

## ***Meter Reader***

*A Weekly Analysis of Energy Stocks Using the McDep Ratio*

March 20, 2003

# **Buy Large Cap and Mega Cap Energy Producers**

## **Summary and Recommendation**

Among 16 large and mega cap natural gas and oil producers, recommended integrated companies **Marathon (MRO)**, **ChevronTexaco (CVX)**, **Royal Dutch (RD)** and **ConocoPhillips (COP)**, along with recommended natural gas producers **Burlington Resources (BR)** and **Encana (ECA)** offer attractive risk-adjusted investment potential in uncertain times. Applying similar updating to large and mega cap producers that we applied a week ago to mid caps and two weeks ago to small caps, we boost our estimate of present value slightly for ECA and more for **Lukoil (LUKOY)**. Despite looking for positive surprises in the upcoming summer gasoline season we transfer some value away from refining/marketing that trims net present value by a median 5% for 6 integrated companies including CVX, RD and COP. Markets can be violent just as war may be. Sharp changes in direction in the bond market and the oil market have not yet confirmed trend reversals at the time of publication. Natural gas holds remarkably steady. Buy and sell recommendations are ranked in our regular format (see Table 1-1, 1-2, 2-1, 2-2, 3-1, 3-2).

## **Commodity Prices Drive Valuation**

The sister publication to *Meter Reader*, *Natural Gas Royalty Trusts*, is our laboratory for relating commodity futures prices to the valuation of stocks. For the past three years we have been doing weekly calculations on securities whose total market value is about a billion dollars. We scaled up the model to test recently the valuation of about \$17 billion of small cap producers and then \$38 billion of mid cap producers. Now we test the valuation of \$830 billion of large and mega cap producers.

Integrated companies have refining/marketing and possibly other businesses in addition to natural gas and oil production. As a result we see cash flow multiple not only as function of adjusted reserve life, R/Padj, but also other businesses that we capture in a ratio of production cash flow to total cash flow, Prod/Ebitda. When we do a regression analysis of the market cash flow multiple, EV/Ebitda, with R/Padj and Prod/Ebitda we find that the variables “explain” about two thirds of the deviations. The same analysis substituting our estimated cash flow multiple, PV/Ebitda, explains somewhat more than two thirds of the deviations. The fitted formula is  $PV/Ebitda = 9.2 \text{ plus } 0.30 \text{ times } R/Padj \text{ minus } 6.3 \text{ times } Prod/Ebitda$ . Actual PV/Ebitda multiples are within 1.0 of the fitted result except for **Eni (E)** and Lukoil. In fact the regression works well only after excluding Eni, Lukoil and **Petrobras (PBR)**.

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The regression implies anomalously that stocks with more concentration on production have lower multiples. An explanation may be that NTM cash flow from production is temporarily high relative to other businesses. Coincidentally the stocks less concentrated on production are the larger companies. We do not believe that larger companies should necessarily have higher multiples than smaller companies.

### **Large and Mega Cap Natural Gas and Oil Producers**

#### **Cash Flow Life, Reserve Life and Share of Cash Flow**

Ranked by PV/Ebitda

	<i>Symbol/ Rating</i>	<i>Price (\$/sh) 19-Mar 2003</i>	<i>EV/ Ebitda NTM</i>	<i>R/Padj</i>	<i>Prod/ Ebitda</i>	<i>PV/ Ebitda NTM</i>
Exxon Mobil Corporation	XOM	35.59	8.3	11.0	0.74	8.2
Royal Dutch/Shell	RD B	40.64	6.3	9.4	0.68	8.0
ChevronTexaco Corporation	CVX B	65.83	5.8	10.2	0.86	7.8
BP plc	BP	39.36	6.9	9.6	0.81	7.7
TotalFinaElf S.A.	TOT	64.85	6.2	9.7	0.69	7.7
ConocoPhillips	COP B	51.38	6.3	10.0	0.70	7.5
Unocal Corporation	UCL	25.90	4.9	8.4	1.00	6.4
Marathon Oil Corporation	MRO B	23.33	4.5	8.1	0.75	6.3
Anadarko Petroleum Corp.	APC	44.30	4.8	10.0	1.00	6.0
Occidental Petroleum Corp.	OXY	30.70	5.5	10.6	0.87	5.9
Burlington Resources	BR B	45.53	4.8	10.9	1.00	5.8
Petroleo Brasileiro S. A.	PBR N	15.40	3.6	10.7	0.94	5.7
Devon Energy	DVN	47.85	4.3	7.7	1.00	5.1
Encana Corporation	ECA B	31.62	4.3	8.6	0.96	5.1
ENI S.p.A.	E	68.75	3.8	10.1	0.63	4.8
OAO Lukoil	LUKOY	55.10	2.7	20.0	0.20	4.0

### **Integrated Stocks May Be More Timely**

As the season changes from winter to spring, we pass the peak period of seasonal consumption of natural gas and heating oil. While the outlook continues to be favorable for natural gas over the next several years, the odds of a favorable surprise such as a surprisingly cold winter are now nine months away.

At the same time, the volatile refining/marketing business might more likely have a favorable (or unfavorable) surprise as we move into the peak gasoline-consuming season in the summer. Even before then should a favorable outcome in the Mid East allow more ample supplies of crude oil, refiners and marketers might keep some of the raw material savings if retail prices allow.

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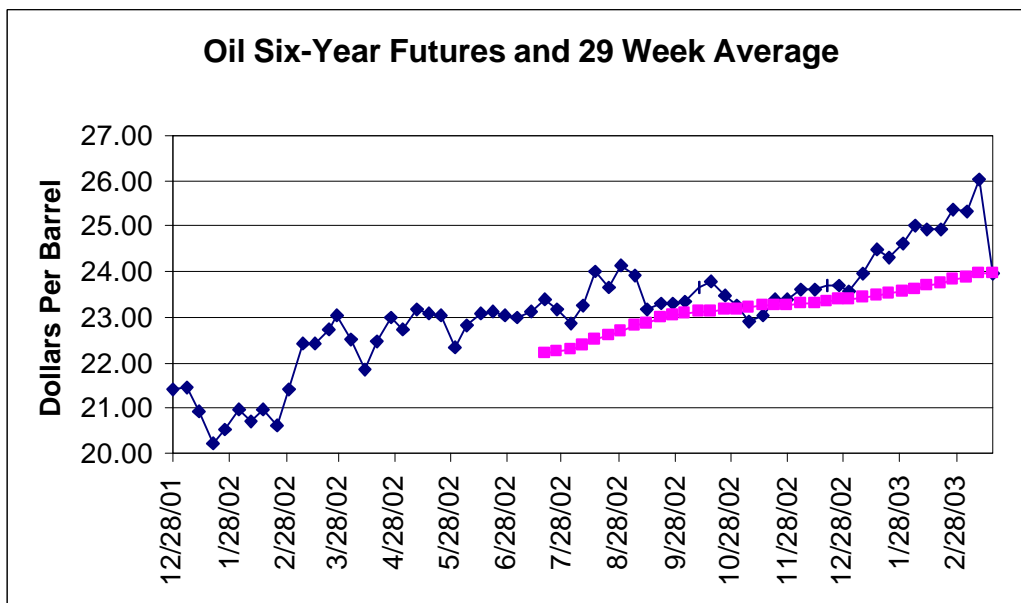
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Finally the market performance of integrated companies has been sharply disappointing for the past year. If the stocks have not gone up with the daily price of crude oil, how can we expect them to go down if the daily price of crude oil returns to near the six-year futures level? With the headlines trumpeting the “collapse in oil price” we believe this is a time for a contrarian investor to buy integrated oil stocks.

### Boost Present Value for Lukoil

A stock market and disclosure history is accumulating for the large Russian oil producer. The regression equation discussed above implies a present value of triple the stock price. Eventually that might be credible, but we would not put a lot of weight on it for now. Lukoil stands out with a long reserve life in excess of 20 years if we interpret the disclosures correctly. That implies a high multiple on production cash flow. Ironically, production cash flow seems to be less than a third of total cash flow. Price controls on crude oil for domestic consumption apparently are the reason. As a result cash flow from refined products accounts for two thirds of the total, the opposite of the pattern for most integrated companies. The seeds are there for investment appreciation as price controls may be lifted eventually and the company further develops its resources.

Kurt H. Wulff, CFA

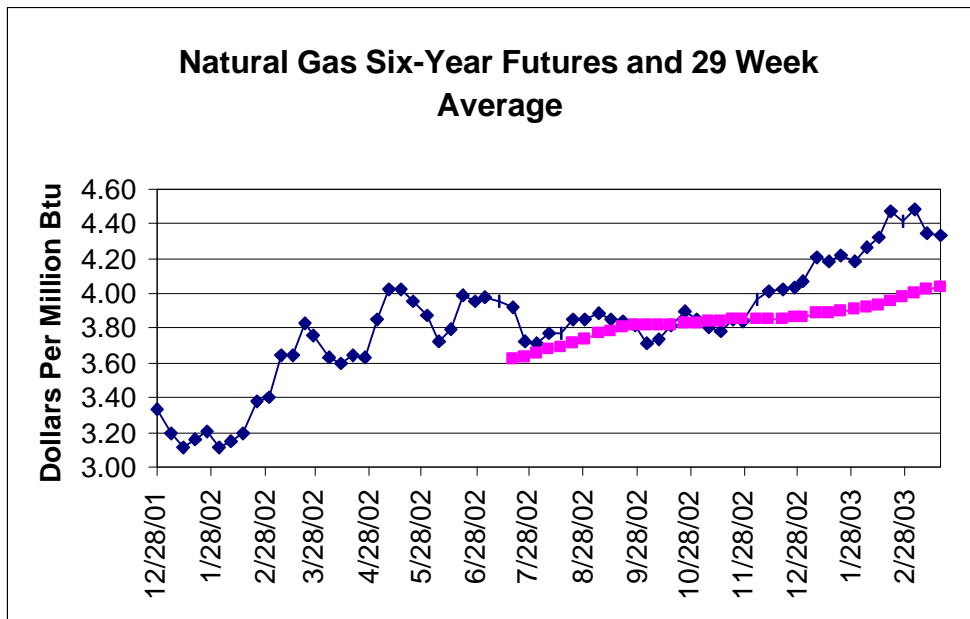
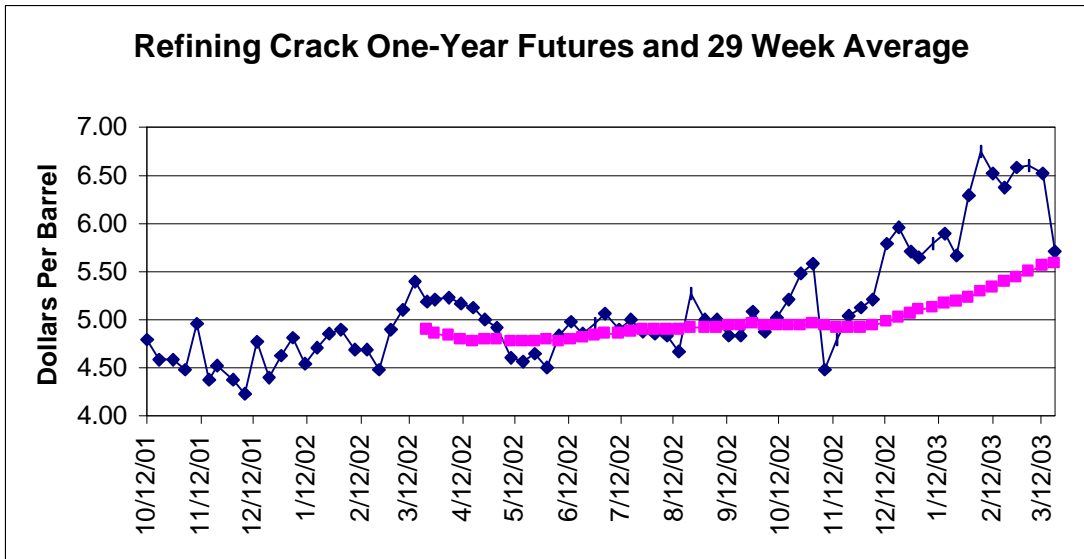


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**Table L-1**  
**Mega Cap and Large Cap Energy Companies**  
**Rank by McDep Ratio: Market Cap and Debt to Present Value**

	Symbol/ Rating	Price (\$/sh) 19-Mar 2003	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio
<b>Mega Cap</b>							
Exxon Mobil Corporation	XOM	35.59	6,755	240,000	35.00	0.09	1.02
BP plc	BP	39.36	3,725	147,000	45.00	0.16	0.90
TotalFinaElf S.A.	TOT	64.85	1,317	85,400	85.00	0.16	0.80
Royal Dutch/Shell	RD B	40.64	3,473	141,000	55.00	0.19	0.79
ChevronTexaco Corporation	CVX B	65.83	1,063	70,000	95.00	0.19	0.75
	<i>Total or Median</i>			683,000		0.16	0.80
<b>Energy Infrastructure</b>							
Southern Company	SO	28.80	701	20,200	23.90	0.47	1.11
Duke Energy Corporation	DUK	15.32	822	12,600	15.00	0.73	1.01
American Electric Power Co. Inc.	AEP N	22.53	326	7,300	27.40	0.74	0.95
Enel S.p.a. (32%)	EN	27.70	388	10,800	32.70	0.39	0.91
Dominion Resources	D	55.91	269	15,000	76.20	0.45	0.85
Exelon Corporation	EXC N	49.81	323	16,100	70.80	0.45	0.84
El Paso Corporation	EP N	5.50	590	3,200	20.00	0.66	0.75
	<i>Total or Median</i>			65,000		0.56	0.88
<b>Natural Gas and Oil</b>							
Occidental Petroleum Corp.	OXY	30.70	383	11,700	35.00	0.36	0.92
Encana Corporation	ECA B	31.62	470	14,900	40.00	0.24	0.84
Devon Energy	DVN	47.85	163	7,800	65.00	0.42	0.85
ConocoPhillips	COP B	51.38	680	35,000	70.00	0.38	0.84
Burlington Resources	BR B	45.53	202	9,200	60.00	0.26	0.82
Anadarko Petroleum Corp.	APC	44.30	258	11,400	60.00	0.29	0.81
ENI S.p.A.	E	68.75	750	51,600	90.00	0.14	0.80
Unocal Corporation	UCL	25.90	255	6,600	40.00	0.35	0.77
Marathon Oil Corporation	MRO B	23.33	310	7,200	40.00	0.31	0.71
OAo Lukoil	LUKOY	55.10	206	11,400	90.00	0.12	0.66
Petroleo Brasileiro S. A.	PBR N	15.40	1,086	16,700	30.00	0.25	0.63
	<i>Total or Median</i>			172,000		0.28	0.80
<b>Service</b>							
Baker Hughes Inc.	BHI	30.13	339	10,200	25.00	0.09	1.19
Halliburton Company	HAL	20.50	434	8,900	22.00	0.25	0.95
Schlumberger Ltd.	SLB	39.29	581	22,800	44.00	0.22	0.92

Buy/Sell rating after symbol: B - Buy, N - Neutral, S - Sell

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

*Italicized issues are subject to, or sponsor, deceptive compensation arrangements that threaten value and financial viability, in our opinion.*

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**Table L-2**  
**Mega Cap and Large Cap Energy Companies**  
**Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.**

	Symbol/ Rating	Price (\$/sh) 19-Mar 2003	EV/ Sales NTM	EV/ Ebitda NTM	P/E NTM	Dividend or Distribution NTM (%)	PV/ Ebitda NTM	
<b>Mega Cap</b>								
Exxon Mobil Corporation	XOM	35.59	1.2	8.3	17	2.6	8.2	
BP plc	BP	39.36	0.9	6.9	22	3.7	7.7	
Royal Dutch/Shell	RD	B	40.64	1.0	6.3	13	4.6	8.0
TotalFinaElf S.A.	TOT		64.85	1.0	6.2	15	5.0	7.7
ChevronTexaco Corporation	CVX	B	65.83	0.9	5.8	11	4.3	7.8
	<i>Median</i>			1.0	6.3	15	4.3	7.8
<b>Energy Infrastructure</b>								
Southern Company	SO		28.80	3.5	10.0	17	4.7	9.0
Duke Energy Corporation	DUK		15.32	2.4	9.6	11	7.2	9.6
American Electric Power Co. Inc.	AEP	N	22.53	0.5	8.6	7	10.7	9.0
Enel S.p.a. (32%)	EN		27.70	2.2	8.2	33	5.8	9.0
Dominion Resources	D		55.91	3.2	7.7	11	4.6	9.0
Exelon Corporation	EXC	N	49.81	2.3	7.5	11	3.5	9.0
El Paso Corporation	EP	N	5.50	2.1	5.8	3	15.8	7.7
	<i>Median</i>			2.3	8.2	11	5.8	9.0
<b>Natural Gas and Oil</b>								
ConocoPhillips	COP	B	51.38	0.7	6.3	11	3.1	7.5
Occidental Petroleum Corp.	OXY		30.70	2.3	5.5	9	3.4	5.9
Unocal Corporation	UCL		25.90	1.9	4.9	12	3.1	6.4
Anadarko Petroleum Corp.	APC		44.30	3.7	4.8	8	0.9	6.0
Burlington Resources	BR	B	45.53	3.5	4.8	10	1.2	5.8
Marathon Oil Corporation	MRO	B	23.33	0.4	4.5	10	3.9	6.3
Devon Energy	DVN		47.85	2.9	4.3	6	-	5.1
Encana Corporation	ECA	B	31.62	2.0	4.3	10	0.9	5.1
ENI S.p.A.	E		68.75	1.5	3.8	8	6.2	4.8
Petroleo Brasileiro S. A.	PBR	N	15.40	1.2	3.6	6	8.8	5.7
OAOLukoil	LUKOY		55.10	0.8	2.7	4	3.5	4.0
	<i>Median</i>			1.9	4.5	9	3.1	5.8
<b>Service</b>								
Baker Hughes Inc.	BHI		30.13	2.1	12.8	36	1.5	10.8
Halliburton Company	HAL		20.50	1.0	8.5	18	2.4	9.0
Schlumberger Ltd.	SLB		39.29	2.2	8.2	29	1.9	8.9

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended March 31, 2004; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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**Rank by McDep Ratio: Market Cap and Debt to Present Value**

	<i>Symbol/ Rating</i>	<i>Price (\$/sh) 19-Mar 2003</i>	<i>Shares (mm)</i>	<i>Market Cap (\$mm)</i>	<i>Net Present Value (\$/sh)</i>	<i>Debt/ Present Value</i>	<i>McDep Ratio</i>
<b>Energy Infrastructure</b>							
<i>Kinder Morgan Energy Partners, L.P.</i>	<i>KMP S</i>	<i>36.32</i>	<i>141</i>	<i>5,100</i>	<i>14.00</i>	<i>0.47</i>	<i>1.84</i>
<i>Kinder Morgan Management, LLC</i>	<i>KMR S</i>	<i>32.23</i>	<i>40</i>	<i>1,300</i>	<i>14.00</i>	<i>0.47</i>	<i>1.68</i>
<i>Kinder Morgan, Inc.</i>	<i>KMI S</i>	<i>45.04</i>	<i>123</i>	<i>5,500</i>	<i>14.00</i>	<i>0.80</i>	<i>1.43</i>
<i>Constellation Energy Group</i>	<i>CEG</i>	<i>27.10</i>	<i>164</i>	<i>4,400</i>	<i>20.00</i>	<i>0.69</i>	<i>1.11</i>
<i>Williams Companies</i>	<i>WMB</i>	<i>4.15</i>	<i>521</i>	<i>2,200</i>	<i>1.00</i>	<i>0.97</i>	<i>1.08</i>
<i>Dynegy Inc.</i>	<i>DYN</i>	<i>2.36</i>	<i>418</i>	<i>1,000</i>	<i>1.00</i>	<i>0.94</i>	<i>1.08</i>
<i>AES Corporation</i>	<i>AES</i>	<i>3.39</i>	<i>543</i>	<i>1,800</i>	<i>1.00</i>	<i>0.98</i>	<i>1.05</i>
<i>Calpine Corporation</i>	<i>CPN N</i>	<i>3.07</i>	<i>375</i>	<i>1,200</i>	<i>1.00</i>	<i>0.97</i>	<i>1.06</i>
<i>Sempra Energy</i>	<i>SRE</i>	<i>23.81</i>	<i>207</i>	<i>4,900</i>	<i>24.30</i>	<i>0.64</i>	<i>0.99</i>
<i>CMS Energy Corporation</i>	<i>CMS</i>	<i>3.88</i>	<i>137</i>	<i>500</i>	<i>8.70</i>	<i>0.90</i>	<i>0.95</i>
<i>Mirant Corporation</i>	<i>MIR</i>	<i>1.64</i>	<i>413</i>	<i>700</i>	<i>4.00</i>	<i>0.86</i>	<i>0.92</i>
<i>Valero Energy Corporation</i>	<i>VLO</i>	<i>40.75</i>	<i>114</i>	<i>4,700</i>	<i>50.00</i>	<i>0.50</i>	<i>0.91</i>
<i>Total or Median</i>				<i>33,300</i>		<i>0.83</i>	<i>1.07</i>
<b>Natural Gas and Oil</b>							
<i>Murphy Oil Corporation</i>	<i>MUR</i>	<i>43.32</i>	<i>93</i>	<i>4,000</i>	<i>41.00</i>	<i>0.24</i>	<i>1.04</i>
<i>Petro-Canada</i>	<i>PCZ</i>	<i>32.79</i>	<i>264</i>	<i>8,600</i>	<i>38.00</i>	<i>0.20</i>	<i>0.89</i>
<i>Imperial Oil Limited (30%)</i>	<i>IMO</i>	<i>31.09</i>	<i>114</i>	<i>3,500</i>	<i>36.00</i>	<i>0.12</i>	<i>0.88</i>
<i>XTO Energy Inc.</i>	<i>XTO B</i>	<i>19.05</i>	<i>169</i>	<i>3,200</i>	<i>24.00</i>	<i>0.25</i>	<i>0.84</i>
<i>Suncor Energy</i>	<i>SU</i>	<i>16.85</i>	<i>448</i>	<i>7,600</i>	<i>22.00</i>	<i>0.22</i>	<i>0.82</i>
<i>CNOOC Limited (19%)</i>	<i>CEO B</i>	<i>25.75</i>	<i>78</i>	<i>2,010</i>	<i>35.00</i>	<i>-</i>	<i>0.74</i>
<i>Norsk Hydro ASA (49%)</i>	<i>NHY</i>	<i>36.45</i>	<i>126</i>	<i>4,600</i>	<i>60.00</i>	<i>0.26</i>	<i>0.71</i>
<i>PetroChina Company Ltd (10%)</i>	<i>PTR B</i>	<i>20.77</i>	<i>176</i>	<i>3,700</i>	<i>33.00</i>	<i>0.15</i>	<i>0.69</i>
<i>Total or Median</i>				<i>37,200</i>		<i>0.21</i>	<i>0.83</i>
<b>Coal Producers (Small Cap)</b>							
<i>Penn Virginia Res. Part, L.P.</i>	<i>PVR</i>	<i>24.01</i>	<i>15</i>	<i>400</i>	<i>18.00</i>	<i>-</i>	<i>1.34</i>
<i>Consol Energy Inc.</i>	<i>CNX</i>	<i>16.06</i>	<i>79</i>	<i>1,300</i>	<i>5.00</i>	<i>0.88</i>	<i>1.26</i>
<i>Peabody Energy</i>	<i>BTU</i>	<i>27.68</i>	<i>55</i>	<i>1,500</i>	<i>18.00</i>	<i>0.75</i>	<i>1.13</i>
<i>Alliance Res. Part, L.P.</i>	<i>ARLP</i>	<i>22.21</i>	<i>16</i>	<i>400</i>	<i>20.00</i>	<i>0.45</i>	<i>1.05</i>
<i>Arch Coal</i>	<i>ACI</i>	<i>19.33</i>	<i>48</i>	<i>900</i>	<i>18.00</i>	<i>0.61</i>	<i>1.03</i>
<i>Massey Energy</i>	<i>MEE</i>	<i>9.00</i>	<i>75</i>	<i>700</i>	<i>18.00</i>	<i>0.37</i>	<i>0.69</i>
<i>Total or Median</i>				<i>5,200</i>		<i>0.53</i>	<i>1.09</i>

Buy/Sell rating after symbol: B - Buy, N - Neutral, S - Sell

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			Price (\$/sh)	EV/ Sales	EV/ Ebitda	P/E	Dividend or Distribution	PV/ Ebitda
	Symbol/ Rating		19-Mar 2003	NTM	NTM	NTM	NTM (%)	NTM
<b>Energy Infrastructure</b>								
Kinder Morgan Energy Partners, L.P.	KMP	S	36.32	3.3	15.9	19	6.9	8.7
Kinder Morgan Management, LLC	KMR	S	32.23	3.0	14.6	17	7.8	8.7
Kinder Morgan, Inc.	KMI	S	45.04	3.2	12.1	14	1.3	8.4
Calpine Corporation	CPN	N	3.07	1.8	10.8			10.2
Constellation Energy Group	CEG		27.10	2.9	10.2	10	3.5	9.2
Williams Companies	WMB		4.15	2.0	9.8		-	9.0
Dynegy Inc.	DYN		2.36	0.2	9.7		-	9.0
AES Corporation	AES		3.39	2.8	9.5			9.0
Sempra Energy	SRE		23.81	2.5	8.9	9	4.2	9.0
CMS Energy Corporation	CMS		3.88	1.2	8.5	2	18.6	9.0
Mirant Corporation	MIR		1.64	0.4	8.2	1	-	9.0
Valero Energy Corporation	VLO		40.75	0.3	5.1	6	1.0	5.6
	<i>Median</i>			2.2	9.7	10	2.4	9.0
<b>Natural Gas and Oil</b>								
Suncor Energy	SU		16.85	2.8	6.6	12	0.7	8.0
Murphy Oil Corporation	MUR		43.32	1.2	6.2	16	1.8	5.9
XTO Energy Inc.	XTO	B	19.05	4.1	5.8	10	0.2	6.9
Imperial Oil Limited (30%)	IMO		31.09	1.1	5.7	10	1.7	6.5
CNOOC Limited (19%)	CEO	B	25.75	3.4	4.3	9	2.4	5.9
Petro-Canada	PCZ		32.79	1.3	4.1	8	0.8	4.6
PetroChina Company Ltd (10%)	PTR	B	20.77	1.5	2.8	5	8.6	4.1
Norsk Hydro ASA (49%)	NHY		36.45	0.7	2.7	5	3.9	3.8
	<i>Median</i>			1.4	5.0	9	1.8	5.9
<b>Coal Producers (Small Cap)</b>								
Consol Energy Inc.	CNX		16.06	2.0	12.3	37	3.5	9.7
Penn Virginia Res. Part, L.P.	PVR		24.01	8.9	11.5	13	8.3	8.6
Peabody Energy	BTU		27.68	1.6	10.2	23	1.4	9.0
Arch Coal	ACI		19.33	1.5	9.3	108	1.2	9.0
Alliance Res. Part, L.P.	ARLP		22.21	1.2	7.4	19	9.0	7.0
Massey Energy	MEE		9.00	1.1	6.1	225	1.8	8.9
				1.6	9.7	30	2.6	8.9

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended March 31, 2004; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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## Meter Reader

### A Weekly Analysis of Energy Stocks Using the McDep Ratio

March 20, 2003

**Table S-1**  
**Small Cap Energy Companies**  
**Rank by McDep Ratio: Market Cap and Debt to Present Value**

	Symbol/ Rating	Price (\$/sh) 19-Mar 2003	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio	
<b>Energy Infrastructure</b>								
El Paso Energy Partners	EPN	S	30.70	57.0	1,750	10.60	0.60	1.77
Enterprise Products Part (16%)	EPD		20.48	28.5	580	6.70	0.63	1.74
Enbridge Energy Partners, L.P.	EEP	S	44.67	35.0	1,560	14.90	0.64	1.72
Enbridge Energy Management, L.L.C	EEQ	S	39.72	9.0	360	14.90	0.64	1.61
Plains All Amer. Pipeline	PAA		24.79	50.0	1,240	11.60	0.49	1.58
TEPPCO Partners, L.P.	TPP		30.51	50.0	1,530	17.70	0.56	1.32
Northern Border Partners	NBP		37.68	44.0	1,660	20.40	0.62	1.32
AmeriGas Partners, L.P.	APU		23.80	49.4	1,180	18.30	0.51	1.15
Western Gas Resources	WGR		32.13	33.7	1,080	37.60	0.29	0.89
<i>Total or Median</i>					10,900		0.60	1.58
<b>Natural Gas and Oil</b>								
Unit Corporation	UNT		20.20	43.6	880	18.00	0.04	1.12
Dorchester Minerals, L.P.	DMLP		14.50	27.0	392	13.00	-	1.12
Provident Energy Trust	PVX		6.73	63.5	430	6.00	0.23	1.09
Pogo Producing Company	PPP		39.52	64.5	2,550	38.00	0.22	1.03
Quicksilver Resources Inc.	KWK		23.45	20.4	480	25.00	0.35	0.96
Enerplus Resources Fund	ERF		18.34	75.0	1,380	20.00	0.16	0.93
Pengrowth Energy Trust	PGH		9.53	110.0	1,050	11.00	0.16	0.89
Newfield Exploration Company	NFX		32.86	51.7	1,700	40.00	0.31	0.88
Penn Virginia Corporation	PVA		36.48	9.0	330	45.00	0.06	0.82
Southwestern Energy Company	SWN		12.58	36.0	450	17.00	0.30	0.82
Encore Acquisition Corp. (25%)	EAC		18.24	7.0	128	24.00	0.19	0.81
Stone Energy Company	SGY		31.85	26.5	840	46.00	0.27	0.77
Swift Energy Company	SFY		8.71	27.2	240	16.00	0.43	0.74
Magnum Hunter Resources, Inc.	MHR		5.48	69.0	380	11.00	0.45	0.72
Forest Oil Corporation	FST	N	20.04	48.2	970	35.00	0.33	0.71
Spinnaker Exploration Company	SKE		17.53	33.8	590	25.00	-	0.70
Canadian Oil Sands Trust (US\$)	COS_u.TO	B	23.73	76.8	1,820	45.00	0.15	0.60
<i>Total or Median</i>					14,600		0.22	0.82
<b>Natural Gas Royalty Trusts</b>								
Cross Timbers Royalty Trust	CRT		17.93	6.0	108	19.50	-	0.92
Hugoton RoyaltyTrust (46%)	HGT		13.84	18.4	260	16.50	-	0.84
San Juan Basin Royalty Trust	SJT	B	14.17	46.6	660	17.00	-	0.83
<b>Micro Cap</b>								
Energy Partners Ltd.(30%)	EPL	B	9.82	8.3	81	12.00	0.34	0.88
Abraxas Petroleum Corporation	ABP		0.80	30.0	24	2.00	0.72	0.83
Purcell Energy, Ltd. (US\$)	PEL.TO	N	2.03	26.6	54	2.80	0.28	0.80

Buy/Sell rating after symbol: B - Buy, N - Neutral, S - Sell

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

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## Meter Reader

### A Weekly Analysis of Energy Stocks Using the McDep Ratio

March 20, 2003

**Table S-2**  
**Small Cap Energy Companies**  
**Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.**

	Symbol/ Rating	Price (\$/sh) 19-Mar 2003	EV/ Sales NTM	EV/ Ebitda NTM	P/E NTM	Dividend or Distribution NTM (%)	PV/ Ebitda NTM
<b>Energy Infrastructure</b>							
<i>El Paso Energy Partners</i>	<i>EPN</i>	<i>S</i>	<i>30.70</i>	<i>8.7</i>	<i>15.9</i>	<i>38</i>	<i>8.8</i>
Enterprise Products Part (16%)	EPD		20.48	1.7	15.7	28	6.7
<i>Enbridge Energy Partners, L.P.</i>	<i>EEP</i>	<i>S</i>	<i>44.67</i>	<i>2.0</i>	<i>15.5</i>	<i>33</i>	<i>8.1</i>
<i>Enbridge Energy Management, L.L.C</i>	<i>EEQ</i>	<i>S</i>	<i>39.72</i>	<i>1.9</i>	<i>14.5</i>	<i>30</i>	<i>9.1</i>
<i>Plains All Amer. Pipeline</i>	<i>PAA</i>		<i>24.79</i>	<i>0.2</i>	<i>14.2</i>	<i>20</i>	<i>8.7</i>
<i>TEPPCO Partners, L.P.</i>	<i>TPP</i>		<i>30.51</i>	<i>1.0</i>	<i>11.9</i>	<i>16</i>	<i>7.9</i>
<i>Northern Border Partners</i>	<i>NBP</i>		<i>37.68</i>	<i>6.8</i>	<i>11.9</i>	<i>14</i>	<i>8.5</i>
<i>AmeriGas Partners, L.P.</i>	<i>APU</i>		<i>23.80</i>	<i>1.6</i>	<i>10.3</i>	<i>23</i>	<i>9.2</i>
Western Gas Resources	WGR		32.13	0.6	6.6	14	-
	<i>Median</i>			<i>1.7</i>	<i>14.2</i>	<i>23</i>	<i>8.5</i>
<b>Natural Gas and Oil</b>							
Unit Corporation	UNT		20.20	3.7	8.5	21	-
Dorchester Minerals, L.P.	DMLP		14.50	6.6	8.2	10	11.0
Quicksilver Resources Inc.	KWK		23.45	4.4	6.5	11	-
Enerplus Resources Fund	ERF		18.34	4.5	5.9	10	15.6
Canadian Oil Sands Trust (US\$)	COS_u.TO	B	23.73	3.1	5.4	5	5.6
Encore Acquisition Corp. (25%)	EAC		18.24	3.5	5.4	13	-
Pengrowth Energy Trust	PGH		9.53	3.5	5.3	11	19.8
Swift Energy Company	SFY		8.71	3.4	5.1	14	-
Forest Oil Corporation	FST	N	20.04	3.1	5.1	15	-
Pogo Producing Company	PPP		39.52	3.3	5.1	13	0.3
Southwestern Energy Company	SWN		12.58	2.3	4.8	8	-
Magnum Hunter Resources, Inc.	MHR		5.48	2.7	4.7	9	-
Provident Energy Trust	PVX		6.73	3.2	4.6	10	23.0
<i>Penn Virginia Corporation</i>	<i>PVA</i>		<i>36.48</i>	<i>2.4</i>	<i>4.6</i>	<i>12</i>	<i>2.5</i>
Stone Energy Company	SGY		31.85	2.5	3.4	7	-
Newfield Exploration Company	NFX		32.86	2.5	3.2	6	-
Spinnaker Exploration Company	SKE		17.53	2.2	2.5	9	-
	<i>Median</i>			<i>3.2</i>	<i>5.1</i>	<i>10</i>	<i>-</i>
<b>Natural Gas Royalty Trusts</b>							
Cross Timbers Royalty Trust	CRT		17.93	5.4	7.4	8	12.7
San Juan Basin Royalty Trust	SJT	B	14.17	4.8	5.9	7	13.8
Hugoton RoyaltyTrust (46%)	HGT		13.84	4.2	5.5	7	13.7
<b>Micro Cap</b>							
Abraxas Petroleum Corporation	ABP		0.80	5.2	7.2		-
Purcell Energy, Ltd. (US\$)	PEL.TO	N	2.03	3.5	4.8	10	-
Energy Partners Ltd.(30%)	EPL	B	9.82	2.7	4.5		-

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended December 31, 2003; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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