



Independent Stock Idea

October 27, 2016

Range Resources (RRC) New Buy on Higher NPV of \$56

<i>Symbol</i>	RRC	<i>Ebitda Next Twelve Months ending 9/30/17 (US\$m)</i>	1,057
<i>Rating</i>	Buy	<i>North American Natural Gas/Ebitda (%)</i>	65
<i>Price (\$/sh)</i>	34.95	<i>Natural Gas and Oil Production/Ebitda (%)</i>	100
<i>Pricing Date</i>	10/26/16	<i>Adjusted Reserves/Production NTM</i>	12.2
<i>Shares (mm)</i>	244	<i>EV/Ebitda</i>	12.1
<i>Market Capitalization (\$mm)</i>	8,500	<i>PV/Ebitda</i>	17.0
<i>Debt (\$mm)</i>	4,300	<i>Undeveloped Reserves (%)</i>	46
<i>Enterprise Value (EV) (\$mm)</i>	12,800	<i>Natural Gas and Oil Ebitda (\$/boe)</i>	9.00
<i>Present Value (PV) (\$mm)</i>	18,000	<i>Present Value Proven Reserves(\$/boe)</i>	9.60
<i>Net Present Value (\$/share)</i>	56	<i>Oil and Gas Ebitda Margin (%)</i>	50
<i>Debt/Present Value</i>	0.24	<i>Earnings Next Twelve Months (US\$/sh)</i>	0.26
<i>McDep Ratio - EV/PV</i>	0.71	<i>Price/Earnings Next Twelve Months</i>	135
<i>Dividend Yield (%/year)</i>	0.2	<i>Indicated Annual Dividend (US\$/sh)</i>	0.08
Note: Estimated cash flow and earnings tied to one-year futures prices for oil and natural gas.			
Reported results may vary widely from estimates. Estimated present value per share revised only infrequently.			
Estimated present value presumes a long-term price for oil of US\$70 a barrel and natural gas, \$4.00 a million bt			
For historical analysis of Range since 2010 see www.mcdep.com/4rrc.htm			

Summary and Recommendation

We recommend current purchase of the common stock of Range Resources (RRC) at the same time we raise Net Present Value (NPV) to \$56 a share from \$42. The higher NPV translates to a low 0.71 McDep Ratio combined with a lower 0.24 ratio of Debt to Present Value to trigger the buy rating within our Small Cap Independent Producer Group. Latest quarterly results, reported after the market close on October 25, detail a sharp recovery in unlevered cash flow (Ebitda) powered mostly by natural gas price (see table [Operating and Financial Estimates](#) on page 2). Estimates include the incremental contribution from the acquisition of Memorial Resource Development Corp. closed on September 16. Cash flow and reserves support estimated NPV concentrated 76% on natural gas (see table [Present Value](#) on page 3). That high concentration explains a low product price for Range compared to peers on a heating value equivalent basis because natural gas is priced at a third the heating value of oil (see chart [Price/BOE](#) on page 3). Meanwhile, cash operating expenses declined less than oil and gas price for the two years that ended early in 2016 (see chart [Opex/BOE](#) on page 4). As a result, unlevered cash flow (Ebitda) declined to drastically low levels from which a sharp recovery has been launched (see chart [Ebitda/BOE](#) on page 4). In a broader context, RRC is a top natural gas play among all McDep stocks (see [Tables 1-4](#) on pages 5-8). Finally, stock price touches its 200-day average in a test of current upward momentum (see chart [RRC](#) on page 9). We are optimistic that end of month, end of year and beginning of winter cycles may contribute to near-term strength. Persisting negative real interest rates are another sign of natural gas and oil price potential. In any event, we like RRC for the natural gas portion of the energy portion of a diversified portfolio.

Kurt H. Wulff, CFA



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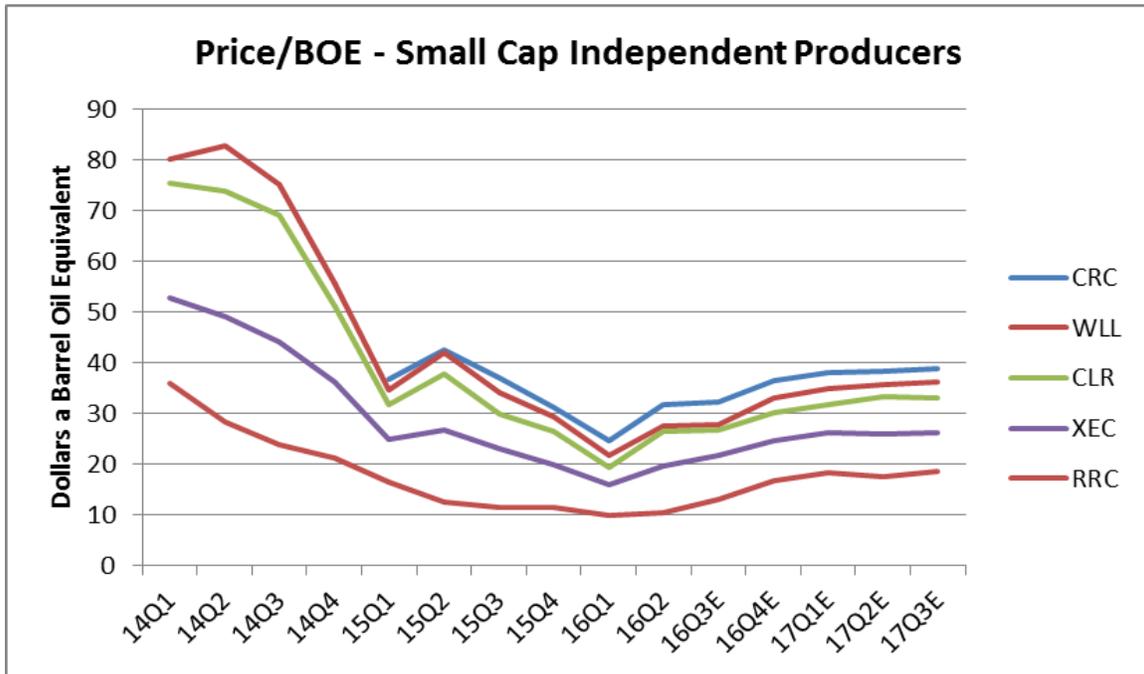
Range Resources Corporation										
Next Twelve Months Operating and Financial Estimates										
	Q3	Year	Q2	Q3	Q4E	Year	Q1E	Q2E	Q3E	Next Twelve Months
	9/30/15	2015	6/30/16	9/30/16	12/31/16	2016E	3/31/17	6/30/17	9/30/17	9/30/17
Volume										
Natural Gas (bcf)	97.2	363	83.0	93.5	115.3	377	117.4	122.3	125.9	481
Natural Gas (mmcf)	1,057	993	912	1,016	1,253	1,029	1,290	1,329	1,369	1,310
Days	92	365	91	92	92	366	91	92	92	367
Oil (mmb)	5.9	24	7.7	7.6	9.0	31	9.2	9.6	9.9	38
Oil (mbd)	64.6	67.0	84.7	82.1	98.1	85.0	101.1	104.1	107.2	102.7
Total (mmb)	22.2	85	21.5	23.1	28.2	94	28.8	30.0	30.9	118
Total (mmcf)	1,445	1,395	1,420	1,509	1,842	1,539	1,897	1,954	2,012	1,926
Price										
Henry Hub (\$/mmbtu)	2.76	2.67	1.95	2.81	3.10	2.49	3.50	3.26	3.29	3.29
Differential (\$/mmbtu)	0.82	0.54	0.45	0.70	0.46	0.45	0.52	0.48	0.30	0.44
Company (\$/mcf)	1.94	2.13	1.50	2.11	2.64	2.04	2.98	2.77	2.99	2.85
WTI Cushing (\$/bbl)	46.39	48.79	45.66	44.91	50.84	43.72	52.51	53.63	54.19	52.79
Differential	35.81	35.83	32.65	30.74	32.22	29.49	33.28	33.98	34.34	33.44
Company (\$/bbl)	10.58	12.96	13.01	14.17	18.63	14.23	19.24	19.65	19.85	19.36
Total (\$/bbl)	11.36	12.84	10.43	13.15	16.74	12.90	18.31	17.61	18.54	17.81
Revenue (\$mm)										
Natural Gas	189	773	124	197	304	769	350	339	376	1,370
Oil	63	317	100	107	168	443	177	188	196	729
Total	252	1,089	225	304	473	1,211	527	527	572	2,099
Expense										
Transportation	100	396	137	139	175	576	175	175	175	396
Production	42	167	26	29	41	125	41	43	45	167
General and administrative	33	136	30	29	41	128	42	43	45	136
Total	175	699	193	197	257	829	258	262	265	1,042
Ebitda	77	390	32	107	216	383	268	266	307	1,057
Exploration	4	43	13	7	14	49	14	14	14	56
Deprec., Deplet., & Amort.	154	581	122	131	163	537	167	174	180	684
Other	(132)	(523)	(105)	(60)	(8)	(294)	8	8	22	30
Ebit	51	289	2	29	47	91	79	69	92	287
Interest	43	166	38	46	47	169	47	47	47	190
Ebt	8	123	(36)	(17)	-	(78)	31	22	44	97
Income Tax	3	43	(13)	(6)	-	(27)	11	8	15	34
Net Income (\$mm)	5	80	(23)	(11)	-	(51)	20	14	29	63
Per Share (\$)	0.03	0.48	(0.14)	(0.06)	-	(0.30)	0.08	0.06	0.12	0.26
Shares (millions)	167	167	167	181	244	170	244	244	244	244
Ebitda Margin	30%	36%	14%	35%	46%	32%	51%	50%	54%	50%
Tax rate	35%	35%	35%	35%		35%	35%	35%	35%	35%



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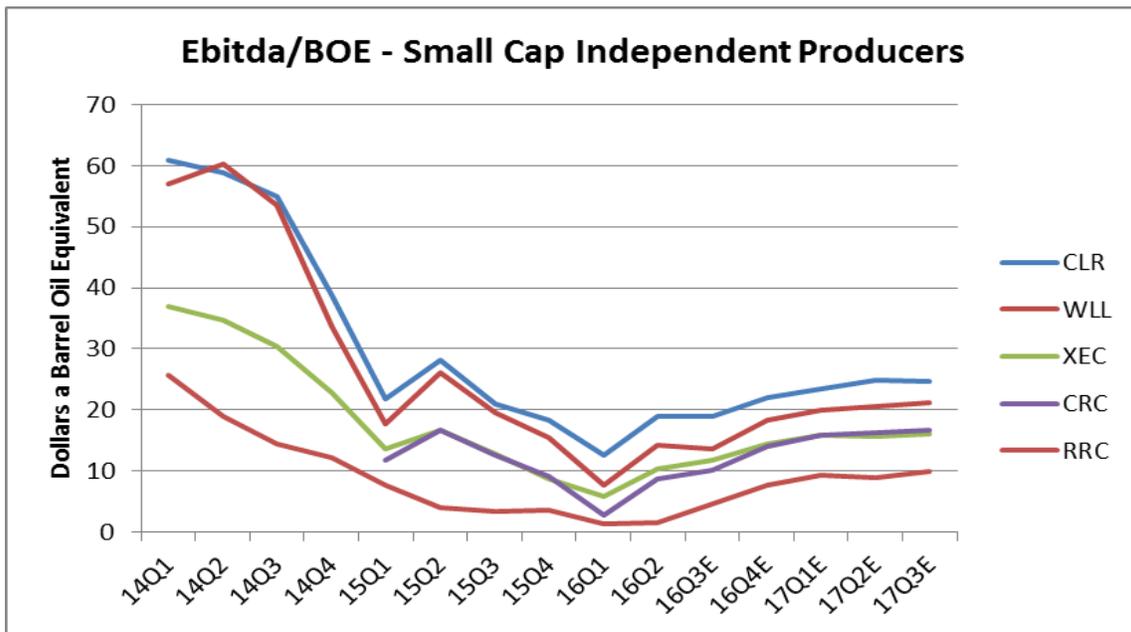
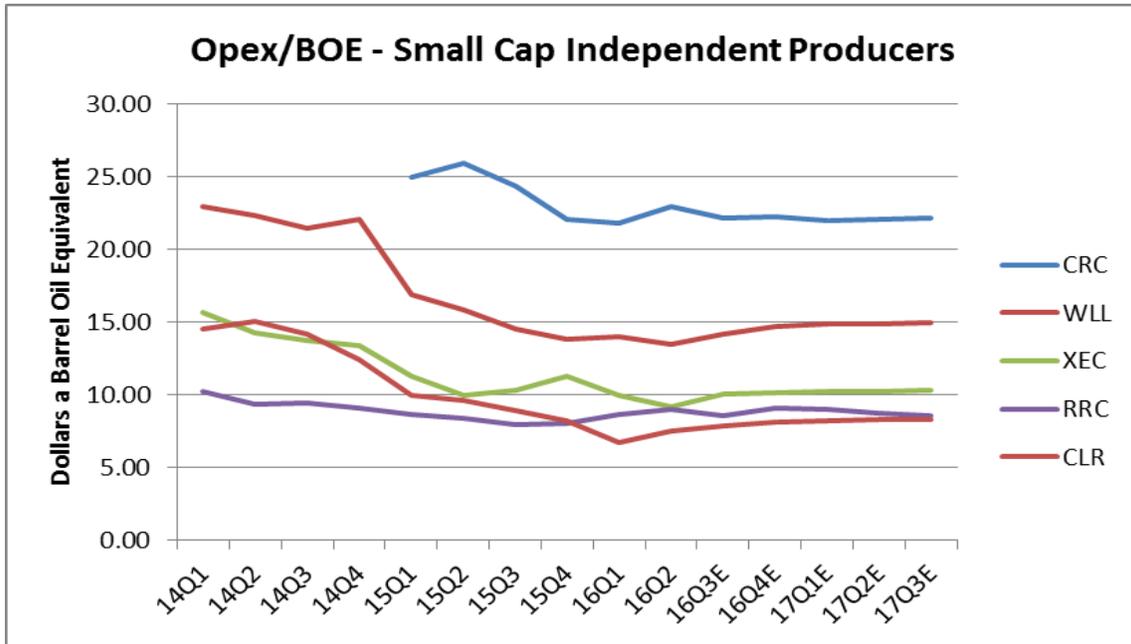
Range Resources Corporation					
Functional Cash Flow and Present Value					
	<i>NTM Ebitda</i>	<i>Adjusted</i>	<i>PV/</i>	<i>Present</i>	
	<i>(US\$mm)</i>	<i>R/P</i>	<i>Ebitda</i>	<i>Value</i>	
				<i>(US\$mm)</i>	
North American Natural Gas	690	11.5	19.9	13,700	76%
Oil	367	13.8	11.7	4,300	24%
	1,057	12.2	17.0	18,000	100%
Debt (US\$mm)					4,300
Net Present Value (US\$mm)					13,700
Shares (mm)					244
Net Present Value - Standard Estimate (US\$/sh)					56
NPV Approximation by Cash Flow Multiple Depending on Reserve Life (US\$/sh)					64





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Symbol/Rating	Price (US\$/sh)	EV/ Market Cap	Enterprise Value (\$mm)	Present Value by Segment (%)				Dist. Yield	NTM (%)	McDep Ratio
				North Amer.	Rest of World	Oil Prod'n	Down- stream			
				Natural Gas	Natural Gas					
Global Integrated										
Exxon Mobil Corporation	XOM	87.09	1.26	459,000	6	16	55	23	3.4	0.89
Chevron Corporation	CVX	101.19	1.35	256,000	2	13	66	19	4.3	0.80
Royal Dutch Shell	RDS-A	50.08	1.68	336,000	2	21	53	24	7.5	0.74
Total S.A.	TOT	47.95	1.52	174,000		20	58	22	5.5	0.63
<i>Total or Median</i>			<i>1.44</i>	<i>1,225,000</i>			<i>56</i>	<i>23</i>	<i>4.9</i>	<i>0.77</i>
Large Independent										
EOG Resources, Inc.	EOG	92.14	1.15	57,700	11	1	87		0.7	1.19
Occidental Petroleum Corp.	OXY	74.39	1.18	66,800	4	2	86	7	4.0	0.99
Devon Energy Corporation	DVN	40.20	1.52	32,000	25		66	10	0.6	0.93
Marathon Oil Corporation	MRO	14.25	1.63	19,700	10	2	88		1.4	0.80
ConocoPhillips	COP	41.80	1.76	91,000	13	13	75		2.4	0.72
<i>Total or Median</i>			<i>1.52</i>	<i>267,000</i>	<i>11</i>		<i>86</i>		<i>1.4</i>	<i>0.93</i>
Small Independent										
Cimarex Energy Company	XEC	133.72	1.10	13,700	34		66		0.2	1.10
Continental Resources (32%)	CLR	50.88	1.38	8,300	22		78		-	0.93
Whiting Petroleum Corporation	WLL	8.27	3.03	7,100	10		90		-	0.87
California Resources	CRC	11.58	15.78	7,300	16		84		-	0.83
Range Resources	RRC	34.95	1.50	12,800	76		24		0.2	0.71
<i>Total or Median</i>			<i>1.50</i>	<i>49,000</i>	<i>22</i>		<i>78</i>		<i>-</i>	<i>0.87</i>
Income										
San Juan Basin Royalty Trust	SJT	6.40	1.00	300	100		-		9.7	0.80
Cross Timbers Royalty Trust	CRT	18.48	1.00	110	57		43		7.8	0.64
Dorchester Minerals, L.P.	DMLP	15.25	1.00	470	28		72		8.7	0.64
Permian Basin RT	PBT	6.95	1.00	320	23		77		10.6	0.63
Sabine Royalty Trust	SBR	36.97	1.00	540	48		52		8.2	0.62
<i>Total or Median</i>			<i>1.00</i>	<i>1,700</i>	<i>48</i>		<i>52</i>		<i>8.7</i>	<i>0.64</i>
Canada										
EnCana Corporation	ECA	10.30	1.85	18,500	43		57		0.6	1.29
Imperial Oil Limited (30%)	IMO	32.63	1.33	11,100	0		63	36	1.4	0.89
Suncor Energy	SU	29.49	1.36	66,700	-		79	21	2.9	0.88
Cenovus Energy Inc.	CVE	15.11	1.32	16,600	10		79	12	1.0	0.80
Birchcliff Energy Ltd.	BIREF	6.55	1.36	2,300	74		26		-	0.72
<i>Total or Median</i>			<i>1.36</i>	<i>115,000</i>			<i>63</i>		<i>1.0</i>	<i>0.88</i>
Estimated present value presumes a long-term price for oil of US\$70 a barrel and natural gas, \$4.00 a million btu.										
Estimated present value capped by unlevered cash flow multiple (EV/Ebitda)										
McDep Ratio = Market cap and Debt to present value of oil and gas and other businesses										
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			<i>Price</i>			<i>Net</i>		
			<i>(US\$/sh)</i>		<i>Market</i>	<i>Present</i>	<i>Debt/</i>	
	<i>Symbol/Rating</i>		<i>26-Oct</i>	<i>Shares</i>	<i>Cap</i>	<i>Value</i>	<i>Present</i>	<i>McDep</i>
	<i>B = Buy</i>		<i>2016</i>	<i>(mm)</i>	<i>(US\$mm)</i>	<i>(US\$/sh)</i>	<i>Value</i>	<i>Ratio</i>
Global Integrated								
Exxon Mobil Corporation	XOM		87.09	4,178	364,000	100.00	0.18	0.89
Chevron Corporation	CVX		101.19	1,872	189,000	135.00	0.21	0.80
Royal Dutch Shell	RDS-A	B	50.08	3,980	199,000	80.00	0.30	0.74
Total S.A.	TOT	B	47.95	2,379	114,000	90.00	0.22	0.63
	<i>Total or Median</i>				<i>866,000</i>		<i>0.21</i>	<i>0.77</i>
Large Independent								
EOG Resources, Inc.	EOG		92.14	547	50,400	75.00	0.15	1.19
Occidental Petroleum Corp.	OXY		74.39	764	56,800	75.00	0.15	0.99
Devon Energy Corporation	DVN		40.20	524	21,100	45.00	0.32	0.93
Marathon Oil Corporation	MRO	B	14.25	848	12,080	20.00	0.31	0.80
ConocoPhillips	COP	B	41.80	1,245	52,000	70.00	0.31	0.72
	<i>Total or Median</i>				<i>192,400</i>		<i>0.31</i>	<i>0.93</i>
Small Independent								
Cimarex Energy Company	XEC		133.72	93	12,500	120.00	0.10	1.10
Continental Resources (32%)	CLR	B	50.88	118	6,000	56.00	0.26	0.93
Whiting Petroleum Corporation	WLL		8.27	285	2,400	12.00	0.58	0.87
California Resources	CRC		11.58	40	500	50.00	0.77	0.83
Range Resources	RRC	B	34.95	244	8,500	56.00	0.24	0.71
	<i>Total or Median</i>				<i>30,000</i>		<i>0.26</i>	<i>0.87</i>
Income								
San Juan Basin Royalty Trust	SJT		6.40	47	300	8.00	-	0.80
Cross Timbers Royalty Trust	CRT		18.48	6	110	29.00	-	0.64
Permian Basin RT	PBT		6.95	47	320	11.00	-	0.63
Dorchester Minerals, L.P.	DMLP	B	15.25	31	470	24.00	-	0.64
Sabine Royalty Trust	SBR	B	36.97	15	540	60.00	-	0.62
	<i>Total or Median</i>				<i>1,700</i>		<i>-</i>	<i>0.64</i>
Canada								
EnCana Corporation	ECA		10.30	973	10,000	6.00	0.59	1.29
Imperial Oil Limited (30%)	IMO		32.63	255	8,300	38.00	0.22	0.89
Suncor Energy	SU		29.49	1,665	49,100	35.00	0.23	0.88
Cenovus Energy Inc.	CVE		15.11	833	12,600	20.00	0.19	0.80
Birchcliff Energy Ltd.	BIREF	B	6.55	263	1,700	10.00	0.19	0.72
	<i>Total or Median</i>				<i>82,000</i>		<i>0.22</i>	<i>0.88</i>
Estimated present value presumes a long-term price for oil of US\$70 a barrel and natural gas, \$4.00 a million btu.								
Estimated present value capped by unlevered cash flow multiple (EV/Ebitda)								
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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Table 3							
McDep Energy Stocks							
Value Multiples and Dividend							
Ranked by EV/Ebitda							
			Price (US\$/sh)	Adjustd Resrvs/ Prod	PV/ Ebitda	EV/ Ebitda	Dividend NTM
	Symbol/Rating		26-Oct 2016	NTM	NTM	NTM	NTM
	B = Buy						(\$/sh)
Global Integrated							
Exxon Mobil Corporation	XOM		87.09	14.5	11.4	10.2	24
Chevron Corporation	CVX		101.19	9.2	11.6	9.3	33
Royal Dutch Shell	RDS-A	B	50.08	9.8	10.5	7.8	23
Total S.A.	TOT	B	47.95	9.9	9.8	6.2	13
	<i>Median</i>			9.8	11.0	8.5	23
Large Independent							
EOG Resources, Inc.	EOG		92.14	8.2	12.3	14.7	0.67
Devon Energy Corporation	DVN		40.20	8.4	14.2	13.1	0.24
Occidental Petroleum Corp.	OXY		74.39	8.3	13.2	13.1	3.00
Marathon Oil Corporation	MRO	B	14.25	12.7	12.8	10.3	0.20
ConocoPhillips	COP	B	41.80	11.3	14.2	10.2	1.00
	<i>Median</i>			8.4	13.2	13.1	
Small Independent							
Continental Resources (32%)	CLR	B	50.88	11.4	16.0	14.9	-
Cimarex Energy Company	XEC		133.72	6.9	13.0	14.4	0.32
Range Resources	RRC	B	34.95	12.2	17.0	12.1	0.08
California Resources	CRC		11.58	12.0	11.9	9.8	-
Whiting Petroleum Corporation	WLL		8.27	9.5	10.0	8.7	-
	<i>Median</i>			11.4	13.0	12.1	
Income							
Sabine Royalty Trust	SBR	B	36.97	9.1	19.7	12.1	12
Cross Timbers Royalty Trust	CRT		18.48	8.1	17.5	11.2	13
San Juan Basin Royalty Trust	SJT		6.40	10.4	12.4	9.9	10
Dorchester Minerals, L.P.	DMLP	B	15.25	7.0	16.9	10.7	14
Permian Basin RT	PBT		6.95	8.5	14.2	9.0	9
	<i>Median</i>			8.5	16.9	10.7	12
Canada							
EnCana Corporation	ECA		10.30	5.6	10.4	13.4	0.06
Suncor Energy	SU		29.49	21.6	10.8	9.5	0.87
Imperial Oil Limited (30%)	IMO		32.63	33.2	10.5	9.3	0.45
Birchcliff Energy Ltd.	BIREF	B	6.55	12.9	11.3	8.1	-
Cenovus Energy Inc.	CVE		15.11	16.6	10.6	8.5	0.15
	<i>Median</i>			16.6	10.6	9.3	
	<i>Grand Median</i>			10	13	10	

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended September 30, 2017; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

For historical research see www.mcdep.com



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Table 4										
McDep Energy Stocks										
Total Return Year-to-Date 2016										
Ranked by Unlevered Total Return										
			Price (\$/sh)	Price (\$/sh)	Price Change (%)	Cash Distrib. (%)	Equity Total Return (%)	Unlevered Total Return (\$/sh) (%)		McDep Ratio
	Symbol/Rati		26-Oct 2016	31-Dec 2015						
Global Integrated										
	Chevron Corporation	CVX	101.19	89.96	12	4	16	36	11	0.80
	Exxon Mobil Corporation	XOM	87.09	77.95	12	3	15	23	11	0.89
	Royal Dutch Shell	RDS-A B	50.08	45.79	9	6	16	34	9	0.74
	Total S.A.	TOT B	47.95	44.95	7	5	11	25	7	0.63
	<i>Median</i>				11		15		10	0.77
Large Independent										
	EOG Resources, Inc.	EOG	92.14	70.79	30	1	31	13	26	1.19
	Devon Energy Corporation	DVN	40.20	32.00	26	1	27	21	16	0.93
	Occidental Petroleum Corp.	OXY	74.39	67.61	10	3	13	13	11	0.99
	Marathon Oil Corporation	MRO B	14.25	12.58	13	1	14	9	8	0.80
	ConocoPhillips	COP B	41.80	46.69	(10)	2	(9)	32	(5)	0.72
	<i>Median</i>				13		14		11	0.93
Small Independent										
	Continental Resources (32%)	CLR B	50.88	22.98	121	-	121	19	66	0.93
	Cimarex Energy Company	XEC	133.72	89.38	50	0	50	14	43	1.10
	Range Resources	RRC B	34.95	24.62	42	0	42	18	25	0.71
	Whiting Petroleum Corporation	WLL	8.27	9.44	(12)	-	(12)	17	(4)	0.87
	California Resources	CRC	11.58	23.30	(50)	-	(50)	170	(6)	0.83
	<i>Median</i>				42		42		25	0.87
Income										
	Dorchester Minerals, L.P.	DMLP B	15.25	9.89	54	6	60	-	60	0.64
	San Juan Basin Royalty Trust	SJT	6.40	4.14	55	4	58	-	58	0.80
	Cross Timbers Royalty Trust	CRT	18.48	13.01	42	7	49	-	49	0.64
	Sabine Royalty Trust	SBR B	36.97	26.26	41	6	46	-	46	0.62
	Permian Basin RT	PBT	6.95	5.06	37	6	43	-	43	0.63
	<i>Median</i>				42		49		49	0.64
Canada										
	Birchcliff Energy Ltd.	BIREF B	6.55	2.93	123	-	123	2	68	0.72
	EnCana Corporation	ECA	10.30	5.09	102	1	103	9	38	1.29
	Cenovus Energy Inc.	CVE	15.11	12.62	20	1	21	5	15	0.80
	Suncor Energy	SU	29.49	25.80	14	3	17	11	12	0.88
	Imperial Oil Limited (30%)	IMO	32.63	32.52	0	1	1	11	1	0.89
	<i>Median</i>				20		21		15	0.88
	<i>Grand Median</i>				23		24		16	0.80
	Natural Gas (\$/mmbtu)		2.73	2.33	17					
	Oil - West Texas Intermediate (\$/bbl)		49.18	37.06	33					
	S&P 500		2,139	2,044	5					

Source: McDep LLC, Yahoo, CME Group, Bloomberg

For historical research see www.mcdep.com



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