

## Meter Reader

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

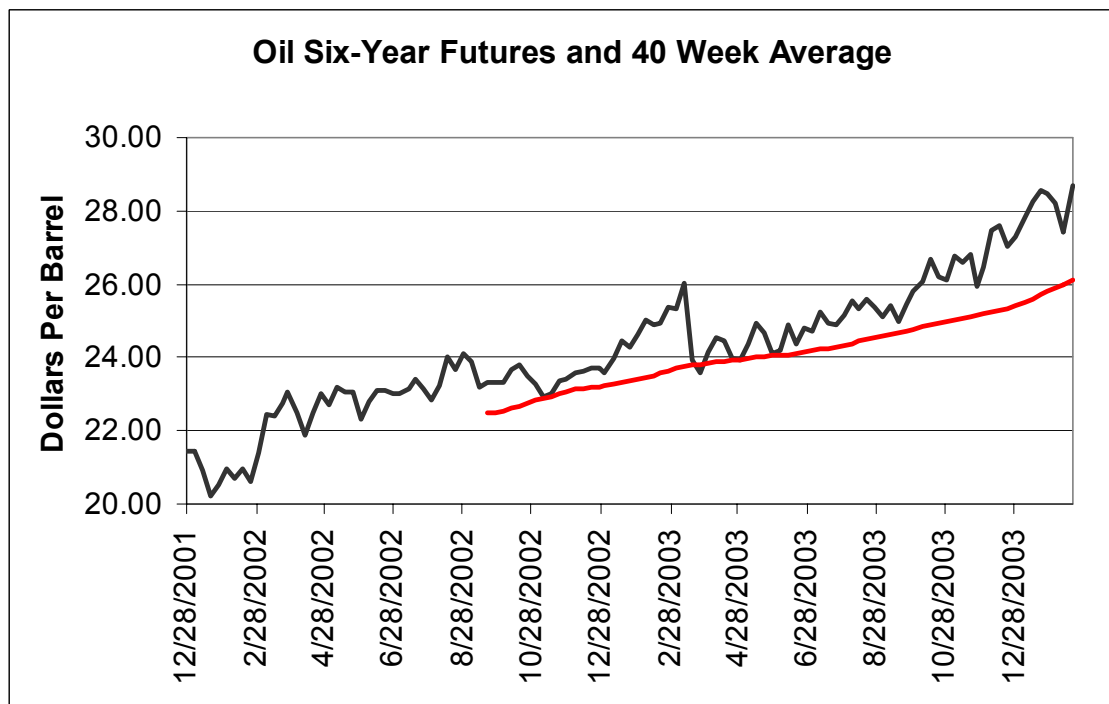
February 18, 2004

# Oil Plays

## Summary and Recommendation

Buy recommendations ranked by the most unlevered sensitivity to six-year oil price start with the two Chinese stocks, **CNOOC Ltd (CEO)** and **PetroChina (PTR)** followed by small cap independent producer **Encore Acquisition (EAC)** followed by mega caps **Royal Dutch (RD)** and **ChevronTexaco (CVX)**. Oil exposure is measured as total concentration on oil and natural gas minus concentration on North American natural gas (see first and second numerical columns in Tables 1-3 and 2-3) We highlight that characteristic because six-year oil price appears to be in a stronger upward trend currently than six-year natural gas and there is no six-year indicator for other businesses.

Kurt H. Wulff, CFA



Historical independent energy investment analysis by Kurt Wulff doing business as McDep Associates is posted at [www.mcdep.com](http://www.mcdep.com). Analyses are prepared from sources and data believed to be reliable, but no representation is made as to their accuracy or completeness. Mr. Wulff is not paid by covered companies. Neither he nor his spouse act contrary to a buy or sell rating.

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

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

|  | Symbol/<br>Rating | Price<br>(\$/sh)<br>17-Feb<br>2004 | Shares<br>(mm) | Market<br>Cap<br>(\$mm) | Net<br>Present<br>Value<br>(\$/sh) | Debt/<br>Present<br>Value | McDep<br>Ratio |
|--|-------------------|------------------------------------|----------------|-------------------------|------------------------------------|---------------------------|----------------|
| <b>Mega Cap</b>                                  |                   |                                    |                |                         |                                    |                           |                |
| Exxon Mobil Corporation                          | XOM               | 42.23                              | 6,612          | 279,000                 | 43.00                              | 0.08                      | 0.98           |
| Total S.A.                                       | TOT               | 91.09                              | 1,261          | 114,900                 | 105.00                             | 0.17                      | 0.89           |
| Royal Dutch/Shell                                | RD B              | 48.47                              | 3,389          | 164,000                 | 60.00                              | 0.18                      | 0.84           |
| BP plc   | BP                | 48.72                              | 3,684          | 180,000                 | 60.00                              | 0.13                      | 0.84           |
| ChevronTexaco Corporation                        | CVX B             | 87.32                              | 1,064          | 92,900                  | 110.00                             | 0.17                      | 0.83           |
| <i>Total or Median</i>                           |                   |                                    |                | 831,000                 |                                    | 0.17                      | 0.84           |
| <b>Producer/Refiners - Large Cap and Mid Cap</b> |                   |                                    |                |                         |                                    |                           |                |
| Kinder Morgan, Inc.                              | KMI S             | 60.75                              | 124            | 7,530                   | 14.00                              | 0.80                      | 1.65           |
| Imperial Oil Limited (30%)                       | IMO               | 46.63                              | 111            | 5,180                   | 43.00                              | 0.12                      | 1.07           |
| Valero Energy Corporation                        | VLO               | 56.90                              | 120            | 6,820                   | 55.00                              | 0.42                      | 1.02           |
| Murphy Oil Corporation                           | MUR               | 62.40                              | 93             | 5,790                   | 62.00                              | 0.20                      | 1.01           |
| ENI S.p.A.                                       | E                 | 96.86                              | 755            | 73,100                  | 108.00                             | 0.17                      | 0.91           |
| Suncor Energy                                    | SU                | 25.97                              | 475            | 12,340                  | 30.00                              | 0.13                      | 0.88           |
| ConocoPhillips                                   | COP B             | 69.37                              | 680            | 47,200                  | 88.00                              | 0.33                      | 0.86           |
| Petroleo Brasileiro S. A.                        | PBR               | 32.01                              | 1,096          | 35,100                  | 40.00                              | 0.28                      | 0.86           |
| PetroChina Company Ltd (10%)                     | PTR B             | 54.13                              | 176            | 9,520                   | 65.00                              | 0.09                      | 0.85           |
| Petro-Canada                                     | PCZ               | 44.24                              | 265            | 11,720                  | 54.00                              | 0.12                      | 0.84           |
| Marathon Oil Corporation                         | MRO B             | 33.76                              | 311            | 10,490                  | 47.00                              | 0.27                      | 0.79           |
| Lukoil Oil Company                               | LUKOY B           | 107.50                             | 211            | 23,000                  | 140.00                             | 0.07                      | 0.78           |
| Norsk Hydro ASA                                  | NHY B             | 68.67                              | 257            | 17,630                  | 95.00                              | 0.17                      | 0.77           |
| <i>Total or Median</i>                           |                   |                                    |                | 265,000                 |                                    | 0.17                      | 0.86           |
| <b>Independent Natural Gas and Oil</b>           |                   |                                    |                |                         |                                    |                           |                |
| Occidental Petroleum Corp.                       | OXY               | 44.57                              | 391            | 17,400                  | 50.00                              | 0.26                      | 0.92           |
| Pogo Producing Company                           | PPP               | 44.83                              | 64             | 2,870                   | 50.00                              | 0.10                      | 0.91           |
| XTO Energy Inc.                                  | XTO B             | 28.53                              | 188            | 5,360                   | 33.00                              | 0.19                      | 0.89           |
| CNOOC Limited (19%)                              | CEO B             | 42.60                              | 78             | 3,330                   | 48.00                              | -                         | 0.89           |
| Apache Corporation                               | APA               | 39.87                              | 324            | 12,900                  | 47.00                              | 0.19                      | 0.88           |
| Canadian Natural Resources Limited               | CNQ               | 51.67                              | 137            | 7,080                   | 72.00                              | 0.34                      | 0.81           |
| Unocal Corporation                               | UCL               | 37.42                              | 273            | 10,200                  | 52.00                              | 0.28                      | 0.80           |
| Encana Corporation                               | ECA B             | 41.12                              | 470            | 19,300                  | 56.00                              | 0.19                      | 0.78           |
| Pioneer Natural Resources Company                | PXD               | 31.05                              | 119            | 3,700                   | 45.00                              | 0.26                      | 0.77           |
| Burlington Resources                             | BR B              | 56.55                              | 198            | 11,200                  | 80.00                              | 0.21                      | 0.77           |
| Anadarko Petroleum Corp.                         | APC B             | 51.80                              | 252            | 13,100                  | 76.00                              | 0.25                      | 0.76           |
| Devon Energy                                     | DVN               | 55.01                              | 242            | 13,300                  | 90.00                              | 0.30                      | 0.73           |
| <i>Total or Median</i>                           |                   |                                    |                | 120,000                 |                                    | 0.23                      | 0.80           |
| <b>Service</b>                                   |                   |                                    |                |                         |                                    |                           |                |
| Baker Hughes Inc.                                | BHI               | 36.48                              | 336            | 12,300                  | 30.00                              | 0.07                      | 1.21           |
| Halliburton Company                              | HAL               | 31.79                              | 435            | 13,800                  | 28.00                              | 0.28                      | 1.10           |
| Schlumberger Ltd.                                | SLB               | 64.07                              | 585            | 37,500                  | 60.00                              | 0.17                      | 1.06           |
| <i>Total or Median</i>                           |                   |                                    |                | 64,000                  |                                    | 0.17                      | 1.10           |

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

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

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

February 18, 2004

Table 1-2

#### Energy Producers

#### Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.

|  | Symbol/<br>Rating | Price<br>(\$/sh)<br>17-Feb<br>2004 | EV/<br>Sales<br>NTM | EV/<br>Ebitda<br>NTM | P/E<br>NTM  | Divd or<br>Distrib<br>NTM<br>(%) | PV/<br>Ebitda<br>NTM |             |
|--|-------------------|------------------------------------|---------------------|----------------------|-------------|----------------------------------|----------------------|-------------|
| <b>Mega Cap</b>                                  |                   |                                    |                     |                      |             |                                  |                      |             |
| Exxon Mobil Corporation                          | XOM               | 42.23                              | 1.1                 | 7.9                  | 15          | 2.4                              | 8.0                  |             |
| Total S.A.                                       | TOT               | 91.09                              | 1.1                 | 7.1                  | 13          | 4.2                              | 7.9                  |             |
| BP plc   | BP                | 48.72                              | 0.9                 | 6.3                  | 14          | 3.3                              | 7.6                  |             |
| ChevronTexaco Corporation                        | CVX               | B                                  | 87.32               | 0.9                  | 6.2         | 11                               | 3.3                  | 7.5         |
| Royal Dutch/Shell                                | RD                | B                                  | 48.47               | 1.0                  | 6.2         | 15                               | 4.6                  | 7.3         |
|  | <i>Median</i>     |                                    | <i>1.0</i>          | <i>6.3</i>           | <i>14</i>   | <i>3.3</i>                       | <i>7.6</i>           |             |
| <b>Producer/Refiners - Large Cap and Mid Cap</b> |                   |                                    |                     |                      |             |                                  |                      |             |
| Kinder Morgan, Inc.                              | KMI               | S                                  | 60.75               | 3.0                  | 12.9        | 18                               | 2.6                  | 7.8         |
| Imperial Oil Limited (30%)                       | IMO               |                                    | 46.63               | 1.4                  | 7.7         | 15                               | 1.4                  | 7.1         |
| Murphy Oil Corporation                           | MUR               |                                    | 62.40               | 1.5                  | 7.4         | 17                               | 1.3                  | 7.3         |
| Suncor Energy                                    | SU                |                                    | 25.97               | 2.7                  | 7.0         | 13                               | 0.6                  | 8.0         |
| Valero Energy Corporation                        | VLO               |                                    | 56.90               | 0.3                  | 6.6         | 10                               | 0.8                  | 6.5         |
| ConocoPhillips                                   | COP               | B                                  | 69.37               | 0.7                  | 6.0         | 10                               | 2.5                  | 7.0         |
| ENI S.p.A.                                       | E                 |                                    | 96.86               | 1.5                  | 5.4         | 11                               | 5.0                  | 6.0         |
| Marathon Oil Corporation                         | MRO               | B                                  | 33.76               | 0.4                  | 5.2         | 10                               | 3.0                  | 6.5         |
| PetroChina Company Ltd (10%)                     | PTR               | B                                  | 54.13               | 2.6                  | 4.8         | 9                                | 3.8                  | 5.7         |
| Petro-Canada                                     | PCZ               |                                    | 44.24               | 1.5                  | 4.3         | 12                               | 1.0                  | 5.1         |
| Norsk Hydro ASA                                  | NHY               | B                                  | 68.67               | 0.8                  | 3.9         | 9                                | 2.3                  | 5.1         |
| Petroleo Brasileiro S. A.                        | PBR               |                                    | 32.01               | 1.6                  | 3.9         | 5                                | 3.2                  | 4.6         |
| Lukoil Oil Company                               | LUKOY             | B                                  | 107.50              | 1.0                  | 3.7         | 6                                | 2.4                  | 4.7         |
|  | <i>Median</i>     |                                    | <i>1.5</i>          | <i>5.4</i>           | <i>10</i>   | <i>2.4</i>                       | <i>6.5</i>           |             |
| <b>Independent Natural Gas and Oil</b>           |                   |                                    |                     |                      |             |                                  |                      |             |
| XTO Energy Inc.                                  | XTO               | B                                  | 28.53               | 4.8                  | 6.6         | 13                               | 0.1                  | 7.5         |
| CNOOC Limited (19%)                              | CEO               | B                                  | 42.60               | 4.7                  | 5.9         | 11                               | 3.7                  | 6.7         |
| Anadarko Petroleum Corp.                         | APC               | B                                  | 51.80               | 3.7                  | 5.5         | 10                               | 1.1                  | 7.2         |
| Pioneer Natural Resources Company                | PXD               |                                    | 31.05               | 3.8                  | 5.2         | 13                               | -                    | 6.8         |
| Occidental Petroleum Corp.                       | OXY               |                                    | 44.57               | 2.5                  | 5.1         | 9                                | 2.3                  | 5.6         |
| Unocal Corporation                               | UCL               |                                    | 37.42               | 2.4                  | 5.0         | 10                               | 2.1                  | 6.2         |
| Apache Corporation                               | APA               |                                    | 39.87               | 3.4                  | 4.8         | 9                                | 0.6                  | 5.5         |
| Burlington Resources                             | BR                | B                                  | 56.55               | 3.5                  | 4.8         | 11                               | 1.1                  | 6.3         |
| Encana Corporation                               | ECA               | B                                  | 41.12               | 2.3                  | 4.8         | 11                               | 0.7                  | 6.1         |
| Canadian Natural Resources Limited               | CNQ               |                                    | 51.67               | 3.2                  | 4.6         | 10                               | 0.9                  | 5.6         |
| Pogo Producing Company                           | PPP               |                                    | 44.83               | 2.6                  | 3.8         | 9                                | 0.4                  | 4.1         |
| Devon Energy                                     | DVN               |                                    | 55.01               | 3.1                  | 3.7         | 7                                | 0.4                  | 5.0         |
|  | <i>Median</i>     |                                    |                     | <i>3.3</i>           | <i>4.9</i>  | <i>10</i>                        | <i>0.8</i>           | <i>6.2</i>  |
| <b>Service</b>                                   |                   |                                    |                     |                      |             |                                  |                      |             |
| Halliburton Company                              | HAL               |                                    | 31.79               | 1.1                  | 13.3        | 29                               | 1.6                  | 12.1        |
| Baker Hughes Inc.                                | BHI               |                                    | 36.48               | 2.4                  | 13.2        | 34                               | 1.3                  | 11.0        |
| Schlumberger Ltd.                                | SLB               |                                    | 64.07               | 3.2                  | 11.3        | 39                               | 1.2                  | 10.7        |
|  | <i>Median</i>     |                                    |                     | <i>2.4</i>           | <i>13.2</i> | <i>34</i>                        | <i>1.3</i>           | <i>11.0</i> |

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

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

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**Table 1-3**  
**Energy Producers**  
**Determinants of Present Value**

|  | Symbol/<br>Rating |               | NG & O<br>Prod/<br>Ebitda<br>(%) | N. Am.<br>Gas/<br>Ebitda<br>(%) | Adjusted<br>Reserves/<br>Prod<br>NTM | PV/<br>Ebitda<br>NTM | NG&O<br>Ebitda/<br>mcf | McDep<br>Ratio<br>17-Feb<br>2004 |
|--|-------------------|---------------|----------------------------------|---------------------------------|--------------------------------------|----------------------|------------------------|----------------------------------|
| <b>Mega Cap</b>                                  |                   |               |                                  |                                 |                                      |                      |                        |                                  |
| Royal Dutch/Shell                                | RD                | B             | 77                               | 5                               | 8.5                                  | 7.3                  | 3.10                   | 0.84                             |
| Total S.A.                                       | TOT               |               | 77                               | 1                               | 9.3                                  | 7.9                  | 2.87                   | 0.89                             |
| BP plc   | BP                |               | 77                               | 9                               | 9.5                                  | 7.6                  | 3.06                   | 0.84                             |
| ChevronTexaco Corporation                        | CVX               | B             | 81                               | 11                              | 10.4                                 | 7.5                  | 2.70                   | 0.83                             |
| Exxon Mobil Corporation                          | XOM               |               | 70                               | 10                              | 10.9                                 | 8.0                  | 2.90                   | 0.98                             |
|  |                   | <i>Median</i> | 77                               | 9                               | 9.5                                  | 7.6                  | 2.90                   | 0.84                             |
| <b>Producer/Refiners - Large Cap and Mid Cap</b> |                   |               |                                  |                                 |                                      |                      |                        |                                  |
| Valero Energy Corporation                        | VLO               |               | -                                | -                               |                                      | 6.5                  |                        | 1.02                             |
| Kinder Morgan, Inc.                              | KMI               | S             | 6                                | -                               |                                      | 7.8                  |                        | 1.65                             |
| Petro-Canada                                     | PCZ               |               | 82                               | 22                              | 7.2                                  | 5.1                  | 2.21                   | 0.84                             |
| Murphy Oil Corporation                           | MUR               |               | 92                               | 28                              | 7.3                                  | 7.3                  | 3.51                   | 1.01                             |
| Norsk Hydro ASA                                  | NHY               | B             | 63                               | -                               | 8.5                                  | 5.1                  | 2.93                   | 0.77                             |
| Marathon Oil Corporation                         | MRO               | B             | 70                               | 22                              | 8.7                                  | 6.5                  | 2.73                   | 0.79                             |
| Petroleo Brasileiro S. A.                        | PBR               |               | 93                               | -                               | 9.9                                  | 4.6                  | 2.65                   | 0.86                             |
| ENI S.p.A.                                       | E                 |               | 54                               | -                               | 9.9                                  | 6.0                  | 2.63                   | 0.91                             |
| Imperial Oil Limited (30%)                       | IMO               |               | 72                               | 17                              | 10.2                                 | 7.1                  | 2.38                   | 1.07                             |
| ConocoPhillips                                   | COP               | B             | 68                               | 13                              | 11.2                                 | 7.0                  | 2.45                   | 0.86                             |
| PetroChina Company Ltd (10%)                     | PTR               | B             | 78                               | -                               | 16.0                                 | 5.7                  | 4.15                   | 0.85                             |
| Suncor Energy                                    | SU                |               | 93                               | 8                               | 19.0                                 | 8.0                  | 3.24                   | 0.88                             |
| Lukoil Oil Company                               | LUKOY             | B             | 54                               | -                               | 20.0                                 | 4.7                  | 1.01                   | 0.78                             |
|  |                   | <i>Median</i> | 70                               | -                               | 9.9                                  | 6.5                  | 2.65                   | 0.86                             |
| <b>Independent Natural Gas and Oil</b>           |                   |               |                                  |                                 |                                      |                      |                        |                                  |
| Pogo Producing Company                           | PPP               |               | 100                              | 33                              | 5.8                                  | 4.1                  | 3.48                   | 0.91                             |
| Canadian Natural Resources Limited               | CNQ               |               | 100                              | 49                              | 7.2                                  | 5.6                  | 2.55                   | 0.81                             |
| Encana Corporation                               | ECA               | B             | 98                               | 66                              | 7.3                                  | 6.1                  | 3.40                   | 0.78                             |
| Devon Energy                                     | DVN               |               | 100                              | 59                              | 7.4                                  | 5.0                  | 4.06                   | 0.73                             |
| Apache Corporation                               | APA               |               | 100                              | 44                              | 8.1                                  | 5.5                  | 3.55                   | 0.88                             |
| Unocal Corporation                               | UCL               |               | 100                              | 32                              | 8.4                                  | 6.2                  | 3.28                   | 0.80                             |
| Burlington Resources                             | BR                | B             | 100                              | 69                              | 10.3                                 | 6.3                  | 3.20                   | 0.77                             |
| Pioneer Natural Resources Company                | PXD               |               | 100                              | 63                              | 10.3                                 | 6.8                  | 2.96                   | 0.77                             |
| CNOOC Limited (19%)                              | CEO               | B             | 100                              | -                               | 10.7                                 | 6.7                  | 3.83                   | 0.89                             |
| Anadarko Petroleum Corp.                         | APC               | B             | 100                              | 54                              | 10.9                                 | 7.2                  | 3.05                   | 0.76                             |
| Occidental Petroleum Corp.                       | OXY               |               | 91                               | 17                              | 10.9                                 | 5.6                  | 3.78                   | 0.92                             |
| XTO Energy Inc.                                  | XTO               | B             | 100                              | 86                              | 11.2                                 | 7.5                  | 3.30                   | 0.89                             |
|  |                   | <i>Median</i> | 100                              | 52                              | 9.3                                  | 6.2                  | 3.35                   | 0.80                             |

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**Table 2-1**  
**Independent Natural Gas and Oil Producers - Small Cap**  
**Rank by McDep Ratio: Market Cap and Debt to Present Value**

|                                       | Symbol/<br>Rating | Price<br>(\$/sh)<br>17-Feb<br>2004 | Shares<br>(mm) | Market<br>Cap<br>(\$mm) | Net<br>Present<br>Value<br>(\$/sh) | Debt/<br>Present<br>Value | McDep<br>Ratio |      |
|---------------------------------------|-------------------|------------------------------------|----------------|-------------------------|------------------------------------|---------------------------|----------------|------|
| <b>Short Life</b>                     |                   |                                    |                |                         |                                    |                           |                |      |
| Spinnaker Exploration Company         | SKE               | 34.70                              | 33.9           | 1,180                   | 28.00                              | 0.08                      | 1.22           |      |
| Southwestern Energy Company           | SWN               | 21.67                              | 36.0           | 780                     | 21.00                              | 0.28                      | 1.02           |      |
| Western Gas Resources                 | WGR               | 49.25                              | 37.0           | 1,820                   | 50.00                              | 0.17                      | 0.99           |      |
| Newfield Exploration Company          | NFX               | 46.38                              | 56.0           | 2,600                   | 52.00                              | 0.24                      | 0.92           |      |
| Energy Partners Ltd.                  | EPL               | 13.40                              | 37.4           | 501                     | 15.00                              | 0.19                      | 0.91           |      |
| Denbury Resources Inc.                | DNR               | 15.25                              | 55.7           | 850                     | 20.00                              | 0.25                      | 0.82           |      |
| Chesapeake Energy Corporation         | CHK               | 12.92                              | 220            | 2,840                   | 18.00                              | 0.35                      | 0.82           |      |
| Stone Energy Company                  | SGY               | 43.67                              | 26.6           | 1,160                   | 58.00                              | 0.23                      | 0.81           |      |
| Range Resources Corporation           | RRC               | 10.74                              | 57.0           | 610                     | 15.00                              | 0.32                      | 0.81           |      |
| Westport Resources Corporation        | WRC               | 31.42                              | 68.0           | 2,140                   | 42.00                              | 0.22                      | 0.80           |      |
| Cimarex Energy Company                | XEC               | B                                  | 27.66          | 42.7                    | 1,180                              | 35.00                     | 0.00           | 0.79 |
| The Houston Exploraton Company        | THX               | 37.13                              | 31.0           | 1,150                   | 55.00                              | 0.20                      | 0.74           |      |
| PetroKazakhstan Inc.                  | PKZ               | 25.50                              | 81.0           | 2,070                   | 35.00                              | 0.04                      | 0.74           |      |
| St. Mary Land and Exploration Company | SM                | 30.25                              | 29.0           | 880                     | 43.00                              | 0.12                      | 0.74           |      |
| Forest Oil Corporation                | FST               | 25.98                              | 49.0           | 1,270                   | 45.00                              | 0.30                      | 0.70           |      |
|                                       |                   | <i>Total or Median</i>             |                | <i>21,000</i>           |                                    | <i>0.22</i>               | <i>0.81</i>    |      |
| <b>Long Life</b>                      |                   |                                    |                |                         |                                    |                           |                |      |
| Ultra Petroleum Corp.                 | UPL               | 25.84                              | 78.0           | 2,020                   | 16.00                              | 0.08                      | 1.57           |      |
| Unit Corporation                      | UNT               | 27.00                              | 43.7           | 1,180                   | 22.00                              | 0.02                      | 1.22           |      |
| Quicksilver Resources Inc.            | KWK               | 38.10                              | 23.0           | 880                     | 37.00                              | 0.25                      | 1.02           |      |
| Penn Virginia Corporation             | PVA               | 57.39                              | 9.1            | 520                     | 56.00                              | 0.17                      | 1.02           |      |
| Swift Energy Company                  | SFY               | 18.27                              | 27.4           | 500                     | 22.00                              | 0.37                      | 0.89           |      |
| Berry Petroleum Company               | BRY               | 19.33                              | 22.1           | 427                     | 22.00                              | 0.12                      | 0.89           |      |
| Whiting Petroleum Corporation         | WLL               | 20.75                              | 18.7           | 390                     | 25.00                              | 0.27                      | 0.88           |      |
| Evergreen Resources, Inc.             | EVG               | 35.10                              | 44.0           | 1,540                   | 42.00                              | 0.12                      | 0.85           |      |
| Encore Acquisition Corp.              | EAC               | B                                  | 26.50          | 30.5                    | 808                                | 33.00                     | 0.17           | 0.84 |
| Magnum Hunter Resources, Inc.         | MHR               | 8.84                               | 68.0           | 600                     | 15.00                              | 0.38                      | 0.75           |      |
| Vintage Petroleum, Inc.               | VPI               | 13.58                              | 63.0           | 860                     | 27.00                              | 0.32                      | 0.66           |      |
|                                       |                   | <i>Total or Median</i>             |                | <i>9,700</i>            |                                    | <i>0.17</i>               | <i>0.89</i>    |      |
| <b>Micro Cap</b>                      |                   |                                    |                |                         |                                    |                           |                |      |
| Abraxas Petroleum Corporation         | ABP               | 2.95                               | 35.8           | 106                     | 1.00                               | 0.84                      | 1.32           |      |
| Purcell Energy, Ltd. (US\$)           | PEL.TO            | 1.96                               | 48.0           | 94                      | 2.80                               | 0.27                      | 0.78           |      |

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

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

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

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Table 2-2

#### Independent Natural Gas and Oil Producers - Small Cap

Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.

|                                       |               | <i>Price</i><br><i>(\$/sh)</i> | <i>EV/</i>   | <i>EV/</i>    | <i>Divd or</i> | <i>PV/</i>    |      |     |
|---------------------------------------|---------------|--------------------------------|--------------|---------------|----------------|---------------|------|-----|
| <i>Symbol/</i>                        |               | <i>17-Feb</i>                  | <i>Sales</i> | <i>Ebitda</i> | <i>P/E</i>     | <i>Ebitda</i> |      |     |
| <i>Rating</i>                         |               | <i>2004</i>                    | <i>NTM</i>   | <i>NTM</i>    | <i>NTM</i>     | <i>NTM</i>    |      |     |
|                                       |               |                                |              |               | <i>Distrib</i> |               |      |     |
|                                       |               |                                |              |               | <i>(%)</i>     |               |      |     |
| <b>Short Life</b>                     |               |                                |              |               |                |               |      |     |
| Western Gas Resources                 | WGR           | 49.25                          | 0.8          | 9.6           | 20             | -             | 9.7  |     |
| Southwestern Energy Company           | SWN           | 21.67                          | 3.3          | 6.0           | 12             | -             | 5.9  |     |
| Spinnaker Exploration Company         | SKE           | 34.70                          | 5.1          | 5.8           | 17             | -             | 4.7  |     |
| Cimarex Energy Company                | XEC           | B                              | 27.66        | 3.6           | 4.9            | 14            | -    | 6.2 |
| Denbury Resources Inc.                | DNR           | 15.25                          | 3.2          | 4.7           | 8              | -             | 5.7  |     |
| Chesapeake Energy Corporation         | CHK           | 12.92                          | 3.5          | 4.5           | 9              | 0.9           | 5.5  |     |
| Stone Energy Company                  | SGY           | 43.67                          | 3.2          | 4.5           | 10             | -             | 5.5  |     |
| Westport Resources Corporation        | WRC           | 31.42                          | 3.3          | 4.3           | 11             | -             | 5.4  |     |
| Range Resources Corporation           | RRC           | 10.74                          | 3.4          | 4.3           | 8              | 0.4           | 5.4  |     |
| Newfield Exploration Company          | NFX           | 46.38                          | 3.0          | 4.3           | 10             | -             | 4.6  |     |
| St. Mary Land and Exploration Company | SM            | 30.25                          | 2.8          | 4.1           | 11             | 0.3           | 5.6  |     |
| Forest Oil Corporation                | FST           | 25.98                          | 2.9          | 4.0           | 7              | -             | 5.7  |     |
| Energy Partners Ltd.                  | EPL           | 13.40                          | 2.5          | 3.7           | 17             | -             | 4.0  |     |
| The Houston Exploraton Company        | THX           | 37.13                          | 2.8          | 3.6           | 8              | -             | 4.8  |     |
| PetroKazakhstan Inc.                  | PKZ           | 25.50                          | 1.8          | 3.3           | 5              | -             | 4.5  |     |
|                                       | <i>Median</i> |                                | 3.2          | 4.3           | 10             | -             | 5.5  |     |
| <b>Long Life</b>                      |               |                                |              |               |                |               |      |     |
| Ultra Petroleum Corp.                 | UPL           | 25.84                          | 11.0         | 14.3          | 24             | -             | 9.1  |     |
| Quicksilver Resources Inc.            | KWK           | 38.10                          | 6.4          | 9.7           | 19             | -             | 9.5  |     |
| Unit Corporation                      | UNT           | 27.00                          | 3.7          | 8.4           | 20             | -             | 6.9  |     |
| Evergreen Resources, Inc.             | EVG           | 35.10                          | 5.9          | 8.0           | 14             | -             | 9.4  |     |
| Berry Petroleum Company               | BRY           | 19.33                          | 3.4          | 6.8           | 13             | 2.3           | 7.6  |     |
| Penn Virginia Corporation             | PVA           | 57.39                          | 3.6          | 6.5           | 15             | 1.6           | 6.4  |     |
| Swift Energy Company                  | SFY           | 18.27                          | 3.9          | 6.0           | 15             | -             | 6.7  |     |
| Encore Acquisition Corp.              | EAC           | B                              | 26.50        | 4.2           | 5.8            | 11            | -    | 6.9 |
| Whiting Petroleum Corporation         | WLL           | 20.75                          | 3.2          | 5.1           | 11             | -             | 5.8  |     |
| Magnum Hunter Resources, Inc.         | MHR           | 8.84                           | 3.2          | 5.0           | 10             | -             | 6.7  |     |
| Vintage Petroleum, Inc.               | VPI           | 13.58                          | 2.3          | 4.0           | 9              | 1.3           | 6.0  |     |
|                                       | <i>Median</i> |                                | 3.7          | 6.5           | 14             | -             | 6.9  |     |
| <b>Micro Cap</b>                      |               |                                |              |               |                |               |      |     |
| Abraxas Petroleum Corporation         | ABP           | 2.95                           | 9.4          | 15.5          |                | -             | 11.8 |     |
| Purcell Energy, Ltd. (US\$)           | PEL.TO        | 1.96                           | 3.7          | 5.1           | 10             | -             | 6.5  |     |

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

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**Table 2-3**  
**Independent Natural Gas and Oil Producers - Small Cap**  
**Determinants of Present Value**

|                   | Symbol/<br>Rating | NG & O<br>Prod/<br>Ebitda<br>(%) | N. Am.<br>Gas/<br>Ebitda<br>(%) | Adjusted<br>Reserves/<br>Prod<br>NTM | PV/<br>Ebitda<br>NTM | NG&O<br>Ebitda/<br>mcf | McDep<br>Ratio<br>17-Feb<br>2004 |
|-------------------|-------------------|----------------------------------|---------------------------------|--------------------------------------|----------------------|------------------------|----------------------------------|
| <b>Short Life</b> |                   |                                  |                                 |                                      |                      |                        |                                  |
|                   | SKE               | 100                              | 81                              | 4.3                                  | 4.7                  | 4.76                   | 1.22                             |
|                   | EPL               | 100                              | 61                              | 5.1                                  | 4.0                  | 3.46                   | 0.91                             |
|                   | PKZ               | 57                               | -                               | 5.1                                  | 4.5                  | 1.09                   | 0.74                             |
|                   | NFX               | 100                              | 84                              | 5.2                                  | 4.6                  | 3.71                   | 0.92                             |
|                   | THX               | 100                              | 92                              | 5.6                                  | 4.8                  | 3.87                   | 0.74                             |
|                   | XEC               | B                                | 100                             | 75                                   | 6.2                  | 6.2                    | 3.55                             |
|                   | SM                | 100                              | 65                              | 6.8                                  | 5.6                  | 3.29                   | 0.74                             |
|                   | SGY               | 100                              | 65                              | 7.1                                  | 5.5                  | 3.91                   | 0.81                             |
|                   | CHK               | 100                              | 90                              | 7.8                                  | 5.5                  | 3.93                   | 0.82                             |
|                   | WRC               | 100                              | 71                              | 7.8                                  | 5.4                  | 4.06                   | 0.80                             |
|                   | WGR               | 61                               | 61                              | 7.9                                  | 9.7                  | 2.57                   | 0.99                             |
|                   | FST               | 100                              | 75                              | 7.9                                  | 5.7                  | 3.75                   | 0.70                             |
|                   | SWN               | 89                               | 73                              | 8.4                                  | 5.9                  | 3.63                   | 1.02                             |
|                   | RRC               | 100                              | 77                              | 8.6                                  | 5.4                  | 4.02                   | 0.81                             |
|                   | DNR               | 100                              | 50                              | 8.9                                  | 5.7                  | 3.64                   | 0.82                             |
|                   | <i>Median</i>     |                                  | 73                              | 7.1                                  | 5.5                  | 3.71                   | 0.81                             |
| <b>Long Life</b>  |                   |                                  |                                 |                                      |                      |                        |                                  |
|                   | PVA               | 77                               | 63                              | 9.4                                  | 6.4                  | 2.18                   | 1.02                             |
|                   | UNT               | 62                               | 55                              | 9.5                                  | 6.9                  | 3.70                   | 1.22                             |
|                   | MHR               | 100                              | 68                              | 10.0                                 | 6.7                  | 3.30                   | 0.75                             |
|                   | WLL               | 100                              | 58                              | 10.2                                 | 5.8                  | 2.98                   | 0.88                             |
|                   | SFY               | 100                              | 31                              | 11.1                                 | 6.7                  | 2.67                   | 0.89                             |
|                   | EAC               | B                                | 100                             | 22                                   | 12.5                 | 6.9                    | 3.50                             |
|                   | UPL               | 100                              | 96                              | 13.5                                 | 9.1                  | 3.57                   | 1.57                             |
|                   | BRY               | 100                              | -                               | 14.6                                 | 7.6                  | 2.00                   | 0.89                             |
|                   | VPI               | 100                              | 29                              | 15.9                                 | 6.0                  | 2.57                   | 0.66                             |
|                   | EVG               | 100                              | 100                             | 17.2                                 | 9.4                  | 3.76                   | 0.85                             |
|                   | KWK               | 100                              | 87                              | 18.5                                 | 9.5                  | 3.04                   | 1.02                             |
|                   | <i>Median</i>     |                                  | 58                              | 12.5                                 | 6.9                  | 3.04                   | 0.89                             |
| <b>Micro Cap</b>  |                   |                                  |                                 |                                      |                      |                        |                                  |
|                   | PEL.TO            | 100                              | 77                              | 6.4                                  | 6.5                  | 1.82                   | 0.78                             |
|                   | ABP               | 100                              | 77                              | 11.7                                 | 11.8                 | 2.59                   | 1.32                             |

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