

Meter Reader

A Weekly Analysis of Energy Stocks Using the McDep Ratio

September 30, 2002

October 1974

Summary and Recommendation

We recommend that during the next month investors build to a full commitment in energy equities using, for example, the selections in the McDep Energy Portfolio. As it follows the steep decline after a long advance, the stock market in October 2002 reminds us of October 1974, which we experienced, or October 1932, which we know from history. That suggests a steep gain over the next year, possibly from a lower level. Four of the stocks we are recommending today that were also in our research 28 years ago are priced more attractively now relative to bonds. Approaching October 2002, the median dividend yield of **Royal Dutch (RD)**, **ChevronTexaco (CVX)**, **ConocoPhillips (COP)** and **Marathon (MRO)** exceeds that of the ten-year government note. Approaching October 1974 the median dividend yield was less than that of the ten-year government note. By comparison to the historic names the rest of our buy recommendations also appear timely for new action. The recent loss of political and investor support for **El Paso (EP, EPN)** reinforces our sell recommendation of EP, EPN and **Kinder Morgan (KMI, KMP, and KMR)**.

Oil Stocks Undervalued in October 2002 as in October 1974

On a median dividend yield basis relatively to the yield on government bonds the four stocks are more undervalued today going into October than they were in 1974, the bottom of the 1966 to 1982 bear market (see Table).

Oil Stocks and Bonds, 1974 vs. 2002

	<i>Price</i> 9/30/74 (\$/sh)	<i>Dividend</i> Rate (\$/sh)	<i>Yield</i> (%/year)	<i>Price</i> 9/26/02 (\$/sh)	<i>Dividend</i> Rate (\$/sh)	<i>Yield</i> (%/year)
Royal Dutch	24	2.80	11.7	42	1.70	4.1
ChevronTexaco	22	2.00	9.1	73	2.80	3.8
ConocoPhillips	34	1.40	4.1	49	1.44	2.9
Marathon	29	1.80	6.2	23	0.92	4.0
Oil Median			7.6			3.9
U.S. Ten-Year Note			8.0			3.8
Oil Median/U.S. Ten-Year Note			0.96			1.03

Source: DLJ Oil and Gas Research, Federal Reserve Board

Note: Prices not adjusted for split shares since 1974

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Dividend yield is the starting point for comparing the fundamental appeal of stocks versus bonds. Arguably, as economic growth expectations diminished, the skimpy yield on most stocks was a major factor in the sharp readjustment the past few months in stock prices versus bond prices. Now the decline in stock price is well along as is the advance in bond price. Our analysis suggests that the adjustment has gone far enough for major oil stocks as we try to demonstrate with the 1974 and 2002 yield comparisons.

On other valuation measures we note that the four stocks were priced at a median ratio of stock price to net present value of 0.4 in October 1974 compared to 0.6 in October 2002. Present value analysis was not widely applied by investors in 1974. The favorable implications made us feel strongly about oil and gas values at that time.

The median earnings yield (inverse of price/earnings ratio) was 2.8 times bond yield in 1974 compared to 2.2 times in 2002. Near term earnings estimates are less reliable as indicators of long-term value because they are too sensitive to volatile one-year commodity price expectations. A better earnings comparison might be on some type of normalized basis.

We remember hunkering down in 1974 just concentrating on identifying value in oil and gas stocks. Ironically, our two favorite U.S. integrated companies then were two of our current recommendations, Phillips and Marathon. Those two stocks advanced some 80% from October 1974 to their 1975 highs.

Finally while the stock market rebounded sharply from October 1932 and October 1974 the price averages then languished for some seven years in each case. We know little about energy stocks after 1933. Energy after 1975 was one of the strongest sectors of the stock market.

Buy Recommendations Have Low McDep Ratio and Low Debt

Putting all of our recommendations in the same tables highlights the criteria by which we have made choices. In the summary valuation table the Buy and Sell recommendations contrast sharply on McDep Ratio and the ratio of Debt/Present Value (McDep Energy Portfolio: McDep Ratio). The collapse of so many Energy Infrastructure stocks in the past year most recently justifies that distinction.

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McDep Energy Portfolio: McDep Ratio

	<i>Symbol/ Rating</i>		<i>Price (\$/sh) 26-Sep 2002</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>
El Paso Energy Partners	EPN	S	30.00	43	1,300	10.20	0.64	1.70
Kinder Morgan Energy Partners, L.P.	KMP	S	32.41	136	4,400	14.00	0.49	1.67
Kinder Morgan Management, LLC	KMR	S	31.05	30	900	14.00	0.49	1.62
Kinder Morgan, Inc.	KMI	S	37.00	123	4,600	8.10	0.87	1.46
Encana Corporation	ECA	B	30.09	470	14,100	35.00	0.28	0.90
CNOOC Limited (19%)	CEO	B	27.70	78	2,200	33.00	-	0.84
Energy Partners Ltd.(30%)	EPL	B	7.80	8	100	10.00	0.38	0.83
XTO Energy Inc.	XTO	B	20.10	124	2,500	26.00	0.25	0.83
El Paso Corporation	EP	S	8.08	590	4,800	20.00	0.66	0.80
Burlington Resources	BR	B	38.76	202	7,800	57.00	0.28	0.77
PetroChina Company Ltd (10%)	PTR	B	20.95	176	3,700	30.00	0.17	0.75
Royal Dutch/Shell	RD	B	41.75	3,498	146,000	60.00	0.15	0.74
ConocoPhillips	COP	B	49.18	680	33,400	80.00	0.32	0.74
Marathon Oil Corporation	MRO	B	23.07	310	7,200	40.00	0.37	0.73
ChevronTexaco Corporation	CVX	B	73.20	1,062	77,700	110.00	0.16	0.72
San Juan Basin Royalty Trust	SJT	B	11.63	47	500	16.10	-	0.72
Canadian Oil Sands Trust (US\$)	COS_u.T(B	B	22.78	57	1,300	40.00	0.12	0.62
Petroleo Brasileiro S. A.	PBR	B	11.44	1,086	12,400	30.00	0.27	0.55

Conventional Valuation Measures Add Further Perspective

We pay most attention to cash flow multiple, EV/Ebitda, in judging value. Again there is a stark contrast between buy and sell recommendations on that measure (see McDep Energy Portfolio: Alternative Valuation). EV/Ebitda is the multiple that the market puts on cash flow while PV/Ebitda, in the far right column, is the multiple embedded in the denominator of the McDep Ratio. Dividend yield points the way for income-oriented investors to replace the high income of sell recommendations with high-income buy recommendations.

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McDep Energy Portfolio: Alternative Valuation

			<i>Price</i>				<i>Dividend or</i>	
	<i>Symbol/</i>		<i>(\$/sh)</i>	<i>EV/</i>	<i>EV/</i>		<i>Distribution</i>	<i>PV/</i>
	<i>Rating</i>		<i>26-Sep</i>	<i>Sales</i>	<i>Ebitda</i>	<i>P/E</i>	<i>NTM</i>	<i>Ebitda</i>
			<i>2002</i>	<i>NTM</i>	<i>NTM</i>	<i>NTM</i>	<i>(%)</i>	<i>NTM</i>
El Paso Energy Partners	EPN	S	30.00	8.6	15.3	23	9.0	9.0
Kinder Morgan Energy Partners, L.P.	KMP	S	32.41	3.2	15.0	17	7.5	9.0
Kinder Morgan Management, LLC	KMR	S	31.05	3.1	14.6	16	7.9	9.0
Kinder Morgan, Inc.	KMI	S	37.00	3.4	13.2	16	0.5	9.0
San Juan Basin Royalty Trust	SJT	B	11.63	5.4	6.9	9	10.7	9.6
ConocoPhillips	COP	B	49.18	0.8	6.9	14	2.9	9.3
ChevronTexaco Corporation	CVX	B	73.20	1.1	6.7	13	3.8	9.2
Royal Dutch/Shell	RD	B	41.75	1.0	6.6	13	4.1	8.9
Canadian Oil Sands Trust (US\$)	COS_u.TC	B	22.78	3.4	6.4	7	5.6	10.3
El Paso Corporation	EP	S	8.08	2.3	6.3	5	10.8	7.9
XTO Energy Inc.	XTO	B	20.10	3.9	5.5	10	0.2	6.6
Encana Corporation	ECA	B	30.09	2.5	5.4	11	0.9	6.1
CNOOC Limited (19%)	CEO	B	27.70	4.1	5.4	11	2.3	6.4
Burlington Resources	BR	B	38.76	4.1	5.3	10	1.4	6.9
Marathon Oil Corporation	MRO	B	23.07	0.4	4.6	8	4.0	6.3
Energy Partners Ltd.(30%)	EPL	B	7.80	2.2	4.0			4.8
PetroChina Company Ltd (10%)	PTR	B	20.95	1.7	3.8	7	6.1	5.1
Petroleo Brasileiro S. A.	PBR	B	11.44	1.2	3.1	3	11.8	5.6

Balance Reward and Risk in Portfolio Positions

The McDep Energy Portfolio currently has 10.5 unlevered positive positions and 2.0 negative. Previously we have converted unlevered positions to equity weights using the ratio of debt to present value. Alternatively this week we use the ratio of market cap to enterprise value. The former mechanism gives greater weight to low McDep Ratio stocks while the latter gives higher weight to high McDep Ratio stocks. There is no obvious advantage of one or the other and that is a reason not to interpret the weights too strictly. (For more explanation of sizing positions see *Meter Reader*, August 26, 2002.)

The portfolio has four sub-sectors and an overlapping non-U.S. classification. Four of the positive positions are classified as North American Natural Gas (NANG). Five unlevered position are classified as Oil-Integrated (OILINT), which would be too many except that two are non-U.S. One and a half positions are in oil production (OIL). The overlapping non-U.S. sub-sector has four positions. Two negative positions are in energy infrastructure (INFRA).

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Thus to implement our recommendation of building to a full energy position in October an investor would weight equity positions by the percentages in the equity weight column. Not all investors would establish short positions in the sell recommendations. While we believe the exact positions are reasonable, we expect most investors to see the model as a reference and we hope it stimulates creative thinking and rewarding action.

McDep Energy Portfolio: Position Weights

	<i>Symbol</i>	<i>Price (\$/sh) 26-Sep 2002</i>	<i>Market Cap/EV</i>	<i>Unlev Postn</i>	<i>Equity Weight</i>	<i>Sub Sector</i>	<i>Non- U.S.</i>
Burlington Resources	BR	38.76	0.63	1.00	8.5%	NANG	
Encana Corporation	ECA	30.09	0.69	1.00	9.3%	NANG	X
San Juan Basin Royalty Trust	SJT	11.63	1.00	1.00	13.4%	NANG	
XTO Energy Inc.	XTO	20.10	0.70	1.00	9.4%	NANG	
CNOOC Limited (19%)	CEO	27.70	1.00	0.50	6.7%	OIL	X
Canadian Oil Sands Trust (US\$)	COS_u.TC	22.78	0.81	0.50	5.4%	OIL	X
Energy Partners Ltd.(30%)	EPL	7.80	0.54	0.50	3.6%	OIL	
ConocoPhillips	COP	49.18	0.56	1.00	7.5%	OILINT	
ChevronTexaco Corporation	CVX	73.20	0.77	1.00	10.3%	OILINT	
Marathon Oil Corporation	MRO	23.07	0.50	1.00	6.7%	OILINT	
Petroleo Brasileiro S. A.	PBR	11.44	0.50	0.50	3.4%	OILINT	X
PetroChina Company Ltd (10%)	PTR	20.95	0.78	0.50	5.2%	OILINT	X
Royal Dutch/Shell	RD	41.75	0.80	1.00	10.6%	OILINT	X
	<i>Total</i>			10.5	100.0%		
El Paso Corporation	EP	8.08	0.17	-0.50	-1.2%	INFRA	
El Paso Energy Partners	EPN	30.00	0.62	-0.50	-4.2%	INFRA	
Kinder Morgan, Inc.	KMI	37.00	0.41	-0.50	-2.7%	INFRA	
Kinder Morgan Energy Partners, L	KMP	32.41	0.71	-0.25	-2.4%	INFRA	
Kinder Morgan Management, LLC	KMR	31.05	0.70	-0.25	-2.3%	INFRA	
	<i>Total</i>			-2.00	-12.7%		

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Bankruptcy for El Paso Corporation; Breakup for El Paso Energy Partners

The new weighting is lower for sell recommended EP after its plunge in price and higher for sell recommended EPN because of its high McDep Ratio. We are keeping our sell recommendation on EP even after it has lost more than half its value again. Though we do not want to appear extremist, we feel gloomy about the company's prospects. The reversal of an opinion by a Federal Energy Regulatory Commission Administrative Law Judge suggests to us that management has lost all political support. In days past we would have defended the management in its dispute with California over market manipulation. But as we have learned more in our analysis of high greed partnerships we have to classify El Paso management as the second greediest in the energy industry as measured by extraordinarily high general partner compensation. In an environment where the public feels taken by executive crime, there is no sympathy for a management that is tainted. It looks to us like management will go, credit will be restricted, dividends will be cut, the deceptive general partner compensation will be ended, and the company will be further broken up.

A likely bankruptcy for EP implies that the transfers of properties to EPN will be recognized as shams under the fraudulent conveyance concept in bankruptcy law. At the same time, if EP fails because management betrayed the public trust, it seems highly unlikely that the public will stand for a possible repeat in EPN. For example, EPN would control gathering lines and processing plants that stand between natural gas producers and consumers just as do interstate pipelines.

Moreover with its kickback unsustainable under normal conditions, the general partner has too strong an incentive to cheat consumers and producers as well as its own limited partners. Regrettably, new examples of fraud in energy infrastructure seem to surface every day.

On a more immediate basis, EPN had intended to raise new equity by selling shares in a new shell, El Paso Energy Management. It is hard to believe that institutional investors who are supposed to have a fiduciary responsibility would buy a new offering from El Paso. Those who put a few billion dollars into new shares of EP only months ago have seen that investment melt away almost immediately. Without new financing, EPN collapses.

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) 26-Sep 2002	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio
Mega Cap							
Exxon Mobil Corporation	XOM	34.15	6,858	234,000	36.00	0.09	0.95
BP plc	BP	41.40	3,738	155,000	50.00	0.15	0.85
TotalFinaElf S.A.	TOT	66.95	1,346	90,100	90.00	0.14	0.78
Royal Dutch/Shell	RD B	41.75	3,498	146,000	60.00	0.15	0.74
ChevronTexaco Corporation	CVX B	73.20	1,062	77,700	110.00	0.16	0.72
<i>Total or Median</i>				703,000		0.15	0.78
Energy Infrastructure							
Southern Company	SO	28.91	701	20,300	23.90	0.47	1.11
American Electric Power Co. Inc.	AEP N	28.91	322	9,300	42.20	0.63	0.88
Enel S.p.a. (32%)	EN	24.70	388	9,600	32.70	0.39	0.85
Exelon Corporation	EXC N	47.96	323	15,500	70.80	0.45	0.82
Dominion Resources	D	50.90	269	13,700	76.20	0.45	0.82
Duke Energy Corporation	DUK	19.13	792	15,200	30.40	0.48	0.81
El Paso Corporation	EP S	8.08	590	4,800	20.00	0.66	0.80
<i>Total or Median</i>				68,000		0.47	0.82
Natural Gas and Oil							
OAo Lukoil	LUKOY	66.10	299	19,800	70.00	0.08	0.95
Occidental Petroleum Corp.	OXY	28.55	376	10,700	32.00	0.38	0.93
Devon Energy	DVN	46.55	165	7,700	55.00	0.48	0.92
Encana Corporation	ECA B	30.09	470	14,100	35.00	0.28	0.90
ENI S.p.A.	E	70.14	776	54,400	85.00	0.18	0.86
Anadarko Petroleum Corp.	APC	45.16	266	12,000	56.00	0.26	0.86
Unocal Corporation	UCL	32.05	245	7,900	45.00	0.33	0.81
Burlington Resources	BR B	38.76	202	7,800	57.00	0.28	0.77
ConocoPhillips	COP B	49.18	680	33,400	80.00	0.32	0.74
Marathon Oil Corporation	MRO B	23.07	310	7,200	40.00	0.37	0.73
Petroleo Brasileiro S. A.	PBR B	11.44	1,086	12,400	30.00	0.27	0.55
<i>Total or Median</i>				168,000		0.30	0.83
Service							
Baker Hughes Inc.	BHI	29.64	339	10,000	25.00	0.09	1.16
Schlumberger Ltd.	SLB	41.00	581	23,800	44.00	0.22	0.95
Halliburton Company	HAL	13.50	432	5,800	20.00	0.21	0.74

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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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) 26-Sep 2002	EV/ Sales NTM	EV/ Ebitda NTM	P/E NTM	Dividend or Distribution NTM (%)	PV/ Ebitda NTM	
Mega Cap								
Exxon Mobil Corporation	XOM	34.15	1.4	9.6	20	2.7	10.1	
BP plc	BP	41.40	1.1	7.8	16	3.5	9.1	
TotalFinaElf S.A.	TOT	66.95	1.1	7.1	14	3.8	9.0	
Royal Dutch/Shell	RD	B	41.75	1.0	6.7	14	4.1	9.1
ChevronTexaco Corporation	CVX	B	73.20	1.1	6.7	13	3.8	9.2
	<i>Median</i>		<i>1.1</i>	<i>7.1</i>	<i>14</i>	<i>3.8</i>	<i>9.1</i>	
Energy Infrastructure								
Southern Company	SO	28.91	3.5	10.0	17	4.6	9.0	
American Electric Power Co. Inc.	AEP	N	28.91	0.5	7.9	8	8.3	9.0
Enel S.p.a. (32%)	EN	24.70	2.1	7.7	30	6.6	9.0	
Exelon Corporation	EXC	N	47.96	2.2	7.4	11	3.7	9.0
Dominion Resources	D	50.90	3.1	7.4	10	5.1	9.0	
Duke Energy Corporation	DUK	19.13	0.7	7.3	8	5.8	9.0	
El Paso Corporation	EP	S	8.08	2.3	6.3	5	10.8	7.9
	<i>Median</i>		<i>2.2</i>	<i>7.4</i>	<i>10</i>	<i>5.8</i>	<i>9.0</i>	
Natural Gas and Oil								
Anadarko Petroleum Corp.	APC	45.16	2.7	6.9	14	0.7	8.1	
ConocoPhillips	COP	B	49.18	0.8	6.9	14	2.9	9.3
Devon Energy	DVN	46.55	3.0	6.8	47	0.4	7.4	
ENI S.p.A.	E	70.14	1.5	6.2	14	4.8	7.3	
Occidental Petroleum Corp.	OXY	28.55	1.4	5.6	10	3.5	6.0	
Encana Corporation	ECA	B	30.09	2.5	5.4	11	0.9	6.1
Burlington Resources	BR	B	38.76	4.1	5.3	10	1.4	6.9
Unocal Corporation	UCL	32.05	2.3	5.0	11	2.5	6.2	
OAo Lukoil	LUKOY	66.10	1.7	4.6	9	1.6	4.9	
Marathon Oil Corporation	MRO	B	23.07	0.4	4.6	8	4.0	6.3
Petroleo Brasileiro S. A.	PBR	B	11.44	1.2	3.1	3	11.8	5.6
	<i>Median</i>		<i>1.7</i>	<i>5.4</i>	<i>11</i>	<i>2.5</i>	<i>6.3</i>	
Service								
Baker Hughes Inc.	BHI	29.64	2.1	12.5	35	1.6	10.8	
Schlumberger Ltd.	SLB	41.00	2.3	8.4	30	1.8	8.9	
Halliburton Company	HAL	13.50	0.6	7.3	19	3.7	9.8	

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended September 30, 2003; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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Mid Cap Energy Companies
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Energy Infrastructure							
Enterprise Products Part.	EPD	20.92	175	3,700	9.50	0.43	1.68
Kinder Morgan Energy Partners, L.P.	KMP S	32.41	136	4,400	14.00	0.49	1.67
Kinder Morgan Management, LLC	KMR S	31.05	30	900	14.00	0.49	1.62
Kinder Morgan, Inc.	KMI S	37.00	123	4,600	8.10	0.87	1.46
Constellation Energy Group	CEG	24.29	164	4,000	20.00	0.69	1.07
Calpine Corporation	CPN N	2.89	375	1,100	1.00	0.97	1.05
AES Corporation	AES	2.62	543	1,400	1.00	0.98	1.04
Williams Companies	WMB	2.21	521	1,200	1.00	0.97	1.03
Dynegy Inc.	DYN	1.15	418	500	1.00	0.94	1.01
CMS Energy Corporation	CMS	8.17	137	1,100	8.70	0.90	0.99
Mirant Corporation	MIR	2.18	413	900	4.00	0.86	0.94
Sempra Energy	SRE	19.60	207	4,100	24.30	0.64	0.93
Valero Energy Corporation	VLO	29.13	115	3,400	40.00	0.60	0.89
<i>Total or Median</i>				<i>31,300</i>		<i>0.86</i>	<i>1.04</i>
Natural Gas and Oil							
Murphy Oil Corporation	MUR	85.10	46	3,900	82.00	0.18	1.03
Ocean Energy, Inc.	OEI	19.90	178	3,500	20.00	0.30	1.00
Suncor Energy	SU	16.72	454	7,600	17.00	0.25	0.99
Imperial Oil Limited (30%)	IMO	28.37	114	3,200	30.00	0.14	0.95
Petro-Canada	PCZ	28.85	262	7,600	31.00	0.11	0.94
CNOOC Limited (19%)	CEO B	27.70	78	2,200	33.00	-	0.84
XTO Energy Inc.	XTO B	20.10	124	2,500	26.00	0.25	0.83
Norsk Hydro ASA (49%)	NHY	38.23	126	4,800	54.00	0.18	0.76
PetroChina Company Ltd (10%)	PTR B	20.95	176	3,700	30.00	0.17	0.75
<i>Total or Median</i>				<i>39,000</i>		<i>0.18</i>	<i>0.94</i>
Coal Producers (Small Cap)							
Penn Virginia Res. Part, L.P.	PVR	20.71	15	300	17.00	-	1.23
Consol Energy Inc.	CNX	12.99	79	1,000	5.00	0.88	1.19
Peabody Energy	BTU	24.25	55	1,300	18.00	0.75	1.09
Arch Coal	ACI	16.39	48	800	18.00	0.61	0.97
Alliance Res. Part, L.P.	ARLP	23.18	16	400	29.00	0.36	0.87
Fording Coal (US\$)	FDG	14.80	52	800	23.00	0.04	0.66
Massey Energy	MEE	6.63	75	500	18.00	0.37	0.60
				<i>5,100</i>		<i>0.37</i>	<i>0.97</i>

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

September 30, 2002

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

			Price (\$/sh)	EV/ Sales	EV/ Ebitda	P/E	Dividend or Distribution	PV/ Ebitda
Symbol/ Rating		26-Sep 2002	NTM	NTM	NTM	NTM	(%)	NTM
Energy Infrastructure								
Enterprise Products Part.	EPD		20.92	1.8	18.5	45	6.0	11.0
Kinder Morgan Energy Partners, L.P.	KMP	S	32.41	3.2	15.0	17	7.5	9.0
Kinder Morgan Management, LLC	KMR	S	31.05	3.1	14.6	16	7.9	9.0
Kinder Morgan, Inc.	KMI	S	37.00	3.4	13.2	16	0.5	9.0
Calpine Corporation	CPN	N	2.89	1.8	10.8			10.2
Constellation Energy Group	CEG		24.29	2.7	9.8	9	4.0	9.2
AES Corporation	AES		2.62	2.8	9.3			9.0
Williams Companies	WMB		2.21	1.9	9.3		-	9.0
Dynegy Inc.	DYN		1.15	0.2	9.1		-	9.0
CMS Energy Corporation	CMS		8.17	1.3	8.9	5	8.8	9.0
Mirant Corporation	MIR		2.18	0.4	8.4	2	-	9.0
Sempra Energy	SRE		19.60	2.4	8.4	7	5.1	9.0
Valero Energy Corporation	VLO		29.13	0.4	7.0	7	1.4	7.8
	<i>Median</i>			<i>1.9</i>	<i>9.3</i>	<i>9</i>	<i>4.0</i>	<i>9.0</i>
Natural Gas and Oil								
Suncor Energy	SU		16.72	3.6	10.7	24	1.3	10.8
Imperial Oil Limited (30%)	IMO		28.37	1.4	9.8	22	1.9	10.3
Murphy Oil Corporation	MUR		85.10	1.0	8.2	40	1.8	8.0
Ocean Energy, Inc.	OEI		19.90	4.6	7.8	34	0.8	7.8
Petro-Canada	PCZ		28.85	1.8	6.9	18	0.9	7.4
XTO Energy Inc.	XTO	B	20.10	3.9	5.5	10	0.2	6.6
CNOOC Limited (19%)	CEO	B	27.70	4.1	5.4	11	2.3	6.4
PetroChina Company Ltd (10%)	PTR	B	20.95	1.7	3.8	7	6.1	5.1
Norsk Hydro ASA (49%)	NHY		38.23	0.7	3.6	10	2.7	4.8
	<i>Median</i>			<i>1.8</i>	<i>6.9</i>	<i>18</i>	<i>1.8</i>	<i>7.4</i>
Coal Producers (Small Cap)								
Penn Virginia Res. Part, L.P.	PVR		20.71	9.8	13.6	15	9.7	11.0
Consol Energy Inc.	CNX		12.99	1.9	11.6	30	4.3	9.7
Peabody Energy	BTU		24.25	1.5	9.7	20	1.6	9.0
Arch Coal	ACI		16.39	1.4	8.7	92	1.4	9.0
Fording Coal (US\$)	FDG		14.80	1.4	5.9	13	2.6	9.0
Massey Energy	MEE		6.63	0.9	5.4	166	2.4	8.9
Alliance Res. Part, L.P.	ARLP		23.18	1.2	5.3	7	8.6	6.0
				<i>1.4</i>	<i>8.7</i>	<i>20</i>	<i>2.6</i>	<i>9.0</i>

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended September 30, 2003; 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

September 30, 2002

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

	<i>Symbol/</i>		<i>Price</i>		<i>Market</i>	<i>Net</i>	<i>Debt/</i>	
	<i>Rating</i>		<i>(\$/sh)</i>	<i>Shares</i>	<i>Cap</i>	<i>Present</i>	<i>Present</i>	<i>McDep</i>
			<i>26-Sep</i>	<i>(mm)</i>	<i>(\$mm)</i>	<i>Value</i>	<i>Value</i>	<i>Ratio</i>
			<i>2002</i>			<i>(\$/sh)</i>		
Energy Infrastructure								
El Paso Energy Partners	EPN	S	30.00	42.8	1,280	10.20	0.64	1.70
Enbridge Energy Partners,	EEP		44.05	31.0	1,370	16.60	0.58	1.70
TEPPCO Partners, L.P.	TPP		29.15	46.5	1,350	12.90	0.61	1.49
Plains All Amer. Pipeline	PAA		24.23	41.6	1,010	14.90	0.39	1.39
Northern Border Partners	NBP		36.70	42.0	1,540	20.10	0.57	1.36
AmeriGas Partners, L.P.	APU		23.21	49.0	1,140	23.50	0.47	0.99
Penn Virginia Corporation	PVA		32.62	9.0	290	38.00	0.09	0.87
	<i>Total or Median</i>				8,000		0.57	1.39
Natural Gas and Oil								
Provident Energy Trust	PVX		6.86	36.0	250	5.00	0.46	1.20
Dorchester Hugoton, Ltd.	DHULZ		13.44	10.7	144	11.60	(0.17)	1.18
Pogo Producing Company	PPP		33.62	60.5	2,030	32.00	0.27	1.04
Newfield Exploration Company	NFX		33.30	48.6	1,620	33.00	0.25	1.01
Quicksilver Resources Inc.	KWK		18.40	19.4	360	19.00	0.44	0.98
Enerplus Resources Fund	ERF		17.95	69.6	1,250	20.00	0.19	0.92
Unit Corporation	UNT		18.80	36.2	680	21.00	0.03	0.90
Encore Acquisition Corp. (25%)	EAC		16.80	7.5	126	20.00	0.18	0.87
Stone Energy Company	SGY		33.40	26.4	880	42.00	0.29	0.85
Southwestern Energy Company	SWN		12.45	25.6	320	17.00	0.44	0.85
Forest Oil Corporation	FST	N	25.55	46.8	1,200	35.00	0.30	0.81
Spinnaker Exploration Company	SKE		28.05	28.5	800	35.00	0.03	0.81
Magnum Hunter Resources, Inc.	MHR		5.23	71.5	370	11.00	0.46	0.71
Swift Energy Company	SFY		11.02	24.8	270	22.00	0.32	0.66
Canadian Oil Sands Trust (US\$)	COS_u.TO	B	23.18	56.9	1,320	40.00	0.12	0.63
	<i>Total or Median</i>				11,600		0.27	0.87
Natural Gas Royalty Trusts								
Cross Timbers Royalty Trust	CRT		17.51	6.0	105	20.10	-	0.87
Hugoton Royalty Trust (46%)	HGT		11.40	18.4	210	15.60	-	0.73
San Juan Basin Royalty Trust	SJT	B	11.63	46.6	540	16.10	-	0.72
Micro Cap								
Abraxas Petroleum Corporation	ABP		0.78	27.0	21	2.00	0.84	0.90
Energy Partners Ltd.(30%)	EPL	B	7.80	8.2	64	10.00	0.38	0.86
Purcell Energy, Ltd. (US\$)	PEL.TO	N	1.41	27.3	38	3.00	0.22	0.58

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

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September 30, 2002

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

	Symbol/ Rating		Price (\$/sh) 26-Sep 2002	EV/ Sales NTM	EV/ Ebitda NTM	P/E NTM	Dividend or Distribution NTM (%)	PV/ Ebitda NTM
Energy Infrastructure								
El Paso Energy Partners	EPN	S	30.00	8.6	15.3	23	9.0	9.0
Enbridge Energy Partners,	EEP		44.05	6.8	15.3	85	7.9	9.0
TEPPCO Partners, L.P.	TPP		29.15	1.1	13.4	19	7.9	9.0
Plains All Amer. Pipeline	PAA		24.23	0.2	12.5	18	8.5	9.0
Northern Border Partners	NBP		36.70	7.7	12.2	16	8.7	9.0
AmeriGas Partners, L.P.	APU		23.21	1.5	9.0	13	9.5	9.0
Penn Virginia Corporation	PVA		32.62	3.1	5.0	21	2.8	5.8
	<i>Median</i>			<i>3.1</i>	<i>12.5</i>	<i>19</i>	<i>8.5</i>	<i>9.0</i>
Natural Gas and Oil								
Dorchester Hugoton, Ltd.	DHULZ		13.44	6.4	9.6	13	9.0	8.1
Quicksilver Resources Inc.	KWK		18.40	4.4	8.2	20	-	8.3
Pogo Producing Company	PPP		33.62	4.4	7.5	48	0.4	7.3
Provident Energy Trust	PVX		6.86	3.6	7.3	89	16.2	6.1
Enerplus Resources Fund	ERF		17.95	4.7	6.8	16	12.2	7.4
Canadian Oil Sands Trust (US\$)	COS_u.TO	B	23.18	3.5	6.5	7	5.5	10.3
Encore Acquisition Corp. (25%)	EAC		16.80	4.2	6.4	14	-	7.4
Forest Oil Corporation	FST	N	25.55	3.7	6.3	21	-	7.8
Unit Corporation	UNT		18.80	3.2	6.0	13	-	6.6
Magnum Hunter Resources, Inc.	MHR		5.23	2.9	5.9	15	-	8.3
Southwestern Energy Company	SWN		12.45	2.2	5.4	12	-	6.3
Swift Energy Company	SFY		11.02	3.6	5.4	23	-	8.1
Newfield Exploration Company	NFX		33.30	3.4	4.7	19	-	4.7
Stone Energy Company	SGY		33.40	3.3	4.3	10	-	5.0
Spinnaker Exploration Company	SKE		28.05	3.4	3.9	12	-	4.8
	<i>Median</i>			<i>3.6</i>	<i>6.3</i>	<i>15</i>	<i>-</i>	<i>7.4</i>
Natural Gas Royalty Trusts								
Cross Timbers Royalty Trust	CRT		17.51	6.1	8.5	9	10.9	9.8
San Juan Basin Royalty Trust	SJT	B	11.63	5.4	6.9	9	10.7	9.6
Hugoton RoyaltyTrust (46%)	HGT		11.40	4.7	6.8	9	10.6	9.3
Micro Cap								
Abraxas Petroleum Corporation	ABP		0.78	4.3	6.3		-	6.9
Purcell Energy, Ltd. (US\$)	PEL.TO	N	1.41	3.3	5.0	11	-	8.5
Energy Partners Ltd.(30%)	EPL	B	7.80	2.2	4.2		-	4.8

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended September 30, 2003; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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