Rating: Buy S&P 500: 1220

# **Berry Petroleum Company Expanding on Multiple Fronts**

Symbol	BRY	Ebitda Next Twelve Months ending 9/30/06 (US\$mm)	305
Rating	Buy	North American Natural Gas/Ebitda (%)	19
Price (\$/sh)	63.12	Natural Gas and Oil Production/Ebitda (%)	100
Pricing Date	11/3/05	Adjusted Reserves/Production NTM	10.2
Shares (mm)	23	EV/Ebitda	5.3
Market Capitalization (\$mm)	1,420	PV/Ebitda	5.4
Debt (\$mm)	190	Undeveloped Reserves (%)	30
Enterprise Value (EV) (\$mm)	1,610	Natural Gas and Oil Ebitda (\$/boe)	34.10
Present Value (PV) (\$mm)	1,650	Present Value Proven Reserves(\$/boe)	13.20
Net Present Value (\$/share)	65	Present Value Proven Reserves(\$/mcfe)	2.20
Debt/Present Value	0.11	Earnings Next Twelve Months (US\$/sh)	6.00
McDep Ratio - EV/PV	0.97	Price/Earnings Next Twelve Months	11
Dividend Yield (%/year)	1.0	Indicated Annual Dividend (US\$/sh)	0.62

Note: Estimated cash flow and earnings tied to one-year futures prices for natural gas and oil.

Reported results may vary widely from estimates. Estimated present value per share revised only infrequently.

### **Summary and Recommendation**

Buy-recommended **Berry Petroleum (BRY)** is priced near present value of \$65 a share where it offers an unlevered 7% per year real return. Taking account of latest quarterly results, our correlation of 30 companies indicates net present value about \$9 a share higher than estimated. Neither the present value estimate nor the correlation includes the company's diatomite project that has the promise of expanding reserves by a third, or more. An active Rocky Mountain exploration and development program appears promising. Our projections reflect the loss of favorable terms in a crude oil sales contract expiring at year end that fixed the difference between light, sweet crude oil and the company's heavy grade.

#### Cash Flow and Reserve Life Point to Present Value

McDep analysis presumes that fundamental value is measured by the projection of cash flows far into the future and discounting them to the present at a rate of return, currently 7% a year before inflation. Next Twelve Months (NTM) cash flow represents the volumes and costs that form the base for future projections. Reserve life index tells how long cash flow will last. NTM cash flow and reserve life are the two main variables in our correlation by function for about 30 companies. Net present value indicated by the current combined correlation is about \$9 a share higher than our ongoing standard estimate for the company (see table <a href="Functional Cash Flow and Present Value">Functional Cash Flow and Present Value</a>).

#### Berry Petroleum Company Functional Cash Flow and Present Value

NTM Ebitda Adjusted PV/ Value <u>(US\$mm)</u> <u>R/P</u> <u>Ebitda (US\$mm)</u>							
North American Natural Gas 60 10.1 5.0 300	18%						
Oil 245 10.3 5.5 1,350	82%						
305 7.6 5.4 1,650	100%						
Debt (US\$mm)	190						
Net Present Value (US\$mm)	1,460						
Shares (mm)	23						
Net Present Value (US\$/sh)	65						
Over (-)/ Under (+) Correlation (US\$/sh)							

## Cash Flow by Quarter Depends on Latest Results and Futures Prices

Cash flow for the next year is projected from a base through the latest reported quarter (see table Next Twelve Months Operating and Financial Estimates). Company disclosures provide the clues for future volumes and costs as well as geographic and quality differences in price. Futures prices from the New York Mercantile Exchange determine industry benchmarks for the next year.

# **Industry Conditions Support Long-Term Price Expectation**

Present value estimates that form the denominator of the McDep Ratio and change only occasionally for all companies, most recently in early August, are tied to expected constant real longterm prices. Recent futures price for oil delivered over the next six years at \$60 a barrel exceeds our long-term expectation of \$50. Oneyear futures for natural gas exceed our long-term expectation while six-year futures for natural gas also have appreciation potential, in our opinion.

# Oil and Gas Commodity and Stock Price Thursday, November 03, 2005

		Future	McDep Ratio	
	<u>Units</u>	<u>Six-Year</u>	One-Year	<u>Denominator</u>
Crude Oil	\$/barrel	60.29	63.18	50
Natural Gas	\$/million btu	8.22	10.68	10
				Median
	<u>Stocks</u>			McDep Ratio
	Independent P	0.77		
	BRY			0.97

Source: McDep Associates, Bloomberg, New York Mercantile Exchange, Yahoo and company disclosures

#### Berry Petroleum Company Quarterly Results

				Quarter	iy Kesuits						
	Q4	Year	Q1	Q2	Q3	Q4E	Year	QIE	Q2E	Q3E	Next Twelve Months
X7.1	12/31/04	2004	3/31/05	6/30/05	9/30/05	12/31/05	2005E	3/31/06	6/30/06	9/30/06	9/30/06
Volume	0.1		15.0	22.1	21.0	21.0	20.0	22.0	22.0	22.0	22.5
Natural Gas (mmcfd)	9.1	5.1	17.3	22.1	21.8	21.8	20.8	23.0	23.0	23.0	22.7
Oil (mbd)	19.90	19.20	19.16	18.99	20.00	20.00	19.54	21.00	21.00	21.00	20.75
Total (mbd)	21.4	20.0	22.0	22.7	23.6	23.6	23.0	24.8	24.8	24.8	24.5
Price	7.10		6.05		0.56	10.45	0.71	10.15	0.00	0.04	
Henry Hub (\$/mmbtu)	7.10	6.15	6.27	6.76	8.56	12.45	8.51	12.15	9.93	9.94	11.12
Differential (\$/mmbtu)	0.85	0.26	0.79	0.62	0.78	1.14	0.70	1.14	0.91	0.91	1.03
Company (\$/mcf)	5.93	5.89	5.48	6.14	7.78	11.31	7.81	11.04	9.02	9.04	10.08
WTI Cushing (\$/bbl)	48.31	41.44	49.65	53.05	62.52	61.97	56.80	62.89	63.42	63.51	62.95
Differential	8.47	9.17	8.47	9.06	10.68	10.59	4.94	16.06	16.20	16.22	14.80
Company	39.84	32.27	41.51	43.99	51.84	51.39	51.86	46.83	47.22	47.29	48.15
Total (\$/bbl)	39.54	34.48	40.38	42.83	51.05	53.92	47.25	49.83	48.29	48.36	50.06
Revenue (\$mm)											
Natural Gas	5	11	9	12	16	23	59	23	19	19	84
Oil	73	242	72	76	95	95	338	89	90	91	365
Other, incl hedge	(10)	(26)	(5)	(8)	(15)		(27)				
Total	67	227	75	81	96	117	370	111	109	110	448
Expense											
Lease operating	22	81	23	26	28	28	106	29	29	30	116
General and administrative	5	17	5	5	6	7	23	7	7	. 7	27
Total	27	98	28	32	34	35	129	36	36	37	143
Ebitda	40	128	47	49	62	82	241	76	73	74	305
Exploration	1	1	3	1	4	3	10	3	3	3	12
Deprec., Deplet., & Amort.	9	33	9	10	10	12	40	12	12	13	49
Other, incl hedge	0	(0)	1	(0)	(1)	19	18	4	4	4	30
Ebit	30	95	34	39	50	49	173	57	54	55	214
Interest	0	2	1	2	2	2	6	2	2	2	6
Ebt	30	93	33	38	49	47	167	55	52	53	208
Income Tax	4	22	11	12	15	17	54	19	18	19	73
Net Income (\$mm)	25	71	22	25	34	31	113	36	34	34	135
Per Share (\$)	1.13	3.18	1.00	1.13	1.52	1.36	5.01	1.59	1.51	1.53	6.00
Shares (millions)	22	22	22	23	23	23	22	23	23	23	23
Lease operating (\$/bbl)	11.12	11.07	11.79	12.80	12.92	13.00	12.65	13.00	13.00	13.00	13.00
General and admin (\$/bbl)	2.64	2.33	2.42	2.52	2.76	3.00	2.68	3.00	3.00	3.00	3.00
Deprec., D,& A (\$/bbl)	4.67	4.53	4.69	4.61	4.42	5.50	4.81	5.50	5.50	5.50	5.50
Ebitda Margin	60%	57%	63%	61%	65%	70%	65%	68%	67%	67%	68%
Tax rate	15%	23%	33%	32%	30%	35%	32%	35%	35%	35%	35%

## **Buy Independent Natural Gas and Oil Producers**

Energy is necessary for world economic growth and clean energy provides a better quality of life. Independent natural gas and oil producers are among the leading global suppliers of clean energy. McDep Ratios that compare Enterprise Value with Present Value of energy and other businesses imply that the stock market undervalues the fundamental prospects. Stocks are ranked in descending order of McDep Ratio connoting "buy low, sell high" (see table Rank by McDep Ratio).

Kurt H. Wulff, CFA

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

			Price			Net				
			(\$/sh)		Market	Present	Debt/			
	Symbo	<i>l</i> /	3-Nov	Shares	Cap	Value	Present	McDep		
		Rating	2005	(mm)	(\$mm)	(\$/sh)	Value	Ratio		
Independent Natural Gas and Oil - Large Cap and Mid Cap										
XTO Energy Inc.	XTO	В	44.39	370	16,420	48.00	0.20	0.94		
Encana Corporation	ECA	В	48.70	876	42,700	51.00	0.20	0.96		
Burlington Resources	BR	В	74.90	381	28,500	86.00	0.09	0.88		
CNOOC Limited (29%)	CEO	В	67.11	119	8,000	84.00	0.01	0.80		
Devon Energy Corporation	DVN	В	61.88	454	28,100	86.00	0.15	0.76		
Occidental Petroleum Corp.	OXY	В	80.81	404	32,700	120.00	0.11	0.71		
Anadarko Petroleum Corp.	APC	В	92.90	238	22,100	140.00	0.12	0.70		
Total or Media	1				179,000		0.12	0.80		
Independent Natural Gas and Oil - Small Cap										
Berry Petroleum Company	BRY	В	63.12	23	1,420	65.00	0.11	0.97		
Encore Acquisition Company	EAC	В	36.22	50	1,800	50.00	0.21	0.78		
Energy Partners Ltd.	EPL	В	26.53	41	1,080	38.00	0.17	0.75		
Cimarex Energy Company	XEC	В	41.20	85	3,500	64.00	0.11	0.68		
Total or Median					7,800		0.14	0.77		

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