



Income and Small Cap Weekly

Analysis of Oil & Gas Stocks

January 27, 2012

PDC Energy (PETD)

Raise NPV to \$40 from \$36 on Reserves and Production

<i>Symbol</i>	PETD	<i>Ebitda Next Twelve Months ending 12/31/12 (US\$m)</i>	168
<i>Rating</i>		<i>North American Natural Gas/Ebitda (%)</i>	24
<i>Price (\$/sh)</i>	33.30	<i>Natural Gas and Oil Production/Ebitda (%)</i>	100
<i>Pricing Date</i>	1/26/12	<i>Adjusted Reserves/Production NTM</i>	8.2
<i>Shares (mm)</i>	24	<i>EV/Ebitda</i>	7.0
<i>Market Capitalization (\$mm)</i>	790	<i>PV/Ebitda</i>	7.9
<i>Debt (\$mm)</i>	370	<i>Undeveloped Reserves (%)</i>	52
<i>Enterprise Value (EV) (\$mm)</i>	1,170	<i>Natural Gas and Oil Ebitda (\$/boe)</i>	19.10
<i>Present Value (PV) (\$mm)</i>	1,330	<i>Present Value Proven Reserves(\$/boe)</i>	8.40
<i>Net Present Value (\$/share)</i>	40	<i>Oil and Gas Ebitda Margin (%)</i>	50
<i>Debt/Present Value</i>	0.28	<i>Earnings Next Twelve Months (US\$/sh)</i>	0.19
<i>McDep Ratio - EV/PV</i>	0.88	<i>Price/Earnings Next Twelve Months</i>	172
<i>Dividend Yield (%/year)</i>	0.0	<i>Indicated Annual Dividend (US\$/sh)</i>	0.00
Note: Estimated cash flow and earnings tied to one-year futures prices for natural gas and oil.			
Reported results may vary widely from estimates. Estimated present value per share revised only infrequently.			
Estimated present value presumes a long-term price for oil of US\$100 a barrel and natural gas, \$6 a million btu.			

Summary and Recommendation

Rapidly growing small cap independent producer **PDC Energy (PETD)** offers 14% unlevered appreciation potential to estimated Net Present Value (NPV) of \$40 a share, up from \$36. Preliminary 2011 operating results reported on January 26 scored a 10% increase in reserves after replacing production that increased 19%, adjusted for a sale expected to close in the first quarter of 2012. Higher reserves help support estimates of higher 2012 production, higher cash flow and higher present value (see tables [Functional Cash Flow and Present Value](#) on page 2 and [Next Twelve Months Operating and Financial Estimates](#) on page 2). The best prospects for exceeding expectations in the future appear to be oil drilling in the Niobrara shale in Colorado's Wattenberg field and success in validating the promise of oil in Ohio's Utica shale. Investor enthusiasm for natural gas in West Virginia's Marcellus shale and Colorado's tight formations in the Piceance Basin may be postponed for a season as warm weather depresses winter heating demand. On the new estimate, PDC stock is priced at a McDep Ratio of 0.88, which recognizes most of the company's proven resources without paying much recognition to a high growth rate. As we count proceeds expected from a closing in the next two months, debt has been lowered from a high level to more sustainable EV/Market Cap at 1.47 (Table ISC-1) and Debt/Present Value at 0.28 (Table ISC-2). Unlevered cash flow multiple (EV/Ebitda) at a low 6.9 is covered by reserve life index of 8.2 (see Tables ISC-3 on page 5). PDC is among the few peers with stock price in an uptrend compared to its 200-day average (see Table ISC-4 on page 6). The smallest of the growth-oriented exploration companies in our coverage, PDC may have more upside surprise as an experienced management pursues exciting U.S. oil and gas opportunities.

Kurt H. Wulff, CFA



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Analysis of Oil & Gas Stocks

January 27, 2012

Petroleum Development Corporation (Doing Business as PDC Energy)					
Functional Cash Flow and Present Value					
	NTM Ebitda	Adjusted	PV/	Present	
	(US\$m)	R/P	Ebitda	Value	
				(US\$m)	
North American Natural Gas	41	14.9	17.6	720	55%
Oil	127	4.0	4.7	600	45%
	168	8.2	7.9	1,320	100%
Debt (US\$m)					370
Net Present Value (US\$m)					950
Shares (mm)					24
Net Present Value - Standard Estimate (US\$/sh)					40
NPV Approximation by Cash Flow Multiple Depending on Reserve Life (US\$/sh)					48

Petroleum Development Corporation (Doing Business as PDC Energy)									
Next Twelve Months Operating and Financial Estimates									
	Q2	Q3	Q4E	Year	Q1E	Q2E	Q3E	Q4E	Next
	6/30/11	9/30/11	12/31/11	2011E	3/31/12	6/30/12	9/30/12	12/31/12	Twelve
									Months
									12/31/12
Volume									
Natural Gas (mmcf)	83	81	91	85	90	90	90	90	90
Oil (mbd)	6.3	8.3	9.2	7.5	9.0	9.0	9.0	9.0	9.0
Total (mb)	1,829	2,006	2,242	7,900	2,184	2,184	2,208	2,208	8,784
Total (mbd)	20.1	21.8	24.4	21.6	24.0	24.0	24.0	24.0	24.0
Price									
Henry Hub (\$/mmbtu)	4.32	4.19	3.55	4.04	2.74	2.82	2.98	3.23	2.94
Differential	0.79	0.66	0.56	0.77	0.43	0.45	0.47	0.51	0.46
Company (\$/mcf)	3.53	3.53	2.99	3.27	2.31	2.38	2.51	2.72	2.48
WTI Cushing (\$/bbl)	102.55	89.76	94.06	95.12	99.90	100.20	100.69	100.57	100.34
Differential	23.27	20.34	21.31	21.61	22.63	22.70	22.81	22.79	22.73
Company	79.28	69.42	72.75	73.51	77.26	77.50	77.87	77.78	77.60
Total (\$/bbl)	39.51	39.58	38.63	38.19	37.63	37.97	38.60	39.35	38.39
Revenue (\$mm)									
Natural Gas	27	26	25	102	19	19	21	22	82
Oil	46	53	62	200	63	63	64	64	256
Total	72	79	87	302	82	83	85	87	337
Expense									
Lease operating	20	16							-
General and administrative	20	14							-
Total	39	30	44	147	41	42	43	44	170
Ebitda	33	50	43	155	41	41	42	43	168
Exploration	2	2	2	7	2	2	2	2	7
Deprec., Deplet., & Amort.	33	34	34	134	34	34	34	34	137
Other, incl hedge	(23)	(6)	(6)	(16)	(6)	(6)	(6)	(6)	(23)
Ebit	22	20	13	30	11	11	12	13	47
Interest	9	10	10	38	10	10	10	10	40
Ebt	13	10	3	(8)	1	1	2	3	7
Income Tax	3	4	1	(6)	0	0	1	1	2
Net Income (\$mm)	9	7	2	(2)	0	1	1	2	5
Per Share (\$)	0.39	0.28	0.08	(0.10)	0.02	0.03	0.06	0.08	0.19
Shares (millions)	23.7	23.8	23.8	20.8	23.8	23.8	23.8	23.8	23.8
Ebitda Margin	46%	63%	50%	51%	50%	50%	50%	50%	50%
Tax rate	27%	35%	35%	73%	35%	35%	35%	35%	35%



Income and Small Cap Weekly

Analysis of Oil & Gas Stocks

January 27, 2012

Table ISC-1										
McDep Income and Small Cap Energy Portfolio										
Debt, Segments, Cash Flow, Income and McDep Ratio										
		Price								
Symbol/Rating		(US\$/sh)	EV/	Enterprise	PV(%)		EV/	Dist.	Dist.	
B = Buy	26-Jan	Market	Value	Nat	Oil	Ebitda	NTM	Yield	McDep	
CB (see below)	2012	Cap	(\$mm)	Gas		NTM	(\$/un)	(%)	Ratio	
Small Cap Independent Producers										
PDC Energy	PETD	33.30	1.47	1,160	55	45	6.9	-	-	0.88
Peyto Exploration and Developmen	PEYUF	19.78	1.21	3,170	75	25	11.3	0.71	3.6	0.85
Range Resources	RRC CB	55.92	1.25	11,090	66	34	14.8	0.16	0.3	0.83
Birchcliff Energy Ltd.	BIREF CB	12.68	1.25	2,070	56	44	12.7	-	-	0.83
Berry Petroleum Company	BRY	45.83	1.57	3,950	17	83	6.1	0.32	0.7	0.75
Denbury Resources Inc.	DNR	18.61	1.33	9,990	4	96	6.2	-	-	0.73
Whiting Petroleum Corporation	WLL CB	50.38	1.27	7,610	9	91	4.6	-	-	0.63
Cimarex Energy Company	XEC CB	57.53	1.15	5,720	41	59	4.6	0.40	0.7	0.56
<i>Total or Median</i>				44,800			6.6			0.79
Top Line Cash Payers										
Cross Timbers Royalty Trust	CRT	46.59	1.00	280	87	13		2.49	5.4	1.06
Permian Basin RT	PBT	20.62	1.00	960	37	63		1.48	7.2	1.03
Freehold Royalties Ltd.	FRHLF	20.51	1.06	1,270	14	86		1.66	8.1	0.98
Sabine Royalty Trust	SBR	61.88	1.00	900	55	45		3.97	6.4	0.95
Dorchester Minerals, L.P.	DMLP CB	22.31	1.00	680	57	43		1.75	7.8	0.83
<i>Total or Median</i>				4,100					7.2	0.98
Bottom Line Cash Payers										
Linn Energy, LLC	LINE	37.28	1.45	9,530	29	71	13.6	2.76	7.4	1.16
Vanguard Natural Resources, LLC	VNR	27.79	1.54	2,080	26	74	10.2	2.31	8.3	1.07
Enduro Royalty Trust (40%)	NDRO	20.83	1.00	280	45	55	7.5	1.68	8.0	0.99
Legacy Reserves L.P.	LGCY	28.99	1.40	1,770	19	81	8.6	2.18	7.5	0.98
San Juan Basin Royalty Trust	SJT CB	19.69	1.00	920	100	-	16.5	0.86	4.4	0.94
Hugoton RoyaltyTrust	HGT	15.38	1.00	620	87	13	16.5	0.79	5.1	0.90
Mesa RoyaltyTrust	MTR	40.96	1.00	76	75	25	11.7	3.06	7.5	0.85
Enerplus Corporation	ERF CB	23.43	1.21	5,600	26	74	6.6	2.14	9.1	0.73
<i>Total or Median</i>				20,900			10.9		7.5	0.96
Composite										
<i>Enterprise Value Weighting</i>				69,700	34	66				0.79
<i>Equal Weighting</i>					47	53				0.88
<i>Equal Weighted Buys</i>					42	58				0.76

CB=Contrarian Buy, Stock Price apparently in downtrend compared to 200-day average.

McDep Ratio = Market cap and Debt to present value of oil and gas and other businesses.

Present Value (PV) presumes long-term prices of \$100 a barrel for oil and \$6 a million btu for natural gas.

Dist. = Income distribution. NTM = Next Twelve Months Ended December 31, 2012. Enterprise Value = Market Cap and Debt.



Income and Small Cap Weekly

Analysis of Oil & Gas Stocks

January 27, 2012

Table ISC-2							
McDep Income and Small Cap Energy Portfolio							
Net Present Value and McDep Ratio							
		Price		Market	Net	Debt/	
	Symbol/	(\$/sh)	Shares	Cap	Present	Present	McDep
	Rating	26-Jan	(mm)	(\$mm)	Value	Value	Ratio
		2012			(\$/un)		
Small Cap Independent Producers							
PDC Energy	PETD	33.30	23.8	790	40.00	0.28	0.88
Peyto Exploration and Development Cor	PEYUF	19.78	133.1	2,630	24.00	0.15	0.85
Range Resources	RRC CB	55.92	159.0	8,890	70.00	0.17	0.83
Birchcliff Energy Ltd.	BIREF CB	12.68	131.0	1,660	16.00	0.16	0.83
Berry Petroleum Company	BRY	45.83	54.7	2,510	70.00	0.27	0.75
Denbury Resources Inc.	DNR	18.61	403.0	7,500	28.00	0.18	0.73
Whiting Petroleum Corporation	WLL CB	50.38	119.0	6,000	88.00	0.13	0.63
Cimarex Energy Company	XEC CB	57.53	86.2	4,960	110.00	0.07	0.56
<i>Total or Median</i>				34,940		0.16	0.79
Top Line Cash Payers							
Cross Timbers Royalty Trust	CRT	46.59	6.0	280	44.00	-	1.06
Permian Basin RT	PBT	20.62	46.6	960	20.00	-	1.03
Freehold Royalties Ltd.	FRHLF	20.51	58.8	1,210	21.00	0.05	0.98
Sabine Royalty Trust	SBR	61.88	14.6	900	65.00	-	0.95
Dorchester Minerals, L.P.	DMLP CB	22.31	30.7	680	27.00	-	0.83
<i>Total or Median</i>				4,030			0.98
Bottom Line Cash Payers							
Linn Energy, LLC	LINE	37.28	176.0	6,560	30.00	0.36	1.16
Vanguard Natural Resources, LLC	VNR	27.79	48.8	1,360	25.00	0.37	1.07
Enduro Royalty Trust (40%)	NDRO	20.83	13.2	280	21.00	-	0.99
Legacy Reserves L.P.	LGCY	28.99	43.6	1,260	30.00	0.28	0.98
San Juan Basin Royalty Trust	SJT CB	19.69	46.6	920	21.00	-	0.94
Hugoton Royalty Trust	HGT	15.38	40.0	620	17.00	-	0.90
Mesa Royalty Trust	MTR	40.96	1.9	76	48.00	-	0.85
Enerplus Corporation	ERF CB	23.43	196.0	4,590	34.00	0.13	0.73
<i>Total or Median</i>				15,670			0.96
B=Buy; CB=Contrarian Buy, Stock Price apparently in downtrend compared to 200-day average.							
McDep Ratio = Market cap and Debt to present value of oil and gas and other businesses							
Present Value presumes long-term prices of \$100 a barrel for oil and \$6 a million btu for natural gas.							



Income and Small Cap Weekly

Analysis of Oil & Gas Stocks

January 27, 2012

Table ISC-3								
McDep Income and Small Cap Energy Portfolio								
Value Multiples - Rank by EV/Ebitda								
			Price (\$/sh)	Revenue	Dist/ Equity	Adjstd Resrvs/ Prod	PV/ Ebitda	EV/ Ebitda
	Symbol/ Rating		26-Jan 2012	Royalty (%)	Ebitda	NTM	NTM	NTM
Small Cap Independent Producers								
Range Resources	RRC	CB	55.92		-	15.2	17.8	14.8
Birchcliff Energy Ltd.	BIREF	CB	12.68		-	19.3	15.3	12.7
Peyto Exploration and Development Corp	PEYUF		19.78		0.40	12.9	13.3	11.3
PDC Energy	PETD		33.30		-	8.2	7.9	6.9
Denbury Resources Inc.	DNR		18.61		-	12.6	8.6	6.2
Berry Petroleum Company	BRY		45.83		-	11.4	8.2	6.1
Whiting Petroleum Corporation	WLL	CB	50.38		-	10.2	7.4	4.6
Cimarex Energy Company	XEC	CB	57.53		-	6.9	8.2	4.6
	<i>Median</i>					12.0	8.4	6.6
Top Line Cash Payers								
Cross Timbers Royalty Trust	CRT		46.59	80	0.96	14.1	17.0	18.0
Sabine Royalty Trust	SBR		61.88	100	1.00	7.3	16.4	15.6
Permian Basin RT	PBT		20.62	32	0.98	17.2	13.3	13.7
Dorchester Minerals, L.P.	DMLP	CB	22.31	77	0.84	6.1	13.0	10.7
Freehold Royalties Ltd.	FRHLF		20.51	71	0.84	6.7	10.7	10.4
	<i>Median</i>					7.3	13.3	13.7
Bottom Line Cash Payers								
Hugoton Royalty Trust	HGT		15.38		0.85	14.0	18.3	16.5
San Juan Basin Royalty Trust	SJT	CB	19.69		0.72	8.5	17.6	16.5
Linn Energy, LLC	LINE		37.28		1.08	16.2	11.8	13.6
Mesa Royalty Trust	MTR		40.96		0.88	13.9	13.7	11.7
Vanguard Natural Resources, LLC	VNR		27.79		0.88	8.7	9.5	10.2
Legacy Reserves L.P.	LGCY		28.99		0.64	9.9	8.8	8.6
Enduro Royalty Trust (40%)	NDRO		20.83		0.60	5.7	7.6	7.5
Enerplus Corporation	ERF	CB	23.43		0.57	8.1	9.1	6.6
	<i>Median</i>					9.3	10.7	10.9
B=Buy; CB=Contrarian Buy, Stock Price apparently in downtrend compared to 200-day average.								
EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation								
and amortization; NTM = Next Twelve Months Ended December 31, 2012; P/E = Stock Price to								
Earnings; PV = Present Value of oil and gas and other businesses								
Top Line Cash Payers defined as those having Revenue Royalty (see fifth column from right).								



Income and Small Cap Weekly

Analysis of Oil & Gas Stocks

January 27, 2012

Table ISC-4								
Oil and Gas Income and Small Cap Stocks								
Rank by Enterprise Value to 200 Day Average								
			Price (\$/sh)	Enterprise Value/				
	Symbol/ Rating		26-Jan 2012	52Wk High	52Wk Low	50 Day Avg.	200 Day Avg.	McDep Ratio
Small Cap Independent Producers								
	Denbury Resources Inc.	DNR	18.61	0.77	1.51	1.10	1.05	0.73
	PDC Energy	PETD	33.30	0.75	1.59	0.99	1.05	0.88
	Berry Petroleum Company	BRY	45.83	0.83	1.27	1.06	1.00	0.75
	Birchcliff Energy Ltd.	BIREF CB	12.68	0.85	1.22	0.97	0.97	0.83
	Whiting Petroleum Corporation	WLL CB	50.38	0.71	1.51	1.04	0.97	0.63
	Range Resources	RRC CB	55.92	0.77	1.16	0.90	0.94	0.83
	Peyto Exploration and Development C	PEYUF	19.78	0.80	1.10	0.88	0.92	0.85
	Cimarex Energy Company	XEC CB	57.53	0.52	1.11	0.92	0.79	0.56
	<i>Median</i>			<i>0.77</i>	<i>1.24</i>	<i>0.98</i>	<i>0.97</i>	<i>0.79</i>
Top Line Cash Payers								
	Freehold Royalties Ltd.	FRHLF	20.51	0.85	1.46	1.08	1.04	0.98
	Cross Timbers Royalty Trust	CRT	46.59	0.92	1.23	0.98	1.03	1.06
	Permian Basin RT	PBT	20.62	0.88	1.14	1.02	0.98	1.03
	Sabine Royalty Trust	SBR	61.88	0.88	1.30	0.96	0.96	0.95
	Dorchester Minerals, L.P.	DMLP CB	22.31	0.74	1.07	0.98	0.89	0.83
	<i>Median</i>			<i>0.88</i>	<i>1.23</i>	<i>0.98</i>	<i>0.98</i>	<i>0.98</i>
Bottom Line Cash Payers								
	Legacy Reserves L.P.	LGCY	28.99	0.90	1.21	1.04	1.01	0.98
	Linn Energy, LLC	LINE	37.28	0.93	1.13	1.00	0.99	1.16
	Vanguard Natural Resources, LLC	VNR	27.79	0.88	1.16	1.01	0.99	1.07
	Mesa RoyaltyTrust	MTR	40.96	0.81	1.12	0.98	0.93	0.85
	Enerplus Corporation	ERF CB	23.43	0.75	1.07	0.94	0.86	0.73
	San Juan Basin Royalty Trust	SJT CB	19.69	0.70	1.11	0.87	0.83	0.94
	Hugoton RoyaltyTrust	HGT	15.38	0.62	1.11	0.80	0.71	0.90
	<i>Median</i>			<i>0.81</i>	<i>1.12</i>	<i>0.98</i>	<i>0.93</i>	<i>0.94</i>

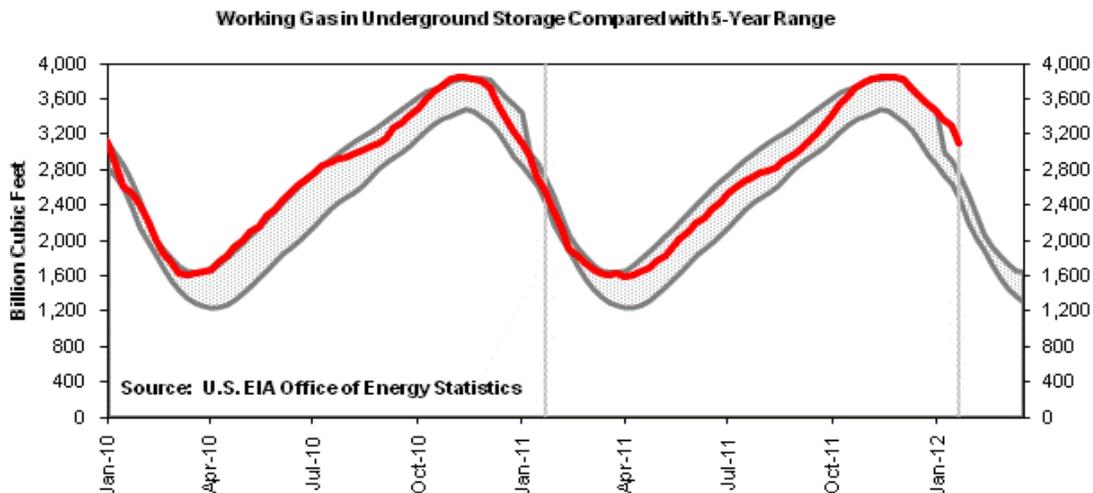
CB=Contrarian Buy, Stock Price apparently in downtrend compared to 200-day average.



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