

Analysis of Oil & Gas Stocks May 24, 2013

#### **Birchcliff Energy Ltd. (BIREF - Buy)** Small Cap North American Natural Gas

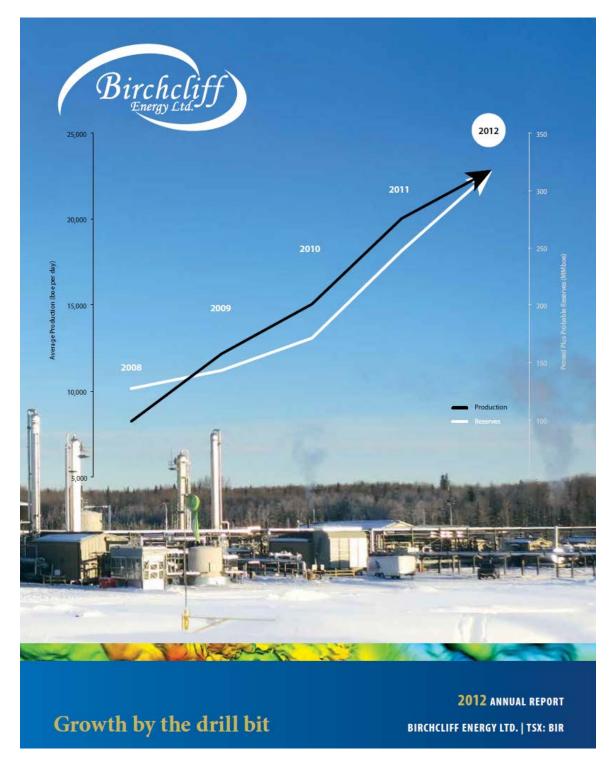
Symbol	BIREF	Ebitda Next Twelve Months ending 3/31/14 (US\$mm)	195
Rating	Buy	North American Natural Gas/Ebitda (%)	57
Price (US\$/sh)	8.32	Natural Gas and Oil Production/Ebitda (%)	100
Pricing Date	5/23/13	Adjusted Reserves/Production NTM	19.6
Shares (mm)	164	EV/Ebitda	9.8
Market Capitalization (US\$mm)	1,360	PV/Ebitda	12.9
Debt (US\$mm)	540	Undeveloped Reserves (%)	69
Enterprise Value (EV) (US\$mm)	1,910	Natural Gas and Oil Ebitda (\$/boe)	24.80
Present Value (PV) (US\$mm)	2,510	Present Value Proven Reserves(\$/boe)	16.90
Net Present Value (US\$/share)	12	Oil and Gas Ebitda Margin (%)	60
Debt/Present Value	0.22	Earnings Next Twelve Months (US\$/sh)	0.26
McDep Ratio - EV/PV	0.76	Price/Earnings Next Twelve Months	32
Dividend Yield (%/year)	0.0	Indicated Annual Dividend (US\$/sh)	0.00
Note: Estimated cash flow and e	arnings tied to one	-year futures prices for oil and natural gas.	
Reported results may vary	widely from estin	nates. Estimated present value per share revised only infrequ	ently.
Estimated present value pr	resumes a long-ter	m price for oil of US\$100 a barrel and natural gas, \$6 a milli	on btu.
For historical analysis of	Birchcliff see www	v.mcdep.com/5bir.htm	

#### **Summary and Recommendation**

Buy **Birchcliff Energy (BIREF)** for small cap upside in the world's most economical clean fuel, North American natural gas. Production and reserves tripled in the past four years and we are estimating 15% production growth in 2013 (see snapshot Growth by the Drill Bit on page 2 and table Operating and Financial Estimates on page 3). Latest results for the first quarter reported on May 15 met expectations underlying our estimated Net Present Value (NPV) of \$12 a share (see table Present Value on page 3). A leading driller in the Montney/Doig Natural Gas Resource Play, Birchcliff has completed over 100 horizontal wells, mostly in its Pouce Coupee Development Area (see map on page 4). While the company can sell its growing output into the existing pipeline grid in Canada, the longer term excitement lies in exporting to global markets. Birchcliff's resources are strategically located on the route of proposed pipelines to liquefaction plants and terminals to be built on the British Columbia coast for eventual shipment to Asia (see map on page 5). Liquefied natural gas in the Far East sells for an oil equivalent price that is four times the wellhead price in North America. Progress on those projects may accelerate with the completion of elections in British Columbia last week. Recent approval of two competitive U.S. export projects also ought to spur action in Canada. Global LNG developers typically line up long term natural gas supply by acquisition of local producers or by contract. Birchcliff has the natural gas resources to attract large amounts of capital to acquire the whole company or to finance acceleration of production growth. Finally, Birchcliff's McDep Ratio is low at 0.76, Debt/Present Value is moderate at 0.22, unlevered cash flow multiple (EV/Ebitda) is low at 9.8 compared to adjusted life of proven reserves of 20 years and stock price has favorable momentum (see Tables ISC-1 to ISC-4 on pages 6-9).

Kurt H. Wulff, CFA







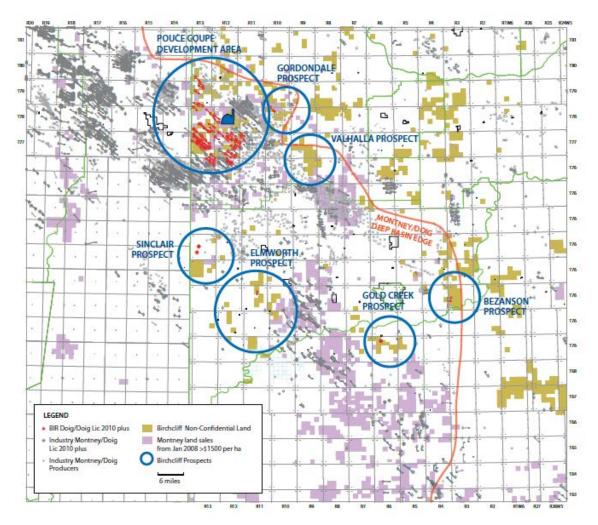
			Birche	liff Energ	y Ltd.					
	Nex	t Twelve M	onths Op	erating a	nd Financ	ial Estima	ates			
			(Can	adian Doll	ars)					
										Next
										Twelve
	Q1	Q4	Year	Q1	Q2E	Q3E	Q4E	Year	Q1E	Months
	3/31/12	12/31/12	2012	3/31/13	6/30/13	9/30/13	12/31/13	2013E	3/31/14	3/31/14
Volume (before royalty)										
Natural Gas (mmcfd)	95	131	107	128	115	131	134	127	144	131
Days	91	92	366	90	91	92	92	365	90	365
Oil (mmb)	0.47	0.44	1.83	0.43	0.39	0.43	0.57	1.82	0.45	1.85
Oil (mbd)	5.2	4.8	5.0	4.8	4.3	4.7	6.2	5.0	5.0	5.1
Total (mmboe)	1.92	2.45	8.3	2.35	2.14	2.49	2.62	9.6	2.61	9.9
Total (mboed)	21.1	26.7	22.8	26.1	23.5	27.0	28.5	26.3	29.0	27.0
Price										
Henry Hub (US\$/mmbtu)	2.73	3.40	2.79	3.34	4.08	4.15	4.28	3.96	4.45	4.24
Currency (US\$/C\$)	1.00	1.01	1.00	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Henry Hub (C\$/mmbtu)	2.73	3.37	2.78	3.44	4.20	4.28	4.41	4.08	4.59	4.37
Differential (C\$/mmbtu)	0.41	(0.06)	0.15	0.04	0.04	0.05	0.05	0.04	0.05	0.04
Company (C\$/mcf)	2.32	3.43	2.63	3.40	4.15	4.23	4.36	4.04	4.54	4.33
WTI Cushing (US\$/bbl)	102.93	88.18	94.16	94.41	94.90	96.99	95.97	95.57	94.40	95.57
WTI Cushing (C\$/bbl)	103.04	87.41	94.01	97.24	97.75	99.90	98.85	98.43	97.23	98.43
Differential (C\$/bbl)	12.59	4.53	9.66	12.13	12.19	12.46	12.33	12.23	12.13	12.24
Company (C\$/bbl)	90.45	82.88	84.35	85.12	85.56	87.44	86.52	86.20	85.10	86.19
Total (\$/bbl)	32.78	31.80	30.81	32.19	35.97	35.71	39.37	35.91	37.20	37.14
Revenue (\$mm)										
Natural Gas	20	41	103	39	44	51	54	187	59	207
Oil	43	37	154	36	33	38	50	157	38	159
Royalties	(7)	(6)	(24)	(6)	(7)	(8)	(9)	(29)	(8)	(31
Total	56	72	233	69	70	81	94	315	89	335
Expense	24	26	92	24	28	32	38	122	36	134
Ebitda (\$mm)	31	46	140	46	42	49	57	193	53	201
Deprec., Deplet., & Amort.	22	29	96	27	27	27	26	107	26	106
Other non-cash	(3)	1	1	3	1	1	1	6	2	5
Interest	6	7	23	7	7	7	7	27	2	27
Ebt	6	9	20	9	8	14	23	53	19	63
Income tax	2	3	8	3	2	4	7	16	6	19
Net Income (\$mm)	4	6	13	6	5	10	16	37	13	44
Per share (\$)	0.03	0.04	0.09	0.04	0.03	0.06	0.10	0.23	0.08	0.27
Shares (millions)	131	144	140	144	164	164	164	161	164	164
Ebitda margin (after royalty)	56%	64%	60%	66%	60%	60%	60%	61%	60%	60%
Tax rate	33%	35%	38%	34%	30%	30%	30%	31%	30%	30%

Birchcliff Energy Ltd.											
Functional Cash Flow and Present Value											
	NTM	Adjusted	PV/	Present							
	<u>Ebitda</u>	<u>R/P</u>	<u>Ebitda</u>	<u>Value</u>							
North American Natural Gas	110	13.0	15.5	1,710	68%						
Oil	85	10.0	9.4	800	32%						
	195	12.4	12.9	2,510	100%						
Debt					540						
Net Present Value (US\$mm)					1,970						
Shares					164						
Net Present Value - Standard Estimate (US\$/sh)					12						
NPV Approximation by Cash Flow Multiple Depen	ding on Rese	erve Life (US	\$/sh)		10						

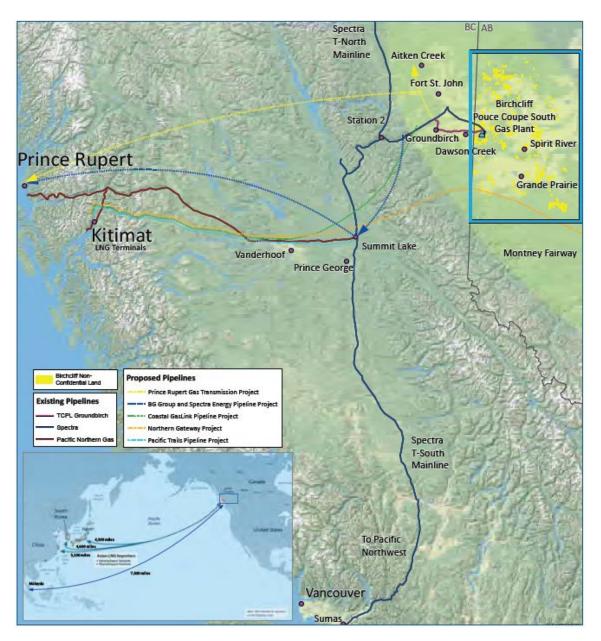


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#### MONTNEY/DOIG NATURAL GAS RESOURCE PLAY









				ble ISC-							
McDe	p Inco	om	e and S	Small C	ap Energ	gy Po	rtfol	lio			
Debt, Seg	gments	s, (	Cash Fl	ow, Ind	come and	l Mcl	Dep	Ratio			
			Price								
Sum	hol/Rati	na	(US\$/sh)	EV/	Enterprise	PV(	0/2)	EV/	Dist.	Dist.	
Syn	B = H		23-May	Market	Value	Nat	/0]	Ebitda	NTM	Yield	McDe
CB	(see belo	-	2013	Сар	(\$mm)	Gas	Oil	NTM	(\$/un)	(%)	Ratio
CD		<i>(</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2015	Cup	(omn)	Ous	011	1 1 1 101	(φ/un)	(70)	Kun
Small Cap Independent Producers											
PDC Energy	PDCE		49.84	1.51	2,340	26	74	11.5	-	-	1.00
Range Resources	RRC	В	78.03	1.29	16,160	66	34	13.7	0.16	0.2	0.89
Peyto Exploration and Development Cor	PEYUF		30.10	1.18	5,270	68	32	9.9	0.86	2.8	0.88
Halcón Resources	HK		5.52	2.25	5,210	8	92	7.6	-	-	0.83
Continental Resources (32%)	CLR	В	83.98	1.27	6,300	18	82	6.6	-	-	0.80
Berry Petroleum Company	BRY		44.95	1.74	4,320	12	88	6.7	0.32	0.7	0.76
Birchcliff Energy Ltd.	BIREF	В	8.32	1.40	1,900	68	32	9.7	-	-	0.76
Denbury Resources Inc.	DNR		18.71	1.49	10,390	5	95	6.3	-	-	0.75
Cimarex Energy Company	XEC	В	71.62	1.23	7,610	40	60	5.5	0.56	0.8	0.70
Whiting Petroleum Corporation	WLL	CB	45.79	1.47	8,020	7	93	4.2	-	-	0.61
Total or Median				1.44	67,500	22	78	7.1			0.78
Leveraged Cash Payers											
Vanguard Natural Resources, LLC	VNR		29.41	1.56	2,970	37	63	11.0	2.46	8.4	1.11
Linn Energy, LLC	LINE		35.23	1.76	14,430	42	58	12.8	2.90	8.2	1.09
Legacy Reserves L.P.	LGCY		27.83	1.58	2,520	19	81	10.3	2.30	8.3	0.95
Enerplus Corporation	ERF		16.06	1.57	4,900	31	69	6.6	1.05	6.5	0.84
Total or Median				1.58	24,800	34	66	10.7		8.2	1.02
RTF Cash Payers											
Freehold Royalties Ltd.	FRHLF		23.30	TL	1,600	27	73	11.0	1.63	7.0	1.11
Dorchester Minerals, L.P.	DMLP		25.02	TL	770	61	39	14.2	1.67	6.7	0.93
Enduro Royalty Trust (40%)	NDRO		16.41	BL	220	41	59	9.0	1.52	9.3	0.87
Sabine Royalty Trust	SBR		54.74	TL	800	45	55	13.0	4.20	7.7	0.84
Mesa RoyaltyTrust	MTR		24.79	BL	46	75	25	9.8	2.06	8.3	0.77
San Juan Basin Royalty Trust	SJT	В	16.08	BL	750	100	-	9.8	1.10	6.8	0.77
Permian Basin RT	PBT	-	13.95	TL	650	31	69	9.1	0.82	5.9	0.70
Hugoton RoyaltyTrust	HGT		9.66	BL	390	88	13	9.6	0.86	8.9	0.69
Cross Timbers Royalty Trust	CRT		29.92	TL	180	80	20	12.4	2.16	7.2	0.68
Total or Median			_,.,=		5,400	61	39	9.8	5	7.2	0.77
CB=Contrarian Buy, Stock Price apparer											
McDep Ratio = Market cap and Debt to j											
Present Value (PV) presumes long-term											
Dist. = Income distribution. $NTM = Nex$					1,2014. Ent	erprise	Value	= Marke	t Cap and	l Debt.	
TL = Top Line income sources, BL = Bo	ttom Lin	e in	come sour	ces							



		Тε	able ISC-2	2					
McDep In	come a	nd S	Small C	ap Ene	rgy Poi	rtfolio			
Net l	Present	Va	lue and	McDe	p Ratio				
					L				
			Price			Net			
			(\$/sh)		Market	Present		Debt/	
	Symbol/		23-May	Shares	Сар	Value		Present	McDe
	1	ting	23-May 2013	(mm)	(\$mm)	(\$/un)		Value	Ratio
	nu	ling	2015	(mm)	(\$1111)	(φ/un)		vuiue	Kun
Small Cap Independent Producers									
PDC Energy	PDCE		49.84	31.0	1,550	50.00		0.34	1.00
Range Resources	RRC	В	78.03	161.0	12,560	90.00		0.20	0.89
Peyto Exploration and Development Corp.			30.10	149.0	4,480	35.00	*	0.13	0.88
Halcón Resources	HK		5.52	420.0	2,320	8.00	**	0.46	0.83
Continental Resources (32%)	CLR	В	83.98	59.2	4,970	110.00		0.17	0.80
Berry Petroleum Company	BRY		44.95	55.3	2,490	70.00		0.32	0.76
Birchcliff Energy Ltd.	BIREF	В	8.32	164.0	1,360	12.00		0.22	0.76
Denbury Resources Inc.	DNR	-	18.71	373.0	6,980	28.00		0.25	0.75
Cimarex Energy Company	XEC	В	71.62	86.6	6,200	110.00		0.13	0.70
Whiting Petroleum Corporation	WLL	CB	45.79	119.0	5,450	88.00		0.20	0.61
Total or Median		0.0		11210	48,360	00100		0.21	0.78
					,				
Leveraged Cash Payers									
Vanguard Natural Resources, LLC	VNR		29.41	64.8	1,910	25.00		0.40	1.11
Linn Energy, LLC	LINE		35.23	233.0	8,210	30.00		0.47	1.09
Legacy Reserves L.P.	LGCY		27.83	57.1	1,590	30.00		0.35	0.95
Enerplus Corporation	ERF		16.06	196.0	3,150	21.00		0.30	0.84
Total or Median					14,860			0.37	1.02
RTF Cash Payers									
Freehold Royalties Ltd.	FRHLF		23.30	66.2	1,540	21.00		0.04	1.11
Dorchester Minerals, L.P.	DMLP	В	25.02	30.7	770	27.00		-	0.93
Enduro Royalty Trust (40%)	NDRO		16.41	13.2	220	19.00		-	0.87
Sabine Royalty Trust	SBR		54.74	14.6	800	65.00		-	0.84
Mesa RoyaltyTrust	MTR		24.79	1.9	46	32.00		-	0.77
San Juan Basin Royalty Trust	SJT	В	16.08	46.6	750	21.00		-	0.77
Permian Basin RT	PBT		13.95	46.6	650	20.00		-	0.70
Hugoton RoyaltyTrust	HGT		9.66	40.0	390	14.00		-	0.69
Cross Timbers Royalty Trust	CRT		29.92	6.0	180	44.00		-	0.68
Total or Median					5,350				0.77
B=Buy; CB=Contrarian Buy, Stock Price a	pparently i	n dov	wntrend co	mpared to	200-day av	verage.			
McDep Ratio = Market $cap$ and $Debt$ to $pr$	•• •					č			
Present Value presumes long-term prices						natural ga	s.		
· · · ·						U			
* Peyto NPV raised to \$35 from \$32 on n	nore growt	h, 5/2	23/13						
** HK NPV lowered to \$8 from \$10 on le									



		Tal	ole ISC-3	6				
McDep Inco	ome an	d S	mall C	ap Enei	rgy Poi	rtfolio		
Value	Multip	les	- Rank	by EV/	Ebitda			
	<b>r</b>							
			Price			Adjstd		
				Revenue	Dist/	Resrvs/	PV/	EV/
	Symbol/		23-May	Royalty	Equity	Prod	Ebitda	Ebitda
	Ra	ting	2013	(%)	Ebitda	NTM	NTM	NTM
Small Cap Independent Producers								
Range Resources	RRC	В	78.03		_	14.2	15.4	13.7
PDC Energy	PDCE	Б	49.84		-	14.2	11.5	11.5
Peyto Exploration and Development Cor			30.10		0.28	9.7	11.3	9.9
Birchcliff Energy Ltd.	BIREF	В	8.32		-	9.7 19.6	12.9	9.9
Halcón Resources	HK	D	5.52		-	5.7	9.1	9.7
	BRY		44.95		-	12.1	8.8	6.7
Berry Petroleum Company		В						6.6
Continental Resources (32%)	CLR	D	83.98		-	10.5	8.3	
Denbury Resources Inc.	DNR	D	18.71		-	13.9	8.4	6.3
Cimarex Energy Company	XEC	B	71.62		-	7.8	7.9	5.5
Whiting Petroleum Corporation	WLL	CB	45.79		-	8.7	6.8	4.2
Median						11.3	9.0	7.1
Leveraged Cash Payers								
Linn Energy, LLC	LINE		35.23		1.13	14.1	11.7	12.8
Vanguard Natural Resources, LLC	VNR		29.41		0.98	11.0	10.0	11.0
Legacy Reserves L.P.	LGCY		27.83		0.83	11.0	10.8	10.3
Enerplus Corporation	ERF		16.06		0.39	6.5	7.9	6.6
Median						11.0	10.4	10.7
RTF Cash Payers	DMD	D	25.02	77	0.04	7.0	15.2	14.0
Dorchester Minerals, L.P.	DMLP	В	25.02	100	0.94	7.0	15.3	14.2
Sabine Royalty Trust	SBR		54.74	100	1.00	8.9	15.5	13.0
Cross Timbers Royalty Trust	CRT		29.92	97	0.90	13.0	18.2	12.4
Freehold Royalties Ltd.	FRHLF		23.30	88	0.78	4.6	10.0	11.0
Mesa RoyaltyTrust	MTR	D	24.79		0.82	5.2	12.7	9.8
San Juan Basin Royalty Trust	SJT	В	16.08		0.67	10.4	12.8	9.8
Hugoton RoyaltyTrust	HGT		9.66	50	0.86	13.0	13.9	9.6
Permian Basin RT	PBT		13.95	58	0.54	12.7	13.1	9.1
Enduro Royalty Trust (40%)	NDRO		16.41		0.83	6.1	10.4	9.0
Median						8.9	13.1	9.8
B=Buy; CB=Contrarian Buy, Stock Price	apparentl	v in a	lowntrend	compared	to 200-da	v average		
EV = Enterprise Value = Market Cap and							n	
and amortization; $NTM = Next Twelve M$								
Earnings; $PV = Present Value of oil and g$					Stockill			
Top Line Cash Payers defined as those ha				ee fifth co	lumn from	right)		

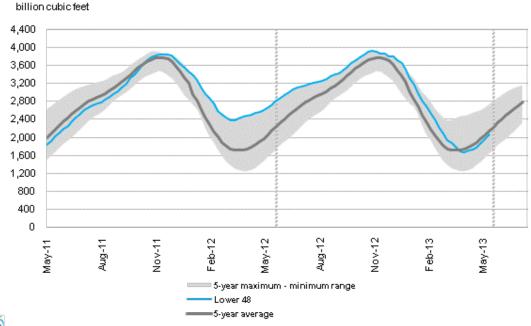


			Table I	SC-4					
McDep	Incom	e ai	nd Sma	ll Cap I	Energy	Portfol	io		
-				-	0.	omentur			
			Lincer						
			Price	Equity					
			(\$/sh)	Total		Enterpris	e Value/		
	Symbol/		23-May	Return	.52Wk	52Wk		200 Day	McDep
	2	ting	2013	YTD (%)	High	Low	Avg.	Avg.	Ratic
Small Cap Independent Producers									
PDC Energy	PDCE		49.84	50	0.95	1.68	1.04	1.20	1.00
Peyto Exploration and Development C			30.10	33	0.93	1.66	1.04	1.18	0.88
Cimarex Energy Company	XEC	В	71.62	25	0.97	1.41	0.99	1.13	0.88
Range Resources	RRC	B	78.03	23	0.92	1.41	1.01	1.09	0.70
Birchcliff Energy Ltd.	BIREF	B	8.32	24	0.95	1.33	1.01	1.08	0.89
Berry Petroleum Company	BRY	D	44.95	34	0.95	1.41	0.98	1.07	0.76
• • •	DNR		18.71	15	0.95	1.25	1.02	1.07	0.70
	CLR	В	83.98	13	0.97	1.25	1.02	1.07	0.75
Whiting Petroleum Corporation	WLL	CB	45.79	5	0.91	1.18	0.98	0.99	0.60
	HK	CD	5.52	(19)	0.69	1.13	0.91	0.89	0.83
Median	IIK		5.52	20	0.95	1.23	1.01	1.07	0.83
Leveraged Cash Payers				20	0.75	1.50	1.01	1.07	0.70
Enerplus Corporation	ERF		16.06	28	0.95	1.23	1.07	1.07	0.84
	LGCY		27.83	20	0.95	1.14	1.07	1.07	0.95
Vanguard Natural Resources, LLC	VNR		29.41	17	0.98	1.14	1.02	1.03	1.11
	LINE		35.23	4	0.89	1.02	0.97	0.95	1.09
Median	LINE		35.25	19	0.95	1.16	1.02	1.03	1.02
RTF Cash Payers				17	0.75	1.10	1.02	1.05	1.02
Hugoton RoyaltyTrust	HGT		9.66	37	0.97	1.69	1.07	1.24	0.69
Sabine Royalty Trust	SBR		54.74	41	0.98	1.41	1.11	1.13	0.84
Dorchester Minerals, L.P.	DMLP	В	25.02	28	0.97	1.26	1.06	1.13	0.93
San Juan Basin Royalty Trust	SJT	B	16.08	20	0.90	1.33	1.05	1.10	0.77
Freehold Royalties Ltd.	FRHLF	5	23.30	8	0.96	1.33	1.00	1.07	1.11
Mesa RoyaltyTrust	MTR		24.79	33	0.70	1.37	1.00	1.07	0.77
Cross Timbers Royalty Trust	CRT		29.92	15	0.75	1.32	1.00	1.02	0.68
	PBT		13.95	16	0.72	1.17	1.10	1.00	0.00
Enduro Royalty Trust (40%)	NDRO		16.41	10	0.83	1.10	1.01	0.95	0.87
Median	I DIO		10.71	20	0.90	1.32	1.01	1.07	0.87
meatan				20	0.70	1.52	1.05	1.07	0.77



Analysis of Oil & Gas Stocks May 24, 2013

#### Working gas in underground storage compared with the 5-year maximum and minimum



tial Source: U.S. Energy Information Administration

**Disclaimer:** This analysis was prepared by Kurt Wulff, Manager of McDep LLC. The firm used sources and data believed to be reliable, but makes no representation as to their accuracy or completeness. This analysis is intended for informational purposes and is not a solicitation to buy or sell a security. Past performance is no guarantee of future results.

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