



Income and Small Cap Weekly

Analysis of Oil & Gas Stocks

July 27, 2012

Range Resources (RRC) Oil-Enhanced Natural Gas Growth

<i>Symbol</i>	RRC	<i>Ebitda Next Twelve Months ending 6/30/13 (US\$m)</i>	860
<i>Rating</i>	Contrarian Buy	<i>North American Natural Gas/Ebitda (%)</i>	62
<i>Price (\$/sh)</i>	61.17	<i>Natural Gas and Oil Production/Ebitda (%)</i>	100
<i>Pricing Date</i>	7/26/12	<i>Adjusted Reserves/Production NTM</i>	15.1
<i>Shares (mm)</i>	160	<i>EV/Ebitda</i>	15.1
<i>Market Capitalization (\$mm)</i>	9,790	<i>PV/Ebitda</i>	16.7
<i>Debt (\$mm)</i>	3,170	<i>Undeveloped Reserves (%)</i>	53
<i>Enterprise Value (EV) (\$mm)</i>	12,950	<i>Natural Gas and Oil Ebitda (\$/boe)</i>	18.20
<i>Present Value (PV) (\$mm)</i>	14,370	<i>Present Value Proven Reserves(\$/boe)</i>	14.80
<i>Net Present Value (\$/share)</i>	70	<i>Oil and Gas Ebitda Margin (%)</i>	73
<i>Debt/Present Value</i>	0.22	<i>Earnings Next Twelve Months (US\$/sh)</i>	0.87
<i>McDep Ratio - EV/PV</i>	0.90	<i>Price/Earnings Next Twelve Months</i>	70
<i>Dividend Yield (%/year)</i>	0.3	<i>Indicated Annual Dividend (US\$/sh)</i>	0.16
Note: Estimated cash flow and earnings tied to one-year futures prices for oil and natural gas.			
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

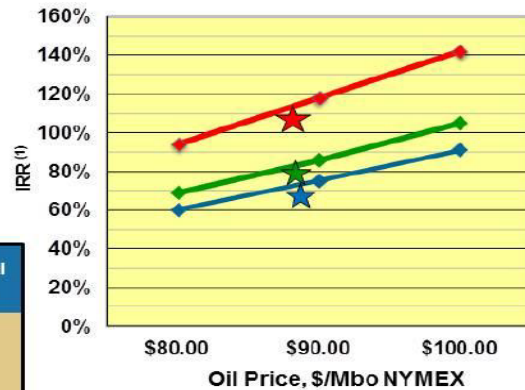
Estimated Net Present Value (NPV) of \$70 a share for Contrarian Buy **Range Resources (RRC)** appears to have more than normal appreciation potential as the independent producer demonstrates more oil opportunity on its lands to enhance high volume growth in natural gas. Wells drilled in 2012 in the Mississippi Limestone in Oklahoma point to returns on development investment exceeding 100% a year (see slide Horizontal Mississippian on page 2). Further drilling in Pennsylvania where natural gas includes more liquid hydrocarbons suggests a return of 80% a year (see slide SW PA Super-Rich Marcellus on page 2). In another shale oil play at an earlier stage of development, RRC looks to a 30% rate of return in the Cline formation in the Permian Basin (see slide West Texas Oil Cline Shale on page 3). Meanwhile, current production of natural gas and oil grew 40% in the second quarter of 2012 compared to the previous year and in excess of our expectations from three months ago (see table Next Twelve Months Operating and Financial Estimates on page 4). Yet, natural gas price declined more than 50%. The net result was a decline in cash flow (Ebitda), which we calculate before taking account of offsetting hedging gains. However, the last quarter was a low point as current natural gas price has recovered and future prices indicate further gains. Prudently, the company is restrained in applying financial leverage measured by Enterprise Value to Market Cap of 1.32 (see Table ISC-1 on page 5) and Debt/Present Value of 0.22 (see Table ISC-2 on page 6). Still, a high cash flow multiple (EV/Ebitda) may mean that future stock price appreciation could be gradual along with volume growth, natural gas price and the realization of oil opportunity (see Table ISC-3 on page 7). Finally, the return of upward stock price momentum may be closer as 18 of 23 stocks trade above 50 day averages compared to 1 in early June (see Table ISC-4 on page 8).

Kurt H. Wulff, CFA

Horizontal Mississippiian Projected Development Mode Economics

- EUR – 400 Mboe 500 Mboe 600 Mboe
- Drill & Complete Capital \$3.1MM on 400 & 500 Mboe
- Drill & Complete Capital \$3.4MM on 600 Mboe
 - All cases includes \$200 M for SWD
- F&D – \$ 9.78/boe – (400 Mboe)
 \$ 7.89/boe – (500 Mboe)
 \$ 7.27/boe – (600 Mboe)

NYMEX Oil Price	2200' Lateral		3500' Lateral
	400 Mboe	500 Mboe	600 Mboe
Strip ⁽²⁾ -	67%	77%	105%
\$ 80.00 -	60%	69%	96%
\$ 90.00 -	75%	86%	118%
\$ 100.00 -	91%	105%	142%



- ★ Strip pricing NPV10 = \$3.9MM 400 Mboe
- ★ Strip pricing NPV10 = \$4.6MM 500 Mboe
- ★ Strip pricing NPV10 = \$7.1MM 600 Mboe

(1) Includes gathering, pipeline and processing costs
 (2) Strip dated 06/29/12 with 10 year average \$86.97/bbl and \$4.35/mcf



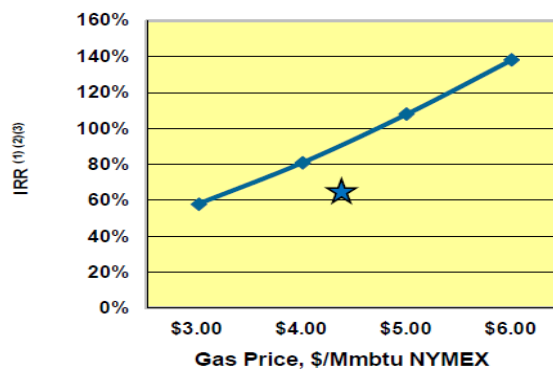
28

SW PA Wet Marcellus Projected Development Mode Economics

- Southwestern PA – (wet gas case) with Pennsylvania State Impact Fee
- EUR – 281 MBBls & 4.2 BCF (Based on 188 wells completed in 2009, 2010 & 2011)
- Drill and Complete Capital \$4.0MM
- F&D – \$ 0.80/mcfe – (5.9 Bcfe)

NYMEX Gas Price	281 MBBls & 4.2 BCF
Strip ⁽⁴⁾ -	64%
\$3.00 -	58%
\$4.00 -	81%
\$5.00 -	108%
\$6.00 -	138%

2,981' lateral length & 10 stages



- ★ Strip pricing NPV10 = \$6.9 MM

(1) Includes gathering, pipeline and processing costs
 (2) Oil price assumed to be \$90.00/bbl in all scenarios
 (3) No ethane recovery is included in economics
 (4) Strip dated 06/29/12 with 10 year average \$86.97/bbl and \$4.35/mcf

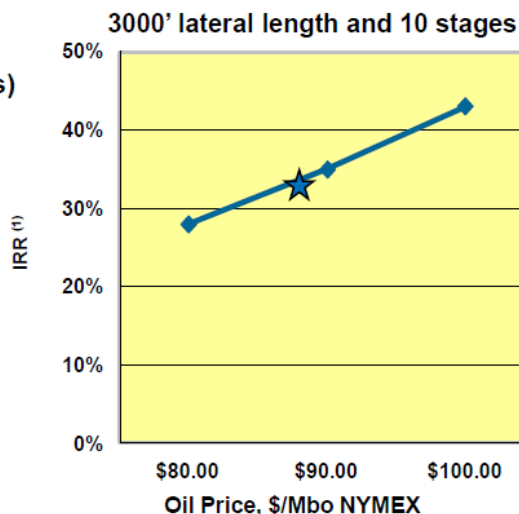


17

West Texas Oil Cline Shale Projected Development Mode Economics

- EUR – 340 Mboe (2 wells)
- (210 Mbbl oil, 71 Mbbl ngl, 353 Mmcf gas)
- Drill and Complete Capital \$4.3MM
- F&D –\$16.86/boe

NYMEX Oil Price	340 Mboe
Strip ⁽²⁾	- 31%
\$ 80.00	- 28%
\$ 90.00	- 35%
\$100.00	- 43%



★ Strip pricing NPV10 = \$3.1 MM

(1) Includes gathering, pipeline and processing costs

(2) Strip dated 06/29/12 with 10 year average \$86.97/bbl and \$4.35/mcf

Range Resources Corporation					
Functional Cash Flow and Present Value					
	NTM Ebitda	Adjusted	PV/	Present	
	(US\$mm)	R/P	Ebitda	Value	
				(US\$mm)	
North American Natural Gas	533	15.1	19.9	10,600	74%
Oil	327	15.5	11.5	3,770	26%
	860	15.1	16.7	14,370	100%
Debt (US\$mm)					3,170
Net Present Value (US\$mm)					11,200
Shares (mm)					160
Net Present Value - Standard Estimate (US\$/sh)					70
NPV Approximation by Cash Flow Multiple Depending on Reserve Life (US\$/sh)					58



Income and Small Cap Weekly

Analysis of Oil & Gas Stocks

July 27, 2012

Range Resources Corporation										
Next Twelve Months Operating and Financial Estimates										
	Q2	Year	Q1	Q2	Q3E	Q4E	Year	Q1E	Q2E	Next Twelve Months
	6/30/11	2011	3/31/12	6/30/12	9/30/12	12/31/12	2012E	3/31/13	6/30/13	6/30/13
Volume										
Natural Gas (mmcf)	389	405	512	575	592	610	572	628	647	619
Days	91	365	91	91	92	92	366	90	91	365
Oil (mmb)	1.8	7	2.2	2.2	2.3	2.4	9	2.4	2.5	9
Oil (mbd)	19.9	20.2	23.9	24.1	24.8	25.6	24.6	26.3	27.1	26.0
Total (mmcf)	508	526	655	720	741	763	720	786	810	775
Price										
Henry Hub (\$/mmbtu)	4.32	4.04	2.73	2.21	2.99	3.27	2.80	3.57	3.53	3.34
Differential (\$/mmbtu)	(0.20)	(0.11)	(0.02)	0.08	0.11	0.12	0.07	0.13	0.13	0.12
Company (\$/mcf)	4.52	4.15	2.75	2.13	2.88	3.14	2.73	3.44	3.40	3.22
WTI Cushing (\$/bbl)	102.55	95.12	102.93	93.32	88.09	88.76	93.27	89.69	90.06	89.15
Differential	40.61	36.27	42.11	44.02	41.55	41.87	42.52	42.30	42.48	42.04
Company (\$/bbl)	61.93	58.85	60.82	49.30	46.54	46.90	50.75	47.38	47.58	47.11
Total (\$/bbl)	35.29	32.74	26.20	20.12	23.17	24.49	23.45	26.00	25.86	24.91
Revenue (\$mm)										
Natural Gas	160	614	128	111	157	176	573	194	200	728
Oil	112	434	132	108	106	110	457	112	117	446
Total	272	1,048	260	220	263	287	1,030	307	318	1,174
Expense										
Lease operating	30	114	29	26						-
Production taxes	8	28	13	11						-
General and administrative	27	113	39	31						-
Total	65	255	81	68	70	77	296	82	85	314
Ebitda	207	793	179	152	193	210	734	225	233	860
Exploration	31	100	22	60	60	60	202	60	60	240
Deprec., Deplet., & Amort.	78	341	100	109	109	109	427	109	109	436
Other	1	(42)	(17)	(87)	(66)	(54)	(224)	(44)	(38)	(202)
Ebit	97	394	74	70	89	95	328	100	102	386
Interest	31	125	37	43	43	43	166	43	43	172
Ebt	66	269	37	27	46	52	162	57	59	214
Income Tax	23	94	13	9	16	18	57	20	21	75
Net Income (\$mm)	43	175	24	18	30	34	106	37	38	139
Per Share (\$)	0.27	1.10	0.15	0.11	0.19	0.21	0.66	0.23	0.24	0.87
Shares (millions)	159	159	160	160	160	160	160	160	160	160
Ebitda Margin	76%	76%	69%	69%	73%	73%	71%	73%	73%	73%
Tax rate	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%



Income and Small Cap Weekly

Analysis of Oil & Gas Stocks

July 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-Jul	Market	Value	Nat	Oil	Ebitda	NTM	Yield	McDep	
	CB (see below)	2012	Cap	(\$mm)	Gas		NTM	(\$/un)	(%)	Ratio	
Small Cap Independent Producers											
Continental Resources	CLR		67.39	1.19	14,460	27	73	8.1	-	-	0.97
Range Resources	RRC	CB	61.17	1.32	12,960	74	26	15.1	0.16	0.3	0.90
Peyto Exploration and Developmen	PEYUF		20.77	1.17	3,370	77	23	10.3	0.71	3.4	0.88
PDC Energy	PDCE		25.96	1.86	1,150	56	44	7.4	-	-	0.77
Halcón Resources	HK		7.03	1.09	1,300	20	80	6.3	-	-	0.72
Berry Petroleum Company	BRY		37.00	1.77	3,580	13	87	5.6	0.32	0.9	0.66
Denbury Resources Inc.	DNR		15.48	1.45	8,770	6	94	5.7	-	-	0.64
Birchcliff Energy Ltd.	BIREF	CB	6.33	1.48	1,410	63	37	9.4	-	-	0.62
Cimarex Energy Company	XEC	CB	55.66	1.22	5,830	42	58	5.0	0.48	0.9	0.55
Whiting Petroleum Corporation	WLL	CB	39.52	1.41	6,620	8	92	4.6	-	-	0.53
<i>Total or Median</i>					59,500			6.9			0.69
Top Line Cash Payers											
Permian Basin RT	PBT		18.65	1.00	870	37	63		1.33	7.2	0.93
Freehold Royalties Ltd.	FRHLF		19.30	1.04	1,300	16	84		1.67	8.6	0.92
Cross Timbers Royalty Trust	CRT		38.36	1.00	230	70	30		2.31	6.0	0.87
Dorchester Minerals, L.P.	DMLP	CB	22.48	1.00	690	57	43		1.88	8.4	0.83
Sabine Royalty Trust	SBR		52.30	1.00	760	55	45		3.50	6.7	0.81
<i>Total or Median</i>					3,900					7.2	0.87
Bottom Line Cash Payers											
Linn Energy, LLC	LINE		39.22	1.78	13,800	40	60	13.8	2.90	7.4	1.15
Vanguard Natural Resources, LLC	VNR		27.94	1.47	2,160	27	74	10.8	2.37	8.5	1.08
Legacy Reserves L.P.	LGCY		26.58	1.39	1,750	23	77	8.4	2.22	8.4	0.92
Enduro Royalty Trust (40%)	NDRO		18.27	1.00	240	42	58	7.9	1.68	9.2	0.87
San Juan Basin Royalty Trust	SJT	CB	16.30	1.00	760	100	-	11.7	1.08	6.6	0.78
Mesa RoyaltyTrust	MTR		30.44	1.00	57	75	25	12.8	1.94	6.4	0.76
Enerplus Corporation	ERF	CB	13.67	1.63	4,400	26	74	5.6	1.34	9.8	0.75
Hugoton RoyaltyTrust	HGT		7.50	1.00	300	89	11	7.4	0.11	1.5	0.54
<i>Total or Median</i>					23,500			9.6		7.9	0.82
Composite											
<i>Enterprise Value Weighting</i>					86,800	37	63				0.80
<i>Equal Weighting</i>						45	55				0.80
<i>Equal Weighted Buys</i>						48	52				0.71

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 June 30, 2013. Enterprise Value = Market Cap and Debt.



Income and Small Cap Weekly

Analysis of Oil & Gas Stocks

July 27, 2012

Table ISC-2

McDep Income and Small Cap Energy Portfolio Net Present Value and McDep Ratio

			<i>Price</i>			<i>Net</i>		
	<i>Symbol/</i>		<i>(\$/sh)</i>	<i>Shares</i>	<i>Market</i>	<i>Present</i>	<i>Debt/</i>	
	<i>Rating</i>		<i>26-Jul</i>	<i>(mm)</i>	<i>Cap</i>	<i>Value</i>	<i>Present</i>	<i>McDep</i>
			<i>2012</i>		<i>(\$mm)</i>	<i>(\$/un)</i>	<i>Value</i>	<i>Ratio</i>
Small Cap Independent Producers								
Continental Resources	CLR		67.39	180.0	12,130	70.00	0.16	0.97
Range Resources	RRC	CB	61.17	160.0	9,790	70.00	0.22	0.90
Peyto Exploration and Development Cor	PEYUF		20.77	138.3	2,870	24.00	0.13	0.88
PDC Energy	PDCE		25.96	23.9	620	40.00	0.36	0.77
Halcón Resources	HK		7.03	169.1	1,190	10.00	0.06	0.72
Berry Petroleum Company	BRY		37.00	54.7	2,020	70.00	0.29	0.66
Denbury Resources Inc.	DNR		15.48	391.0	6,050	28.00	0.20	0.64
Birchcliff Energy Ltd.	BIREF	CB	6.33	150.5	950	12.00	0.20	0.62
Cimarex Energy Company	XEC	CB	55.66	86.1	4,790	110.00	0.10	0.55
Whiting Petroleum Corporation	WLL	CB	39.52	119.0	4,700	88.00	0.16	0.53
<i>Total or Median</i>					<i>45,110</i>		<i>0.18</i>	<i>0.69</i>
Top Line Cash Payers								
Permian Basin RT	PBT		18.65	46.6	870	20.00	-	0.93
Freehold Royalties Ltd.	FRHLF		19.30	64.7	1,250	21.00	0.03	0.92
Cross Timbers Royalty Trust	CRT		38.36	6.0	230	44.00	-	0.87
Dorchester Minerals, L.P.	DMLP	CB	22.48	30.7	690	27.00	-	0.83
Sabine Royalty Trust	SBR		52.30	14.6	760	65.00	-	0.81
<i>Total or Median</i>					<i>3,800</i>			<i>0.87</i>
Bottom Line Cash Payers								
Linn Energy, LLC	LINE		39.22	198.0	7,770	30.00	0.50	1.15
Vanguard Natural Resources, LLC	VNR		27.94	52.5	1,470	25.00	0.34	1.08
Legacy Reserves L.P.	LGCY		26.58	47.5	1,260	30.00	0.26	0.92
Enduro Royalty Trust (40%)	NDRO		18.27	13.2	240	21.00	-	0.87
San Juan Basin Royalty Trust	SJT	CB	16.30	46.6	760	21.00	-	0.78
Mesa RoyaltyTrust	MTR		30.44	1.9	57	40.00	-	0.76
Enerplus Corporation	ERF	CB	13.67	196.0	2,680	21.00	0.29	0.75
Hugoton RoyaltyTrust	HGT		7.50	40.0	300	14.00	-	0.54
<i>Total or Median</i>					<i>14,540</i>			<i>0.82</i>
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

July 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-Jul 2012	Royalty (%)	Ebitda	NTM	NTM	NTM
Small Cap Independent Producers								
Range Resources	RRC	CB	61.17		-	15.1	16.7	15.1
Peyto Exploration and Development Corp	PEYUF		20.77		0.35	10.0	11.6	10.3
Birchcliff Energy Ltd.	BIREF	CB	6.33		-	21.6	15.2	9.4
Continental Resources	CLR		67.39		-	9.6	8.4	8.1
PDC Energy	PDCE		25.96		-	8.1	9.6	7.4
Halcón Resources	HK		7.03		-	7.1	8.8	6.3
Denbury Resources Inc.	DNR		15.48		-	13.1	8.9	5.7
Berry Petroleum Company	BRY		37.00		-	11.8	8.4	5.6
Cimarex Energy Company	XEC	CB	55.66		-	8.1	9.0	5.0
Whiting Petroleum Corporation	WLL	CB	39.52		-	9.5	8.6	4.6
	<i>Median</i>					9.8	8.9	6.9
Top Line Cash Payers								
Cross Timbers Royalty Trust	CRT		38.36	78	0.96	17.7	18.2	15.9
Sabine Royalty Trust	SBR		52.30	100	1.00	8.7	18.5	14.9
Permian Basin RT	PBT		18.65	32	0.88	9.7	13.3	12.4
Dorchester Minerals, L.P.	DMLP	CB	22.48	77	1.00	6.6	14.4	12.0
Freehold Royalties Ltd.	FRHLF		19.30	71	0.88	5.4	11.0	10.2
	<i>Median</i>					8.7	14.4	12.4
Bottom Line Cash Payers								
Linn Energy, LLC	LINE		39.22		1.15	15.1	11.9	13.8
Mesa RoyaltyTrust	MTR		30.44		0.81	8.0	16.7	12.8
San Juan Basin Royalty Trust	SJT	CB	16.30		0.77	8.6	15.1	11.7
Vanguard Natural Resources, LLC	VNR		27.94		0.95	13.6	10.0	10.8
Legacy Reserves L.P.	LGCY		26.58		0.68	11.3	9.2	8.4
Enduro Royalty Trust (40%)	NDRO		18.27		0.73	7.2	9.1	7.9
Hugoton RoyaltyTrust	HGT		7.50		0.11	13.6	13.8	7.4
Enerplus Corporation	ERF	CB	13.67		0.48	6.3	7.5	5.6
	<i>Median</i>					10.0	11.0	9.6
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 June 30, 2013; 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

July 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/		26-Jul	52Wk	52Wk	50 Day	200 Day	
	Rating		2012	High	Low	Avg.	Avg.	
							McDep Ratio	
Small Cap Independent Producers								
Peyto Exploration and Development C	PEYUF		20.77	0.83	1.34	1.11	1.05	0.88
Range Resources	RRC	CB	61.17	0.83	1.13	1.02	0.98	0.90
Denbury Resources Inc.	DNR		15.48	0.79	1.31	1.03	0.94	0.64
Continental Resources	CLR		67.39	0.73	1.45	0.97	0.92	0.97
Berry Petroleum Company	BRY		37.00	0.73	1.11	0.99	0.92	0.66
PDC Energy	PDCE		25.96	0.77	1.29	1.04	0.91	0.77
Cimarex Energy Company	XEC	CB	55.66	0.64	1.16	1.04	0.89	0.55
Whiting Petroleum Corporation	WLL	CB	39.52	0.69	1.24	0.97	0.86	0.53
Birchcliff Energy Ltd.	BIREF	CB	6.33	0.50	1.17	1.04	0.71	0.62
Halcón Resources	HK		7.03	0.55		0.77		0.72
	<i>Median</i>			<i>0.73</i>	<i>1.24</i>	<i>1.02</i>	<i>0.92</i>	<i>0.69</i>
Top Line Cash Payers								
Freehold Royalties Ltd.	FRHLF		19.30	0.87	1.39	1.08	1.03	0.92
Dorchester Minerals, L.P.	DMLP	CB	22.48	0.82	1.13	1.03	0.97	0.83
Permian Basin RT	PBT		18.65	0.80	1.13	1.04	0.93	0.93
Cross Timbers Royalty Trust	CRT		38.36	0.75	1.21	1.06	0.89	0.87
Sabine Royalty Trust	SBR		52.30	0.78	1.15	1.03	0.88	0.81
	<i>Median</i>			<i>0.80</i>	<i>1.15</i>	<i>1.04</i>	<i>0.93</i>	<i>0.87</i>
Bottom Line Cash Payers								
Linn Energy, LLC	LINE		39.22	0.98	1.13	1.03	1.02	1.15
Vanguard Natural Resources, LLC	VNR		27.94	0.92	1.17	1.05	1.02	1.08
Legacy Reserves L.P.	LGCY		26.58	0.90	1.14	1.02	0.97	0.92
San Juan Basin Royalty Trust	SJT	CB	16.30	0.64	1.35	1.08	0.84	0.78
Mesa RoyaltyTrust	MTR		30.44	0.62	1.22	1.03	0.81	0.76
Enerplus Corporation	ERF	CB	13.67	0.55	1.12	1.02	0.75	0.75
Hugoton RoyaltyTrust	HGT		7.50	0.32	1.17	0.97	0.51	0.54
	<i>Median</i>			<i>0.64</i>	<i>1.17</i>	<i>1.03</i>	<i>0.84</i>	<i>0.78</i>

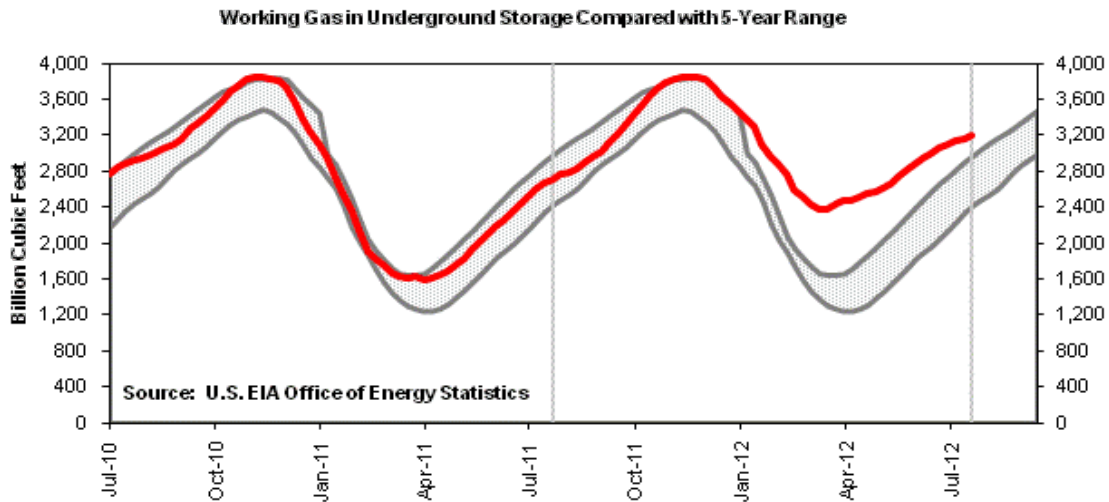
CB=Contrarian Buy, Stock Price apparently in downtrend compared to 200-day average.



Income and Small Cap Weekly

Analysis of Oil & Gas Stocks

July 27, 2012



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. 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.