



# Meter Reader

A Weekly Analysis of Large Cap Oil and Gas Stocks

September 21, 2010

## Petrobras – Record Deal, Reasonable Price

Symbol	PBR	Ebitda Next Twelve Months ending 9/30/11 (US\$mm)	36,000
Rating		North American Natural Gas/Ebitda (%)	0
Price (US\$/sh)	35.94	Natural Gas and Oil Production/Ebitda (%)	83
Pricing Date	9/20/10	Adjusted Reserves/Production NTM	9.6
Shares (mm)	4387	EV/Ebitda	6.2
Market Capitalization (US\$mm)	158,000	PV/Ebitda	8.9
Debt (US\$mm)	65,000	Undeveloped Reserves (%)	40
Enterprise Value (EV) (US\$mm)	223,000	Natural Gas and Oil Ebitda (US\$/boe)	29.50
Present Value (PV) (US\$mm)	320,000	Present Value Proven Reserves(US\$/boe)	21.97
Net Present Value (US\$/share)	58	Present Value Proven Reserves(US\$/mcf)	3.66
Debt/Present Value	0.20	Earnings Next Twelve Months (US\$/sh)	3.93
McDep Ratio - EV/PV	0.70	Price/Earnings Next Twelve Months	9
Dividend Yield (%/year)	3.7	Indicated Annual Dividend (US\$/sh)	1.34
Note: Estimated cash flow and earnings tied to one-year futures prices for oil and natural gas.			
Reported results may vary widely from estimates. Estimated present value per share revised only infrequently.			
Estimated present value presumes a long-term price for oil of US\$75 a barrel and natural gas, \$8 a million btu.			
The Brazilian Government has voting control and with public sector entities owns 40% of Petrobras' equity.			

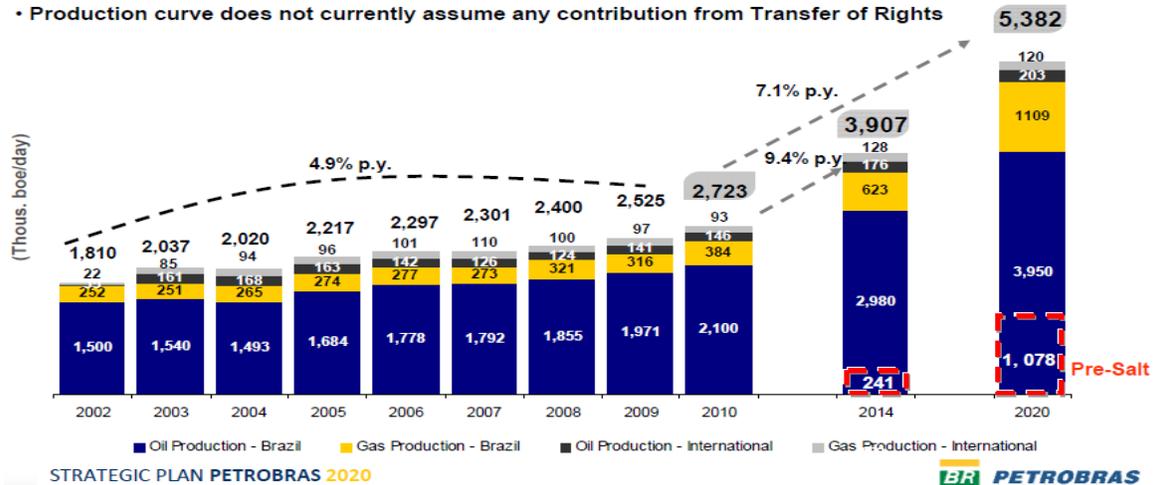
### Summary and Recommendation

We like the common and preferred stock of **Petrobras (PBR)** for unlevered appreciation potential of 43% to a McDep Ratio of 1.0 where price would equal Net Present Value (NPV) of \$58 a share. A record sale of some \$78 billion of new stock is expected this week. The Brazilian government would pay for some \$42.5 billion of new shares with the transfer of rights to 5 billion barrels of oil to be developed by Petrobras. The price of the deal, the number of shares to be sold and the final participation by each buyer will be sensitive to market conditions. The presently elected government of Brazil likely has a strong preference for the deal to be successful ahead of national elections on October 3. The favored candidate to succeed the outgoing President appears to be Ms. Dilma Rousseff, Chair of Petrobras. Conservative investors might prefer to acquire stock in a quieter aftermarket while at the same time being ready to move sooner if the deal is priced at a surprising discount to current quote. Meanwhile, the company aims to double production by 2020 (see slide from mid-year presentation, [Oil and Gas Production Targets](#) on page 2). As a result, management declares that Petrobras has the highest growth rate target in the industry (see eponymous slide on page 2). More than a million barrels daily would be produced from Pre-Salt discoveries under water several miles deep. Major discoveries include Tupi at 5-8 billion barrels, Carioca and others (see map on page 3). We count those unproven discoveries at 19% of NPV (see table [Functional Cash Flow and Present Value](#) on page 3). The remaining 81% of NPV is supported by current cash flow in our industry context (see table [Next Twelve Months Operating and Financial Estimates](#) on page 4). PBR's McDep Ratio of 0.70 signals reasonable valuation while offering geographic diversification (see [Tables 1-4](#) on pages 5-8).

Kurt H. Wulff, CFA

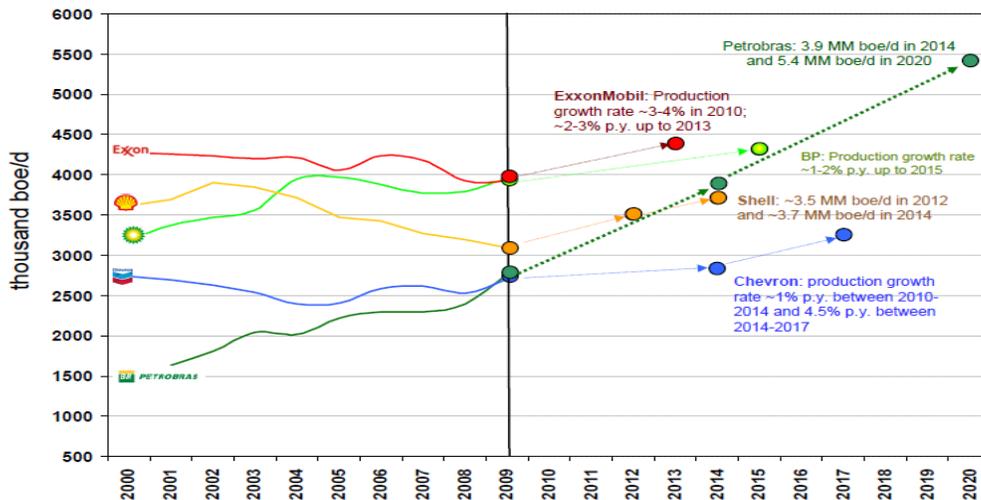
## OIL AND GAS PRODUCTION TARGETS 2010-2020 Domestic targets unchanged, international targets reduced

- Production curve for domestic oil gas production consistent with prior Business Plan
- Projected international production reduced as a result of decrease in investment
- Production curve does not currently assume any contribution from Transfer of Rights



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## Petrobras has the highest growth rate target of the industry

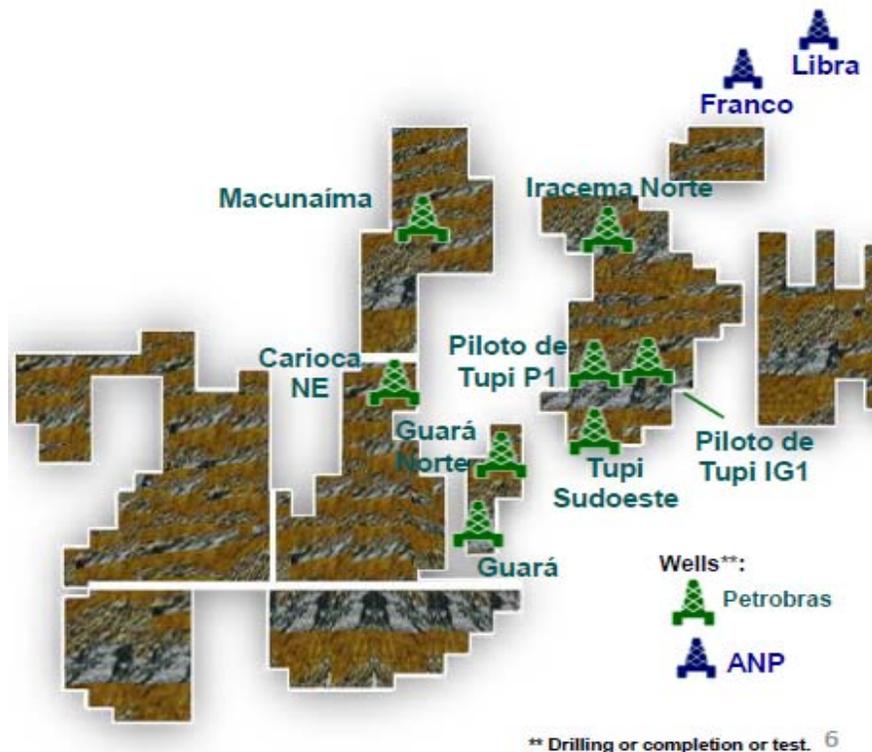


STRATEGIC PLAN PETROBRAS 2020

Source: PFC Energy and Company reports

**BR PETROBRAS**

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Petrobras					
Functional Cash Flow and Present Value					
	NTM Ebitda	Adjusted	PV/	Present	
	(US\$mm)	R/P	Ebitda	Value	
				(US\$mm)	
Natural Gas	1,340	8.9	8.2	11,000	3%
Oil	28,700	9.7	7.1	203,000	64%
Downstream	6,000		7.5	45,000	14%
Pre Salt Deep Water Oil				60,000	19%
	36,040	9.6	8.9	319,000	100%
Debt (US\$mm)					65,000
Net Present Value (US\$mm)					254,000
Shares (mm)					4,387
Net Present Value - Standard Estimate (US\$/sh)					58
NPV Approximation by Cash Flow Multiple Depending on Reserve Life (US\$/sh)					58



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<b>Petrobras</b>									
<b>Next Twelve Months Operating and Financial Estimates</b>									
(U.S. Accounting through 2009, International Financial Reporting Standards 2010, US\$)									
									<i>Next Twelve Months</i>
	<i>Q3</i>	<i>Q2</i>	<i>Q3E</i>	<i>Q4E</i>	<i>Year</i>	<i>Q1E</i>	<i>Q2E</i>	<i>Q3E</i>	<i>9/30/11</i>
	<i>9/30/09</i>	<i>6/30/10</i>	<i>9/30/10</i>	<i>12/31/10</i>	<i>2010E</i>	<i>3/31/11</i>	<i>6/30/11</i>	<i>9/30/11</i>	<i>9/30/11</i>
<b>Volume</b>									
Natural Gas (mmcf)	2,478	2,538	2,726	2,746	<b>2,621</b>	2,472	2,538	2,726	<b>2,621</b>
Oil (mbd)	2,121	2,156	2,333	2,350	<b>2,242</b>	2,350	2,350	2,350	<b>2,350</b>
Total gas & oil (mmb)	233	235	256	258	<b>978</b>	249	252	258	<b>1,017</b>
Total gas & oil (mbd)	2,534	2,579	2,787	2,807	<b>2,679</b>	2,762	2,773	2,804	<b>2,786</b>
<b>Price</b>									
Natural gas (\$/mcf)	3.00	3.11	3.11	3.11	<b>2.95</b>	3.11	3.11	3.11	<b>3.11</b>
Oil (\$/bbl)									
WTI Cushing	68.22	77.85	76.02	76.30	<b>77.21</b>	79.78	81.62	82.68	<b>80.10</b>
Brent	68.00	78.30	76.46	76.74	<b>76.93</b>	80.24	82.09	83.15	<b>80.56</b>
Company	63.56	72.30	70.60	70.86	<b>71.45</b>	74.09	75.80	76.78	<b>74.38</b>
Total gas & oil (\$/bbl)	56.13	63.50	62.13	62.35	<b>62.68</b>	65.82	67.08	67.36	<b>65.64</b>
NY Harbor 3-2-1 (\$/bbl)	9.45	12.13	8.39	8.51	<b>9.04</b>	6.95	9.67	8.42	<b>8.39</b>
<b>Revenue (mm\$)</b>									
Natural gas	684	718	780	786	<b>2,821</b>	692	718	780	<b>2,976</b>
Oil	12,402	14,184	15,153	15,317	<b>58,474</b>	15,667	16,206	16,596	<b>63,787</b>
Total production	13,086	14,903	15,933	16,103	<b>61,295</b>	16,359	16,924	17,376	<b>66,763</b>
Other	12,789	13,650	13,650	13,650	<b>54,599</b>	13,650	13,650	13,650	<b>54,599</b>
Total	25,875	29,961	29,583	29,752	<b>117,303</b>	30,009	30,574	31,026	<b>121,362</b>
<b>Expense</b>									
Production	7,328	7,326	8,763	8,856	<b>32,900</b>	8,998	9,308	9,557	<b>36,720</b>
Other	11,314	12,329	12,150	12,150	<b>48,305</b>	12,150	12,150	12,150	<b>48,599</b>
<b>Ebitda (mm\$)</b>									
Production	5,758	7,577	7,170	7,246	<b>28,395</b>	7,362	7,616	7,819	<b>30,043</b>
Other	1,475	1,321	1,500	1,500	<b>6,294</b>	1,500	1,500	1,500	<b>6,000</b>
Total Ebitda	7,233	8,898	8,670	8,746	<b>34,689</b>	8,862	9,116	9,319	<b>36,043</b>
Exploration	396	350	350	350	<b>1,606</b>	350	350	350	<b>1,399</b>
Deprec., Deplet., & Amort.	2,013	2,025	2,025	2,025	<b>7,888</b>	2,025	2,025	2,025	<b>8,098</b>
Other non cash	(815)	132							
<b>Ebit</b>	5,639	6,391	6,295	6,372	<b>24,981</b>	6,487	6,742	6,945	<b>26,546</b>
<b>Ebt</b>	5,639	6,391	6,295	6,372	<b>24,981</b>	6,487	6,742	6,945	<b>26,546</b>
Income Tax	1,866	1,735	2,203	2,230	<b>7,802</b>	2,271	2,360	2,431	<b>9,291</b>
<b>Net Income (mm\$)</b>									
Production	2,700	4,376							
Other	1,073	281							
Total Net Income	3,773	4,657	4,092	4,142	<b>17,180</b>	4,217	4,382	4,514	<b>17,255</b>
<b>Shares (millions)</b>	4,387	4,387	4,387	4,387	<b>4,387</b>	4,387	4,387	4,387	<b>4,387</b>
Per share (\$)	0.86	1.06	0.93	0.94	<b>3.92</b>	0.96	1.00	1.03	<b>3.93</b>
Ebitda Margin (E&P)	44%	51%	45%	45%	<b>46%</b>	45%	45%	45%	<b>45%</b>
Tax Rate	33%	27%	35%	35%	<b>31%</b>	35%	35%	35%	<b>35%</b>





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Table 2								
McDep Large Cap Energy Portfolio								
Net Present Value and McDep Ratio								
			Price			Net		
			(US\$/sh)		Market	Present	Debt/	
	Symbol/Rating		20-Sep	Shares	Cap	Value	Present	McDep
	B = Buy, CB (see below)		2010	(mm)	(US\$mm)	(US\$/sh)	Value	Ratio
<b>U.S. Integrated</b>								
Exxon Mobil Corporation	XOM	CB	61.55	5,141	316,000	89.00	0.12	0.73
Chevron Corporation	CVX	B	79.90	2,006	160,000	116.00	0.10	0.72
Marathon Oil Corporation	MRO	B	32.34	712	23,030	53.00	0.23	0.70
ConocoPhillips	COP	B	56.83	1,400	80,000	95.00	0.24	0.70
	<i>Total or Median</i>				579,000		0.18	0.71
<b>Europe</b>								
BG Group plc	BRGXF		17.45	3,400	59,300	22.00	0.12	0.82
Royal Dutch Shell plc	RDS-A	B	59.39	3,072	182,000	79.00	0.20	0.80
Statoil ASA (33%)	STO	CB	20.66	1,050	21,700	35.00	0.25	0.69
BP plc	BP		38.68	3,172	123,000	72.00	0.27	0.66
Total S.A.	TOT	CB	50.77	2,243	114,000	90.00	0.15	0.63
	<i>Total or Median</i>				500,000		0.20	0.69
<b>Australia/Brazil/China/Russia</b>								
CNOOC Limited (34%)	CEO		190.04	152	29,000	170.00	0.05	1.11
Woodside Petroleum Ltd.	WOPEY	B	41.79	782	32,700	44.00	0.13	0.96
PetroChina Company Ltd (14%)	PTR	CB	112.25	256	28,800	150.00	0.14	0.78
Petrobras	PBR		35.94	4,387	157,700	58.00	0.20	0.70
Lukoil Oil Company	LUKOY	CB	55.87	848	47,400	135.00	0.05	0.44
Gazprom (50%)	OGZPY	CB	21.14	2,870	60,700	64.00	0.09	0.39
	<i>Total or Median</i>				356,000		0.11	0.74
<b>U.S. Independent</b>								
Anadarko Petroleum Corp.	APC		55.40	495	27,400	60.00	0.41	0.95
Southwestern Energy Company	SWN		31.94	349	11,200	35.00	0.09	0.92
Occidental Petroleum Corp.	OXY	CB	77.23	814	62,900	95.00	0.06	0.82
Chesapeake Energy Corp.	CHK		21.74	635	13,800	31.00	0.39	0.82
EOG Resources	EOG	CB	87.73	250	21,900	120.00	0.12	0.76
Devon Energy Corporation	DVN	CB	62.93	446	28,100	98.00	0.08	0.67
	<i>Total or Median</i>				165,300		0.11	0.82
<b>Canada</b>								
Imperial Oil Limited (30%)	IMO	CB	37.45	257	9,600	48.00	0.08	0.80
Cenovus Energy Inc.	CVE	B	27.63	752	20,800	37.00	0.20	0.80
Suncor Energy	SU	B	32.45	1,572	51,000	48.00	0.19	0.74
Canadian Natural Resources	CNQ	CB	33.64	1,089	36,600	50.00	0.17	0.73
Canadian Oil Sands Trust	COSWF	CB	26.10	484	12,600	38.00	0.07	0.71
EnCana Corporation	ECA	CB	28.45	738	21,000	50.00	0.19	0.65
	<i>Total or Median</i>				152,000		0.18	0.73
CB=Contrarian Buy, Stock Price may in downtrend compared to 200-day average.								
McDep Ratio = Market cap and Debt to present value of oil and gas and other businesses								
Estimated present value presumes a long-term price for oil of US\$75 a barrel and natural gas, \$8 a million btu.								



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Table 3								
McDep Large Cap Energy Portfolio								
Value Multiples and Distribution Yield								
			Price (US\$/sh)	Adjustd Resrvs/ Prod	PV/ Ebitda	EV/ Ebitda	P/E	Divd or Distrib NTM
	Symbol/Rating		20-Sep 2010	NTM	NTM	NTM	NTM	(%)
B = Buy, CB (see below)								
<b>U.S. Integrated</b>								
Exxon Mobil Corporation	XOM	CB	61.55	13.2	8.5	6.2	11	2.9
ConocoPhillips	COP	B	56.83	10.3	8.2	5.7	13	3.9
Marathon Oil Corporation	MRO	B	32.34	9.2	7.6	5.3	13	3.1
Chevron Corporation	CVX	B	79.90	9.1	6.6	4.7	10	3.6
<i>Total or Median</i>				9.7	7.9	5.5	12	3.3
<b>Europe</b>								
BG Group plc	BRGXF		17.45	14.5	8.9	7.3	13	1.1
Royal Dutch Shell plc	RDS-A	B	59.39	8.8	6.8	5.5	11	5.7
BP plc	BP		38.68	10.0	7.6	5.1	7	-
Total S.A.	TOT	CB	50.77	9.7	7.5	4.7	8	5.9
Statoil ASA (33%)	STO	CB	20.66	6.5	6.0	4.2	8	4.8
<i>Total or Median</i>				9.7	7.5	5.1	8	4.8
<b>Australia/Brazil/China/Russia</b>								
Woodside Petroleum Ltd.	WOPEY	B	41.79	18.0	12.5	11.9	23	2.4
CNOOC Limited (34%)	CEO		190.04	6.6	5.9	6.6	13	2.8
Petrobras	PBR		35.94	9.6	8.9	6.2	9	3.7
PetroChina Company Ltd (14%)	PTR	CB	112.25	13.6	7.5	5.8	15	3.8
Gazprom (50%)	OGZPY	CB	21.14	30.2	9.5	3.7	5	0.2
Lukoil Oil Company	LUKOY	CB	55.87	15.8	7.8	3.4	6	3.0
<i>Total or Median</i>				14.7	8.3	6.0	11	2.9
<b>U.S. Independent</b>								
Southwestern Energy Company	SWN		31.94	6.0	10.2	9.4	21	-
Chesapeake Energy Corp.	CHK		21.74	11.1	11.1	9.1	16	1.4
Anadarko Petroleum Corp.	APC		55.40	8.3	7.7	7.4		0.6
EOG Resources	EOG	CB	87.73	8.8	9.6	7.3	39	0.7
Occidental Petroleum Corp.	OXY	CB	77.23	10.5	7.5	6.2	14	2.0
Devon Energy Corporation	DVN	CB	62.93	10.0	9.2	6.2	12	1.0
<i>Total or Median</i>				9.4	9.4	7.3	16	0.9
<b>Canada</b>								
Cenovus Energy Inc.	CVE	B	27.63	18.3	12.0	9.5	23	2.8
EnCana Corporation	ECA	CB	28.45	13.7	13.5	8.8	29	2.8
Imperial Oil Limited (30%)	IMO	CB	37.45	20.0	10.6	8.5	15	1.1
Canadian Oil Sands Trust	COSWF	CB	26.10	26.7	11.8	8.4	13	7.4
Suncor Energy	SU	B	32.45	22.3	11.1	8.2	24	1.2
Canadian Natural Resources	CNQ	CB	33.64	17.4	10.0	7.3	18	0.9
<i>Total or Median</i>				19.2	11.5	8.4	21	2.0
CB=Contrarian Buy, Stock Price may be in downtrend compared to 200-day average.								
EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended June 30, 2011; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses								



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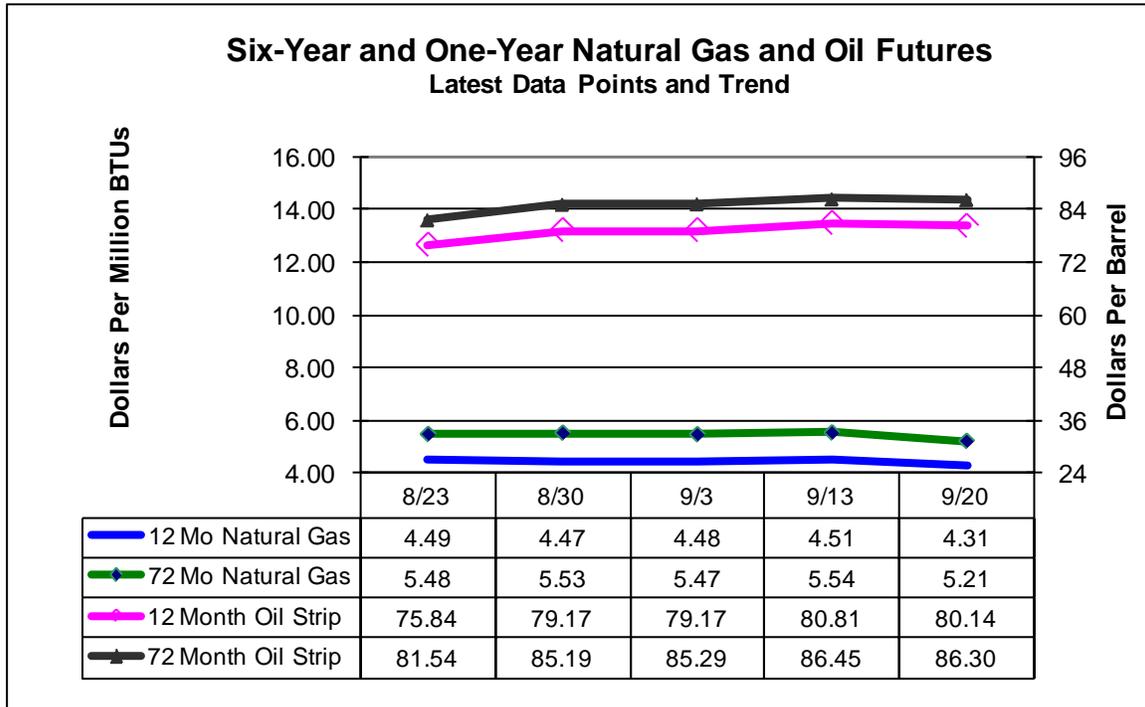
Table 4								
McDep Large Cap Energy Portfolio								
Rank by Enterprise Value to 200 Day Average								
			Price		Enterprise Value/			
	Symbol		20-Sep	52Wk	52Wk	50 Day	200 Day	McDep
	Ratin.		2010	High	Low	Avg.	Avg.	Ratio
<b>U.S. Integrated</b>								
ConocoPhillips	COP	B	56.83	0.96	1.16	1.03	1.05	0.70
Chevron Corporation	CVX	B	79.90	0.96	1.16	1.04	1.05	0.72
Marathon Oil Corporation	MRO	B	32.34	0.93	1.11	1.00	1.01	0.70
Exxon Mobil Corporation	XOM	CB	61.55	0.83	1.08	1.02	0.96	0.73
	<i>Median</i>			<i>0.95</i>	<i>1.14</i>	<i>1.02</i>	<i>1.03</i>	<i>0.71</i>
<b>Europe</b>								
Royal Dutch Shell plc	RDS-A	B	59.39	0.95	1.15	1.05	1.03	0.80
BG Group plc	BRGXF		87.24	0.88	1.21	1.05	1.02	0.82
Statoil ASA (33%)	STO	CB	20.66	0.84	1.08	1.01	0.95	0.69
Total S.A.	TOT	CB	50.77	0.80	1.13	1.02	0.95	0.63
BP plc	BP		38.68	0.74	1.22	1.02	0.88	0.66
	<i>Median</i>			<i>0.86</i>	<i>1.14</i>	<i>1.02</i>	<i>0.98</i>	<i>0.70</i>
<b>Australia/Brazil/China/Russia</b>								
CNOOC Limited (34%)	CEO		190.04	1.00	1.44	1.10	1.15	1.11
Woodside Petroleum Ltd.	WOPEY	B	41.79	0.86	1.23	1.08	1.04	0.96
Lukoil Oil Company	LUKOY	B	55.87	0.84	1.22	1.02	1.02	0.44
PetroChina Company Ltd (14%)	PTR	CB	112.25	0.85	1.11	1.00	0.98	0.78
Gazprom (50%)	OGZPY	CB	21.14	0.81	1.13	1.00	0.96	0.39
Petrobras	PBR		35.94	0.74	1.10	1.00	0.92	0.70
	<i>Median</i>			<i>0.85</i>	<i>1.18</i>	<i>1.01</i>	<i>1.00</i>	<i>0.74</i>
<b>U.S. Independent</b>								
Anadarko Petroleum Corp.	APC		55.40	0.83	1.27	1.05	0.97	0.95
Occidental Petroleum Corp.	OXY	CB	77.23	0.86	1.07	0.99	0.96	0.82
Chesapeake Energy Corp.	CHK		21.74	0.83	1.05	1.01	0.95	0.82
Devon Energy Corporation	DVN	CB	62.93	0.84	1.07	1.00	0.95	0.67
EOG Resources	EOG	CB	87.73	0.79	1.10	0.92	0.91	0.76
	<i>Median</i>			<i>0.83</i>	<i>1.07</i>	<i>1.00</i>	<i>0.95</i>	<i>0.82</i>
<b>Canada</b>								
Cenovus Energy Inc.	CVE	B	27.63	0.92	1.15	1.00	1.03	0.80
Suncor Energy	SU	B	32.45	0.86	1.12	1.01	1.00	0.74
Imperial Oil Limited (30%)	IMO	CB	37.45	0.87	1.06	0.98	0.97	0.80
Canadian Natural Resources	CNQ	CB	33.64	0.87	1.09	0.99	0.97	0.73
Canadian Oil Sands Trust	COSWF	CB	26.10	0.79	1.11	1.01	0.96	0.71
EnCana Corporation	ECA	CB	28.45	0.85	1.06	0.97	0.93	0.65
	<i>Median</i>			<i>0.86</i>	<i>1.10</i>	<i>1.00</i>	<i>0.97</i>	<i>0.73</i>
CB=Contrarian Buy, Stock Price may be in downtrend compared to 200-day average.								





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**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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**Research Methodology/Ratings Description:** McDep LLC is an independent research originator focused on oil and gas stocks exclusively. The firm applies the forty years of experience of its analyst to estimate a present value of the oil and gas resources and other businesses of covered companies. That value is compared with a company's stock market capitalization and debt. Stocks with low market cap and debt relative to present value tend to outperform stocks with high market cap and debt relative to present value. Buy recommendations are expected to deliver a total return better than 7% per year above inflation. Hold recommendations assume the attributes of the underlying business are reflected in the current price of the stock. Sell recommendations are expected to deliver a total return less than inflation.