

## Natural Gas Royalty Trusts

A Weekly Analysis

December 9, 2002

# Rare Natural Gas Income

## Summary and Recommendation

Should there be tax changes next year that make income distributions more attractive, it would help dividend paying energy stocks as we explored in *Meter Reader*. Problem is there aren't many income stocks concentrated on North American natural gas. We have several good oil ideas, but only SJT as a natural gas stock among energy income recommendations. CRT and HGT are also attractive sources of income with natural gas concentration. All three have long life. SJT and CRT are concentrated in the San Juan Basin where according to the U.S. Energy Information Administration the reserve life index is some 14 years compared to about 9 years for the U.S. average. Meanwhile natural gas price trends have strengthened with six-year futures surging above the 29-week average. That adds a more than one sigma upward lift to our detailed calculations for present value and NTM distributions.

Kurt H. Wulff, CFA

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

	<i>Symbol/</i>	<i>Rating</i>	<i>Price</i> (\$/sh) <i>5-Dec</i> 2002	<i>Shares</i> <i>(mm)</i>	<i>Market</i> <i>Cap</i> (\$mm)	<i>Net</i> <i>Present</i> <i>Value</i> (\$/sh)	<i>Debt/</i> <i>Present</i> <i>Value</i>	<i>McDep</i> <i>Ratio</i>
Cross Timbers Royalty Trust	CRT		19.15	6.0	115	20.00	-	0.96
San Juan Basin Royalty Trust	SJT	B	13.22	46.6	620	16.30	-	0.81
Hugoton RoyaltyTrust (46%)	HGT		12.16	18.4	220	16.00	-	0.76

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.

	<i>Symbol/</i>	<i>Rating</i>	<i>Price</i> (\$/sh) <i>5-Dec</i> 2002	<i>EV/</i> <i>Sales</i> <i>NTM</i>	<i>EV/</i> <i>Ebitda</i> <i>NTM</i>	<i>P/E</i> <i>NTM</i>	<i>Dividend or</i> <i>Distribution</i> <i>NTM</i> (%)	<i>PV/</i> <i>Ebitda</i> <i>NTM</i>
Cross Timbers Royalty Trust	CRT		19.15	6.7	9.5	10	9.8	9.9
San Juan Basin Royalty Trust	SJT	B	13.22	5.5	6.8	9	10.8	8.4
Hugoton RoyaltyTrust (46%)	HGT		12.16	4.7	6.6	9	10.9	8.7

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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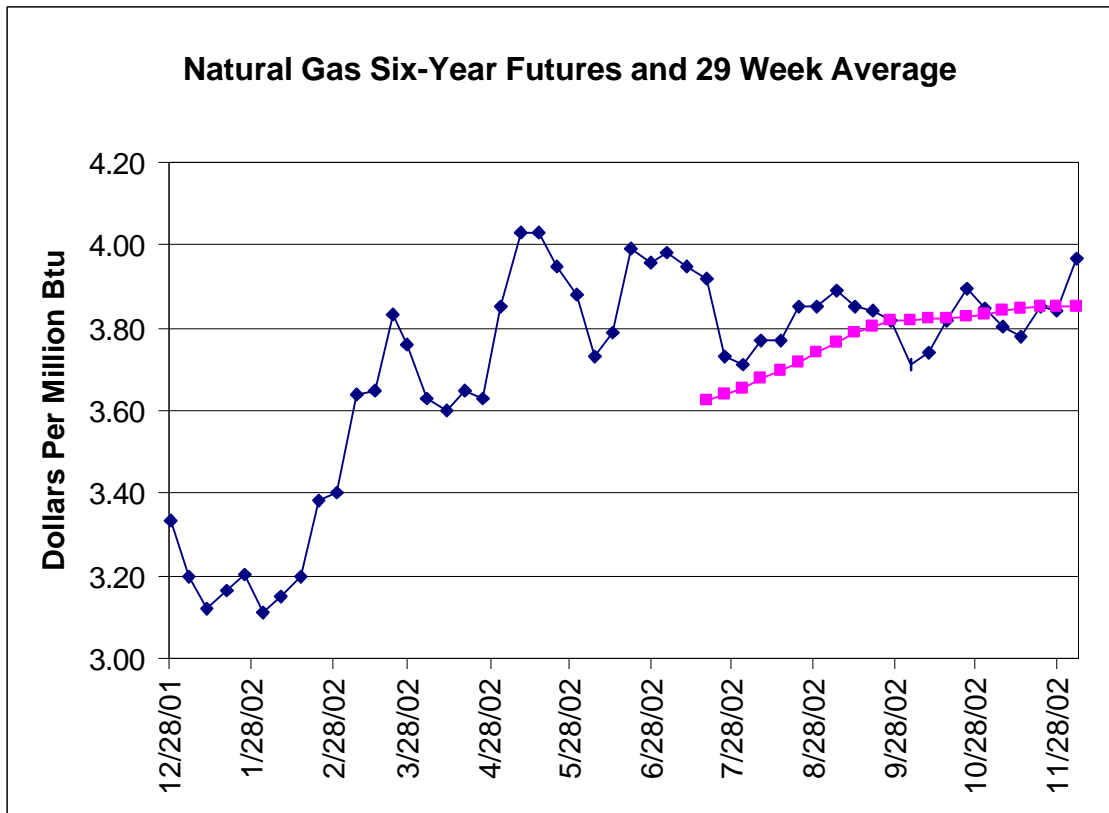
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## Natural Gas and Oil Futures

December 5, 2002

	2003	2004	2005	2006	2007	2008	Six Year
Natural Gas (\$/mmbtu)							
Year ending December	4.18	4.00	3.85	3.86	3.94	3.97	3.97
Light Sweet Crude Oil (\$/bbl)							
Year ending December	25.73	23.67	23.23	23.09	22.99	22.91	23.60
Natural Gas/Oil (6:1 = 1.0)							
Year ending December	0.98	1.01	1.00	1.00	1.03	1.04	1.01

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



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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):	5.5
		U.S. TIPS Inflation (%/yr):	1.6
		U.S. 10 Year Yield (%/yr):	4.1

PV/Volume (\$/mcf):	2.62	PV/EBITDA 2003:	10.2
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Year	Natural Gas Volume			Price (\$/mcf)	Revenue (\$mm)	Oil Net (\$mm)	Distribution (\$mm)	Tax Credit (\$/unit)	Disc Factor	Present Value (\$/unit)	
	Basic (bcf)	Enhanced (bcf)	Total (bcf)								
Total 2003 through 2032; years ending on 12/31											
	26	20	46	4.33	198	1	200	33.28	0.00	0.60	20.00
2003	2.7	0.0	2.7	4.00	10.8	0.4	11.2	1.87	0.00	0.97	1.82
2004	2.4	0.3	2.7	3.83	10.3	0.4	10.7	1.78		0.92	1.65
2005	2.2	0.5	2.7	3.68	9.9	0.3	10.2	1.70		0.87	1.48
2006	2.0	0.7	2.7	3.65	9.8	0.2	10.0	1.67		0.83	1.38
2007	1.8	0.9	2.7	3.73	10.1	0.1	10.1	1.69		0.79	1.33
2008	1.6	1.1	2.7	3.77	10.2	0.0	10.2	1.70		0.74	1.26
2009	1.4	1.3	2.7	3.86	10.4	0.0	10.4	1.73		0.71	1.22
2010	1.3	1.4	2.7	3.96	10.7	-0.1	10.6	1.77		0.67	1.18
2011	1.2	1.5	2.7	4.05	10.9		10.9	1.82		0.63	1.15
2012	1.0	1.4	2.4	4.15	10.1		10.1	1.68		0.60	1.01
2013	0.9	1.2	2.2	4.25	9.3		9.3	1.55		0.57	0.88
2014	0.8	1.1	2.0	4.35	8.5		8.5	1.42		0.54	0.77
2015	0.8	1.0	1.8	4.46	7.9		7.9	1.31		0.51	0.67
2016	0.7	0.9	1.6	4.57	7.3		7.3	1.21		0.48	0.59
2017	0.6	0.8	1.4	4.68	6.7		6.7	1.12		0.46	0.51
2018	0.6	0.7	1.3	4.79	6.2		6.2	1.03		0.43	0.45
2019	0.5	0.7	1.2	4.90	5.7		5.7	0.95		0.41	0.39
2020	0.4	0.6	1.0	5.02	5.2		5.2	0.87		0.39	0.34
2021	0.4	0.5	0.9	5.14	4.8		4.8	0.81		0.37	0.30
2022	0.4	0.5	0.8	5.27	4.5		4.5	0.74		0.35	0.26
2023	0.3	0.4	0.8	5.40	4.1		4.1	0.68		0.33	0.23
2024	0.3	0.4	0.7	5.53	3.8		3.8	0.63		0.31	0.20
2025	0.3	0.4	0.6	5.66	3.5		3.5	0.58		0.30	0.17
2026	0.2	0.3	0.6	5.80	3.2		3.2	0.54		0.28	0.15
2027	0.2	0.3	0.5	5.94	3.0		3.0	0.49		0.27	0.13
2028	0.2	0.3	0.4	6.08	2.7		2.7	0.46		0.25	0.12
2029	0.2	0.2	0.4	6.23	2.5		2.5	0.42		0.24	0.10
2030	0.2	0.2	0.4	6.38	2.3		2.3	0.39		0.23	0.09
2031	0.1	0.2	0.3	6.53	2.1		2.1	0.36		0.22	0.08
2032	0.1	0.2	0.3	6.69	2.0		2.0	0.33		0.20	0.07

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# Natural Gas Royalty Trusts

## A Weekly Analysis

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

	<i>Q1</i>	<i>Q2</i>	<i>Q3</i>	<i>Q4E</i>	<i>Year</i>	<i>Q1E</i>	<i>Q2E</i>	<i>Q3E</i>	<i>Q4E</i>	<i>Next</i>
	<i>3/31/02</i>	<i>6/30/02</i>	<i>9/30/02</i>	<i>12/31/02</i>	<i>2002E</i>	<i>3/31/03</i>	<i>6/30/03</i>	<i>9/30/03</i>	<i>12/31/03</i>	<i>Twelve</i>
										<i>Months</i>
										<i>12/31/03</i>
<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	2.49	8.52	2.87	2.85	2.70	2.79	11.21
Per unit	0.30	0.29	0.42	0.42	1.42	0.48	0.48	0.45	0.46	1.87
Units (millions)	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)	0.78	0.71	0.77	0.75	3.01	0.75	0.74	0.75	0.75	2.99
Natural Gas (mmcf)	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	4.16	4.35	4.08	4.08	4.17
Differential (\$/mmbtu)	(0.13)	(0.04)	0.33	0.13	0.07	0.17	0.17	0.16	0.16	0.17
CRT (\$/mcf)	2.54	2.57	3.05	3.08	2.81	3.99	4.18	3.91	3.92	4.00
Oil (\$/bbl) (WTI lagged two months)										
WTI Cushing	19.56	23.80	26.49	28.96	24.70	26.97	26.81	25.81	27.09	26.67
CRT	17.28	20.50	24.79	26.96	22.37	24.97	24.81	23.81	25.09	24.67
Total (\$/mcf)	2.67	2.92	3.47	3.64	3.18	4.06	4.16	3.93	4.02	4.04
<b>Revenue (\$mm)</b>										
Natural Gas	1.98	1.82	2.33	2.32	8.46	3.01	3.08	2.92	2.95	11.97
Oil	1.44	1.69	2.03	2.21	7.37	2.03	1.93	1.90	1.98	7.83
Total	3.42	3.50	4.37	4.54	15.83	5.04	5.01	4.82	4.93	19.80
<b>Cost (\$mm)</b>										
Tax, transport & other	0.34	0.51	0.60	0.64	2.09	0.71	0.70	0.67	0.69	2.77
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	1.50	1.49	1.47	1.48	5.94
<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	(0.07)	0.07								
<b>Net proceeds (\$mm)</b>										
Net proceeds	2.11	2.06	2.89	2.91	9.98	3.34	3.32	3.15	3.25	13.07
<b>Royalty income (\$mm)</b>										
Royalty/Net proceeds	89%	88%	87%	87%	88%	87%	87%	87%	87%	87%
Administration	0.08	0.09	0.04	0.04	0.24	0.04	0.04	0.04	0.04	0.16
<b>Distributable income (\$mm)</b>										
Distributable income	1.80	1.72	2.49	2.49	8.52	2.87	2.85	2.70	2.79	11.21
<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

December 9, 2002

**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):	6.1
Capex/Cash Flow (%):	30	U.S. TIPS Inflation (%/yr):	1.6
Variable Cost (%):	17	U.S. 10 Year Yield (%/yr):	4.1
PV/Volume (\$/mcf):	1.32	PV/EBITDA 2003:	8.7

Year	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													
	274	212	486	4.21	2045	371	348	204	1122	28.05	0.00	0.57	16.00
2003	28.8	0.0	28.8	3.58	103.2	12.4	17.5	20.5	52.8	1.32	0.00	0.97	1.28
2004	25.9	2.9	28.8	3.75	108.0	12.4	18.4	23.2	54.1	1.35		0.91	1.24
2005	23.3	5.5	28.8	3.61	103.7	12.4	17.6	22.1	51.6	1.29		0.86	1.11
2006	20.9	7.8	28.7	3.57	102.7	12.4	17.5	21.9	51.0	1.28		0.81	1.04
2007	18.8	9.9	28.7	3.65	104.9	12.4	17.8	22.4	52.3	1.31		0.77	1.00
2008	16.9	11.8	28.7	3.69	105.8	12.4	18.0	22.6	52.8	1.32		0.72	0.95
2009	15.2	13.4	28.6	3.78	108.3	12.4	18.4	23.3	54.3	1.36		0.68	0.92
2010	13.7	14.9	28.6	3.87	110.8	12.4	18.8	23.9	55.7	1.39		0.64	0.89
2011	12.3	16.3	28.6	3.97	113.4	12.4	19.3	24.5	57.2	1.43		0.60	0.86
2012	11.1	14.6	25.7	4.06	104.4	12.4	17.7		74.3	1.86		0.57	1.06
2013	9.9	13.2	23.1	4.16	96.1	12.4	16.3		67.4	1.68		0.54	0.90
2014	8.9	11.8	20.8	4.26	88.5	12.4	15.0		61.1	1.53		0.51	0.77
2015	8.0	10.6	18.7	4.36	81.5	12.4	13.9		55.3	1.38		0.48	0.66
2016	7.2	9.6	16.8	4.47	75.0	12.4	12.8		49.9	1.25		0.45	0.56
2017	6.5	8.6	15.1	4.58	69.1	12.4	11.7		45.0	1.12		0.42	0.48
2018	5.8	7.7	13.6	4.69	63.6	12.4	10.8		40.4	1.01		0.40	0.40
2019	5.2	7.0	12.2	4.80	58.6	12.4	10.0		36.2	0.91		0.38	0.34
2020	4.7	6.2	11.0	4.92	53.9	12.4	9.2		32.4	0.81		0.35	0.29
2021	4.2	5.6	9.9	5.04	49.7	12.4	8.4		28.8	0.72		0.33	0.24
2022	3.8	5.1	8.9	5.16	45.7	12.4	7.8		25.6	0.64		0.31	0.20
2023	3.4	4.5	8.0	5.28	42.1	12.4	7.2		22.6	0.56		0.30	0.17
2024	3.1	4.1	7.2	5.41	38.8	12.4	6.6		19.8	0.49		0.28	0.14
2025	2.8	3.7	6.4	5.54	35.7	12.4	6.1		17.2	0.43		0.26	0.11
2026	2.5	3.3	5.8	5.68	32.9	12.4	5.6		14.9	0.37		0.25	0.09
2027	2.2	3.0	5.2	5.81	30.3	12.4	5.1		12.7	0.32		0.23	0.07
2028	2.0	2.7	4.7	5.95	27.9	12.4	4.7		10.7	0.27		0.22	0.06
2029	1.8	2.4	4.2	6.10	25.7	12.4	4.4		8.9	0.22		0.21	0.05
2030	1.6	2.2	3.8	6.25	23.6	12.4	4.0		7.2	0.18		0.20	0.04
2031	1.5	1.9	3.4	6.40	21.7	12.4	3.7		5.7	0.14		0.18	0.03
2032	1.3	1.7	3.1	6.55	20.0	12.4	3.4		4.2	0.11		0.17	0.02

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

	Q1	Q2	Q3	Q4E	Year	Q1E	Q2E	Q3E	Q4E	Next Twelve Months
	3/31/02	6/30/02	9/30/02	12/31/02	2002E	3/31/03	6/30/03	9/30/03	12/31/03	12/31/03
<b>Highlights</b>										
Revenue (\$mm) (80%)	18.5	16.5	19.7	20.4	75.1	26.7	25.7	25.4	25.4	103.2
Cash flow (\$mm) (80%)	12.0	10.1	13.2	13.5	49.0	19.1	18.4	18.0	18.0	73.6
Per unit	0.30	0.25	0.33	0.34	1.22	0.48	0.46	0.45	0.45	1.84
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	9.1	30.5	14.9	12.8	12.5	12.5	52.8
Per unit	0.18	0.13	0.22	0.23	0.76	0.37	0.32	0.31	0.31	1.32
Units (millions)	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
<b>Volume</b>										
Natural Gas (bcf)	9.0	8.3	8.6	8.6	34.5	8.6	8.3	8.6	8.6	33.9
Natural Gas (mmcf)	98.1	93.1	93.4	93.0	94.4	93.0	93.0	93.0	93.0	93.0
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	9.1	36.6	9.1	8.8	9.1	9.1	36.0
<b>Price</b>										
Natural Gas (HH lagged two months)										
Henry Hub (\$/mmbtu)	2.34	2.92	3.23	3.59	3.02	4.26	4.25	4.07	4.08	4.16
Differential (\$/mmbtu)	(0.03)	0.67	0.64	0.91	0.55	0.64	0.64	0.61	0.61	0.63
HGT (\$/mcf)	2.38	2.25	2.60	2.68	2.48	3.62	3.61	3.46	3.47	3.54
Oil (\$/bbl) (WTI Cushing lagged two months)										
WTI Cushing	19.56	23.80	26.49	28.96	24.70	26.97	26.81	25.81	24.93	26.13
HGT	18.80	22.27	25.84	28.46	23.85	26.47	26.31	25.31	24.43	25.63
Total (\$/mcf)	2.42	2.33	2.70	2.80	2.56	3.67	3.66	3.50	3.50	3.58
<b>Revenue (\$mm)</b>										
Natural Gas	21.5	18.6	22.3	22.9	85.3	31.0	29.9	29.6	29.7	120.1
Oil	1.7	2.0	2.3	2.5	8.5	2.3	2.2	2.2	2.1	8.9
Total	23.2	20.6	24.6	25.5	93.9	33.3	32.1	31.8	31.8	129.0
<b>Cost (\$mm)</b>										
Tax, transport & other	1.7	1.9	2.2	2.5	8.3	3.3	3.2	3.2	3.2	12.9
Production	4.4	4.0	3.8	4.0	16.2	4.0	3.9	4.0	4.0	15.9
Overhead	2.0	2.0	2.1	2.1	8.1	2.1	2.1	2.1	2.1	8.2
Total	8.1	7.9	8.1	8.6	32.7	9.4	9.1	9.2	9.2	37.0
<b>Cash flow (\$mm)</b>										
Development	5.8	5.8	5.8	5.4	22.7	5.2	6.9	6.8	6.8	25.6
<b>Net proceeds (\$mm)</b>										
	9.3	6.9	10.7	11.5	38.5	18.7	16.1	15.8	15.8	66.4
<b>Royalty income (\$mm)</b>										
Royalty/Net proceeds	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
Administration	0.1	0.2	(0.0)	0.1	0.3	0.1	0.1	0.1	0.1	0.3
<b>Distributable income (\$mm)</b>										
	7.4	5.3	8.6	9.1	30.5	14.9	12.8	12.5	12.5	52.8
<b>Cost ratios</b>										
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	0.23	0.22	0.23	0.23	0.23	0.23	0.23
Development/Cash flow	0.38	0.46	0.35	0.32	0.37	0.22	0.30	0.30	0.30	0.28

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# Natural Gas Royalty Trusts

## A Weekly Analysis

December 9, 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):	6.1
Capex/Cash Flow (%):	25	U.S. TIPS Inflation (%/yr):	1.6
Variable Cost (%):	12	U.S. 10 Year Yield (%/yr):	4.1
PV/Volume (\$/mcf):	1.35	PV/EBITDA 2003:	8.6

Year	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													
	318	244	562	3.83	2155	388	259	199	1309	28.10	0.00	0.58	16.30
2003	34.5	0.0	34.5	3.27	113.0	11.2	13.6	21.6	66.7	1.43	0.00	0.97	1.39
2004	30.9	3.5	34.4	3.43	117.7	13.0	14.1	22.6	67.9	1.46		0.91	1.33
2005	27.7	6.5	34.2	3.30	112.7	13.0	13.5	21.5	64.6	1.39		0.86	1.20
2006	24.8	9.3	34.0	3.27	111.2	13.0	13.3	21.2	63.7	1.37		0.81	1.11
2007	22.2	11.7	33.9	3.34	113.2	13.0	13.6	21.6	64.9	1.39		0.77	1.07
2008	19.9	13.9	33.7	3.37	113.8	13.0	13.7	21.8	65.4	1.40		0.72	1.01
2009	17.8	15.8	33.6	3.46	116.0	13.0	13.9	22.3	66.8	1.43		0.68	0.97
2010	15.9	17.5	33.4	3.54	118.3	13.0	14.2	22.8	68.3	1.47		0.64	0.94
2011	14.3	19.0	33.3	3.62	120.6	13.0	14.5	23.3	69.9	1.50		0.60	0.90
2012	12.8	17.0	29.8	3.71	110.6	13.0	13.3		84.4	1.81		0.57	1.03
2013	11.4	15.2	26.7	3.80	101.5	13.0	12.2		76.3	1.64		0.54	0.88
2014	10.2	13.7	23.9	3.89	93.1	13.0	11.2		68.9	1.48		0.51	0.75
2015	9.2	12.2	21.4	3.99	85.4	13.0	10.2		62.1	1.33		0.48	0.63
2016	8.2	10.9	19.2	4.08	78.3	13.0	9.4		55.9	1.20		0.45	0.54
2017	7.4	9.8	17.2	4.18	71.8	13.0	8.6		50.2	1.08		0.42	0.46
2018	6.6	8.8	15.4	4.28	65.9	13.0	7.9		45.0	0.96		0.40	0.38
2019	5.9	7.9	13.8	4.39	60.4	13.0	7.2		40.2	0.86		0.38	0.32
2020	5.3	7.0	12.3	4.49	55.4	13.0	6.6		35.8	0.77		0.35	0.27
2021	4.7	6.3	11.0	4.60	50.8	13.0	6.1		31.7	0.68		0.33	0.23
2022	4.2	5.6	9.9	4.71	46.6	13.0	5.6		28.0	0.60		0.31	0.19
2023	3.8	5.1	8.9	4.83	42.7	13.0	5.1		24.6	0.53		0.30	0.16
2024	3.4	4.5	7.9	4.95	39.2	13.0	4.7		21.5	0.46		0.28	0.13
2025	3.0	4.1	7.1	5.07	36.0	13.0	4.3		18.6	0.40		0.26	0.11
2026	2.7	3.6	6.4	5.19	33.0	13.0	4.0		16.0	0.34		0.25	0.09
2027	2.4	3.3	5.7	5.31	30.2	13.0	3.6		13.6	0.29		0.23	0.07
2028	2.2	2.9	5.1	5.44	27.7	13.0	3.3		11.4	0.24		0.22	0.05
2029	2.0	2.6	4.6	5.57	25.4	13.0	3.1		9.4	0.20		0.21	0.04
2030	1.8	2.3	4.1	5.71	23.3	13.0	2.8		7.5	0.16		0.20	0.03
2031	1.6	2.1	3.7	5.85	21.4	13.0	2.6		5.8	0.13		0.18	0.02
2032	1.4	1.9	3.3	5.99	19.6	13.0	2.4		4.3	0.09		0.17	0.02

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# Natural Gas Royalty Trusts

## A Weekly Analysis

December 9, 2002

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

	Q1	Q2	Q3	Q4E	Year	Q1E	Q2E	Q3E	Q4E	Next Twelve Months
	3/31/02	6/30/02	9/30/02	12/31/02	2002E	3/31/03	6/30/03	9/30/03	12/31/03	12/31/03
<b>Highlights</b>										
Revenue (\$mm) (75%)	19.2	18.6	20.7	21.4	79.9	27.5	28.7	28.3	28.4	113.0
Cash flow (\$mm) (75%)	14.1	14.1	16.0	16.2	60.4	21.9	23.0	22.6	22.7	90.2
Per unit	0.30	0.30	0.34	0.35	1.30	0.47	0.49	0.49	0.49	1.94
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	11.9	36.7	16.9	16.8	16.5	16.5	66.7
Per unit	0.08	0.19	0.26	0.26	0.79	0.36	0.36	0.35	0.35	1.43
Units (millions)	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6
<b>Volume</b>										
Natural gas (mmbtu)	12.5	12.0	11.6	12.3	48.5	12.2	11.8	12.2	12.2	48.6
Heat Content(btu/cf)	1,092	1,077	970	1,068	1,051	1,068	1,068	1,068	1,068	1,068
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 (mmcf)	124.7	125.1	130.4	125.6	126.5	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	46.7	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	4.26	4.25	4.07	4.08	4.16
Differential (%)	14	31	28	37	29	31	25	25	25	26
Total	2.01	2.02	2.33	2.27	2.16	2.96	3.19	3.05	3.06	3.06
Natural gas (\$/mcf)	2.20	2.18	2.26	2.42	2.26	3.16	3.41	3.26	3.27	3.27
Oil (\$/bbl) (WTI Cushing lagged two months)										
WTI Cushing	19.56	23.80	26.49	28.96	24.70	26.97	26.81	25.81	24.93	26.13
SJT	15.78	19.14	21.95	24.00	20.10	22.34	22.22	21.38	20.65	21.64
Total gas & oil (\$/mcf)	2.20	2.19	2.28	2.44	2.28	3.17	3.41	3.26	3.27	3.27
<b>Revenue (\$mm)</b>										
Natural Gas	25.2	24.2	27.1	28.0	104.5	36.2	37.8	37.3	37.5	148.7
Oil	0.4	0.5	0.5	0.5	1.9	0.5	0.5	0.5	0.5	1.9
Total	25.6	24.8	27.6	28.5	106.5	36.7	38.2	37.8	37.9	150.7
<b>Cost (\$mm)</b>										
Severance tax	2.6	2.4	2.3	2.6	9.9	3.5	3.7	3.6	3.6	14.5
Operating	4.1	3.7	4.0	4.2	16.0	4.0	3.9	4.0	4.0	15.9
Total	6.7	6.0	6.3	6.8	25.9	7.5	7.6	7.6	7.7	30.4
<b>Cash flow (\$mm)</b>										
Development	11.3	3.4	2.1	5.1	21.9	6.0	7.7	7.5	7.6	28.7
<b>Net proceeds (\$mm)</b>										
Royalty/Net proceeds	7.5	15.4	19.2	16.6	58.7	23.2	23.0	22.6	22.7	91.5
<b>Royalty income (\$mm)</b>										
Royalty/Net proceeds	5.6	11.5	14.4	12.4	44.0	17.4	17.3	17.0	17.0	68.7
Administration	0.4	0.5	0.6	0.5	2.0	0.5	0.5	0.5	0.5	2.0
One-time	1.7	2.0	1.6		5.3					-
<b>Distributable income (\$mm)</b>										
	3.5	9.0	12.2	11.9	36.7	16.9	16.8	16.5	16.5	66.7
<i>Modeling ratios</i>										
Severance tax/revenue	10.2%	9.5%	8.5%	9.3%	9.3%	9.6%	9.6%	9.6%	9.6%	9.6%
Operating cost (\$/mcf)	0.36	0.32	0.33	0.36	0.34	0.35	0.35	0.35	0.35	0.35

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## Natural Gas Royalty Trusts

### A Weekly Analysis

December 9, 2002

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

	<i>Aug-02</i>	<i>Sep-02</i>	<i>Oct-02</i>	<i>Nov-02</i>	<i>Dec-02</i>	<i>Jan-03</i>	<i>Feb-03</i>	<i>Mar-03</i>
<b>Distribution</b> (\$/unit)								
Declared	0.08	0.10	0.12	0.04				
Projected					0.10	0.11	0.12	0.13
<b>Volume</b>								
Natural gas (mmbtu)	3.77	3.95	4.49	3.77	4.07	3.94	4.07	4.07
Heat Content(btu/cf)	807	1,068	1,084	1,064	1,054	1,054	1,054	1,054
Natural gas (bcf)	4.67	3.70	4.15	3.55	3.86	3.74	3.86	3.86
Natural Gas (mmcf)	156	119	134	118	125	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	4.32	4.42
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	0.62	0.70	0.70	0.71
SJT/San Juan Index	1.08	0.89	0.91	0.81	1.01	0.87	0.87	
SJT (\$/mmbtu)	2.41	2.32	2.28	1.95	2.55	2.83	3.02	3.14
SJT (\$/mcf)	1.95	2.47	2.47	2.07	2.68	2.98	3.18	3.31
<b>Revenue</b> (\$mm)								
Natural Gas	9.1	9.1	10.2	7.3	10.4	11.1	12.3	12.8
Other	(0.2)	0.0	(0.1)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
<b>Cost</b> (\$mm)								
Severance tax	0.8	0.9	0.9	0.7	1.0	1.1	1.2	1.3
Operating	1.6	1.3	1.1	1.8	1.3	1.3	1.3	1.3
Total	2.4	2.2	2.0	2.5	2.3	2.4	2.5	2.6
<b>Cash flow</b> (\$mm)	6.5	6.9	8.2	4.8	8.0	8.7	9.7	10.1
Development	1.0	0.5	1.0	2.1	2.0	2.0	2.0	2.0
<b>Net proceeds</b> (\$mm)	5.5	6.5	7.2	2.7	6.0	6.7	7.7	8.2
<b>Royalty income</b> (\$mm)	4.1	4.9	5.4	2.0	4.5	5.0	5.8	6.1
Royalty/Net proceeds	75%	75%	75%	75%	75%	75%	75%	75%
One time	0.6							
<b>Distributable income</b> (\$mm)	3.5	4.9	5.4	2.0	4.5	5.0	5.8	6.1
<b>Units</b> (millions)	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6
<b>Distribution</b> (\$/unit)	0.08	0.10	0.12	0.04	0.10	0.11	0.12	0.13
<i>Latest Twelve Month Average</i>								
Heat Content(btu/cf)	1,059	1,059	1,057	1,054				
Natural Gas (mmcf)	124	123	125	125				
SJT/Henry Hub	0.73	0.73	0.74	0.71				
SJT/San Juan Index	0.87	0.87	0.87	0.86				
Other revenue	(0.0)	(0.0)	(0.0)	(0.0)				
Operating	1.3	1.3	1.3	1.3				
Development	2.5	2.4	2.2	2.0				
Severance tax/revenue	10.0%	9.8%	9.7%	9.6%				

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