

## Natural Gas Royalty Trusts

A Weekly Analysis

May 13, 2002

### Expected Return

A one-sigma gain in six-year futures for natural gas sparks a near one-dollar per unit gain in Present Value for each of the three natural gas royalty trusts. That one-week change adds a little excitement to our otherwise dry main point this week. Respected academics conclude in recent studies that a reasonable expectation of future return from investing in stocks may be no higher than in inflation-indexed government bonds (see Dimson, Marsh and Staunton, Triumph of the Optimists, 2002; and Arnott and Bernstein, *Financial Analysts Journal*, March/April 2002). When we compute the present value of our projected cash stream for recommended SJT, we use a discount rate, or expected annual rate of return, equal to the real return on the U.S. 10 Year Inflation Indexed Note of 3.1% plus a 1.4% risk premium plus inflation of 2.1% for a total of 6.6%. That produces a present value higher than stock price. Alternatively we can calculate that investing at the current stock price would generate a return of some 12% per year. Of course that presumes that our projections are reasonable. Investors do not have to take our word for that because the details can be compared readily with alternative expectations.

#### Rank by McDep Ratio: Market Cap and Debt to Present Value

		Price (\$/sh)		Market	Net Present Value	Debt/ Present Value	McDep Ratio
Symbol/ Rating	9-May 2002	Shares (mm)	Cap (\$mm)	(\$/sh)			
Cross Timbers Royalty Trust	CRT	17.05	6.0	102	20.50	-	0.83
San Juan Basin Royalty Trust	SJT	2	46.6	550	17.40	-	0.67
Hugoton RoyaltyTrust (46%)	HGT	11.45	18.4	210	17.30	-	0.66

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

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

		Price (\$/sh)		EV/ Sales	EV/ Ebitda	Dividend or Distribution	PV/ Ebitda
Symbol/ Rating	9-May 2002	9-May NTM	NTM	NTM	NTM	NTM (%)	NTM
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
Hugoton RoyaltyTrust (46%)	HGT	11.45	4.5	6.5	9	11.3	9.8

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

Analyses are prepared from original sources and data believed to be reliable, but no representation is made as to their accuracy or completeness. Independent energy investment analysis by Kurt Wulff doing business as McDep Associates is posted at [www.mcdep.com](http://www.mcdep.com). Mr. Wulff is not paid by covered companies. Owning shares in energy stocks, neither Mr. Wulff nor his spouse act contrary to a buy or sell rating. 1

## Natural Gas Royalty Trusts

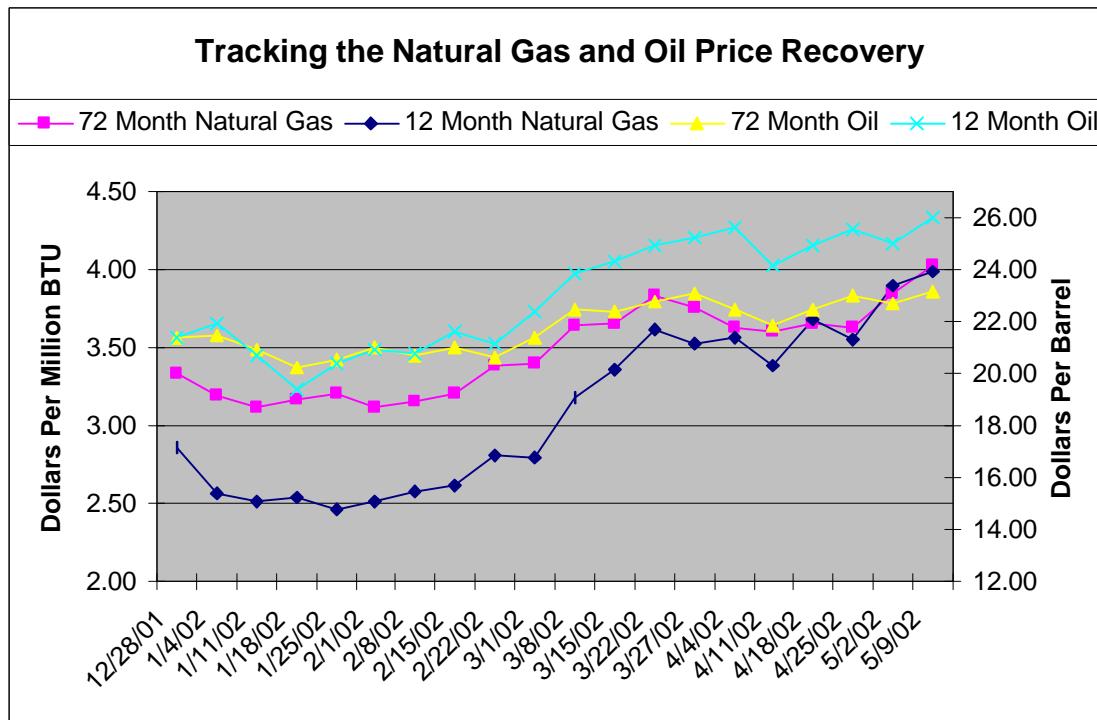
A Weekly Analysis

May 13, 2002

### Expected Return Depends Heavily on Expected Natural Gas Price

While the most objective forecast of natural gas price may be what is in the market, we know that the market went wild last year and that a reasonable investor has to make some judgment as to whether the current market makes sense. We see that six-year natural gas exceeds six-year oil by a small margin. A 20% premium might be justified. Moreover six-year oil is still low, in our opinion, at little more than \$22 per barrel (see chart).

Kurt H. Wulff, CFA



# Natural Gas Royalty Trusts

## A Weekly Analysis

May 13, 2002

**Table CRT-1**  
**Cross Timbers Royalty Trust**  
**Present Value**

Volume Decline (%/yr):	10	Price Escalation post 2007 (%/yr):	2.9
Volume Enhancement (%/yr):	10	Discount Rate (%/yr):	6.6
		U.S. TIPS Inflation (%/yr):	2.1
		U.S. 10 Year Yield (%/yr):	5.2
PV/Volume (\$/mcf):	2.52	PV/EBITDA 2002:	12.1

Year	Natural Gas Volume			Oil			Tax		Present	
	Basic (bcf)	Enhanced (bcf)	Total (bcf)	Price (\$/mcf)	Revenue (\$mm)	Net (\$mm)	Distribution (\$/unit)	Credit (\$/unit)	Disc Factor	Value (\$/unit)
<b>Total 2002 through 2031</b>										
	26	23	49	4.54	222	6	228	38.00	0.11	0.54
										<b>20.50</b>
2002	2.7	0.0	2.7	3.07	8.4	1.2	9.6	1.59	0.11	0.97
2003	2.5	0.3	2.7	3.87	10.6	1.1	11.7	1.95		0.91
2004	2.2	0.5	2.7	3.83	10.5	0.9	11.4	1.89		0.85
2005	2.0	0.7	2.7	3.79	10.3	0.7	11.1	1.84		0.80
2006	1.8	0.9	2.7	3.81	10.4	0.6	11.0	1.83		0.75
2007	1.6	1.1	2.7	3.87	10.5	0.5	11.0	1.84		0.70
2008	1.4	1.3	2.7	3.98	10.8	0.5	11.3	1.88		0.66
2009	1.3	1.4	2.7	4.09	11.2	0.4	11.6	1.93		0.62
2010	1.2	1.6	2.7	4.21	11.5	0.4	11.9	1.98		0.58
2011	1.1	1.7	2.7	4.33	11.8		11.8	1.97		0.55
2012	1.0	1.5	2.5	4.45	10.9		10.9	1.82		0.51
2013	0.9	1.4	2.2	4.58	10.1		10.1	1.69		0.48
2014	0.8	1.2	2.0	4.71	9.4		9.4	1.56		0.45
2015	0.7	1.1	1.8	4.85	8.7		8.7	1.44		0.42
2016	0.6	1.0	1.6	4.98	8.0		8.0	1.34		0.40
2017	0.6	0.9	1.4	5.13	7.4		7.4	1.24		0.37
2018	0.5	0.8	1.3	5.27	6.9		6.9	1.15		0.35
2019	0.5	0.7	1.2	5.43	6.4		6.4	1.06		0.33
2020	0.4	0.6	1.1	5.58	5.9		5.9	0.98		0.31
2021	0.4	0.6	1.0	5.74	5.5		5.5	0.91		0.29
2022	0.3	0.5	0.9	5.90	5.1		5.1	0.84		0.27
2023	0.3	0.5	0.8	6.07	4.7		4.7	0.78		0.25
2024	0.3	0.4	0.7	6.25	4.3		4.3	0.72		0.24
2025	0.2	0.4	0.6	6.43	4.0		4.0	0.67		0.22
2026	0.2	0.3	0.6	6.61	3.7		3.7	0.62		0.21
2027	0.2	0.3	0.5	6.80	3.4		3.4	0.57		0.20
2028	0.2	0.3	0.5	6.99	3.2		3.2	0.53		0.19
2029	0.2	0.3	0.4	7.19	2.9		2.9	0.49		0.17
2030	0.1	0.2	0.4	7.40	2.7		2.7	0.45		0.16
2031	0.1	0.2	0.3	7.61	2.5		2.5	0.42		0.15
										0.06

Analyses are prepared from original sources and data believed to be reliable, but no representation is made as to their accuracy or completeness. Independent energy investment analysis by Kurt Wulff doing business as McDep Associates is posted at [www.mcdep.com](http://www.mcdep.com). Mr. Wulff is not paid by covered companies. Owning shares in energy stocks, neither Mr. Wulff nor his spouse act contrary to a buy or sell rating. 3

# Natural Gas Royalty Trusts

## A Weekly Analysis

May 13, 2002

Table CRT-2  
Cross Timbers Royalty Trust  
Distributable Income

	<i>Q2</i> <i>6/30/01</i>	<i>Q3</i> <i>9/30/01</i>	<i>Q4</i> <i>12/31/01</i>	<i>Year</i> <i>2001</i>	<i>Q1E</i> <i>3/31/02</i>	<i>Q2E</i> <i>6/30/02</i>	<i>Q3E</i> <i>9/30/02</i>	<i>Q4E</i> <i>12/31/02</i>	<i>Year</i> <i>2002E</i>	<i>Q1E</i> <i>3/31/03</i>	<i>Next</i> <i>Twelve</i> <i>Months</i> <i>3/31/03</i>
<b>Highlights</b>											
Tax credit (\$mm)											
Per unit	0.03	0.03	0.03	0.11	0.03	0.03	0.03	0.03	0.11		0.08
Distributable Income (\$mm)	4.18	3.40	2.58	14.21	1.80	1.97	2.87	2.90	9.55	3.04	10.79
Per unit	0.70	0.57	0.43	2.37	0.30	0.33	0.48	0.48	1.59	0.51	1.80
Units (millions)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
<b>Volume</b>											
Natural Gas (bcf)	0.71	0.79	0.77	2.93	0.76	0.75	0.76	0.76	3.03	0.76	3.03
Natural Gas (mmcfd)	7.8	8.6	8.4	8.0	8.3	8.3	8.3	8.3	8.3	8.3	8.3
Days	90	91	92	365	92	90	91	92	365	92	365
Oil (mb)	79	90	99	351	88	85	88	88	350	88	350
Oil (mbd)	0.89	0.98	1.08	0.96	0.96	0.96	0.96	0.96	0.96	0.96	3.84
Days	89	92	92	365	92	89	92	92	365	92	365
Total (bcf)	1.18	1.33	1.37	5.03	1.29	1.26	1.29	1.29	5.13	1.29	5.13
<b>Price</b>											
Natural Gas (HH lagged three months)											
Henry Hub (\$/mmbtu)	6.31	4.36	2.75	4.98	2.41	2.53	3.63	3.76	3.08	4.07	3.50
Differential (\$/mmbtu)	(0.48)	(0.41)	(0.24)	(0.11)	(0.14)	0.05	0.07	0.08	0.01	0.08	0.07
CRT (\$/mcf)	6.79	4.77	2.99	5.09	2.55	2.48	3.55	3.69	3.07	3.99	3.43
Oil (\$/bbl) (WTI lagged two months)											
WTI Cushing	28.09	27.56	25.28	27.94	19.56	23.80	27.45	26.43	24.31	25.81	25.87
CRT	24.92	24.07	22.75	24.99	17.56	21.80	25.45	24.43	22.31	23.81	23.89
Total (\$/mcf)	5.73	4.46	3.34	4.70	2.71	2.95	3.84	3.85	3.34	3.98	3.66
<b>Revenue (\$mm)</b>											
Natural Gas	4.79	3.75	2.31	14.91	1.95	1.85	2.68	2.82	9.30	3.05	10.40
Oil	1.98	2.16	2.25	8.77	1.55	1.86	2.25	2.16	7.82	2.10	8.37
Total	6.77	5.91	4.56	23.68	3.50	3.72	4.93	4.97	17.12	5.15	18.77
<b>Cost (\$mm)</b>											
Tax, transport & other	0.89	0.87	0.69	3.30	0.49	0.52	0.69	0.70	2.40	0.72	2.63
Production	0.74	0.73	0.73	2.91	0.73	0.71	0.73	0.73	2.91	0.73	2.91
Total	1.63	1.60	1.42	6.20	1.22	1.23	1.42	1.43	5.31	1.45	5.54
<b>Cash flow (\$mm)</b>											
Development	0.41	0.40	0.16	1.13	0.20	0.20	0.20	0.20	0.20	0.20	0.80
Net proceeds (\$mm)	4.73	3.91	2.98	16.34	2.08	2.29	3.31	3.34	11.02	3.50	12.44
<b>Royalty income (\$mm)</b>											
Royalty/Net proceeds	4.22	3.45	2.61	14.39	1.83	2.01	2.91	2.94	9.70	3.08	10.95
Administration	89%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%
Distributable income (\$mm)	4.18	3.40	2.58	14.21	1.80	1.97	2.87	2.90	9.55	3.04	10.79
<b>Modeling ratios</b>											
Tax and other/revenue	0.13	0.15	0.15	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Production exp (\$/bbl)	9.29	8.12	7.37	8.28	8.30	8.30	8.30	8.30	8.30	8.30	8.30

Analyses are prepared from original sources and data believed to be reliable, but no representation is made as to their accuracy or completeness. Independent energy investment analysis by Kurt Wulff doing business as McDep Associates is posted at [www.mcdep.com](http://www.mcdep.com). Mr. Wulff is not paid by covered companies. Owning shares in energy stocks, neither Mr. Wulff nor his spouse act contrary to a buy or sell rating. 4

# Natural Gas Royalty Trusts

## A Weekly Analysis

May 13, 2002

**Table HGT-1**  
**Hugoton Royalty Trust**  
**Present Value**

Volume Decline (%/yr):	10	Price Escalation Post 2007 (%/yr):	2.9										
Volume Enhancement (%/yr):	10	Discount rate (%/yr):	6.6										
Capex/Cash Flow (%):	30	U.S. TIPS Inflation (%/yr):	2.1										
Variable Cost (%):	17	U.S. 10 Year Yield (%/yr):	5.2										
PV/Volume (\$/mcf):	1.27	PV/EBITDA 2002:	11.4										
Year	Basic (bcf)	Volume Enhanced (bcf)	Total (bcf)	Price (\$/mcf)	Revenue (\$mm)	Fixed Cost (\$mm)	Var Cost (\$mm)	Cap Ex (\$mm)	Distribution (\$mm)	Tax Credit (\$/unit)	Disc Factor	Present Value (\$/unit)	
Total 2002 through 2031													
2002	30.4	0.0	30.4	2.99	90.9	14.5	15.4	18.3	42.6	1.06	0.02	0.97	1.05
2003	27.3	3.0	30.4	3.79	115.1	14.5	19.6	24.3	56.7	1.42		0.91	1.29
2004	24.6	5.8	30.4	3.75	113.9	14.5	19.4	24.0	56.0	1.40		0.85	1.19
2005	22.1	8.2	30.4	3.71	112.5	14.5	19.1	23.7	55.2	1.38		0.80	1.10
2006	19.9	10.4	30.4	3.73	113.1	14.5	19.2	23.8	55.6	1.39		0.75	1.04
2007	17.9	12.4	30.4	3.79	114.9	14.5	19.5	24.3	56.6	1.42		0.70	1.00
2008	16.1	14.2	30.4	3.89	118.2	14.5	20.1	25.1	58.5	1.46		0.66	0.97
2009	14.5	15.8	30.4	4.01	121.6	14.5	20.7	25.9	60.5	1.51		0.62	0.94
2010	13.1	17.3	30.4	4.12	125.1	14.5	21.3	26.8	62.5	1.56		0.58	0.91
2011	11.8	18.6	30.4	4.24	128.6	14.5	21.9	27.7	64.6	1.61		0.55	0.88
2012	10.6	16.7	27.3	4.36	119.1	14.5	20.2		84.3	2.11		0.51	1.08
2013	9.5	15.1	24.6	4.48	110.2	14.5	18.7		77.0	1.92		0.48	0.93
2014	8.6	13.6	22.1	4.61	102.1	14.5	17.4		70.2	1.75		0.45	0.79
2015	7.7	12.2	19.9	4.74	94.5	14.5	16.1		63.9	1.60		0.42	0.68
2016	6.9	11.0	17.9	4.88	87.5	14.5	14.9		58.1	1.45		0.40	0.58
2017	6.2	9.9	16.1	5.02	81.0	14.5	13.8		52.7	1.32		0.37	0.49
2018	5.6	8.9	14.5	5.16	75.0	14.5	12.7		47.7	1.19		0.35	0.42
2019	5.1	8.0	13.1	5.31	69.4	14.5	11.8		43.1	1.08		0.33	0.35
2020	4.6	7.2	11.8	5.46	64.2	14.5	10.9		38.8	0.97		0.31	0.30
2021	4.1	6.5	10.6	5.62	59.5	14.5	10.1		34.8	0.87		0.29	0.25
2022	3.7	5.8	9.5	5.78	55.1	14.5	9.4		31.2	0.78		0.27	0.21
2023	3.3	5.3	8.6	5.94	51.0	14.5	8.7		27.8	0.69		0.25	0.18
2024	3.0	4.7	7.7	6.11	47.2	14.5	8.0		24.6	0.62		0.24	0.15
2025	2.7	4.3	6.9	6.29	43.7	14.5	7.4		21.7	0.54		0.22	0.12
2026	2.4	3.8	6.2	6.47	40.4	14.5	6.9		19.0	0.48		0.21	0.10
2027	2.2	3.4	5.6	6.65	37.4	14.5	6.4		16.5	0.41		0.20	0.08
2028	2.0	3.1	5.1	6.85	34.7	14.5	5.9		14.2	0.36		0.19	0.07
2029	1.8	2.8	4.6	7.04	32.1	14.5	5.5		12.1	0.30		0.17	0.05
2030	1.6	2.5	4.1	7.24	29.7	14.5	5.0		10.1	0.25		0.16	0.04
2031	1.4	2.3	3.7	7.45	27.5	14.5	4.7		8.3	0.21		0.15	0.03

Analyses are prepared from original sources and data believed to be reliable, but no representation is made as to their accuracy or completeness. Independent energy investment analysis by Kurt Wulff doing business as McDep Associates is posted at [www.mcdep.com](http://www.mcdep.com). Mr. Wulff is not paid by covered companies. Owning shares in energy stocks, neither Mr. Wulff nor his spouse act contrary to a buy or sell rating.

# Natural Gas Royalty Trusts

## A Weekly Analysis

May 13, 2002

Table HGT-2  
Hugoton Royalty Trust  
Distributable Income

	<i>Q2</i> 6/30/01	<i>Q3</i> 9/30/01	<i>Q4</i> 12/31/01	<i>Year</i> 2001	<i>Q1E</i> 3/31/02	<i>Q2E</i> 6/30/02	<i>Q3E</i> 9/30/02	<i>Q4E</i> 12/31/02	<i>Year</i> 2002E	<i>Q1E</i> 3/31/03	<i>Next Twelve Months</i> 3/31/03
<b>Highlights</b>											
Revenue (\$mm) (80%)	39.5	27.9	18.5	134.7	18.6	19.6	26.1	26.5	90.9	29.4	101.7
Cash flow (\$mm) (80%)	30.5	20.4	12.9	103.2	11.6	12.4	18.2	18.5	60.8	21.2	70.3
Per unit	0.76	0.51	0.32	2.58	0.29	0.31	0.45	0.46	1.52	0.53	1.76
Tax credit (\$mm)	0.2	0.2	0.2	0.7	0.2	0.2	0.2	0.2	0.7		0.5
Per unit	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.02		0.01
Distributable Income (\$mm)	21.7	15.3	8.5	79.1	7.4	7.8	13.5	13.9	42.6	16.5	51.7
Per unit	0.54	0.38	0.21	1.98	0.18	0.20	0.34	0.35	1.06	0.41	1.29
<b>Units (millions)</b>	<b>40.0</b>	<b>40.0</b>	<b>40.0</b>	<b>40.0</b>	<b>40.0</b>	<b>40.0</b>	<b>40.0</b>	<b>40.0</b>	<b>40.0</b>	<b>40.0</b>	<b>40.0</b>
<b>Volume</b>											
Natural Gas (bcf)	8.7	9.2	9.5	36.6	9.0	8.7	9.0	9.0	35.7	9.0	35.7
Natural Gas (mmcfd)	97.8	99.8	103.5	100.3	98.1	97.8	97.8	97.8	97.9	97.8	97.8
Days	89	92	92	365	92	89	92	92	365	92	365
Oil (mb)	102	101	95	394	94	90	92	91	368	91	365
Oil (mbd)	1.1	1.1	1.0	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Days	89	92	92	365	92	89	92	92	365	92	365
Total (bcf)	9.3	9.8	10.1	39.0	9.6	9.2	9.6	9.5	37.9	9.5	37.9
<b>Price</b>											
Natural Gas (HH lagged two months)											
Henry Hub (\$/mmbtu)	5.30	3.67	2.53	4.77	2.34	2.92	3.73	3.80	3.20	4.26	3.68
Differential (\$/mmbtu)	(0.03)	0.16	0.35	0.46	(0.03)	0.35	0.37	0.38	0.26	0.43	0.38
HGT (\$/mcf)	5.34	3.51	2.18	4.30	2.38	2.57	3.35	3.42	2.93	3.84	3.30
Oil (\$/bbl) (WTI Cushing lagged two months)											
WTI Cushing	28.09	27.56	25.28	27.94	19.56	23.80	27.45	26.43	24.31	25.81	25.87
HGT	28.37	26.56	25.02	27.60	19.06	23.30	26.95	25.93	23.78	25.31	25.38
Total (\$/mcf)	5.30	3.57	2.30	4.32	2.43	2.65	3.42	3.47	2.99	3.86	3.35
<b>Revenue (\$mm)</b>											
Natural Gas	46.4	32.3	20.8	157.5	21.5	22.4	30.2	30.8	104.8	34.5	117.8
Oil	2.9	2.7	2.4	10.9	1.8	2.1	2.5	2.4	8.8	2.3	9.3
Total	49.3	34.9	23.2	168.4	23.3	24.5	32.7	33.1	113.6	36.8	127.1
<b>Cost (\$mm)</b>											
Tax, transport & other	5.0	3.3	2.1	15.4	2.3	2.4	3.3	3.3	11.4	3.7	12.7
Production	4.3	4.2	2.8	16.1	4.4	4.6	4.8	4.8	18.6	4.8	18.9
Overhead	1.9	2.0	2.2	7.9	2.0	1.8	1.9	1.9	7.7	1.9	7.6
Total	11.2	9.4	7.1	39.4	8.7	8.9	10.0	10.0	37.6	10.4	39.2
<b>Cash flow (\$mm)</b>											
Development	11.0	6.3	5.5	29.9	5.8	5.7	5.7	5.7	22.9	5.7	22.8
Net proceeds (\$mm)	27.2	19.2	10.6	99.1	8.8	9.9	17.0	17.4	53.1	20.7	65.1
<b>Royalty income (\$mm)</b>											
Royalty/Net proceeds	21.7	15.4	8.5	79.3	7.0	7.9	13.6	14.0	42.5	16.6	52.1
Administration	0.0	0.1	0.0	0.2	(0.3)	0.1	0.1	0.1	(0.1)	0.1	0.3
<b>Distributable income (\$mm)</b>											
Cost ratios	21.7	15.3	8.5	79.1	7.4	7.8	13.5	13.9	42.6	16.5	51.7
Tax and other/revenue	10%	9%	9%	9%	10%	10%	10%	10%	10%	10%	10%
Production cost (\$/mcf)	0.46	0.42	0.28	0.41	0.46	0.50	0.50	0.50	0.49	0.50	0.50
Overhead cost (\$/mcf)	0.21	0.20	0.22	0.20	0.21	0.20	0.20	0.20	0.20	0.20	0.20
Development/Cash flow	0.29	0.25	0.34	0.23	0.40	0.37	0.25	0.25	0.30	0.22	0.26

Analyses are prepared from original sources and data believed to be reliable, but no representation is made as to their accuracy or completeness. Independent energy investment analysis by Kurt Wulff doing business as McDep Associates is posted at [www.mcdep.com](http://www.mcdep.com). Mr. Wulff is not paid by covered companies. Owning shares in energy stocks, neither Mr. Wulff nor his spouse act contrary to a buy or sell rating. 6

# Natural Gas Royalty Trusts

## A Weekly Analysis

May 13, 2002

**Table SJT-1**  
**San Juan Basin Royalty Trust**  
**Present Value**

Volume Decline (%/yr):	10	Price Escalation Post 2007 (%/yr):	2.9									
Volume Enhancement (%/yr):	10	Discount rate (%/yr):	6.6									
Capex/Cash Flow (%):	25	U.S. TIPS Inflation (%/yr):	2.1									
Variable Cost (%):	11	U.S. 10 Year Yield (%/yr):	5.2									
PV/Volume (\$/mcf):	1.33	PV/EBITDA 2002:	12.5									
Year	Basic (bcf)	Volume Enhanced (bcf)	Total (bcf)	Price (\$/mcf)	Revenue (\$mm)	Fixed Cost (\$mm)	Var Cost (\$mm)	Cap Ex (\$mm)	Distribution (\$mm)	Tax Credit (\$/unit)	Disc Factor	Present Value (\$/unit)
Total 2002 through 2031												
	326	284	610	4.05	2474	417	272	235	1551	33.27	0.12	0.52
2002	34.1	0.0	34.1	2.60	88.5	13.9	9.7	23.2	41.7	0.89	0.12	0.97
2003	30.7	3.4	34.1	3.46	118.1	13.9	13.0	22.8	68.4	1.47	0.12	0.91
2004	27.6	6.5	34.1	3.43	116.9	13.9	12.9	22.5	67.6	1.45	0.12	0.85
2005	24.9	9.2	34.1	3.39	115.5	13.9	12.7	22.2	66.7	1.43	0.12	0.80
2006	22.4	11.7	34.1	3.41	116.1	13.9	12.8	22.4	67.1	1.44	0.12	0.75
2007	20.1	14.0	34.1	3.46	118.0	13.9	13.0	22.8	68.3	1.47	0.12	0.70
2008	18.1	16.0	34.1	3.56	121.3	13.9	13.3	23.5	70.6	1.51	0.12	0.66
2009	16.3	17.8	34.1	3.66	124.8	13.9	13.7	24.3	72.9	1.56	0.12	0.62
2010	14.7	19.4	34.1	3.77	128.4	13.9	14.1	25.1	75.3	1.62	0.12	0.58
2011	13.2	20.9	34.1	3.87	132.0	13.9	14.5	25.9	77.7	1.67	0.12	0.55
2012	11.9	18.8	30.7	3.98	122.2	13.9	13.4		94.9	2.04	0.12	0.51
2013	10.7	16.9	27.6	4.10	113.2	13.9	12.4		86.8	1.86	0.12	0.48
2014	9.6	15.2	24.9	4.22	104.8	13.9	11.5		79.4	1.70	0.12	0.45
2015	8.7	13.7	22.4	4.34	97.0	13.9	10.7		72.4	1.55	0.12	0.42
2016	7.8	12.3	20.1	4.46	89.8	13.9	9.9		66.0	1.42	0.12	0.40
2017	7.0	11.1	18.1	4.59	83.1	13.9	9.1		60.1	1.29	0.12	0.37
2018	6.3	10.0	16.3	4.72	76.9	13.9	8.5		54.6	1.17	0.12	0.35
2019	5.7	9.0	14.7	4.85	71.2	13.9	7.8		49.5	1.06	0.12	0.33
2020	5.1	8.1	13.2	4.99	65.9	13.9	7.3		44.8	0.96	0.12	0.31
2021	4.6	7.3	11.9	5.14	61.0	13.9	6.7		40.4	0.87	0.12	0.29
2022	4.1	6.6	10.7	5.28	56.5	13.9	6.2		36.4	0.78	0.12	0.27
2023	3.7	5.9	9.6	5.43	52.3	13.9	5.8		32.7	0.70	0.12	0.25
2024	3.4	5.3	8.7	5.59	48.4	13.9	5.3		29.2	0.63	0.12	0.24
2025	3.0	4.8	7.8	5.75	44.8	13.9	4.9		26.0	0.56	0.12	0.22
2026	2.7	4.3	7.0	5.91	41.5	13.9	4.6		23.1	0.49	0.12	0.21
2027	2.4	3.9	6.3	6.08	38.4	13.9	4.2		20.3	0.44	0.12	0.20
2028	2.2	3.5	5.7	6.26	35.6	13.9	3.9		17.8	0.38	0.12	0.19
2029	2.0	3.1	5.1	6.44	32.9	13.9	3.6		15.4	0.33	0.12	0.17
2030	1.8	2.8	4.6	6.62	30.5	13.9	3.4		13.2	0.28	0.12	0.16
2031	1.6	2.5	4.1	6.81	28.2	13.9	3.1		11.2	0.24	0.12	0.15

Analyses are prepared from original sources and data believed to be reliable, but no representation is made as to their accuracy or completeness. Independent energy investment analysis by Kurt Wulff doing business as McDep Associates is posted at [www.mcdep.com](http://www.mcdep.com). Mr. Wulff is not paid by covered companies. Owning shares in energy stocks, neither Mr. Wulff nor his spouse act contrary to a buy or sell rating.

# Natural Gas Royalty Trusts

## A Weekly Analysis

May 13, 2002

Table SJT-2  
San Juan Basin Royalty Trust  
Distributable Income

	<i>Q2</i> 6/30/01	<i>Q3</i> 9/30/01	<i>Q4</i> 12/31/01	<i>Year</i> 2001	<i>Q1E</i> 3/31/02	<i>Q2E</i> 6/30/02	<i>Q3E</i> 9/30/02	<i>Q4E</i> 12/31/02	<i>Year</i> 2002E	<i>Q1E</i> 3/31/03	<i>Next Twelve Months</i> 3/31/03
<b>Highlights</b>											
Revenue (\$mm) (75%)	38.7	25.5	14.8	128.5	19.1	17.5	25.7	26.2	88.5	29.3	98.7
Cash flow (\$mm) (75%)	31.9	20.0	10.1	104.3	14.1	12.8	20.3	20.7	67.8	23.5	77.2
Per unit	0.69	0.43	0.22	2.24	0.30	0.27	0.43	0.44	1.45	0.50	1.66
Tax credit (\$mm)	1.9	1.4	1.4	6.5	1.4	1.4	1.4	1.4	5.6		4.2
Per unit	0.04	0.03	0.03	0.14	0.03	0.03	0.03	0.03	0.12		0.09
Distributable Income (\$mm)	26.3	13.7	2.9	80.1	3.5	7.8	15.0	15.3	41.7	17.4	55.6
Per unit	0.56	0.29	0.06	1.72	0.08	0.17	0.32	0.33	0.89	0.37	1.19
<b>Units (millions)</b>	<b>46.6</b>	<b>46.6</b>	<b>46.6</b>	<b>46.6</b>	<b>46.6</b>	<b>46.6</b>	<b>46.6</b>	<b>46.6</b>	<b>46.6</b>	<b>46.6</b>	<b>46.6</b>
<b>Volume</b>											
Natural gas (mmbtu)	11.3	11.9	11.3	46.4	12.5	11.5	11.9	11.9	47.9	11.9	47.3
Heat Content(btu/cf)	1,095	1,070	1,106	1,080	1,092	1,057	1,057	1,057	1,066	1,057	1,057
Natural gas (bcf)	10.4	11.1	10.2	43.0	11.5	10.9	11.3	11.3	45.0	11.3	44.8
Natural Gas (mmcfld)	116.4	120.6	111.4	117.7	124.7	122.7	122.7	122.7	123.2	122.7	122.7
Days	89	92	92	365	92	89	92	92	365	92	365
Oil (mb)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Oil (mbd)	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Total gas & oil (bcf)	10.5	11.2	10.4	43.5	11.6	11.0	11.4	11.4	45.5	11.4	45.3
<b>Price</b>											
Natural gas (\$/mmbtu) (Henry Hub lagged two months)											
Henry Hub (\$/mmbtu)	5.30	3.67	2.53	4.77	2.34	2.92	3.73	3.80	3.20	4.26	3.68
Differential (%)	15	23	33	24	14	32	24	24	24	24	25
Total	4.49	2.82	1.69	3.65	2.01	1.99	2.83	2.89	2.43	3.24	2.74
Natural gas (\$/mcf)	4.92	3.02	1.87	3.94	2.20	2.10	2.99	3.05	2.59	3.42	2.90
Oil (\$/bbl) (WTI Cushing lagged two months)											
WTI Cushing	28.09	27.56	25.28	27.43	19.56	23.80	27.45	26.43	24.31	25.81	25.87
SJT	24.60	23.72	24.49	24.99	15.56	19.80	23.45	22.43	20.31	21.81	21.89
Total gas & oil (\$/mcf)	4.91	3.03	1.90	3.94	2.20	2.11	3.00	3.06	2.60	3.43	2.91
<b>Revenue (\$mm)</b>											
Natural Gas	50.9	33.5	19.2	169.1	25.2	22.9	33.8	34.5	116.4	38.6	129.8
Oil	0.6	0.5	0.5	2.3	0.3	0.4	0.5	0.5	1.6	0.4	1.8
Total	51.6	34.0	19.7	171.4	25.5	23.3	34.3	34.9	118.0	39.1	131.6
<b>Cost (\$mm)</b>											
Severance tax	5.2	3.7	2.1	17.4	2.6	2.3	3.4	3.5	11.8	3.9	13.1
Operating	3.8	3.7	4.2	14.9	4.1	4.0	3.8	3.8	15.8	3.8	15.5
Total	9.0	7.3	6.2	32.3	6.7	6.3	7.3	7.3	27.6	7.7	28.6
<b>Cash flow (\$mm)</b>											
Development	7.1	8.1	11.5	33.0	11.3	6.0	6.8	6.9	31.0	7.8	27.5
Net proceeds (\$mm)	35.5	18.6	1.9	106.1	7.5	11.0	20.3	20.7	59.4	23.5	75.5
<b>Royalty income (\$mm)</b>											
Royalty/Net proceeds	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	3.0
Administration	0.4	0.3	(1.5)	(0.6)	2.1	0.4	0.2	0.2	2.9	0.2	1.0
One-time				-					-	-	-
<b>Distributable income (\$mm)</b>											
<i>Modeling ratios</i>											
Severance tax/revenue	10.0%	10.7%	10.5%	10.2%	10.2%	9.8%	10.0%	10.0%	10.0%	10.0%	10.0%
Operating cost (\$/mcf)	0.36	0.33	0.40	0.34	0.36	0.36	0.34	0.34	0.35	0.34	0.34

Analyses are prepared from original sources and data believed to be reliable, but no representation is made as to their accuracy or completeness. Independent energy investment analysis by Kurt Wulff doing business as McDep Associates is posted at [www.mcdep.com](http://www.mcdep.com). Mr. Wulff is not paid by covered companies. Owning shares in energy stocks, neither Mr. Wulff nor his spouse act contrary to a buy or sell rating. 8

# Natural Gas Royalty Trusts

A Weekly Analysis

May 13, 2002

**Table SJT-3**  
**San Juan Basin Royalty Trust**  
**Monthly Declarations**

	<i>Feb-02</i>	<i>Mar-02</i>	<i>Apr-02</i>	<i>May-02</i>	<i>Jun-02</i>	<i>Jul-02</i>
<b>Distribution (\$/unit)</b>						
Declared	0.01	0.06	0.01			
<i>Projected</i>				0.06	0.09	0.08
<b>Volume</b>						
Natural gas (mmbtu)	4.46	4.19	3.82	3.92	3.80	3.92
Heat Content(btu/cf)	1,099	1,087	1,057	1,057	1,057	1,057
Natural gas (bcf)	4.05	3.86	3.62	3.71	3.59	3.71
Natural Gas (mmcfd)	131	124	129	120	120	120
Days	31	31	28	31	30	31
<b>Price</b>						
Natural gas industry quotes lagged two months (\$/mmbtu)						
Henry Hub Daily/Futures	2.41	2.25	2.31	3.03	3.42	3.75
San Juan Monthly Index	2.32	2.42	1.81	2.14	3.04	2.39
SJT/Henry Hub	0.77	0.92	0.62	0.64	0.75	0.58
SJT/San Juan Index	0.80	0.86	0.80	0.91	0.85	0.91
SJT (\$/mmbtu)	1.86	2.08	1.44	1.95	2.58	2.17
SJT (\$/mcf)	2.04	2.26	1.52	2.06	2.72	2.30
<b>Revenue (\$mm)</b>						
Natural Gas	8.3	8.7	5.5	7.6	9.8	8.5
Other	(0.5)	(0.2)	(0.1)	(0.1)	(0.1)	(0.1)
<b>Cost (\$mm)</b>						
Severance tax	0.9	0.9	0.5	0.8	1.0	0.9
Operating	1.5	1.2	1.4	1.3	1.3	1.3
Total	2.3	2.1	1.8	2.1	2.3	2.2
<b>Cash flow (\$mm)</b>	5.5	6.4	3.6	5.5	7.4	6.3
Development	4.8	2.4	3.0	1.5	1.5	1.5
<b>Net proceeds (\$mm)</b>	0.7	4.0	0.6	4.0	5.9	4.8
<b>Royalty income (\$mm)</b>	0.5	3.0	0.5	3.0	4.4	3.6
Royalty/Net proceeds	75%	75%	75%	75%	75%	75%
<b>Distributable income (\$mm)</b>	0.5	3.0	0.5	3.0	4.4	3.6
<b>Units (millions)</b>	46.6	46.6	46.6	46.6	46.6	46.6
<i>Latest Twelve Month Average</i>						
Heat Content(btu/cf)	1,088	1,090	1,088			
Natural Gas (mmcfd)	118	118	120			
SJT/Henry Hub	0.79	0.79	0.76			
SJT/San Juan Index	0.84	0.85	0.84			
Other revenue	0.0	0.0	0.0			
Operating	1.3	1.3	1.3			
Development	3.1	3.2	3.3			
Severance tax/revenue	10.4%	10.5%	10.4%			

Analyses are prepared from original sources and data believed to be reliable, but no representation is made as to their accuracy or completeness. Independent energy investment analysis by Kurt Wulff doing business as McDep Associates is posted at [www.mcdep.com](http://www.mcdep.com). Mr. Wulff is not paid by covered companies. Owning shares in energy stocks, neither Mr. Wulff nor his spouse act contrary to a buy or sell rating.