



# Meter Reader Special

End of Year Analysis of Oil and Gas Stocks

December 29, 2017

## Trending Up at End of Year 2017

### Summary and Recommendation

Closing the books on 2017, we see oil and gas stocks trading up a median 14% in stock price from midyear though still down a median 2% for the full year (see [Table 4](#) on page 5). Buy recommendations were up a median 9% in total return in 2017. There were only two buy changes during the year when the buy on **Dorchester Minerals (DMLP)** was transferred to **Cross Timbers Royalty Trust (CRT)** in March and the buy on **Sabine Royalty Trust (SBR)** was transferred to DMLP in July. Though low McDep Ratio stocks tended to outperform high McDep Ratio stocks the notable exceptions were the two operating companies most concentrated on natural gas. A decline of 21% in natural gas price translated to a 50% decline in stock price for **Range Resources (RRC)** and **Birchcliff Energy (BIREF)**. What goes down fast can go up fast again, we think. Other asset classes in a diversified portfolio outperformed oil and gas stocks in 2017. Emerging markets measured by the VWO exchange traded fund were up 28% in price, developed markets excluding the U.S. as in VEA were up 23%, and the total U.S. stock market as in VTI was up 19%. Gold represented by the symbol GLD was up 13%. Low duration U.S. Treasuries were little changed in price and paid interest income around 1%. Separately, we expect to publish a Meter Reader Special with Beginning of Year 2018 pricing for a similar group of stocks and a revised presentation of valuation measures. In any case, we are optimistic on oil and gas price and look for better relative performance of oil and gas stocks in 2018.

Kurt H. Wulff, CFA



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			<i>Price</i> <i>(US\$/sh)</i>	<i>Market</i> <i>Cap</i> <i>(US\$mm)</i>	<i>Enterprise</i> <i>Value</i> <i>(\$mm)</i>	<i>EV/</i> <i>Market</i> <i>Cap</i>	<i>EV/</i> <i>Ebitda</i> <i>NTM</i>	<i>PV/</i> <i>Ebitda</i> <i>NTM</i>	<i>Oil</i> <i>Prod'n/</i> <i>PV</i> <i>(%)</i>	<i>Dist.</i> <i>Yield</i> <i>NTM</i> <i>(%)</i>	<i>McDep</i> <i>Ratio</i> <i>(EV/PV)</i>
	<i>Symbol/Rating</i>	<i>29-Dec</i> <i>2017</i>									
<b>Global Integrated</b>											
Chevron Corporation	CVX		125.19	237,000	302,000	1.27	8.2	8.7	62	3.5	0.94
Royal Dutch Shell	RDS-A B		66.71	278,000	402,000	1.45	6.8	7.7	47	5.6	0.88
Exxon Mobil Corporation	XOM		83.64	357,000	449,000	1.26	8.6	9.9	53	3.7	0.87
Total S.A.	TOT B		55.28	143,000	200,000	1.40	5.7	8.3	51	5.4	0.69
	<i>Total or Median</i>			<i>1,015,000</i>	<i>1,353,000</i>	<i>1.34</i>	<i>7.5</i>	<i>8.5</i>	<i>52</i>	<i>4.5</i>	<i>0.87</i>
<b>Large Independent</b>											
EOG Resources, Inc.	EOG		107.91	62,500	69,700	1.12	10.4	8.4	89	0.6	1.24
Pioneer Natural Resources	PXD		172.85	29,400	31,400	1.07	8.9	7.8	87	0.0	1.14
Occidental Petroleum Corp.	OXY		73.66	56,400	69,900	1.24	9.8	10.0	81	4.2	0.99
Devon Energy Corporation	DVN		41.40	21,900	29,600	1.35	7.0	7.5	62	0.6	0.94
Marathon Oil Corporation	MRO B		16.93	14,390	21,400	1.49	7.2	7.8	79	1.2	0.92
ConocoPhillips	COP B		54.89	67,000	90,000	1.35	8.1	9.5	69	1.9	0.85
	<i>Total or Median</i>			<i>251,600</i>	<i>312,000</i>	<i>1.30</i>	<i>8.5</i>	<i>8.1</i>	<i>80</i>	<i>0.9</i>	<i>0.96</i>
<b>Small Independent</b>											
Cimarex Energy Company	XEC		122.01	11,400	12,900	1.13	9.1	9.0	70	0.3	1.01
Continental Resources (32%)	CLR B		52.97	6,300	8,500	1.34	8.8	9.2	75	-	0.96
California Resources	CRC		19.44	800	6,900	8.3	8.0	9.5	89	-	0.84
Whiting Petroleum Corporation	WLL		26.48	2,400	5,600	2.35	5.4	9.3	92	-	0.58
Range Resources	RRC B		17.06	4,200	8,800	2.09	7.5	15.6	32	0.5	0.48
	<i>Total or Median</i>			<i>25,000</i>	<i>43,000</i>	<i>2.09</i>	<i>8.0</i>	<i>9.3</i>	<i>75</i>	<i>-</i>	<i>0.84</i>
<b>Income</b>											
San Juan Basin Royalty Trust	SJT		8.24	380	380	1.00	14.3	13.8	-	7.0	1.03
Permian Basin RT	PBT		8.87	410	410	1.00	12.3	15.2	78	7.7	0.81
Sabine Royalty Trust	SBR		44.60	650	650	1.00	16.9	22.7	66	5.9	0.74
Dorchester Minerals, L.P.	DMLP B		15.20	490	490	1.00	9.7	15.3	77	9.9	0.63
Cross Timbers Royalty Trust	CRT B		14.69	90	90	1.00	9.6	18.9	28	8.2	0.51
	<i>Total or Median</i>			<i>2,000</i>	<i>2,000</i>	<i>1.00</i>	<i>12.3</i>	<i>15.3</i>	<i>66</i>	<i>7.7</i>	<i>0.74</i>
<b>Canada</b>											
EnCana Corporation	ECA		13.33	13,000	19,300	1.48	10.2	9.5	67	0.5	1.07
Suncor Energy	SU B		36.72	61,100	78,900	1.29	7.2	8.3	84	2.8	0.87
Imperial Oil Limited (30%)	IMO		31.17	7,900	9,900	1.25	6.6	7.7	67	1.6	0.85
Cenovus Energy Inc.	CVE		9.13	11,200	21,200	1.89	4.6	8.1	85	1.7	0.57
Birchcliff Energy Ltd.	BIREF B		3.50	900	1,500	1.64	5.7	12.1	30	2.3	0.47
	<i>Total or Median</i>			<i>94,000</i>	<i>131,000</i>	<i>1.48</i>	<i>6.6</i>	<i>8.3</i>	<i>67</i>	<i>1.7</i>	<i>0.85</i>

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 12/31/18.  
 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](http://www.mcdep.com)



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Table 2											
McDep Energy Stocks											
Production Operating Leverage											
Ranked by McDep Ratio											
			Price (US\$/sh)	Oil Equiv. Price (\$/boe)	Operating Expense (\$/boe)	Var. (%)	Ebitda NTM (\$/boe)	Ebitda NTM (\$mm)	Oper Lev Ebitda chg/ Price chg	McDep Ratio	
Symbol/Rating		29-Dec 2017	Volume (mmboe)								
	B = Buy										
<b>Global Integrated (excl. Downstream)</b>											
Chevron Corporation	CVX		125.19	1,025	45.09	11	14	28.00	28,687	1.39	0.94
Royal Dutch Shell	RDS-A	B	66.71	1,373	41.51	6	14	29.60	40,640	1.20	0.88
Exxon Mobil Corporation	XOM		83.64	1,484	43.25	4	36	23.50	34,871	1.17	0.87
Total S.A.	TOT	B	55.28	909	43.28	0	37	27.10	24,642	1.00	0.69
<i>Total or Median</i>										<i>1.19</i>	<i>0.87</i>
<b>Large Independent (excl. Downstream)</b>											
EOG Resources, Inc.	EOG		107.91	238	40.79	11	4	28.20	6,717	1.39	1.24
Pioneer Natural Resources	PXD		172.85	124	40.54	11	3	28.20	3,507	1.39	1.14
Occidental Petroleum Corp.	OXY		73.66	232	41.51	12	10	25.50	5,925	1.47	0.99
Devon Energy Corporation	DVN		41.40	192	31.22	10	5	19.80	3,797	1.51	0.94
Marathon Oil Corporation	MRO	B	16.93	148	32.96	11	6	20.00	2,962	1.55	0.92
ConocoPhillips	COP	B	54.89	420	42.30	8	18	26.50	11,122	1.30	0.85
<i>Total or Median</i>										<i>1.43</i>	<i>0.96</i>
<b>Small Independent</b>											
Cinrax Energy Company	XEC		122.01	74	29.33	6	14	19.10	1,417	1.31	1.01
Continental Resources (32%)	CLR	B	52.97	33	36.94	3	13	29.10	963	1.10	0.96
California Resources	CRC		19.44	47	45.31	15	26	18.50	865	1.81	0.84
Whiting Petroleum Corporation	WLL		26.48	45	38.37	9	15	23.50	1,048	1.38	0.58
Range Resources	RRC	B	17.06	133	17.90	8	6	8.80	1,174	1.91	0.48
<i>Total or Median</i>										<i>1.38</i>	<i>0.84</i>
<b>Income</b>											
San Juan Basin Royalty Trust	SJT		8.24	3	14.47	5	4	8.86	27	1.56	1.03
Permian Basin RT	PBT		8.87	1	39.39	10	8	26.06	34	1.38	0.81
Sabine Royalty Trust	SBR		44.60	1	31.79	2	10	26.61	39	1.08	0.74
Dorchester Minerals, L.P.	DMLP	B	15.20	2	33.16	7	8	23.60	50	1.30	0.63
Cross Timbers Royalty Trust	CRT	B	14.69	0	37.33	8	20	22.02	9	1.36	0.51
<i>Total or Median</i>										<i>1.36</i>	<i>0.74</i>
<b>Canada (excl. Downstream)</b>											
EnCana Corporation	ECA		13.33	113	29.82	12	3	16.82	1,899	1.71	1.07
Suncor Energy	SU	B	36.72	277	55.65	22	4	31.63	8,775	1.70	0.87
Imperial Oil Limited (30%)	IMO		31.17	40	42.16	17	5	23.10	935	1.74	0.85
Cenovus Energy Inc.	CVE		9.13	208	32.56	11	3	20.52	4,264	1.54	0.57
Birchcliff Energy Ltd.	BIREF	B	3.50	23	17.32	4	9	11.70	271	1.34	0.47
<i>Total or Median</i>										<i>1.70</i>	<i>0.85</i>
For historical research see <a href="http://www.mcdep.com">www.mcdep.com</a>											



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Table 3											
McDep Energy Stocks											
Net Present Value Per Share											
Ranked by Reserve Life (Adjustd Resrvs/Prod NTM)											
			Price					Down-	Proven	Adjustd	Net
			(US\$/sh)		Debt	NTM	P/E	stream/	Undev.	Resrvs/	Present
	Symbol/Rating	29-Dec	Shares					PV	Resrvs	Prod	Value
	B = Buy	2017	(mm)	(\$mm)	(\$/sh)	NTM		(%)	(%)	NTM	(US\$/sh)
<b>Global Integrated</b>											
	Exxon Mobil Corporation	XOM	83.64	4,271	91,771	3.08	18	24	31	11.3	100.00
	Total S.A.	TOT	55.28	2,583	57,015	2.96	10	26	42	9.5	90.00
	Chevron Corporation	CVX	125.19	1,896	64,410	4.32	23	18	32	9.1	135.00
	Royal Dutch Shell	RDS-A	66.71	4,163	124,534	3.76	15	28	25	8.3	80.00
	<i>Median</i>									9.3	
<b>Large Independent</b>											
	ConocoPhillips	COP	54.89	1,215	23,479	1.06		-	20	10.9	68.00
	Occidental Petroleum Corp.	OXY	73.66	766	13,500	3.08	32	14	23	9.2	75.00
	Devon Energy Corporation	DVN	41.40	529	7,746	0.24	66	10	20	8.7	45.00
	Marathon Oil Corporation	MRO	16.93	850	7,044	0.20		-	39	7.6	19.00
	EOG Resources, Inc.	EOG	107.91	579	7,214	0.67		-	30	6.8	85.00
	Pioneer Natural Resources	PXD	172.85	170	2,000	0.08	32	-	7	5.6	150.00
	<i>Median</i>									8.2	
<b>Small Independent</b>											
	Whiting Petroleum Corporation	WLL	26.48	91	3,242	-		-	53	12.5	72.00
	Range Resources	RRC	17.06	245	4,575	0.08	18	-	44	11.8	56.00
	Continental Resources (32%)	CLR	52.97	119	2,134	-		-	59	11.4	56.00
	California Resources	CRC	19.44	43	6,100	-		-	29	10.4	50.00
	Cimarex Energy Company	XEC	122.01	94	1,483	0.32	20	-	21	5.8	120.00
	<i>Median</i>									11.4	
<b>Income</b>											
	Sabine Royalty Trust	SBR	44.60	15	-	2.64	17	-	4	11.5	60.00
	San Juan Basin Royalty Trust	SJT	8.24	47	-	0.58	14	-	-	10.2	8.00
	Permian Basin RT	PBT	8.87	47	-	0.68	13	-	12	9.5	11.00
	Cross Timbers Royalty Trust	CRT	14.69	6	-	1.20	12	-	-	9.1	29.00
	Dorchester Minerals, L.P.	DMLP	15.20	32	-	1.50	13	-	-	6.5	24.00
	<i>Median</i>									9.5	
<b>Canada</b>											
	Suncor Energy	SU	36.72	1,663	17,811	1.02	13	16	44	13.8	44.00
	Cenovus Energy Inc.	CVE	9.13	1,229	10,005	0.16		5	55	12.9	22.00
	Birchcliff Energy Ltd.	BIREF	3.50	268	603	0.08	17	-	69	12.5	10.00
	Imperial Oil Limited (30%)	IMO	31.17	254	1,976	0.51	9	32	23	9.1	38.00
	EnCana Corporation	ECA	13.33	973	6,290	0.06		-	43	5.5	12.00
	<i>Median</i>									12.5	
P/E = Stock Price to Earnings. For historical research see <a href="http://www.mcdep.com">www.mcdep.com</a> .											



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Table 4										
McDep Energy Stocks										
Total Return Year-to-Date 2017										
Ranked by Unlevered Total Return										
			Price	Price			Equity	Unlevered		
			(\$/sh)	(\$/sh)	Price	Cash	Total	Total		
	Symbol/Rat		29-Dec	30-Dec	Change	Distrib.	Return	Debt	Return	McDep
			2017	2016	(%)	(%)	(%)	(\$/sh)	(%)	Ratio
<b>Global Integrated</b>										
	Royal Dutch Shell	RDS-A B	66.71	54.38	23	7	30	30	19	0.88
	Total S.A.	TOT B	55.28	50.97	8	5	14	22	10	0.69
	Chevron Corporation	CVX	125.19	117.70	6	4	10	34	8	0.94
	Exxon Mobil Corporation	XOM	83.64	90.26	(7)	3	(4)	21	(3)	0.87
	<i>Median</i>				7		12		9	0.87
<b>Large Independent</b>										
	ConocoPhillips	COP B	54.89	50.14	9	2	12	19	8	0.85
	EOG Resources, Inc.	EOG	107.91	101.10	7	1	7	12	7	1.24
	Occidental Petroleum Corp.	OXY	73.66	71.23	3	4	8	18	6	0.99
	Marathon Oil Corporation	MRO B	16.93	17.31	(2)	1	(1)	8	(1)	0.92
	Pioneer Natural Resources	PXD	172.85	180.00	(4)	0	(4)	12	(4)	1.14
	Devon Energy Corporation	DVN	41.40	45.67	(9)	1	(9)	15	(7)	0.94
	<i>Median</i>				1		3		3	0.96
<b>Small Independent</b>										
	Continental Resources (32%)	CLR B	52.97	51.54	3	-	3	18	2	0.96
	California Resources	CRC	19.44	21.29	(9)	-	(9)	143	(1)	0.84
	Cimarex Energy Company	XEC	122.01	135.90	(10)	0	(10)	16	(9)	1.01
	Whiting Petroleum Corporation	WLL	26.48	48.08	(45)	-	(45)	36	(26)	0.58
	Range Resources	RRC B	17.06	34.36	(50)	0	(50)	19	(32)	0.48
	<i>Median</i>				(10)		(10)		(9)	0.84
<b>Income</b>										
	San Juan Basin Royalty Trust	SJT	8.24	6.62	24	12	37	-	37	1.03
	Sabine Royalty Trust	SBR	44.60	35.15	27	7	33	-	33	0.74
	Permian Basin RT	PBT	8.87	7.71	15	8	23	-	23	0.81
	Dorchester Minerals, L.P.	DMLP B	15.20	17.55	(13)	7	(7)	-	(7)	0.63
	Cross Timbers Royalty Trust	CRT B	14.69	17.97	(18)	6	(13)	-	(13)	0.51
	<i>Median</i>				15		23		23	0.74
<b>Canada</b>										
	Suncor Energy	SU B	36.72	32.69	12	3	15	11	12	0.87
	EnCana Corporation	ECA	13.33	11.74	14	1	14	6	9	1.07
	Imperial Oil Limited (30%)	IMO	31.17	34.76	(10)	1	(9)	8	(7)	0.85
	Cenovus Energy Inc.	CVE	9.13	15.13	(40)	1	(39)	8	(25)	0.57
	Birchcliff Energy Ltd.	BIREF B	3.50	7.01	(50)	1	(49)	2	(37)	0.47
	<i>Median</i>				(10)		(9)		(7)	0.85
	<i>Grand Median</i>				(2)		(1)		(1)	0.87
	<b>Natural Gas (\$/mmbtu)</b>		2.95	3.74	(21)					
	<b>Oil -West Texas Intermediate (\$/bbl)</b>		60.09	53.72	12					
	Total Stock Market - U.S.	VTI	137.25	115.32	19					
	Developed Markets - ex US	VEA	44.86	36.54	23					
	Emerging Markets	VWO	45.91	35.78	28					

Source: McDep LLC, Yahoo, CME Group, Bloomberg

For historical research see [www.mcdep.com](http://www.mcdep.com)



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Index of Recent Research				
<u>Date</u>	<u>Series</u>	<u>Symbol</u>	<u>Subject</u>	<u>Theme</u>
29-Dec	Meter Reader Special			Trending Up at End of Year 2017
20-Dec	II	CRT, DMLP, PBT, SBR, SJT		Top Line Premium and Bottom Line Upside
12-Dec	Meter Reader			Oil and Gas Gains in 2018
5-Dec	ISI	RDS	Royal Dutch Shell	Share Buyback Ahead
27-Nov	ISI	CLR	Continental Resources	Oil Price Helps
16-Nov	Meter Reader			Buy ETF or Global Integrated Stock
12-Nov	ISI	BIREF	Birchcliff Energy	Downward Price Pressure Lifting
6-Nov	ISI	DMLP	Dorchester Minerals, L.P.	Royalty Growth Ratified
2-Nov	ISI	MRO	Marathon Oil	Shale Oil Value
26-Oct	ISI	SU	Suncor Energy Inc.	Record Production
24-Oct	ISI	CRT	Cross Timbers Royalty Trust	Free Cash Flow
17-Oct	II	COP, DVN, EOG, MRO,PXD, OXY		Oil Price Moderators
10-Oct	Meter Reader			Stock Price Momentum Picking Up
4-Oct	ISI	COP	ConocoPhillips	Cash to the Owners
25-Sep	II	CRT, DMLP, PBT, SBR, SJT		Cash, Fracking and Inflation
18-Sep	ISI	RRC	Range Resources	Natural Gas at Lowest McDep Ratio
12-Sep	Meter Reader			Currency, Interest and Oil
6-Sep	ISI	TOT	Total S.A.	Gaining Volume on Competitors
30-Aug	ISI	SU	Suncor Energy Inc.	Returning Cash to Shareholders
23-Aug	ISI	BIREF	Birchcliff Energy	Montney Growth
15-Aug	Meter Reader			Energy Outlook to 2026
8-Aug	ISI	SJT	San Juan Basin Royalty Trust	BP Tests Best San Juan Well in 14 Years
4-Aug	ISI	DMLP	Dorchester Minerals, L.P.	Raise Distribution Yield to 8.5%
31-Jul	ISI	CVX	Chevron	Valuable Permian Lands
25-Jul	II	CRT, DMLP, PBT, SBR, SJT		Control Reinvestment with Income Payers
19-Jul	II	COP, DVN, EOG, MRO,PXD, OXY		Potential to Prosper
11-Jul	Meter Reader			Liftoff for Energy Exports
3-Jul	ISI	DMLP	Dorchester Minerals, L.P.	Core Midland Acquisition – Upgrade to Buy
27-Jun	ISI	CLR	Continental Resources	Well-Managed Shale Pioneer
20-Jun	ISI	XOM	Exxon Mobil	Profit from Low-Risk Energy Growth
13-Jun	Meter Reader			Value Beckoning
6-Jun	ISI	MRO	Marathon Oil	A Fourth Shale Focus
30-May	ISI	RDS	Royal Dutch Shell	High Yield While Waiting
26-May	ISI	CVE	Cenovus Energy	High Operating and Financial Leverage
18-May	ISI	DMLP	Dorchester Minerals, L.P.	Midland Basin Spotlight
9-May	Meter Reader			Positive Progress
2-May	ISI	RRC	Range Resources	Growth Accelerating
24-Apr	II	CRT, DMLP, PBT, SBR, SJT		Income Payer Distributions Beat
21-Apr	ISI	PXD	Pioneer Natural Resources	Prominent Permian Producer
17-Apr	ISI	SJT	San Juan Basin Royalty Trust	New Operator to Enhance Value
11-Apr	Meter Reader			IPAA Ideas
	MR = Meter Reader (published monthly on or about second or third Tuesday)			
	ISI = Independent Stock Idea			
	II = Industry Idea			
	For historical research by stock, go to <a href="http://mcddep.com">mcddep.com</a> , click on <a href="#">Stock Ideas</a> , click on stock by name.			



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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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**Certification:** I, Kurt H. Wulff, certify that the views expressed in this research analysis accurately reflect my personal views about the subject securities and issuers. No part of my compensation was, is, or will be directly or indirectly related to the specific recommendations or views contained in this research analysis.

**Research Methodology/Ratings Description:** McDep LLC is an independent research originator focused on oil and gas stocks exclusively. The firm applies the forty years of experience of its analyst to estimate a present value of the oil and gas resources and other businesses of covered companies. That value is compared with a company's stock market capitalization and debt. Stocks with low market cap and debt relative to present value tend to outperform stocks with high market cap and debt relative to present value.