

Bottom May Be Near

| | | | | | | Present Value by Segment (%) | | | | | | | |
|-------------------------------|---------|-----------|------|---------|----|------------------------------|-----|---------|-----|---------|--|-------|--|
| | | Price | | EV/ | | Enterprise | | North | | Rest of | | Dist. | |
| | | (US\$/sh) | | Market | | Value | | Amer. | | World | | Yield | |
| Symbol/Rating | | 10-Aug | | Cap | | (\$mm) | | Natural | | Oil | | Down- | |
| | | 2015 | | | | | | Gas | | Prod'n | | NTM | |
| | | | | | | | | | | stream | | Ratio | |
| | | | | | | | | | | | | | |
| Chevron Corporation | CVX B | 85.89 | 1.35 | 217,000 | 3 | 6 | 68 | 23 | 5.0 | 0.82 | | | |
| Total S.A. | TOT B | 50.41 | 1.50 | 174,000 | | 12 | 60 | 28 | 5.3 | 0.79 | | | |
| ConocoPhillips | COP B | 50.20 | 1.60 | 100,000 | 16 | 9 | 75 | | 5.9 | 0.82 | | | |
| Marathon Oil Corporation | MRO B | 18.98 | 1.72 | 22,100 | 9 | 1 | 90 | | 4.4 | 0.69 | | | |
| Continental Resources (32%) | CLR B | 35.36 | 1.54 | 6,500 | 21 | | 79 | | - | 0.71 | | | |
| Whiting Petroleum Corporation | WLL B | 20.11 | 2.34 | 9,700 | 5 | | 95 | | - | 0.60 | | | |
| Dorchester Minerals, L.P. | DMLP B | 14.91 | 1.00 | 460 | 38 | | 62 | | 5.0 | 0.53 | | | |
| Cross Timbers Royalty Trust | CRT B | 13.65 | 1.00 | 80 | 56 | | 44 | | 7.1 | 0.44 | | | |
| Canadian Oil Sands Limited | COSWF B | 5.60 | 2.06 | 5,600 | | | 100 | | 2.7 | 0.53 | | | |
| Birchcliff Energy Ltd. | BIREF B | 4.55 | 1.78 | 1,200 | 77 | | 23 | | - | 0.52 | | | |

Summary and Recommendation

Steep decline in price for oil and gas stocks may reach bottom in the next three months. In 1982, the stocks bottomed in August. In 1987, the bottom occurred in October. Oil and gas often strengthen seasonally from the late summer and early fall to spring. Gains from the bottom can be quite sharp as negative sentiment can shift to positive sentiment quickly. The best timing for building positions may be from now to Halloween. We recommend investment in each of five industry groups. Our buys are the two lowest McDep Ratio stocks in each group (see [Tables 1-4](#) on pages 2-5). **Chevron (CVX)** and **Total (TOT)** offer 5% dividend yields, strong balance sheets, and lower risk because of size, global spread and the natural hedge of integrated upstream and downstream operations. **ConocoPhillips (COP)** and **Marathon (MRO)** offer high dividend yields, almost as strong balance sheets, some global diversification, and are upstream pure plays with concentration in top shale oil fields. MRO at less than one-fourth the size of COP is small enough to be a plausible takeover candidate. **Continental Resources (CLR)** is a quality North Dakota shale oil producer and **Whiting Petroleum (WLL)** is the lower McDep Ratio, higher-debt Bakken challenger. Zero-debt microcaps **Dorchester Minerals (DMLP – new Buy)** and **Cross Timbers Royalty Trust (CRT)** are 5% and 7% income payers with core cash from Top Line royalty interests free of operating and capital cost obligation. Finally, **Canadian Oil Sands Ltd (COSWF)** and **Birchcliff Energy (BIREF)** are high potential oil and gas producers in Canada further depressed by a recent increase in provincial income tax and the delay in building export outlets that bypass the U.S.

Kurt H. Wulff, CFA



Meter Reader

A Monthly Analysis of Oil and Gas Stocks

August 11, 2015

| | | | <i>Price (US\$/sh)</i> | <i>Shares</i> | <i>Market Cap (US\$m)</i> | <i>Net Present Value (US\$/sh)</i> | <i>Debt/ Present Value</i> | <i>McDep Ratio</i> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----------------|----------------------------|---------------|-----------------------------------|------------------------------------------------|------------------------------------|------------------------|
| | <i>Symbol/Rating</i> | | <i>10-Aug 2015</i> | <i>(mm)</i> | | | | |
| | | <i>B = Buy</i> | | | | | | |
| Global Integrated | | | | | | | | |
| Royal Dutch Shell (BG pro forma) | RDS-A | | 58.89 | 3,900 | 230,000 | 68.00 | 0.32 | 0.91 |
| Exxon Mobil Corporation | XOM | | 78.75 | 4,200 | 331,000 | 92.00 | 0.18 | 0.88 |
| Chevron Corporation | CVX | B | 85.89 | 1,877 | 161,000 | 111.00 | 0.21 | 0.82 |
| Total S.A. | TOT | B | 50.41 | 2,292 | 116,000 | 71.00 | 0.26 | 0.79 |
| | <i>Total or Median</i> | | | | <i>838,000</i> | | <i>0.24</i> | <i>0.85</i> |
| Large Independent | | | | | | | | |
| EOG Resources, Inc. | EOG | | 76.27 | 550 | 42,000 | 80.00 | 0.13 | 0.96 |
| Occidental Petroleum Corp. | OXY | | 71.28 | 766 | 54,600 | 75.00 | 0.13 | 0.96 |
| Devon Energy Corporation | DVN | | 47.88 | 411 | 19,700 | 65.00 | 0.40 | 0.84 |
| ConocoPhillips | COP | B | 50.20 | 1,241 | 62,000 | 68.00 | 0.31 | 0.82 |
| Marathon Oil Corporation | MRO | B | 18.98 | 677 | 12,850 | 34.00 | 0.29 | 0.69 |
| | <i>Total or Median</i> | | | | <i>191,200</i> | | <i>0.29</i> | <i>0.84</i> |
| Small Independent | | | | | | | | |
| Cimarex Energy Company | XEC | | 114.88 | 95 | 10,900 | 108.00 | 0.10 | 1.06 |
| Range Resources | RRC | | 37.61 | 166 | 6,200 | 50.00 | 0.33 | 0.83 |
| California Resources | CRC | | 4.07 | 382 | 1,600 | 10.00 | 0.64 | 0.79 |
| Continental Resources (32%) | CLR | B | 35.36 | 119 | 4,200 | 58.00 | 0.25 | 0.71 |
| Whiting Petroleum Corporation | WLL | B | 20.11 | 206 | 4,100 | 52.00 | 0.34 | 0.60 |
| | <i>Total or Median</i> | | | | <i>27,000</i> | | <i>0.33</i> | <i>0.79</i> |
| Income | | | | | | | | |
| San Juan Basin Royalty Trust | SJT | | 10.88 | 47 | 510 | 15.00 | - | 0.73 |
| Sabine Royalty Trust | SBR | | 33.70 | 15 | 490 | 55.00 | - | 0.61 |
| Permian Basin RT | PBT | | 6.78 | 47 | 320 | 12.00 | - | 0.57 |
| Dorchester Minerals, L.P. | DMLP | B | 14.91 | 31 | 460 | 28.00 | - | 0.53 |
| Cross Timbers Royalty Trust | CRT | B | 13.65 | 6 | 80 | 31.00 | - | 0.44 |
| | <i>Total or Median</i> | | | | <i>1,900</i> | | <i>-</i> | <i>0.57</i> |
| Canada | | | | | | | | |
| Imperial Oil Limited (30%) | IMO | | 37.60 | 255 | 9,600 | 40.00 | 0.21 | 0.95 |
| EnCana Corporation | ECA | | 7.48 | 841 | 6,300 | 13.00 | 0.45 | 0.77 |
| Cenovus Energy Inc. | CVE | | 14.63 | 825 | 12,100 | 23.00 | 0.21 | 0.71 |
| Canadian Oil Sands Limited | COSWF | B | 5.60 | 485 | 2,700 | 16.00 | 0.27 | 0.53 |
| Birchcliff Energy Ltd. | BIREF | B | 4.55 | 154 | 700 | 12.00 | 0.23 | 0.52 |
| | <i>Total or Median</i> | | | | <i>31,000</i> | | <i>0.23</i> | <i>0.71</i> |
| Estimated present value presumes a long-term price for oil of US\$70 a barrel and natural gas, \$4.50 a million btu. McDep Ratio = Market cap and Debt to present value of oil and gas and other businesses | | | | | | | | |



Meter Reader

A Monthly Analysis of Oil and Gas Stocks

August 11, 2015

| | | | <i>Price (US\$/sh)</i> | <i>Adjustd Resrvs/ Prod</i> | <i>PV/ Ebitda</i> | <i>EV/ Ebitda</i> | <i>P/E</i> | <i>Dividend NTM</i> |
|----------------------------------|----------------------|---|----------------------------|-------------------------------------|-----------------------|-----------------------|------------|-------------------------|
| | <i>Symbol/Rating</i> | | <i>10-Aug 2015</i> | <i>NTM</i> | <i>NTM</i> | <i>NTM</i> | <i>NTM</i> | <i>(\$/sh)</i> |
| | <i>B = Buy</i> | | | | | | | |
| Global Integrated | | | | | | | | |
| Exxon Mobil Corporation | XOM | | 78.75 | 14.6 | 10.6 | 9.3 | 20 | 2.92 |
| Chevron Corporation | CVX | B | 85.89 | 9.1 | 8.6 | 7.1 | 29 | 4.28 |
| Total S.A. | TOT | B | 50.41 | 10.1 | 7.8 | 6.1 | 12 | 2.67 |
| Royal Dutch Shell (BG pro forma) | RDS-A | | 58.89 | | | | | 3.76 |
| | <i>Median</i> | | | <i>10.1</i> | <i>8.6</i> | <i>7.1</i> | <i>20</i> | |
| Large Independent | | | | | | | | |
| EOG Resources, Inc. | EOG | | 76.27 | 9.2 | 13.6 | 13.0 | 29 | 0.67 |
| Devon Energy Corporation | DVN | | 47.88 | 10.2 | 14.3 | 12.0 | 71 | 0.96 |
| Occidental Petroleum Corp. | OXY | | 71.28 | 9.1 | 12.0 | 11.5 | 93 | 3.00 |
| Marathon Oil Corporation | MRO | B | 18.98 | 12.4 | 14.0 | 9.6 | | 0.84 |
| ConocoPhillips | COP | B | 50.20 | 11.2 | 11.7 | 9.6 | | 2.96 |
| | <i>Median</i> | | | <i>10.2</i> | <i>13.6</i> | <i>11.5</i> | <i>71</i> | |
| Small Independent | | | | | | | | |
| Range Resources | RRC | | 37.61 | 14.5 | 22.3 | 18.6 | 116 | 0.16 |
| Cimarex Energy Company | XEC | | 114.88 | 7.9 | 15.6 | 16.5 | | 0.64 |
| California Resources | CRC | | 4.07 | 12.1 | 19.2 | 15.1 | | 0.04 |
| Continental Resources (32%) | CLR | B | 35.36 | 11.4 | 14.5 | 10.2 | 133 | - |
| Whiting Petroleum Corporation | WLL | B | 20.11 | 10.9 | 16.6 | 9.9 | | - |
| | <i>Median</i> | | | <i>11.4</i> | <i>16.6</i> | <i>15.1</i> | <i>124</i> | |
| Income | | | | | | | | |
| San Juan Basin Royalty Trust | SJT | | 10.88 | 8.3 | 23.8 | 17.2 | 23 | 0.47 |
| Sabine Royalty Trust | SBR | | 33.70 | 9.1 | 21.9 | 13.4 | 13 | 2.51 |
| Dorchester Minerals, L.P. | DMLP | B | 14.91 | 7.8 | 21.8 | 11.6 | 24 | 0.74 |
| Cross Timbers Royalty Trust | CRT | B | 13.65 | 12.6 | 22.5 | 9.9 | 14 | 0.98 |
| Permian Basin RT | PBT | | 6.78 | 9.9 | 17.3 | 9.8 | 17 | 0.40 |
| | <i>Median</i> | | | <i>9.1</i> | <i>21.9</i> | <i>11.6</i> | <i>17</i> | |
| Canada | | | | | | | | |
| Imperial Oil Limited (30%) | IMO | | 37.60 | 27.5 | 12.6 | 12.0 | 18 | 0.40 |
| EnCana Corporation | ECA | | 7.48 | 6.6 | 15.0 | 11.5 | 78 | 0.28 |
| Cenovus Energy Inc. | CVE | | 14.63 | 16.2 | 13.8 | 9.8 | | 0.49 |
| Canadian Oil Sands Limited | COSWF | B | 5.60 | 17.2 | 17.4 | 9.2 | (79) | 0.15 |
| Birchcliff Energy Ltd. | BIREF | B | 4.55 | 12.6 | 15.7 | 8.2 | | - |
| | <i>Median</i> | | | <i>16.2</i> | <i>15.0</i> | <i>9.8</i> | <i>18</i> | |
| | <i>Grand Median</i> | | | <i>11</i> | <i>15</i> | <i>11</i> | | |

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended June 30, 2016; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses



Meter Reader

A Monthly Analysis of Oil and Gas Stocks

August 11, 2015

| Table 4 | | | | | | | | | | |
|-----------------------------------------------|---------------------|---|---------|---------|--------|----------|--------|-----------|--------|-------|
| McDep Energy Stocks | | | | | | | | | | |
| Total Return Year-to-Date 2015 | | | | | | | | | | |
| Ranked by Unlevered Total Return | | | | | | | | | | |
| | | | Price | Price | | | Equity | Unlevered | | |
| | | | (\$/sh) | (\$/sh) | Price | Cash | Total | | Total | |
| | Symbol/Rat | | 10-Aug | 29-Dec | Change | Distrib. | Return | Debt | Return | McDep |
| | | | 2015 | 2014 | (%) | (%) | (%) | (\$/sh) | (%) | Ratio |
| Global Integrated | | | | | | | | | | |
| Total S.A. | TOT | B | 50.41 | 52.74 | (4) | 3 | (2) | 25 | (1) | 0.79 |
| Royal Dutch Shell (BG pro forma) | RDS-A | | 58.89 | 68.31 | (14) | 3 | (11) | 32 | (8) | 0.91 |
| Exxon Mobil Corporation | XOM | | 78.75 | 93.07 | (15) | 2 | (14) | 20 | (11) | 0.88 |
| Chevron Corporation | CVX | B | 85.89 | 113.32 | (24) | 2 | (22) | 30 | (18) | 0.82 |
| | <i>Median</i> | | | | (15) | | (12) | | (10) | 0.85 |
| Large Independent | | | | | | | | | | |
| Occidental Petroleum Corp. | OXY | | 71.28 | 81.71 | (13) | 2 | (11) | 11 | (10) | 0.96 |
| Devon Energy Corporation | DVN | | 47.88 | 61.15 | (22) | 1 | (21) | 43 | (12) | 0.84 |
| EOG Resources, Inc. | EOG | | 76.27 | 94.33 | (19) | 0 | (19) | 12 | (17) | 0.96 |
| ConocoPhillips | COP | B | 50.20 | 70.11 | (28) | 2 | (26) | 30 | (18) | 0.82 |
| Marathon Oil Corporation | MRO | B | 18.98 | 28.58 | (34) | 1 | (32) | 14 | (22) | 0.69 |
| | <i>Median</i> | | | | (22) | | (21) | | (17) | 0.84 |
| Small Independent | | | | | | | | | | |
| Cimarex Energy Company | XEC | | 114.88 | 110.27 | 4 | 0 | 4 | 12 | 4 | 1.06 |
| Continental Resources (32%) | CLR | B | 35.36 | 38.26 | (8) | - | (8) | 19 | (5) | 0.71 |
| California Resources | CRC | | 4.07 | 5.77 | (29) | 0 | (29) | 18 | (7) | 0.79 |
| Range Resources | RRC | | 37.61 | 56.00 | (33) | 0 | (33) | 25 | (23) | 0.83 |
| Whiting Petroleum Corporation | WLL | B | 20.11 | 34.09 | (41) | - | (41) | 27 | (23) | 0.60 |
| | <i>Median</i> | | | | (29) | | (29) | | (7) | 0.79 |
| Income | | | | | | | | | | |
| Sabine Royalty Trust | SBR | | 33.70 | 36.68 | (8) | 5 | (3) | - | (3) | 0.61 |
| Cross Timbers Royalty Trust | CRT | B | 13.65 | 18.07 | (24) | 5 | (20) | - | (20) | 0.44 |
| San Juan Basin Royalty Trust | SJT | | 10.88 | 13.97 | (22) | 1 | (21) | - | (21) | 0.73 |
| Permian Basin RT | PBT | | 6.78 | 9.12 | (26) | 2 | (23) | - | (23) | 0.57 |
| Dorchester Minerals, L.P. | DMLP | B | 14.91 | 25.16 | (41) | 4 | (37) | - | (37) | 0.53 |
| | <i>Median</i> | | | | (24) | | (21) | | (21) | 0.57 |
| Canada | | | | | | | | | | |
| Imperial Oil Limited (30%) | IMO | | 37.60 | 43.49 | (14) | 0 | (13) | 11 | (10) | 0.95 |
| Birchcliff Energy Ltd. | BIREF | B | 4.55 | 6.75 | (33) | - | (33) | 4 | (21) | 0.52 |
| Cenovus Energy Inc. | CVE | | 14.63 | 20.95 | (30) | 2 | (28) | 6 | (22) | 0.71 |
| Canadian Oil Sands Limited | COSWF | B | 5.60 | 9.20 | (39) | 1 | (38) | 6 | (23) | 0.53 |
| EnCana Corporation | ECA | | 7.48 | 13.94 | (46) | 1 | (45) | 11 | (26) | 0.77 |
| | <i>Median</i> | | | | (33) | | (33) | | (22) | 0.71 |
| | <i>Grand Median</i> | | | | (24) | | (22) | | (18) | 0.78 |
| Natural Gas (\$/mmbtu) | | | 2.84 | 3.19 | (11) | | | | | |
| Oil - West Texas Intermediate (\$/bbl) | | | 44.79 | 53.69 | (17) | | | | | |

Source: McDep LLC, Yahoo, CME Group, Bloomberg



Meter Reader

A Monthly Analysis of Oil and Gas Stocks

August 11, 2015

| Index of Recent Research | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------------------------|---------------------------------------------------------------|
| Stock Ideas | | | |
| <u>Date</u> | <u>Symbol</u> | <u>Subject</u> | <u>Theme</u> |
| 27-Jul | ECA | Encana Corporation | Depressed Stock Price |
| 17-Jul | DMLP | Dorchester Minerals, L.P. | Top Line Distribution Support |
| 7-Jul | PBT | Permian Basin Royalty Trust | Buy Underestimated Future Oil & Gas Production |
| 12-May | MRO | Marathon Oil | New Buy on Independent Shale Oil (Meter Reader) |
| 30-Apr | SJT | San Juan Basin Royalty Trust | New Buy on Depressed Natural Gas |
| 29-Apr | CVE | Cenovus Energy | New Buy on Operating Leverage |
| 28-Apr | TOT | Total | Operating Strength Reinforces New Buy |
| 14-Apr | RDSA | Royal Dutch Shell plc | Shell to Acquire BG - Catalyst for Confidence (MR) |
| 9-Mar | XOM | Exxon Mobil | Safe at Any Likely Oil Price |
| 27-Feb | EOG | EOG Resources | Top Value Creator |
| 30-Jan | COSWF | Canadian Oil Sands Ltd. | Syncrude Lowers Breakeven to \$US32 a Barrel |
| 23-Dec | RRC | Range Resources | Record Appalachian Well (Meter Reader) |
| 9-Dec | WLL | Whiting Petroleum | Kodiak Acquisition Completed (Meter Reader) |
| 25-Nov | COP | ConocoPhillips | Strong 4% Dividend Independent Producer |
| 13-Nov | BIREF | Birchcliff Energy | Raise NPV to US\$16 on Alberta Natural Gas |
| 4-Nov | CRC | California Resources Corporation | Pure Play Largest California Producer (Meter Reader) |
| 21-Oct | XEC | Cimarex Energy | Strong Independent Producer (Meter Reader) |
| 14-Oct | DVN | Devon Energy | Rebalance Candidate (Meter Reader) |
| 23-Sep | CLR | Continental Resources | Raise NPV to \$85 on 29% Growth (Meter Reader) |
| 10-Jun | OXY | Occidental Petroleum | Raise NPV to \$120, Spinoff Filed (Meter Reader) |
| For historical research by stock, go to mcdep.com , click on Stock Ideas , click on stock by name. | | | |
| Meter Reader | | | |
| 14-Jul | | | Lower Long-Term Oil to \$70 from \$90 |
| 16-Jun | | RDS, MRO, EOG, CLR, DMLP | Oil and Gas Strengthen U.S. Security |
| 12-May | MRO | Marathon Oil | New Buy on Independent Shale Oil |
| 14-Apr | RDS | Royal Dutch Shell plc | Shell to Acquire BG - Catalyst for Confidence |
| 10-Mar | | DMLP, SBR, CRT, SJT | RTF Income Tracks Oil Price |
| 10-Feb | | CRT, CRC, COP, CVX | Oil Price Cycle Advances |
| 13-Jan | | SBR, XEC, COSWF, DVN, XOM | Oil and Gas Stocks on Sale |
| 30-Dec | | Book Review | The Moral Case for Fossil Fuels by Alex Epstein |
| 23-Dec | RRC | Range Resources | Record Appalachian Well |
| 16-Dec | | | Oil and Gas Stocks for 2015 - For Contrarians and Rebalancers |
| 9-Dec | WLL | Whiting Petroleum | Kodiak Acquisition Completed (Meter Reader) |
| 2-Dec | | | Rebuild Oil and Gas Positions |
| 25-Nov | COP | ConocoPhillips | Strong 4% Dividend Independent Producer |
| 18-Nov | DMLP, SJT | RTF (Royalty Trust Fund) | DMLP, SJT and the RTF - High Income without Debt |
| 11-Nov | COSWF | Canadian Oil Sands Ltd. | Record Monthly Production |
| 4-Nov | CRC | California Resources Corporation | Pure Play Largest California Producer |
| 28-Oct | CVE | Cenovus Energy | Same Stock Price, Twice the Production |
| 21-Oct | XEC | Cimarex Energy | Strong Independent Producer |
| 14-Oct | DVN | Devon Energy | Rebalance Candidate |
| For earlier editions, go to mcdep.com , click on Meter Reader . | | | |
| Industry Ideas | | | |
| 3-Aug | | XOM, RDS, CVX, TOT | Global Energy Stalwarts |
| 22-Jul | | SBR, CRT, SJT, PBT | Use Volatility to Advantage |
| 22-Jun | | DMLP, SBR, CRT, SJT, PBT | Understated Reserves, June Distributions Up |
| 28-May | | DMLP, SBR, CRT, SJT, PBT | Distributions Rise on Roll Forward |
| 1-Apr | | | Recommitting to Oil and Gas Stocks |



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A Monthly Analysis of Oil and Gas Stocks

August 11, 2015

Disclaimer: This analysis was prepared by Kurt Wulff, Manager of McDep LLC. The firm used sources and data believed to be reliable, but makes no representation as to their accuracy or completeness. This analysis is intended for informational purposes and is not a solicitation to buy or sell a security. Past performance is no guarantee of future results.

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Certification: I, Kurt H. Wulff, certify that the views expressed in this research analysis accurately reflect my personal views about the subject securities and issuers. No part of my compensation was, is, or will be directly or indirectly related to the specific recommendations or views contained in this research analysis.

Research Methodology/Ratings Description: McDep LLC is an independent research originator focused on oil and gas stocks exclusively. The firm applies the forty years of experience of its analyst to estimate a present value of the oil and gas resources and other businesses of covered companies. That value is compared with a company's stock market capitalization and debt. Stocks with low market cap and debt relative to present value tend to outperform stocks with high market cap and debt relative to present value. Buy recommendations are expected to deliver a total return better than 7% per year above inflation.