

Large Cap Independent Producers Wild Markets in Oil and Securities

	Symbol/Rating	13-Jan 2016	Price (US\$/sh)	EV/ Market Cap	Enterprise Value (\$mm)	Present Value by Segment (%)				Dist. Yield	McDep Ratio
						North Amer.	Rest of World	Oil Prod'n	Down- stream		
Large Independent											
Occidental Petroleum Corp.	OXY		61.35	1.19	55,700	3	1	86	9	4.9	0.84
EOG Resources, Inc.	EOG		63.59	1.20	41,700	11	3	87		1.1	0.74
ConocoPhillips	COP		40.06	1.76	87,000	12	11	77		7.4	0.64
Devon Energy Corporation	DVN B		24.74	2.28	23,200	23		66	11	3.9	0.58
Marathon Oil Corporation	MRO B		8.55	2.60	15,100	7	1	92		2.3	0.41
<i>Total or Median</i>				<i>1.76</i>	<i>223,000</i>	<i>11</i>		<i>86</i>		<i>3.9</i>	<i>0.64</i>

Summary and Recommendation

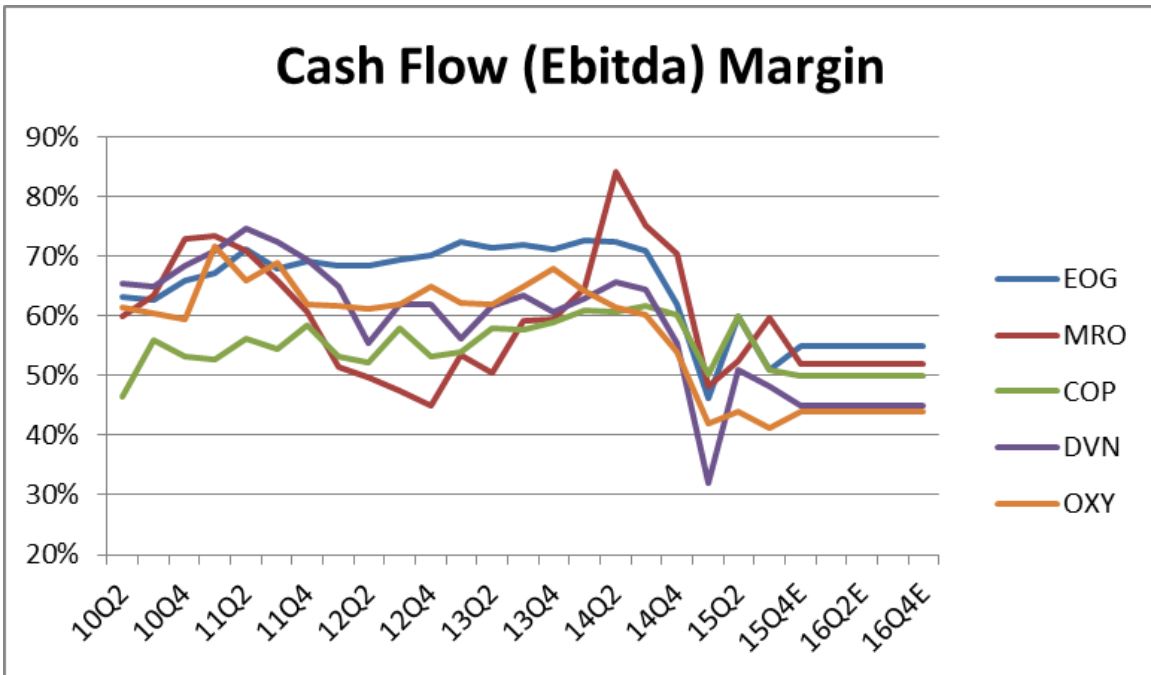
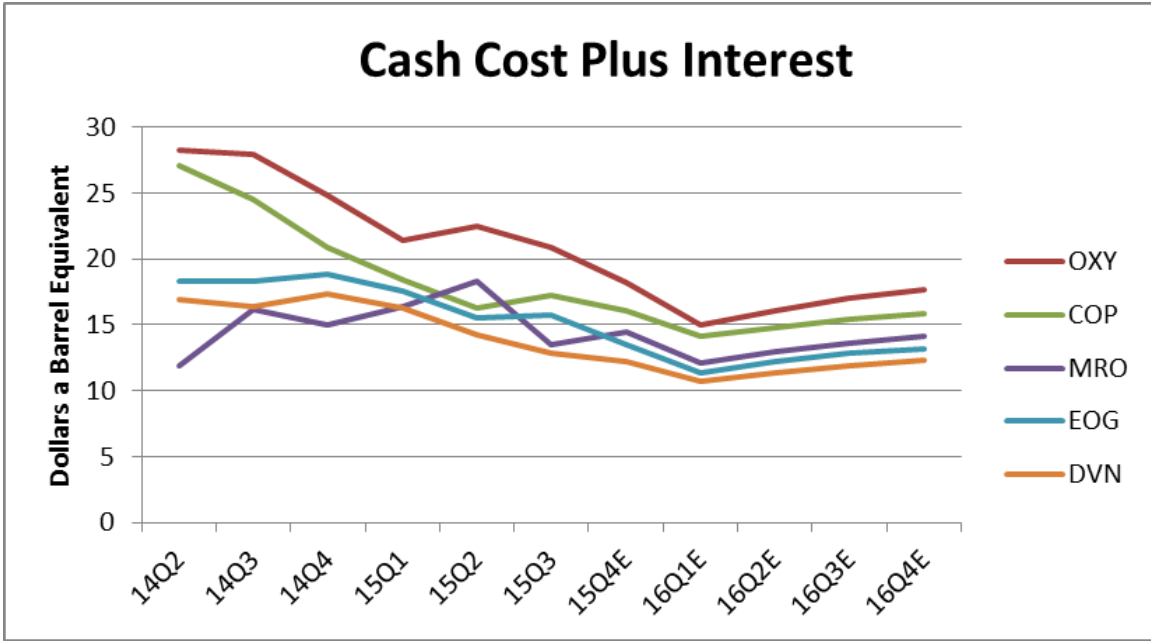
Large Cap Independent Producers have the financial and operating strength to withstand low oil price and the resource potential to prosper at higher price. Conservative investors may be more comfortable with **ConocoPhillips (COP)**, **Occidental Petroleum (OXY)**, and **EOG Resources (EOG)** that have better resisted oil price decline. More adventurous investors may prefer the potential greater recovery in the lower McDep Ratio Buy recommendations **Marathon Oil (MRO)** and **Devon Energy (DEVN)**. We advocate a balance of both views. Smaller size may partly explain greater volatility. MRO is one-sixth the size of COP and DEVN is less than half the size of OXY. MRO stock price has also reacted to a cut in the dividend. Management of COP has stressed that meeting its dividend, currently at a 7% yield, is its first priority. Meanwhile cash operating costs are falling to less than \$20 a barrel and cash flow margins remain near 50% (see charts Cash Cost and Margin on page 2). Depending on the price outlook, capital spending can be adjusted and volume trends would respond (see charts Price and Volume on page 3). Present value estimates depend on long-term expected price that has changed with economic trends. EOG has outperformed the competition in building estimated Net Present Value per share (see charts Expected Oil and Gas Price and NPV on page 4). On those estimates and current stock market prices, McDep Ratios imply more than 50% median unlevered appreciation (see Tables 1 - 4 on pages 5 - 8). While the near-term market outlook is difficult to anticipate, we believe that oil and gas investments can contribute positively to the long-term performance of a diversified investment portfolio.

Kurt H. Wulff, CFA



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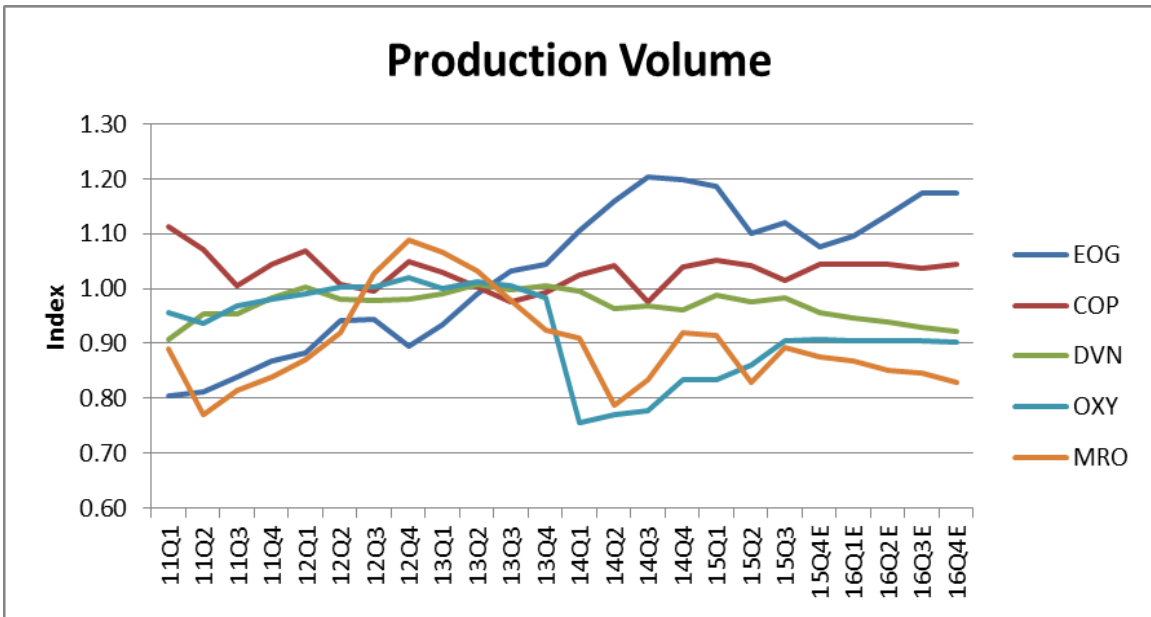
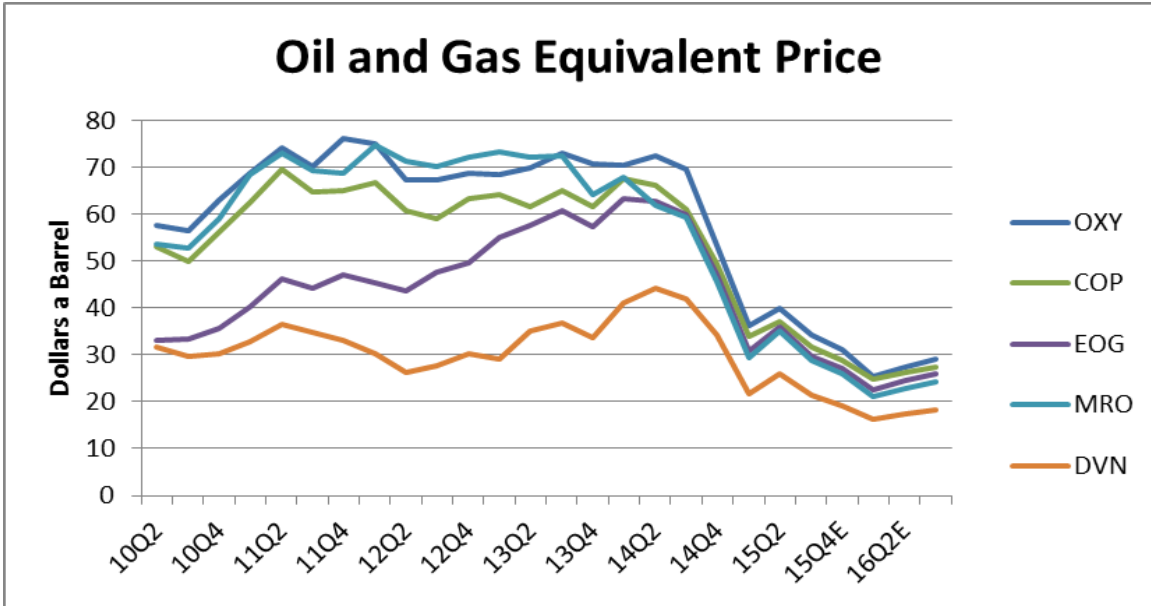
Analysis of Oil and Gas Stocks
January 13, 2016, Intraday





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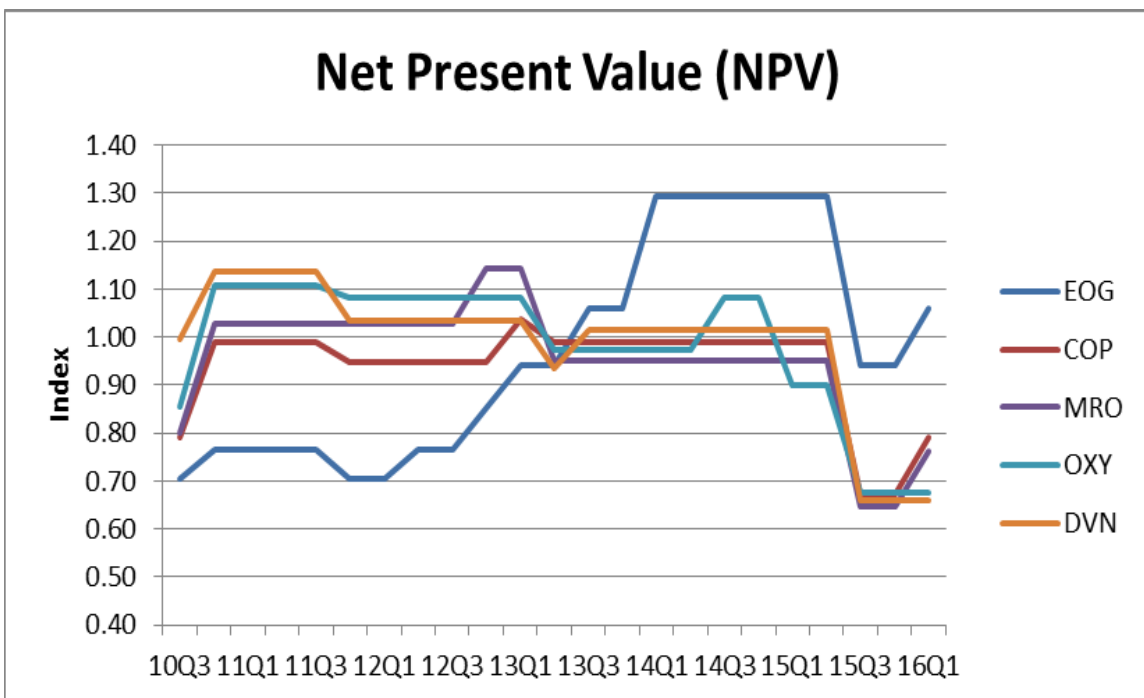
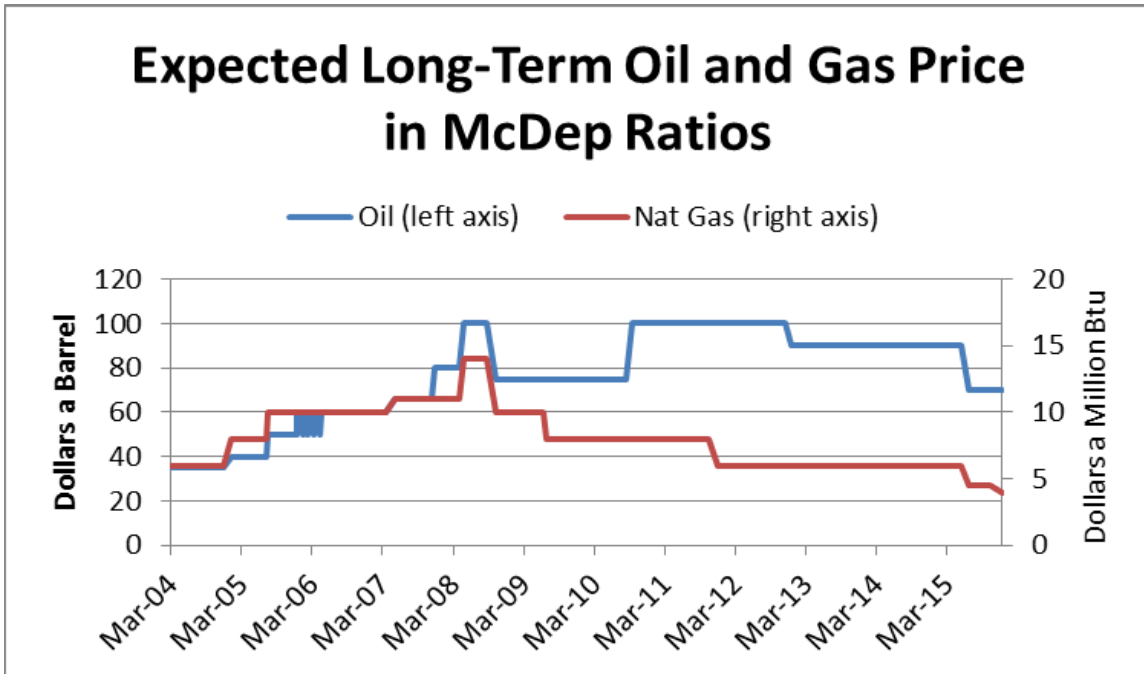


Table 1											
McDep Energy Stocks											
Enterprise Value, Segments, Yield and McDep Ratio											
Symbol/Rating		Price (US\$/sh)	EV/ Market Cap	Enterprise Value (\$mm)	Present Value by Segment (%)					Dist. Yield NTM (%)	McDep Ratio
					North Amer.		Rest of World		Oil Prod'n		
					Natural Gas	Natural Gas	Down- stream				
Global Integrated											
Exxon Mobil Corporation	XOM	76.15	1.26	403,000	6	13	60	21	3.8	0.80	
Chevron Corporation	CVX	81.31	1.38	209,000	2	9	69	19	5.3	0.68	
Royal Dutch Shell (BG pro form: Total S.A.)	RDS-A B TOT B	39.25 40.68	1.80 1.61	281,000 152,000	2	17	56 60	26 23	9.6 6.5	0.63 0.57	
<i>Total or Median</i>			<i>1.49</i>	<i>1,045,000</i>			<i>60</i>	<i>22</i>	<i>5.9</i>	<i>0.66</i>	
Large Independent											
Occidental Petroleum Corp.	OXY	61.35	1.19	55,700	3	1	86	9	4.9	0.84	
EOG Resources, Inc.	EOG	63.59	1.20	41,700	11	3	87		1.1	0.74	
ConocoPhillips	COP	40.06	1.76	87,000	12	11	77		7.4	0.64	
Devon Energy Corporation	DVN B	24.74	2.28	23,200	23		66	11	3.9	0.58	
Marathon Oil Corporation	MRO B	8.55	2.60	15,100	7	1	92		2.3	0.41	
<i>Total or Median</i>			<i>1.76</i>	<i>223,000</i>	<i>11</i>		<i>86</i>		<i>3.9</i>	<i>0.64</i>	
Small Independent											
California Resources	CRC	1.40	13.83	7,300	10		90		-	0.84	
Range Resources	RRC	23.76	2.04	8,100	75		25		0.7	0.81	
Cimarex Energy Company	XEC	80.35	1.15	8,600	31		69		0.8	0.77	
Continental Resources (32%)	CLR B	19.87	1.98	4,700	14		86		-	0.52	
Whiting Petroleum Corporation	WLL B	6.12	5.41	6,800	6		94		-	0.48	
<i>Total or Median</i>			<i>2.04</i>	<i>36,000</i>	<i>14</i>		<i>86</i>		<i>-</i>	<i>0.77</i>	
Income											
San Juan Basin Royalty Trust	SJT	4.36	1.00	200	100		-		6.5	0.54	
Sabine Royalty Trust	SBR B	26.24	1.00	380	38		62		9.0	0.44	
Permian Basin RT	PBT	4.79	1.00	220	23		77		6.5	0.44	
Cross Timbers Royalty Trust	CRT	12.11	1.00	70	64		36		7.9	0.42	
Dorchester Minerals, L.P.	DMLP B	9.17	1.00	280	28		72		8.6	0.38	
<i>Total or Median</i>			<i>1.00</i>	<i>1,200</i>	<i>38</i>		<i>62</i>		<i>7.9</i>	<i>0.44</i>	
Canada											
EnCana Corporation	ECA	4.38	3.33	12,300	47		53		1.4	0.90	
Imperial Oil Limited (30%)	IMO	28.37	1.36	9,900	1		72	27	1.4	0.80	
Cenovus Energy Inc.	CVE	11.58	1.37	13,200	11		82	7	3.9	0.65	
Canadian Oil Sands Limited	COSWF B	5.25	2.09	5,300			100		2.7	0.62	
Birchcliff Energy Ltd.	BIREF B	2.14	2.59	900	68		32		-	0.39	
<i>Total or Median</i>			<i>2.09</i>	<i>42,000</i>			<i>72</i>		<i>1.4</i>	<i>0.65</i>	
Estimated present value 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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			<i>Price</i> <i>(US\$/sh)</i>	<i>Shares</i>	<i>Market</i> <i>Cap</i> <i>(US\$mm)</i>	<i>Net</i> <i>Present</i> <i>Value</i> <i>(US\$/sh)</i>	<i>Debt/</i> <i>Present</i> <i>Value</i>	<i>McDep</i> <i>Ratio</i>
	<i>Symbol/Rating</i>		<i>13-Jan</i> <i>2016</i>	<i>(mm)</i>				
	<i>B = Buy</i>							
Global Integrated								
Exxon Mobil Corporation	XOM		76.15	4,190	319,000	100.00	0.17	0.80
Chevron Corporation	CVX		81.31	1,872	152,000	135.00	0.18	0.68
Royal Dutch Shell (BG pro forma)	RDS-A	B	39.25	3,965	156,000	80.00	0.28	0.63
Total S.A.	TOT	B	40.68	2,312	94,000	90.00	0.22	0.57
	<i>Total or Median</i>				<i>721,000</i>		<i>0.20</i>	<i>0.66</i>
Large Independent								
Occidental Petroleum Corp.	OXY		61.35	763	46,800	75.00	0.13	0.84
EOG Resources, Inc.	EOG		63.59	549	34,900	90.00	0.12	0.74
ConocoPhillips	COP		40.06	1,242	50,000	80.00	0.27	0.64
Devon Energy Corporation	DVN	B	24.74	411	10,200	65.00	0.33	0.58
Marathon Oil Corporation	MRO	B	8.55	677	5,790	40.00	0.25	0.41
	<i>Total or Median</i>				<i>147,700</i>		<i>0.25</i>	<i>0.64</i>
Small Independent								
California Resources	CRC		1.40	382	500	5.00	0.78	0.84
Range Resources	RRC		23.76	167	4,000	35.00	0.41	0.81
Cimarex Energy Company	XEC		80.35	93	7,500	108.00	0.10	0.77
Continental Resources (32%)	CLR	B	19.87	118	2,400	56.00	0.26	0.52
Whiting Petroleum Corporation	WLL	B	6.12	204	1,300	42.00	0.39	0.48
	<i>Total or Median</i>				<i>16,000</i>		<i>0.39</i>	<i>0.77</i>
Income								
San Juan Basin Royalty Trust	SJT		4.36	47	200	8.00	-	0.54
Sabine Royalty Trust	SBR	B	26.24	15	380	60.00	-	0.44
Permian Basin RT	PBT		4.79	47	220	11.00	-	0.44
Cross Timbers Royalty Trust	CRT		12.11	6	70	29.00	-	0.42
Dorchester Minerals, L.P.	DMLP	B	9.17	31	280	24.00	-	0.38
	<i>Total or Median</i>				<i>1,200</i>		<i>-</i>	<i>0.44</i>
Canada								
EnCana Corporation	ECA		4.38	843	3,700	6.00	0.63	0.90
Imperial Oil Limited (30%)	IMO		28.37	255	7,200	38.00	0.21	0.80
Cenovus Energy Inc.	CVE		11.58	827	9,600	20.00	0.18	0.65
Canadian Oil Sands Limited	COSWF	B	5.25	485	2,600	12.00	0.32	0.62
Birchcliff Energy Ltd.	BIREF	B	2.14	154	300	11.00	0.24	0.39
	<i>Total or Median</i>				<i>23,000</i>		<i>0.24</i>	<i>0.65</i>
Estimated present value 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								
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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
	Symbol/Rating		13-Jan 2016	NTM	NTM	NTM	NTM
	B = Buy						(\$/sh)
Global Integrated							
Exxon Mobil Corporation	XOM		76.15	14.4	11.7	9.4	21
Chevron Corporation	CVX		81.31	9.3	11.8	8.0	32
Royal Dutch Shell (BG pro forma)	RDS-A	B	39.25	9.9	9.9	6.3	15
Total S.A.	TOT	B	40.68	9.9	10.1	5.8	11
	<i>Median</i>			9.9	10.9	7.1	18
Large Independent							
EOG Resources, Inc.	EOG		63.59	9.0	19.1	14.2	0.67
Occidental Petroleum Corp.	OXY		61.35	8.9	15.4	13.0	3.00
ConocoPhillips	COP		40.06	11.4	17.5	11.2	2.96
Devon Energy Corporation	DVN	B	24.74	10.2	16.9	9.9	49
Marathon Oil Corporation	MRO	B	8.55	12.1	19.7	8.1	0.20
	<i>Median</i>			10.2	17.5	11.2	49
Small Independent							
California Resources	CRC		1.40	12.7	42.9	36.1	-
Range Resources	RRC		23.76	13.8	23.8	19.4	0.16
Cimarex Energy Company	XEC		80.35	7.7	20.4	15.7	0.64
Continental Resources (32%)	CLR	B	19.87	11.4	21.8	11.4	-
Whiting Petroleum Corporation	WLL	B	6.12	11.4	21.8	10.4	-
	<i>Median</i>			11.4	21.8	15.7	
Income							
Cross Timbers Royalty Trust	CRT		12.11	12.5	30.7	12.9	13
San Juan Basin Royalty Trust	SJT		4.36	8.6	21.3	11.6	15
Sabine Royalty Trust	SBR	B	26.24	7.7	25.3	11.1	11
Permian Basin RT	PBT		4.79	9.7	24.4	10.6	15
Dorchester Minerals, L.P.	DMLP	B	9.17	7.1	20.1	7.7	17
	<i>Median</i>			8.6	24.4	11.1	15
Canada							
EnCana Corporation	ECA		4.38	8.2	28.8	26.0	73
Canadian Oil Sands Limited	COSWF	B	5.25	18.0	33.6	20.8	0.14
Cenovus Energy Inc.	CVE		11.58	15.0	18.2	11.9	0.46
Imperial Oil Limited (30%)	IMO		28.37	23.4	13.4	10.7	17
Birchcliff Energy Ltd.	BIREF	B	2.14	12.8	17.7	6.8	-
	<i>Median</i>			15.0	18.2	11.9	45
	<i>Grand Median</i>			11	20	11	

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended December 31, 2016; 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	Price			Equity	Unlevered		
			(\$/sh)	(\$/sh)	Price	Cash	Total	Total		
	Symbol/Rat		13-Jan	31-Dec	Change	Distrib.	Return	Debt	Return	
			2016	2015	(%)	(%)	(%)	(\$/sh)	(%)	
									McDep	
									Ratio	
Global Integrated										
	Exxon Mobil Corporation	XOM	76.15	77.95	(2)	-	(2)	20	(2)	0.80
	Total S.A.	TOT B	40.68	44.95	(9)	-	(9)	25	(6)	0.57
	Chevron Corporation	CVX	81.31	89.96	(10)	-	(10)	31	(7)	0.68
	Royal Dutch Shell (BG pro forma)	RDS-A B	39.25	45.79	(14)	-	(14)	32	(8)	0.63
	<i>Median</i>				(10)		(10)		(7)	0.66
Large Independent										
	Occidental Petroleum Corp.	OXY	61.35	67.61	(9)	-	(9)	12	(8)	0.84
	ConocoPhillips	COP	40.06	46.69	(14)	-	(14)	30	(9)	0.64
	EOG Resources, Inc.	EOG	63.59	70.79	(10)	-	(10)	12	(9)	0.74
	Devon Energy Corporation	DVN B	24.74	32.00	(23)	-	(23)	32	(11)	0.58
	Marathon Oil Corporation	MRO B	8.55	12.58	(32)	-	(32)	14	(15)	0.41
	<i>Median</i>				(14)		(14)		(9)	0.64
Small Independent										
	Range Resources	RRC	23.76	24.62	(4)	-	(4)	25	(2)	0.81
	California Resources	CRC	1.40	2.33	(40)	-	(40)	18	(5)	0.84
	Continental Resources (32%)	CLR B	19.87	22.98	(14)	-	(14)	19	(7)	0.52
	Cimarex Energy Company	XEC	80.35	89.38	(10)	-	(10)	12	(9)	0.77
	Whiting Petroleum Corporation	WLL B	6.12	9.44	(35)	-	(35)	27	(9)	0.48
	<i>Median</i>				(14)		(14)		(7)	0.77
Income										
	San Juan Basin Royalty Trust	SJT	4.36	4.14	5	-	5	-	5	0.54
	Sabine Royalty Trust	SBR B	26.24	26.26	(0)	-	(0)	-	(0)	0.44
	Permian Basin RT	PBT	4.79	5.06	(5)	-	(5)	-	(5)	0.44
	Cross Timbers Royalty Trust	CRT	12.11	13.01	(7)	-	(7)	-	(7)	0.42
	Dorchester Minerals, L.P.	DMLP B	9.17	9.89	(7)	-	(7)	-	(7)	0.38
	<i>Median</i>				(5)		(5)		(5)	0.44
Canada										
	EnCana Corporation	ECA	4.38	5.09	(14)	-	(14)	10	(5)	0.90
	Canadian Oil Sands Limited	COSWF B	5.25	5.96	(12)	-	(12)	6	(6)	0.62
	Cenovus Energy Inc.	CVE	11.58	12.62	(8)	-	(8)	4	(6)	0.65
	Imperial Oil Limited (30%)	IMO	28.37	32.52	(13)	-	(13)	10	(10)	0.80
	Birchcliff Energy Ltd.	BIREF B	2.14	2.93	(27)	-	(27)	3	(12)	0.39
	<i>Median</i>				(13)		(13)		(6)	0.65
	<i>Grand Median</i>				(10)		(10)		(7)	0.63
	Natural Gas (\$/mmbtu)		2.27	2.33	(3)					
	Oil - West Texas Intermediate (\$/bbl)		30.48	37.06	(18)					
	S&P 500		1,922	2,044	(6)					

Source: McDep LLC, Yahoo, CME Group, Bloomberg

For historical research see www.mcdep.com



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Research Methodology/Ratings Description: McDep LLC is an independent research originator focused on oil and gas stocks exclusively. The firm applies the more than 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.