

MCDEP Income and Small Cap Weekly

Analysis of Oil & Gas Stocks September 20, 2013

Whiting Petroleum (WLL) Activity Attracts Attention

Symbol	WLL	Ebitda Next Twelve Months ending 9/30/14 (US\$mm)	2,343
Rating	Buy	North American Natural Gas/Ebitda (%)	4
Price (\$/sh)	56.20	Natural Gas and Oil Production/Ebitda (%)	100
Pricing Date	9/19/13	Adjusted Reserves/Production NTM	8.5
Shares (mm)	119	EV/Ebitda	3.8
Market Capitalization (\$mm)	6,690	PV/Ebitda	4.8
Debt (\$mm)	2,270	Undeveloped Reserves (%)	36
Enterprise Value (EV) (\$mm)	8,960	Natural Gas and Oil Ebitda (\$/boe)	64.10
Present Value (PV) (\$mm)	11,200	Present Value Proven Reserves(\$/boe)	29.60
Net Present Value (\$/share)	75	Oil and Gas Ebitda Margin (%)	78
Debt/Present Value	0.20	Earnings Next Twelve Months (US\$/sh)	6.30
McDep Ratio - EV/PV	0.80	Price/Earnings Next Twelve Months	9
Dividend Yield (%/year)	0.0	Indicated Annual Dividend (US\$/sh)	0.00
Note: Estimated cash flow	and earnings tied to or	ne-year futures prices for oil and natural gas.	
Reported results may	vary widely from est	imates. Estimated present value per share revised only infrequ	uently.
Estimated present va	lue presumes a long-te	erm price for oil of US\$90 a barrel and natural gas, \$6 a million	on btu.
For historical analysis	is of Whiting since 20	09 see www.mcdep.com/4wll.htm	

Summary and Recommendation

Making moves likely to boost Net Present Value (NPV) of \$75 a share, buyrecommended Whiting Petroleum (WLL) accelerates drilling of its Red Tail oil discovery, increases Bakken land to more than 700,000 acres and raises oil reserves despite the sale of mature properties. During all this activity since midyear, the company also completed a \$1.9 billion debt issue and acquired a half million acres in three new oil resource plays. Coincidentally with WLL's making news, a major oil company, Repsol, apparently is interested in acquiring a position in U.S. shale oil. Drilling on private lands in the U.S may seem especially appealing after the Spanish company had its Argentine oil investments abruptly expropriated by a socialist government. Logically, Repsol and Whiting ought to talk, but we have no confirmation of the fact. The company's declared inventory of 10,000 wells to drill could keep a larger company busy for years. Regardless of deal opportunity, WLL looks like an attractive investment on estimated NPV that gives less than full weight to latest disclosures (see tables Present Value on page 2, Operating and Financial Estimates on page 3 and Tables ISC-1 to ISC-3 on pages 4-6). Yet, favorable stock price performance by WLL and peers in 2013 may justify rebalancing in diversified portfolios.

Kurt H. Wulff, CFA

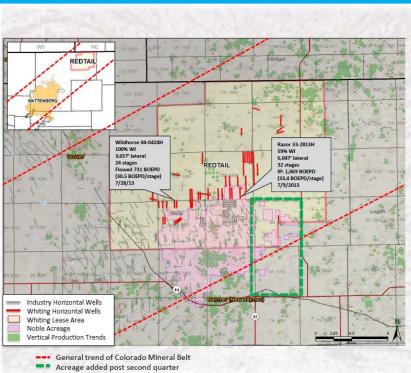


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Redtail Niobrara Prospect: Another Transformative Multi Year Project Weld County, Colorado (June 30, 2013)





OBJECTIVE

Niobrara "B" Shale Niobrara "A" Shale

DEVELOPMENT PLAN

Mix of 960 and 640-acre spacing units 8 Wells per spacing unit Niobrara "B" 4 Wells per spacing unit Niobrara "A"

ACREAGE

Whiting has assembled 120,513 gross (87,559 net) acres in our Redtail prospect in the northeastern portion of the DJ Basin.

- Average WI of 73%
- Average NRI of 59%

Subsequent to 2Q acquired 42,821 gross (32,506 net) acres. Approximately 50% of the gross/net acres lie in the core of our Redtail Prospect. Including this transaction, the average acquisition price for the Redtail Prospect equals \$431 per net acre.

COMPLETED WELL COST

Horizontal: \$4 MM to \$5.5 MM

DRILLING HIGHLIGHTS

Recently completed the Wildhorse 04-0424H flowing 731 BOEPD and the Razor 33-2813H flowing 1,069 BOEPD from the Niobrara "B" formation. Currently have two rigs drilling and plan to add a third rig in October.

Whiting P	etroleum C	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	84	7.4	10.7	900	8%				
Oil	2,259	8.6	4.6	10,300	92%				
	2,343	8.5	4.8	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	serve Life (U	JS\$/sh)		107				



		V	Vhiting P	etroleum	Corporati	on				
	Nex				and Financ		ates			
										Next
										Twelve
	<i>Q3</i>	Year	<i>Q</i> 2	Q3E	Q4E	Year	Q1E	Q2E	Q3E	Months
	9/30/12	2012	6/30/13	9/30/13	12/31/13	2013E	3/31/14	6/30/14	9/30/14	9/30/14
Volume										
Natural Gas (mmcfd)	69	71	72	72	72	71	72	72	72	72
Days	92	366	91	92	92	365	90	91	92	365
Oil (mmb)	6.6	26	7.4	7.4	7.7	29	7.9	8.3	8.4	32
Oil (mbd)	71	71	81	80	84	81	87	91	91	88
Total (mb)	7.6	30.2	8.5	8.5	8.8	33.8	8.9	9.4	9.5	37
Total (mbd)	83	83	93	92	96	93	99	103	103	100
Price										
Henry Hub (\$/mmbtu)	2.80	2.79	4.10	3.58	3.83	3.71	4.02	3.92	3.98	3.94
Differential (\$/mmbtu)	(0.59)	(0.63)	(0.17)	(0.15)	(0.16)	(0.24)	(0.17)	(0.17)	(0.17)	(0.17)
Company (\$/mcf)	3.39	3.42	4.27	3.73	4.00	3.95	4.19	4.09	4.15	4.11
WTI Cushing (\$/bbl)	92.22	94.16	94.22	106.27	105.85	100.19	102.00	98.47	95.78	100.52
Differential	15.92	15.05	9.87	11.13	11.09	10.62	10.68	10.31	10.03	10.64
Company (\$/bbl)	76.30	79.11	84.36	95.14	94.77	89.57	91.32	88.15	85.75	89.89
Total (\$/bbl)	68.55	70.76	76.83	85.69	85.96	81.10	83.36	80.76	78.68	82.11
Revenue (\$mm)										
Natural Gas	21	88	28	25	26	103	27	27	27	107
Oil	500	2,050	623	700	732	2,637	718	729	717	2,896
Total	521	2,138	651	725	759	2,740	745	755	744	3,003
Expense		- i								
Lease operating	94	377	105	104	106	415				
Production taxes	44	173	54	63	65	233				
General and administrative	25	108	29	55	32	145				
Total	163	658	188	221	203	793	227	230	-	660
Ebitda	358	1,480	463	504	555	1,947	518	525	744	2,343
Exploration	24	128	43	43	43	166	43	43	43	172
Deprec., Deplet., & Amort.	180	685	223	226	226	877	226	226	226	905
Other	2	(16)	(13)		20	2				20
Ebit	153	683	210	234	266	903	249	256	475	1,246
Interest	19	75	23	23	23	90	23	23	23	92
Ebt	134	608	187	211	243	813	226	233	452	1,154
Income Tax	47	213	65	74	85	285	79	82	158	404
Net Income (\$mm)	87	395	121	137	158	529	147	151	294	750
Per Share (\$)	0.73	3.32	1.02	1.15	1.33	4.44	1.23	1.27	2.47	6.30
Shares (millions)	119	119	119	119	119	119	119	119	119	119
Ebitda Margin	69%	69%	71%	69%	73%	71%	70%	70%	100%	78%
Tax rate	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%



				ble ISC-							
	•				Cap Energ	,,					
Debt, Se	gment	s, (Cash Fl	ow, In	come and	Mcl	Dep [Ratio			
			Price								
Svi	nbol/Rati	nο	(US\$/sh)	EV/	Enterprise	PV(%)	EV/	Dist.	Dist.	
5).	B = 1		19-Sep	Market	Value	Nat	, 0,	Ebitda	NTM	Yield	McDe
CE	(see bel		2013	Сар	(\$mm)	Gas	Oil	NTM	(\$/un)	(%)	Ratio
Cwall Can Indonesidant Duadwaana											
Small Cap Independent Producers PDC Energy	PDCE		59.29	1.43	2,630	32	68	12.0	_	-	1.20
Range Resources	RRC	В	78.83	1.43	16,180	74	26	13.4	0.16	0.2	0.90
Peyto Exploration and Development Co			29.34	1.18	5,150	80	20	9.7	0.75	2.6	0.90
Continental Resources (32%)	CLR	В	101.91	1.18	7,470	16	84	7.1	0.73	2.0	0.87
Cimarex Energy Company	XEC	В	91.63	1.18	9,330	43	57	5.9	0.56	0.6	0.87
Halcón Resources	HK	ь	4.81	2.47	5,230	8	92	5.4	-	-	0.83
Berry Petroleum Company	BRY		43.32	1.76	4,230	14	86	6.5	0.32	0.7	0.84
Denbury Resources Inc.	DNR		17.62	1.52	9,940	5	95	6.0	0.52	-	0.83
Whiting Petroleum Corporation	WLL	В	56.20	1.34	8,960	8	92	3.8	_	-	0.80
Birchcliff Energy Ltd.	BIREF			1.42	1,650	69	31	8.5	_	_	0.67
Total or Median			7.50	1.38	70,800	24	76	6.8			0.85
Leveraged Cash Payers											
Vanguard Natural Resources, LLC	VNR		28.00	1.48	3,120	41	59	10.1	2.46	8.8	1.08
Legacy Reserves L.P.	LGCY		27.25	1.64	2,560	24	76	9.6	2.32	8.5	1.05
Linn Energy, LLC	LINE		25.96	2.04	12,400	47	53	9.6	2.90	11.2	1.00
Enerplus Corporation	ERF		17.16	1.48	5,000	34	66	6.2	1.04	6.1	0.97
Total or Median	!			1.56	23,100	38	62	9.6		8.6	1.03
RTF Cash Payers											
Freehold Royalties Ltd.	FRHLF		22.83	TL	1,600	16	84	11.6	1.62	7.1	1.08
Dorchester Minerals, L.P.	DMLP	В	23.99	TL	740	54	46	10.4	1.89	7.9	0.92
Enduro Royalty Trust (40%)	NDRO		15.20	BL	200	48	52	8.7	1.51	9.9	0.90
Sabine Royalty Trust	SBR		51.25	TL	750	52	48	11.6	4.40	8.6	0.80
San Juan Basin Royalty Trust	SJT	В	16.69	BL	780	100	-	11.8	0.87	5.2	0.79
Mesa RoyaltyTrust	MTR		23.70	BL	44	75	25	9.6	2.00	8.4	0.79
Permian Basin RT	PBT		13.70	TL	640	19	81	8.1	1.06	7.7	0.76
Cross Timbers Royalty Trust	CRT		29.19	TL	180	70	30	9.8	2.72	9.3	0.69
Hugoton RoyaltyTrust	HGT		8.00	BL	320	90	10	8.0	0.88	11.1	0.67
Total or Median	:				5,300	54	46	9.8		8.4	0.79
CB=Contrarian Buy, Stock Price appare	ntly in do	symt	rend comp	ared to 20	M-day averag						
McDep Ratio = Market cap and Debt to											
Present Value (PV) presumes long-term							ngture	al cae			
Dist. = Income distribution. $NTM = Ne$									arket Car	and D	aht
TL = Top Line income sources, BL = Both					oci 50, 2014.	Enter	л15С V	aruc – IVI	an NCI Cd	anu D	ou.



	'	Table	e ISC-2					
McDep Inco	me and	l Sn	nall Cap	Energ	y Portf	olio		
Net Pr					•			
				1				
			Price			Net		
			(\$/sh)		Market	Present	Debt/	
	Symbol/		19-Sep	Shares	Cap	Value	Present	McDep
	Ra	ting	2013	(mm)	(\$mm)	(\$/un)	Value	Ratio
Small Cap Independent Producers								
PDC Energy	PDCE		59.29	31.0	1,840	45.00	0.36	1.20
Range Resources	RRC	В	78.83	161.0	12,690	90.00	0.19	0.90
Peyto Exploration and Development Corp.	PEYUF		29.34	149.0	4,370	34.00	0.13	0.88
Continental Resources (32%)	CLR	В	101.91	59.2	6,030	120.00	0.17	0.87
Cimarex Energy Company	XEC	В	91.63	86.5	7,930	110.00	0.13	0.85
Halcón Resources	HK		4.81	441.0	2,120	7.00	0.50	0.84
Berry Petroleum Company	BRY		43.32	55.3	2,400	58.00	0.36	0.84
Denbury Resources Inc.	DNR		17.62	372.0	6,550	23.00	0.28	0.83
Whiting Petroleum Corporation	WLL	В	56.20	119.0	6,690	75.00	0.20	0.80
Birchcliff Energy Ltd.	BIREF	CB	7.00	166.0	1,160	12.00	0.20	0.67
Total or Median					51,780		0.20	0.85
Leveraged Cash Payers								
Vanguard Natural Resources, LLC	VNR		28.00	75.0	2,100	25.00	0.35	1.08
Legacy Reserves L.P.	LGCY		27.25	57.3	1,560	25.00	0.41	1.05
Linn Energy, LLC	LINE		25.96	234.0	6,080	26.00	0.51	1.00
Enerplus Corporation	ERF		17.16	196.0	3,360	18.00	0.32	0.97
Total or Median					13,100		0.38	1.03
RTF Cash Payers								
Freehold Royalties Ltd.	FRHLF		22.83	66.8	1,530	21.00	0.05	1.08
Dorchester Minerals, L.P.	DMLP	В	23.99	30.7	740	26.00	_	0.92
Enduro Royalty Trust (40%)	NDRO		15.20	13.2	200	17.00	-	0.90
Sabine Royalty Trust	SBR		51.25	14.6	750	64.00	-	0.80
San Juan Basin Royalty Trust	SJT	В	16.69	46.6	780	21.00	-	0.79
Mesa RoyaltyTrust	MTR		23.70	1.9	44	30.00	-	0.79
Permian Basin RT	PBT		13.70	46.6	640	18.00	-	0.76
Cross Timbers Royalty Trust	CRT		29.19	6.0	180	42.00	-	0.69
Hugoton RoyaltyTrust	HGT		8.00	40.0	320	12.00	-	0.67
Total or Median					5,180			0.79
B=Buy; CB=Contrarian Buy, Stock Price a	pparently i	n dov	vntrend co	mpared to	200-dav a	verage.		
McDep Ratio = \mathbf{M} arket \mathbf{c} ap and \mathbf{D} ebt to \mathbf{p} re								
Present Value presumes long-term prices of						natural gas		
Recent NPV Changes: CLR to \$120 from								



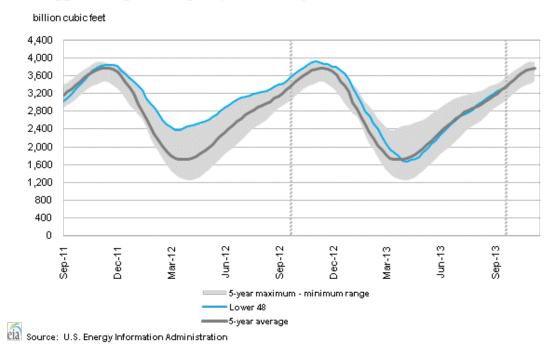
		Tab	le ISC-3	3				
McDep Inco	ome an	d S	mall C	ap Enei	rgy Por	tfolio		
Value	Multip	les -	- Rank	by EV/	Ebitda			
	_							
			Price			Adjstd		
				Revenue	Dist/	Resrvs/	PV/	EV
	Symbol/		19-Sep	Royalty	Equity	Prod	Ebitda	Ebitda
	Rai	ting	2013	(%)	Ebitda	NTM	NTM	NTM
Small Cap Independent Producers								
Range Resources	RRC	В	78.83		_	13.1	14.9	13.4
PDC Energy	PDCE		59.29		-	15.3	10.0	12.0
Peyto Exploration and Development Corp			29.34		0.24	8.9	11.0	9.7
Birchcliff Energy Ltd.	BIREF	СВ	7.00		-	18.6	12.8	8.5
Continental Resources (32%)	CLR	В	101.91		-	11.4	8.1	7.1
Berry Petroleum Company	BRY		43.32		-	12.2	7.8	6.5
Denbury Resources Inc.	DNR		17.62		-	13.6	7.2	6.0
Cimarex Energy Company	XEC	В	91.63		-	7.4	6.9	5.9
Halcón Resources	HK		4.81		-	4.2	6.4	5.4
Whiting Petroleum Corporation	WLL	В	56.20		-	8.5	4.8	3.8
Median						11.8	7.9	6.8
Leveraged Cash Payers								
Vanguard Natural Resources, LLC	VNR		28.00		0.92	9.9	9.4	10.1
Linn Energy, LLC	LINE		25.96		1.07	13.5	9.6	9.6
Legacy Reserves L.P.	LGCY		27.25		0.85	11.1	9.1	9.6
Enerplus Corporation	ERF		17.16		0.37	6.6	6.4	6.2
Median						10.5	9.2	9.6
RTF Cash Payers								
San Juan Basin Royalty Trust	SJT	В	16.69		0.62	10.2	14.8	11.8
Sabine Royalty Trust	SBR	ь	51.25	100	1.00	9.0	14.5	11.6
Freehold Royalties Ltd.	FRHLF		22.83	86	0.82	4.8	10.7	11.6
Dorchester Minerals, L.P.	DMLP	В	23.99	75	0.82	7.3	11.3	10.4
Cross Timbers Royalty Trust	CRT		29.19	90	0.92	12.6	14.1	9.8
Mesa RoyaltyTrust	MTR		23.70	70	0.82	5.0	12.2	9.6
Enduro Royalty Trust (40%)	NDRO		15.20		0.87	5.8	9.8	8.7
Permian Basin RT	PBT		13.70	69	0.62	12.7	10.6	8.1
Hugoton RoyaltyTrust	HGT		8.00		0.88	13.3	11.9	8.0
Median	-101		0.00		0.00	9.0	11.9	9.8
D. D. CD. Co. do '. D. Ct. J. 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				30, 2014; I	P/E = Stoc	k Price to		
Earnings; PV = Present Value of oil and g Top Line Cash Payers defined as those ha				C' C.1	1 C	. 1.0		



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



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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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. Hold recommendations assume the attributes of the underlying business are reflected in the current price of the stock. Sell recommendations are expected to deliver a total return less than inflation.