

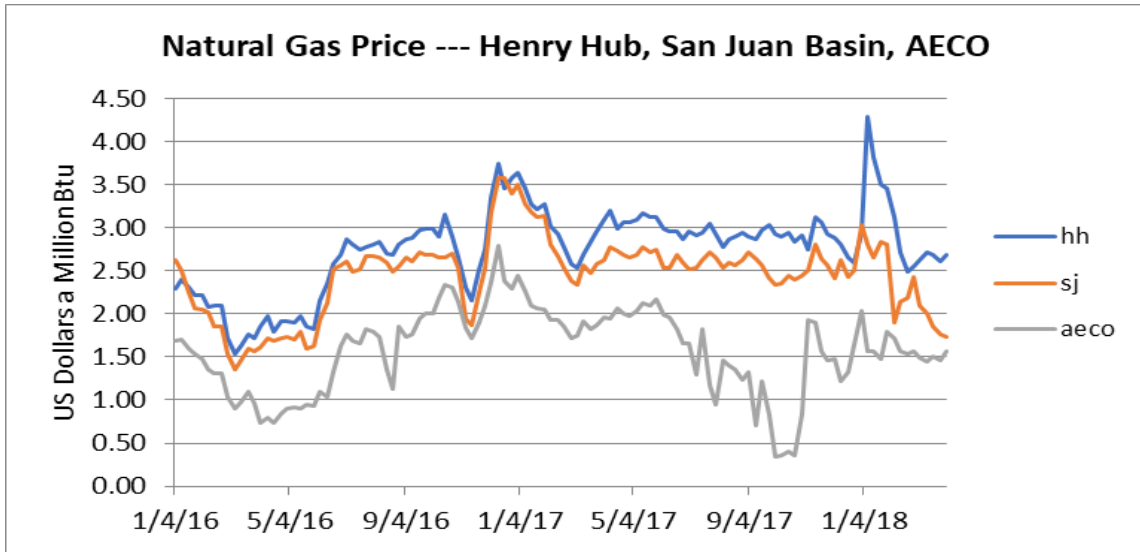
Regional Natural Gas Price Softness

Summary and Recommendation

Regional discounts in natural gas price have spread to the Permian and San Juan Basins affecting stock prices of producers. The San Juan Basin price in Northwest New Mexico has dropped to two-thirds the Henry Hub price in Louisiana, the futures benchmark (see chart [Natural Gas Price – Henry Hub, San Juan](#) on page 2). Traditionally, San Juan pricing has been influenced at times by pricing at the Waha hub in the Permian Basin of West Texas. As a byproduct of growing oil production, Permian natural gas production has nearly doubled in the past four years (see chart [Permian Basin prices and production](#) on page 2). Geographic price differentials signal a need for more capacity to transport natural gas. In its March 29 *Weekly Natural Gas Update*, the U.S. Energy Information Administration cited four proposed pipeline projects that would move more natural gas out of the Permian, mostly to export markets.

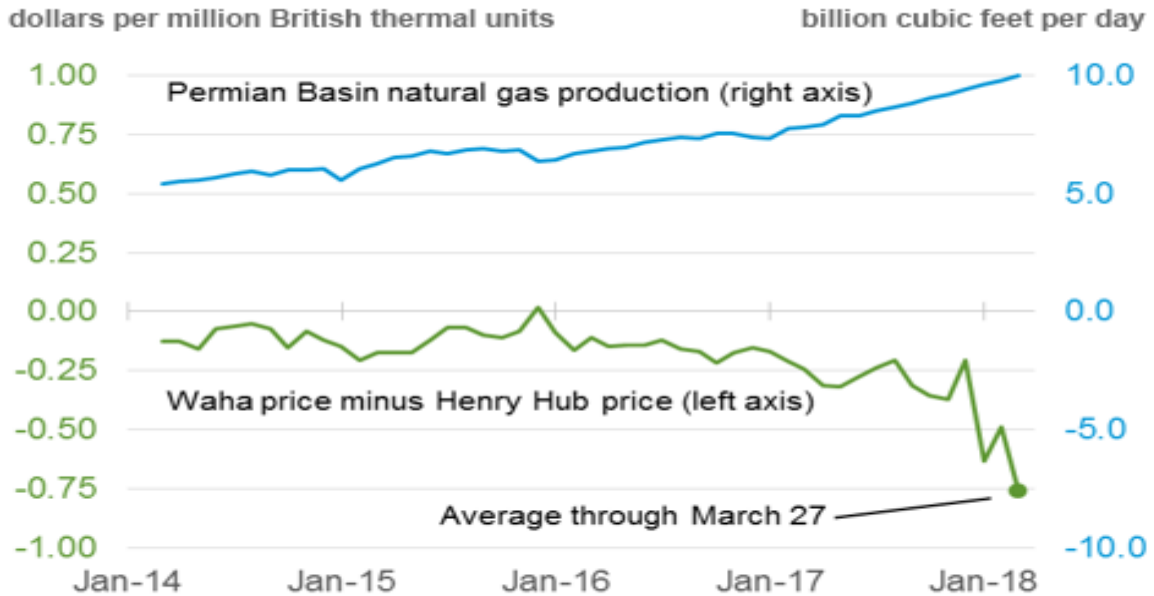
Meanwhile, the stocks of natural gas producers appear to have underperformed those of oil producers (see [Tables 1-4](#) on pages 3-6). **San Juan Basin Royalty Trust (SJT)**, 100% concentrated on natural gas, has declined in stock price most recently. **Cross Timbers Royalty Trust (CRT)**, 61% concentrated on natural gas, is partly protected by its Top Line exposure that is free of operating cost and its McDep Ratio is already low. Similarly, McDep Ratios are already low for **Birchcliff Energy (BIREF)** sensitive to the AECO price in Canada and **Range Resources (RRC)** sensitive to the delays in pipeline expansion in Appalachia. No other companies in our coverage derive more than 21% of next twelve months cash flow from North American natural gas. Longer term we think natural gas is the most attractive fuel for consumers on the combination of economic and environmental factors.

Kurt H. Wulff, CFA



Source: Natural Gas Week

Permian Basin prices and production



Sources: U.S. Energy Information Administration's *Drilling Productivity Report*,
Natural Gas Intelligence



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Table 1
McDep Energy Stocks
Ranked by McDep Ratio

		Price (US\$/sh)	Market Cap (US\$mm)	Enterprise Value (\$mm)	EV/ Market Cap	EV/ Ebitda NTM	EV/ Ebitda NTM	Oil Prod'n/ Ebitda (%)	Dist. Yield NTM (%)	McDep Ratio (EV/PV)	
	Symbol/Rating	2-Apr 2018									
Integrated											
	Chevron Corporation	CVX	112.23	214,000	279,000	1.30	6.8	8.6	64	3.8	0.79
	Exxon Mobil Corporation	XOM	73.22	313,000	405,000	1.29	7.3	9.4	50	4.2	0.78
	Suncor Energy	SU	33.78	56,000	74,000	1.33	6.0	8.1	83	3.3	0.73
	Royal Dutch Shell	RDS-B	64.22	268,000	386,000	1.44	6.2	8.6	49	5.9	0.72
	<i>Total or Median</i>			851,000	1,144,000	1.32	6.5	8.6	57	4.0	0.76
Large Independent											
	Occidental Petroleum Corp.	OXY	64.67	49,500	63,100	1.27	7.1	8.0	78	4.8	0.89
	Pioneer Natural Resources	PXD	166.91	28,400	30,700	1.08	7.7	9.1	93	0.0	0.84
	EOG Resources, Inc.	EOG	102.93	59,600	66,700	1.12	7.6	9.3	91	0.7	0.81
	ConocoPhillips	COP	58.09	70,000	93,000	1.33	6.6	8.5	76	2.0	0.78
	<i>Total or Median</i>			207,500	253,500	1.20	7.3	8.8	85	1.3	0.83
Mid-Size Independent											
	Hess Corporation	HES	48.50	15,200	23,300	1.53	10.4	11.3	89	2.1	0.92
	Continental Resources	CLR	57.70	21,600	28,100	1.30	7.8	9.1	83	-	0.86
	Cimarex Energy Company	XEC	89.77	8,600	10,100	1.18	5.7	8.5	79	0.5	0.68
	Marathon Oil Corporation	MRO	15.57	13,230	20,300	1.53	5.3	8.5	88	1.3	0.62
	Devon Energy Corporation	DVN	30.35	16,000	23,900	1.50	6.0	9.9	73	1.1	0.60
	<i>Total or Median</i>			74,600	105,700	1.50	6.0	9.1	83	1.1	0.68
Small Independent											
	California Resources	CRC	16.08	700	6,900	10.0	5.9	8.9	93	-	0.66
	Range Resources	RRC	13.74	3,400	8,100	2.40	5.7	10.3	46	0.6	0.56
	Whiting Petroleum Corporation	WLL	32.74	3,000	6,300	2.13	4.4	8.6	97	-	0.51
	Birchcliff Energy Ltd.	BIREF	2.87	800	1,400	1.76	5.0	11.1	46	2.7	0.45
	<i>Total or Median</i>			7,900	22,700	2.26	5.4	9.6	70	0.3	0.53
Income											
	Permian Basin RT	PBT	9.50	440	440	1.00	11.5	12.1	80	8.4	0.95
	San Juan Basin Royalty Trust	SJT	7.42	350	350	1.00	12.0	12.9	-	8.2	0.93
	Sabine Royalty Trust	SBR	42.75	620	620	1.00	14.2	16.6	67	7.0	0.85
	Dorchester Minerals, L.P.	DMLP	16.80	540	540	1.00	8.5	12.1	82	11.3	0.70
	Cross Timbers Royalty Trust	CRT	14.58	90	90	1.00	8.5	14.7	39	9.4	0.58
	<i>Total or Median</i>			2,000	2,000	1.00	11.5	12.9	67	8.4	0.85

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation, amort.

Estimated Ebitda (cash flow) tied to NTM futures prices for oil and natural gas. NTM = Next Twelve Months ending 3/31/19.

Estimated Present Value (PV) presumes a long-term price for oil of US\$70 a barrel and natural gas, \$4.00 a million btu.

McDep Ratio = Market cap and Debt to present value of oil and gas and other businesses. For historical research see www.mcdep.com



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	Symbol/Rating	Price	Upstream NTM				Down-	Total	Distrib./ Ebitda (%)	Distrib. NTM (\$/sh)
		(US\$/sh)	Volume (mboe)	Equiv.	Ebitda	Ebitda	stream Uplift (\$/boe)	Ebitda NTM (\$mm)		
		2-Apr 2018		Price (\$/boe)	Margin (%)					
Integrated										
Royal Dutch Shell	RDS-B	64.22	1351	44.43	73	32.50	13.62	43,899	25	3.76
Exxon Mobil Corporation	XOM	73.22	1476	46.60	55	25.60	11.92	37,798	24	3.08
Chevron Corporation	CVX	112.23	1035	49.05	65	31.90	7.73	33,020	20	4.32
Suncor Energy	SU	33.78	277	60.32	61	37.04	7.83	10,276	15	1.12
<i>Total or Median</i>			<i>4140</i>	<i>47.82</i>	<i>63</i>	<i>32.20</i>	<i>9.87</i>	<i>124,993</i>	<i>22</i>	
Large Independent										
ConocoPhillips	COP	58.09	448	47.06	67	31.30	0.00	14,015	10	1.14
EOG Resources, Inc.	EOG	102.93	272	44.94	72	32.44	0.00	8,829	5	0.74
Occidental Petroleum Corp.	OXY	64.67	246	45.36	65	29.40	6.49	7,244	27	3.08
Pioneer Natural Resources	PXD	166.91	125	43.57	74	32.10	0.00	3,998	0	0.08
<i>Total or Median</i>			<i>1091</i>	<i>45.15</i>	<i>69</i>	<i>31.70</i>	<i>0.00</i>	<i>34,087</i>	<i>7</i>	
Mid-Size Independent										
Marathon Oil Corporation	MRO	15.57	157	37.42	65	24.40	0.00	3,828	4	0.20
Continental Resources	CLR	57.70	108	41.30	80	33.20	0.00	3,590	-	-
Devon Energy Corporation	DVN	30.35	178	30.54	64	19.60	2.80	3,496	4	0.32
Hess Corporation	HES	48.50	94	43.88	54	23.90	0.00	2,240	14	1.00
Cimarex Energy Company	XEC	89.77	81	32.12	68	21.80	0.00	1,764	3	0.48
<i>Total or Median</i>			<i>618</i>	<i>37.42</i>	<i>65</i>	<i>23.90</i>	<i>0.00</i>	<i>14,918</i>	<i>4</i>	
Small Independent										
Whiting Petroleum Corporation	WLL	32.74	47	46.66	66	31.00	0.00	1,453	-	-
Range Resources	RRC	13.74	139	19.31	53	10.20	0.00	1,413	1	0.08
California Resources	CRC	16.08	46	52.00	49	25.60	0.00	1,177	-	-
Birchcliff Energy Ltd.	BIREF	2.87	22	17.56	68	12.00	0.00	269	8	0.08
<i>Total or Median</i>			<i>254</i>	<i>32.98</i>	<i>60</i>	<i>18.80</i>	<i>0.00</i>	<i>4,312</i>	<i>1</i>	
Income										
Dorchester Minerals, L.P.	DMLP	16.80	2.52	35.81	71	25.41	0.00	64	96	1.90
Sabine Royalty Trust	SBR	42.75	1.56	33.17	85	28.12	0.00	44	100	3.01
Permian Basin RT	PBT	9.50	1.25	44.68	69	30.77	0.00	39	97	0.80
San Juan Basin Royalty Trust	SJT	7.42	3.28	15.83	56	8.83	0.00	29	98	0.61
Cross Timbers Royalty Trust	CRT	14.58	0.49	36.97	56	20.70	0.00	10	80	1.37
<i>Total or Median</i>			<i>9</i>	<i>35.81</i>	<i>69</i>	<i>25.41</i>	<i>0.00</i>	<i>186</i>	<i>97</i>	

For historical research see www.mcdep.com



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Table 3
McDep Energy Stocks
Net Present Value Per Share

		Price (US\$/sh)	Shares (mm)	Debt (\$mm)	P/E NTM	Devel. Resrvs/ Prod NTM	Undev/ Devel. Resrvs (%)	Nat Gas/ Ebitda (%)	Top Line/ Ebitda (%)	Net Present Value (US\$/sh)
Symbol/Rating	2-Apr 2018									
Integrated										
Chevron Corporation	CVX	112.23	1,906	65,059	14	7.3	57	20		150.00
Exxon Mobil Corporation	XOM	73.22	4,270	92,054	13	9.5	52	27		100.00
Royal Dutch Shell	RDS-B	64.22	4,177	118,194	11	7.3	22	30		100.00
Suncor Energy	SU	33.78	1,655	18,432	9	9.2	87			50.00
	<i>Median</i>					8.2				
Large Independent										
Pioneer Natural Resources	PXD	166.91	170	2,300	21	7.2	9	7		200.00
EOG Resources, Inc.	EOG	102.93	579	7,071	18	5.0	43	9		130.00
ConocoPhillips	COP	58.09	1,198	23,215	14	7.8	31	24		80.00
Occidental Petroleum Corp.	OXY	64.67	766	13,600	15	7.8	35	5		75.00
	<i>Median</i>					7.5				
Mid-Size Independent										
Cimarex Energy Company	XEC	89.77	95	1,552	9	5.1	35	21		140.00
Continental Resources	CLR	57.70	374	6,480	22	5.6	121	17		70.00
Devon Energy Corporation	DVN	30.35	528	7,944	11	8.5	24	16		60.00
Hess Corporation	HES	48.50	314	8,078		7.7	59	11		55.00
Marathon Oil Corporation	MRO	15.57	850	7,073	16	5.8	60	12		30.00
	<i>Median</i>					5.8				
Small Independent										
Whiting Petroleum Corporation	WLL	32.74	91	3,367	33	7.2	84	3		100.00
California Resources	CRC	16.08	43	6,200		9.6	41	7		100.00
Range Resources	RRC	13.74	246	4,720	11	10.1	83	54		40.00
Birchcliff Energy Ltd.	BIREF	2.87	268	583	17	7.2	228	54		9.00
	<i>Median</i>					8.4				
Income										
Sabine Royalty Trust	SBR	42.75	15	-	14	11.4	3	33	100	50.00
Cross Timbers Royalty Trust	CRT	14.58	6	-	11	11.2	-	61	80	25.00
Dorchester Minerals, L.P.	DMLP	16.80	32	-	11	6.4	-	18	83	24.00
Permian Basin RT	PBT	9.50	47	-	12	6.6	-	18	38	10.00
San Juan Basin Royalty Trust	SJT	7.42	47	-	12	12.8	-	100	-	8.00
	<i>Median</i>					11.2				

P/E = Stock Price to Earnings. For historical research see www.mcdep.com.



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Table 4										
McDep Energy Stocks										
Total Return Year-to-Date 2018										
Ranked by Unlevered Total Return										
		Price (\$/sh)	Price (\$/sh)	Price Change (%)	Cash Distrib. (%)	Equity Total Return (%)	Unlevered Debt Return (\$/sh)	Unlevered Return (%)	McDep Ratio	
	Symbol/Rati	2-Apr 2018	29-Dec 2017							
Integrated										
	Royal Dutch Shell	RDS-B	64.22	68.29	(6)	1	(5)	28	(3)	0.72
	Suncor Energy	SU	33.78	36.72	(8)	-	(8)	11	(6)	0.73
	Chevron Corporation	CVX	112.23	125.19	(10)	1	(9)	34	(7)	0.79
	Exxon Mobil Corporation	XOM	73.22	83.64	(12)	1	(12)	22	(9)	0.78
	<i>Median</i>				(9)		(9)		(7)	0.76
Large Independent										
	ConocoPhillips	COP	58.09	54.89	6	1	6	19	5	0.78
	Pioneer Natural Resources	PXD	166.91	172.85	(3)	-	(3)	14	(3)	0.84
	EOG Resources, Inc.	EOG	102.93	107.91	(5)	0	(4)	12	(4)	0.81
	Occidental Petroleum Corp.	OXY	64.67	73.66	(12)	-	(12)	18	(10)	0.89
	<i>Median</i>				(4)		(4)		(4)	0.83
Mid-Size Independent										
	Continental Resources	CLR	57.70	52.97	9	-	9	17	7	0.86
	Hess Corporation	HES	48.50	47.47	2	-	2	26	1	0.92
	Marathon Oil Corporation	MRO	15.57	16.93	(8)	0	(8)	8	(5)	0.62
	Devon Energy Corporation	DVN	30.35	41.40	(27)	-	(27)	15	(20)	0.60
	Cimarex Energy Company	XEC	89.77	122.01	(26)	0	(26)	16	(23)	0.68
	<i>Median</i>				(8)		(8)		(5)	0.68
Small Independent										
	Whiting Petroleum Corporation	WLL	32.74	26.48	24	-	24	37	10	0.51
	California Resources	CRC	16.08	19.44	(17)	-	(17)	145	(2)	0.66
	Range Resources	RRC	13.74	17.06	(19)	-	(19)	19	(9)	0.56
	Birchcliff Energy Ltd.	BIREF	2.87	3.50	(18)	-	(18)	2	(11)	0.45
	<i>Median</i>				(18)		(18)		(6)	0.53
Income										
	Dorchester Minerals, L.P.	DMLP	16.80	15.20	11	3	13	-	13	0.70
	Permian Basin RT	PBT	9.50	8.87	7	1	8	-	8	0.95
	Cross Timbers Royalty Trust	CRT	14.58	14.69	(1)	1	1	-	1	0.58
	Sabine Royalty Trust	SBR	42.75	44.60	(4)	1	(3)	-	(3)	0.85
	San Juan Basin Royalty Trust	SJT	7.42	8.24	(10)	2	(8)	-	(8)	0.93
	<i>Median</i>				(1)		1		1	0.85
	<i>Grand Median</i>				(7)		(8)		(4)	0.76
	Natural Gas (\$/mmbtu)		2.67	2.95	(9)					
	Oil - West Texas Intermediate (\$/bbl)		63.14	60.09	5					
	Total Stock Market - U.S.	VTI	132.63	137.25	(3)					
	Developed Markets - ex US	VEA	43.59	44.86	(3)					
	Emerging Markets	VWO	46.29	45.91	1					

Source: McDep LLC, Yahoo, CME Group, Bloomberg

For historical research see www.mcdep.com



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Disclaimer: This analysis was prepared by Kurt Wulff, Manager of McDep LLC. The firm used sources and data believed to be reliable, but makes no representation as to their accuracy or completeness. This analysis is intended for informational purposes and is not a solicitation to buy or sell a security. Past performance is no guarantee of future results.

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