A Weekly Analysis of Energy Stocks Using the McDep Ratio February 6, 2003

Low Fee, Low Debt Stands Out

Summary and Recommendation

Two standout income stocks each had a big week fundamentally. Buy recommended Canadian Oil Sands Trust (COS u.TO) expands its ownership in the Syncrude project to 32% from 22% on an advantageous basis. In the other case, **Dorchester Minerals**, **L.P.** (**DMLP**) has started trading as a new U.S. master limited partnerships succeeding Dorchester Hugoton. COS and DMLP are rare among income stocks as management appears restrained in charging less for its services in contrast to High Greed Partnerships such as sell recommended Kinder Morgan (KMI, KMP, KMR), El Paso Energy Partners (EPN) and Enbridge (EEP, EEQ). COS will finance only a third of the acquisition with debt in order to maintain a strong financial position while DMLP intends to operate without debt as its predecessor did so successfully. We cite a landmark new study by Martin Leibowitz, the institutional investor that cautions on valuation of high debt entities. Not only are the High Greed Partnerships bloated with debt, but we explain that their earnings are phony as well. The willingness for investors to pay so much for sell recommended stocks makes our buy recommendations look all the better to us (see buy/sell ratings in Tables L-1, L-2, M-1, M-2, S-1, S-2). Among those recommendations we see a sharp improvement in refining margin futures that should help the stocks of Royal Dutch (RD), ChevronTexaco (CVX), ConocoPhillips (COP) and Marathon (**MRO**) perform better.

Canadian Oil Sands Trust Increases Ownership in Syncrude

COS is paying **Encana** (**ECA**) C\$1.07 billion for a 10% interest in the Alberta project to extract oil from sand and convert it to a valuable, clean product. While we are also recommending Encana we would rather be the buyer of an interest in Syncrude than the seller. Yet it can also make sense for Encana to concentrate its financial resources on projects that it operates and in which it has the controlling interest.

The price is about a 14% discount to recent proportionate Enterprise Value for COS whose sole asset is a 22% interest in the plant. The price is less than 60% of Present Value that we estimate. The valuation of the long life project is especially sensitive to rate of return just like the price of a 30-year bond fluctuates more with a small change in interest rate. Often, investors and corporate managers overstate the return they seek as a means of limiting risk. That is understandable, but it has the consequences of biasing decisions to short life projects. As a result, long life projects can be systematically undervalued as we think is the case here. Long-term investors can capture that undervaluation for their own benefit.

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The acquisition will be financed in part by a private placement of about 8.6 million units at C\$34.75, or C\$300 million, with Capital Group, the California investment managers. Another 10.7 million units will be offered in Canada at C\$35 per unit. The remainder will be financed with debt thereby maintaining a conservative ratio of debt below 0.2 times present value. The steep discount in offering price indicates less market liquidity than one might expect for the size of the trust. Yet a 45% increase in ownership in the project exceeds a 36% increase in units outstanding.

There are no plans to list the shares in the U.S. For the trust to keep its ability to bypass double taxation of dividends, it must be about 50% Canadian owned as we understand it. A U.S. listing might lead to too much U.S. ownership. The lack of marketability in the U.S. probably contributes to the undervaluation we perceive.

Investors who hold the units for a long time will realize the value in distributions currently at 5.3%. The distribution may double after about three years when a 50% expansion of capacity is on line and continue to grow slowly thereafter, essentially indefinitely. U.S. investors are subject to a 15% withholding tax that may be recoverable in taxable accounts. Some of the distribution appears to be sheltered from tax because it is considered a return of capital.

Dorchester Minerals, L.P. Plans Growth at Moderate Fees, No Debt

During the 1980s, unitholders of Dorchester Hugoton realized gains as the partnership's natural gas production belatedly was freed from price controls. During the 1990s unitholders continued to receive an attractive income stream though capital gain was muted compared to the previous decade. Now the character of the partnership has changed again with a new general partner and a combination with royalty properties that were previously privately held. The new partnership may grow by offering liquidity and tax-free exchange, we think, to other owners of privately held production.

There can be an awkward period for new combinations until a record can be established regarding the combined performance of the previously separate entities. For DMLP the latest pro forma results are for the period ended June 30, 2002. From that dated base we have projected results for the Next Twelve Months ended December 31, 2003. It looks like the partnership may distribute almost 10% of its value in cash to unitholders (see Table S-2).

A relatively high McDep Ratio keeps us from recommending the stock for new purchase. Yet we like the quality characteristics of conservative financing and moderate fees, for a partnership. Investors may reckon that if the market accords high McDep Ratios to high debt, high fee partnerships shouldn't DMLP be worth just as much? Quality stands out. We wish the new partnership well.

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The Kiss of Debt

There is an article in the November/December 2002 edition of *Financial Analysts Journal* that, to our mind, is one of the most insightful of many years. Mr. Martin Leibowitz, Chief Investment Officer of the giant pension fund, TIAA-CREF, writes about The Levered P/E Ratio. The author proves that when valuing a stock for its dividend and growth, the P/E ratio for a high debt issue is not comparable to that for a low debt issue. He develops an example that starts with a debt-free company that is worth a P/E of 30. Mr. Leibowitz then demonstrates that for a company with 30% debt, the comparable P/E would be about 25. For a company with 50% debt, comparable P/E would be 20. The comparison deteriorates rapidly for debt over 50%.

There is an implication for the broader market as well as for individual stocks. The author points out that the debt ratio for the S&P 400 jumped from about 30% in the 1980s to near 50% in the 1990s. Thus the increase in leverage implies that the P/E for the stock market should be lower than historically, other factors being equal.

Mr. Leibowitz, in effect, is writing a sophisticated, mathematical, theoretical, academic, powerful justification of what we have learned over two decades using the McDep Ratio. We had been emphasizing the <u>levered</u> price to net present value ratio in selecting among energy stocks. When megadeals were completed with debt financing, we could see that the levered ratio made high debt stocks look too attractive. Like the author, we reverted to unlevered measurements of Enterprise Value as the term has evolved. Unlevered metrics now seem to be more widely applied in research on energy producers.

Energy producer investors have learned the lesson of unlevered valuation with the painful failures of high debt entities, mostly a decade, or more, ago. Power company investors learned that lesson bitterly over the past year or more as fine old dividend paying stocks collapsed. We have a stark reminder today as we write this as **El Paso (EP)** slashes its dividend after the stock is down some 90%. High greed partnership investors have yet to learn the lesson of unlevered valuation.

High Greed Partnership Earnings May be Phony

Each of our three sell recommended partnerships issued a glowing press release telling of record results last year. Each also made major acquisitions financed primarily with debt. Because of the high debt, levered measures overstate value, as discussed above. In the case of P/E it is even worse because, there really is no E as we see it.

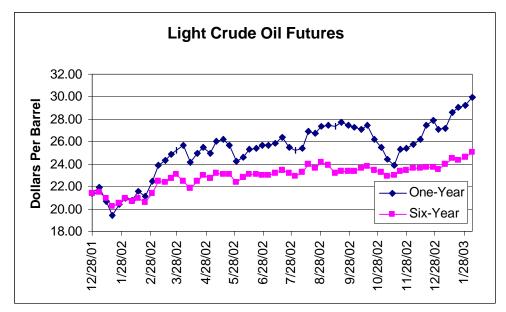
What the balance sheets of the partnerships do not show is that the general partner has a large equity interest in future earnings. That interest may be half. To reflect that interest, the book value of the limited partners' interest should be written down and the general partner's interest should be written up. Taking those changes through the income

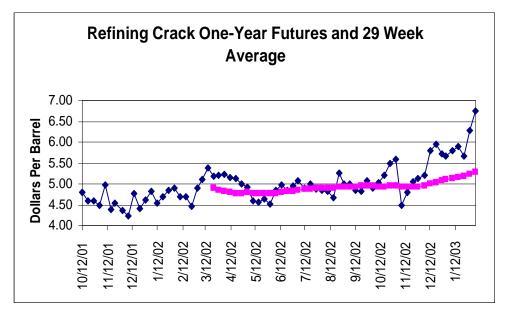
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statement would likely turn last year's profits into losses. It is past time, in our opinion, for the auditors to protest, rather than blindly bless, another year's deception when annual reports are filed.

Fundamentals Up, Stock Price Down for Major Oil Stocks

Profits are looking up for recommended Royal Dutch (RD), ChevronTexaco (CVX), ConocoPhillips (COP) and Marathon (MRO). Not only do the trend in crude oil futures continue in a positive pattern, but also the trend in refining margin futures (see charts).



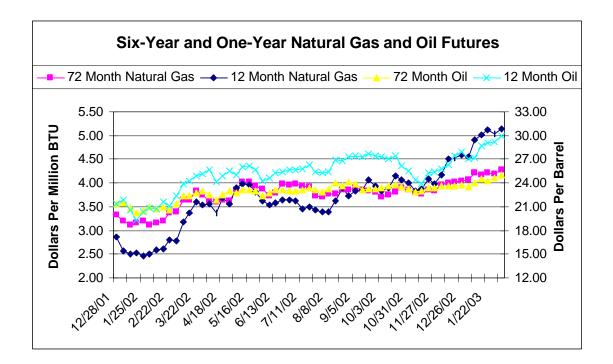


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We downplay the widely voiced anticipation that with a successful war in Iraq, oil price will drop sharply. Sure spot price may drop, but at the other extreme six-year futures are not all that high at around \$25 per barrel. Moreover, how much vulnerability can there be in stock price for major oil issues if the stocks are already off sharply while crude oil price has trended upward?

Equally important to current profits are refining/marketing margins. Expectations for one-year refining margins are continuing a steep advance that started late last year. It is probably the refining/marketing business that accounts for the lagging performance of integrated companies compared to independent producers. That drag may be about to diminish.

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

| | | | Price | | | Net | | |
|----------------------------------|---------|-----|---------|---------|---------|---------|---------|-------|
| | | | (\$/sh) | | Market | Present | Debt/ | |
| | Symbol/ | | 5-Feb | Shares | Cap | Value | Present | McDep |
| | Rai | ing | 2003 | (mm) | (\$mm) | (\$/sh) | Value | Ratio |
| Mega Cap | | | | . = . = | | | | |
| Exxon Mobil Corporation | XOM | | 34.13 | 6,787 | 232,000 | 37.00 | 0.09 | 0.93 |
| TotalFinaElf S.A. | TOT | | 67.33 | 1,336 | 89,900 | 90.00 | 0.15 | 0.79 |
| BP plc | BP | _ | 38.71 | 3,735 | 145,000 | 52.00 | 0.14 | 0.78 |
| Royal Dutch/Shell | RD | В | 41.50 | 3,481 | 144,000 | 60.00 | 0.15 | 0.74 |
| ChevronTexaco Corporation | CVX | В | 65.07 | 1,062 | 69,100 | 101.00 | 0.17 | 0.71 |
| Total or Median | | | | | 680,000 | | 0.15 | 0.78 |
| Energy Infrastructure | | | | | | | | |
| Southern Company | SO | | 28.04 | 701 | 19,700 | 23.90 | 0.47 | 1.09 |
| Duke Energy Corporation | DUK | | 16.79 | 822 | 13,800 | 15.00 | 0.73 | 1.03 |
| American Electric Power Co. Inc. | AEP | N | 22.66 | 326 | 7,400 | 27.40 | 0.74 | 0.96 |
| Enel S.p.a. (32%) | EN | | 27.98 | 388 | 10,900 | 32.70 | 0.39 | 0.91 |
| Dominion Resources | D | | 54.65 | 269 | 14,700 | 76.20 | 0.45 | 0.85 |
| Exelon Corporation | EXC | N | 50.18 | 323 | 16,200 | 70.80 | 0.45 | 0.84 |
| El Paso Corporation | EP | N | 6.20 | 590 | 3,700 | 20.00 | 0.66 | 0.77 |
| Total or Median | | | | | 67,000 | | 0.56 | 0.88 |
| Natural Gas and Oil | | | | | | | | |
| Occidental Petroleum Corp. | OXY | | 29.20 | 380 | 11,100 | 35.00 | 0.36 | 0.89 |
| Encana Corporation | ECA | В | 31.20 | 470 | 14,700 | 38.00 | 0.27 | 0.87 |
| ENI S.p.A. | E | | 73.68 | 776 | 57,200 | 90.00 | 0.17 | 0.85 |
| Devon Energy | DVN | | 46.69 | 158 | 7,400 | 65.00 | 0.42 | 0.84 |
| Anadarko Petroleum Corp. | APC | | 45.19 | 258 | 11,700 | 60.00 | 0.25 | 0.82 |
| OAO Lukoil | LUKOY | | 55.50 | 299 | 16,600 | 70.00 | 0.08 | 0.81 |
| Unocal Corporation | UCL | | 27.70 | 245 | 6,800 | 40.00 | 0.37 | 0.81 |
| Burlington Resources | BR | В | 44.30 | 202 | 8,900 | 60.00 | 0.26 | 0.80 |
| ConocoPhillips | COP | В | 49.41 | 680 | 33,600 | 75.00 | 0.36 | 0.78 |
| Marathon Oil Corporation | MRO | В | 22.01 | 310 | 6,800 | 40.00 | 0.37 | 0.72 |
| Petroleo Brasileiro S. A. | PBR | N | 14.34 | 1,086 | 15,600 | 30.00 | 0.27 | 0.62 |
| Total or Median | | | | | 179,000 | | 0.27 | 0.81 |
| Service | | | | | | | | |
| Baker Hughes Inc. | BHI | | 31.77 | 339 | 10,800 | 25.00 | 0.09 | 1.25 |
| Halliburton Company | HAL | | 18.96 | 434 | 8,200 | 22.00 | 0.25 | 0.89 |
| Schlumberger Ltd. | SLB | | 38.11 | 581 | 22,100 | 44.00 | 0.22 | 0.89 |

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

McDep Ratio = Market cap and **De**bt to **pr**esent 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.

| | | Price Dividend or | | | | | idend or | |
|----------------------------------|---------|-------------------|---------|-------|--------|-----|-----------|--------|
| | | | (\$/sh) | EV/ | EV/ | Dis | tribution | PV/ |
| | Symbol/ | | 5-Feb | Sales | Ebitda | P/E | NTM | Ebitda |
| | Ra | ıting | 2003 | NTM | NTM | NTM | (%) | NTM |
| Mega Cap | | | | | | | | |
| Exxon Mobil Corporation | XOM | | 34.13 | 1.2 | 8.2 | 17 | 2.7 | 8.9 |
| TotalFinaElf S.A. | TOT | | 67.33 | 1.1 | 6.9 | 13 | 3.8 | 8.8 |
| BP plc | BP | | 38.71 | 0.9 | 6.7 | 14 | 3.7 | 8.6 |
| Royal Dutch/Shell | RD | В | 41.50 | 0.9 | 6.3 | 13 | 4.1 | 8.6 |
| ChevronTexaco Corporation | CVX | В | 65.07 | 0.9 | 5.8 | 12 | 4.3 | 8.2 |
| Median | ı | | | 0.9 | 6.7 | 13 | 3.8 | 8.6 |
| Energy Infrastructure | | | | | | | | |
| Duke Energy Corporation | DUK | | 16.79 | 2.5 | 9.9 | 12 | 6.6 | 9.6 |
| Southern Company | SO | | 28.04 | 3.4 | 9.8 | 16 | 4.8 | 9.0 |
| American Electric Power Co. Inc. | AEP | N | 22.66 | 0.5 | 8.6 | 8 | 10.6 | 9.0 |
| Enel S.p.a. (32%) | EN | | 27.98 | 2.3 | 8.2 | 34 | 5.8 | 9.0 |
| Dominion Resources | D | | 54.65 | 3.2 | 7.6 | 11 | 4.7 | 9.0 |
| Exelon Corporation | EXC | N | 50.18 | 2.3 | 7.6 | 11 | 3.5 | 9.0 |
| El Paso Corporation | EP | N | 6.20 | 2.2 | 5.9 | 3 | 14.0 | 7.7 |
| Median | ı | | | 2.3 | 8.2 | 11 | 5.8 | 9.0 |
| Natural Gas and Oil | | | | | | | | |
| ConocoPhillips | COP | В | 49.41 | 0.7 | 5.8 | 9 | 3.2 | 7.4 |
| ENI S.p.A. | E | | 73.68 | 1.5 | 5.7 | 11 | 5.0 | 6.7 |
| Encana Corporation | ECA | В | 31.20 | 2.2 | 5.2 | 10 | 0.8 | 6.0 |
| Anadarko Petroleum Corp. | APC | | 45.19 | 3.4 | 4.9 | 9 | 0.9 | 6.0 |
| Burlington Resources | BR | В | 44.30 | 3.5 | 4.7 | 9 | 1.2 | 5.8 |
| Occidental Petroleum Corp. | OXY | | 29.20 | 2.2 | 4.6 | 6 | 3.6 | 5.1 |
| Unocal Corporation | UCL | | 27.70 | 2.1 | 4.3 | 8 | 2.9 | 5.4 |
| Marathon Oil Corporation | MRO | В | 22.01 | 0.4 | 4.3 | 6 | 4.2 | 6.0 |
| Devon Energy | DVN | | 46.69 | 2.7 | 4.3 | 6 | 0.4 | 5.1 |
| OAO Lukoil | LUKOY | | 55.50 | 1.4 | 3.3 | 6 | 1.9 | 4.1 |
| Petroleo Brasileiro S. A. | PBR | N | 14.34 | 1.2 | 3.1 | 3 | 9.4 | 4.9 |
| Median | ı | | | 2.1 | 4.6 | 8 | 2.9 | 5.8 |
| Service | | | | | | | | |
| Baker Hughes Inc. | BHI | | 31.77 | 2.2 | 13.5 | 38 | 1.4 | 10.8 |
| Halliburton Company | HAL | | 18.96 | 1.0 | 8.1 | 17 | 2.6 | 9.0 |
| Schlumberger Ltd. | SLB | | 38.11 | 2.1 | 8.0 | 28 | 2.0 | 8.9 |
| | | | | | | | | |

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

A Weekly Analysis of Energy Stocks Using the McDep Ratio February 6, 2003

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

| | | | Price | | | Net | | |
|-------------------------------------|-------|-----|---------|--------|--------|---------|---------|-------|
| | | | (\$/sh) | | Market | Present | Debt/ | |
| | Symbo | | 5-Feb | Shares | Cap | Value | Present | McDep |
| | Rat | ing | 2003 | (mm) | (\$mm) | (\$/sh) | Value | Ratio |
| Energy Infrastructure | | | | | | | | |
| Kinder Morgan Energy Partners, L.P. | KMP | S | 35.31 | 141 | 5,000 | 14.00 | 0.47 | 1.80 |
| Kinder Morgan Management, LLC | KMR | S | 31.81 | 40 | 1,300 | 14.00 | 0.47 | 1.67 |
| Kinder Morgan, Inc. | KMI | S | 46.25 | 123 | 5,700 | 14.00 | 0.80 | 1.45 |
| Constellation Energy Group | CEG | | 26.65 | 164 | 4,400 | 20.00 | 0.69 | 1.10 |
| Calpine Corporation | CPN | N | 3.11 | 375 | 1,200 | 1.00 | 0.97 | 1.06 |
| Dynegy Inc. | DYN | | 2.01 | 418 | 800 | 1.00 | 0.94 | 1.06 |
| Williams Companies | WMB | | 3.10 | 521 | 1,600 | 1.00 | 0.97 | 1.06 |
| AES Corporation | AES | | 3.05 | 543 | 1,700 | 1.00 | 0.98 | 1.05 |
| Sempra Energy | SRE | | 23.83 | 207 | 4,900 | 24.30 | 0.64 | 0.99 |
| Valero Energy Corporation | VLO | | 36.75 | 115 | 4,200 | 40.00 | 0.60 | 0.97 |
| CMS Energy Corporation | CMS | | 4.80 | 137 | 700 | 8.70 | 0.90 | 0.96 |
| Mirant Corporation | MIR | | 1.72 | 413 | 700 | 4.00 | 0.86 | 0.92 |
| Total or Median | | | | | 32,200 | | 0.83 | 1.06 |
| Natural Gas and Oil | | | | | | | | |
| Petro-Canada | PCZ | | 33.52 | 262 | 8,800 | 31.00 | 0.11 | 1.07 |
| Murphy Oil Corporation | MUR | | 42.63 | 92 | 3,900 | 41.00 | 0.24 | 1.03 |
| Suncor Energy | SU | | 16.79 | 454 | 7,600 | 17.00 | 0.25 | 0.99 |
| Ocean Energy, Inc. | OEI | | 19.11 | 178 | 3,400 | 20.00 | 0.30 | 0.97 |
| XTO Energy Inc. | XTO | В | 24.52 | 125 | 3,100 | 26.00 | 0.25 | 0.96 |
| Imperial Oil Limited (30%) | IMO | | 29.70 | 114 | 3,400 | 33.00 | 0.13 | 0.91 |
| CNOOC Limited (19%) | CEO | В | 26.59 | 78 | 2,080 | 33.00 | - | 0.81 |
| Norsk Hydro ASA (49%) | NHY | | 41.12 | 126 | 5,200 | 54.00 | 0.18 | 0.80 |
| PetroChina Company Ltd (10%) | PTR | В | 21.48 | 176 | 3,800 | 30.00 | 0.17 | 0.76 |
| Total or Median | | | | | 41,300 | | 0.18 | 0.96 |
| Coal Producers (Small Cap) | | | | | | | | |
| Penn Virginia Res. Part, L.P. | PVR | | 23.00 | 15 | 400 | 18.00 | - | 1.27 |
| Consol Energy Inc. | CNX | | 15.58 | 79 | 1,200 | 5.00 | 0.88 | 1.25 |
| Alliance Res. Part, L.P. | ARLP | | 24.29 | 16 | 400 | 20.00 | 0.45 | 1.12 |
| Peabody Energy | BTU | | 25.07 | 55 | 1,400 | 18.00 | 0.75 | 1.10 |
| Arch Coal | ACI | | 17.26 | 48 | 800 | 18.00 | 0.61 | 0.98 |
| Fording Inc (US\$) | FDG | | 22.27 | 52 | 1,200 | 23.00 | 0.04 | 0.97 |
| Massey Energy | MEE | | 8.01 | 75 | 600 | 18.00 | 0.37 | 0.65 |
| | | | | | 6,000 | | 0.45 | 1.10 |

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

McDep Ratio = Market cap and **De**bt to **pr**esent value of oil and gas and other businesses

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

| | | | Price (\$/sh) | EV/ | EV/ | | vidend or stribution | PV/ |
|-------------------------------------|------------|------|------------------|-------|--------|-----|-------------------------|--------|
| | Symbo | 1/ | 5-Feb | Sales | Ebitda | P/E | NTM | Ebitda |
| | - | ting | 2003 | NTM | NTM | NTM | (%) | NTM |
| | | | | | -, | -, | (, ,) | -, |
| Energy Infrastructure | | | | | | | | |
| Kinder Morgan Energy Partners, L.P. | KMP | S | 35.31 | 3.2 | 15.6 | 18 | 7.1 | 8.7 |
| Kinder Morgan Management, LLC | KMR | S | 31.81 | 3.0 | 14.5 | 16 | 7.9 | 8.7 |
| Kinder Morgan, Inc. | KMI | S | 46.25 | 3.2 | 12.2 | 14 | 1.3 | 8.4 |
| Calpine Corporation | CPN | N | 3.11 | 1.8 | 10.8 | | | 10.2 |
| Constellation Energy Group | CEG | | 26.65 | 2.8 | 10.1 | 10 | 3.6 | 9.2 |
| Dynegy Inc. | DYN | | 2.01 | 0.2 | 9.5 | | - | 9.0 |
| Williams Companies | WMB | | 3.10 | 1.9 | 9.5 | | - | 9.0 |
| AES Corporation | AES | | 3.05 | 2.8 | 9.4 | | | 9.0 |
| Sempra Energy | SRE | | 23.83 | 2.5 | 8.9 | 9 | 4.2 | 9.0 |
| CMS Energy Corporation | CMS | | 4.80 | 1.3 | 8.6 | 3 | 15.0 | 9.0 |
| Mirant Corporation | MIR | | 1.72 | 0.4 | 8.2 | 1 | - | 9.0 |
| Valero Energy Corporation | VLO | | 36.75 | 0.4 | 7.6 | 9 | 1.1 | 7.8 |
| Median | | | | 2.2 | 9.5 | 10 | 2.4 | 9.0 |
| Natural Gas and Oil | | | | | | | | |
| Suncor Energy | SU | | 16.79 | 3.6 | 10.7 | 24 | 1.3 | 10.8 |
| Petro-Canada | PCZ | | 33.52 | 2.0 | 7.9 | 21 | 0.8 | 7.4 |
| Ocean Energy, Inc. | OEI | | 19.11 | 4.5 | 7.6 | 33 | 0.8 | 7.8 |
| Imperial Oil Limited (30%) | IMO | | 29.70 | 1.2 | 7.4 | 14 | 1.8 | 8.1 |
| Murphy Oil Corporation | MUR | | 42.63 | 1.1 | 6.9 | 19 | 1.9 | 6.7 |
| XTO Energy Inc. | XTO | В | 24.52 | 4.2 | 5.6 | 10 | 0.2 | 5.8 |
| CNOOC Limited (19%) | CEO | В | 26.59 | 3.6 | 4.6 | 9 | 2.4 | 5.7 |
| PetroChina Company Ltd (10%) | PTR | В | 21.48 | 1.7 | 3.9 | 8 | 5.9 | 5.1 |
| Norsk Hydro ASA (49%) | NHY | | 41.12 | 0.7 | 3.8 | 11 | 2.5 | 4.8 |
| Median | | | | 2.0 | 6.9 | 14 | 1.8 | 6.7 |
| Coal Producers (Small Cap) | | | | | | | | |
| Consol Energy Inc. | CNX | | 15.58 | 2.0 | 12.1 | 35 | 3.6 | 9.7 |
| Penn Virginia Res. Part, L.P. | PVR | | 23.00 | 8.4 | 10.9 | 13 | 8.7 | 8.6 |
| Peabody Energy | BTU | | 25.07 | 1.5 | 9.8 | 21 | 1.6 | 9.0 |
| Arch Coal | ACI | | 17.26 | 1.5 | 8.9 | 97 | 1.3 | 9.0 |
| Fording Inc (US\$) | FDG | | 22.27 | 2.0 | 8.7 | 20 | 1.7 | 9.0 |
| Alliance Res. Part, L.P. | ARLP | | 24.29 | 1.2 | 7.9 | 20 | 8.2 | 7.0 |
| Massey Energy | MEE | | 8.01 | 1.0 | 5.8 | 200 | 2.0 | 8.9 |
| | | | | 1.5 | 8.9 | 21 | 2.0 | 9.0 |

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

| | | | Price (\$/sh) | | Market | Net Present | Debt/ | |
|-----------------------------------|----------------|-----|------------------|--------|--------|----------------|---------|-------|
| | Symbol/ | | 5-Feb | Shares | Сар | Value | Present | МсДер |
| | Symbol/ Rat | ina | 2003 | (mm) | (\$mm) | (\$/sh) | Value | Ratio |
| | Kui | ing | 2003 | (mm) | (ψπιπ) | (ψ/SH) | vaine | Kano |
| Energy Infrastucture | | | | | | | | |
| El Paso Energy Partners | EPN | S | 31.36 | 57.0 | 1,790 | 5.60 | 0.64 | 2.65 |
| Enbridge Energy Partners, L.P. | EEP | S | 43.95 | 35.0 | 1,540 | 14.90 | 0.64 | 1.71 |
| Enterprise Products Part (16%) | EPD | | 19.01 | 28.5 | 540 | 6.70 | 0.63 | 1.67 |
| Plains All Amer. Pipeline | PAA | | 24.75 | 50.0 | 1,240 | 11.60 | 0.49 | 1.58 |
| Enbridge Energy Management, L.L.C | EEQ | S | 38.00 | 9.0 | 340 | 14.90 | 0.64 | 1.56 |
| Northern Border Partners | NBP | | 38.02 | 44.0 | 1,670 | 20.40 | 0.62 | 1.32 |
| TEPPCO Partners, L.P. | TPP | | 29.42 | 50.0 | 1,470 | 17.70 | 0.56 | 1.29 |
| AmeriGas Partners, L.P. | APU | | 24.81 | 49.4 | 1,230 | 18.30 | 0.51 | 1.17 |
| Western Gas Resources | WGR | | 34.04 | 33.8 | 1,150 | 37.60 | 0.28 | 0.93 |
| Total or Median | | | | | 11,000 | | 0.62 | 1.56 |
| Natural Gas and Oil | | | | | | | | |
| Provident Energy Trust | PVX | | 7.25 | 63.5 | 460 | 5.00 | 0.24 | 1.34 |
| Dorchester Minerals, L.P. | DMLP | | 14.30 | 27.0 | 386 | 11.60 | - | 1.23 |
| Enerplus Resources Fund | ERF | | 19.06 | 75.0 | 1,430 | 18.00 | 0.16 | 1.05 |
| Unit Corporation | UNT | | 18.76 | 40.0 | 750 | 18.00 | 0.03 | 1.04 |
| Pogo Producing Company | PPP | | 35.90 | 64.5 | 2,320 | 35.00 | 0.23 | 1.02 |
| Quicksilver Resources Inc. | KWK | | 22.65 | 20.4 | 460 | 22.00 | 0.38 | 1.02 |
| Pengrowth Energy Trust | PGH | | 9.69 | 110.0 | 1,070 | 9.50 | 0.19 | 1.02 |
| Newfield Exploration Company | NFX | | 33.58 | 48.9 | 1,640 | 35.00 | 0.24 | 0.97 |
| Encore Acquisition Corp. (25%) | EAC | | 17.80 | 7.0 | 125 | 21.00 | 0.20 | 0.88 |
| Swift Energy Company | SFY | | 9.62 | 27.1 | 260 | 13.00 | 0.48 | 0.86 |
| Stone Energy Company | SGY | | 33.78 | 26.5 | 900 | 42.00 | 0.28 | 0.86 |
| Southwestern Energy Company | SWN | | 12.03 | 26.1 | 310 | 17.00 | 0.46 | 0.84 |
| Penn Virginia Corporation | PVA | | 36.16 | 9.0 | 330 | 45.00 | 0.06 | 0.81 |
| Spinnaker Exploration Company | SKE | | 20.02 | 34.0 | 680 | 25.00 | - | 0.80 |
| Forest Oil Corporation | FST | N | 23.74 | 48.1 | 1,140 | 35.00 | 0.32 | 0.78 |
| Magnum Hunter Resources, Inc. | MHR | | 5.62 | 69.0 | 390 | 11.00 | 0.45 | 0.73 |
| Canadian Oil Sands Trust (US\$) | COS_u.TO | В | 23.26 | 76.8 | 1,790 | 40.00 | 0.16 | 0.65 |
| Total or Median | | | | | 14,400 | | 0.23 | 0.88 |
| Natural Gas Royalty Trusts | | | | | | | | |
| Cross Timbers Royalty Trust | CRT | | 19.92 | 6.0 | 120 | 21.80 | - | 0.92 |
| San Juan Basin Royalty Trust | SJT | В | 14.09 | 46.6 | 660 | 17.90 | - | 0.79 |
| Hugoton RoyaltyTrust (46%) | HGT | | 13.30 | 18.4 | 250 | 17.40 | - | 0.77 |
| Micro Cap | | | | | | | | |
| Energy Partners Ltd.(30%) | EPL | В | 11.00 | 8.3 | 91 | 10.00 | 0.38 | 1.06 |
| Abraxas Petroleum Corporation | ABP | | 0.78 | 30.0 | 23 | 1.00 | 0.91 | 0.98 |
| Purcell Energy, Ltd. (US\$) | PEL.TO | N | 1.87 | 26.6 | 50 | 2.50 | 0.29 | 0.82 |

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

McDep Ratio = Market cap and **Debt** to **p**resent value of oil and gas and other businesses

A Weekly Analysis of Energy Stocks Using the McDep Ratio February 6, 2003

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

| | | | Price (\$/sh) | EV/ | EV/ | Dis | vidend or stribution | PV/ |
|-----------------------------------|----------|------|------------------|-------|--------|-----|-------------------------|--------|
| | Symbol/ | | 5-Feb | Sales | Ebitda | P/E | NTM | Ebitda |
| | Rai | ting | 2003 | NTM | NTM | NTM | (%) | NTM |
| Energy Infrastucture | | | | | | | | |
| El Paso Energy Partners | EPN | S | 31.36 | 8.8 | 23.9 | 78 | 8.6 | 9.0 |
| Enbridge Energy Partners, L.P. | EEP | S | 43.95 | 2.0 | 15.4 | 33 | 8.2 | 9.0 |
| Enterprise Products Part (16%) | EPD | | 19.01 | 1.7 | 15.0 | 26 | 7.3 | 9.0 |
| Plains All Amer. Pipeline | PAA | | 24.75 | 0.2 | 14.2 | 20 | 8.7 | 9.0 |
| Enbridge Energy Management, L.L.C | EEQ | S | 38.00 | 1.8 | 14.0 | 28 | 9.5 | 9.0 |
| Northern Border Partners | NBP | | 38.02 | 6.8 | 11.9 | 14 | 8.4 | 9.0 |
| TEPPCO Partners, L.P. | TPP | | 29.42 | 1.0 | 11.6 | 15 | 8.2 | 9.0 |
| AmeriGas Partners, L.P. | APU | | 24.81 | 1.7 | 10.6 | 24 | 8.9 | 9.0 |
| Western Gas Resources | WGR | | 34.04 | 0.7 | 8.4 | 19 | 0.6 | 9.0 |
| Median | | | | 1.7 | 14.0 | 24 | 8.4 | 9.0 |
| Natural Gas and Oil | | | | | | | | |
| Unit Corporation | UNT | | 18.76 | 3.7 | 10.2 | 32 | - | 9.8 |
| Quicksilver Resources Inc. | KWK | | 22.65 | 5.3 | 8.7 | 22 | - | 8.6 |
| Dorchester Minerals, L.P. | DMLP | | 14.30 | 6.6 | 8.2 | 11 | 11.0 | 6.6 |
| Enerplus Resources Fund | ERF | | 19.06 | 5.1 | 6.8 | 12 | 12.3 | 6.5 |
| Swift Energy Company | SFY | | 9.62 | 4.0 | 6.4 | 36 | - | 7.4 |
| Provident Energy Trust | PVX | | 7.25 | 4.0 | 6.0 | 15 | 19.8 | 4.5 |
| Pengrowth Energy Trust | PGH | | 9.69 | 3.8 | 6.0 | 15 | 15.6 | 5.9 |
| Forest Oil Corporation | FST | N | 23.74 | 3.5 | 5.9 | 17 | - | 7.5 |
| Magnum Hunter Resources, Inc. | MHR | | 5.62 | 3.2 | 5.8 | 23 | - | 7.9 |
| Encore Acquisition Corp. (25%) | EAC | | 17.80 | 3.9 | 5.7 | 11 | - | 6.5 |
| Pogo Producing Company | PPP | | 35.90 | 3.5 | 5.6 | 18 | 0.3 | 5.5 |
| Canadian Oil Sands Trust (US\$) | COS_u.TO | В | 23.26 | 3.3 | 5.6 | 5 | 5.7 | 8.7 |
| Southwestern Energy Company | SWN | | 12.03 | 2.6 | 5.3 | 8 | - | 6.3 |
| Penn Virginia Corporation | PVA | | 36.16 | 2.5 | 4.9 | 14 | 2.5 | 6.0 |
| Stone Energy Company | SGY | | 33.78 | 3.3 | 4.5 | 12 | - | 5.3 |
| Newfield Exploration Company | NFX | | 33.58 | 3.0 | 4.3 | 14 | - | 4.4 |
| Spinnaker Exploration Company | SKE | | 20.02 | 2.9 | 3.4 | 13 | - | 4.3 |
| Median | | | | 3.5 | 5.8 | 14 | - | 6.5 |
| Natural Gas Royalty Trusts | | | | | | | | |
| Cross Timbers Royalty Trust | CRT | | 19.92 | 5.7 | 7.9 | 8 | 12.1 | 8.6 |
| Hugoton RoyaltyTrust (46%) | HGT | | 13.30 | 4.3 | 5.8 | 8 | 13.3 | 7.6 |
| San Juan Basin Royalty Trust | SJT | В | 14.09 | 4.7 | 5.7 | 7 | 13.7 | 7.3 |
| Micro Cap | | | | | | | | |
| Abraxas Petroleum Corporation | ABP | | 0.78 | 5.6 | 9.3 | | _ | 9.5 |
| Purcell Energy, Ltd. (US\$) | PEL.TO | N | 1.87 | 4.3 | 6.4 | 22 | _ | 7.8 |
| Energy Partners Ltd.(30%) | EPL | В | 11.00 | 3.2 | 6.2 | | - | 5.8 |

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