A Weekly Analysis of Energy Stocks Using the McDep Ratio June 19, 2003

Mega Cap Attraction

Summary and Recommendation

The fundamental appeal of Mega Cap Energy stocks is enhanced by free money, a lower dollar and lower dividend taxes. Producer/refiners and independent natural gas and oil producers may offer more potential than mega caps. We thought recommended **Royal Dutch Petroleum (RD)** was attractive last year when the dividend yield moved above the real yield on Ten-Year Treasury Inflation Protected Securities (TIPS). Now the dividend yield exceeds even the higher nominal yield of the Ten-Year Treasury Note (TN) and the tax on that dividend has been reduced by a half or more. Nor is the dividend inflated by hidden leverage covered up with misleading accounting as appears to be the case for some popular energy income partnerships. Cash flow multiple while low for mega caps at a median 7.5 years is even lower for producer/refiners at a median 4.7 years and independent producers at a median 5.4 years. In the last free money episode, three decades ago, the medium and small energy stocks outperformed the giants and the giants outperformed the stock market.

A Stunning Real Estate Example Close to Home

We were startled recently to learn that a choice home with land for new lots in our neighborhood is offered for sale at an apparent asking price seven times market value of about a decade ago. Discount that by a half and it still seems a high number. Our first reaction was to be grateful we owned our humble abode. The second reaction was the implication for the value of money. In terms of this particular example, money would only be worth as little as a seventh of what it was a decade ago. A typical investor's savings could be wiped out in the next decade at that rate if they weren't invested successfully. Our third reaction was to remember that real estate reached astronomical levels in Japan a little more than a decade ago shortly after the Japanese stock market began its long decline.

There may be some truth in each of our reactions. First, real assets probably are worth more than we thought. Second, money probably has lost more value already than we thought. Third, there is always risk that it can all fall apart. We are left with our continuing goal to earn a real return with inflation protection and deflation resistance.

TIPS meet minimum goals on a near risk-free basis. Our preference for TIPS relative to conventional Treasury securities has grown stronger as rates decline. That is because at lower rates more of the deflation protection of TN is simply return of principal that is assured by TIPS as well.

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Yet the declining real return on TIPS also makes Mega Cap Energy stocks more appealing in our opinion. To make the case we look at the expected return from recommended Royal Dutch Petroleum. The conclusion also applies to a similar degree to recommended **Chevron Texaco** (**CVX**) as well as to their three peers.

The Case for Mega Cap Energy Stocks Strengthens

Last year RD's dividend yield appeared to be 4.0% per year compared to 2.5% per year for Ten-Year TIPS (see table). Expecting that RD's dividend would grow at least at the rate of inflation, we concluded that the dividend was a real yield that compared favorably with the real yield on TIPS.

Royal Dutch Dividend Yield and U.S. Treasury Yields

18-Jun-03	22-Jul-02
1.7	2.8
3.4	4.5
4.2	4.0
49	42
2.01	1.66
1.17	1.00
1.72	1.66
	1.7 3.4 4.2 49 2.01 1.17

Since then RD has increased its dividend in euro terms and the euro has appreciated relative to the dollar. As a result, despite a higher stock price, the yield on RD's stock today appears slightly higher at 4.2%. Now the RD yield exceeds not only the TIPS real yield of 1.7%, but also the Treasury Note nominal yield of 3.4%. The interest payment that determines the nominal yield is fixed and not adjusted for inflation.

On top of that, the U.S. tax rate on dividend income is now a maximum 15% compared to some 35% or so previously. The tax on Treasury securities remains at the higher level. To taxable investors, the pre-tax yield comparison of 4.2% vs. 3.4% widens to the after-tax yield comparison of 3.6% vs. 2.2%.

Medium and Small Stocks May Have More Potential than Mega Caps

There are times when investors can get effective portfolio representation in energy simply by owning a Mega Cap. That appeared to be true in recent years as the industry became concentrated in Mega Cap hands and commodity prices were depressed. Reflecting those realities McDep Ratios became somewhat biased to Mega Caps. We can see the preference by comparing groups on the ratio of Enterprise Value to Cash Flow (EV/Ebitda). For the three main producers groups – Mega Cap, Producer/Refiner and

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Independent – McDep Ratio medians are 0.91, 0.88 and 0.89 respectively (see Table 1-1). Median cash flow ratios, EV/Ebitda, are 7.5, 4.7, and 5.4 years respectively (see Table 1-2). Ebitda estimates for the three groups are consistent with one-year commodity prices most recently quoted.

The most obvious quantitative factor that could justify differences in cash flow multiples is reserve life. For each of the three groups, median adjusted reserve life is 10.2, 11.0, and 10.3 years respectively (see Table 1-3). Because of the similarities, reserve life would not justify more than a half-year difference in cash flow multiple. Other quantitative factors are listed and there are further qualitative factors we consider.

As we sense inflation protection is likely to become a greater concern in the next few years, we think investors are going to be more interested in the assets of medium and smaller companies. We expect to raise our estimates of present value for producer/refiners and independents to better match cash flow and thus produce McDep Ratios that capture more of the apparent undervaluation of those groups relative to Mega Caps.

The McDep Energy Portfolio of recommendations already includes stocks that could benefit from the potential adjustment in McDep Ratios. We think investors should own Mega Caps as anchors in a portfolio that includes disproportionate representation in other energy stocks. The combination ought to be able to outperform in an increasingly inflationary environment likely to follow free money and a low dollar. In addition, low dividend tax and low capital gains tax further enhance energy equity investment.

Six-Year and One-Year Natural Gas and Oil Futures 72 Month Natural Gas — 12 Month Natural Gas 72 Month Oil 12 Month Oil 39.00 6.50 **Dollars Per Million BTU** 6.00 36.00 5.50 33.00 5.00 30.00 4.50 27.00 24.00 4.00 3.50 21.00 3.00 18.00 2.50 15.00 2.00 12.00 5/16/2002 70131/2002 5/13/2002 1/2/2002 717/2002 226/2002 3/19/2003 2/19/2003 1/16/200°

Kurt H. Wulff, CFA

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

			Price			Net		
			(\$/sh)		Market	Present	Debt/	
	Symbol/	/	18-Jun	Shares	Cap	Value	Present	McDep
	R_{i}	ating	2003	(mm)	(\$mm)	(\$/sh)	Value	Ratio
Mega Cap								
Exxon Mobil Corporation	XOM		37.34	6,714	251,000	35.00	0.09	1.06
Total S.A.	TOT		79.77	1,292	103,100	85.00	0.17	0.95
Royal Dutch/Shell	RD	В	48.86	3,473	170,000	55.00	0.18	0.91
BP plc	BP		44.12	3,721	164,000	50.00	0.15	0.90
ChevronTexaco Corporation	CVX	В	74.19	1,064	78,900	95.00	0.20	0.82
Total or Median					767,000		0.17	0.91
Producer/Refiners - Large Cap and		p						
Murphy Oil Corporation	MUR		52.45	93	4,860	41.00	0.24	1.21
Petro-Canada	PCZ		39.27	264	10,350	38.00	0.21	1.03
Imperial Oil Limited (30%)	IMO		34.65	113	3,930	36.00	0.12	0.97
ENI S.p.A.	E		82.87	750	62,200	90.00	0.14	0.93
Suncor Energy	SU		19.30	448	8,650	22.00	0.23	0.91
OAO Lukoil	LUKOY	ľ	79.10	206	16,000	90.00	0.12	0.89
Valero Energy Corporation	VLO		37.59	114	4,290	50.00	0.50	0.88
PetroChina Company Ltd (10%)	PTR	В	27.69	176	4,870	33.00	0.16	0.87
ConocoPhillips	COP	В	54.73	682	37,300	70.00	0.38	0.86
Norsk Hydro ASA (49%)	NHY		46.70	126	5,900	60.00	0.28	0.84
Marathon Oil Corporation	MRO	В	26.52	310	8,220	40.00	0.31	0.77
Petroleo Brasileiro S. A.	PBR	N	20.29	1,096	22,200	30.00	0.25	0.76
Total or Median					184,000		0.23	0.88
Independent Natural Gas and Oil								
Pogo Producing Company	PPP		42.95	65	2,770	38.00	0.22	1.10
Occidental Petroleum Corp.	OXY		33.75	383	12,900	35.00	0.38	0.98
Encana Corporation	ECA	В	37.60	470	17,700	40.00	0.21	0.95
Apache Corporation	APA		63.45	159	10,100	70.00	0.20	0.93
Burlington Resources	BR	В	52.00	202	10,500	60.00	0.27	0.90
Devon Energy	DVN		53.37	163	8,700	65.00	0.42	0.90
XTO Energy Inc.	XTO	В	20.15	185	3,730	24.00	0.24	0.88
CNOOC Limited (19%)	CEO	В	29.19	78	2,280	35.00	-	0.84
Unocal Corporation	UCL		29.79	255	7,600	40.00	0.35	0.83
Anadarko Petroleum Corp.	APC	В	45.17	258	11,700	60.00	0.30	0.83
Pioneer Natural Resources Company	PXD		25.81	119	3,070	35.00	0.33	0.82
Canadian Natural Resources Limited	CNQ		40.85	139	5,680	55.00	0.29	0.82
Total or Median					97,000		0.28	0.89
Service								
Baker Hughes Inc.	BHI		33.79	339	11,500	25.00	0.09	1.32
Halliburton Company	HAL		24.65	434	10,700	22.00	0.25	1.09
Schlumberger Ltd.	SLB		47.24	581	27,400	44.00	0.22	1.06
					.,			

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

McDep Ratio = \mathbf{M} arket \mathbf{c} ap and \mathbf{D} ebt to \mathbf{p} resent value of oil and gas and other businesses

A Weekly Analysis of Energy Stocks Using the McDep Ratio June 19, 2003

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

	Price Dividend or						idend or	
			(\$/sh)	EV/	EV/	Dist	tribution	PV/
	Symbol/		18-Jun	Sales	Ebitda	P/E	NTM	Ebitda
	Rai	ting	2003	NTM	NTM	NTM	(%)	NTM
Mega Cap								
Exxon Mobil Corporation	XOM		37.34	1.1	9.6	20	2.7	9.0
Total S.A.	TOT		79.77	1.1	8.0	16	4.4	8.5
BP plc	BP		44.12	0.8	7.5	17	3.4	8.3
Royal Dutch/Shell	RD	В	48.86	1.0	7.3	16	4.2	8.0
ChevronTexaco Corporation	CVX	В	74.19	0.9	6.7	13	3.8	8.1
Median				1.0	7.5	16	3.8	8.3
Producer/Refiners - Large Cap and	Mid Cap							
ConocoPhillips	COP	В	54.73	0.6	7.2	13	2.9	8.3
Murphy Oil Corporation	MUR		52.45	1.3	7.1	19	1.5	5.9
Imperial Oil Limited (30%)	IMO		34.65	1.1	7.1	13	1.6	7.3
Suncor Energy	SU		19.30	3.0	7.0	13	0.6	7.8
Marathon Oil Corporation	MRO	В	26.52	0.4	4.8	11	3.5	6.3
Valero Energy Corporation	VLO		37.59	0.3	4.8	5	1.1	5.5
ENI S.p.A.	E		82.87	1.8	4.5	10	5.2	4.9
Petro-Canada	PCZ		39.27	1.4	4.4	9	0.7	4.3
Norsk Hydro ASA (49%)	NHY		46.70	0.7	4.2	11	3.2	5.0
OAO Lukoil	LUKOY		79.10	1.1	4.0	7	2.4	4.5
Petroleo Brasileiro S. A.	PBR	N	20.29	1.3	3.7	5	4.2	4.9
PetroChina Company Ltd (10%)	PTR	В	27.69	1.8	3.3	6	5.2	3.8
Median				1.2	4.7	10	2.7	5.2
Independent Natural Gas and Oil								
XTO Energy Inc.	XTO	В	20.15	5.2	7.6	16	0.2	8.7
Pioneer Natural Resources Company	PXD		25.81	4.9	6.7	20	-	8.2
Occidental Petroleum Corp.	OXY		33.75	2.5	6.6	11	3.1	6.8
Apache Corporation	APA		63.45	4.1	5.6	12	0.6	6.1
Pogo Producing Company	PPP		42.95	3.6	5.5	15	0.3	5.0
CNOOC Limited (19%)		В	29.19	3.7	5.5	13	3.6	6.6
Anadarko Petroleum Corp.		В	45.17	3.9	5.4	9	0.9	6.5
Burlington Resources	BR	В	52.00	3.7	5.3	11	1.1	5.8
Unocal Corporation	UCL		29.79	2.0	5.2	13	2.7	6.2
Devon Energy	DVN		53.37	2.9	4.4	7	-	4.9
Encana Corporation		В	37.60	2.1	4.3	10	0.8	4.5
Canadian Natural Resources Limited	CNQ		40.85	2.2	3.5	7	1.0	4.3
Median				3.6	5.4	12	0.8	6.1
Service								
Baker Hughes Inc.	BHI		33.79	2.4	14.3	40	1.4	10.8
Halliburton Company	HAL		24.65	1.2	9.8	22	2.0	9.0
Schlumberger Ltd.	SLB		47.24	2.5	9.4	35	1.6	8.9

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended June 30, 2004; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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Table 1-3
Energy Producers
Determinants of Present Value

			NG & O Prod/	N. Am. Gas/	Adjusted Reserves/	PV/		McDep Ratio
	C		Ebitda	Ebitda	Reserves/ Prod	F v/ Ebitda	EV/	18-Jun
	Symbol/				NTM	Ebiiaa NTM		2003
Mega Cap	Λ	ating	(%)	(%)	I V I IVI	I V I IVI	Mcfe	2003
Total S.A.	TOT		72	1	0.2	0.5	1.05	0.05
	TOT	D	72 64	1 6	9.3	8.5	1.25 0.95	0.95
Royal Dutch/Shell	RD	В			9.6	8.0		0.91
ChevronTexaco Corporation	CVX	В	82	16	10.2	8.1	0.97	0.82
BP plc	BP		82	17	10.5	8.3	1.47	0.90
Exxon Mobil Corporation	XOM		74	13	11.0	9.0	1.58	1.06
Mediar			74	13	10.2	8.3	1.25	0.91
Producer/Refiners - Large Cap and M	_							0.00
Valero Energy Corporation	VLO		-	-		5.5		0.88
Petro-Canada	PCZ		88	26	5.7	4.3	1.47	1.03
Marathon Oil Corporation	MRO	В	76	29	8.3	6.3	0.89	0.77
Murphy Oil Corporation	MUR		91	34	8.4	5.9	2.46	1.21
Norsk Hydro ASA (49%)	NHY		73	-	8.8	5.0	0.76	0.84
ENI S.p.A.	E		64	-	10.1	4.9	0.88	0.93
ConocoPhillips	COP	В	70	17	11.0	8.3	0.71	0.86
Petroleo Brasileiro S. A.	PBR	N	88	-	11.3	4.9	0.42	0.76
Imperial Oil Limited (30%)	IMO		74	20	11.4	7.3	1.01	0.97
PetroChina Company Ltd (10%)	PTR	В	78	-	16.4	3.8	0.47	0.87
Suncor Energy	SU		92	11	19.0	7.8	0.81	0.91
OAO Lukoil	LUKOY		21	-	20.0	4.5	0.01	0.89
Mediar	ı		75	6	11.0	5.2	0.81	0.89
Independent Natural Gas and Oil								
Pogo Producing Company	PPP		100	41	5.8	5.0	2.91	1.10
Canadian Natural Resources Limited	CNQ		100	54	7.3	4.3	0.81	0.82
Devon Energy	DVN		100	73	7.7	4.9	1.76	0.90
Unocal Corporation	UCL		100	38	8.4	6.2	1.32	0.83
Encana Corporation	ECA	В	97	69	8.8	4.5	1.29	0.95
Apache Corporation	APA		100	54	10.0	6.1	1.76	0.93
Anadarko Petroleum Corp.	APC	В	100	58	10.5	6.5	1.31	0.83
Occidental Petroleum Corp.	OXY		92	14	10.7	6.8	1.40	0.98
CNOOC Limited (19%)	CEO	В	100	_	10.8	6.6	1.21	0.84
Burlington Resources	BR	В	100	78	10.8	5.8	1.39	0.90
XTO Energy Inc.	XTO	В	100	85	11.3	8.7	1.54	0.88
Pioneer Natural Resources Company	PXD		100	53	12.3	8.2	1.14	0.82
± •	1		100	54				
	BHI		-	_		10.8		1.32
			_	_				
			_	_				
Median Service Baker Hughes Inc. Halliburton Company Schlumberger Ltd.			100 - - -	-	10.3	6.1 10.8 9.0 8.9	1.35	0.89 1.32 1.09 1.06

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Table 2-1
Energy Pipeline and Power Companies
Rank by McDep Ratio: Market Cap and Debt to Present Value

	Symbo Rat		Price (\$/sh) 18-Jun 2003	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio
Large Cap Power								
Duke Energy Corporation	DUK		20.49	832	17,100	16.00	0.69	1.09
Southern Company	SO		31.53	696	22,000	28.00	0.43	1.07
Exelon Corporation	EXC	N	60.22	325	19,600	65.00	0.51	0.96
American Electric Power Co. Inc.	AEP	N	30.79	348	10,700	35.00	0.60	0.95
Enel S.p.a. (32%)	EN		33.10	388	12,800	37.00	0.40	0.94
Dominion Resources	D		65.08	294	19,100	76.00	0.44	0.92
Mid Cap Pipeline and Power								
Kinder Morgan Energy Partners, L.P.	KMP	S	39.85	135	5,400	14.00	0.48	1.97
Kinder Morgan Management, LLC	KMR	S	37.10	46	1,710	14.00	0.48	1.86
Kinder Morgan, Inc.	KMI	S	55.30	123	6,800	14.00	0.80	1.58
Williams Companies	WMB		8.51	518	4,410	1.00	0.97	1.23
Constellation Energy Group	CEG		34.38	164	5,640	25.00	0.61	1.15
Calpine Corporation	CPN	N	6.74	381	2,570	1.00	0.98	1.14
AES Corporation	AES		7.15	558	3,990	1.00	0.98	1.12
Dynegy Inc.	DYN		4.19	418	1,750	1.00	0.97	1.10
Mirant Corporation	MIR		2.91	402	1,170	1.00	0.96	1.07
CMS Energy Corporation	CMS		8.33	139	1,160	5.00	0.93	1.05
Sempra Energy	SRE		29.06	206	5,990	30.00	0.59	0.99
El Paso Corporation	EP	N	8.94	589	5,300	10.00	0.79	0.98
Small Cap Pipeline								
Enterprise Products Part (16%)	EPD		22.60	29	640	6.70	0.63	1.86
Plains All Amer. Pipeline	PAA		30.81	50	1,540	11.60	0.49	1.84
Enbridge Energy Partners, L.P.	EEP	S	46.65	35	1,630	14.90	0.64	1.77
Enbridge Energy Management, L.L.C		S	44.26	35	1,550	14.90	0.64	1.72
Gulfterra Energy Partners		S	37.49	55	2,060	15.70	0.56	1.60
TEPPCO Partners, L.P.	TPP		36.11	50	1,810	17.70	0.56	1.46
Northern Border Partners	NBP		41.28	44	1,820	20.40	0.62	1.39
Williams Energy Partners	WEG		45.74	28	1,270	29.00	0.38	1.36
AmeriGas Partners, L.P.	APU		27.12	49	1,340	18.30	0.51	1.23
Western Gas Resources	WGR		39.92	34	1,340	37.60	0.29	1.04
Coal								
Penn Virginia Res. Part, L.P.	PVR		28.85	15	440	18.00	-	1.60
Consol Energy Inc.	CNX		23.65	79	1,870	5.00	0.88	1.44
Peabody Energy	BTU		33.81	55	1,860	18.00	0.75	1.22
Alliance Res. Part, L.P.	ARLP		27.00	16	430	20.00	0.45	1.19
Arch Coal	ACI		23.69	48	1,130	18.00	0.61	1.12
Massey Energy	MEE		13.92	75	1,040	18.00	0.37	0.86
Total or Median					6,800		0.53	1.21

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

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

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Table 2-2
Energy Pipeline and Power Companies
Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.

		Price Dividen				vidend or			
			(\$/sh)	EV/	EV/		stribution	PV/	
	Symbo		18-Jun	Sales	Ebitda	P/E	NTM	Ebitda	
	Rai	ing	2003	NTM	NTM	NTM	(%)	NTM	
Large Cap Power									
Duke Energy Corporation	DUK		20.49	2.5	9.8	14	5.4	9.0	
Southern Company	SO		31.53	3.5	9.8	18	4.3	9.1	
Exelon Corporation	EXC	N	60.22	2.7	8.7	12	3.1	9.0	
Enel S.p.a. (32%)	EN		33.10	2.2	8.3	26	4.2	8.9	
Dominion Resources	D		65.08	3.6	8.3	14	4.0	9.0	
American Electric Power Co. Inc.	AEP	N	30.79	0.8	8.1	12	4.5	8.5	
Mid Cap Pipeline and Power									
Kinder Morgan Energy Partners, L.P.	KMP	S	39.85	2.5	17.3	20	6.4	8.8	
Kinder Morgan Management, LLC	KMR	S	37.10	2.4	16.3	19	6.9	8.8	
Calpine Corporation	CPN	N	6.74	2.4	13.8	8	-	12.2	
Kinder Morgan, Inc.	KMI	S	55.30	2.6	12.5	17	1.1	7.9	
Dynegy Inc.	DYN		4.19	3.0	12.4	34	-	11.3	
AES Corporation	AES		7.15	3.7	11.3	21	-	10.1	
Williams Companies	WMB		8.51	3.7	10.2		0.5	8.3	
Mirant Corporation	MIR		2.91	1.3	9.5	5	-	8.9	
Constellation Energy Group	CEG		34.38	2.6	9.3	16	3.0	8.1	
CMS Energy Corporation	CMS		8.33	1.1	9.2	10		8.7	
Sempra Energy	SRE		29.06	2.2	8.6	11	3.4	8.7	
El Paso Corporation	EP	N	8.94	2.4	6.8	6	1.8	6.9	
Median Small Cap Pipeline				2.4	10.2	14	0.5	8.7	
Enterprise Products Part (16%)	EPD		22.60	1.8	16.7		0.9	9.0	
Plains All Amer. Pipeline	PAA		30.81	0.2	16.6	25	7.0	9.0	
Enbridge Energy Partners, L.P.	EEP	S	46.65	2.1	16.0	35	7.7	9.0	
Enbridge Energy Management, L.L.C	EEO	S	44.26	2.0	15.5	33	8.1	9.0	
Gulfterra Energy Partners	GTM	S	37.49	5.3	14.4	23	7.2	9.0	
TEPPCO Partners, L.P.	TPP		36.11	1.1	13.1	19	6.6	9.0	
Northern Border Partners	NBP		41.28	7.1	12.5	15	7.8	9.0	
Williams Energy Partners	WEG		45.74	4.2	11.6	14	6.6	8.5	
AmeriGas Partners, L.P.	APU		27.12	1.8	11.1	26	8.1	9.0	
Western Gas Resources	WGR		39.92	0.7	7.7	17	-	7.4	
Median				1.9	13.8	23	7.1	9.0	
Coal									
Consol Energy Inc.	CNX		23.65	2.3	14.0	54	2.4	9.7	
Penn Virginia Res. Part, L.P.	PVR		28.85	10.6	13.7	16	6.9	8.6	
Peabody Energy	BTU		33.81	1.7	10.9	28	1.2	9.0	
Arch Coal	ACI		23.69	1.7	10.1	22	1.0	9.0	
Alliance Res. Part, L.P.	ARLP		27.00 13.92	1.3 1.3	8.3 7.6	23	7.4 1.1	7.0 8.9	
Massey Energy	MEE		13.92		7.6 10.5	26			
Median				1.7	10.5	20	1.8	8.9	

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended June 30, 2004; 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 June 19, 2003

Table 3-1
Independent Natural Gas and Oil Producers - Small Cap
Rank by McDep Ratio: Market Cap and Debt to Present Value

	Symbol/ R	ating	Price (\$/sh) 18-Jun 2003	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio
Short Life								
Dorchester Minerals, L.P.	DMLP		18.04	27.0	490	13.00	_	1.39
Spinnaker Exploration Company	SKE		26.01	33.8	880	25.00	_	1.04
Energy Partners Ltd.	EPL	В	11.68	36.7	429	12.00	0.22	0.98
Newfield Exploration Company	NFX		37.58	51.7	1,940	40.00	0.31	0.96
Southwestern Energy Company	SWN		15.85	36.0	570	17.00	0.30	0.95
Cimarex Energy Company	XEC		22.72	41.0	930	24.00	0.03	0.95
Stone Energy Company	SGY		41.45	26.5	1,100	46.00	0.27	0.93
Denbury Resources Inc.	DNR		12.98	55.0	710	15.00	0.29	0.90
Chesapeake Energy Corporation	CHK		10.18	220	2,240	14.00	0.38	0.83
Wesport Resources Corporation	WRC		22.80	68.0	1,550	30.00	0.29	0.83
St. Mary Land and Exploration Compar	;SM		27.57	29.0	800	35.00	0.11	0.81
Forest Oil Corporation	FST	N	24.85	48.2	1,200	35.00	0.33	0.80
The Houston Exploraton Company	THX		33.01	31.0	1,020	45.00	0.16	0.78
Total or Median					13,900		0.27	0.93
Long Life								
Ultra Petroleum Corp.	UPL		11.98	78.0	930	7.00	0.15	1.61
Unit Corporation	UNT		20.76	43.6	910	18.00	0.04	1.15
Quicksilver Resources Inc.	KWK		24.73	20.4	500	25.00	0.35	0.99
Penn Virginia Corporation	PVA		41.72	9.0	380	45.00	0.06	0.93
Evergreen Resources, Inc.	EVG		53.77	22.0	1,180	60.00	0.10	0.91
Magnum Hunter Resources, Inc.	MHR		7.82	69.0	540	11.00	0.45	0.84
Swift Energy Company	SFY		11.39	27.2	310	16.00	0.43	0.84
Encore Acquisition Corp. (25%)	EAC		18.80	7.0	132	24.00	0.19	0.83
Vintage Petroleum, Inc.	VPI		11.50	63.0	730	20.00	0.40	0.75
Total or Median					5,600		0.19	0.91
Canadian Royalty Trusts								
Provident Energy Trust	PVX		8.08	63.5	510	6.00	0.23	1.27
Pengrowth Energy Trust	PGH		12.75	110.0	1,400	11.00	0.16	1.13
Enerplus Resources Fund	ERF		22.48	75.0	1,690	20.00	0.16	1.10
Canadian Oil Sands Trust (US\$)	COS_u.TC) B	25.60	79.5	2,040	45.00	0.17	0.64
Total or Median					5,600		0.17	1.12
Natural Gas Royalty Trusts								
Hugoton RoyaltyTrust (46%)	HGT		17.57	18.4	320	17.10	-	1.03
Cross Timbers Royalty Trust	CRT		23.14	6.0	139	23.00	-	1.01
San Juan Basin Royalty Trust	SJT	В	18.00	46.6	840	20.30	-	0.89
Micro Cap								
Abraxas Petroleum Corporation	ABP		1.07	30.0	32	1.00	0.85	1.01
Purcell Energy, Ltd. (US\$)	PEL.TO	N	1.93	28.2	54	2.80	0.31	0.78

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

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

A Weekly Analysis of Energy Stocks Using the McDep Ratio June 19, 2003

Table 3-2
Independent Natural Gas and Oil Producers - Small Cap
Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.

			Price			Di	vidend or	
			(\$/sh)	EV/	EV/	Dis	stribution	PV/
	Symbol/		18-Jun	Sales	Ebitda	P/E	NTM	Ebitda
	Ra	ting	2003	NTM	NTM	NTM	(%)	NTM
Short Life								
Dorchester Minerals, L.P.	DMLP		18.04	8.2	10.2	13	8.8	7.3
Forest Oil Corporation	FST		24.85	3.6	5.8	19	-	7.2
Southwestern Energy Company	SWN		15.85	2.7	5.5	11	-	5.8
Chesapeake Energy Corporation	CHK		10.18	3.6	5.3	11	1.2	6.4
Cimarex Energy Company	XEC		22.72	3.4	5.0	14	-	5.3
Wesport Resources Corporation	WRC		22.80	3.5	4.9	14	-	5.9
St. Mary Land and Exploration Company	y SM		27.57	3.0	4.6	13	0.4	5.7
Denbury Resources Inc.	DNR		12.98	3.1	4.3	9	-	4.8
Energy Partners Ltd.	EPL	В	11.68	2.7	4.2		-	4.3
Stone Energy Company	SGY		41.45	3.0	4.1	9	-	4.4
Spinnaker Exploration Company	SKE		26.01	3.3	3.8	13	-	3.6
Newfield Exploration Company	NFX		37.58	2.7	3.5	7	-	3.6
The Houston Exploraton Company	THX		33.01	2.7	3.2	8	-	4.1
Median				3.1	4.6	12	-	5.3
Long Life								
Ultra Petroleum Corp.	UPL		11.98	11.2	18.3	36	-	11.4
Evergreen Resources, Inc.	EVG		53.77	6.8	9.7	17	-	10.7
Unit Corporation	UNT		20.76	3.8	8.7	22	-	7.6
Quicksilver Resources Inc.	KWK		24.73	4.5	6.7	12	-	6.8
Swift Energy Company	SFY		11.39	3.9	5.9	19	-	7.0
Encore Acquisition Corp. (25%)	EAC		18.80	3.7	5.6	14	-	6.8
Magnum Hunter Resources, Inc.	MHR		7.82	3.2	5.5	13	-	6.5
Penn Virginia Corporation	PVA		41.72	2.7	5.3	14	2.2	5.7
Vintage Petroleum, Inc.	VPI		11.50	2.4	4.6	48	1.4	6.2
Canadian Royalty Trusts								
Enerplus Resources Fund	ERF		22.48	5.4	7.1	12	12.7	6.5
Pengrowth Energy Trust	PGH		12.75	4.5	6.8	15	14.8	6.0
Canadian Oil Sands Trust (US\$)	COS_u.TO	В	25.60	3.2	5.6	5	5.6	8.7
Provident Energy Trust	PVX		8.08	3.8	5.5	12	19.2	4.3
Natural Gas Royalty Trusts								
Cross Timbers Royalty Trust	CRT		23.14	6.9	9.6	10	9.9	9.6
Hugoton RoyaltyTrust (46%)	HGT		17.57	5.6	7.4	8	11.9	7.3
San Juan Basin Royalty Trust	SJT	В	18.00	5.9	7.3	8	12.1	8.2
Micro Cap								
Abraxas Petroleum Corporation	ABP		1.07	6.6	12.1		_	12.0
Purcell Energy, Ltd. (US\$)	PEL.TO	N	1.93	3.3	4.6	9	-	5.9

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended June 30, 2004; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses