Stock Price Momentum Picking Up

			Price						Oil	Dist.	
			(US\$/sh)	Market	Enterprise	EV/	EV/	PV/	Prod'n/	Yield	McDep
	Symbol/Rat	ing	9-Oct	Cap	Value	Market	Ebitda	Ebitda	PV	NTM	Ratio
			2017	(US\$mm)	(\$mm)	Cap	NTM	NTM	(%)	(%)	(EV/PV)
Royal Dutch Shell	RDS-A	В	60.40	250,000	377,000	1.51	7.5	9.1	51	6.2	0.82
Total S.A.	TOT	В	53.38	138,000	195,000	1.41	6.4	9.5	55	5.5	0.67
Marathon Oil Corporation	MRO	В	13.57	11,530	18,700	1.62	9.9	12.4	79	1.5	0.80
ConocoPhillips	COP	В	48.91	61,000	85,000	1.40	9.3	11.9	69	2.2	0.78
Continental Resources (32%)	CLR	В	37.01	4,400	6,500	1.48	8.6	11.6	74	-	0.74
Range Resources	RRC	В	19.74	4,800	9,200	1.91	8.9	17.4	31	0.4	0.51
Dorchester Minerals, L.P.	DMLP	В	14.90	480	480	1.00	10.9	17.6	72	8.8	0.62
Cross Timbers Royalty Trust	CRT	В	14.51	90	90	1.00	10.4	20.7	28	7.3	0.50
Suncor Energy	SU	В	34.57	57,600	75,900	1.32	8.9	10.8	84	3.0	0.83
Birchcliff Energy Ltd.	BIREF	В	4.30	1,200	1,700	1.52	6.4	12.0	30	1.9	0.53

Summary and Recommendation

Oil and gas stocks may be in the early stages of a rising price trend as the number of McDep issues tracing a golden cross chart pattern expanded to six from two in the past month. Royal Dutch Shell (RDS) and Sabine Royalty Trust (SBR) have been trading above the 50-day and 200-day average most of the time since their golden crosses were formed when the 50-day crossed above the 200-day in the spring of 2016. Those lonely two were joined by Total (TOT), Chevron (CVX), San Juan Basin RT (SJT) and Suncor (SU) in September. Three of the six stocks with the strongest momentum, RDS, TOT and SU are also Buy recommendations on the basis of low ranking by McDep Ratio. At the same time, seasonal considerations may favor oil and gas investment as the Northern Hemisphere winter is approaching. Global consumption of oil and gas is highest at that time of the year. Moreover, investors happy with broader market advances might want to lock in some gains by partly redeploying to energy stocks that have not advanced as much or even declined this year. In any case, low McDep Ratios are the fundamental measure of value that keep us interested. Generally, low McDep Ratio stocks also have lower unlevered cash flow multiples (EV/Ebitda). The stocks in our coverage include conservative global giants, large cap shale oil innovators, high potential small caps, high income payers, and diverse Canadian producers (see <u>Tables 1-4</u> on pages 2-5).

Kurt H. Wulff, CFA



Table 1 McDep Energy Stocks Ranked by McDep Ratio Price Oil Dist. EV/ PV/ Prod'n/ (US\$/sh)EV/ McDepMarket Enterprise Yield Symbol/Rating 9-Oct Market Ebitda Ebitda PVNTM Cap Value Ratio (US\$mm) NTM (EV/PV) 2017 (\$mm) Cap NTM(%)(%)**Global Integrated** Chevron Corporation CVX 117.71 223,000 290,000 1.30 9.2 10.3 60 3.7 0.90 Exxon Mobil Corporation XOM 82.03 350,000 442,000 1.26 10.1 11.8 49 3.8 0.85 Royal Dutch Shell RDS-A В 60.40 250,000 377,000 1.51 7.5 9.1 0.82 6.2 Total S.A. TOT 53.38 138,000 195,000 1.41 6.4 9.5 55 5.5 0.67 Total or Median 1,304,000 9.9 961,000 1.36 8.4 53 4.6 0.84 Large Independent EOG Resources, Inc. EOG 96.50 55,900 63,100 1.13 12.1 10.8 86 0.7 1.12 Pioneer Natural Resources PXD 150.96 25,700 27,400 1.07 10.7 10.7 87 0.1 1.01 63.97 49,000 61,800 Occidental Petroleum Corp. OXY 1.26 10.8 12.3 80 4.8 0.88 1.42 Devon Energy Corporation DVN 35.89 19,000 27,000 8.8 10.3 62 0.7 0.85 В Marathon Oil Corporation MRO 13.57 11,530 18,700 1.62 9.9 12.4 79 1.5 0.80 ConocoPhillips COP 48.91 61,000 85,000 1.40 9.3 11.9 69 2.2 0.78 Total or Median 222,100 1.33 283,000 10.3 11.4 80 1.1 0.86 Small Independent Cimarex Energy Company XEC 115.77 11,000 12,500 1.13 11.3 11.7 63 0.3 0.97 California Resources CRC 10.48 400 6,400 14.6 11.1 14.0 89 0.79 Continental Resources (32%) CLR 37.01 4,400 6,500 1.48 74 0.74 8.6 11.6 1,900 5,500 2.87 92 0.54 Whiting Petroleum Corporation WLL 5.29 6.6 12.1 В Range Resources RRC 19.74 4,800 9,200 1.91 8.9 17.4 31 0.4 0.51 Total or Median 23,000 40,000 1.91 8.9 12.1 74 0.74 Income San Juan Basin Royalty Trust SJT 7.64 360 360 1.00 15.3 16.1 6.4 0.95 Permian Basin RT PBT 430 430 1.00 0.83 9.18 15.7 18.8 78 5.8 Sabine Royalty Trust SBR 40.40 590 590 1.00 17.9 59 0.67 26.6 5.6 Dorchester Minerals, L.P. DMLP B 14.90 480 480 1.00 10.9 17.6 72 0.62 8.8 CRT 1.00 28 Cross Timbers Royalty Trust 14.51 90 90 10.4 20.7 7.3 0.50 Total or Median 2,000 2,000 1.00 15.3 18.8 59 6.4 0.67 Canada EnCana Corporation 11,000 **ECA** 11.32 17.500 1.59 9.8 10.2 56 0.5 0.96 Imperial Oil Limited (30%) IMO 31.20 8,000 10,000 1.26 8.5 10.0 67 1.6 0.85 Suncor Energy 34.57 75,900 SU 57,600 1.32 8.9 10.8 84 3.0 0.83 Cenovus Energy Inc. CVE 9.53 11,700 21,900 1.87 6.8 83 0.59 11.6 17 Birchcliff Energy Ltd. BIREF В 4.30 1,200 1,700 1.52 6.4 12.0 30 1.9 0.53 Total or Median 90,000 127,000 1.52 8.5 10.8 67 1.7 0.83

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 9/30/18.

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



				Table :							
			McDe	p Energ	y Stoc	ks					
		Pro	oduction	. Opera	ting Le	everag	e				
				d by Mc							
			Price	-	Oil	Opera	tina				
			(US\$/sh)		Equiv.	Exper		Ebitda	Ebitda	Oper Lev	
Ch	mbol/Ra	tina	9-Oct	Volume	Price	Fixed		NTM	NTM	Ebitda chg/	McDe
		Buy	2017	(mmboe)	(\$/boe)	(\$/boe)		(\$/boe)	(\$mm)	Price chg	Rati
Global Integrated (excl. Downstream)	D =	Duy	2017	(minooc)	(ψ/ υσε)	(φ/υσε)	(70)	(φ/ υσε)	(\psi min)	Trice eng	Ran
Chevron Corporation	CVX		117.71	881	37.52	11	14	21.30	18,771	1.52	0.9
Exxon Mobil Corporation	XOM		82.03	1,466	37.84	4		17.60	25,806	1.23	0.8
Royal Dutch Shell	RDS-A	R	60.40	1,291	36.60	6		25.60	33,037	1.23	0.8
Total S.A.	TOT	В	53.38	963	36.69	0		21.70	20,908	1.00	0.6
Total or Median	101	ם	33.30	703	30.07	U	71	21.70	20,700	1.23	0.84
Large Independent (excl. Downstream										1.23	0.0
EOG Resources, Inc.	EOG		96.50	229	34.54	11	2	22.80	5,232	1.48	1.12
Pioneer Natural Resources	PXD		150.96	117	33.70	11	3	21.80	2,549	1.50	1.01
Occidental Petroleum Corp.	OXY		63.97	230	35.70	12		19.60	4,514	1.61	0.88
Devon Energy Corporation	DVN		35.89	182	25.99	10		14.60	2,663	1.68	0.8
Marathon Oil Corporation	MRO	В	13.57	131	27.52	11	8	14.40	1,881	1.76	0.8
ConocoPhillips	COP	В	48.91	440	34.52	8		20.70	9,105	1.70	0.78
Total or Median		ь	40.71	440	34.32		1/	20.70	9,103	1.56	0.76
Small Independent										1.50	0.80
Cimarex Energy Company	XEC		115.77	71	25.34	6	16	15.40	1,100	1.39	0.97
California Resources	CRC		10.48	47	38.40	15		12.30	580	2.22	0.79
Continental Resources (32%)	CLR	В	37.01	33	30.58	3		23.20	755	1.13	0.74
Whiting Petroleum Corporation	WLL	ь	5.29	48	31.98	9		17.60	837	1.13	0.7
Range Resources	RRC	В	19.74	133	16.91	8		7.80	1.040	2.03	0.5
Total or Median	KKC	ь	17.74	133	10.91		/	7.80	1,040	1.51	0.74
Income										1.31	0.72
San Juan Basin Royalty Trust	SJT		7.64	3	14.89	5	15	7.69	23	1.65	0.93
Permian Basin RT	PBT		9.18	1	31.30	10		19.04	23	1.53	0.93
Sabine Royalty Trust	SBR		40.40	1	28.56	2		23.50	33	1.09	0.8
Dorchester Minerals, L.P.	DMLP	В	14.90	2	30.79	7		20.86	44	1.34	0.62
Cross Timbers Royalty Trust	CRT	В	14.51	0	33.62	8		22.38	8	1.34	0.50
Total or Median		ь	14.31	U	33.02		10	22.36	0	1.36	0.50
										1.50	0.0
Canada (excl. Downstream)	EC 4		11.22	112	20 77	10	2	15 77	1 792	1 7/	0.04
EnCana Corporation	ECA		11.32	113	28.77	12		15.77	1,782	1.76	0.90
Imperial Oil Limited (30%)	IMO SU	D	31.20	68	36.21	17 22		17.10	1,169	1.99	0.83
Suncor Energy Inc.		В	34.57	283	46.00		3		6,245	2.00	0.83
Cenovus Energy Inc.	CVE	ъ	9.53	212	25.67	11		13.97	2,960	1.79	0.59
Birchcliff Energy Ltd.	BIREF	В	4.30	23	17.30	4	9	11.80	273	1.34	0.53
Total or Median										1.79	0.83



					able 3						
			Mo	cDep E	nergy St	tocks					
						er Share					
	Par	nkor	l by Res					JTM)			
	IXa	IIKCC	i by ixes	CI VC LI	ic (Aujus	tu Kesi vs/	rioui	N 1 IVI)			
			Price					Down-	Proven	Adjustd	Nei
			(US\$/sh)			Dividend		stream/	Undev.	Resrvs/	Presen
	Symbol/Re	ating	9-Oct	Shares	Debt	NTM	P/E	PV	Resrvs	Prod	Valu
		Buy	2017	(mm)	(\$mm)	(\$/sh)	NTM	(%)	(%)	NTM	(US\$/sh
Global Integrated				` ′	(. ,	(. ,		, ,	` ′		
Exxon Mobil Corporation	XOM		82.03	4,271	91,152	3.08	24	27	31	11.5	100.00
Total S.A.	TOT	В	53.38	2,583	57,015	2.91	13	22	42	8.9	90.00
Chevron Corporation	CVX		117.71	1,893	66,793	4.32	30	20	32	8.9	135.00
Royal Dutch Shell	RDS-A	В	60.40	4,146	126,975	3.76	19	24	25	8.8	80.00
Median										8.9	
Large Independent											
ConocoPhillips	COP	В	48.91	1,237	24,405	1.06		-	20	10.3	68.00
Occidental Petroleum Corp.	OXY		63.97	766	12,800	3.04	58	14	23	9.2	75.00
Devon Energy Corporation	DVN		35.89	529	8.019	0.24	69	9	20	8.8	45.00
Marathon Oil Corporation	MRO	В	13.57	850	7,129	0.20		-	39	8.6	19.00
EOG Resources, Inc.	EOG		96.50	579	7,250	0.67		-	30	7.0	85.00
Pioneer Natural Resources	PXD		150.96	170	1,700	0.08	72	_	7	6.0	150.00
Median					2,7.00	0.00				8.7	
Small Independent											
Range Resources	RRC	В	19.74	245	4,392	0.08	49	_	44	11.8	56.00
Whiting Petroleum Corporation	WLL		5.29	363	3,589	-		-	53	11.7	18.00
Continental Resources (32%)	CLR	В	37.01	119	2,124	_		-	59	11.4	56.00
California Resources	CRC		10.48	42	6,000	_		_	29	10.3	50.00
Cimarex Energy Company	XEC		115.77	95	1,442	0.32	30	_	21	6.1	120.00
Median	TILLE		110	,,,	1,2	0.02				11.4	120.00
Income										11.7	
Sabine Royalty Trust	SBR		40.40	15	_	2.26	18	_	4	11.9	60.00
San Juan Basin Royalty Trust	SJT		7.64	47	_	0.49	16	_	-	10.2	8.00
Permian Basin RT	PBT		9.18	47	_	0.54	17	_	12	9.4	11.00
Cross Timbers Royalty Trust	CRT	В	14.51	6	_	1.07	14	_	-	9.1	29.00
Dorchester Minerals, L.P.	DMLP	В	14.90	32	_	1.32	15	_	_	6.6	24.00
Median		2	1 7.70	22		1.52	13			9.4	27.00
Canada										7.7	
Suncor Energy	SU	В	34.57	1,665	18,334	1.02	22	16	44	13.6	44.00
Cenovus Energy Inc.	CVE	-	9.53	1,229	10,174	0.16		4	55	12.8	22.00
Birchcliff Energy Ltd.	BIREF	В	4.30	268	598	0.08	24	-	69	12.4	10.00
Imperial Oil Limited (30%)	IMO	В	31.20	255	2,032	0.51	13	32	23	9.2	38.00
EnCana Corporation	ECA		11.32	973	6,457	0.06	13	-	43	5.5	12.00
Median	LCA		11.34	913	0,437	0.00		-	-+3	12.4	12.00
мешип										12.7	
P/E = Stock Price to Earnings.	For histo	rical i	research see	www.mcd	ep.com.						



			Tabl	le 4						
		Mo	Dep Ene	rgy Sto	cks					
	Tota		eturn Ye			7				
	Kanke	ea D	y Unleve	erea 10t	ai Ketu	ırn				
		+	Price	Price			Equity	17	ılevered	
			(\$/sh)	(\$/sh)	Price	Cash	Total	07	Total	
	Symbol/	Rati	9- <i>Oct</i>	30-Dec	Change	Distrib.	Return	Debt	Return	McDe
	byour		2017	2016	(%)	(%)	(%)	(\$/sh)	(%)	Rati
Global Integrated					(, ,,	(, 4)	(, ,	(+, -, -,	(, ,	
Royal Dutch Shell	RDS-A	В	60.40	54.38	11	5	16	31	10	0.82
Total S.A.	TOT	В	53.38	50.97	5	3	7	22	5	0.67
Chevron Corporation	CVX		117.71	117.70	0	3	3	35	2	0.90
Exxon Mobil Corporation	XOM		82.03	90.26	(9)	2	(7)	21	(5)	0.85
Median			02.00	, , , ,	2		5		4	0.84
Large Independent		\top								
ConocoPhillips	COP	В	48.91	50.14	(2)	2	(1)	20	(1)	0.78
EOG Resources, Inc.	EOG	\Box	96.50	101.10	(5)	0	(4)	13	(4)	1.12
Occidental Petroleum Corp.	OXY	\top	63.97	71.23	(10)	2	(8)	17	(7)	0.88
Marathon Oil Corporation	MRO	В	13.57	17.31	(22)	1	(21)	8	(14)	0.80
Pioneer Natural Resources	PXD		150.96	180.00	(16)	0	(16)	10	(15)	1.01
Devon Energy Corporation	DVN		35.89	45.67	(21)	0	(21)	15	(16)	0.85
Median					(13)		(12)		(10)	0.86
Small Independent					` `		` ´		`	
California Resources	CRC		10.48	21.29	(51)	-	(51)	142	(7)	0.79
Cimarex Energy Company	XEC		115.77	135.90	(15)	0	(15)	15	(13)	0.97
Continental Resources (32%)	CLR	В	37.01	51.54	(28)	-	(28)	18	(21)	0.74
Range Resources	RRC	В	19.74	34.36	(43)	0	(42)	18	(28)	0.51
Whiting Petroleum Corporation	WLL		5.29	12.02	(56)	-	(56)	10	(31)	0.54
Median					(43)		(42)		(21)	0.74
Income					, ,		` ´		`	
Permian Basin RT	PBT		9.18	7.71	19	6	25	-	25	0.83
San Juan Basin Royalty Trust	SJT		7.64	6.62	15	6	22	-	22	0.95
Sabine Royalty Trust	SBR		40.40	35.15	15	4	19	-	19	0.67
Dorchester Minerals, L.P.	DMLP	В	14.90	17.55	(15)	5	(10)	-	(10)	0.62
Cross Timbers Royalty Trust	CRT	В	14.51	17.97	(19)	4	(16)	-	(16)	0.50
Median					15		19		19	0.67
Canada										
Suncor Energy	SU	В	34.57	32.69	6	1	7	11	5	0.83
EnCana Corporation	ECA		11.32	11.74	(4)	0	(3)	7	(2)	0.96
Imperial Oil Limited (30%)	IMO		31.20	34.76	(10)	1	(10)	8	(8)	0.85
Cenovus Energy Inc.	CVE		9.53	15.13	(37)	1	(37)	8	(24)	0.59
Birchcliff Energy Ltd.	BIREF	В	4.30	7.01	(39)	1	(38)	2	(29)	0.53
Median					(10)		(10)		(8)	0.83
Grand Median		Ш			(10)		(10)		(7)	0.82
Natural Gas (\$/mmbtu)		$\perp \perp$	2.84	3.74	(24)					
Oil -West Texas Intermediate (\$/bbl)		\sqcup	49.52	53.72	(8)					
Total Stock Market - U.S.	VTI	\sqcup	130.93	115.32	14					
Developed Markets - ex US	VEA	\sqcup	43.38	36.54	19					
Emerging Markets	VWO	\sqcup	44.22	35.78	24					



			Index of Recent R	esearch					
Date	Series	Symbol	Subject	Theme					
4-Oct	ISI	COP	ConocoPhillips	Cash to the Owners					
	П	CRT, DMLP, PB'		Cash, Fracking and Inflation					
-	ISI	RRC	Range Resources	Natural Gas at Lowest McDep Ratio					
	Meter F			Currency, Interest and Oil					
6-Sep	ISI	TOT	Total S.A.	Gaining Volume on Competitors					
30-Aug		SU	Suncor Energy Inc.	Returning Cash to Shareholders					
23-Aug		BIREF	Birchcliff Energy	Montney Growth					
	Meter F		Direction Energy	Energy Outlook to 2026					
3-Aug	ISI	SJT	San Juan Basin Royalty Trust	BP Tests Best San Juan Well in 14 Years					
1-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, PB'	1 * * * *	Control Reinvestment with Income Payers					
	II								
19-Jul			, MRO,PXD, OXY	Potential to Prosper					
11-Jul	Meter F		Danahastan Minaraka I. D	Liftoff for Energy Exports					
3-Jul	ISI	DMLP	Dorchester Minerals, L.P.	Core Midland Acquisition – Upgrade to Buy					
	ISI	CLR	Continental Resources	Well-Managed Shale Pioneer					
20-Jun	ISI	XOM	Exxon Mobil	Profit from Low-Risk Energy Growth					
	Meter F		1.7	Value Beckoning					
5-Jun	ISI	MRO	Marathon Oil	A Fourth Shale Focus					
30-May		RDS	Royal Dutch Shell	High Yield While Waiting					
26-May		CVE	Cenovus Energy	High Operating and Financial Leverage					
8-May		DMLP	Dorchester Minerals, L.P.	Midland Basin Spotlight					
-May	Meter F	Reader		Positive Progress					
	ISI	RRC	Range Resources	Growth Accelerating					
24-Apr	П	CRT, DMLP, PB'		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					
1-Apr	Meter F	Reader		IPAA Ideas					
30-Mar	ISI	CVE	Cenovus Energy	Buying Out 50% Partner					
30-Mar	ISI	COP	ConocoPhillips	Selling Canada					
27-Mar	ISI	TOT	Total S.A.	Most Undervalued Global Integrated					
21-Mar	ISI	CRT	Cross Timbers Royalty Trust	Top Line Value with Bottom Line Option					
14-Mar	Meter F	Reader		Extra Inventory					
3-Mar	ISI	DMLP	Dorchester Minerals, L.P.	Shale Oil Royalties Rising					
26-Feb	II	CLR, CRC, RRC,	WLL, XEC	Small Cap Producers Rising Again					
21-Feb	ISI	MRO	Marathon Oil	A Third, a Third, a Third					
14-Feb	Meter F	Reader		Non-U.S. Buys at Low McDep Ratio					
5-Feb	ISI	COP	ConocoPhillips	Steady Volume					
3-Feb	ISI	RDS	Royal Dutch Shell	BG Paying Off					
-Feb	ISI	XOM	Exxon Mobil	Looking to New Leader					
30-Jan	ISI	CVX	Chevron	LNG and Permian Positives					
7-Jan	Meter F			Buy Stocks with Low McDep Ratio					
			shed monthly on or about second or	third Tuesday)					
		dependent Stock Id	ea						
	II = Indu	ıstry Idea							
		For historical re	esearch by stock, go to mcdep.com,	click on Stock Ideas, click on stock by name.					



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.

McDep or its employees may take positions in stocks the firm covers for research purposes. No trades in a subject stock shall be made within a week before or after a change in recommendation.

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. Buy recommendations are expected to deliver a total return better than 7% per year above inflation.