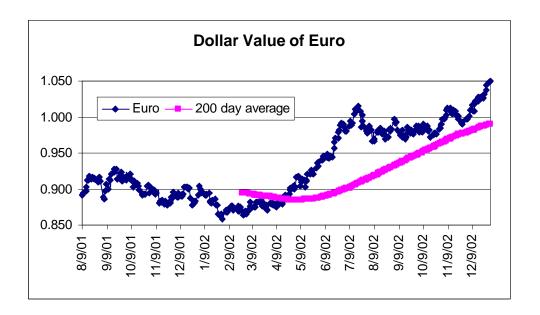
## **Diversify Dollar Risk**

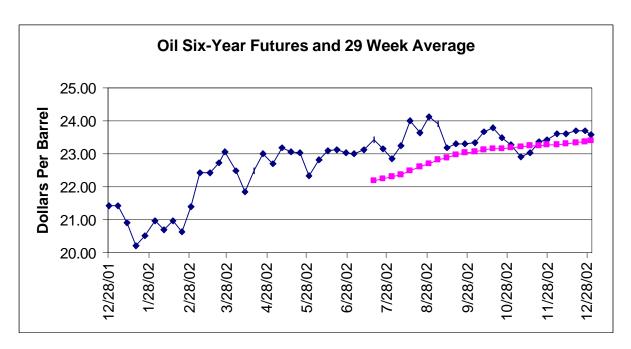
#### **Summary and Recommendation**

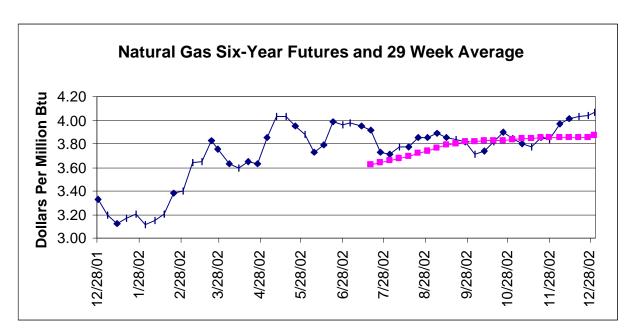
The recent steep devaluation of the dollar relative to the euro adds some urgency to our recommendation of energy stocks as stores of real value that diversify the risk of further loss in dollar value. Independent natural gas producers like recommended **XTO Energy** (**XTO**) and **San Juan Basin Royalty Trust** (**SJT**) have provided relief from dollar loss and offer continued diversification. Recommended Chinese producers **CNOOC Ltd.** (**CEO**) and **PetroChina** (**PTR**) offer representation in energy assets as well as denomination in a strong currency. Recommended mega caps **Royal Dutch** (**RD**) and **ChevronTexaco** (**CVX**) offer future dollar diversification even if it has not been evident recently. A disturbing trend for investors with most of their assets in dollars is the sharp 18% rise in the euro in 2002 (see Chart). Fortunately for energy investors, six-year oil price and six-year natural gas price advanced 10% and 22% in 2002 to help offset dollar devaluation (see charts). We highlight sell and buy recommendations in our ranking of 85 stocks by McDep Ratio and unlevered cash flow multiple (see Tables L-1, L-2, M-1, M-2, S-1, S-2).

Kurt H. Wulff, CFA



A Weekly Analysis of Energy Stocks Using the McDep Ratio January 2, 2003





A Weekly Analysis of Energy Stocks Using the McDep Ratio January 2, 2003

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

	Price				Net			
			(\$/sh)		Market	Present	Debt/	
	Symbol/		31-Dec	Shares	Cap	Value	Present	McDep
	Ra	ting	2002	(mm)	(\$mm)	(\$/sh)	Value	Ratio
Mega Cap								
Exxon Mobil Corporation	XOM		34.94	6,787	237,000	37.00	0.09	0.95
TotalFinaElf S.A.	TOT		71.50	1,336	95,500	90.00	0.15	0.83
BP plc	BP		40.65	3,735	152,000	52.00	0.14	0.81
Royal Dutch/Shell	RD	В	44.02	3,481	153,000	60.00	0.15	0.77
ChevronTexaco Corporation	CVX	В	66.48	1,062	70,600	101.00	0.17	0.72
Total or Media	ı				708,000		0.15	0.81
<b>Energy Infrastructure</b>								
Southern Company	SO		28.39	701	19,900	23.90	0.47	1.10
American Electric Power Co. Inc.	AEP	N	27.33	326	8,900	27.40	0.74	1.00
Enel S.p.a. (32%)	EN		25.65	388	10,000	32.70	0.39	0.87
Exelon Corporation	EXC	N	52.77	323	17,000	70.80	0.45	0.86
Dominion Resources	D		54.90	269	14,800	76.20	0.45	0.85
Duke Energy Corporation	DUK		19.54	792	15,500	30.40	0.48	0.82
El Paso Corporation	EP	N	6.96	590	4,100	20.00	0.66	0.78
Total or Media	ı				70,000		0.47	0.85
Natural Gas and Oil								
ENI S.p.A.	E		78.49	776	60,900	90.00	0.17	0.89
Occidental Petroleum Corp.	OXY		28.45	380	10,800	35.00	0.36	0.88
OAO Lukoil	LUKOY		60.25	299	18,000	70.00	0.08	0.87
Encana Corporation	ECA	В	31.10	470	14,600	38.00	0.26	0.87
Unocal Corporation	UCL		30.58	245	7,500	40.00	0.37	0.85
Anadarko Petroleum Corp.	APC		47.90	258	12,400	60.00	0.25	0.85
Devon Energy	DVN		45.90	158	7,300	65.00	0.42	0.83
Burlington Resources	BR	В	42.65	202	8,600	60.00	0.27	0.79
ConocoPhillips	COP	В	48.39	680	32,900	75.00	0.36	0.77
Marathon Oil Corporation	MRO	В	21.29	310	6,600	40.00	0.37	0.70
Petroleo Brasileiro S. A.	PBR	N	14.94	1,086	16,200	30.00	0.27	0.63
Total or Media	ı				135,000		0.32	0.84
Service								
Baker Hughes Inc.	BHI		32.19	339	10,900	25.00	0.09	1.26
Schlumberger Ltd.	SLB		42.09	581	24,500	44.00	0.22	0.97
Halliburton Company	HAL		18.71	434	8,100	22.00	0.25	0.89

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 January 2, 2003

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	tribution	PV/
	Symbol/		31-Dec	Sales	Ebitda	P/E	NTM	Ebitda
	Ra	ating	2002	NTM	NTM	NTM	(%)	NTM
Mega Cap								
Exxon Mobil Corporation	XOM		34.94	1.2	8.4	17	2.6	8.9
TotalFinaElf S.A.	TOT		71.50	1.2	7.3	14	3.6	8.8
BP plc	BP		40.65	0.9	7.0	15	3.5	8.6
Royal Dutch/Shell	RD	В	44.02	1.0	6.6	14	3.9	8.6
ChevronTexaco Corporation	CVX	В	66.48	0.9	5.9	12	4.2	8.2
Media	ın			1.0	7.0	14	3.6	8.6
Energy Infrastructure								
Southern Company	SO		28.39	3.4	9.9	16	4.7	9.0
American Electric Power Co. Inc.	AEP	N	27.33	0.6	9.0	9	8.8	9.0
Enel S.p.a. (32%)	EN		25.65	2.1	7.8	31	6.3	9.0
Exelon Corporation	EXC	N	52.77	2.3	7.7	12	3.3	9.0
Dominion Resources	D		54.90	3.2	7.6	11	4.7	9.0
Duke Energy Corporation	DUK		19.54	0.7	7.3	8	5.6	9.0
El Paso Corporation	EP	N	6.96	2.2	6.0	4	12.5	7.7
Media	ın			2.2	7.7	11	5.6	9.0
Natural Gas and Oil								
ConocoPhillips	COP	В	48.39	0.7	6.7	12	3.3	8.6
ENI S.p.A.	E		78.49	1.6	5.9	12	4.3	6.7
Encana Corporation	ECA	В	31.10	2.5	5.8	13	0.8	6.7
Anadarko Petroleum Corp.	APC		47.90	3.9	5.7	11	0.8	6.7
Burlington Resources	BR	В	42.65	3.9	5.6	13	1.3	7.1
Unocal Corporation	UCL		30.58	2.4	5.2	12	2.6	6.1
Occidental Petroleum Corp.	OXY		28.45	2.2	4.8	7	3.7	5.5
Devon Energy	DVN		45.90	2.9	4.8	8	0.4	5.8
Marathon Oil Corporation	MRO	В	21.29	0.4	4.6	7	4.3	6.5
OAO Lukoil	LUKOY		60.25	1.6	3.6	7	1.8	4.1
Petroleo Brasileiro S. A.	PBR	N	14.94	1.3	3.1	4	9.0	4.9
Media	ın			2.2	5.2	11	2.6	6.5
Service								
Baker Hughes Inc.	BHI		32.19	2.3	13.6	38	1.4	10.8
Schlumberger Ltd.	SLB		42.09	2.3	8.6	31	1.8	8.9
Halliburton Company	HAL		18.71	0.9	8.0	17	2.7	9.0

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended December 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 January 2, 2003

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

			Price			Net	D. I. (	
			(\$/sh)		Market	Present	Debt/	
	Symbol/		31-Dec	Shares	Cap	Value	Present	McDep
	Ra	ıting	2002	(mm)	(\$mm)	(\$/sh)	Value	Ratio
Energy Infrastructure								
Kinder Morgan Energy Partners, L.P.	KMP	S	35.00	135	4,700	14.00	0.47	1.79
Kinder Morgan Management, LLC	KMR	S	31.59	40	1,300	14.00	0.47	1.66
Kinder Morgan, Inc.	KMI	S	42.27	123	5,200	8.10	0.87	1.53
Constellation Energy Group	CEG		27.82	164	4,600	20.00	0.69	1.12
Calpine Corporation	CPN	N	3.26	375	1,200	1.00	0.97	1.06
AES Corporation	AES		3.02	543	1,600	1.00	0.98	1.05
Williams Companies	WMB		2.70	521	1,400	1.00	0.97	1.05
Dynegy Inc.	DYN		1.18	418	500	1.00	0.94	1.01
CMS Energy Corporation	CMS		9.44	137	1,300	8.70	0.90	1.01
Sempra Energy	SRE		23.65	207	4,900	24.30	0.64	0.99
Valero Energy Corporation	VLO		36.94	115	4,300	40.00	0.60	0.97
Mirant Corporation	MIR		1.87	413	800	4.00	0.86	0.92
Total or Median	!				31,800		0.87	1.05
Natural Gas and Oil								
Murphy Oil Corporation	MUR		42.85	91	3,900	41.00	0.18	1.04
Petro-Canada	PCZ		31.09	262	8,200	31.00	0.11	1.00
Ocean Energy, Inc.	OEI		19.97	178	3,600	20.00	0.30	1.00
XTO Energy Inc.	XTO	В	24.70	125	3,100	26.00	0.25	0.96
Suncor Energy	SU		15.67	454	7,100	17.00	0.25	0.94
Imperial Oil Limited (30%)	IMO		28.70	114	3,300	33.00	0.13	0.89
Norsk Hydro ASA (49%)	NHY		44.41	126	5,600	54.00	0.18	0.85
CNOOC Limited (19%)	CEO	В	26.05	78	2,030	33.00	-	0.79
PetroChina Company Ltd (10%)	PTR	В	20.07	176	3,500	30.00	0.17	0.72
Total or Median	!				40,300		0.18	0.94
Coal Producers (Small Cap)								
Consol Energy Inc.	CNX		17.28	79	1,400	5.00	0.88	1.29
Penn Virginia Res. Part, L.P.	PVR		20.62	15	300	18.00	-	1.16
Peabody Energy	BTU		29.23	55	1,600	18.00	0.75	1.16
Alliance Res. Part, L.P.	ARLP		24.22	16	400	20.00	0.45	1.12
Arch Coal	ACI		21.59	48	1,000	18.00	0.61	1.08
Fording Inc (US\$)	FDG		20.96	52	1,100	23.00	0.04	0.92
Massey Energy	MEE		9.72	75	700	18.00	0.37	0.71
					6,500		0.45	1.12

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 January 2, 2003

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

			Price (\$/sh)	EV/	EV/		vidend or stribution	PV/
	Symbol/		(\$/\$n) 31-Dec	Sales	Ev/ Ebitda	P/E	NTM	Ebitda
		ating	2002	NTM	NTM	NTM	(%)	NTM
	K	uing	2002	1 1 1 1/1	1 1 1 1/1	1 1 1 1/1	(70)	1 1 1 1/1
Energy Infrastructure								
Kinder Morgan Energy Partners, L.P.	KMP	S	35.00	3.3	15.1	17	7.0	8.4
Kinder Morgan Management, LLC	KMR	S	31.59	3.1	14.0	16	7.7	8.4
Kinder Morgan, Inc.	KMI	S	42.27	3.6	13.5	16	0.5	8.8
Calpine Corporation	CPN	N	3.26	1.8	10.9			10.2
Constellation Energy Group	CEG		27.82	2.9	10.3	11	3.5	9.2
AES Corporation	AES		3.02	2.8	9.4			9.0
Williams Companies	WMB		2.70	1.9	9.4		-	9.0
Dynegy Inc.	DYN		1.18	0.2	9.1		-	9.0
CMS Energy Corporation	CMS		9.44	1.3	9.1	5	7.6	9.0
Sempra Energy	SRE		23.65	2.5	8.9	9	4.2	9.0
Mirant Corporation	MIR		1.87	0.4	8.3	1	-	9.0
Valero Energy Corporation	VLO		36.94	0.4	7.6	9	1.1	7.8
Median				2.2	9.4	10	2.3	9.0
Natural Gas and Oil								
Suncor Energy	SU		15.67	3.4	10.2	22	1.4	10.8
Ocean Energy, Inc.	OEI		19.97	4.6	7.8	34	0.8	7.8
Petro-Canada	PCZ		31.09	1.9	7.4	19	0.8	7.4
Murphy Oil Corporation	MUR		42.85	1.0	7.2	26	3.5	7.0
Imperial Oil Limited (30%)	IMO		28.70	1.1	7.2	14	1.9	8.1
XTO Energy Inc.	XTO	В	24.70	4.2	5.6	10	0.2	5.8
CNOOC Limited (19%)	CEO	В	26.05	3.5	4.5	9	2.4	5.7
Norsk Hydro ASA (49%)	NHY		44.41	0.8	4.1	12	2.3	4.8
PetroChina Company Ltd (10%)	PTR	В	20.07	1.6	3.7	7	6.3	5.1
Median				1.9	7.2	14	1.9	7.0
Coal Producers (Small Cap)								
Consol Energy Inc.	CNX		17.28	2.0	12.5	39	3.2	9.7
Peabody Energy	BTU		29.23	1.6	10.4	25	1.4	9.0
Penn Virginia Res. Part, L.P.	PVR		20.62	7.7	10.0	11	9.7	8.6
Arch Coal	ACI		21.59	1.6	9.7	121	1.1	9.0
Fording Inc (US\$)	FDG		20.96	1.9	8.2	19	1.8	9.0
Alliance Res. Part, L.P.	ARLP		24.22	1.2	7.9	20	8.3	7.0
Massey Energy	MEE		9.72	1.1	6.4	243	1.6	8.9
				1.6	9.7	25	1.8	9.0

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended December 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 January 2, 2003

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

	Symbol/ Ro	ating	Price (\$/sh) 31-Dec 2002	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio
Energy Infrastucture								
El Paso Energy Partners	EPN	S	27.84	57.0	1,590	5.60	0.64	2.43
Enterprise Products Part (16%)	EPD		19.40	28.5	550	6.70	0.63	1.68
Enbridge Energy Partners, L.P.	EEP	S	42.15	35.0	1,480	14.90	0.64	1.67
Plains All Amer. Pipeline	PAA		24.40	50.0	1,220	11.60	0.49	1.56
Enbridge Energy Management, L.L.C	EEQ	S	37.50	9.0	340	14.90	0.64	1.56
Northern Border Partners	NBP		37.87	44.0	1,670	20.40	0.62	1.32
TEPPCO Partners, L.P.	TPP		27.75	50.0	1,390	17.70	0.56	1.25
AmeriGas Partners, L.P.	APU		23.85	49.4	1,180	18.30	0.51	1.15
Western Gas Resources	WGR		36.85	33.8	1,250	37.60	0.28	0.99
Total or Median					10,700		0.62	1.56
Natural Gas and Oil								
Dorchester Hugoton, Ltd.	DHULZ		14.47	10.7	155	11.60	(0.17)	1.28
Provident Energy Trust	PVX		6.86	63.5	440	5.00	0.24	1.28
Pogo Producing Company	PPP		37.25	64.5	2,400	35.00	0.23	1.05
Unit Corporation	UNT		18.55	40.0	740	18.00	0.03	1.03
Newfield Exploration Company	NFX		36.05	48.9	1,760	35.00	0.24	1.02
Quicksilver Resources Inc.	KWK		22.43	20.4	460	22.00	0.38	1.01
Enerplus Resources Fund	ERF		17.75	75.0	1,330	18.00	0.16	0.99
Pengrowth Energy Trust	PGH		9.27	110.0	1,020	9.50	0.19	0.98
Encore Acquisition Corp. (25%)	EAC		18.42	7.0	129	21.00	0.20	0.90
Spinnaker Exploration Company	SKE		22.05	34.0	750	25.00	-	0.88
Swift Energy Company	SFY		9.67	27.1	260	13.00	0.48	0.87
Forest Oil Corporation	FST	N	27.65	48.1	1,330	35.00	0.32	0.86
Stone Energy Company	SGY		33.36	26.5	880	42.00	0.28	0.85
Southwestern Energy Company	SWN		11.45	26.1	300	17.00	0.46	0.82
Penn Virginia Corporation	PVA		36.35	9.0	330	45.00	0.06	0.82
Magnum Hunter Resources, Inc.	MHR		5.95	69.0	410	11.00	0.45	0.75
Canadian Oil Sands Trust (US\$)	COS_u.TO	В	24.35	57.3	1,400	40.00	0.13	0.66
Total or Median					14,100		0.23	0.90
Natural Gas Royalty Trusts								
Cross Timbers Royalty Trust	CRT		19.50	6.0	117	20.80	-	0.94
San Juan Basin Royalty Trust	SJT	В	13.70	46.6	640	16.90	-	0.81
Hugoton RoyaltyTrust (46%)	HGT		12.82	18.4	240	16.40	-	0.78
Micro Cap								
Energy Partners Ltd.(30%)	EPL	В	10.70	8.3	88	10.00	0.38	1.04
Abraxas Petroleum Corporation	ABP		0.56	30.0	17	1.00	0.91	0.96
Purcell Energy, Ltd. (US\$)	PEL.TO	N	1.86	26.6	50	2.50	0.29	0.82

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

A Weekly Analysis of Energy Stocks Using the McDep Ratio January 2, 2003

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/	Dis	stribution	PV/
	Symbol/		31-Dec	Sales	Ebitda	P/E	NTM	Ebitda
	Ra	ting	2002	NTM	NTM	NTM	(%)	NTM
<b>Energy Infrastucture</b>								
El Paso Energy Partners	EPN	S	27.84	8.1	21.8	70	9.7	9.0
Enterprise Products Part (16%)	EPD		19.40	1.7	15.2	26	7.1	9.0
Enbridge Energy Partners, L.P.	EEP	S	42.15	2.0	15.0	32	8.5	9.0
Plains All Amer. Pipeline	PAA		24.40	0.2	14.1	20	8.8	9.0
Enbridge Energy Management, L.L.C	EEQ	S	37.50	1.8	14.0	28	9.6	9.0
Northern Border Partners	NBP		37.87	6.8	11.9	14	8.4	9.0
TEPPCO Partners, L.P.	TPP		27.75	1.0	11.3	14	8.6	9.0
AmeriGas Partners, L.P.	APU		23.85	1.6	10.3	23	9.2	9.0
Western Gas Resources	WGR		36.85	0.7	8.9	20	0.5	9.0
Median	ı			1.7	14.0	23	8.6	9.0
Natural Gas and Oil								
Unit Corporation	UNT		18.55	3.7	10.1	32	-	9.8
Quicksilver Resources Inc.	KWK		22.43	5.2	8.7	22	-	8.6
Dorchester Hugoton, Ltd.	DHULZ		14.47	5.7	8.2	11	10.6	6.4
Canadian Oil Sands Trust (US\$)	COS_u.TO	В	24.35	3.9	7.4	8	5.3	11.2
Enerplus Resources Fund	ERF		17.75	4.8	6.4	11	13.2	6.5
Forest Oil Corporation	FST	N	27.65	3.9	6.4	20	-	7.5
Swift Energy Company	SFY		9.67	4.0	6.4	37	-	7.4
Magnum Hunter Resources, Inc.	MHR		5.95	3.3	5.9	24	-	7.9
Encore Acquisition Corp. (25%)	EAC		18.42	4.0	5.8	12	-	6.5
Pogo Producing Company	PPP		37.25	3.6	5.8	19	0.3	5.5
Pengrowth Energy Trust	PGH		9.27	3.7	5.8	15	16.3	5.9
Provident Energy Trust	PVX		6.86	3.9	5.7	14	20.9	4.5
Southwestern Energy Company	SWN		11.45	2.6	5.2	8	-	6.3
Penn Virginia Corporation	PVA		36.35	2.5	4.9	14	2.5	6.0
Stone Energy Company	SGY		33.36	3.2	4.5	12	-	5.3
Newfield Exploration Company	NFX		36.05	3.1	4.5	15	-	4.4
Spinnaker Exploration Company	SKE		22.05	3.2	3.8	14	-	4.3
Median	ı			3.7	5.8	14	-	6.4
<b>Natural Gas Royalty Trusts</b>								
Cross Timbers Royalty Trust	CRT		19.50	6.2	8.7	9	10.7	9.3
San Juan Basin Royalty Trust	SJT	В	13.70	5.3	6.5	9	11.4	8.1
Hugoton RoyaltyTrust (46%)	HGT		12.82	4.7	6.4	9	11.2	8.2
Micro Cap								
Abraxas Petroleum Corporation	ABP		0.56	5.5	9.1		_	9.5
Purcell Energy, Ltd. (US\$)	PEL.TO	N	1.86	4.3	6.4	22	_	7.8
Energy Partners Ltd.(30%)	EPL.	В	10.70	3.1	6.1		_	5.8
			10.70	J.1	5.1			5.0

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