In this press release, unless otherwise stated all references to “reserves” are to Birchcliff’s gross company reserves (Birchcliff’s working interest (operating or non-operating) share before deduction of royalties and without including any royalty interests of Birchcliff).

The information set forth in this press release relating to the reserves, future net revenue and future development costs of Birchcliff constitutes forward-looking statements and is subject to certain risks and uncertainties. See “Advisories – Forward-Looking Statements”.

Certain terms used herein but not defined are defined in NI 51-101, CSA Staff Notice 51-324 – *Revised Glossary to NI 51-101 Standards of Disclosure for Oil and Gas Activities* (“**CSA Staff Notice 51-324**”) and/or the COGE Handbook and, unless the context otherwise requires, shall have the same meanings herein as in NI 51-101, CSA Staff Notice 51-324 and the COGE Handbook, as the case may be.

## **ADVISORIES**

### **Unaudited Information**

All financial and operating information contained in this press release for the fourth quarter and year ended December 31, 2019, such as FD&A costs, F&D costs, recycle ratio, adjusted funds flow, F&D and total capital expenditures, operating expense, total cash costs, total debt and production information, is based on unaudited estimated results and have not been reviewed by the Corporation’s auditor. These estimated results are subject to change upon completion of the audited financial statements for the year ended December 31, 2019, and changes could be material. Birchcliff anticipates filing its audited financial statements and related management’s discussion and analysis for the year ended December 31, 2019 on SEDAR on March 11, 2020.

### **Currency**

Unless otherwise indicated, all dollar amounts are expressed in Canadian dollars and all references to “\$” and “CDN\$” are to Canadian dollars and all references to “US\$” are to United States dollars.

### **Boe and Mcfe Conversions**

Boe amounts have been calculated by using the conversion ratio of 6 Mcf of natural gas to 1 bbl of oil and Mcfe amounts have been calculated by using the conversion ratio of 1 bbl of oil to 6 Mcf of natural gas. Boe and Mcfe amounts may be misleading, particularly if used in isolation. A boe conversion ratio of 6 Mcf: 1 bbl and an Mcfe conversion ratio of 1 bbl: 6 Mcf is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. Given that the value ratio based on the current price of crude oil as compared to natural gas is significantly different from the energy equivalency of 6:1, utilizing a conversion on a 6:1 basis may be misleading as an indication of value.

### **MMBtu Pricing Conversions**

\$1.00 per MMBtu equals \$1.00 per Mcf based on a standard heat value Mcf.

### **Oil and Gas Metrics**

This press release contains metrics commonly used in the oil and natural gas industry, including netbacks, reserves life index, recycle ratio, reserves replacement, F&D costs and FD&A costs, which have been determined by Birchcliff as set out below. These oil and gas metrics do not have any standardized meanings or standard methods of calculation and therefore may not be comparable to similar measures presented by other companies where similar terminology is used. As such, they should not be used to make comparisons. Management uses these oil and gas metrics for its own performance measurements and to provide shareholders with measures to compare Birchcliff’s performance over time; however, such measures are not reliable indicators of Birchcliff’s future performance, which may not compare to Birchcliff’s performance in previous periods, and therefore should not be unduly relied upon.

- Reserves life index is calculated by dividing reserves estimated by Birchcliff’s independent qualified reserves evaluators at December 31, 2019 by 81,000 boe/d, which production rate represents the mid-point of Birchcliff’s annual average production guidance range for 2020. Reserves life index may be used as a measure of a company’s sustainability.
- Recycle ratios are calculated by dividing the average operating netback per boe or adjusted funds flow netback per boe, as the case may be, by F&D costs and FD&A costs, as the case may be. Recycle ratios may be used as a measure of a company’s profitability.

- Reserves replacement is calculated by dividing proved developed producing reserves, proved reserves or proved plus probable reserves additions, as the case may be, before production by total production in the applicable period. Reserves replacement ratios have been presented both including and excluding the effects of acquisitions and dispositions. Reserves replacement may be used as a measure of a company's sustainability and its ability to replace its proved developed producing reserves, proved reserves or proved plus probable reserves, as the case may be.
- With respect to F&D and FD&A costs disclosed in this press release:
  - F&D costs both including and excluding FDC have been presented herein. F&D costs for each reserves category in a particular period are calculated by taking the sum of: (i) exploration and development costs (F&D capital expenditures) incurred in the period; and (ii) where FDC has been included, the change during the period in FDC for the reserves category; divided by the additions to the reserves category before production during the period. F&D costs exclude the effects of acquisitions and dispositions. FD&A costs are calculated in the same manner as F&D costs but include the effects of acquisitions and dispositions.
  - In calculating the amounts of F&D and FD&A costs for a year, the changes during the year in estimated reserves and estimated FDC are based upon the evaluations of Birchcliff's reserves prepared by its independent qualified reserves evaluators, effective December 31 of such year.
  - The aggregate of the exploration and development costs incurred in the most recent financial year and any change during that year in estimated FDC generally will not reflect total F&D costs related to reserves additions for that year.
  - F&D and FD&A costs may be used as a measure of a company's efficiency with respect to finding and developing its reserves.
- For information regarding netbacks, see *"Non-GAAP Measures"*.

#### **Drilling Locations**

This press release discloses net existing horizontal wells and potential net future horizontal drilling locations in four categories: (i) proved locations; (ii) proved plus probable locations; (iii) unbooked locations; and (iv) an aggregate total of (ii) and (iii). Of the 7,462.0 net existing horizontal wells and potential net future horizontal drilling locations identified herein, 939.3 are proved locations, 1,175.1 are proved plus probable locations and 6,286.9 are unbooked locations.

Proved locations and probable locations consist of proposed drilling locations identified in the 2019 Consolidated Reserves Report that have proved and/or probable reserves, as applicable, attributed to them in the 2019 Consolidated Reserves Report. Unbooked locations are internal estimates based on Birchcliff's prospective acreage and an assumption as to the number of wells that can be drilled per section based on industry practice and internal technical analysis review. Unbooked locations have been identified by management as an estimate of Birchcliff's multi-year drilling activities based on evaluation of applicable geologic, seismic, engineering, production and reserves information. Unbooked locations do not have proved or probable reserves attributed to them in the 2019 Consolidated Reserves Report.

Birchcliff's ability to drill and develop these locations and the drilling locations on which Birchcliff actually drills wells depends on a number of uncertainties and factors, including, but not limited to, the availability of capital, equipment and personnel, oil and natural gas prices, costs, inclement weather, seasonal restrictions, drilling results, additional geological, geophysical and reservoir information that is obtained, production rate recovery, gathering system and transportation constraints, the net price received for commodities produced, regulatory approvals and regulatory changes. As a result of these uncertainties, there can be no assurance that the potential future drilling locations that Birchcliff has identified will ever be drilled and, if drilled, that such locations will result in additional oil, NGLs or natural gas production and, in the case of unbooked locations, additional reserves. As such, Birchcliff's actual drilling activities may differ materially from those presently identified, which could adversely affect Birchcliff's business. While certain of the unbooked drilling locations have been de-risked by drilling existing wells in relatively close proximity to such unbooked drilling locations, some of the other unbooked drilling locations are farther away from existing wells, where management has less information about the characteristics of the reservoir and there is

therefore more uncertainty whether wells will be drilled in such locations and, if drilled, there is more uncertainty that such wells will result in additional proved or probable reserves, resources or production.

## **Production**

With respect to the disclosure of Birchcliff's production contained in this press release: (i) references to "light oil" mean "light crude oil and medium crude oil" as such term is defined in NI 51-101; (ii) except where otherwise stated, references to "liquids" mean "light crude oil and medium crude oil" and "natural gas liquids" (including condensate) as such terms are defined in NI 51-101; and (iii) references to "natural gas" mean "shale gas", which also includes an immaterial amount of "conventional natural gas", as such terms are defined in NI 51-101. In addition, NI 51-101 includes condensate within the product type of natural gas liquids. In certain cases, Birchcliff has disclosed condensate separately from other natural gas liquids as the price of condensate as compared to other natural gas liquids is currently significantly higher and Birchcliff believes presenting the two commodities separately provides a more accurate description of its operations and results therefrom.

## **Capital Expenditures**

Unless otherwise stated, references in this press release to: (i) "F&D capital" denotes capital for land, seismic, workovers, drilling and completions and well equipment and facilities; and (ii) "total capital expenditures" denotes F&D capital plus acquisitions, less any dispositions, plus administrative assets.

## **Forward-Looking Statements**

Certain statements contained in this press release constitute forward-looking statements and forward-looking information (collectively referred to as "**forward-looking statements**") within the meaning of applicable Canadian securities laws. The forward-looking statements contained in this press release relate to future events or Birchcliff's future plans, operations or performance and are based on Birchcliff's current expectations, estimates, projections, beliefs and assumptions. Such forward-looking statements have been made by Birchcliff in light of the information available to it at the time the statements were made and reflect its experience and perception of historical trends. All statements and information other than historical fact may be forward-looking statements. Such forward-looking statements are often, but not always, identified by the use of words such as "seek", "plan", "focus", "future", "outlook", "position", "expect", "project", "intend", "believe", "anticipate", "estimate", "forecast", "guidance", "potential", "proposed", "predict", "budget", "continue", "targeting", "may", "will", "could", "might", "should", "would", "on track" and other similar words and expressions.

By their nature, forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking statements. Accordingly, readers are cautioned not to place undue reliance on such forward-looking statements. Although Birchcliff believes that the expectations reflected in the forward-looking statements are reasonable, there can be no assurance that such expectations will prove to be correct and Birchcliff makes no representation that actual results achieved will be the same in whole or in part as those set out in the forward-looking statements.

In particular, this press release contains forward-looking statements relating to the following:

- Birchcliff's plans and other aspects of its anticipated future financial performance, operations, focus, objectives, strategies, opportunities, priorities and goals (including: statements regarding Birchcliff's estimated annual average production for the full-year 2020; the efficient execution of Birchcliff's 2020 capital program; that 6 wells drilled in Q4 2019 will be brought on production in Q1 and Q2 2020; statements regarding the Inlet Liquids-Handling Facility (including the capacity of the facility, that the facility will be online in Q3 2020 and that the facility will give Birchcliff the ability to grow its condensate production in Pouce Coupe to 10,000 bbls/d); plans for the drilling, completion and bringing on production of 6 additional wells in 2020 on the lands acquired in the Acquisition; and timing for completion of infrastructure projects and bringing on production of wells in Gordondale in Q2 2020);
- Birchcliff's market diversification and hedging activities, strategies and use of risk management techniques (including statements that Birchcliff engages in risk management activities by utilizing various financial

instruments and physical delivery contracts to diversify its sales points or fix commodity prices and market interest rates);

- the performance and other characteristics of Birchcliff's oil and natural gas properties and expected results from its assets (including statements regarding the potential or prospectivity of Birchcliff's properties) and estimates of potential future drilling locations and opportunities;
- estimates of reserves and the net present values of future net revenue associated with Birchcliff's reserves; price forecasts; FDC; and reserves life index; and
- that Birchcliff anticipates filing its annual information form and audited financial statements and related management's discussion and analysis for the year ended December 31, 2019 on March 11, 2020.

Information relating to reserves is forward-looking as it involves the implied assessment, based on certain estimates and assumptions, that the reserves exist in the quantities predicted or estimated and that the reserves can profitably be produced in the future. See "*Presentation of Oil and Gas Reserves*".

With respect to the forward-looking statements contained in this press release, assumptions have been made regarding, among other things: prevailing and future commodity prices and differentials, currency exchange rates, interest rates, inflation rates, royalty rates and tax rates; the state of the economy, financial markets and the exploration, development and production business; the political environment in which Birchcliff operates; the regulatory framework regarding royalties, taxes, environmental, climate change and other laws; the Corporation's ability to comply with existing and future environmental, climate change and other laws; future cash flow, debt and dividend levels; future operating, transportation, marketing, general and administrative and other expenses; Birchcliff's ability to access capital and obtain financing on acceptable terms; the timing and amount of capital expenditures and the sources of funding for capital expenditures and other activities; the sufficiency of budgeted capital expenditures to carry out planned operations; the successful and timely implementation of capital projects and the timing, location and extent of future drilling and other operations; results of operations; Birchcliff's ability to continue to develop its assets and obtain the anticipated benefits therefrom; the performance of existing and future wells; the success of new wells drilled; reserves and resource volumes and Birchcliff's ability to replace and expand reserves through acquisition, development or exploration; the impact of competition on Birchcliff; the availability of, demand for and cost of labour, services and materials; the ability to obtain any necessary regulatory or other approvals in a timely manner; the satisfaction by third parties of their obligations to Birchcliff; the ability of Birchcliff to secure adequate processing and transportation for its products; Birchcliff's ability to successfully market natural gas and liquids; the availability of hedges on terms acceptable to Birchcliff; and Birchcliff's natural gas market exposure. In addition to the foregoing assumptions, Birchcliff has made the following assumptions with respect to certain forward-looking statements contained in this press release:

- With respect to Birchcliff's 2020 full-year production guidance, such guidance assumes:
  - The following commodity prices and exchange rate: an average WTI spot price of US\$60.00/bbl; an average WTI-MSW differential of CDN\$8.50/bbl; an average AECO 5A spot price of CDN\$2.10/GJ; an average Dawn spot price of US\$2.50/MMBtu; an average NYMEX HH spot price of US\$2.50/MMBtu; and an exchange rate (CDN\$ to US\$1) of 1.32.
  - That Birchcliff's capital program will be carried out as currently contemplated; no unexpected outages occur in the infrastructure that Birchcliff relies on to produce its wells and that any transportation service curtailments or unplanned outages that occur will be short in duration or otherwise insignificant; the construction of new infrastructure meets timing and operational expectations; existing wells continue to meet production expectations; and future wells scheduled to come on production meet timing, production and capital expenditure expectations. Birchcliff's production guidance may be affected by acquisition and disposition activity.
- With respect to statements of future wells to be drilled and brought on production and estimates of potential future drilling locations and opportunities, the key assumptions are: the continuing validity of the geological and other technical interpretations performed by Birchcliff's technical staff, which indicate that commercially

economic volumes can be recovered from Birchcliff's lands as a result of drilling future wells; and that commodity prices and general economic conditions will warrant proceeding with the drilling of such wells.

- With respect to statements regarding the future potential and prospectivity of properties and assets, such statements assume: the continuing validity of the geological and other technical interpretations determined by Birchcliff's technical staff with respect to such properties; and that, over the long-term, commodity prices and general economic conditions will warrant proceeding with the exploration and development of such properties.
- With respect to estimates of reserves volumes and the net present values of future net revenue associated with Birchcliff's reserves, the key assumption is the validity of the data used by Deloitte and McDaniel in their independent reserves evaluations.

Birchcliff's actual results, performance or achievements could differ materially from those anticipated in the forward-looking statements as a result of both known and unknown risks and uncertainties including, but not limited to: general economic, market and business conditions which will, among other things, impact the demand for and market prices of Birchcliff's products and Birchcliff's access to capital; volatility of crude oil and natural gas prices; fluctuations in currency exchange and interest rates; stock market volatility; loss of market demand; an inability to access sufficient capital from internal and external sources on terms acceptable to the Corporation; fluctuations in the costs of borrowing; operational risks and liabilities inherent in oil and natural gas operations; the occurrence of unexpected events such as fires, severe weather, explosions, blow-outs, equipment failures, transportation incidents and other similar events affecting Birchcliff or other parties whose operations or assets directly or indirectly affect Birchcliff; an inability to access sufficient water or other fluids needed for operations; uncertainty that development activities in connection with Birchcliff's assets will be economical; an inability to access or implement some or all of the technology necessary to efficiently and effectively operate its assets and achieve expected future results; uncertainties associated with estimating oil and natural gas reserves and resources; the accuracy of estimates of reserves, future net revenue and production levels; geological, technical, drilling, construction and processing problems; uncertainty of geological and technical data; horizontal drilling and completions techniques and the failure of drilling results to meet expectations for reserves or production; uncertainties related to Birchcliff's future potential drilling locations; delays or changes in plans with respect to exploration or development projects or capital expenditures, including delays in the completion of gas plants and other facilities; the accuracy of cost estimates and variances in Birchcliff's actual costs and economic returns from those anticipated; incorrect assessments of the value of acquisitions and exploration and development programs; changes to the regulatory framework in the locations where the Corporation operates, including changes to tax laws, Crown royalty rates, environmental laws, climate change laws, carbon tax regimes, incentive programs and other regulations that affect the oil and natural gas industry and other actions by government authorities; an inability of the Corporation to comply with existing and future environmental, climate change and other laws; the cost of compliance with current and future environmental laws; political uncertainty and uncertainty associated with government policy changes; dependence on facilities, gathering lines and pipelines, some of which the Corporation does not control; uncertainties and risks associated with pipeline restrictions and outages to third-party infrastructure that could cause disruptions to production; the lack of available pipeline capacity and an inability to secure adequate and cost effective processing and transportation for Birchcliff's products; an inability to satisfy obligations under Birchcliff's firm marketing and transportation arrangements; a failure to comply with covenants under Birchcliff's credit facilities; shortages in equipment and skilled personnel; the absence or loss of key employees; competition for, among other things, capital, acquisitions of reserves, undeveloped lands, equipment and skilled personnel; management of Birchcliff's growth; environmental and climate change risks, claims and liabilities; potential litigation; default under or breach of agreements by counterparties and potential enforceability issues in contracts; claims by indigenous peoples; the reassessment by taxing or regulatory authorities of the Corporation's prior transactions and filings; unforeseen title defects; third-party claims regarding the Corporation's right to use technology and equipment; uncertainties associated with the outcome of litigation or other proceedings involving Birchcliff; uncertainties associated with credit facilities and counterparty credit risk; risks associated with Birchcliff's risk management activities and the risk that hedges on terms acceptable to Birchcliff may not be available; risks associated with the declaration and payment of future dividends, including the discretion of Birchcliff's board of directors to declare dividends and change the Corporation's dividend policy; the failure to obtain any required approvals in a timely manner or at all; the failure to complete or realize the anticipated benefits of acquisitions and dispositions and the risk of unforeseen difficulties in integrating acquired assets into Birchcliff's operations; negative public perception of the oil and natural gas industry



and fossil fuels, including transportation and hydraulic fracturing involving fossil fuels; the Corporation's reliance on hydraulic fracturing; market competition, including from alternative energy sources; changing demand for petroleum products; the availability of insurance and the risk that certain losses may not be insured; breaches or failure of information systems and security (including risks associated with cyber-attacks); risks associated with the ownership of the Corporation's securities; the accuracy of the Corporation's accounting estimates and judgments; and potential requirements under applicable accounting standards for the impairment or reversal of estimated recoverable amounts of the Corporation's assets from time to time.

Readers are cautioned that the foregoing lists of factors are not exhaustive. Additional information on these and other risk factors that could affect results of operations, financial performance or financial results are included in Birchcliff's most recent Annual Information Form and in other reports filed with Canadian securities regulatory authorities.

This press release contains information that may constitute future-orientated financial information or financial outlook information (collectively, "FOFI") about Birchcliff's prospective results of operations, all of which is subject to the same assumptions, risk factors, limitations and qualifications as set forth above. Readers are cautioned that the assumptions used in the preparation of such information, although considered reasonable at the time of preparation, may prove to be imprecise or inaccurate and, as such, undue reliance should not be placed on FOFI. Birchcliff's actual results, performance and achievements could differ materially from those expressed in, or implied by, FOFI. Birchcliff has included FOFI in order to provide readers with a more complete perspective on Birchcliff's future operations and management's current expectations relating to Birchcliff's future performance. Readers are cautioned that such information may not be appropriate for other purposes. FOFI contained herein was made as of the date of this press release. Unless required by applicable laws, Birchcliff does not undertake any obligation to publicly update or revise any FOFI statements, whether as a result of new information, future events or otherwise.

Management has included the above summary of assumptions and risks related to forward-looking statements provided in this press release in order to provide readers with a more complete perspective on Birchcliff's future operations and management's current expectations relating to Birchcliff's future performance. Readers are cautioned that this information may not be appropriate for other purposes.

The forward-looking statements contained in this press release are expressly qualified by the foregoing cautionary statements. The forward-looking statements contained herein are made as of the date of this press release. Unless required by applicable laws, Birchcliff does not undertake any obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

#### **About Birchcliff:**

Birchcliff is a Calgary, Alberta based intermediate oil and natural gas company with operations concentrated within its one core area, the Peace River Arch of Alberta. Birchcliff's common shares and cumulative redeemable preferred shares, Series A and Series C are listed for trading on the Toronto Stock Exchange under the symbols "BIR", "BIR.PR.A" and "BIR.PR.C", respectively.

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