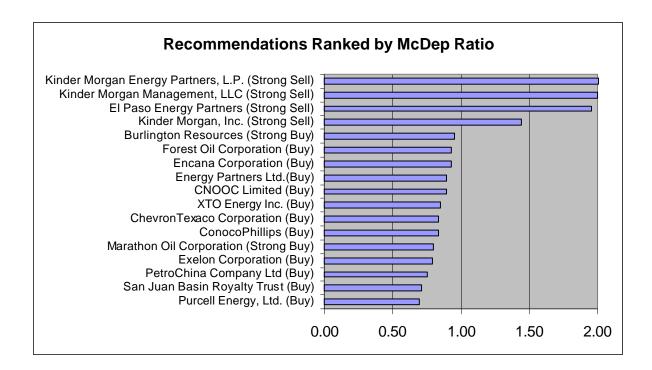
A Weekly Analysis of Energy Stocks Using the McDep Ratio May 6, 2002

# **New 2002 High For Natural Gas**

#### **Summary and Recommendation**

Unlike a year ago when natural gas had peaked and was in temporary decline, now natural gas is setting new 2002 highs and climbing. Buy recommendations concentrated on natural gas include, in order of increasing appreciation potential, **Burlington Resources (BR), Forest Oil (FST), Encana (ECA), Energy Partners (EPL), XTO Energy (XTO), San Juan Basin Royalty Trust (SJT)** and **Purcell Energy (PEL.TO)**(see chart). Oil also continues strong while refining margin is on the moving average poised for a break up or down that remains to be seen. Meanwhile the favorable performance in 2002 of Treasury Inflation Protected Securities (TIPS) may be bad news for high debt stocks as the lower yield may imply lower expectations for real growth. We highlight ten energy stocks with extreme debt including Strong Sell recommendations **Kinder Morgan Inc. (KMI)** and **El Paso Energy Partners (EPN)**. Our valuation ranking of 74 stocks is intended to help investors make money in a diversified energy portfolio (see Tables L-1, L-2, M-1, M-2, S-1 and S-2).



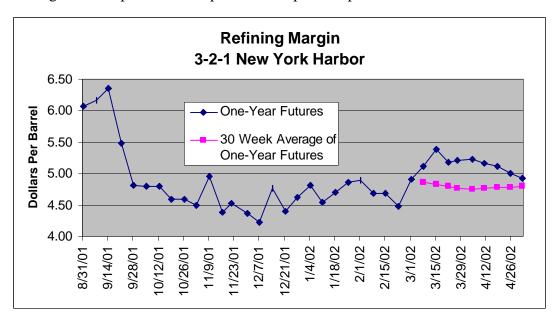
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#### **Positive Momentum Continues in Commodity Futures**

One-year futures for natural gas are priced 28% above the 30-week average, a comfortable margin above the minimum point to indicate a positive trend. Cash prices at the Henry Hub in Louisiana reached \$3.90 on May 1, the highest level in 2002. Yet Rocky Mountain and San Juan Basin natural gas prices are lagging as we mention in *Natural Gas Royalty Trusts*, a separate weekly analysis.

One-year futures for oil are priced 13% above the 30-week average, also a reasonable margin above the minimum point to indicate a positive trend. At \$25 a barrel we are not overly concerned about a war premium keeping the price artificially high. Hostilities in the Middle East seem unlikely to be resolved soon.

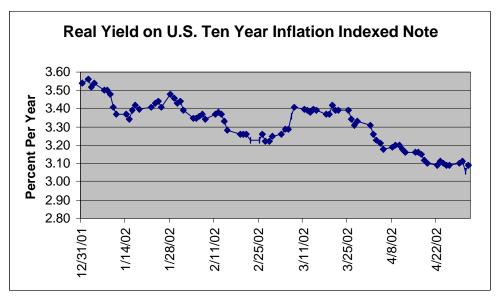
The one-year 3-2-1 crack spread calculated from futures for crude oil, gasoline and heating oil is only 3% above the 30-week average (see chart). While we are confident that our recommendations of stocks with refining exposure are fundamentally sound, the less robust progress of the crack spread coincides with lagging stock market performance for integrated companies as compared to independent producers.



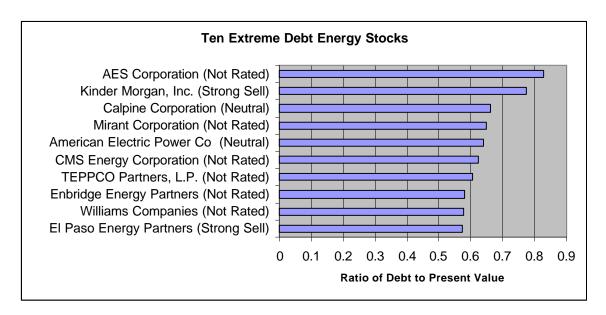
#### **Real Yield Drops Sharply**

One of the best performing investments in 2002 aside from natural gas stocks is the U.S. Ten Year Inflation Indexed Note where the real yield has declined from 3.54% per year to 3.09% (see chart). A hundred dollars in TIPS at the beginning of the year would be worth a bit more than 105 dollars today plus interest and inflation adjustment. That is the change in principal value implied by the change in yield.

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The real yield is probably the most fundamental measure of investor expectations to which all other measures can be related. The willingness for investors to expect (accept) a lower real return probably reflects less confidence in prospects for economic growth. At the same time we have just come through a period of high growth that increasingly seems to have masked many excesses including too much financial leverage. Thus with less growth to make everybody look good, more weak players may be exposed. Some of the high debt stocks in our coverage have already suffered mightily. Our current sell recommendations are ripe candidates for sharp stock price decline (see chart).



Kurt H. Wulff, CFA

A Weekly Analysis of Energy Stocks Using the McDep Ratio May 6, 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	Present	Debt/	
	Symbol/		2-May	Shares	Cap	Value	Present	McDep
	Ra	ting	2002	(mm)	(\$mm)	(\$/sh)	Value	Ratio
Mega Cap								
Exxon Mobil Corporation	XOM		40.80	6,924	283,000	36.00	0.09	1.12
BP plc	BP		50.79	3,738	190,000	47.00	0.16	1.07
Royal Dutch/Shell	RD	3	53.69	3,520	189,000	55.00	0.04	0.98
TotalFinaElf S.A.	TOT		76.43	1,352	103,000	85.00	0.15	0.91
ChevronTexaco Corporation	CVX	2	88.87	1,062	94,400	110.00	0.16	0.84
Total or Media	n				859,000		0.15	0.98
Energy Infrastructure								
American Electric Power Co. Inc.	AEP	3	45.74	322	14,700	42.10	0.64	1.03
Duke Energy Corporation	DUK		37.60	781	29,400	36.30	0.44	1.02
Southern Company	SO		28.07	683	19,200	27.40	0.42	1.01
Williams Companies	WMB		18.84	521	9,800	22.70	0.58	0.93
Dominion Resources	D		66.30	247	16,400	79.40	0.45	0.91
El Paso Corporation	EP		37.34	529	19,800	46.30	0.49	0.90
Exelon Corporation	EXC	2	54.75	323	17,700	84.00	0.40	0.79
Total or Media	n				112,000		0.44	0.92
Natural Gas and Oil								
OAO Lukoil	LUKOY		73.25	299	21,900	70.00	0.08	1.04
ENI S.p.A.	E		76.50	789	60,300	75.00	0.19	1.02
Occidental Petroleum Corp.	OXY		29.42	372	10,900	30.00	0.48	0.99
Anadarko Petroleum Corp.	APC		53.38	266	14,200	56.00	0.26	0.97
Devon Energy	DVN		50.00	165	8,300	55.00	0.48	0.96
Burlington Resources	BR	1	44.83	201	9,000	48.00	0.33	0.96
Encana Corporation	ECA	2	31.78	490	15,600	35.00	0.19	0.93
Unocal Corporation	UCL		37.90	245	9,300	45.00	0.33	0.89
ConocoPhillips	P	2	60.72	680	41,300	80.00	0.32	0.84
Marathon Oil Corporation	MRO	1	29.05	310	9,000	42.00	0.35	0.80
Total or Media	n				178,000		0.33	0.96
Service								
Baker Hughes Inc.	BHI		38.84	338	13,100	24.50	0.13	1.51
Schlumberger Ltd.	SLB		56.95	581	33,100	44.00	0.12	1.26
Halliburton Company	HAL		17.39	430	7,500	25.00	0.14	0.74

Buy/Sell rating after symbol: 1-Strong Buy, 2-Buy, 3-Neutral, 4-Sell, 5-Strong 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 May 6, 2002

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

			Price			Di	vidend or	
			(\$/sh)	EV/	EV/	Dis	stribution	PV/
	Symbol/		2-May	Sales	Ebitda	P/E	NTM	Ebitda
	R	ating	2002	NTM	NTM	NTM	(%)	NTM
Mega Cap								
Exxon Mobil Corporation	XOM		40.80	1.5	11.3	25	2.3	10.1
BP plc	BP		50.79	1.3	9.6	16	2.6	9.0
Royal Dutch/Shell	RD	3	53.69	1.2	8.5	19	2.6	8.7
TotalFinaElf S.A.	TOT		76.43	1.3	8.1	16	2.8	8.9
ChevronTexaco Corporation	CVX	2	88.87	1.3	7.3	17	3.2	8.7
Media	n			1.3	8.5	17	2.6	8.9
Energy Infrastructure								
American Electric Power Co. Inc.	AEP	3	45.74	0.7	10.3	16	5.2	10.0
Williams Companies	WMB		18.84	2.3	9.3	13	4.2	10.0
Duke Energy Corporation	DUK		37.60	0.9	9.2	14	2.9	9.0
Southern Company	SO		28.07	3.0	9.1	17	4.8	9.0
Dominion Resources	D		66.30	3.6	8.2	15	3.9	9.0
El Paso Corporation	EP		37.34	0.9	8.1	11	2.4	9.0
Exelon Corporation	EXC	2	54.75	2.3	7.1	11	3.1	9.0
Media	n			2.3	9.1	14	3.9	9.0
Natural Gas and Oil								
Occidental Petroleum Corp.	OXY		29.42	1.5	8.0	14	3.4	8.1
Anadarko Petroleum Corp.	APC		53.38	3.1	7.8	17	0.6	8.1
Devon Energy	DVN		50.00	3.2	7.1	50	0.4	7.4
Burlington Resources	BR	1	44.83	4.6	7.0	22	1.2	7.3
ENI S.p.A.	E		76.50	1.8	7.0	14	2.4	6.9
Encana Corporation	ECA	2	31.78	2.0	7.0	18	0.8	7.5
ConocoPhillips	P	2	60.72	0.9	5.8	11	2.4	6.9
Unocal Corporation	UCL		37.90	2.5	5.6	14	2.1	6.3
Marathon Oil Corporation	MRO	1	29.05	0.5	5.3	10	3.2	6.7
OAO Lukoil	LUKOY		73.25	1.9	5.1	10	1.5	4.9
Media	n			1.9	7.0	14	1.8	7.1
Service								
Baker Hughes Inc.	BHI		38.84	2.4	12.1	27	1.2	9.0
Schlumberger Ltd.	SLB		56.95	2.9	10.1	28	1.3	9.0
Halliburton Company	HAL		17.39	0.7	6.0	13	2.9	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 6, 2002

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

	Symbol	/ Rating	Price (\$/sh) 2-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	36.20	136	4,900	12.40	0.48	2.00
Kinder Morgan Management, LLC	KMR	5	35.95	30	1,100	12.40	0.48	2.00
Kinder Morgan, Inc.	KMI	5	47.62	125	6,000	16.00	0.78	1.44
Enterprise Products Part.	EPD		45.76	87	4,000	31.70	0.23	1.34
AES Corporation	AES		8.50	543	4,600	8.80	0.83	0.99
Calpine Corporation	CPN	3	10.25	377	3,900	12.50	0.66	0.94
Dynegy Inc.	DYN		15.08	339	5,100	20.60	0.57	0.89
Mirant Corporation	MIR		11.26	353	4,000	18.60	0.65	0.86
Valero Energy Corporation	VLO		41.80	104	4,400	60.00	0.46	0.84
Consol Energy Inc.	CNX		24.00	79	1,900	35.90	0.51	0.84
Sempra Energy	SRE		25.98	203	5,300	41.70	0.50	0.81
CMS Energy Corporation	CMS		20.56	128	2,600	43.80	0.62	0.80
Constellation Energy Group	CEG		32.26	152	4,900	56.50	0.35	0.72
Total or Median	!				47,800		0.54	0.91
Natural Gas and Oil								
Murphy Oil Corporation	MUR		94.05	46	4,300	82.00	0.18	1.12
Ocean Energy, Inc.	OEI		21.93	178	3,900	20.00	0.30	1.07
Imperial Oil Limited (30%)	IMO		29.80	119	3,600	30.00	0.11	0.99
Norsk Hydro ASA (49%)	NHY		50.44	126	6,400	54.00	0.18	0.95
Petro-Canada	PCZ		26.98	262	7,100	31.00	0.11	0.88
XTO Energy Inc.	XTO	2	21.10	124	2,600	26.00	0.21	0.85
PetroChina Company Ltd (10%)	PTR	2	19.91	176	3,500	28.00	0.16	0.76
Total or Median	!				27,900		0.18	0.97

Buy/Sell rating after symbol: 1 - Strong Buy, 2 - Buy, 3 - Neutral, 5 - Strong 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 May 6, 2002

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

	Symbol	// Rating	Price (\$/sh) 2-May 2002	EV/ Sales NTM	EV/ Ebitda NTM		Dividend or Distribution NTM (%)	PV/ Ebitda NTM
Energy Infrastructure								
Kinder Morgan Energy Partners, L.P.	KMP	5	36.20	4.6	18.0	25	6.5	9.0
Kinder Morgan Management, LLC	KMR	5	35.95	4.6	17.9	25	6.6	9.0
Kinder Morgan, Inc.	KMI	5	47.62	4.0	12.2	17	0.4	8.4
Enterprise Products Part.	EPD		45.76	1.6	12.1	13	5.5	9.0
AES Corporation	AES		8.50	3.1	9.0	6	-	9.0
Calpine Corporation	CPN	3	10.25	1.7	8.4	6	-	9.0
Dynegy Inc.	DYN		15.08	0.4	8.0	7	2.0	9.0
Mirant Corporation	MIR		11.26	0.5	7.7	5	-	9.0
Consol Energy Inc.	CNX		24.00	2.0	7.5	8	4.7	9.0
Sempra Energy	SRE		25.98	1.2	7.3	10	3.8	9.0
CMS Energy Corporation	CMS		20.56	0.8	7.2	10	7.1	9.0
Constellation Energy Group	CEG		32.26	1.9	6.5	10	1.5	9.0
Valero Energy Corporation	VLO		41.80	0.3	5.7	8	1.0	6.8
Median	ı			1.7	8.0	10	2.0	9.0
Natural Gas and Oil								
Imperial Oil Limited (30%)	IMO		29.80	1.2	11.0	28	1.8	11.1
Murphy Oil Corporation	MUR		94.05	1.1	9.0	44	1.6	8.0
Ocean Energy, Inc.	OEI		21.93	5.0	8.3	37	0.7	7.8
XTO Energy Inc.	XTO	2	21.10	3.6	6.9	14	0.2	8.1
Petro-Canada	PCZ		26.98	1.7	6.5	17	0.9	7.4
Norsk Hydro ASA (49%)	NHY		50.44	0.9	4.5	14	2.1	4.8
PetroChina Company Ltd (10%)	PTR	2	19.91	1.6	3.3	7	9.2	4.3
Median	ı			1.4	7.6	22	1.3	7.9

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 6, 2002

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

	Symbol/ Rai	ting	Price (\$/sh) 2-May 2002	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio
F., I								
Energy Infrastucture El Paso Energy Partners	EPN	5	37.11	39.9	1,480	11.10	0.59	1.96
22	EEP	3	46.25	39.9	1,430	16.60	0.59	1.75
Enbridge Energy Partners, TEPPCO Partners, L.P.	TPP		32.55	31.0 46	1,430	12.90	0.58	1.73
,					,	14.90	0.81	
Plains All Amer. Pipeline	PAA		26.23	41.6	1,090			1.47
Northern Border Partners	NBP		38.61	42.0	1,620	20.10	0.57	1.40
Penn Virginia Res. Part, L.P.(48%)	APU		23.30 23.41	7.7 44.0	180	17.90 19.50	0.12 0.54	1.26 1.09
AmeriGas Partners, L.P.					1,030			
Penn Virginia Corporation	PVA		37.90	9.0	340	35.00	0.10	1.07
Total or Median Natural Gas and Oil					8,700		0.55	1.43
	DHULZ		14.40	10.7	155	11.60	(0.17)	1.28
Dorchester Hugoton, Ltd.			14.40				(0.17)	
Spinnaker Exploration Company	SKE		44.27	28.5	1,260	35.00	0.03	1.26
Provident Energy Trust (US\$)	PVX		6.69	36.0	240	5.00	0.46	1.18
Quicksilver Resources Inc.	KWK		25.28	19.4	490	20.00	0.43	1.15
Newfield Exploration Company	NFX		38.10	48.6	1,850	33.00	0.25	1.12
Stone Energy Company	SGY		42.74	26.4	1,130	42.00	0.29	1.01
Unit Corporation	UNT	2	20.10	36.2	730	21.00	0.03	0.96
Forest Oil Corporation	FST	2	31.76	46.7	1,480	35.00	0.29	0.93
Southwestern Energy Company	SWN	2	14.50	25.6	370	17.00	0.44	0.92
CNOOC Limited (19%)	CEO	2	26.75	78	2,090	30.00	- 0.40	0.89
Encore Acquisition Corp. (25%)	EAC		16.60	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
Swift Energy Company	SFY		16.32	24.8	410	22.00	0.32	0.82
Magnum Hunter Resources, Inc.	MHR		7.38	71.5	530	11.00	0.46	0.82
Total or Median					12,400		0.28	0.95
Natural Gas Royalty Trusts	~			- 0				
Cross Timbers Royalty Trust	CRT	_	18.38	6.0	110	19.60	-	0.94
San Juan Basin Royalty Trust	SJT	2	11.68	46.6	540	16.50	-	0.71
Hugoton RoyaltyTrust (46%)	HGT		11.22	18.4	210	16.30	-	0.69
Micro Cap								
Torch Energy Royalty Trust	TRU		5.96	8.6	51	5.50	-	1.08
Abraxas Petroleum Corporation	ABP		0.84	27.0	23	2.00	0.84	0.91
Energy Partners Ltd.(30%)	EPL	2	8.44	8.1	68	10.00	0.34	0.90
Purcell Energy, Ltd. (US\$)	PEL.TO	2	1.92	29.0	56	3.00	0.14	0.69

Buy/Sell rating after symbol: 1 - Strong Buy, 2 - Buy, 3 - Neutral, 4 - Sell, 5 - Strong 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 May 6, 2002

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

			Price (\$/sh)	EV/	EV/		vidend or stribution	PV/
	Symbol/		2-May	Sales	Ebitda	P/E	NTM	Ebitda
	Rai	ting	2002	NTM	NTM	NTM	(%)	NTM
Energy Infrastucture								
El Paso Energy Partners	EPN	5	37.11	12.5	17.6	31	7.0	9.0
Enbridge Energy Partners,	EEP		46.25	7.0	15.7	89	7.6	9.0
TEPPCO Partners, L.P.	TPP		32.55	1.1	14.4	21	7.1	9.0
Plains All Amer. Pipeline	PAA		26.23	0.2	13.2	19	7.8	9.0
Northern Border Partners	NBP		38.61	7.9	12.6	17	8.3	9.0
Penn Virginia Res. Part, L.P.(48%)	PVR		23.30	8.5	11.4	12	8.6	9.0
AmeriGas Partners, L.P.	APU		23.41	1.4	9.8	20	9.4	9.0
Penn Virginia Corporation	PVA		37.90	3.4	5.2	13	2.4	4.8
Median				5.2	12.9	20	7.7	9.0
Natural Gas and Oil								
Dorchester Hugoton, Ltd.	DHULZ		14.40	7.0	10.5	14	8.3	8.2
Quicksilver Resources Inc.	KWK		25.28	5.1	9.2	23	-	8.0
Forest Oil Corporation	FST	2	31.76	3.9	7.5	74	-	8.0
Provident Energy Trust (US\$)	PVX		6.69	3.6	7.2	87	16.6	6.1
Magnum Hunter Resources, Inc.	MHR		7.38	3.3	6.8	21	-	8.3
Swift Energy Company	SFY		16.32	4.5	6.7	34	-	8.1
Unit Corporation	UNT		20.10	3.4	6.4	14	-	6.6
Encore Acquisition Corp. (25%)	EAC		16.60	4.2	6.4	14	-	7.4
Pogo Producing Company	PPP		25.76	3.7	6.2	36	0.5	7.3
Spinnaker Exploration Company	SKE		44.27	5.2	6.1	19	-	4.8
CNOOC Limited (19%)	CEO	2	26.75	4.5	5.9	12	0.9	6.7
Southwestern Energy Company	SWN		14.50	2.4	5.8	14	-	6.3
Newfield Exploration Company	NFX		38.10	3.7	5.2	21	-	4.7
Stone Energy Company	SGY		42.74	3.9	5.1	13	-	5.0
Median				3.9	6.4	20	-	7.0
Natural Gas Royalty Trusts								
Cross Timbers Royalty Trust	CRT		18.38	6.8	9.7	11	9.5	10.4
San Juan Basin Royalty Trust	SJT	2	11.68	5.6	7.2	10	10.0	10.1
Hugoton RoyaltyTrust (46%)	HGT		11.22	4.5	6.5	9	11.2	9.4
Micro Cap								
Abraxas Petroleum Corporation	ABP		0.84	4.3	6.3		-	6.9
Torch Energy Royalty Trust	TRU		5.96	4.2	5.0	6	17.5	4.6
Purcell Energy, Ltd. (US\$)	PEL.TO	2	1.92	3.2	4.5	13	-	6.4
Energy Partners Ltd.(30%)	EPL	2	8.44	2.2	4.0	53	-	4.5

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