Enron Legacy - Energy Infrastructure Partnerships

Summary and Recommendation

During the course of investigating the factors causing the fall of Enron, our political leaders may recognize similarities in an Enron legacy, energy infrastructure partnerships. Some of our representatives may conclude that those entities give the appearance of disguising losses, overcompensating general partners, operating under conflicts of interest, taking on too much debt and preying on retirement investors. The largest partnership, Kinder Morgan, was founded by Enron and is run by Enron's former second in command who has become a billionaire with the Enron brainchild. We strongly recommend the sale of the securities of Kinder Morgan, Inc. (KMI), Kinder Morgan Energy Partners, L.P. (KMP) and Kinder Morgan Management, LLC (KMR). Yet we are positive on more attractively valued energy stocks. We believe this is a good time to be contrary on natural gas and to rebuild a long position using Buy recommendations PanCanadian Energy (PCX), Forest Oil (FST), San Juan Basin Royalty Trust (SJT) and **Purcell Energy** (**PEL.TO**). At the same time, peace and economic recovery are especially important for rising investor confidence in Buy recommended Asian stocks PetroChina (PTR) and CNOOC Limited (CEO). For perspective on those and other ideas to build and preserve a diversified energy portfolio see our valuation ranking of 70 stocks (Tables L-1, L-2, M-1, M-2, S-1 and S-2).

Eight Enron Investigations Keep Consciousness Awake

The Wall Street Journal reports, "Sen. Joseph Lieberman says the Senate Governmental Affairs Committee, which he heads, will hold hearings into Enron's collapse when Congress returns to work later this month. Internal Enron documents show top management and directors viewed controversial partnerships, which played a role in the company's demise, as integral to maintaining its rapid growth in recent years."

Senate Governmental Affairs is one of eight committees and agencies the Journal lists as launching investigations. The others are House Financial Services Committee, House Commerce Committee, House Education and Workforce Committee, Senate Commerce Committee, Securities and Exchange Commission, Justice Department and Labor Department.

Energy infrastructure limited partnerships are a closely related area where promises to retirement investors are questionable. We noted last week that one of those, Genesis Energy, L.P. suspended its distribution only a few years after raising money on the promise of high income. We have been expanding on our grave reservations about the

A Weekly Analysis of Energy Stocks Using the McDep Ratio January 7, 2002

largest energy infrastructure limited partnership, Kinder Morgan, for the past several weeks.

Energy Infrastructure Partnerships A Risky Choice for Retirement

Energy infrastructure partnerships may have a combined market capitalization half that of Enron at its peak of some \$77 billion. The Kinder Morgan entities have a combined market cap of \$13 billion. Eight more similar stocks in our coverage are worth another \$13 billion not counting the general partners. Inspired by Kinder's example, there may be more than twenty additional similar entities. The limited partners of energy infrastructure partnerships appear to be predominantly investors looking for high current income, in many cases to live on in retirement. Our conclusions stem primarily from our analysis of Kinder Morgan though most of the other partnerships share similar features to varying degrees.

Accounting Statements Disguise Losses

We have pointed out that the limited partners take an immediate hit to value when the general partner gets a disproportionate share of cash from a new acquisition. The accounting statements may show that the deal is supposedly positive because the distribution to limited partners may be increased modestly. The actual loss may be evident only when the partnership ultimately collapses from too many deals as we feel is likely eventually. We suspect that in the process, most investors do not understand all the implications of the complicated structure. As a result, the accounting statements, even though they may conform to arcane rules, effectively disguise losses, in our opinion.

The Fastow partnerships at Enron were apparently approved by top executives and the board of directors and disclosed in the company's public government filings. Yet when the chairman of Enron made an offhand comment about a billion-dollar loss that did not flow through the income statement, the collapse of public confidence was triggered.

High Compensation to General Partner

Investors may have grimaced upon learning that Enron's chief financial officer earned \$30 million from partnerships that lost a billion. On a much larger scale, the latest acquisition by Kinder Morgan apparently can put hundreds of millions into the general partner's pocket at the expense of the limited partners. The general partner of Kinder Morgan gets 50% of the cash generated by new deals as long as he can keep distributions above a threshold that has been easily reached. Depending on financing costs and the pattern of cash generation, 50% of the cash can be 50% of the value. It might even be more than 50% of value in some cases considering that the general partner has minimal obligation to repay the principal of the financing.

A Weekly Analysis of Energy Stocks Using the McDep Ratio January 7, 2002

Conflict of Interest Encourages Destructive Action

As general partner, the chief financial officer of Enron earned high compensation from partnerships he formed to shield losses. He made money by doing something destructive to Enron. No person can be expected to act impartially in a conflict of interest situation. That is what the phrase means. At Kinder Morgan, the general partner's deal appears highly rewarding on the upside and only lightly penalizing on the downside. That could encourage a general partner to take greater risks than are suitable for limited partners even to the point of near collapse.

With the general partner benefit accruing to the shareholders of KMI and the limited partner obligation accruing to the unitholders of KMP and shareholders of KMR the conflict of interest pits one class of public owner against the other. High compensation and obscure presentation magnifies the conflict beyond normal bounds.

Arthur Andersen Opines for Enron and Kinder Morgan

We note the commonality of auditor, but wish to cast no aspersions. Arthur Andersen is also auditor for stocks we are recommending positively. We do believe that the negative implications of the general partner's high compensation and conflict of interest are inadequately portrayed in current accounting statements.

High Valuation and High Debt Set the Stage for Rapid Collapse

Overvalued stocks can become more overvalued. High debt stocks can move up rapidly in price as well as down. When high valuation and high debt are combined with a hint of something that is not right, the combination can lead quickly to a reversal of investor perceptions. Perhaps the public scrutiny of Enron and Enron's legacy may bring attention to any one or more of the issues of disguised losses, general partner compensation. conflict of interest, risks of high debt, risks of high valuation and perceived exploitation of retirement investors.

Natural Gas the Base of Energy Prosperity

The high valuation of energy infrastructure partnerships seems out of line with the depressed valuation of natural gas production. Of course general partners can declare steady distributions while the value of natural gas fluctuates every day in the futures market. Yet the predictability investors may pay for often turns out to be false.

Fundamentally, infrastructure is perceived as a lower-risk business than production. High debt negates that advantage, in our opinion. Moreover the trend toward deregulation should lead to lower, not higher debt. Historically in a regulated environment the customer ratepayers shared the risk of business fluctuation by paying a return based on investment rather than current conditions.

Meter Reader A Weekly Analysis of Energy Stocks Using the McDep Ratio January 7, 2002

One needs to look no further than inventories to see why natural gas stocks are depressed. An economic slowdown and warm weather have reduced demand below what producers anticipated when they drilled new wells a year ago. Drillers have cut back, but the lag between drilling and consumption means natural gas in storage has accumulated to high levels. That is a classic business cycle. Just as the cycle has turned down, it will surely turn up again.

We are gradually building a product line of recommended natural gas producer investments that now includes one in each size category of large cap, mid cap, small cap, royalty trust and micro cap. All are attractive commitments today, in our opinion. The timing may not be strong for sharp immediate appreciation and there may even be further temporary weakness, if not stagnation. From a cyclical point of view we think we may be near the end of the down slope and may be on the up slope again by, perhaps, mid year.

Strong Gain in Lukoil a Favorable Omen

The Russian company, Lukoil, was the strongest gainer among large cap energy stocks in our coverage the first week of the year. That is consistent with the idea that when the stock market does well and energy is quiet, stocks of energy companies in emerging countries may do relatively better.

Our thesis on PetroChina that natural gas is going to be a big winner long term got an indirect boost from Royal Dutch management meeting with analysts in New York late last year. Mr. Phil Watts reminded us how important it was for his company to be a major player in the conversion of Europe to the clean burning fuel. As a result, Royal Dutch is keenly interested in being a partner in the development of natural gas in China.

Building the natural gas infrastructure for China is a complicated undertaking. Life for CNOOC Ltd is quite a bit simpler. The best and brightest of international explorers take most of the risk and contribute their latest technology. Discoveries are relatively close to market and rapid earnings growth for several years seems strongly predetermined.

Investors ask, "How can you be confident in CNOOC's numbers?" We answer, "That's easy, their disclosures are audited by Arthur Andersen!"

We are confident that basic information is reported accurately. We have a check on activity through the disclosures of CNOOC's partners. What we may not know, as in the case of Enron, is whether important transactions are fully disclosed. Contrary to Enron, CNOOC stock has a low McDep Ratio and low debt. Thus, the stock has not been overhyped and overlevered to the point where management feels pressure to cheat.

Kurt H. Wulff, CFA

A Weekly Analysis of Energy Stocks Using the McDep Ratio January 7, 2002

Table L-1

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

			Price			Net	D. I. (
	C 1 . 1/		(\$/sh)	C1	Market	Present	Debt/	MD
	Symbol/	•	4-Jan 2002	Shares	Cap	Value	Present	McDep Detio
Maga Can	Rati	ng	2002	(mm)	(\$mm)	(\$/sh)	Value	Ratio
Mega Cap Exxon Mobil Corporation	XOM		40.00	6,924	277,000	36.00	0.09	1.10
BP plc	BP		46.28	0,924 3,738	173,000	47.00	0.09	0.99
TotalFinaElf S.A.	TOT		40.28 71.60	1,382	99,000	80.00	0.10	0.99
Royal Dutch/Shell	RD	3	49.26	1,382 3,520	173,000	55.00	0.13	0.91
ChevronTexaco Corporation	CVX	5	49.20 89.30	3,320 1,062	94,900	110.00	0.04	0.90
Total or Median			89.30	1,002	94,900 817,000	110.00	0.14 0.14	0.84
Energy Infrastructure	l .				817,000		0.14	0.91
Kinder Morgan Management, LLC	KMR	5	38.29	30	1,100	11.50	0.54	2.07
Kinder Morgan Energy Partners, L.P.	KMP	5	37.70	135	5,100	11.50	0.54	2.07
Kinder Morgan, Inc.	KMI	5	55.82	133	5,100 6,800	10.90	0.34	1.55
AES Corporation	AES	5	17.45	543	9,500	8.80	0.87	1.17
Dynegy Inc.	DYN		26.70	338	9,000	20.30	0.83	1.17
Calpine Corporation	CPN	3	16.85	377	6,400	12.50	0.58	1.13
Duke Energy Corporation	DUK	5	38.50	773	29,800	35.80	0.00	1.12
American Electric Power Co. Inc.	AEP	2	43.27	322	13,900	43.40	0.43	1.04
El Paso Corporation	EPG	2	44.52	532	23,700	44.80	0.03	1.00
Mirant Corporation	MIR		16.03	353	5,700	18.60	0.49	0.95
Southern Company	SO		24.81	683	16,900	27.40	0.05	0.95
Williams Companies	WMB		24.92	515	12,800	32.30	0.42	0.88
Dominion Resources	D		24.92 60.16	247	12,800	52.30 79.40	0.47	0.88
Exelon Corporation	EXC	2	47.89	323	14,800	84.00	0.43	0.80
Total or Median		2	47.09	525	165,000	64.00	0.40	1.00
Natural Gas and Oil	l .				105,000		0.55	1.00
Occidental Petroleum Corp.	OXY		26.61	372	9,900	28.50	0.50	0.97
Unocal Corporation	UCL		35.49	257	9,100	38.90	0.35	0.94
ENI S.p.A.	E		62.74	789	49,500	71.40	0.19	0.90
ConocoPhillips	P		60.27	680	41,000	71.20	0.34	0.90
Anadarko Petroleum Corp.	APC		53.85	250	13,500	64.10	0.24	0.88
Devon Energy (incl MND,AXN)	DVN		38.11	165	6,300	54.60	0.48	0.84
Marathon Oil Corporation	MRO	1	29.76	310	9,200	42.00	0.40	0.79
OAO Lukoil	LUKOY	•	52.38	299	15,700	69.10	0.09	0.78
Burlington Resources (incl HTR)	BR	1	36.07	205	7,400	53.00	0.30	0.78
Total or Mediar		1	50.07	205	152,000	55.00	0.28	0.86
Service					122,000		0.20	0.00
Baker Hughes Inc.	BHI		35.20	338	11,900	24.50	0.13	1.38
Schlumberger Ltd.	SLB		54.30	581	31,500	44.00	0.12	1.20
Halliburton Company	HAL		10.22	429	4,400	24.90	0.12	0.48
			10.00	. 27	.,		0.12	0.10

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 January 7, 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/	Dis	tribution	PV/
	Symbol/		4-Jan	Sales	Ebitda	P/E	NTM	Ebitda
	Rati	ng	2002	NTM	NTM	NTM	(%)	NTM
Mega Cap								
Exxon Mobil Corporation	XOM		40.00	1.5	12.2	28	2.3	11.1
BP plc	BP		46.28	1.2	10.7	19	2.9	10.8
TotalFinaElf S.A.	TOT		71.60	1.3	10.0	21	2.6	10.9
Royal Dutch/Shell	RD	3	49.26	1.1	9.8	25	2.9	10.9
ChevronTexaco Corporation	CVX		89.30	1.3	9.2	21	3.1	11.0
Median				1.3	10.0	21	2.9	10.9
Energy Infrastructure								
Kinder Morgan Management, LLC	KMR	5	38.29	5.1	16.6	27	5.7	8.0
Kinder Morgan Energy Partners, L.P.	KMP	5	37.70	5.2	16.4	27	5.8	8.0
Kinder Morgan, Inc.	KMI	5	55.82	7.3	14.3	29	0.4	9.2
AES Corporation	AES		17.45	3.7	10.5	13	-	9.0
Dynegy Inc.	DYN		26.70	0.5	10.2	13	1.1	9.0
Calpine Corporation	CPN	3	16.85	2.0	10.1	10	-	9.0
Duke Energy Corporation	DUK		38.50	0.8	9.4	14	2.9	9.0
American Electric Power Co. Inc.	AEP	2	43.27	0.5	9.0	12	5.5	9.0
El Paso Corporation	EPG		44.52	0.9	9.0	13	1.9	9.0
Mirant Corporation	MIR		16.03	0.5	8.6	7	-	9.0
Southern Company	SO		24.81	2.8	8.5	15	5.4	9.0
Williams Companies	WMB		24.92	2.4	7.9	10	3.2	9.0
Dominion Resources	D		60.16	3.4	7.8	14	4.3	9.0
Exelon Corporation	EXC	2	47.89	2.2	6.7	10	3.5	9.0
Median				2.3	9.2	13	3.0	9.0
Natural Gas and Oil								
Occidental Petroleum Corp.	OXY		26.61	1.5	9.7	23	3.8	10.0
Anadarko Petroleum Corp.	APC		53.85	2.9	8.4	25	0.6	9.5
Unocal Corporation	UCL		17.11	2.7	8.0	65	2.3	8.5
ConocoPhillips	Р		60.27	0.8	7.6	20	2.4	8.5
ENI S.p.A.	E		62.74	1.6	7.2	16	2.9	8.0
Burlington Resources (incl HTR)	BR	1	36.07	4.1	6.3	28	1.5	8.1
Devon Energy (incl MND,AXN)	DVN		38.11	3.2	5.9	18	0.5	7.0
Marathon Oil Corporation	MRO	1	29.76	0.4	5.1	11	3.1	6.5
OAO Lukoil	LUKOY		52.38	1.4	4.7	10	2.1	6.0
Median				1.6	7.2	20	2.3	8.1
Service								
Baker Hughes Inc.	BHI		35.20	2.2	11.0	25	1.3	9.0
Schlumberger Ltd.	SLB		54.30	2.8	9.6	27	1.4	9.0
Halliburton Company	HAL		10.22	0.4	3.8	8	4.9	9.0

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended December 31, 2002; 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 7, 2002

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

	Symbol/ Rating	Price (\$/sh) 4-Jan 2002	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio
Energy Infrastructure							
Enterprise Products Part.	EPD	48.01	87	4,200	31.70	0.23	1.40
Consol Energy Inc.	CNX	24.37	79	1,900	35.90	0.51	0.84
CMS Energy Corporation	CMS	24.30	128	3,100	48.30	0.62	0.81
Sempra Energy	SRE	24.94	203	5,100	41.70	0.50	0.80
Valero Energy Corp.(with UDS)	VLO	39.45	110	4,400	60.00	0.47	0.82
Constellation Energy Group	CEG	26.80	152	4,100	56.50	0.35	0.66
Total or Median	ţ			18,700		0.50	0.82
Natural Gas and Oil							
Murphy Oil Corporation	MUR	82.75	46	3,800	82.00	0.18	1.01
Ocean Energy, Inc.	OEI	18.34	178	3,300	20.00	0.30	0.94
Imperial Oil Limited (30%)	IMO	27.11	119	3,200	30.00	0.11	0.91
Norsk Hydro ASA (49%)	NHY	44.25	127	5,600	54.00	0.18	0.85
PanCanadian Energy	PCX 2	2 25.00	256	6,410	33.00	0.14	0.79
Petro-Canada	PCZ	24.34	267	6,500	33.00	0.08	0.76
PetroChina Company Ltd (10%)	PTR 2	2 18.43	176	3,200	28.00	0.16	0.71
Total or Median	!			32,000		0.16	0.85

Buy/Sell rating after symbol: 1 - Strong Buy, 2 - Buy, 3 - Neutral

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 7, 2002

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/		(<i>\$,511)</i> 4-Jan	Sales	Ebitda	P/E	NTM	Ebitda
	Ratir	ıg	2002	NTM	NTM	NTM	(%)	NTM
Energy Infrastructure								
Enterprise Products Part.	EPD		48.01	1.7	12.6	14	5.2	9.0
Consol Energy Inc.	CNX		24.37	2.1	7.6	8	4.6	9.0
CMS Energy Corporation	CMS		24.30	0.9	7.3	9	6.0	9.0
Sempra Energy	SRE		24.94	1.1	7.2	10	4.0	9.0
Constellation Energy Group	CEG		26.80	1.7	5.9	8	1.8	9.0
Valero Energy Corp.(with UDS)	VLO		39.45	0.3	5.4	6	1.0	6.7
Median				1.4	7.3	9	4.3	9.0
Natural Gas and Oil								
Imperial Oil Limited (30%)	IMO		27.11	1.1	10.1	26	2.0	11.1
Murphy Oil Corporation	MUR		82.75	0.9	8.1	39	1.8	8.0
Ocean Energy, Inc.	OEI		18.34	4.4	7.4	31	0.9	7.8
PanCanadian Energy	PCX	2	25.00	1.2	6.6	16	1.0	8.3
Petro-Canada	PCZ		24.34	1.4	5.3	12	1.1	6.9
Norsk Hydro ASA (49%)	NHY		44.25	0.8	5.1	16	2.4	6.0
PetroChina Company Ltd (10%)	PTR	2	18.43	1.7	3.8	10	9.9	5.4
Median				1.2	6.6	16	1.8	7.8

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciationand amortization; NTM = Next Twelve Months Ended December 31, 2002; P/E = Stock Price toEarnings; PV = Present Value of oil and gas and other businesses

A Weekly Analysis of Energy Stocks Using the McDep Ratio January 7, 2002

Table S-1

Small Cap Energy Companies Rank by McDep Ratio: Market Cap and Debt to Present Value

			Price			Net	/	
	~ • • •		(\$/sh)	~	Market	Present	Debt/	
	Symbol/		4-Jan	Shares	Cap	Value	Present	McDep
	Rati	ing	2002	(mm)	(\$mm)	(\$/sh)	Value	Ratio
Energy Infrastucture								
El Paso Energy Partners	EPN		37.20	34.0	1,260	6.40	0.71	2.38
Penn Virginia Res. Part, L.P.(48%)	PVR		25.65	7.5	190	15.10	-	1.70
Enbridge Energy Partners,	EEP		42.66	31.0	1,320	16.60	0.58	1.66
Plains All Amer. Pipeline	PAA		26.15	38.0	990	14.30	0.47	1.44
TEPPCO Partners, L.P.	TPP		31.25	39	1,210	15.60	0.69	1.31
Northern Border Partners	NBP		39.90	42.0	1,680	30.00	0.41	1.20
AmeriGas Partners, L.P.	APU		22.07	44.0	970	19.50	0.54	1.06
Penn Virginia Corporation	PVA		34.65	9.0	310	35.00	0.10	0.99
Total or Median					7,900		0.50	1.37
Natural Gas and Oil								
•			18.76				0.60	
Dorchester Hugoton, Ltd.			14.00		150	11.30	-	
Spinnaker Exploration Company			38.91		1,100	40.00	-	
XTO Energy Inc.	XTO		16.85	124.0	2,090	19.00	0.28	0.92
	NFX		34.21	49.3	1,690	39.00	0.21	0.90
Stone Energy Company	SGY		37.20	26.4	980	42.00	0.11	0.90
Encore Acquisition Corp. (25%)	EAC		12.99	7.5	98	16.00	0.22	0.86
Southwestern Energy Company	SWN		10.90	25.6	280	15.00	0.47	0.86
Swift Energy Company	SFY		19.80	24.8	490	25.00	0.29	0.85
Magnum Hunter Resources, Inc.	MHR		8.30	36.8	310	11.00	0.35	0.84
Forest Oil Corporation	FST	2	26.99	48.5	1,310	37.00	0.28	0.80
CNOOC Limited (19%)	CEO	2	19.44	78	1,520	30.00	-	0.65
Total or Median					10,400		0.25	0.88
Natural Gas Royalty Trusts								
Cross Timbers Royalty Trust	CRT		19.20	6.0	115	17.50	-	1.10
Hugoton RoyaltyTrust	HGT		10.31	40.0	410	13.40	-	0.77
San Juan Basin Royalty Trust	SJT	2	9.55	46.6	450	13.50	-	0.71
Micro Cap								
Abraxas Petroleum Corporation	ABP		1.49	23.6	35	0.50	0.96	1.07
-	EPL	2	7.56	8.1	61	10.00	0.34	0.84
Purcell Energy, Ltd. (US\$)	PEL.TO	2	2.03	27.4	56	3.50	0.09	0.62
Penn Virginia Corporation Total or Median Natural Gas and Oil Quicksilver Resources Inc. Dorchester Hugoton, Ltd. Spinnaker Exploration Company XTO Energy Inc. Newfield Exploration Company Stone Energy Company Encore Acquisition Corp. (25%) Southwestern Energy Company Swift Energy Company Magnum Hunter Resources, Inc. Forest Oil Corporation CNOOC Limited (19%) Total or Median Natural Gas Royalty Trusts Cross Timbers Royalty Trust Hugoton RoyaltyTrust San Juan Basin Royalty Trust Micro Cap Abraxas Petroleum Corporation Energy Partners Ltd.(30%)	PVA KWK DHULZ SKE XTO NFX SGY EAC SWN SFY MHR FST CEO CRT HGT SJT ABP EPL	2 2 2	34.65 18.76 14.00 38.91 16.85 34.21 37.20 12.99 10.90 19.80 8.30 26.99 19.44 19.20 10.31 9.55 1.49 7.56	9.0 19.3 10.7 28.3 124.0 49.3 26.4 7.5 25.6 24.8 36.8 48.5 78 6.0 40.0 46.6 23.6 8.1	$\begin{array}{c} 310\\ 7,900\\ \hline 360\\ 150\\ 1,100\\ 2,090\\ 1,690\\ 980\\ 980\\ 980\\ 280\\ 490\\ 310\\ 1,310\\ 1,520\\ 10,400\\ \hline 115\\ 410\\ 450\\ \hline 35\\ 61\\ \end{array}$	35.00 10.00 11.30 40.00 19.00 39.00 42.00 16.00 15.00 25.00 11.00 37.00 30.00 17.50 13.40 13.50 0.50 10.00	0.10 0.50 0.60 - 0.28 0.21 0.11 0.22 0.47 0.29 0.35 0.28 - - - - - - - - - - - - - - - - - - -	$\begin{array}{c} 0.99\\ 1.37\\ 1.35\\ 1.24\\ 0.97\\ 0.92\\ 0.90\\ 0.90\\ 0.90\\ 0.86\\ 0.86\\ 0.85\\ 0.84\\ 0.86\\ 0.85\\ 0.84\\ 0.80\\ 0.65\\ 0.88\\ 1.10\\ 0.77\\ 0.71\\ 1.07\\ 0.84\\ \end{array}$

Buy/Sell rating after symbol: 1 - Strong Buy, 2 - Buy, 3 - Neutral

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 7, 2002

Table S-2

Small Cap Energy Companies

Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.

			Price (\$/sh)	EV/	EV/	Dividend or Distribution		PV/
	Symbol/		4-Jan	Sales	Ebitda	P/E	NTM	Ebitda
	Rati	ing	2002	NTM	NTM	NTM	(%)	NTM
Energy Infrastucture								
El Paso Energy Partners	EPN		37.20	10.5	21.4	103	6.6	9.0
Penn Virginia Res. Part, L.P.(48%)PVR		25.65	11.5	15.3	18	7.8	9.0
Enbridge Energy Partners,	EEP		42.66	6.7	14.9	82	8.2	9.0
Plains All Amer. Pipeline	PAA		26.15	0.2	12.9	17	7.8	9.0
TEPPCO Partners, L.P.	TPP		31.25	0.7	11.8	15	7.4	9.0
Northern Border Partners	NBP		39.90	7.3	11.4	15	7.6	9.0
AmeriGas Partners, L.P.	APU		22.07	1.4	9.5	19	10.0	9.0
Penn Virginia Corporation	PVA		34.65	4.7	8.7	41	2.6	8.8
Median	!			5.7	12.4	18	7.7	9.0
Natural Gas and Oil								
Quicksilver Resources Inc.	KWK		18.76	6.2	17.1		-	12.7
Dorchester Hugoton, Ltd.	DHULZ		14.00	9.5	14.5	19	20.6	11.7
XTO Energy Inc.	XTO		16.85	5.9	9.1	27	0.2	9.9
Encore Acquisition Corp. (25%)	EAC		12.99	4.8	8.9	33	-	10.3
Spinnaker Exploration Company	SKE		38.91	6.9	8.1	37	-	8.4
Swift Energy Company	SFY		19.80	5.5	8.0	36	-	9.4
Forest Oil Corporation	FST	2	26.99	2.9	6.7	245	-	8.4
Magnum Hunter Resources, Inc.	MHR		8.30	3.8	6.5		-	7.8
Southwestern Energy Company	SWN		10.90	2.7	6.2	22	-	7.3
Stone Energy Company	SGY		37.20	4.0	5.4	27	-	6.0
CNOOC Limited (19%)	CEO	2	19.44	3.8	5.1	11	1.2	7.9
Newfield Exploration Company	NFX		34.21	3.7	4.7	16	-	5.2
Median	!			4.4	7.4	27	-	8.4
Natural Gas Royalty Trusts								
Cross Timbers Royalty Trust	CRT		19.20	7.9	14.5	16	6.4	13.2
Hugoton RoyaltyTrust	HGT		10.31	5.6	9.4	16	6.1	12.2
San Juan Basin Royalty Trust	SJT	2	9.55	6.5	8.8	13	7.4	12.4
Micro Cap								
Abraxas Petroleum Corporation	ABP		1.49	6.6	12.6		-	11.8
Energy Partners Ltd.(30%)	EPL	2	7.56	2.7	6.0		-	7.1
Purcell Energy, Ltd. (US\$)	PEL.TO	2	2.03	3.2	4.5	13	-	7.3

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciationand amortization; NTM = Next Twelve Months Ended December 31, 2002; P/E = Stock Price toEarnings; PV = Present Value of oil and gas and other businesses