



Meter Reader

A Weekly Analysis of Large Cap Oil and Gas Stocks

October 23, 2012

Petrobras (PBR) Stock Price Recovering

<i>Symbol</i>	PBR	<i>Ebitda Next Twelve Months ending 9/30/13 (US\$mm)</i>	44,000
<i>Rating</i>	Contrarian Buy	<i>North American Natural Gas/Ebitda (%)</i>	0
<i>Price (US\$/sh)</i>	22.85	<i>Natural Gas and Oil Production/Ebitda (%)</i>	84
<i>Pricing Date</i>	10/22/12	<i>Adjusted Reserves/Production NTM</i>	13.1
<i>Shares (mm)</i>	6522	<i>EV/Ebitda</i>	5.1
<i>Market Capitalization (US\$mm)</i>	149,000	<i>PV/Ebitda</i>	8.4
<i>Debt (US\$mm)</i>	76,000	<i>Undeveloped Reserves (%)</i>	36
<i>Enterprise Value (EV) (US\$mm)</i>	225,000	<i>Natural Gas and Oil Ebitda (US\$/boe)</i>	39.20
<i>Present Value (PV) (US\$mm)</i>	369,000	<i>Present Value Proven Reserves(US\$/boe)</i>	21.35
<i>Net Present Value (US\$/share)</i>	45	<i>Present Value Proven Reserves(US\$/mcf)</i>	3.56
<i>Debt/Present Value</i>	0.21	<i>Earnings Next Twelve Months (US\$/sh)</i>	3.01
<i>McDep Ratio - EV/PV</i>	0.61	<i>Price/Earnings Next Twelve Months</i>	8
<i>Dividend Yield (%/year)</i>	4.5	<i>Indicated Annual Dividend (US\$/sh)</i>	1.04
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\$100 a barrel.			
The Brazilian Government and public sector entities owns half of Petrobras' equity.			
For historical research on Petrobras see www.mcdep.com/2pbr.htm			

Summary and Recommendation

After advancing more than 20% from a depressed level in June, Contrarian Buy **Petrobras (PBR)** offers further 64% unlevered appreciation to a McDep Ratio of 1.0 where stock price would equal estimated Net Present Value (NPV) of \$45 a share. Refined oil product price controls contributed to a loss for the second quarter reported in August (see table [Next Twelve Months Operating and Financial Estimates](#) on page 2). Such losses are likely to be reversed for Petrobras to raise the capital to fund development of deep water oil discoveries. As a result, we look for positive cash flow to resume from other operations, mostly refined products. Not relying entirely on price, the company outlined a cost optimization program on October 18. Petrobras Chief Executive Maria das Gracas Foster targets savings of some \$10 billion a year, according to a Brazilian press report cited by *Bloomberg*. Meanwhile, the expected doubling of oil production still lies ahead (see slide on page 3). Schedule delays are not surprising considering the scope of the task. Yet, we count no unusual upside in NPV as our estimate corresponds to normal multiples of cash flow for production from currently proven reserves (see table [Functional Cash Flow and Present Value](#) on page 3). Finally, favorable valuation measures include a 4.5% dividend yield (see [Tables 1-4](#) on pages 4-7).

Kurt H. Wulff, CFA



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Petrobras									
Next Twelve Months Operating and Financial Estimates									
(International Financial Reporting Standards beginning 2010, US\$)									
	Q3	Q2	Q3E	Q4E	Year	Q1E	Q2E	Q3E	Next Twelve Months
	9/30/11	6/30/12	9/30/12	12/31/12	2012E	3/31/13	6/30/13	9/30/13	9/30/13
Volume									
Natural Gas (mmcf)	2,736	2,754	2,754	2,754	2,758	2,754	2,754	2,754	2,754
Days	92	91	92	92	366	90	91	92	365
Oil (mmb)	194	192	194	194	782	190	192	194	771
Oil (mbd)	2,108	2,113	2,113	2,113	2,136	2,113	2,113	2,113	2,113
Total gas & oil (mmb)	236	234	237	237	950	231	234	237	939
Total gas & oil (mbd)	2,564	2,572	2,572	2,572	2,596	2,572	2,572	2,572	2,572
Price									
Natural gas (\$/mcf)	7.69	7.00	7.00	7.00	7.14	7.00	7.00	7.00	7.00
Oil (\$/bbl)									
WTI Cushing	89.76	93.32	92.22	89.27	94.43	89.76	90.87	91.18	90.27
Brent	113.46	108.19	109.50	106.00	110.55	106.59	107.90	108.27	107.19
Company	101.99	103.56	104.81	101.46	105.21	102.02	103.28	103.63	102.60
Total gas & oil (\$/bbl)	92.05	92.57	93.60	90.85	94.16	91.31	92.34	92.63	91.78
NY Harbor 3-2-1 (\$/bbl)	35.09	30.77	36.23	31.00	30.58	27.00	29.00	26.00	28.25
Revenue (mm\$)									
Natural gas	1,935	1,753	1,772	1,772	7,204	1,734	1,753	1,772	7,032
Oil	19,779	19,913	20,375	19,724	82,269	19,402	19,860	20,146	79,132
Total production	21,714	21,666	22,148	21,496	89,473	21,136	21,613	21,918	86,164
Other	17,419	13,052	13,052	13,052	52,357	13,052	13,052	13,052	52,209
Total	39,134	34,718	35,200	34,549	141,830	34,188	34,665	34,971	138,372
Expense									
Production	11,495	13,181	12,692	12,319	50,697	12,112	12,386	12,561	49,378
Other	17,473	16,140	12,152	11,252	55,222	11,252	11,252	11,252	45,009
Ebitda (mm\$)									
Production	10,220	8,485	9,455	9,177	38,776	9,023	9,227	9,358	36,786
Other	(54)	(3,088)	900	1,800	(2,864)	1,800	1,800	1,800	7,200
Total Ebitda	10,166	5,397	10,355	10,977	35,911	10,823	11,027	11,158	43,986
Exploration	479	1,743	1,743	1,743	5,800	1,743	1,743	1,743	6,971
Deprec., Deplet., & Amort.	2,652	2,713	2,713	2,713	10,821	2,713	2,713	2,713	10,851
Other non cash	2,384	1,510			568				
Ebit	4,651	(569)	5,900	6,522	18,722	6,368	6,572	6,702	26,163
Ebt	4,651	(569)	5,900	6,522	18,722	6,368	6,572	6,702	26,163
Income Tax	788	163	1,475	1,630	4,932	1,592	1,643	1,675	6,541
Net Income (mm\$)									
Production	6,565	5,440							
Other	(2,701)	(3,333)							
Total Net Income	3,863	(732)	4,425	4,891	13,790	4,776	4,929	5,026	19,622
Shares (millions)									
Per share (\$)	0.60	(0.11)	0.68	0.75	2.12	0.73	0.76	0.77	3.01
Ebitda Margin (E&P)	47%	39%	43%	43%	43%	43%	43%	43%	43%
Tax Rate	17%	-29%	25%	25%	26%	25%	25%	25%	25%



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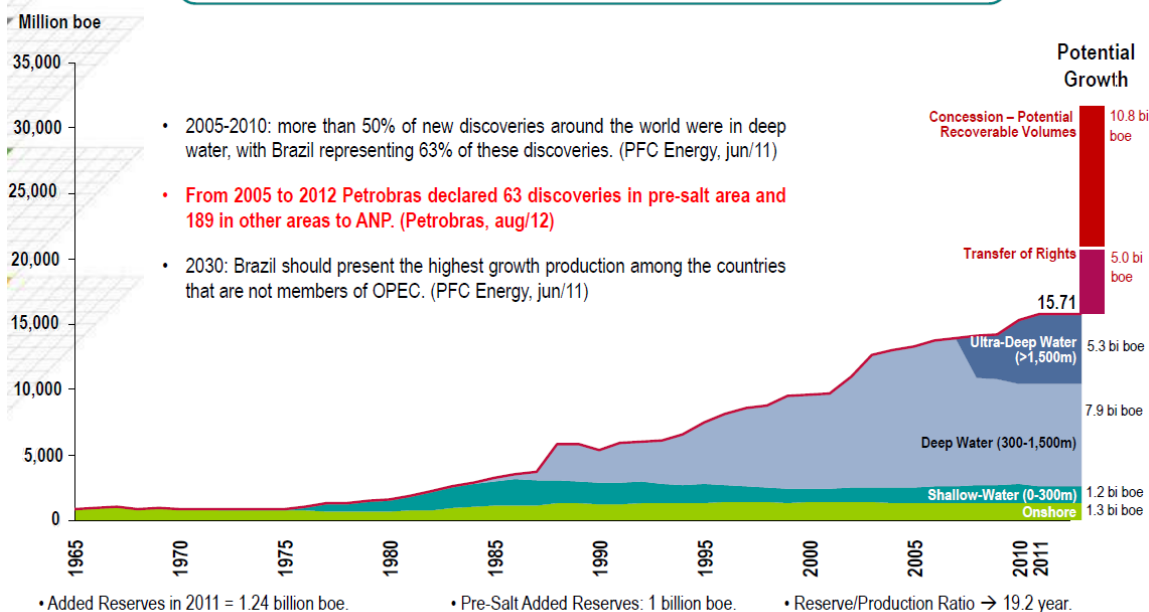
Petrobras Today:



Proved Reserves + Potential Recoverable Volumes: **31.5 bi boe**

Petrobras' Proved Reserves : 15.7 bi boe

Potential Growth: + 15.8 bi boe



5

Petrobras					
Functional Cash Flow and Present Value					
	NTM Ebitda	Adjusted	PV/	Present	
	(US\$mm)	R/P	Ebitda	Value	
				(US\$mm)	
Natural Gas	3,000	9.8	6.7	20,000	5%
Oil	33,790	13.8	8.8	299,000	81%
Downstream	7,200		6.9	50,000	14%
	43,990	13.1	8.4	369,000	100%
Debt (US\$mm)				76,000	
Net Present Value (US\$mm)				293,000	
Shares (mm)				6,522	
Net Present Value - Standard Estimate (US\$/sh)				45	
NPV Approximation by Cash Flow Multiple Depending on Reserve Life (US\$/sh)				47	



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			Price (US\$/sh)	Shares	Market Cap (US\$mm)	Net Present Value (US\$/sh)	Debt/ Present Value	McDep Ratio
	Symbol/Rating		22-Oct 2012	(mm)				
B = Buy, CB (see below)								
U.S. and Europe Integrated								
BG Group plc	BRGY		21.61	3,415	73,800	21.00	0.19	1.02
Exxon Mobil Corporation	XOM	B	92.19	4,657	429,000	110.00	0.12	0.86
Royal Dutch Shell plc	RDS-A	B	69.05	3,133	216,000	102.00	0.15	0.73
Chevron Corporation	CVX	B	112.74	1,968	222,000	170.00	0.07	0.69
Statoil ASA (33%)	STO	B	25.75	1,050	27,000	44.00	0.23	0.68
BP plc	BP		42.65	3,214	137,000	84.00	0.24	0.63
Total S.A.	TOT	B	51.58	2,264	117,000	100.00	0.16	0.59
<i>Total or Median</i>					<i>1,222,000</i>		<i>0.16</i>	<i>0.69</i>
Brazil/Russia/Australia/China								
Woodside Petroleum Ltd.	WOPEY		36.50	808	29,500	45.00	0.17	0.84
CNOOC Limited (36%)	CEO		208.63	161	33,700	250.00	0.01	0.84
PetroChina Company Ltd (14%)	PTR	B	140.55	256	36,000	210.00	0.19	0.73
Petrobras	PBR	CB	22.85	6,522	149,000	45.00	0.21	0.61
Lukoil Oil Company	LUKOY	B	63.83	780	49,800	150.00	0.02	0.44
Gazprom (50%)	OGZPY	CB	10.02	5,735	57,500	28.00	0.09	0.42
<i>Total or Median</i>					<i>356,000</i>		<i>0.13</i>	<i>0.67</i>
U.S. Independent								
Southwestern Energy Company	SWN		34.97	348	12,200	40.00	0.11	0.89
Chesapeake Energy Corp.	CHK		20.79	751	15,600	27.00	0.50	0.89
EOG Resources, Inc.	EOG	B	112.11	270	30,300	130.00	0.14	0.88
Anadarko Petroleum Corp.	APC		69.23	500	34,600	100.00	0.25	0.77
Occidental Petroleum Corp.	OXY	CB	82.81	811	67,200	120.00	0.08	0.72
ConocoPhillips	COP	B	57.04	1,230	70,000	96.00	0.25	0.69
Devon Energy Corporation	DVN	CB	61.37	405	24,900	102.00	0.17	0.67
Marathon Oil Corporation	MRO	B	30.09	709	21,330	54.00	0.19	0.64
<i>Total or Median</i>					<i>276,100</i>		<i>0.18</i>	<i>0.74</i>
Canada								
Penn West Exploration	PWE		13.75	474	6,500	20.00	0.31	0.78
Cenovus Energy Inc.	CVE	B	34.57	758	26,200	48.00	0.17	0.77
Imperial Oil Limited (30%)	IMO	B	45.51	256	11,600	62.00	0.11	0.76
EnCana Corporation	ECA	B	23.02	736	16,900	37.00	0.24	0.71
Suncor Energy	SU	B	33.56	1,558	52,300	64.00	0.12	0.58
Canadian Oil Sands Limited	COSWF	CB	20.85	485	10,100	45.00	0.10	0.52
<i>Total or Median</i>					<i>124,000</i>		<i>0.14</i>	<i>0.74</i>
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\$100 a barrel and natural gas, \$6 a million btu.								



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Table 3							
McDep Large Cap Energy Stocks							
Value Multiples and Dividend Yield							
			Price	Adjustd			
			(US\$/sh)	Resrvs/	PV/	EV/	Dividend
	Symbol/Rating		22-Oct	Prod	Ebitda	Ebitda	P/E
	B = Buy, CB (see below)		2012	NTM	NTM	NTM	NTM
							(%)
U.S. and Europe Integrated							
BG Group plc	BRGY		21.61	8.6	7.7	7.9	14
Exxon Mobil Corporation	XOM	B	92.19	13.1	8.1	6.9	12
BP plc	BP		42.65	11.4	8.6	5.4	8
Chevron Corporation	CVX	B	112.74	9.2	7.5	5.2	10
Royal Dutch Shell plc	RDS-A	B	69.05	10.1	7.1	5.2	10
Total S.A.	TOT	B	51.58	10.2	8.1	4.8	8
Statoil ASA (33%)	STO	B	25.75	6.3	6.6	4.4	9
	<i>Median</i>			<i>10.1</i>	<i>7.7</i>	<i>5.2</i>	<i>10</i>
Brazil/Russia/Australia/China							
Woodside Petroleum Ltd.	WOPEY		36.50	12.7	9.3	7.9	13
PetroChina Company Ltd (14%)	PTR	B	140.55	13.0	7.3	5.3	11
Petrobras	PBR	CB	22.85	13.1	8.4	5.1	8
CNOOC Limited (36%)	CEO		208.63	6.6	5.6	4.6	9
Lukoil Oil Company	LUKOY	B	63.83	16.5	6.3	2.8	5
Gazprom (50%)	OGZPY	CB	10.02	31.2	5.5	2.3	3
	<i>Median</i>			<i>13.0</i>	<i>6.8</i>	<i>4.9</i>	<i>8</i>
U.S. Independent							
Southwestern Energy Company	SWN		34.97	7.2	13.0	11.5	28
Chesapeake Energy Corp.	CHK		20.79	10.0	11.6	10.3	31
EOG Resources, Inc.	EOG	B	112.11	9.3	7.7	6.7	27
Anadarko Petroleum Corp.	APC		69.23	8.3	7.9	6.1	21
ConocoPhillips	COP	B	57.04	12.7	8.6	6.0	11
Devon Energy Corporation	DVN	CB	61.37	9.7	8.5	5.7	17
Occidental Petroleum Corp.	OXY	CB	82.81	10.0	7.9	5.7	12
Marathon Oil Corporation	MRO	B	30.09	9.7	7.1	4.6	10
	<i>Median</i>			<i>9.7</i>	<i>8.2</i>	<i>6.0</i>	<i>19</i>
Canada							
EnCana Corporation	ECA	B	23.02	8.4	13.3	9.4	3.5
Imperial Oil Limited (30%)	IMO	B	45.51	19.1	11.0	8.4	11
Penn West Exploration	PWE		13.75	7.5	9.5	7.4	13
Cenovus Energy Inc.	CVE	B	34.57	12.8	9.2	7.0	16
Canadian Oil Sands Limited	COSWF	CB	20.85	18.8	11.5	5.9	9
Suncor Energy	SU	B	33.56	17.1	9.8	5.7	16
	<i>Median</i>			<i>15.0</i>	<i>10.4</i>	<i>7.2</i>	<i>13</i>
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 September 30, 2013; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses							



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	Symbol	Rating	Price	Enterprise Value/				McDep
			(\$/sh)	52Wk	52Wk	50 Day	200 Day	
			22-Oct	High	Low	Avg.	Avg.	Ratio
			2012					
U.S. and Europe Integrated								
Exxon Mobil Corporation	XOM	B	92.19	0.99	1.21	1.02	1.06	0.86
Chevron Corporation	CVX	B	112.74	0.96	1.19	0.99	1.04	0.69
Total S.A.	TOT	B	51.58	0.93	1.16	1.01	1.03	0.59
Statoil ASA (33%)	STO	B	25.75	0.92	1.11	1.00	1.01	0.68
BG Group plc	BRGY		21.61	0.90	1.15	1.03	1.01	1.02
BP plc	BP		42.65	0.92	1.10	1.00	1.00	0.63
Royal Dutch Shell plc	RDS-A	B	69.05	0.94	1.11	0.98	1.00	0.73
	<i>Median</i>			<i>0.93</i>	<i>1.15</i>	<i>1.00</i>	<i>1.01</i>	<i>0.69</i>
Brazil/Russia/Australia/China								
Lukoil Oil Company	LUKOY	B	63.83	0.96	1.27	1.04	1.08	0.44
CNOOC Limited (36%)	CEO		208.63	0.89	1.22	1.05	1.03	0.84
Woodside Petroleum Ltd.	WOPEY		36.50	0.91	1.18	1.02	1.03	0.84
PetroChina Company Ltd (14%)	PTR	B	140.55	0.94	1.16	1.07	1.03	0.73
Petrobras	PBR	CB	22.85	0.78	1.19	1.01	0.98	0.61
Gazprom (50%)	OGZPY	CB	10.02	0.78	1.13	1.00	0.95	0.42
	<i>Median</i>			<i>0.90</i>	<i>1.18</i>	<i>1.03</i>	<i>1.03</i>	<i>0.67</i>
U.S. Independent								
Southwestern Energy Company	SWN		34.97	0.81	1.30	1.03	1.09	0.89
EOG Resources, Inc.	EOG	B	112.11	0.94	1.28	1.01	1.05	0.88
Marathon Oil Corporation	MRO	B	30.09	0.89	1.19	1.03	1.03	0.64
Chesapeake Energy Corp.	CHK		20.79	0.84	1.18	1.02	1.02	0.89
ConocoPhillips	COP	B	57.04	0.97	1.08	1.00	1.01	0.69
Devon Energy Corporation	DVN	CB	61.37	0.85	1.10	1.01	0.98	0.67
Anadarko Petroleum Corp.	APC		69.23	0.84	1.14	0.99	0.96	0.77
Occidental Petroleum Corp.	OXY	CB	82.81	0.80	1.07	0.96	0.93	0.72
	<i>Median</i>			<i>0.84</i>	<i>1.16</i>	<i>1.01</i>	<i>1.02</i>	<i>0.74</i>
Canada								
EnCana Corporation	ECA	B	23.02	0.96	1.21	1.02	1.07	0.71
Suncor Energy	SU	B	33.56	0.92	1.22	1.01	1.05	0.58
Imperial Oil Limited (30%)	IMO	B	45.51	0.92	1.19	0.98	1.01	0.76
Cenovus Energy Inc.	CVE	B	34.57	0.89	1.15	1.01	1.01	0.77
Canadian Oil Sands Limited	COSWF	CB	20.92	0.85	1.14	0.97	0.98	0.52
Penn West Exploration	PWE		13.75	0.72	1.07	0.96	0.89	0.78
	<i>Median</i>			<i>0.91</i>	<i>1.17</i>	<i>0.99</i>	<i>1.01</i>	<i>0.74</i>

CB=Contrarian Buy, Stock Price may be in downtrend compared to 200-day average.



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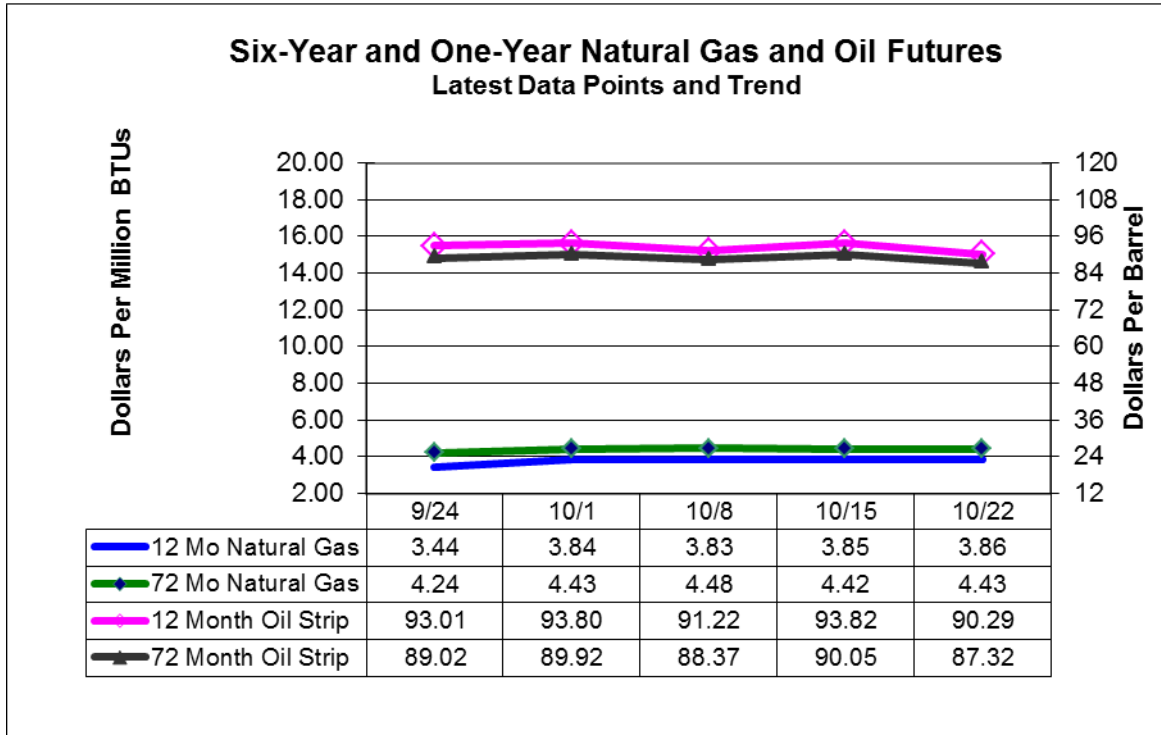
Index of Recent Research			
Stock Ideas			
<u>Date</u>	<u>Symbol</u>	<u>Subject</u>	<u>Theme</u>
19-Oct	DMLP	Dorchester Minerals, L.P.	Top Line Core (Income and Small Cap Weekly)
16-Oct	RDS	Royal Dutch Shell	Clean Energy for Global Growth (Meter Reader)
12-Oct	CLR	Continental Resources	New Buy on Bakken Growth (ISCW)
9-Oct	IMO	Imperial Oil	Kearl, Downstream and Syncrude (Meter Reader)
2-Oct	CVX	Chevron	Top Performer Shows Further Promise (Meter Reader)
28-Sep	BIREF	Birchcliff Energy	Strategic Montney Natural Gas (Income and Small Cap Weekly)
25-Sep	COP	ConocoPhillips	Thriving Shale Oil, Potential Shale Gas (Meter Reader)
21-Sep	WLL	Whiting Petroleum	Growing, Secure, Price-Sensitive, Light Oil (Inc and Small Cap Wk
18-Sep	DVN	Devon Energy	Barnett Shale to Permian and Beyond (Meter Reader)
14-Sep	SJT	SJT and Royalty Trusts	Estimated Distributions Jump (Income and Small Cap Weekly)
7-Sep	PEYUF	Peyto Exploration and Developmer	Canada Deep Basin Fracker (Income and Small Cap Weekly)
4-Sep	LUKOY	Lukoil	Proven Competitor, Uncommon Value (Meter Reader)
28-Aug	PTR	PetroChina	Pent-Up Profits (Meter Reader)
24-Aug	HGT	Hugoton Royalty Trust	Highest Return for the Next Year (Income and Small Cap Weekly)
21-Aug	TOT	Total	Buy \$100 NPV for \$50 Stock Price (Meter Reader)
17-Aug	HK	Halcón Resources	Billion Barrel Resource Potential (Income and Small Cap Weekly)
14-Aug	APC	Anadarko Petroleum	Raise NPV to \$100 as Growth Trumps Legal Issues (Meter Reader)
7-Aug	SU	Suncor Energy	New CEO, New Focus on Shareholder Return (Meter Reader)
3-Aug	XEC	Cimarex Energy	West Texas Wolfcamp Shale Oil (ISCW)
31-Jul	OXY	Occidental Petroleum	California Oil Growth Accelerates (Meter Reader)
30-Jul	COSWF	Canadian Oil Sands Limited	Robust Volume Outlook
27-Jul	RRC	Range Resources	Oil-Enhanced Natural Gas Growth (ISCW)
24-Jul	CEO	CNOOC Ltd.	60% Premium in \$21 Billion Deal (Meter Reader)
20-Jul	BRY	Berry Petroleum	Momentum Resuming (Income and Small Cap Weekly)
17-Jul	XOM	Exxon Mobil	Low U.S. Energy Price Outperformer (Meter Reader)
10-Jul	MRO	Marathon Oil	Shale Growth, Dollar Hedge (Meter Reader)
3-Jul	OGZPY	Gazprom	Dividend Double Approved (Meter Reader)
26-Jun	STO	Statoil	Financially Strong Norse Explorers (Meter Reader)
19-Jun	CVE	Cenovus	Deep Oil Sands Growth at Lower Price (Meter Reader)
12-Jun	PBR	Petrobras	Deep Water Oil Growth, Lower NPVto \$45 (Meter Reader)
12-Jun	BRGY	BG Group	Lower NPVto \$21 (6/12/12 Meter Reader, page 2)
13-Jun	ERF	Enerplus Corporation	Dividend Reduced by Half
5-Jun	WOPEY	Woodside Petroleum Ltd.	Pluto LNG Delivering (Meter Reader)
15-May	EOG	EOG Resources	Raise NPV to \$130 a Share on Oil Volume (Meter Reader)
8-May	ECA	Encana	Long-Term Natural Gas Appeal (Meter Reader)
For historical research by stock, go to mcdep.com , click on Stock Ideas , click on stock by name.			
Meter Reader			
16-Oct	RDS	Royal Dutch Shell	Clean Energy for Global Growth
9-Oct	IMO	Imperial Oil	Kearl, Downstream and Syncrude
2-Oct	CVX	Chevron	Top Performer Shows Further Promise
25-Sep	COP	ConocoPhillips	Thriving Shale Oil, Potential Shale Gas
For earlier editions, go to mcdep.com , click on Meter Reader .			
Income and Small Cap Weekly			
19-Oct	DMLP	Dorchester Minerals, L.P.	Top Line Core
12-Oct	CLR	Continental Resources	New Buy on Bakken Growth
5-Oct		Create a Custom RTF	Royalty Trust Fund Looks Timely
28-Sep	BIREF	Birchcliff Energy	Strategic Montney Natural Gas
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A Weekly Analysis of Large Cap Oil and Gas Stocks

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