Rating: Buy
S&P 500: 1114

Anadarko Petroleum Corporation
Commodity Alternative

Symbol	APC	*Ebitda Next Twelve Months ending 3/31/05 (US$mm)*	4,700
Rating	Buy	*North American Natural Gas/Ebitda (%)*	51
Price (US$/sh)	60.50	*Natural Gas and Oil Production/Ebitda (%)*	100
Pricing Date	9/3/04	*Adjusted Reserves/Production NTM*	11.4
Shares (mm)	254	*EV/Ebitda*	4.6
Market Capitalization (US$mm)	15,400	*PV/Ebitda*	6.4
Debt (US$mm)	6,300	*Undeveloped Reserves (%)*	31
Enterprise Value (EV) (US$mm)	21,700	*Natural Gas and Oil Ebitda (US$/boe)*	25.32
Present Value (PV) (US$mm)	30,200	*Present Value Proven Reserves(US$/boe)*	12.02
Net Present Value (US$/share)	94	*Present Value Proven Reserves(US$/mcfe)*	2.00
Debt/Present Value	0.21	*Earnings Next Twelve Months (US$/sh)*	6.95
McDep Ratio - EV/PV	0.72	*Price/Earnings Next Twelve Months*	9
Dividend Yield (%/year)	0.9	*Indicated Annual Dividend (US$/sh)*	0.56

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.

Summary and Recommendation

We continue to recommend current purchase of the common shares of **Anadarko Petroleum Corporation (APC)** as a large cap alternative to long-term futures for investment in the positive outlook for natural gas and oil. At its current price the stock appears to relate to constant real oil price of about $26 a barrel assuming a real return of 7% per year. Six-year oil futures are more than $36 a barrel in nominal dollars. Anadarko stock may not reflect oil price as directly as futures. As a stock, Anadarko represents permanent equity ownership in a moderate debt corporation with ample market liquidity. As derivatives, futures carry more risk of repayment, narrower investor participation and limited market liquidity in the out years.

A Contrary Time for Natural Gas

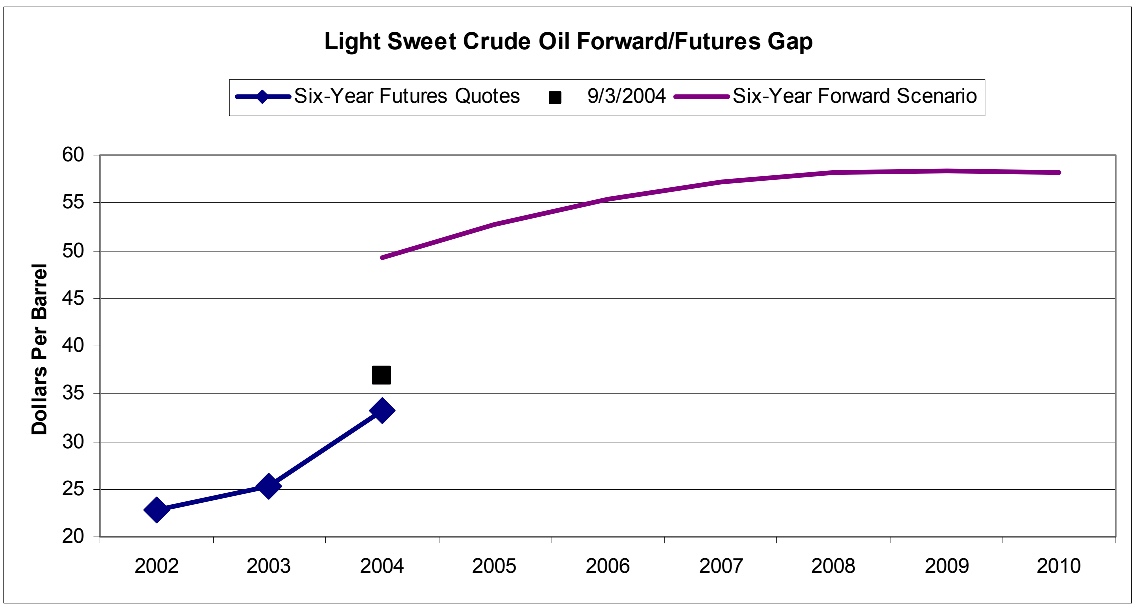
Concentrated 51% on North American natural gas, the value of the company depends on the outlook for the preferred fuel. The current spot price for natural gas just under $5 a million btus is at its low point for 2004. Indeed one-year futures for natural gas are trading at the 40-week average testing the recent positive momentum for most of the year. Yet six-year futures continue to trade well above the 40-week average. Moreover, we believe that six-year natural gas futures recently trading at 0.91 times six-year oil futures are likely to trade above six-year oil in the next few years.

Moderate Oil Price Scenario

The future price of natural gas depends in large part on the future price of crude oil. Publicly traded in the commodity markets, futures contracts for delivery over the next six years continue in a steep uptrend. Whether the trend will slow for awhile we cannot know. Our scenario is that a move that began in the low $20 and is now in the mid $30 could reach $50 (see chart Light Sweet Crude Oil Forward/Futures Gap).

To construct the scenario we assumed oil would peak in 2010 at $50 in constant dollars. That is more moderate than the peak in early 1981 at more than $80 in constant dollars. Then we applied 3% per year inflation and calculated six-year averages to build a forward curve.

Economics support the price trends. Oil demand is strong with world economic growth paced by developing countries, especially China. Supply growth is limited as spare capacity has virtually disappeared. The largest producing fields in the Middle East are now mature. It will take time, large amounts of capital and a secure political climate to boost producing rates.



Monetary factors favor oil investment as interest rates below inflation drive investors to real assets for protection against the dollar losing value. If similar past periods are any guide, the authorities may not raise interest rates above inflation for the rest of the decade.

Environmental factors favor higher oil and gas price. Coal is still a quarter of world primary energy supply. Cleaner oil and gas are undervalued as long as we tolerate environmentally disadvantageous coal.

Political factors favor higher oil price in consuming countries and producing countries. Consuming governments often resort to artificial forces to hold down oil price that can appear to work temporarily.

In producing countries we have seen time and again that oil production goes down when international oil companies are not welcome. After Iran, Iraq and Venezuela, now Saudi Arabia appears vulnerable to political change that may bring about production decline.

Too much of a gain in oil price might cause problems of economic adjustment though we think much of the concern expressed is exaggerated. Nonetheless we have a threshold of 60% gain in monthly price compared to a year earlier when we start to become concerned about weak demand for oil. October futures currently near $43 a barrel would have to remain above $52 for the 60% threshold to be breached.

One-Year Futures Point to Higher Cash Flow and Profits

As our next twelve months (NTM) cash flow model moves ahead to the period ending June 30, 2005 expectations also advance mainly because of advancing one-year futures. We relate natural gas and oil price to the quotes for commodities traded on the New York Mercantile Exchange (see table Next Twelve Months Operating and Financial Performance).

Investors who want calendar year estimates can find 2004 in the table. For 2005 we suggest using the next twelve months as a rough estimate. Estimates can change frequently along with oil markets.

Present Value at Real Price and Real Return

NTM estimates determine to a large extent the first year of projected cash flow that we discount to present value (see table Present Value of Oil and Gas Reserves). The calculation is set up on the basis of a barrel of proven reserves, 0.69 developed and 0.31 undeveloped.

While there are many assumptions that could be discussed, discount rate and oil price are especially important. Price escalation and discount rate interact. In this case we make the simplification of dealing in constant dollars. That assumes price escalation, cost escalation and discount rate are all net of inflation.

For discount rate we use a 7% real return per year on an unlevered basis. That means a buyer who pays present value would earn 7% per year above inflation if all the projections were to materialize as stated.

First year oil price is from the futures market. We hold it constant at an arbitrary level thereafter. The assumed price listed in the upper right hand corner is the commonly quoted benchmark Light, Sweet Crude. A price of $35 a barrel leads to present value of future cash flow from a barrel of reserves equal to $12.00 (see box in right hand column).

Present Value per Barrel Leads to Present Value per Share

We illustrate the calculation of Net Present Value (NPV) in a sensitivity table where each column is headed by a different oil price (see table Net Present Value Calculation). Oil price corresponds to present value per barrel which then leads step by step to the final result. The price of $35 a barrel corresponds to our standardized present value of $94 a share. Turn the comparison around and a stock price of $60, near the current quote, corresponds to a constant real oil price of $26 a barrel.

Present value per barrel multiplied by barrels of proven reserves tends to understate value more for companies with a shorter reserve life. We see that in a strong correlation of enterprise value with NTM cash flow and adjusted reserve life. We highlight the amount of the understatement as short life uplift that amounts to about an eighth of present value in the standard case.

Kurt H. Wulff, CFA

Anadarko Petroleum Corporation
Next Twelve Months Operating and Financial Estimates

	Q1 3/31/04	*Q2 6/30/04*	*Q3E 9/30/04*	*Q4E 12/31/04*	***Year 2004E***	*Q1E 3/31/05*	*Q2E 6/30/05*	***Next Twelve Months 6/30/05***
Volume								
Natural Gas (mmcfd)	1,723	1,786	1,786	1,786	**1,770**	1,786	1,786	**1,786**
Oil (mbd)	251	214	214	214	**223**	214	214	**214**
Total gas & oil (bcf)	294	279	282	282	**1,138**	276	279	**1,121**
Price								
Natural gas ($/mcf)								
Henry Hub ($/mmbtu)	5.64	6.10	5.36	5.44	**5.64**	6.51	5.92	**5.81**
U.S. (or North America)	5.03	5.19	4.82	4.86	**4.97**	5.39	5.10	**5.04**
Company ($/mcf)	5.03	5.19	4.82	4.86	**4.97**	5.39	5.10	**5.04**
Oil ($/bbl)								
WTI Cushing	35.23	38.34	43.25	43.86	**40.17**	42.83	41.63	**42.89**
Worldwide	30.31	30.46	40.45	41.06	**35.38**	40.03	38.83	**40.10**
Total gas & oil ($/mcf)	5.04	5.14	5.62	5.69	**5.36**	5.93	5.67	**5.73**
Revenue ($mm)								
Natural Gas								
Natural Gas	789	844	792	799	**3,223**	867	829	**3,287**
Oil	692	593	796	808	**2,890**	771	756	**3,132**
Other	(21)	6			**(15)**	-		**-**
Total	1,460	1,443	1,588	1,607	**6,099**	1,638	1,585	**6,419**
Expense								
Fixed	217	199	199	199	**815**	199	199	**797**
Variable	217	199	220	223	**860**	227	222	**893**
Ebitda ($mm)	1,026	1,044	1,169	1,185	**4,424**	1,211	1,164	**4,729**
Deprec., Deplet., & Amort.	348	357	357	357	**1,419**	357	357	**1,428**
Other non cash	9	-	98	98	**206**	65	58	**320**
Ebit	669	687	713	730	**2,799**	789	749	**2,981**
Interest	63	66	66	66	**261**	66	66	**264**
Ebt	606	621	647	664	**2,538**	723	683	**2,717**
Income Tax	212	217	227	232	**888**	253	239	**951**
Net Income ($mm)	394	404	421	431	**1,650**	470	444	**1,766**
Shares (millions)	254	254	254	254	**254**	254	254	**254**
Per share ($)	1.55	1.59	1.66	1.70	**6.49**	1.85	1.75	**6.95**
Ebitda Margin	70%	72%	74%	74%	**73%**	74%	73%	**74%**
Tax Rate	35%	35%	35%	35%	**35%**	35%	35%	**35%**

Anadarko Petroleum Corporation
Present Value of Oil and Gas Reserves

Volume Decline (%/yr):	9	Nymex Oil Price Post 2005 ($/bbl)	35
Volume Enhancement (%/yr):	8	Price/Nymex Post 2005 (%):	83
Variable Cost (%):	15	Real Discount Rate (%/yr):	7.0
Capex/Cash Flow (%):	15		

Year	Basic (bbl)	Volume Enhanced (bbl)	Total (bbl)	Price ($/bbl)	Revenue ($)	Fixed Cost ($)	Var. Cost ($)	Cash Flow ($)	Cap Ex ($)	Free CF ($)	Disc Factor	Present Value ($)
Total 2005 through 2024; years ending on 6/30												
	0.690	0.310	1.000	31.32	31.32	5.81	4.70	20.82	1.61	19.20	0.62	12.00
2005	0.075	0.000	0.075	34.37	2.56	0.29	0.38	1.89	0.28	1.61	0.97	1.55
2006	0.068	0.006	0.073	29.06	2.13	0.29	0.32	1.52	0.23	1.29	0.90	1.17
2007	0.061	0.010	0.072	29.35	2.11	0.29	0.32	1.50	0.23	1.28	0.84	1.08
2008	0.056	0.015	0.070	29.64	2.09	0.29	0.31	1.49	0.22	1.26	0.79	1.00
2009	0.051	0.019	0.069	29.93	2.07	0.29	0.31	1.47	0.22	1.25	0.74	0.92
2010	0.046	0.022	0.068	30.22	2.05	0.29	0.31	1.45	0.22	1.24	0.69	0.85
2011	0.042	0.025	0.067	30.51	2.03	0.29	0.30	1.44	0.22	1.22	0.64	0.79
2012	0.038	0.028	0.065	30.80	2.01	0.29	0.30	1.42	0.00	1.42	0.60	0.86
2013	0.034	0.025	0.059	31.09	1.84	0.29	0.28	1.28	0.00	1.28	0.56	0.72
2014	0.031	0.023	0.054	31.38	1.69	0.29	0.25	1.15	0.00	1.15	0.53	0.60
2015	0.028	0.021	0.049	31.67	1.55	0.29	0.23	1.02	0.00	1.02	0.49	0.50
2016	0.026	0.019	0.044	31.97	1.42	0.29	0.21	0.91	0.00	0.91	0.46	0.42
2017	0.023	0.017	0.040	32.26	1.30	0.29	0.19	0.81	0.00	0.81	0.43	0.35
2018	0.021	0.015	0.036	32.55	1.19	0.29	0.18	0.72	0.00	0.72	0.40	0.29
2019	0.019	0.014	0.033	32.84	1.09	0.29	0.16	0.63	0.00	0.63	0.37	0.24
2020	0.017	0.013	0.030	33.13	0.99	0.29	0.15	0.56	0.00	0.56	0.35	0.19
2021	0.016	0.012	0.027	33.42	0.91	0.29	0.14	0.48	0.00	0.48	0.33	0.16
2022	0.014	0.010	0.025	33.71	0.83	0.29	0.13	0.42	0.00	0.42	0.31	0.13
2023	0.013	0.009	0.022	34.00	0.76	0.29	0.11	0.36	0.00	0.36	0.29	0.10
2024	0.012	0.009	0.020	34.29	0.70	0.29	0.10	0.30	0.00	0.30	0.27	0.08

Anadarko Petroleum Corporation
Net Present Value Calculation

Constant Oil Price ($/bbl):	26	35	40	50
Present Value per Barrel ($):	8.60	12.00	13.90	17.60
Oil and Gas reserves (million barrels equivalent):	2,513	2,513	2,513	2,513
Present Value of Oil and Gas Reserves ($mm):	21,600	30,160	34,900	44,200
Total	21,600	30,160	34,900	44,200
Debt ($mm):	6,300	6,300	6,300	6,300
Present Value of Equity ($mm):	15,300	23,860	28,600	37,900
Shares (mm):	254	254	254	254
Net Present Value ($/sh):	60	94	113	149

Disclaimer: This analysis was prepared by Kurt Wulff doing business as McDep Associates. 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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