

#### MCDEP Income and Small Cap Weekly

Analysis of Oil & Gas Stocks July 26, 2013

#### Whiting Petroleum (WLL) Western Williston and Red Tail

Symbol	WLL	Ebitda Next Twelve Months ending 6/30/14 (US\$mm)	2,064
Rating	Buy	North American Natural Gas/Ebitda (%)	4
Price (\$/sh)	50.44	Natural Gas and Oil Production/Ebitda (%)	100
Pricing Date	7/25/13	Adjusted Reserves/Production NTM	8.7
Shares (mm)	119	EV/Ebitda	4.0
Market Capitalization (\$mm)	6,000	PV/Ebitda	5.4
Debt (\$mm)	2,270	Undeveloped Reserves (%)	36
Enterprise Value (EV) (\$mm)	8,270	Natural Gas and Oil Ebitda (\$/boe)	58.00
Present Value (PV) (\$mm)	11,200	Present Value Proven Reserves(\$/boe)	29.60
Net Present Value (\$/share)	75	Oil and Gas Ebitda Margin (%)	70
Debt/Present Value	0.20	Earnings Next Twelve Months (US\$/sh)	4.78
McDep Ratio - EV/PV	0.74	Price/Earnings Next Twelve Months	11
Dividend Yield (%/year)	0.0	Indicated Annual Dividend (US\$/sh)	0.00
Note: Estimated cash flow	and earnings tied to one	-year futures prices for oil and natural gas.	
Reported results may	vary widely from estin	nates. Estimated present value per share revised only infrequ	ently.
Estimated present va	lue presumes a long-ter	m price for oil of US\$90 a barrel and natural gas, \$6 a millio	n btu.
For historical analysis	is of Whiting since 200	9 see www.mcdep.com/4wll.htm	

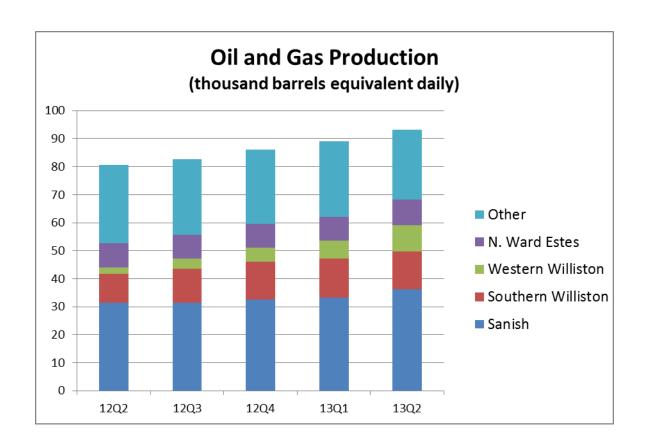
#### **Summary and Recommendation**

Better fracking keeps the outlook exciting for buy- recommended Whiting Petroleum (WLL) while reinforcing estimated Net Present Value (NPV) of \$75 a share compared to current stock price of \$50 (see table Present Value on page 2). NPV was \$88 a share until a month ago when we scaled back our long-term oil price assumption to \$90 a barrel from \$100. Yet, operations keep getting better. Credit the gains largely to modifications to the company's fracking technique, including more "plug and perf" instead of "sliding sleeve" among other refinements. Most notably in second quarter results reported July 25, oil volumes are compounding 40% a quarter in the Western Williston area on the Montana/North Dakota border (see chart Oil and Gas <u>Production</u> on page 2 and slide <u>Lease Areas in Williston Basin</u> on page 3). At the same time, better fracks give management the confidence to announce a development program for its Red Tail prospect in the Niobrara (Mancos) formation on trend with the prolific Wattenberg field in northeast Colorado (see slide Red Tail on page 3). Meanwhile, despite the sale of a 6,500 barrels daily property effective July 15, volume growth continues for the remainder of the year (see table Operating and Financial Estimates on page 4). Compared to an elite group of peer companies that also have impressive shale prospects, Whiting has a low McDep Ratio at 0.74, high concentration on oil at 92% of present value, lowest unlevered cash flow (Ebitda) multiple at 4.0, median ratio of debt to present value of 0.20 and its stock price is in an uptrend compared to its 200-day average (see Tables ISC-1 to ISC-4 on pages 5-8).

Kurt H. Wulff, CFA

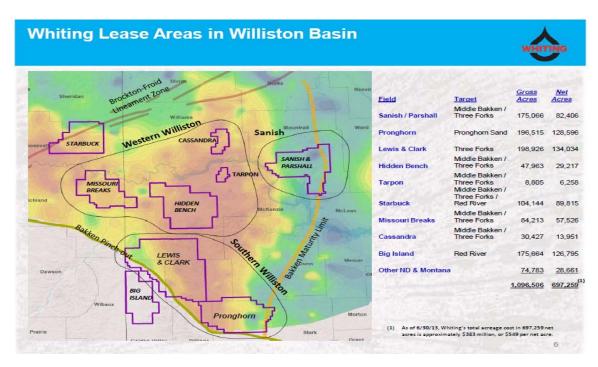


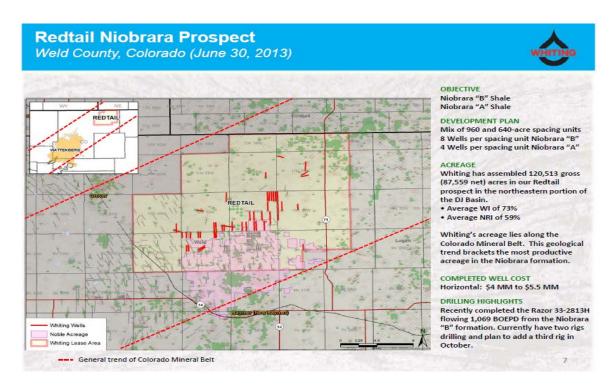
Whiting P	etroleum Co	orporation							
Functional Ca	sh Flow and	Present Va	alue						
	Present								
I	VTM Ebitda	Adjusted	PV/	Value					
	(US\$mm)	<u>R/P</u>	<u>Ebitda</u>	(US\$mm)					
North American Natural Gas	74	7.4	12.2	900	8%				
Oil	1,991	8.9	5.2	10,300	92%				
	2,064	8.7	5.4	11,200	100%				
Debt (US\$mm)					2,270				
Net Present Value (US\$mm)					8,930				
Shares (mm)					119				
Net Present Value - Standard Estimate (US\$/sh)					75				
NPV Approximation by Cash Flow Multiple Depe	ending on Res	erve Life (U	JS\$/sh)		90				





#### MCDEP Income and Small Cap Weekly







		V	Vhiting P	etroleum	Corporat	ion				
	Nex					ncial Estim	ates			
										Next
										Twelve
	Q2	Year	Q1	Q2	Q3E	Q4E	Year	Q1E	Q2E	Months
	6/30/12	2012	3/31/13	6/30/13	9/30/13	12/31/13	2013E	3/31/14	6/30/14	6/30/14
Volume										
Natural Gas (mmcfd)	70	71	71	72	72	72	71	72	72	72
Days	91	366	90	91	92	92	365	90	91	365
Oil (mmb)	6.3	26	7.0	7.4	7.4	7.7	29	7.9	8.3	31
Oil (mbd)	69	71	77	81	80	84	81	87	91	86
Total (mb)	7.3	30.2	8.0	8.5	8.5	8.8	33.8	8.9	9.4	36
Total (mbd)	81	83	89	93	92	96	93	99	103	97
Price										
Henry Hub (\$/mmbtu)	2.21	2.79	3.34	4.10	3.69	3.79	3.73	3.98	3.89	3.84
Differential (\$/mmbtu)	(1.04)	(0.63)	(0.46)	(0.17)	(0.16)	(0.16)	(0.24)	(0.17)	(0.16)	(0.16)
Company (\$/mcf)	3.25	3.42	3.80	4.27	3.84	3.95	3.97	4.15	4.05	4.00
WTI Cushing (\$/bbl)	93.32	94.16	94.41	94.22	106.28	103.77	99.67	99.40	96.37	101.45
Differential	18.13	15.05	10.95	9.87	11.13	10.87	10.58	10.41	10.09	10.76
Company (\$/bbl)	75.19	79.11	83.46	84.36	95.15	92.90	89.09	88.99	86.28	90.69
Total (\$/bbl)	67.12	70.76	75.43	76.83	85.79	84.29	80.69	81.28	79.08	82.52
Revenue (\$mm)										
Natural Gas	21	88	24	28	25	26	103	27	26	105
Oil	472	2,050	581	623	700	718	2,623	700	713	2,831
Total	493	2,138	605	651	726	744	2,726	726	740	2,936
Expense										
Lease operating	90	377	100	105	104	106	415			
Production taxes	41	173	51	54	63	65	233			
General and administrative	25	108	29	29	55	32	145			
Total	156	658	180	188	221	203	793	221	225	871
Ebitda	337	1,480	425	463	504	541	1,933	505	514	2,064
Exploration	28	128	37	43	43	43	166	43	43	172
Deprec., Deplet., & Amort.	161	685	201	223	226	226	877	226	226	905
Other	(4)	(16)	(6)	(13)		20	2			20
Ebit	152	683	193	210	235	251	889	236	245	967
Interest	18	75	21	23	23	23	90	23	23	92
Ebt	134	608	172	187	212	228	799	213	222	875
Income Tax	47	213	60	65	74	80	280	74	78	306
Net Income (\$mm)	87	395	112	121	138	148	520	138	144	569
Per Share (\$)	0.73	3.32	0.94	1.02	1.16	1.25	4.37	1.16	1.21	4.78
Shares (millions)	119	119	119	119	119	119	119	119	119	119
Ebitda Margin	68%	69%	70%	71%	70%	73%	71%	70%	70%	70%
Tax rate	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%



				ble ISC-							
McDe	p Ince	om	e and S	Small C	ap Energ	gy Po	rtfo	lio			
Debt, Seg	ments	s, (	Cash Flo	ow, Inc	come and	Mcl	Dep	Ratio			
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			n ·								
Sym	hol/Pati	na	Price (US\$/sh)	EV/	Enterprise	PV(	0/.)	EV/	Dist.	Dist.	
Syn	B = I		25-Jul	Market	Value	Nat	<u>/0)</u>	Ebitda	NTM	Yield	McDe
CR	(see belo		23-Jul 2013	Сар	(\$mm)	Gas	Oil	NTM	(\$/un)	(%)	Rati
CD	(See Ber	, w,	2013	Сир	(фиин)	Gus	Oii	11111	(φ/ин)	(70)	Ittii
Small Cap Independent Producers											
PDC Energy	PDCE		55.15	1.46	2,500	32	68	10.6	-	-	1.14
Range Resources	RRC	В	81.39	1.27	16,590	74	26	14.5	0.16	0.2	0.92
Halcón Resources	HK		5.57	2.24	5,230	9	91	6.4	-	-	0.90
Continental Resources (32%)	CLR	В	92.50	1.24	6,810	18	82	6.5	-	-	0.87
Peyto Exploration and Development Cor			28.05	1.19	4,960	80	20	9.4	0.81	2.9	0.85
Denbury Resources Inc.	DNR		17.51	1.52	9,940	5	95	5.7	-	-	0.83
Berry Petroleum Company	BRY		40.20	1.83	4,050	14	86	6.0	0.32	0.8	0.80
Cimarex Energy Company	XEC	В	75.48	1.22	7,950	46	54	5.5	0.56	0.7	0.79
Whiting Petroleum Corporation	WLL	В	50.44	1.38	8,270	8	92	4.0	-	-	0.74
Birchcliff Energy Ltd.	BIREF	В	7.92	1.41	1,840	72	28	9.0	-	-	0.73
Total or Median				1.40	68,100	25	75	6.4			0.84
Leveraged Cash Payers	- n - n		27.00	4.50	2.050			10.5	2.1.5	0.0	
Vanguard Natural Resources, LLC	VNR		27.89	1.59	2,870	44	56	10.6	2.46	8.8	1.15
Legacy Reserves L.P.	LGCY		28.00	1.58	2,530	28	72	10.0	2.30	8.2	1.0
Linn Energy, LLC	LINE		27.09	1.98	12,530	47	53	10.9	2.90	10.7	1.02
Enerplus Corporation	ERF		16.34	1.55	5,000	35	65	6.4	1.04	6.4	0.94
Total or Median				1.58	22,900	40	60	10.3		8.5	1.03
RTF Cash Payers											
Freehold Royalties Ltd.	FRHLF		23.13	TL	1,610	16	84	12.5	1.62	7.0	1.10
Dorchester Minerals, L.P.	DMLP		24.10	TL	740	64	36	13.4	1.69	7.0	0.93
Enduro Royalty Trust (40%)	NDRO		15.09	BL	200	48	52	8.9	1.53	10.1	0.89
Sabine Royalty Trust	SBR		51.25	TL	750	52	48	11.9	4.31	8.4	0.80
San Juan Basin Royalty Trust	SJT	В	16.65	BL	780	100	-	11.8	0.87	5.3	0.79
Hugoton RoyaltyTrust	HGT	_	9.12	BL	370	90	10	8.7	0.93	10.2	0.7
Permian Basin RT	PBT		13.47	TL	630	19	81	7.8	1.09	8.1	0.7
Mesa RoyaltyTrust	MTR		21.74	BL	41	75	25	8.8	2.05	9.4	0.7
Cross Timbers Royalty Trust	CRT		27.80	TL	170	83	17	11.1	2.25	8.1	0.60
Total or Median	2212		27.30		5,300	64	36	11.1	2.20	8.1	0.7
CB=Contrarian Buy, Stock Price apparer											
McDep Ratio = Market cap and Debt to											
Present Value (PV) presumes long-term											
Dist. = Income distribution. $NTM = Nex$	t Twelve	Mo	onths Ende	d June 30.	, 2014. Enter	prise V	alue =	Market (	Cap and I	Debt.	



			e ISC-2					
McDep Inco	me and	Sn	ıall Cap	<b>Energ</b>	y Portf	olio		
Net Pr	esent V	alue	e and M	IcDep 1	Ratio			
			Price			Net		
			(\$/sh)		Market	Present	Debt/	
	Symbol/		25-Jul	Shares	Сар	Value	Present	McDep
	Ra	ting	2013	(mm)	(\$mm)	(\$/un)	Value	Ratio
Small Cap Independent Producers								
PDC Energy	PDCE		55.15	31.0	1,710	45.00	0.36	1.14
Range Resources	RRC	В	81.39	161.0	13,100	90.00	0.30	0.92
Halcón Resources	HK	D	5.57	420.0	2,340	7.00	0.19	0.92
Continental Resources (32%)	CLR	В	92.50	59.2	5,480	110.00	0.30	0.90
Peyto Exploration and Development Corp.		D	28.05	149.0	4,180	34.00	0.17	0.87
Denbury Resources Inc.	DNR		17.51	373.0	6,530	23.00	0.13	0.83
Berry Petroleum Company	BRY		40.20	55.3	2,220	58.00	0.28	0.80
		D						
Cimarex Energy Company	XEC	В	75.48	86.6	6,540	100.00	0.14	0.79
Whiting Petroleum Corporation	WLL	В	50.44	119.0	6,000	75.00	0.20	0.74
Birchcliff Energy Ltd.	BIREF	В	7.92	164.0	1,300	12.00	0.21	0.73
Total or Median					49,400		0.21	0.84
Leveraged Cash Payers								
Vanguard Natural Resources, LLC	VNR		27.89	64.8	1,810	22.00	0.43	1.15
Legacy Reserves L.P.	LGCY		28.00	57.1	1,600	25.00	0.39	1.07
Linn Energy, LLC	LINE		27.09	233.0	6,310	26.00	0.51	1.02
Enerplus Corporation	ERF		16.34	196.0	3,200	18.00	0.33	0.94
Total or Median					12,920		0.41	1.05
RTF Cash Payers						• • • • • • • • • • • • • • • • • • • •		
Freehold Royalties Ltd.	FRHLF		23.13	66.5	1,540	21.00	0.05	1.10
Dorchester Minerals, L.P.	DMLP	В	24.10	30.7	740	26.00	-	0.93
Enduro Royalty Trust (40%)	NDRO		15.09	13.2	200	17.00	-	0.89
Sabine Royalty Trust	SBR		51.25	14.6	750	64.00	-	0.80
San Juan Basin Royalty Trust	SJT	В	16.65	46.6	780	21.00	-	0.79
Hugoton RoyaltyTrust	HGT		9.12	40.0	370	12.00	-	0.76
Permian Basin RT	PBT		13.47	46.6	630	18.00	-	0.75
Mesa RoyaltyTrust	MTR		21.74	1.9	41	30.00	-	0.73
Cross Timbers Royalty Trust	CRT		27.80	6.0	170	42.00	-	0.66
Total or Median					5,220			0.79
B=Buy; CB=Contrarian Buy, Stock Price a	nnarently i	n dov	entrend co	mnared to	200-day a	verage		
McDep Ratio = Market cap and <b>De</b> bt to <b>pr</b>						verage.		
Present Value presumes long-term prices of						4 1		



		Tab	ole ISC-3	3				
McDep Inco	ome an	d S	mall C	ap Enei	rgy Poi	rtfolio		
•				by EV/	_ <b>_</b>			
				J = 17				
			Price			Adjstd		
				Revenue	Dist/	Resrvs/	PV/	EV
	Symbol/		25-Jul	Royalty	Equity	Prod	Ebitda	Ebitda
	Rai	ing	2013	(%)	Ebitda	NTM	NTM	NTM
Small Cap Independent Producers								
Range Resources	RRC	В	81.39		-	13.6	15.7	14.5
PDC Energy	PDCE		55.15		_	15.0	9.2	10.6
Peyto Exploration and Development Cor			28.05		0.26	9.3	11.1	9.4
Birchcliff Energy Ltd.	BIREF	В	7.92		-	18.8	12.3	9.0
Continental Resources (32%)	CLR	В	92.50		_	9.8	7.4	6.5
Halcón Resources	HK		5.57		-	5.0	7.1	6.4
Berry Petroleum Company	BRY		40.20		_	12.1	7.4	6.0
Denbury Resources Inc.	DNR		17.51		_	13.9	6.8	5.7
Cimarex Energy Company	XEC	В	75.48		_	7.6	7.0	5.5
Whiting Petroleum Corporation	WLL	В	50.44		_	8.7	5.4	4.0
Median	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		50.11			10.9	7.4	6.4
Leveraged Cash Payers								
Linn Energy, LLC	LINE		27.09		1.19	14.0	10.7	10.9
Vanguard Natural Resources, LLC	VNR		27.89		1.02	11.0	9.2	10.6
Legacy Reserves L.P.	LGCY		28.00		0.85	11.0	9.3	10.0
Enerplus Corporation	ERF		16.34		0.40	6.5	6.9	6.4
Median						11.0	9.2	10.3
RTF Cash Payers								
Dorchester Minerals, L.P.	DMLP	В	24.10	77	0.95	7.0	14.5	13.4
Freehold Royalties Ltd.	FRHLF		23.13	86	0.88	4.9	11.4	12.5
Sabine Royalty Trust	SBR		51.25	100	1.00	8.9	14.8	11.9
San Juan Basin Royalty Trust	SJT	В	16.65		0.62	10.2	14.8	11.8
Cross Timbers Royalty Trust	CRT		27.80	98	0.90	13.0	16.8	11.1
Enduro Royalty Trust (40%)	NDRO		15.09		0.90	5.8	10.0	8.9
Mesa RoyaltyTrust	MTR		21.74		0.82	5.2	12.0	8.8
Hugoton RoyaltyTrust	HGT		9.12		0.89	13.0	11.4	8.7
Permian Basin RT	PBT		13.47	69	0.63	12.7	10.4	7.8
Median						8.9	12.0	11.1
D. D. CD. Co. and D. Co. and D.			1	1	4. 200 1			
B=Buy; CB=Contrarian Buy, Stock Price								
EV = Enterprise Value = Market Cap and							n	
and amortization; NTM = Next Twelve M				114; P/E = S	Stock Pric	e to		
Earnings; PV = Present Value of oil and § Top Line Cash Payers defined as those has				01.0.5				



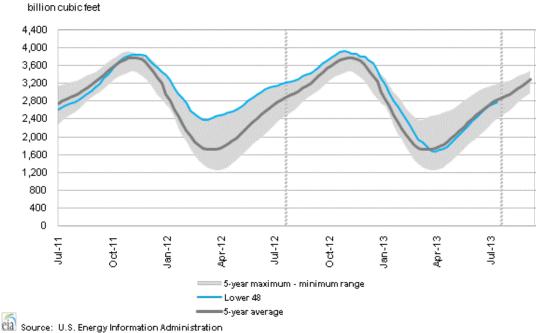
			Table I	SC-4					
McDep	Incom	e an	d Sma	ll Cap l	Energy	Portfoli	io		
•				_		omentur			
			Price	Equity					
			(\$/sh)	Total		Enterpris	e Value/		
	Symbol/		25-Jul	Return	52Wk	52Wk		200 Day	McDep
	Rai	ing	2013	YTD (%)	High	Low	Avg.	Avg.	Ratio
Small Cap Independent Producers									
PDC Energy	PDCE		55.15	64	0.97	1.65	1.03	1.19	1.14
<u> </u>	XEC	В	75.48	31	0.96	1.33	1.05	1.11	0.79
	CLR	В	92.50	26	0.96	1.38	1.05	1.11	0.87
` '	RRC	В	81.39	28	0.96	1.28	1.04	1.10	0.92
	WLL	В	50.44	15	0.94	1.21	1.04	1.06	0.74
Peyto Exploration and Development C		-	28.05	22	0.90	1.33	0.95	1.06	0.85
Birchcliff Energy Ltd.	BIREF	В	7.92	5	0.92	1.19	0.98	1.01	0.73
	DNR		17.51	9	0.93	1.14	0.98	1.01	0.83
	BRY		40.20	20	0.89	1.16	0.96	1.00	0.80
	HK		5.57	(21)	0.81	1.24	0.99	0.92	0.90
Median				21	0.93	1.26	1.01	1.06	0.84
Leveraged Cash Payers									
	ERF		16.34	31	0.96	1.24	1.04	1.09	0.94
	LGCY		28.00	23	0.96	1.15	1.03	1.04	1.07
	VNR		27.89	11	0.95	1.09	1.00	1.00	1.15
Linn Energy, LLC	LINE		27.09	(20)	0.78	1.14	0.93	0.85	1.02
Median				17	0.95	1.15	1.01	1.02	1.05
RTF Cash Payers									
Hugoton RoyaltyTrust	HGT		9.12	32	0.91	1.60	1.01	1.10	0.76
San Juan Basin Royalty Trust	SJT	В	16.65	25	0.93	1.35	1.05	1.11	0.79
Sabine Royalty Trust	SBR		51.25	34	0.91	1.32	0.98	1.06	0.80
Dorchester Minerals, L.P.	DMLP	В	24.10	25	0.94	1.21	0.98	1.05	0.93
Freehold Royalties Ltd.	FRHLF		23.13	9	0.95	1.22	1.00	1.03	1.10
Permian Basin RT	PBT		13.47	12	0.69	1.13	1.02	1.02	0.75
Cross Timbers Royalty Trust	CRT		27.80	7	0.70	1.18	1.00	0.99	0.66
Mesa RoyaltyTrust	MTR		21.74	17	0.69	1.17	0.97	0.94	0.73
Enduro Royalty Trust (40%)	NDRO		15.09	(7)	0.76	1.03	0.95	0.91	0.89
Median				17	0.91	1.21	1.00	1.03	0.79



#### Income and Small Cap Weekly

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#### Working gas in underground storage compared with the 5-year maximum and minimum



Source: 0.5. Energy information Administration

**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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