

## Natural Gas Royalty Trusts

A Weekly Analysis

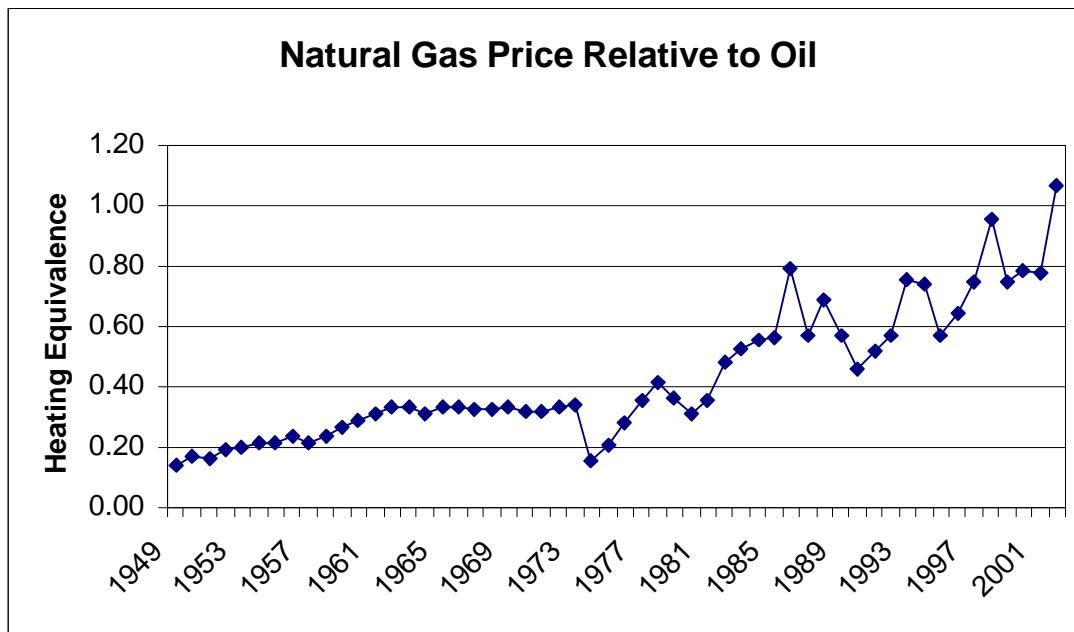
December 23, 2002

# Transition to Premium Price

## Summary and Recommendation

At the same time we are looking for higher oil price this decade, we are also looking for natural gas to be valued increasingly at a premium to oil. Applying our interpretation to government data we show Louisiana Natural Gas advancing from a 0.14 ratio to Light Sweet Crude Oil in 1949 to 1.07 in 2002 (see Chart). Looking ahead, the Natural Gas/Oil ratio implied by six-year futures is 1.02 (see Table). We think that ratio should be more like 1.2 in a few more years. Pure representations in the commodity, Natural Gas Royalty Trusts are a favored means to invest in the rising value of clean energy. Meanwhile latest declarations of monthly distributions per unit included a positive surprise of a non-recurring payment of \$0.08 per unit of the \$0.23 declared by **Cross Timbers Royalty Trust (CRT)**. **Hugoton Royalty Trust (HGT)** volumes continue shy of expectations and we have scaled back our projections slightly. Recommended **San Juan Basin Royalty Trust (SJT)** declared \$0.09 per unit that was close to our estimate of \$0.10 considering how much monthly details fluctuate. Those disclosures are cranked into our latest calculations that take Present Value up a median 1% for the week and Next Twelve Months Distributions also up a median 1% for the week.

Kurt H. Wulff, CFA



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### Natural Gas and Oil Futures

December 19, 2002

	2003	2004	2005	2006	2007	2008	Six Year
Natural Gas (\$/mmbtu)							
Year ending December	4.53	4.10	3.86	3.82	3.90	3.94	4.03
Light Sweet Crude Oil (\$/bbl)							
Year ending December	27.47	23.76	23.02	22.79	22.63	22.48	23.69
Natural Gas/Oil (6:1 = 1.0)							
Year ending December	0.99	1.03	1.01	1.01	1.03	1.05	1.02

Source: Nymex, FutureSource, wsj.com, McDep Associates

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

		Price (\$/sh)		Market	Net		
	Symbol/ Rating	19-Dec 2002	Shares (mm)	Cap (\$mm)	Present Value (\$/sh)	Debt/ Present Value	McDep Ratio
Cross Timbers Royalty Trust	CRT	19.21	6.0	115	20.30	-	0.94
San Juan Basin Royalty Trust	SJT	B	46.6	630	16.50	-	0.82
Hugoton RoyaltyTrust (46%)	HGT	12.68	18.4	230	16.00	-	0.79

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

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

		Price (\$/sh)		Dividend or Distribution		PV/ Ebitda
	Symbol/ Rating	19-Dec 2002	EV/ Sales NTM	EV/ Ebitda NTM	P/E NTM	NTM (%)
Cross Timbers Royalty Trust	CRT	19.21	6.2	8.6	9	10.8
San Juan Basin Royalty Trust	SJT	B	5.2	6.4	9	11.7
Hugoton RoyaltyTrust (46%)	HGT	12.68	4.6	6.3	9	11.4

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

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

Volume Decline (%/yr):	10	Price Escalation post 2008 (%/yr):	2.4								
Volume Enhancement (%/yr):	10	Discount Rate (%/yr):	5.4								
		U.S. TIPS Inflation (%/yr):	1.6								
		U.S. 10 Year Yield (%/yr):	4.0								
PV/Volume (\$/mcf):	2.66	PV/EBITDA 2003:	9.3								
Year	Natural Gas Volume			Oil	Tax	Present					
	Basic (bcf)	Enhanced (bcf)	Total (bcf)	Revenue (\$/mcf)	Net (\$mm)	Distribution (\$mm)	Credit (\$/unit)	Disc Factor	Value (\$/unit)		
Total 2003 through 2032; years ending on 12/31	26	20	46	4.32	198	2	200	33.34	0.00	0.61	20.30
2003	2.7	0.0	2.7	4.32	11.6	0.8	12.5	2.08	0.00	0.97	2.02
2004	2.4	0.3	2.7	3.95	10.6	0.5	11.1	1.85		0.92	1.71
2005	2.2	0.5	2.7	3.70	10.0	0.3	10.3	1.71		0.88	1.50
2006	2.0	0.7	2.7	3.62	9.8	0.2	9.9	1.66		0.83	1.38
2007	1.8	0.9	2.7	3.69	9.9	0.1	10.0	1.67		0.79	1.32
2008	1.6	1.1	2.7	3.74	10.1	0.0	10.1	1.68		0.75	1.26
2009	1.4	1.3	2.7	3.83	10.3	0.0	10.3	1.72		0.71	1.22
2010	1.3	1.4	2.7	3.92	10.6	0.0	10.5	1.75		0.67	1.18
2011	1.2	1.5	2.7	4.02	10.8		10.8	1.80		0.64	1.15
2012	1.0	1.4	2.4	4.12	10.0		10.0	1.66		0.61	1.01
2013	0.9	1.2	2.2	4.21	9.2		9.2	1.53		0.58	0.88
2014	0.8	1.1	2.0	4.32	8.5		8.5	1.41		0.55	0.77
2015	0.8	1.0	1.8	4.42	7.8		7.8	1.30		0.52	0.68
2016	0.7	0.9	1.6	4.53	7.2		7.2	1.20		0.49	0.59
2017	0.6	0.8	1.4	4.64	6.6		6.6	1.11		0.47	0.52
2018	0.6	0.7	1.3	4.75	6.1		6.1	1.02		0.44	0.45
2019	0.5	0.7	1.2	4.87	5.6		5.6	0.94		0.42	0.40
2020	0.4	0.6	1.0	4.98	5.2		5.2	0.87		0.40	0.35
2021	0.4	0.5	0.9	5.10	4.8		4.8	0.80		0.38	0.30
2022	0.4	0.5	0.8	5.23	4.4		4.4	0.74		0.36	0.26
2023	0.3	0.4	0.8	5.35	4.1		4.1	0.68		0.34	0.23
2024	0.3	0.4	0.7	5.48	3.8		3.8	0.63		0.32	0.20
2025	0.3	0.4	0.6	5.62	3.5		3.5	0.58		0.31	0.18
2026	0.2	0.3	0.6	5.75	3.2		3.2	0.53		0.29	0.15
2027	0.2	0.3	0.5	5.89	2.9		2.9	0.49		0.28	0.14
2028	0.2	0.3	0.4	6.03	2.7		2.7	0.45		0.26	0.12
2029	0.2	0.2	0.4	6.18	2.5		2.5	0.42		0.25	0.10
2030	0.2	0.2	0.4	6.33	2.3		2.3	0.38		0.24	0.09
2031	0.1	0.2	0.3	6.48	2.1		2.1	0.35		0.22	0.08
2032	0.1	0.2	0.3	6.64	2.0		2.0	0.33		0.21	0.07

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# Natural Gas Royalty Trusts

## A Weekly Analysis

December 23, 2002

**Table CRT-2**  
**Cross Timbers Royalty Trust**  
**Distributable Income**

	Q1 3/31/02	Q2 6/30/02	Q3 9/30/02	Q4E 12/31/02	Year 2002E	Q1E 3/31/03	Q2E 6/30/03	Q3E 9/30/03	Q4E 12/31/03	Next Twelve Months 12/31/03
<b>Highlights</b>										
Tax credit (\$mm)										
Per unit	0.03	0.02	0.03	0.03	0.10					
Distributable Income (\$mm)	1.80	1.72	2.49	2.80	8.82	3.05	3.36	2.95	3.11	12.46
Per unit	0.30	0.29	0.42	0.47	1.47	0.51	0.56	0.49	0.52	2.08
<b>Units (millions)</b>	<b>6.0</b>	<b>6.0</b>	<b>6.0</b>	<b>6.0</b>	<b>6.0</b>	<b>6.0</b>	<b>6.0</b>	<b>6.0</b>	<b>6.0</b>	<b>6.0</b>
<b>Volume</b>										
Natural Gas (bcf)	0.78	0.71	0.77	0.75	3.01	0.75	0.74	0.75	0.75	2.99
Natural Gas (mmcfd)	8.5	7.8	8.4	8.2	8.2	8.2	8.2	8.2	8.2	8.2
Days	92	90	91	92	365	92	90	91	92	365
Oil (mb)	83	82	82	82	330	81	78	80	79	318
Oil (mbd)	0.90	0.93	0.89	0.89	0.90	0.88	0.87	0.87	0.86	0.87
Days	92	89	92	92	365	92	89	92	92	365
Total (bcf)	1.28	1.20	1.26	1.25	4.98	1.24	1.20	1.22	1.23	4.90
<b>Price</b>										
Natural Gas (HH lagged three months)										
Henry Hub (\$/mmbtu)	2.41	2.53	3.38	3.21	2.88	4.31	5.00	4.36	4.33	4.50
Differential (\$/mmbtu)	(0.13)	(0.04)	0.33	0.13	0.07	0.17	0.20	0.17	0.17	0.18
CRT (\$/mcf)	2.54	2.57	3.05	3.08	2.81	4.14	4.80	4.19	4.16	4.32
Oil (\$/bbl) (WTI lagged two months)										
WTI Cushing	19.56	23.80	26.49	28.96	24.70	28.60	29.60	27.41	30.18	28.95
CRT	17.28	20.50	24.79	26.96	22.37	26.60	27.60	25.41	28.18	26.94
Total (\$/mcf)	2.67	2.92	3.47	3.64	3.18	4.25	4.73	4.21	4.37	4.39
<b>Revenue (\$mm)</b>										
Natural Gas	1.98	1.82	2.33	2.32	8.46	3.12	3.55	3.13	3.14	12.93
Oil	1.44	1.69	2.03	2.21	7.37	2.16	2.15	2.02	2.22	8.55
Total	3.42	3.50	4.37	4.54	15.83	5.28	5.69	5.15	5.36	21.48
<b>Cost (\$mm)</b>										
Tax, transport & other	0.34	0.51	0.60	0.64	2.09	0.74	0.80	0.72	0.75	3.01
Production	0.75	0.72	0.79	0.79	3.05	0.79	0.79	0.79	0.79	3.16
Total	1.09	1.23	1.40	1.43	5.14	1.53	1.59	1.51	1.54	6.17
<b>Cash flow (\$mm)</b>										
Development	0.28	0.14	0.08	0.20	0.71	0.20	0.20	0.20	0.20	0.80
Excess or other	(0.07)	0.07		(0.48)	(0.48)					
<b>Net proceeds (\$mm)</b>	<b>2.11</b>	<b>2.06</b>	<b>2.89</b>	<b>3.39</b>	<b>10.46</b>	<b>3.55</b>	<b>3.90</b>	<b>3.44</b>	<b>3.62</b>	<b>14.51</b>
<b>Royalty income (\$mm)</b>										
Royalty/Net proceeds	1.88	1.82	2.53	2.95	9.18	3.09	3.40	2.99	3.15	12.62
Administration	0.08	0.09	0.04	0.15	0.35	0.04	0.04	0.04	0.04	0.16
<b>Distributable income (\$mm)</b>	<b>1.80</b>	<b>1.72</b>	<b>2.49</b>	<b>2.80</b>	<b>8.82</b>	<b>3.05</b>	<b>3.36</b>	<b>2.95</b>	<b>3.11</b>	<b>12.46</b>
<i>Modeling ratios</i>										
Tax and other/revenue	0.10	0.15	0.14	0.14	0.13	0.14	0.14	0.14	0.14	0.14

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# Natural Gas Royalty Trusts

## A Weekly Analysis

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

Volume Decline (%/yr):	10	Price Escalation Post 2008 (%/yr):	2.4
Volume Enhancement (%/yr):	10	Discount rate (%/yr):	6.0
Capex/Cash Flow (%):	30	U.S. TIPS Inflation (%/yr):	1.6
Variable Cost (%):	17	U.S. 10 Year Yield (%/yr):	4.0

PV/Volume (\$/mcf):	1.34	PV/EBITDA 2003:	8.1
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Year	Volume Basic (bcf)	Volume Enhanced (bcf)	Total (bcf)	Price (\$/mcf)	Revenue (\$mm)	Fixed Cost (\$mm)	Var Cost (\$mm)	Cap Ex (\$mm)	Distribution (\$mm) (\$/unit)	Tax Credit (\$/unit)	Disc Factor	Present Value (\$/unit)
Total 2003 through 2032; years ending on 12/31												
	269	209	478	4.21	2011	355	342	203	1111	27.79	0.00	0.58
2003	28.4	0.0	28.4	3.88	110.0	11.8	18.7	21.9	57.6	1.44	0.00	0.97
2004	25.5	2.8	28.3	3.87	109.5	11.8	18.6	23.7	55.4	1.38	0.00	0.92
2005	22.9	5.4	28.3	3.62	102.6	11.8	17.4	22.0	51.3	1.28	0.00	0.86
2006	20.6	7.7	28.3	3.55	100.3	11.8	17.0	21.4	50.0	1.25	0.00	0.82
2007	18.5	9.7	28.2	3.61	102.1	11.8	17.4	21.9	51.0	1.28	0.00	0.77
2008	16.7	11.6	28.2	3.66	103.3	11.8	17.6	22.2	51.8	1.29	0.00	0.73
2009	15.0	13.2	28.2	3.75	105.7	11.8	18.0	22.8	53.1	1.33	0.00	0.69
2010	13.5	14.7	28.2	3.84	108.2	11.8	18.4	23.4	54.6	1.36	0.00	0.65
2011	12.1	16.0	28.1	3.93	110.7	11.8	18.8	24.0	56.0	1.40	0.00	0.61
2012	10.9	14.4	25.3	4.03	101.9	11.8	17.3	22.8	52.8	1.32	0.00	0.58
2013	9.8	13.0	22.7	4.13	93.8	11.8	16.0	22.8	53.1	1.33	0.00	0.54
2014	8.8	11.7	20.4	4.23	86.4	11.8	14.7	22.8	59.9	1.50	0.00	0.51
2015	7.9	10.5	18.4	4.33	79.5	11.8	13.5	22.8	54.2	1.36	0.00	0.48
2016	7.1	9.4	16.5	4.43	73.2	11.8	12.5	22.8	49.0	1.22	0.00	0.46
2017	6.4	8.5	14.9	4.54	67.4	11.8	11.5	22.8	44.2	1.10	0.00	0.43
2018	5.7	7.6	13.4	4.65	62.1	11.8	10.6	22.8	39.7	0.99	0.00	0.41
2019	5.2	6.8	12.0	4.76	57.2	11.8	9.7	22.8	35.6	0.89	0.00	0.38
2020	4.6	6.2	10.8	4.88	52.6	11.8	8.9	22.8	31.9	0.80	0.00	0.36
2021	4.2	5.5	9.7	5.00	48.5	11.8	8.2	22.8	28.4	0.71	0.00	0.34
2022	3.8	5.0	8.7	5.12	44.6	11.8	7.6	22.8	25.2	0.63	0.00	0.32
2023	3.4	4.5	7.8	5.24	41.1	11.8	7.0	22.8	22.3	0.56	0.00	0.30
2024	3.0	4.0	7.0	5.37	37.8	11.8	6.4	22.8	19.6	0.49	0.00	0.29
2025	2.7	3.6	6.3	5.50	34.8	11.8	5.9	22.8	17.1	0.43	0.00	0.27
2026	2.5	3.2	5.7	5.63	32.1	11.8	5.5	22.8	14.8	0.37	0.00	0.25
2027	2.2	2.9	5.1	5.77	29.5	11.8	5.0	22.8	12.7	0.32	0.00	0.24
2028	2.0	2.6	4.6	5.91	27.2	11.8	4.6	22.8	10.8	0.27	0.00	0.23
2029	1.8	2.4	4.1	6.05	25.0	11.8	4.3	22.8	9.0	0.22	0.00	0.21
2030	1.6	2.1	3.7	6.20	23.1	11.8	3.9	22.8	7.3	0.18	0.00	0.20
2031	1.4	1.9	3.3	6.35	21.2	11.8	3.6	22.8	5.8	0.15	0.00	0.19
2032	1.3	1.7	3.0	6.50	19.5	11.8	3.3	22.8	4.4	0.11	0.00	0.18

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**Table HGT-2**  
**Hugoton Royalty Trust**  
**Distributable Income**

	Q1 3/31/02	Q2 6/30/02	Q3 9/30/02	Q4E 12/31/02	Year 2002E	Q1E 3/31/03	Q2E 6/30/03	Q3E 9/30/03	Q4E 12/31/03	Next Twelve Months 12/31/03
<b>Highlights</b>										
Revenue (\$mm) (80%)	18.5	16.5	19.7	19.0	73.7	28.4	28.5	26.6	26.4	110.0
Cash flow (\$mm) (80%)	12.0	10.1	13.2	12.8	48.3	20.8	21.0	19.1	19.0	79.8
Per unit	0.30	0.25	0.33	0.32	1.21	0.52	0.52	0.48	0.47	1.99
Tax credit (\$mm)	0.2	0.2	0.2	0.2	0.7					
Per unit	0.00	0.00	0.00	0.00	0.02					
Distributable Income (\$mm)	7.4	5.3	8.6	8.3	29.6	16.5	14.6	13.3	13.2	57.6
Per unit	0.18	0.13	0.22	0.21	0.74	0.41	0.36	0.33	0.33	1.44
<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>Volume</b>										
Natural Gas (bcf)	9.0	8.3	8.6	8.4	34.3	8.4	8.1	8.4	8.4	33.4
Natural Gas (mmcfd)	98.1	93.1	93.4	91.4	94.0	91.4	91.4	91.4	91.4	91.4
Days	92	89	92	92	365	92	89	92	92	365
Oil (mb)	90	88	90	90	358	89	85	87	86	346
Oil (mbd)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9
Days	92	89	92	92	365	92	89	92	92	365
Total (bcf)	9.6	8.8	9.1	8.9	36.5	8.9	8.6	8.9	8.9	35.5
<b>Price</b>										
Natural Gas (HH lagged two months)										
Henry Hub (\$/mmbtu)	2.34	2.92	3.23	3.59	3.02	4.62	4.80	4.32	4.31	4.51
Differential (\$/mmbtu)	(0.03)	0.67	0.64	1.06	0.58	0.69	0.72	0.65	0.65	0.68
HGT (\$/mcf)	2.38	2.25	2.60	2.52	2.44	3.93	4.08	3.67	3.67	3.84
Oil (\$/bbl) (WTI Cushing lagged two months)										
WTI Cushing	19.56	23.80	26.49	28.96	24.70	28.60	29.60	27.41	25.95	27.89
HGT	18.80	22.27	25.84	28.46	23.85	28.10	29.10	26.91	25.45	27.39
Total (\$/mcf)	2.42	2.33	2.70	2.66	2.53	3.98	4.12	3.72	3.70	3.88
<b>Revenue (\$mm)</b>										
Natural Gas	21.5	18.6	22.3	21.2	83.6	33.1	33.2	30.9	30.8	128.0
Oil	1.7	2.0	2.3	2.5	8.5	2.5	2.5	2.3	2.2	9.5
Total	23.2	20.6	24.6	23.8	92.2	35.6	35.7	33.2	33.0	137.5
<b>Cost (\$mm)</b>										
Tax, transport & other	1.7	1.9	2.2	2.4	8.2	3.6	3.6	3.3	3.3	13.7
Production	4.4	4.0	3.8	3.9	16.1	3.9	3.8	3.9	3.9	15.6
Overhead	2.0	2.0	2.1	1.5	7.6	2.1	2.1	2.1	2.1	8.4
Total	8.1	7.9	8.1	7.7	31.8	9.6	9.5	9.4	9.3	37.7
<b>Cash flow (\$mm)</b>										
Development	5.8	5.8	5.8	5.4	22.7	5.2	7.9	7.2	7.1	27.3
Net proceeds (\$mm)	9.3	6.9	10.7	10.7	37.6	20.8	18.3	16.7	16.6	72.4
<b>Royalty income (\$mm)</b>										
Royalty/Net proceeds	7.4	5.5	8.6	8.5	30.1	16.6	14.7	13.4	13.3	57.9
Administration	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
<b>Distributable income (\$mm)</b>	<b>7.4</b>	<b>5.3</b>	<b>8.6</b>	<b>8.3</b>	<b>29.6</b>	<b>16.5</b>	<b>14.6</b>	<b>13.3</b>	<b>13.2</b>	<b>57.6</b>
<i>Cost ratios</i>										
Tax and other/revenue	7%	9%	9%	10%	9%	10%	10%	10%	10%	10%
Production cost (\$/mcf)	0.46	0.46	0.42	0.43	0.44	0.44	0.44	0.44	0.44	0.44
Overhead cost (\$/mcf)	0.21	0.23	0.23	0.17	0.21	0.23	0.24	0.24	0.24	0.24
Development/Cash flow	0.38	0.46	0.35	0.34	0.38	0.20	0.30	0.30	0.30	0.27

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# Natural Gas Royalty Trusts

## A Weekly Analysis

December 23, 2002

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

Volume Decline (%/yr):	10	Price Escalation Post 2008 (%/yr):	2.4										
Volume Enhancement (%/yr):	10	Discount rate (%/yr):	6.0										
Capex/Cash Flow (%):	25	U.S. TIPS Inflation (%/yr):	1.6										
Variable Cost (%):	12	U.S. 10 Year Yield (%/yr):	4.0										
PV/Volume (\$/mcf):	1.37	PV/EBITDA 2003:	8.0										
Year	Basic (bcf)	Enhanced (bcf)	Volume (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 2003 through 2032; years ending on 12/31													
	318	244	562	3.83	2153	388	258	199	1307	28.05	0.00	0.59	16.50
2003	34.5	0.0	34.5	3.52	121.6	10.9	14.6	22.6	73.5	1.58	0.00	0.97	1.53
2004	30.9	3.5	34.4	3.53	121.4	13.0	14.6	23.5	70.4	1.51		0.92	1.38
2005	27.7	6.5	34.2	3.31	113.3	13.0	13.6	21.7	65.0	1.40		0.86	1.21
2006	24.8	9.3	34.0	3.24	110.3	13.0	13.2	21.0	63.1	1.35		0.82	1.10
2007	22.2	11.7	33.9	3.30	111.9	13.0	13.4	21.4	64.1	1.38		0.77	1.06
2008	19.9	13.9	33.7	3.35	112.9	13.0	13.5	21.6	64.8	1.39		0.73	1.01
2009	17.8	15.8	33.6	3.43	115.1	13.0	13.8	22.1	66.2	1.42		0.69	0.97
2010	15.9	17.5	33.4	3.51	117.4	13.0	14.1	22.6	67.7	1.45		0.65	0.94
2011	14.3	19.0	33.3	3.60	119.7	13.0	14.4	23.1	69.2	1.49		0.61	0.91
2012	12.8	17.0	29.8	3.68	109.8	13.0	13.2		83.6	1.79		0.58	1.03
2013	11.4	15.2	26.7	3.77	100.7	13.0	12.1		75.6	1.62		0.54	0.88
2014	10.2	13.7	23.9	3.86	92.3	13.0	11.1		68.2	1.46		0.51	0.75
2015	9.2	12.2	21.4	3.96	84.7	13.0	10.2		61.5	1.32		0.48	0.64
2016	8.2	11.0	19.2	4.05	77.7	13.0	9.3		55.3	1.19		0.46	0.54
2017	7.4	9.8	17.2	4.15	71.2	13.0	8.5		49.7	1.07		0.43	0.46
2018	6.6	8.8	15.4	4.25	65.3	13.0	7.8		44.5	0.95		0.41	0.39
2019	5.9	7.9	13.8	4.35	59.9	13.0	7.2		39.7	0.85		0.38	0.33
2020	5.3	7.0	12.3	4.46	55.0	13.0	6.6		35.4	0.76		0.36	0.27
2021	4.7	6.3	11.0	4.57	50.4	13.0	6.0		31.4	0.67		0.34	0.23
2022	4.2	5.6	9.9	4.68	46.2	13.0	5.5		27.7	0.59		0.32	0.19
2023	3.8	5.1	8.9	4.79	42.4	13.0	5.1		24.3	0.52		0.30	0.16
2024	3.4	4.5	7.9	4.91	38.9	13.0	4.7		21.2	0.46		0.29	0.13
2025	3.0	4.1	7.1	5.02	35.7	13.0	4.3		18.4	0.39		0.27	0.11
2026	2.7	3.6	6.4	5.15	32.7	13.0	3.9		15.8	0.34		0.25	0.09
2027	2.4	3.3	5.7	5.27	30.0	13.0	3.6		13.4	0.29		0.24	0.07
2028	2.2	2.9	5.1	5.40	27.5	13.0	3.3		11.2	0.24		0.23	0.05
2029	2.0	2.6	4.6	5.53	25.2	13.0	3.0		9.2	0.20		0.21	0.04
2030	1.8	2.3	4.1	5.66	23.1	13.0	2.8		7.4	0.16		0.20	0.03
2031	1.6	2.1	3.7	5.80	21.2	13.0	2.5		5.7	0.12		0.19	0.02
2032	1.4	1.9	3.3	5.94	19.5	13.0	2.3		4.1	0.09		0.18	0.02

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# Natural Gas Royalty Trusts

## A Weekly Analysis

December 23, 2002

**Table SJT-2**  
**San Juan Basin Royalty Trust**  
**Distributable Income**

	Q1 3/31/02	Q2 6/30/02	Q3 9/30/02	Q4E 12/31/02	Year 2002E	Q1E 3/31/03	Q2E 6/30/03	Q3E 9/30/03	Q4E 12/31/03	Next Twelve Months 12/31/03
<b>Highlights</b>										
Revenue (\$mm) (75%)	19.2	18.6	20.7	20.4	78.9	29.3	32.2	30.0	30.0	121.6
Cash flow (\$mm) (75%)	14.1	14.1	16.0	15.5	59.7	23.6	26.2	24.1	24.1	98.0
Per unit	0.30	0.30	0.34	0.33	1.28	0.51	0.56	0.52	0.52	2.10
Tax credit (\$mm)	0.5	1.4	1.9	1.9	5.6					
Per unit	0.01	0.03	0.04	0.04	0.12					
Distributable Income (\$mm)	3.5	9.0	12.2	11.6	36.3	19.1	19.2	17.6	17.6	73.5
Per unit	0.08	0.19	0.26	0.25	0.78	0.41	0.41	0.38	0.38	1.58
<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>Volume</b>										
Natural gas (mmbtu)	12.5	12.0	11.6	12.4	48.5	12.2	11.8	12.2	12.2	48.4
Heat Content(btu/cf)	1,092	1,077	970	1,064	1,050	1,064	1,064	1,064	1,064	1,064
Natural gas (bcf)	11.5	11.1	12.0	11.6	46.2	11.5	11.1	11.5	11.5	45.5
Natural Gas (mmcfd)	124.7	125.1	130.4	126.2	126.6	124.6	124.6	124.6	124.6	124.6
Days	92	89	92	92	365	92	89	92	92	365
Oil (mb)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Oil (mbd)	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2
Total gas & oil (bcf)	11.6	11.3	12.1	11.7	46.8	11.6	11.2	11.6	11.6	46.0
<b>Price</b>										
Natural gas (\$/mmbtu) (Henry Hub lagged two months)										
Henry Hub (\$/mmbtu)	2.34	2.92	3.23	3.59	3.02	4.62	4.80	4.32	4.31	4.51
Differential (%)	14	31	28	40	30	32	25	25	25	27
Total	2.01	2.02	2.33	2.16	2.13	3.16	3.60	3.24	3.24	3.31
Natural gas (\$/mcf)	2.20	2.18	2.26	2.30	2.24	3.36	3.83	3.45	3.44	3.52
Oil (\$/bbl) (WTI Cushing lagged two months)										
WTI Cushing	19.56	23.80	26.49	28.96	24.70	28.60	29.60	27.41	25.95	27.89
SJT	15.78	19.14	21.95	24.00	20.10	23.70	24.52	22.71	21.50	23.10
Total gas & oil (\$/mcf)	2.20	2.19	2.28	2.32	2.25	3.37	3.83	3.45	3.44	3.52
<b>Revenue (\$mm)</b>										
Natural Gas	25.2	24.2	27.1	26.7	103.3	38.6	42.5	39.5	39.5	160.0
Oil	0.4	0.5	0.5	0.5	1.9	0.5	0.5	0.5	0.5	2.0
Total	25.6	24.8	27.6	27.2	105.2	39.1	43.0	40.0	39.9	162.1
<b>Cost (\$mm)</b>										
Severance tax	2.6	2.4	2.3	3.1	10.5	3.9	4.1	3.8	3.8	15.7
Operating	4.1	3.7	4.0	3.4	15.2	3.8	3.9	4.0	4.0	15.7
Total	6.7	6.0	6.3	6.5	25.6	7.7	8.0	7.9	7.8	31.4
<b>Cash flow (\$mm)</b>										
Development	11.3	3.4	2.1	4.7	21.5	5.4	8.7	8.0	8.0	30.2
Net proceeds (\$mm)	7.5	15.4	19.2	16.1	58.2	26.0	26.2	24.1	24.1	100.5
<b>Royalty income (\$mm)</b>										
Royalty/Net proceeds	5.6	11.5	14.4	12.1	43.6	19.5	19.7	18.1	18.1	75.4
Administration	0.4	0.5	0.6	0.5	2.0	0.4	0.5	0.5	0.5	1.9
One-time	1.7	2.0	1.6		5.3					-
<b>Distributable income (\$mm)</b>										
Modeling ratios	3.5	9.0	12.2	11.6	36.3	19.1	19.2	17.6	17.6	73.5
Severance tax/revenue	10.2%	9.5%	8.5%	11.5%	9.9%	10.0%	9.6%	9.6%	9.6%	9.7%
Operating cost (\$/mcf)	0.36	0.32	0.33	0.29	0.32	0.33	0.35	0.35	0.35	0.34

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# Natural Gas Royalty Trusts

A Weekly Analysis

December 23, 2002

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

	Aug-02	Sep-02	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03
<b>Distribution (\$/unit)</b>								
Declared	0.08	0.10	0.12	0.04	0.09			
Projected						0.11	0.14	0.16
<b>Volume</b>								
Natural gas (mmbtu)	3.77	3.95	4.49	3.77	4.08	3.92	4.05	4.05
Heat Content(btu/cf)	807	1,068	1,084	1,064	1,043	1,050	1,050	1,050
Natural gas (bcf)	4.67	3.70	4.15	3.55	3.91	3.74	3.86	3.86
Natural Gas (mmcfd)	156	119	134	118	126	125	125	125
Days	30	31	31	30	31	30	31	31
<b>Price</b>								
Natural gas industry quotes lagged two months (\$/mmbtu)								
Henry Hub Daily/Futures	3.22	2.99	3.09	3.55	4.12	4.03	4.78	5.07
San Juan Monthly Index	2.24	2.62	2.50	2.42	2.52	3.25	3.45	
SJT/Henry Hub	0.75	0.78	0.74	0.55	0.54	0.70	0.67	0.71
SJT/San Juan Index	1.08	0.89	0.91	0.81	0.89	0.87	0.92	
SJT (\$/mmbtu)	2.41	2.32	2.28	1.95	2.24	2.83	3.18	3.60
SJT (\$/mcf)	1.95	2.47	2.47	2.07	2.33	2.97	3.34	3.77
<b>Revenue (\$mm)</b>								
Natural Gas	9.1	9.1	10.2	7.3	9.1	11.1	12.9	14.6
Other	(0.2)	0.0	(0.1)	(0.0)	0.0	0.0	0.0	0.0
<b>Cost (\$mm)</b>								
Severance tax	0.8	0.9	0.9	0.7	1.5	1.1	1.3	1.5
Operating	1.6	1.3	1.1	1.8	0.5	1.3	1.3	1.3
Total	2.4	2.2	2.0	2.5	2.0	2.4	2.6	2.7
<b>Cash flow (\$mm)</b>								
Development	1.0	0.5	1.0	2.1	1.6	1.8	1.8	1.8
<b>Net proceeds (\$mm)</b>	6.5	6.9	8.2	4.8	7.1	8.7	10.3	11.8
<b>Royalty income (\$mm)</b>	5.5	6.5	7.2	2.7	5.5	6.9	8.5	10.1
Royalty/Net proceeds	4.1	4.9	5.4	2.0	4.2	5.2	6.4	7.5
One time	75%	75%	75%	75%	75%	75%	75%	75%
<b>Distributable income (\$mm)</b>	3.5	4.9	5.4	2.0	4.2	5.2	6.4	7.5
<b>Units (millions)</b>	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6
<b>Distribution (\$/unit)</b>	0.08	0.10	0.12	0.04	0.09	0.11	0.14	0.16
<i>Latest Twelve Month Average</i>								
Heat Content(btu/cf)	1,059	1,059	1,057	1,054	1,050			
Natural Gas (mmcfd)	124	123	125	125	127			
SJT/Henry Hub	0.73	0.73	0.74	0.71	0.72			
SJT/San Juan Index	0.87	0.87	0.87	0.86	0.88			
Other revenue	(0.0)	(0.0)	(0.0)	(0.0)	(0.2)			
Operating	1.3	1.3	1.3	1.3	1.3			
Development	2.5	2.4	2.2	2.0	1.8			
Severance tax/revenue	10.0%	9.8%	9.7%	9.6%	10.1%			

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