A Weekly Analysis of Energy Stocks Using the McDep Ratio May 13, 2002

Two Green, One Yellow

Summary and Recommendation

Oil and natural gas futures (two green lights) set further 2002 highs while one-year future refining margin (one yellow light) dropped below the 30-week average. The natural gas recommendations highlighted a week ago continue to look strong currently. Our one oil producer recommendation, CNOOC Limited (CEO), expands production at the same time pricing is strong. The four stocks we are recommending with refining exposure, ChevronTexaco (CVX), ConocoPhillips (COC/P), Marathon (MRO), and **PetroChina (PTR)** have not appreciated much for a while. Though the momentum is not there today, refining can surprise at any time. Meanwhile the stocks have low to moderate debt and actually derive the bulk of their value from oil and gas production rather than refining. On the negative side our Strong Sell recommendations **Kinder** Morgan (KMI, KMP, KMR) and El Paso Energy Partners (EPN) top the Greed Gauge where related company **Dynegy** (**DYN**) is the latest to suffer management credibility problems. The stocks are linked by high Greed Gauge partnerships promoted by Enron, Arthur Andersen, and Vinson & Elkins. Meanwhile, our valuation ranking of 74 stocks is intended to help investors make money and avoid losses in a diversified energy portfolio (see Tables L-1, L-2, M-1, M-2, S-1 and S-2). The ranking calls attention, for example, to appreciation potential in small cap natural gas and oil producer stocks that include Encore Acquisition (EAC), Pogo Producing (PPP), Magnum Hunter (MHR) and Swift Energy (SFY).

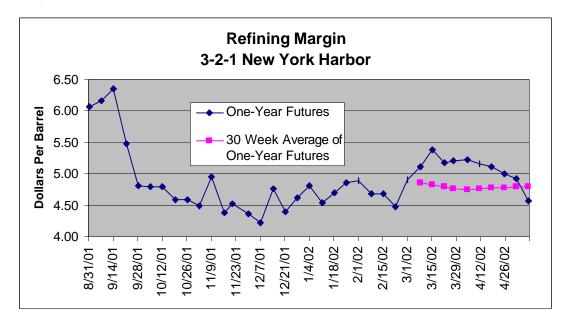


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Refining Margin Languishes

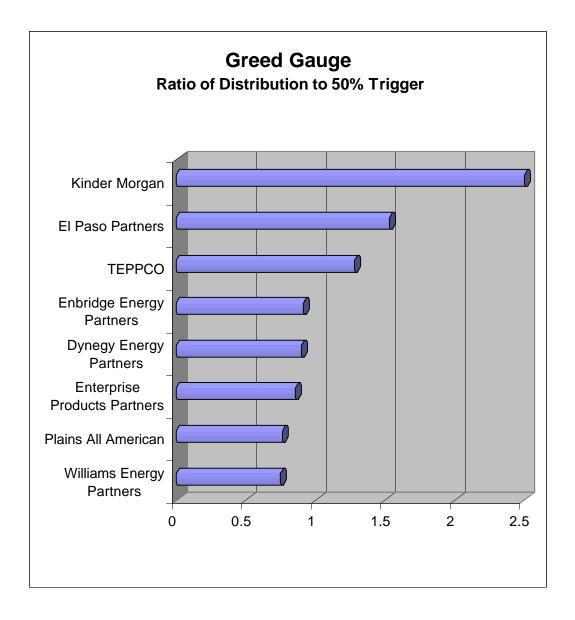
Actual results in the first quarter seemed to be worse than the trend of New York Harbor margins might have indicated. Thus our new projections of Ebitda for the downstream business for the next twelve months is lower than previously. Yet the market knows better and the first quarter results were pretty much discounted by the time they became official.

For a time futures prices indicated a refining margin for the next 12 months slightly better than the 13-week average. That supported the common observation in first quarter earnings reports that recent conditions are better. Now that near term trend may be in doubt. It looks like futures quoted on May 9 dropped below the 30-week average (see chart).



In any event refining margins are not as strong as crude oil price (for a chart showing new highs in one-year and six-year futures for natural gas and oil, see *Natural Gas Royalty Trusts*). All of the stocks with refining exposure that we are recommending have more value in crude oil and natural gas than in refining. We think the refining end of the business should catch up in its contribution to stock price. At the same time the stocks have low or moderate debt and should readily withstand adverse conditions.

Greed Gauge Taints Sponsors



News about accounting questions at Dynegy that accompany another precipitous drop in stock price prompt us to reexamine the Greed Gauge connection. Apparently Dynegy Energy Partners, L.P. is still in registration awaiting clearance before offering its securities to the public. Arthur Andersen and Vinson & Elkins, Enron's former accountants and lawyers, are listed on the application. The new entity would attempt to attract investors with an artificially high distribution and, if past examples were any indication, would soon pay high compensation to the general partner.

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Dynegy would transfer properties it now owns to the partnership and retain ownership of the general partner interest. Investors would contribute full value for properties priced by Dynegy. Ultimately as much as half the value of properties would be repaid to the general partner in return for no capital contribution. Typically, general partner compensation is only partly disclosed in accounting statements. The partnerships are highly promoted to individual investors and are generally lauded in the business press. The lucrative, we would say egregious, general partner compensation is attracting many parties to form similar entities.

Aside from obvious ethical questions that arise, the partnerships are likely to fail to meet expectations ultimately as a result of sheer economics. So many are being formed that the long-term return from properties in which the partnerships invest is highly likely to be average. As a result, few, if any, will be able to earn enough to pay investors a normal return and to pay the general partner compensation, or tax, as we put it. The problem is that it takes a few years for failure to be obvious. Then the general partner is under no obligation to repay excessive compensation already received.

Thus in our mind, operating or intending to form one of these partnerships is a red flag. We have an outright negative rating on Kinder Morgan and El Paso Energy Partners, the stocks highest on the Greed Gauge.

Kurt H. Wulff, CFA

A Weekly Analysis of Energy Stocks Using the McDep Ratio May 13, 2002

Table L-1
Mega Cap and Large Cap Energy Companies
Rank by McDep Ratio: Market Cap and Debt to Present Value

			Price (\$/sh)		Market	Net Present	Debt/	
	Symbol/		9-May	Shares	Cap	Value	Present	McDep
	Ra	ting	2002	(mm)	(\$mm)	(\$/sh)	Value	Ratio
Mega Cap								
Exxon Mobil Corporation	XOM		39.36	6,858	270,000	36.00	0.09	1.08
BP plc	BP		51.11	3,738	191,000	47.00	0.16	1.07
Royal Dutch/Shell	RD	3	54.15	3,520	191,000	55.00	0.04	0.99
TotalFinaElf S.A.	TOT		77.55	1,352	105,000	85.00	0.15	0.93
ChevronTexaco Corporation	CVX	2	88.27	1,062	93,700	110.00	0.16	0.83
Total or Median	ı				851,000		0.15	0.99
Energy Infrastructure								
American Electric Power Co. Inc.	AEP	3	45.82	322	14,800	42.10	0.64	1.03
Southern Company	SO		28.17	683	19,200	27.40	0.42	1.01
Duke Energy Corporation	DUK		36.48	781	28,500	36.30	0.44	1.00
Williams Companies	WMB		17.50	521	9,100	22.70	0.58	0.90
Dominion Resources	D		64.95	247	16,000	79.40	0.45	0.90
Exelon Corporation	EXC	2	56.00	323	18,100	71.50	0.45	0.88
El Paso Corporation	EP		35.00	529	18,500	46.30	0.49	0.87
Total or Median	ı				109,000		0.45	0.90
Natural Gas and Oil								
ENI S.p.A.	E		75.17	789	59,300	75.00	0.19	1.00
OAO Lukoil	LUKOY		69.23	299	20,700	70.00	0.08	0.99
Occidental Petroleum Corp.	OXY		28.97	372	10,800	30.00	0.48	0.98
Anadarko Petroleum Corp.	APC		52.19	266	13,900	56.00	0.26	0.95
Devon Energy	DVN		48.99	165	8,100	55.00	0.48	0.94
Encana Corporation	ECA	2	31.56	484	15,300	35.00	0.25	0.93
Unocal Corporation	UCL		37.65	245	9,200	45.00	0.33	0.89
ConocoPhillips	P	2	60.48	680	41,100	80.00	0.32	0.83
Burlington Resources	BR	1	43.17	202	8,700	57.00	0.32	0.83
Marathon Oil Corporation	MRO	1	28.47	310	8,800	42.00	0.35	0.79
Total or Median	ı				137,000		0.32	0.93
Service								
Baker Hughes Inc.	BHI		36.89	338	12,500	24.50	0.13	1.44
Schlumberger Ltd.	SLB		54.78	581	31,800	44.00	0.12	1.21
Halliburton Company	HAL		16.36	430	7,000	25.00	0.14	0.70

Buy/Sell rating after symbol: 1-Strong Buy, 2-Buy, 3-Neutral, 4-Sell, 5-Strong 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 May 13, 2002

Table L-2
Mega Cap and Large Cap Energy Companies
Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.

			Price (\$/sh)	EV/	EV/		vidend or stribution	PV/
	Symbol/		9-May	Sales	Ebitda	P/E	NTM	Ebitda
		ating	2002	NTM	NTM	NTM	(%)	NTM
Mega Cap			2002	1,11,1	.,	1,11,1	(, 0)	1,11,1
Exxon Mobil Corporation	XOM		39.36	1.6	11.0	24	2.3	10.1
BP plc	BP		51.11	1.3	9.2	15	2.6	8.6
TotalFinaElf S.A.	TOT		77.55	1.3	8.3	17	2.7	8.9
Royal Dutch/Shell	RD	3	54.15	1.2	8.3	18	2.6	8.4
ChevronTexaco Corporation	CVX	2	88.27	1.3	7.6	15	3.2	9.1
Media	ın			1.3	8.3	17	2.6	8.9
Energy Infrastructure								
American Electric Power Co. Inc.	AEP	3	45.82	0.7	10.3	16	5.2	10.0
Southern Company	SO		28.17	3.0	9.1	17	4.8	9.0
Duke Energy Corporation	DUK		36.48	0.8	9.0	13	3.0	9.0
Williams Companies	WMB		17.50	2.2	9.0	12	4.6	10.0
Dominion Resources	D		64.95	3.5	8.1	15	4.0	9.0
Exelon Corporation	EXC	2	56.00	2.4	7.9	12	3.1	9.0
El Paso Corporation	EP		35.00	0.9	7.9	10	2.6	9.0
Media	ın			2.2	9.0	13	4.0	9.0
Natural Gas and Oil								
Occidental Petroleum Corp.	OXY		28.97	1.5	8.0	14	3.5	8.1
ConocoPhillips	P	2	60.48	0.9	7.9	19	2.4	9.5
Anadarko Petroleum Corp.	APC		52.19	3.0	7.7	17	0.6	8.1
Devon Energy	DVN		48.99	3.1	7.0	49	0.4	7.4
ENI S.p.A.	E		75.17	1.7	6.9	14	2.4	6.9
Encana Corporation	ECA	2	31.56	3.9	6.1	13	0.8	6.5
Marathon Oil Corporation	MRO	1	28.47	0.5	6.0	12	3.2	7.6
Burlington Resources	BR	1	43.17	4.2	5.8	13	1.3	7.0
Unocal Corporation	UCL		37.65	2.5	5.5	14	2.1	6.2
OAO Lukoil	LUKOY		69.23	1.8	4.8	10	1.6	4.9
Media	ın			2.1	6.5	14	1.8	7.2
Service								
Baker Hughes Inc.	BHI		36.89	2.3	11.5	26	1.2	9.0
Schlumberger Ltd.	SLB		54.78	2.8	9.7	27	1.4	9.0
Halliburton Company	HAL		16.36	0.7	5.7	12	3.1	8.2

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended March 31, 2003; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

A Weekly Analysis of Energy Stocks Using the McDep Ratio May 13, 2002

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

	Symbol	/ Rating	Price (\$/sh) 9-May 2002	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio
Energy Infrastructure								
Kinder Morgan Energy Partners, L.P.	KMP	5	35.01	136	4,800	12.40	0.48	1.95
Kinder Morgan Management, LLC	KMR	5	35.05	30	1,100	12.40	0.48	1.95
Kinder Morgan, Inc.	KMI	5	46.93	125	5,900	16.00	0.78	1.43
Enterprise Products Part.	EPD		45.19	87	3,900	31.70	0.23	1.33
Calpine Corporation	CPN	3	9.15	375	3,400	5.00	0.87	1.11
AES Corporation	AES		7.30	543	4,000	8.80	0.83	0.97
Valero Energy Corporation	VLO		41.60	104	4,300	60.00	0.46	0.84
Consol Energy Inc.	CNX		23.86	79	1,900	35.90	0.51	0.83
Mirant Corporation	MIR		9.03	353	3,200	18.60	0.65	0.82
Sempra Energy	SRE		24.93	203	5,100	41.70	0.50	0.80
CMS Energy Corporation	CMS		19.72	128	2,500	43.80	0.62	0.79
Constellation Energy Group	CEG		31.70	152	4,800	56.50	0.35	0.72
Dynegy Inc.	DYN		11.05	419	4,600	28.50	0.36	0.61
Total or Median	ļ.				44,900		0.51	0.90
Natural Gas and Oil								
Murphy Oil Corporation	MUR		94.35	46	4,300	82.00	0.18	1.12
Ocean Energy, Inc.	OEI		22.20	178	3,900	20.00	0.30	1.08
Imperial Oil Limited (30%)	IMO		30.81	119	3,700	30.00	0.11	1.02
Norsk Hydro ASA (49%)	NHY		50.68	126	6,400	54.00	0.18	0.95
Petro-Canada	PCZ		27.61	262	7,200	31.00	0.11	0.90
XTO Energy Inc.	XTO	2	20.27	124	2,500	26.00	0.21	0.83
PetroChina Company Ltd (10%)	PTR	2	19.23	176	3,400	28.00	0.16	0.74
Total or Median	ı				28,000		0.18	0.99

Buy/Sell rating after symbol: 1 - Strong Buy, 2 - Buy, 3 - Neutral, 5 - Strong Sell McDep Ratio = Market cap and **De**bt to **p**resent value of oil and gas and other businesses

A Weekly Analysis of Energy Stocks Using the McDep Ratio May 13, 2002

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

	Symbol	/	Price (\$/sh) 9-May	EV/ Sales	EV/ Ebitda		vidend or stribution NTM	PV/ Ebitda
	-	Rating	2002	NTM	NTM	NTM	(%)	NTM
Energy Infrastructure Kinder Morgan Energy Partners, L.P.	KMP	5	35.01	4.5	17.5	24	6.7	9.0
	KMR		35.01	4.5	17.5	24	6.7	9.0
Kinder Morgan Management, LLC		5						
Calpine Corporation	CPN	3	9.15	2.1	12.6	9	- 0.4	11.4
Kinder Morgan, Inc.	KMI	5	46.93	4.0	12.1	17	0.4	8.4
Enterprise Products Part.	EPD		45.19	1.6	12.0	13	5.5	9.0
AES Corporation	AES		7.30	3.1	8.7	6	-	9.0
Consol Energy Inc.	CNX		23.86	2.0	7.5	8	4.7	9.0
Mirant Corporation	MIR		9.03	0.4	7.4	4	-	9.0
Sempra Energy	SRE		24.93	1.1	7.2	10	4.0	9.0
CMS Energy Corporation	CMS		19.72	0.8	7.1	10	7.4	9.0
Constellation Energy Group	CEG		31.70	1.9	6.4	10	1.5	9.0
Valero Energy Corporation	VLO		41.60	0.3	5.6	8	1.0	6.8
Dynegy Inc.	DYN		11.05	0.3	5.5	6	2.7	9.0
Mediar	ı			1.9	7.5	10	2.7	9.0
Natural Gas and Oil								
Imperial Oil Limited (30%)	IMO		30.81	1.2	11.3	29	1.7	11.1
Murphy Oil Corporation	MUR		94.35	1.1	9.0	45	1.6	8.0
Ocean Energy, Inc.	OEI		22.20	5.0	8.4	38	0.7	7.8
Petro-Canada	PCZ		27.61	1.7	6.6	17	0.9	7.4
XTO Energy Inc.	XTO	2	20.27	3.4	6.5	13	0.2	7.8
Norsk Hydro ASA (49%)	NHY		50.68	0.9	4.5	14	2.1	4.8
PetroChina Company Ltd (10%)	PTR	2	19.23	1.6	3.1	6	9.5	4.2
Median				1.4	7.5	23	1.3	7.8

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended March 31, 2003; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

A Weekly Analysis of Energy Stocks Using the McDep Ratio May 13, 2002

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

	Comb al/		Price (\$/sh)	Cl	Market	Net Present Value	Debt/	MaDan
	Symbol/ Ra	ating	9-May 2002	Shares (mm)	<i>Cap</i> (\$mm)	(\$/sh)	Present Value	McDep Ratio
		Ü						
Energy Infrastucture	EDM	-	25.04	20.0	1 420	11.10	0.50	1.01
El Paso Energy Partners	EPN	5	35.94	39.9	1,430	11.10	0.59	1.91
Enbridge Energy Partners,	EEP		45.95	31.0	1,420	16.60	0.58	1.74
TEPPCO Partners, L.P.	TPP		32.40	46	1,510	12.90	0.61	1.60
Plains All Amer. Pipeline	PAA		26.40	41.6	1,100	14.90	0.39	1.48
Northern Border Partners	NBP		38.40	42.0	1,610	20.10	0.57	1.39
Penn Virginia Res. Part, L.P.(48%)			23.25	7.7	180	17.90	0.12	1.26
AmeriGas Partners, L.P.	APU		23.03	44.0	1,010	19.50	0.54	1.08
Penn Virginia Corporation	PVA		37.90	9.0	340	35.00	0.10	1.07
Total or Median					8,600		0.55	1.43
Natural Gas and Oil								
Dorchester Hugoton, Ltd.	DHULZ		14.20	10.7	153	11.60	(0.17)	1.27
Spinnaker Exploration Company	SKE		41.60	28.5	1,190	35.00	0.03	1.18
Provident Energy Trust (US\$)	PVX		6.62	36.0	240	5.00	0.46	1.17
Quicksilver Resources Inc.	KWK		25.70	19.4	500	20.00	0.43	1.16
Newfield Exploration Company	NFX		37.74	48.6	1,830	33.00	0.25	1.11
Stone Energy Company	SGY		41.32	26.4	1,090	42.00	0.29	0.99
Forest Oil Corporation	FST	2	31.18	46.8	1,460	35.00	0.30	0.92
Unit Corporation	UNT		19.27	36.2	700	21.00	0.03	0.92
Southwestern Energy Company	SWN		14.25	25.6	370	17.00	0.44	0.91
CNOOC Limited (19%)	CEO	2	26.15	78	2,040	30.00	-	0.87
Encore Acquisition Corp. (25%)	EAC		16.70	7.5	125	20.00	0.18	0.86
Pogo Producing Company	PPP		25.76	60.5	1,560	32.00	0.27	0.86
Magnum Hunter Resources, Inc.	MHR		7.29	71.5	520	11.00	0.46	0.82
Swift Energy Company	SFY		15.51	24.8	390	22.00	0.32	0.80
Total or Median					12,200		0.28	0.92
Natural Gas Royalty Trusts								
Cross Timbers Royalty Trust	CRT		17.05	6.0	102	20.60	-	0.83
San Juan Basin Royalty Trust	SJT	2	11.70	46.6	550	17.50	-	0.67
Hugoton RoyaltyTrust (46%)	HGT		11.45	18.4	210	17.30	-	0.66
Micro Cap								
Torch Energy Royalty Trust	TRU		5.95	8.6	51	5.50	-	1.08
Energy Partners Ltd.(30%)	EPL	2	8.40	8.2	69	10.00	0.38	0.90
Abraxas Petroleum Corporation	ABP		0.70	27.0	19	2.00	0.84	0.90
Purcell Energy, Ltd. (US\$)	PEL.TO	2	1.82	29.0	53	3.00	0.14	0.66

Buy/Sell rating after symbol: 1 - Strong Buy, 2 - Buy, 3 - Neutral, 4 - Sell, 5 - Strong Sell McDep Ratio = **Mar**ket **cap** and **De**bt to **pr**esent value of oil and gas and other businesses

A Weekly Analysis of Energy Stocks Using the McDep Ratio May 13, 2002

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

			Price			Di	vidend or	
			(\$/sh)	EV/	EV/	Di	stribution	PV/
	Symbol/		9-May	Sales	Ebitda	P/E	NTM	Ebitda
	Ra	ting	2002	NTM	NTM	NTM	(%)	NTM
Energy Infrastucture								
El Paso Energy Partners	EPN	5	35.94	12.2	17.2	30	7.2	9.0
Enbridge Energy Partners,	EEP		45.95	7.0	15.7	88	7.6	9.0
TEPPCO Partners, L.P.	TPP		32.40	1.1	14.4	21	7.1	9.0
Plains All Amer. Pipeline	PAA		26.40	0.2	13.3	19	7.8	9.0
Northern Border Partners	NBP		38.40	7.9	12.5	17	8.3	9.0
Penn Virginia Res. Part, L.P.(48%)	PVR		23.25	8.5	11.4	12	8.6	9.0
AmeriGas Partners, L.P.	APU		23.03	1.4	9.7	20	9.6	9.0
Penn Virginia Corporation	PVA		37.90	3.4	5.2	13	2.4	4.8
Median				5.2	12.9	19	7.7	9.0
Natural Gas and Oil								
Dorchester Hugoton, Ltd.	DHULZ		14.20	6.9	10.4	14	8.5	8.2
Quicksilver Resources Inc.	KWK		25.70	5.2	9.3	23	-	8.0
Forest Oil Corporation	FST	2	31.18	4.2	7.2	25	-	7.8
Provident Energy Trust (US\$)	PVX		6.62	3.6	7.1	86	16.7	6.1
Magnum Hunter Resources, Inc.	MHR		7.29	3.3	6.8	21	-	8.3
Swift Energy Company	SFY		15.51	4.4	6.5	32	-	8.1
Encore Acquisition Corp. (25%)	EAC		16.70	4.2	6.4	14	-	7.4
Pogo Producing Company	PPP		25.76	3.7	6.2	36	0.5	7.3
Unit Corporation	UNT		19.27	3.3	6.1	13	-	6.6
Southwestern Energy Company	SWN		14.25	2.4	5.7	14	-	6.3
Spinnaker Exploration Company	SKE		41.60	4.9	5.7	18	-	4.8
CNOOC Limited (19%)	CEO	2	26.15	4.4	5.7	11	0.9	6.5
Newfield Exploration Company	NFX		37.74	3.7	5.2	21	-	4.7
Stone Energy Company	SGY		41.32	3.8	5.0	12	-	5.0
Median				4.0	6.3	19	-	7.0
Natural Gas Royalty Trusts								
Cross Timbers Royalty Trust	CRT		17.05	6.2	8.8	9	10.5	10.6
San Juan Basin Royalty Trust	SJT	2	11.70	5.5	7.1	10	10.2	10.6
Hugoton RoyaltyTrust (46%)	HGT		11.45	4.5	6.5	9	11.3	9.8
Micro Cap								
Abraxas Petroleum Corporation	ABP		0.70	4.3	6.2		-	6.9
Energy Partners Ltd.(30%)	EPL	2	8.40	2.6	5.1		-	5.7
Torch Energy Royalty Trust	TRU		5.95	4.2	5.0	6	17.5	4.6
Purcell Energy, Ltd. (US\$)	PEL.TO	2	1.82	3.1	4.3	12	-	6.4

 $EV = Enterprise\ Value = Market\ Cap\ and\ Debt;\ Ebitda = Earnings\ before\ interest,\ tax,\ depreciation\ and\ amortization;\ NTM = Next\ Twelve\ Months\ Ended\ March\ 31,\ 2003;\ P/E = Stock\ Price\ to\ Earnings;\ PV = Present\ Value\ of\ oil\ and\ gas\ and\ other\ businesses$