

Mega Cap Reserves

Summary and Recommendation

Royal Dutch (RD) regained its relative McDep Ratio ranking as the stock price reacted to the company's revision to reserves on January 9. The stock price change was roughly in line with the reduction in estimate we published about 6 AM reacting to the company's meeting in London at 4 AM EST. McDep Ratios for Mega Cap Energy stocks appear competitive in our recently updated framework falling within a tight range of 0.78 for **ChevronTexaco (CVX)** to 0.95 for **ExxonMobil (XOM)**. Our buy recommendations are CVX and RD. We also think the investment outlook is attractive for **BP (BP)**, **Total (TOT)**, and XOM. We compare and contrast the valuation of those five stocks in our discussion this week.

McDep Ratio Ranking Balances Objectivity and Subjectivity

Among the regular valuation tables published weekly, the summary version is the ranking by McDep Ratio (see Table 1-1). Low McDep Ratio stocks tend to outperform high McDep Ratio stocks in our experience. The difference between XOM and CVX is not enough to pay capital gains tax on low cost basis holdings of taxable investors. Yet we would put new money into CVX rather than XOM, for example.

To contrast the subjectivity in the denominator of the McDep Ratio we also rank stocks by the market cash flow multiple (see Table 1-2). That ranking shows a wider spread from 8.1 for XOM to 5.7 for CVX. The question still remains how much should cash flow be worth?

Occasionally we publish a third table that ranks stocks by adjusted reserve life, the main single quantitative indicator of what cash flow multiple ought to be (see Table 1-3). That is the number that has just changed for RD (see *Independent Stock Idea*, Royal Dutch Petroleum, January 9, 2004). We assess multiples of present value to cash flow that depend to a large extent on reserve life.

Our assessed multiples are in line with reserve life except for a somewhat higher multiple for TOT and somewhat lower for CVX. Regardless, each of the five stocks has been a rewarding investment for many investors for a long time and the current outlook appears positive.

Kurt H. Wulff, CFA

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Meter Reader

A Weekly Analysis of Energy Stocks Using the McDep Ratio

January 13, 2004

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

	Symbol/ Rating	Price (\$/sh) 12-Jan 2004	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio	
Mega Cap								
Exxon Mobil Corporation	XOM	40.86	6,652	272,000	43.00	0.08	0.95	
Total S.A.	TOT	91.30	1,261	115,100	105.00	0.17	0.89	
BP plc	BP	49.67	3,682	183,000	60.00	0.13	0.85	
Royal Dutch/Shell	RD	B	48.97	3,473	170,000	60.00	0.17	0.85
ChevronTexaco Corporation	CVX	B	84.70	1,064	90,100	115.00	0.17	0.78
<i>Total or Median</i>				<i>830,000</i>		<i>0.17</i>	<i>0.85</i>	
Producer/Refiners - Large Cap and Mid Cap								
Kinder Morgan, Inc.	KMI	S	59.02	124	7,340	14.00	0.80	1.64
Imperial Oil Limited (30%)	IMO		47.25	111	5,240	43.00	0.12	1.09
Murphy Oil Corporation	MUR		66.00	93	6,120	62.00	0.20	1.05
Petro-Canada	PCZ		51.48	265	13,640	54.00	0.12	0.96
OAo Lukoil	LUKOY		99.50	210	21,000	105.00	0.10	0.95
Valero Energy Corporation	VLO		47.52	120	5,700	55.00	0.42	0.92
ENI S.p.A.	E		94.50	755	71,400	108.00	0.16	0.89
Petroleo Brasileiro S. A.	PBR		33.99	1,096	37,300	40.00	0.28	0.89
Suncor Energy	SU		25.76	475	12,240	30.00	0.12	0.88
ConocoPhillips	COP	B	65.72	680	44,700	88.00	0.33	0.83
Marathon Oil Corporation	MRO	B	33.98	310	10,530	47.00	0.27	0.80
PetroChina Company Ltd (10%)	PTR	B	49.95	176	8,780	65.00	0.09	0.79
Norsk Hydro ASA (49%)	NHY	B	63.40	126	7,980	95.00	0.19	0.73
<i>Total or Median</i>				<i>252,000</i>		<i>0.19</i>	<i>0.89</i>	
Independent Natural Gas and Oil								
Pogo Producing Company	PPP		47.98	64	3,070	50.00	0.10	0.96
Occidental Petroleum Corp.	OXY		44.15	391	17,300	50.00	0.26	0.91
Apache Corporation	APA		83.50	162	13,500	94.00	0.19	0.91
XTO Energy Inc.	XTO	B	29.11	186	5,420	33.00	0.19	0.90
CNOOC Limited (19%)	CEO	B	40.18	78	3,140	48.00	-	0.84
Canadian Natural Resources Limited	CNQ		53.30	137	7,300	72.00	0.34	0.83
Unocal Corporation	UCL		38.25	273	10,400	52.00	0.28	0.81
Pioneer Natural Resources Company	PXD		32.90	119	3,920	45.00	0.26	0.80
Encana Corporation	ECA	B	41.89	470	19,700	56.00	0.19	0.80
Burlington Resources	BR	B	57.14	201	11,500	80.00	0.21	0.77
Anadarko Petroleum Corp.	APC	B	52.12	251	13,100	76.00	0.26	0.77
Devon Energy	DVN		59.11	241	14,200	90.00	0.30	0.76
<i>Total or Median</i>				<i>123,000</i>		<i>0.23</i>	<i>0.82</i>	
Service								
Baker Hughes Inc.	BHI		32.70	336	11,000	30.00	0.07	1.09
Halliburton Company	HAL		28.05	435	12,200	28.00	0.28	1.00
Schlumberger Ltd.	SLB		53.35	585	31,200	60.00	0.17	0.91
<i>Total or Median</i>				<i>54,000</i>		<i>0.17</i>	<i>1.00</i>	

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

January 13, 2004

Table 1-2
Energy Producers
Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.

	Symbol/ Rating	Price (\$/sh) 12-Jan 2004	EV/ Sales NTM	EV/ Ebitda NTM	P/E NTM	Dividend or Distribution NTM (%)	PV/ Ebitda NTM
Mega Cap							
Exxon Mobil Corporation	XOM	40.86	1.2	8.1	15	2.4	8.4
Total S.A.	TOT	91.30	1.2	7.2	14	3.9	8.1
BP plc	BP	49.67	0.9	6.9	14	3.1	8.1
Royal Dutch/Shell	RD B	48.97	1.1	6.3	14	4.5	7.4
ChevronTexaco Corporation	CVX B	84.70	0.9	5.7	10	3.4	7.3
	<i>Median</i>		<i>1.1</i>	<i>6.9</i>	<i>14</i>	<i>3.4</i>	<i>8.1</i>
Producer/Refiners - Large Cap and Mid Cap							
Kinder Morgan, Inc.	KMI S	59.02	3.0	12.7	18	2.7	7.7
Imperial Oil Limited (30%)	IMO	47.25	1.4	8.1	16	1.4	7.4
Murphy Oil Corporation	MUR	66.00	1.6	7.9	19	1.2	7.5
Suncor Energy	SU	25.76	2.8	7.4	14	0.6	8.4
Valero Energy Corporation	VLO	47.52	0.3	6.3	9	1.0	6.9
ConocoPhillips	COP B	65.72	0.7	5.7	8	2.6	6.9
ENI S.p.A.	E	94.50	1.6	5.6	11	4.6	6.3
Marathon Oil Corporation	MRO B	33.98	0.4	5.5	12	2.9	6.9
OAOLukoil	LUKOY	99.50	1.1	5.3	9	2.6	5.5
Petro-Canada	PCZ	51.48	1.7	5.1	15	0.6	5.3
PetroChina Company Ltd (10%)	PTR B	49.95	2.6	4.7	9	4.1	5.9
Petroleo Brasileiro S. A.	PBR	33.99	1.8	4.4	6	3.0	4.9
Norsk Hydro ASA (49%)	NHY B	63.40	0.8	4.3	11	2.5	5.9
	<i>Median</i>		<i>1.6</i>	<i>5.6</i>	<i>11</i>	<i>2.6</i>	<i>6.9</i>
Independent Natural Gas and Oil							
CNOOC Limited (19%)	CEO B	40.18	4.6	5.9	12	4.0	7.0
XTO Energy Inc.	XTO B	29.11	4.4	5.8	10	0.1	6.4
Pioneer Natural Resources Company	PXD	32.90	3.8	5.4	14	-	6.7
Occidental Petroleum Corp.	OXY	44.15	2.5	5.3	9	2.4	5.8
Encana Corporation	ECA B	41.89	2.5	5.2	13	0.7	6.6
Anadarko Petroleum Corp.	APC B	52.12	3.7	5.2	9	1.1	6.7
Unocal Corporation	UCL	38.25	2.5	5.1	11	2.1	6.3
Apache Corporation	APA	83.50	3.5	5.0	10	0.6	5.5
Burlington Resources	BR B	57.14	3.6	5.0	10	1.1	6.4
Canadian Natural Resources Limited	CNQ	53.30	3.2	4.6	10	0.9	5.6
Devon Energy	DVN	59.11	2.8	4.1	7	-	5.4
Pogo Producing Company	PPP	47.98	2.8	4.1	10	0.4	4.2
	<i>Median</i>		<i>3.4</i>	<i>5.1</i>	<i>10</i>	<i>0.8</i>	<i>6.4</i>
Service							
Halliburton Company	HAL	28.05	1.0	12.1	25	1.8	12.1
Baker Hughes Inc.	BHI	32.70	2.2	11.9	30	1.4	11.0
Schlumberger Ltd.	SLB	53.35	2.7	9.7	33	1.4	10.7
	<i>Median</i>		<i>2.2</i>	<i>11.9</i>	<i>30</i>	<i>1.4</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

January 13, 2004

Table 1-3
Energy Producers
Determinants of Present Value

	<i>Symbol/</i>		<i>NG & O</i>	<i>N. Am.</i>	<i>Adjusted</i>	<i>PV/</i>		<i>McDep</i>
	<i>Rating</i>		<i>Prod/</i>	<i>Gas/</i>	<i>Reserves/</i>	<i>Ebitda</i>	<i>EV/</i>	<i>Ratio</i>
			<i>Ebitda</i>	<i>Ebitda</i>	<i>Prod</i>	<i>NTM</i>	<i>Mcfe</i>	<i>12-Jan</i>
			<i>(%)</i>	<i>(%)</i>	<i>NTM</i>			<i>2004</i>
Mega Cap								
Royal Dutch/Shell	RD	B	74	6	8.4	7.4	1.36	0.85
Total S.A.	TOT		76	1	9.3	8.1	1.47	0.89
BP plc	BP		79	13	10.3	8.1	1.40	0.85
ChevronTexaco Corporation	CVX	B	78	12	10.5	7.3	0.92	0.78
Exxon Mobil Corporation	XOM		74	12	11.3	8.4	1.53	0.95
	<i>Median</i>		<i>76</i>	<i>12</i>	<i>10.3</i>	<i>8.1</i>	<i>1.40</i>	<i>0.85</i>
Producer/Refiners - Large Cap and Mid Cap								
Valero Energy Corporation	VLO		-	-		6.9		0.92
Kinder Morgan, Inc.	KMI	S	-	-	-	7.7		1.64
Petro-Canada	PCZ		82	24	7.2	5.3	1.20	0.96
Murphy Oil Corporation	MUR		93	30	7.3	7.5	3.61	1.05
Norsk Hydro ASA (49%)	NHY	B	66	-	8.9	5.9	0.24	0.73
Marathon Oil Corporation	MRO	B	74	27	9.0	6.9	1.01	0.80
Petroleo Brasileiro S. A.	PBR		93	-	9.9	4.9	0.91	0.89
ENI S.p.A.	E		56	-	9.9	6.3	0.72	0.89
Imperial Oil Limited (30%)	IMO		72	19	10.2	7.4	1.43	1.09
ConocoPhillips	COP	B	74	17	11.2	6.9	0.85	0.83
PetroChina Company Ltd (10%)	PTR	B	78	-	16.0	5.9	0.71	0.79
Suncor Energy	SU		93	9	19.0	8.4	0.97	0.88
OAOLukoil	LUKOY		48	-	20.0	5.5	0.08	0.95
	<i>Median</i>		<i>74</i>	<i>-</i>	<i>9.9</i>	<i>6.9</i>	<i>0.91</i>	<i>0.89</i>
Independent Natural Gas and Oil								
Pogo Producing Company	PPP		100	36	5.8	4.2	2.31	0.96
Canadian Natural Resources Limited	CNQ		100	51	7.2	5.6	1.36	0.83
Devon Energy	DVN		100	68	7.5	5.4	1.60	0.76
Apache Corporation	APA		100	46	8.1	5.5	1.98	0.91
Unocal Corporation	UCL		100	35	8.4	6.3	1.59	0.81
Encana Corporation	ECA	B	98	72	9.0	6.6	1.23	0.80
XTO Energy Inc.	XTO	B	100	88	9.5	6.4	2.15	0.90
Anadarko Petroleum Corp.	APC	B	100	60	10.1	6.7	1.31	0.77
Pioneer Natural Resources Company	PXD		100	66	10.3	6.7	1.25	0.80
Burlington Resources	BR	B	100	73	10.4	6.4	1.24	0.77
CNOOC Limited (19%)	CEO	B	100	-	10.7	7.0	1.67	0.84
Occidental Petroleum Corp.	OXY		90	19	10.9	5.8	1.45	0.91
	<i>Median</i>		<i>100</i>	<i>56</i>	<i>9.3</i>	<i>6.4</i>	<i>1.52</i>	<i>0.82</i>

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A Weekly Analysis of Energy Stocks Using the McDep Ratio

January 13, 2004

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

	<i>Symbol/ Rating</i>	<i>Price (\$/sh) 12-Jan 2004</i>	<i>Shares (mm)</i>	<i>Market Cap (\$mm)</i>	<i>Net Present Value (\$/sh)</i>	<i>Debt/ Present Value</i>	<i>McDep Ratio</i>	
Short Life								
Spinnaker Exploration Company	SKE	33.84	33.9	1,150	28.00	0.08	1.19	
Southwestern Energy Company	SWN	24.17	36.0	870	21.00	0.28	1.11	
Energy Partners Ltd.	EPL	B	14.59	39.2	571	15.00	0.18	0.98
Western Gas Resources	WGR	48.06	37.0	1,780	50.00	0.17	0.97	
Newfield Exploration Company	NFX	45.91	56.0	2,570	52.00	0.24	0.91	
Chesapeake Energy Corporation	CHK	13.50	220	2,970	18.00	0.35	0.84	
Range Resources Corporation	RRC	10.63	57.0	610	15.00	0.32	0.80	
Westport Resources Corporation	WRC	30.90	68.0	2,100	42.00	0.22	0.79	
Stone Energy Company	SGY	42.25	26.6	1,120	58.00	0.23	0.79	
Cimarex Energy Company	XEC	B	27.25	42.0	1,150	35.00	0.00	0.78
Denbury Resources Inc.	DNR	13.82	55.7	770	20.00	0.25	0.77	
Forest Oil Corporation	FST	29.03	49.0	1,420	45.00	0.30	0.75	
St. Mary Land and Exploration Company	SM	29.81	29.0	860	43.00	0.12	0.73	
The Houston Exploration Company	THX	37.80	31.0	1,170	55.00	0.13	0.73	
<i>Total or Median</i>				<i>19,100</i>		<i>0.23</i>	<i>0.80</i>	
Long Life								
Ultra Petroleum Corp.	UPL	25.76	78.0	2,010	16.00	0.08	1.56	
Unit Corporation	UNT	24.80	43.7	1,080	22.00	0.02	1.13	
Penn Virginia Corporation	PVA	59.65	9.1	540	56.00	0.17	1.05	
Quicksilver Resources Inc.	KWK	35.85	23.0	830	37.00	0.25	0.98	
Berry Petroleum Company	BRY	21.03	22.1	465	22.00	0.12	0.96	
Swift Energy Company	SFY	18.75	27.4	510	22.00	0.37	0.91	
Evergreen Resources, Inc.	EVG	34.90	44.0	1,540	42.00	0.12	0.85	
Encore Acquisition Corp.	EAC	B	24.70	30.3	749	33.00	0.13	0.78
Magnum Hunter Resources, Inc.	MHR	9.50	68.0	650	15.00	0.38	0.77	
Vintage Petroleum, Inc.	VPI	12.89	63.0	810	27.00	0.32	0.65	
<i>Total or Median</i>				<i>9,200</i>		<i>0.15</i>	<i>0.93</i>	
Micro Cap								
Abraxas Petroleum Corporation	ABP	1.54	35.8	55	1.00	0.84	1.09	
Purcell Energy, Ltd. (US\$)	PEL.TO	2.01	48.0	96	2.80	0.28	0.79	

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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Table 2-2
Independent Natural Gas and Oil Producers - Small Cap
Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.

	Symbol/ Rating	Price (\$/sh) 12-Jan 2004	EV/ Sales NTM	EV/ Ebitda NTM	P/E NTM	Dividend or Distribution NTM (%)	PV/ Ebitda NTM
Short Life							
Western Gas Resources	WGR	48.06	0.8	9.4	20	-	9.7
Southwestern Energy Company	SWN	24.17	3.5	6.2	12	-	5.6
Spinnaker Exploration Company	SKE	33.84	4.8	5.4	16	-	4.6
Energy Partners Ltd.	EPL	14.59	3.0	4.8	20	-	4.9
Chesapeake Energy Corporation	CHK	13.50	3.4	4.5	8	0.9	5.4
Denbury Resources Inc.	DNR	13.82	3.0	4.3	8	-	5.6
Stone Energy Company	SGY	42.25	3.1	4.3	9	-	5.4
Cimarex Energy Company	XEC	27.25	3.3	4.2	10	-	5.4
Westport Resources Corporation	WRC	30.90	3.2	4.2	10	-	5.2
Forest Oil Corporation	FST	29.03	3.0	4.1	7	-	5.5
Range Resources Corporation	RRC	10.63	3.3	4.1	8	0.4	5.1
Newfield Exploration Company	NFX	45.91	2.9	4.0	9	-	4.4
St. Mary Land and Exploration Company	SM	29.81	2.7	4.0	11	0.3	5.5
The Houston Exploraton Company	THX	37.80	2.4	2.9	6	-	4.0
	<i>Median</i>		<i>3.1</i>	<i>4.2</i>	<i>10</i>	<i>-</i>	<i>5.4</i>
Long Life							
Ultra Petroleum Corp.	UPL	25.76	13.5	17.7	31	-	11.3
Quicksilver Resources Inc.	KWK	35.85	5.8	8.8	16	-	9.0
Berry Petroleum Company	BRY	21.03	3.8	8.2	17	2.1	8.5
Evergreen Resources, Inc.	EVG	34.90	5.6	7.6	13	-	8.9
Unit Corporation	UNT	24.80	3.3	7.5	17	-	6.7
Penn Virginia Corporation	PVA	59.65	3.6	6.5	14	1.5	6.2
Swift Energy Company	SFY	18.75	4.0	6.1	16	-	6.8
Magnum Hunter Resources, Inc.	MHR	9.50	3.2	5.1	10	-	6.5
Encore Acquisition Corp.	EAC	24.70	3.6	5.0	10	-	6.4
Vintage Petroleum, Inc.	VPI	12.89	2.3	4.0	9	1.4	6.1
	<i>Median</i>		<i>3.7</i>	<i>7.0</i>	<i>15</i>	<i>-</i>	<i>6.7</i>
Micro Cap							
Abraxas Petroleum Corporation	ABP	1.54	7.4	11.9		-	10.9
Purcell Energy, Ltd. (US\$)	PEL.TO	2.01	3.7	5.0	10	-	6.4

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