

May 12, 2016 Intraday

Birchcliff Energy Ltd. (BIREF) Record Low Operating Cost

Symbol	BIREF	Ebitda Next Twelve Months ending 3/31/17 (US\$mm)				
Rating	Buy	North American Natural Gas/Ebitda (%)	68			
Price (US\$/sh)	4.35	Natural Gas and Oil Production/Ebitda (%)	100			
Pricing Date	5/12/16	Adjusted Reserves/Production NTM	15.5			
Shares (mm)	153	EV/Ebitda	11.9			
Market Capitalization (US\$mm)	670	PV/Ebitda	21.3			
Debt (US\$mm)	620	Undeveloped Reserves (%)	69			
Enterprise Value (EV) (US\$mm)	1,280	Natural Gas and Oil Ebitda (\$/boe)	9.00			
Present Value (PV) (US\$mm)	2,300	Present Value Proven Reserves(\$/boe)	8.20			
Net Present Value (US\$/share)	11	Oil and Gas Ebitda Margin (%)	55			
Debt/Present Value	0.27	Earnings Next Twelve Months (US\$/sh)	-0.12			
McDep Ratio - EV/PV	0.56	Price/Earnings Next Twelve Months				
Dividend Yield (%/year)	0.0	Indicated Annual Dividend (US\$/sh)	0.00			
Note: Estimated cash flow and earnings tied to one-year futures prices for oil and natural gas.						
Reported results may vary	widely from estin	nates. Estimated present value per share revised only infrequ	ently.			
Estimated present value p	resumes a long-ter	m price for oil of US\$70 a barrel and natural gas, \$4.00 a mil	llion btu.			
For historical analysis of Birchcliff since 2008 see www.mcdep.com/5bir.htm						

Summary and Recommendation

Canadian natural gas producer **Birchcliff Energy** (**BIREF**) is well positioned to gain from a likely recovery of natural gas price after a warm winter. Countering low price with record low operating cost reported May 11, the company preserved cash flow (Ebitda) margin at 50% (see table Operating and Financial Estimates on page 2). Expected cash flow justifies our unchanged estimate of Net Present Value (NPV) of US\$11 a share compared to current stock price near US\$4 a share (see table Present Value on page 3). Stock price ought to respond to natural gas price. The benchmark Henry Hub, Louisiana natural gas price dropped to a quarterly average low in 2016 near the same US2 a million btu as it did in 2012. Canadian natural gas price received by Birchcliff dipped even lower in 2016 than in 2012 (see chart Natural Gas Price on page 3). From a low near US\$6 a share in 2012, Birchcliff stock doubled in two years. Since then it has declined with most of the oil and gas industry until bottoming early this year. Now the stock appears in line to rise again barring adverse surprises (see chart on last page).

Kurt H. Wulff, CFA



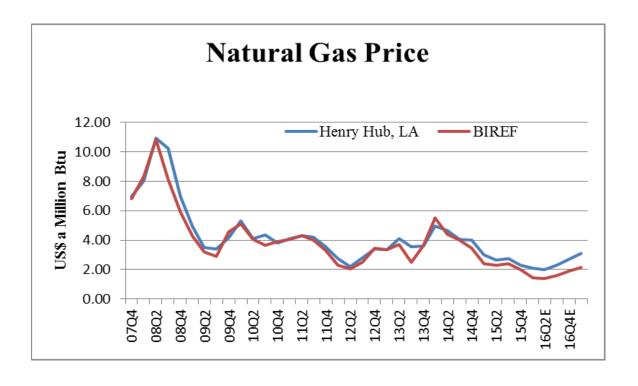
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			Birche	liff Energ	y Ltd.					
	Nex	t Twelve M	onths Op	erating a	nd Financ	ial Estima	ates			
			(Can	adian Doll	ars)					
										Next
										Twelve
	Q1	Q4	Year	Q1	Q2E	Q3E	Q4E	Year	Q1E	Months
	3/31/15	12/31/15	2015	3/31/16	6/30/16	9/30/16	12/31/16	2016	3/31/17	3/31/17
Volume (before royalty)										
Natural Gas (bcf)	17.6	19.4	73.5	20.0	18.7	18.9	21.2	78.7	20.7	79.4
Natural Gas (mmcfd)	196	211	201	223	205	205	230	216	230	217
Days	90	92	365	90	91	92	92	365	90	365
Oil (mmb)	0.52	0.48	1.96	0.44	0.41	0.41	0.43	1.69	0.42	1.68
Oil (mbd)	5.8	5.3	5.4	4.9	4.5	4.5	4.7	4.6	4.7	4.6
Total (mmboe)	3.46	3.72	14.2	3.78	3.52	3.56	3.96	14.8	3.87	14.9
Total (mboed)	38.4	40.4	38.9	42.0	38.7	38.7	43.0	40.6	43.0	40.8
Price										
Henry Hub (US\$/mmbtu)	2.99	2.28	2.67	2.09	2.00	2.31	2.70	2.27	3.09	2.52
Currency (US\$/C\$)	0.81	0.75	0.79	0.73	0.78	0.78	0.78	0.77	0.78	0.78
Henry Hub (C\$/mmbtu)	3.69	3.04	3.40	2.86	2.57	2.97	3.46	2.97	3.96	3.24
Differential (C\$/mmbtu)	0.71	0.37	0.50	0.87	0.78	0.91	1.06	0.89	1.21	0.97
Company (C\$/mcf)	2.98	2.67	2.90	1.99	1.79	2.06	2.41	2.07	2.76	2.27
WTI Cushing (US\$/bbl)	48.62	42.21	48.79	33.47	43.55	45.73	46.77	42.38	47.47	45.88
WTI Cushing (C\$/bbl)	60.02	56.36	62.09	45.84	55.95	58.74	60.09	55.27	60.99	58.94
Differential (C\$/bbl)	12.73	7.45	9.32	7.18	8.77	9.21	9.42	8.83	9.56	9.21
Company (C\$/bbl)	47.29	48.91	52.77	38.66	47.18	49.54	50.67	46.44	51.43	49.73
Total (\$/bbl)	22.29	20.29	22.30	15.05	14.96	16.70	18.40	16.32	20.35	17.69
Revenue (\$mm)										
Natural Gas	53	52	213	40	33	39	51	163	57	180
Oil	25	24	104	17	19	21	22	79	22	83
Royalties	(3)	(3)	(11)	(3)	(3)	(3)	(4)	(13)	(4)	(14)
Total	74	72	306	54	50	56	69	229	75	250
Expense	32	32	122	27	27	27	27	108	30	111
Ebitda (\$mm)	42	41	184	27	23	29	42	121	45	139
Deprec., Deplet., & Amort.	39	34	146	34	34	34	34	136	34	136
Other non-cash	2	(0)	6	4	2	2	2	10	2	8
Interest	6	6	25	7	7	7	7	28	7	28
Ebt	(5)	0	6	(18)		(14)	(1)	(53)	2	(33)
Income tax	(0)	11	23	(4)			(0)	(15)	0	(10)
Net Income (\$mm)	(5)	(11)	(17)	(14)		(10)	(1)	(38)	1	(23)
Per share (\$)	(0.03)	(0.07)	(0.11)	(0.09)			(0.00)	(0.25)	0.01	(0.15)
Shares (millions)	154	154	154	153	153	153	153	153	153	153
Ebitda margin (after royalty)	56%	56%	60%	50%	46%	52%	61%	53%	60%	55%
Tax rate	8%	2070	30 / 0	23%	30%	30%	30%	27%	30%	30%



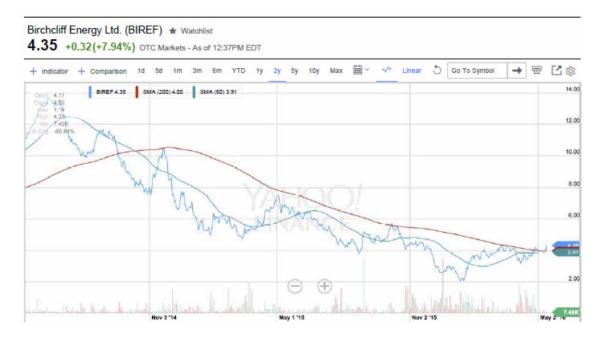
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Birchcliff Energy Ltd. Functional Cash Flow and Present Value								
	<u>Ebitda</u>	<u>R/P</u>	<u>Ebitda</u>	<u>Value</u>				
North American Natural Gas	74	15.5	23.0	1,700	74%			
Oil	34	15.1	17.6	600	26%			
	108	15.5	21.3	2,300	100%			
Debt					620			
Net Present Value (US\$mm)					1,680			
Shares					153			
Net Present Value - Standard Estimate (US\$/sh)					11			
NPV Approximation by Cash Flow Multiple Dependent		12						





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