

Rating: Buy  
 S&P 500: 1104

## **Royal Dutch Petroleum**

### **Low Risk, Attractive Reward**

<i>Symbol</i>	RD	<i>Ebitda Next Twelve Months ending 9/30/05 (US\$mm)</i>	27,600
<i>Rating</i>	Buy	<i>North American Natural Gas/Ebitda (%)</i>	4
<i>Price (US\$/sh)</i>	51.26	<i>Natural Gas and Oil Production/Ebitda (%)</i>	70
<i>Pricing Date (intraday)</i>	9/27/04	<i>Adjusted Reserves/Production NTM</i>	8.2
<i>Shares (mm)</i>	2031	<i>EV/Ebitda</i>	4.7
<i>Market Capitalization (US\$mm)</i>	104,100	<i>PV/Ebitda</i>	5.4
<i>Debt (US\$mm)</i>	25,600	<i>Undeveloped Reserves (%)</i>	44
<i>Enterprise Value (EV) (US\$mm)</i>	129,700	<i>Natural Gas and Oil Ebitda (US\$/boe)</i>	24.00
<i>Present Value (PV) (US\$mm)</i>	147,500	<i>Present Value Proven Reserves(US\$/boe)</i>	12.30
<i>Net Present Value (US\$/share)</i>	60	<i>Present Value Proven Reserves(US\$/mcf)</i>	2.05
<i>Debt/Present Value</i>	0.17	<i>Earnings Next Twelve Months (US\$/sh)</i>	5.90
<i>McDep Ratio - EV/PV</i>	0.88	<i>Price/Earnings Next Twelve Months</i>	9
<i>Dividend Yield (%/year)</i>	4.2	<i>Indicated Annual Dividend (US\$/sh)</i>	2.17

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

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 **Royal Dutch Petroleum (RD)**, 60% owner of the Royal Dutch/Shell Group, for mega cap participation in rising oil profits, natural gas profits and oil products profits. Financial risk is low as evidenced by a 0.17 ratio of debt to present value. Potential reward appears attractive as the stock is priced at just 5 times cash flow on an unlevered basis. On a different measure, valuable oil and gas assets are priced in the stock as though the long-term price of oil would be \$28 a barrel rather than \$38 a barrel indicated by six-year futures. Dividend increases are expected to match or beat inflation for a real return of at least 4.2% per year. Stock price increase to estimated net present value of \$60 within a year or two would enhance return by another 17%. An announcement is promised for November on simplification of corporate structure that may lead to a single owner of the group.

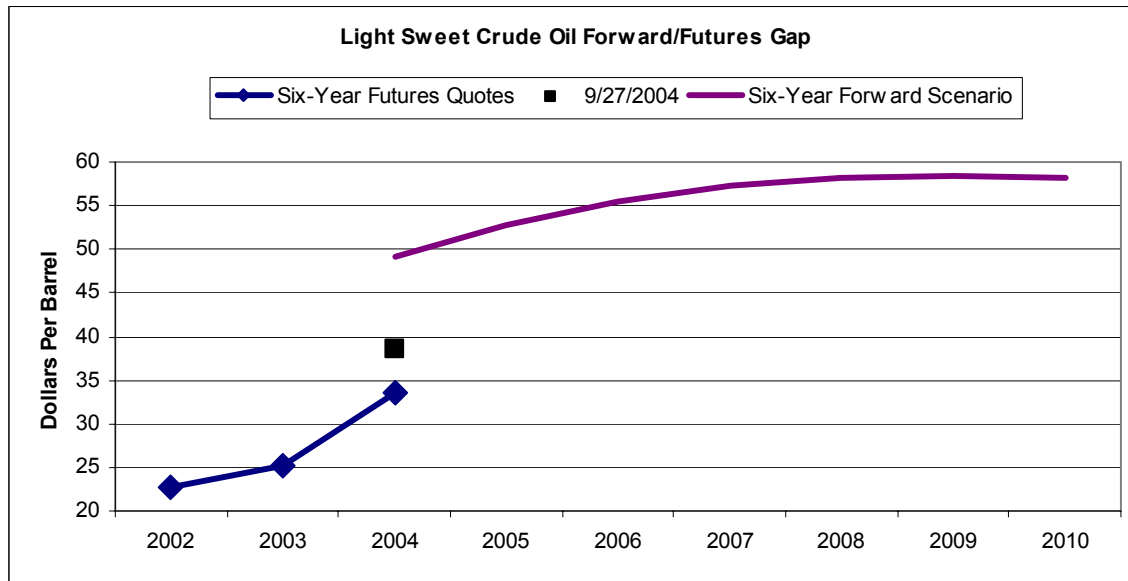
### **Moderate Oil Price Scenario**

The value of the company 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. Our scenario is that a move that began in the low \$20s and is now in the upper \$30s 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.

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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 70% gain in monthly price compared to a year earlier when we start to become concerned about weak demand for oil. November futures currently near \$49 a barrel would have to remain above \$53 for the 70% 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 September 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 Estimates](#)).

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**Royal Dutch/Shell**  
**Next Twelve Months Operating and Financial Estimates**

	<i>Q1</i>	<i>Q2</i>	<i>Q3E</i>	<i>Q4E</i>	<i>Year</i>	<i>Q1E</i>	<i>Q2E</i>	<i>Q3E</i>	<i>Next Twelve Months</i>
	<i>3/31/04</i>	<i>6/30/04</i>	<i>9/30/04</i>	<i>12/31/04</i>	<i>2004E</i>	<i>3/31/05</i>	<i>6/30/05</i>	<i>9/30/05</i>	<i>9/30/05</i>
<b>Volume</b>									
Natural Gas (mmcf)									
U.S. (or North America)	1,405	1,327	1,327	1,327	<b>1,350</b>	1,327	1,327	1,327	<b>1,327</b>
Overseas (or Int'l)	8,767	6,446	5,860	8,204	<b>7,338</b>	8,805	6,457	5,870	<b>7,329</b>
Total	10,172	7,773	7,187	9,531	<b>8,688</b>	10,132	7,784	7,197	<b>8,656</b>
Oil (mmb)	213	204	206	206	<b>829</b>	201	204	206	<b>817</b>
Oil (mmbd)	2,342	2,238	2,238	2,238	<b>2,270</b>	2,238	2,238	2,238	<b>2,238</b>
Total gas & oil (mmb)	367	322	316	352	<b>1,357</b>	353	322	316	<b>1,343</b>
<b>Price</b>									
Natural gas (\$/mcf)									
Henry Hub (\$/mmbtu)	5.64	6.10	5.49	6.05	<b>5.82</b>	7.04	6.14	6.15	<b>6.34</b>
U.S. (or North America)	5.81	6.08	5.43	5.99	<b>5.83</b>	6.97	6.08	6.09	<b>6.28</b>
Overseas (or Int'l)	3.01	2.99	3.86	4.33	<b>3.55</b>	4.20	4.03	3.87	<b>4.13</b>
Total	3.40	3.52	4.15	4.56	<b>3.90</b>	4.56	4.38	4.28	<b>4.46</b>
Oil (\$/bbl)									
WTI Cushing	35.23	38.34	43.84	49.13	<b>41.63</b>	47.61	45.66	43.90	<b>46.57</b>
Worldwide	30.33	33.80	38.65	43.31	<b>36.48</b>	41.98	40.25	38.70	<b>41.06</b>
Total gas & oil (\$/bbl)	26.15	29.15	33.86	36.69	<b>31.39</b>	35.69	35.11	34.15	<b>35.45</b>
NY Harbor 3-2-1 (\$/bbl)	6.98	12.17	7.86	7.12	<b>8.53</b>	7.64	7.77	7.77	<b>7.58</b>
<b>Revenue (\$mm)</b>									
Natural Gas									
U.S. (or North America)	743	734	663	732	<b>2,872</b>	832	734	743	<b>3,041</b>
Overseas (or Int'l)	2,401	1,756	2,084	3,269	<b>9,509</b>	3,326	2,365	2,090	<b>11,050</b>
Total	3,144	2,490	2,747	4,000	<b>12,381</b>	4,158	3,099	2,833	<b>14,091</b>
Oil	6,464	6,884	7,957	8,917	<b>30,222</b>	8,455	8,197	7,968	<b>33,537</b>
Other	48,491	53,176	53,176	53,176	<b>208,017</b>	53,176	53,176	53,176	<b>212,702</b>
Total	58,099	62,549	63,880	66,093	<b>250,621</b>	65,789	64,472	63,977	<b>260,331</b>
<b>Expense</b>									
Production	3,427	3,326	3,592	4,034	<b>14,378</b>	3,973	3,710	3,611	<b>15,329</b>
Other	44,965	48,967	49,712	49,874	<b>193,518</b>	49,754	49,725	49,725	<b>199,078</b>
<b>Ebitda (\$mm)</b>									
Exploration and Production	6,182	6,048	7,113	8,883	<b>28,225</b>	8,640	7,586	7,190	<b>32,300</b>
Other	3,526	4,209	3,464	3,302	<b>14,499</b>	3,422	3,451	3,451	<b>13,624</b>
Total Ebitda	9,707	10,257	10,576	12,185	<b>42,725</b>	12,061	11,037	10,641	<b>45,924</b>
Exploration	125	880	200	200	<b>1,405</b>	200	200	200	<b>800</b>
Deprec., Deplet., & Amort.	2,617	3,130	3,130	3,130	<b>12,007</b>	3,130	3,130	3,130	<b>12,520</b>
Other non cash	137	159	159	159	<b>614</b>	159	159	159	<b>636</b>
<b>Ebit</b>	6,828	6,088	7,087	8,696	<b>28,699</b>	8,572	7,548	7,152	<b>31,968</b>
Interest	312	307	307	307	<b>1,233</b>	307	307	307	<b>1,228</b>
<b>Ebt</b>	6,516	5,781	6,780	8,389	<b>27,466</b>	8,265	7,241	6,845	<b>30,740</b>
Income Tax	2,281	2,023	2,373	2,936	<b>9,613</b>	2,893	2,534	2,396	<b>10,759</b>
<b>Net Income (\$mm)</b>									
Exploration and Production	2,746	1,935							
Other	1,778	2,255							
Unallocated	(289)	(433)							
Total	4,235	3,757	4,407	5,453	<b>17,853</b>	5,372	4,707	4,449	<b>19,981</b>
<b>Shares (millions) - RD</b>	2,033	2,031	2,031	2,031	<b>2,031</b>	2,031	2,031	2,031	<b>2,031</b>
Per share (\$) - RD	1.25	1.11	1.30	1.61	<b>5.27</b>	1.59	1.39	1.31	<b>5.90</b>
Ebitda Margin (E&P)	64%	65%	66%	69%	<b>66%</b>	68%	67%	67%	<b>68%</b>
Tax Rate	35%	35%	35%	35%	<b>35%</b>	35%	35%	35%	<b>35%</b>

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.

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### **Present Value at Real Price and Real Return**

Next Twelve Months (NTM) estimates determine 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, 0.56 developed and 0.44 undeveloped.

While there are many assumptions that could be discussed, discount rate and oil price are especially important. Price escalation and discount rate interact. 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 \$11.00 (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 \$60 a share. Turn the comparison around and it is evident that if the stock price were \$51, about equal to the current quote, it would correspond to a constant real oil price of \$28 a barrel.

Present value per barrel multiplied by barrels of proven reserves may understate value 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 a tenth of present value of reserves in the standard case.

### **Price Upside Understated in Management Meeting**

One of the themes at management's meeting in New York on September 23, also picked up in the financial press, was that management is now looking to test projects against the assumption of \$25 oil, rather than \$20 oil as in the recent past. Apparently, Shell was missing some opportunities that others took when their analysis was too conservative. After three hours of presentation and questions without a break, we asked the last question. We said that when looking at higher oil price we think not of \$25, but of \$30, \$35, \$40 and higher. We asked for assurance that management was looking at such possibilities when it evaluated new projects and that existing operations have nearly full exposure to the upside of higher oil price. We think we detected a glint of enthusiasm in the positive response.

We don't expect major oil companies to be cheerleaders for higher oil price. Oil companies were vilified in the 1970s as they were blamed, mostly unfairly, for the oil price rise and its attendant

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inconveniences sparked by price controls and rationing. Competitive reasons further support downplaying price opportunity by those with strong asset positions.

**Royal Dutch/Shell**  
**Present Value of Oil and Gas Reserves**

Volume Decline (%/yr):	17	Nymex Oil Price Post 2005 (\$/bbl)	35
Volume Enhancement (%/yr):	12	Price/Nymex Post 2005 (%):	83
Variable Cost (%):	28	Real Discount Rate (%/yr):	7.0
Capex/Cash Flow (%):	20		

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 2034; years ending on 9/30												
	0.560	0.440	1.000	29.66	29.67	2.82	8.31	18.54	2.39	16.15	0.68	11.00
2005	0.095	0.000	0.095	35.45	3.37	0.14	0.94	2.28	0.46	1.83	0.97	1.77
2006	0.079	0.012	0.092	29.05	2.66	0.14	0.75	1.77	0.35	1.42	0.90	1.28
2007	0.066	0.022	0.088	29.05	2.57	0.14	0.72	1.71	0.34	1.36	0.84	1.15
2008	0.055	0.030	0.085	29.05	2.47	0.14	0.69	1.64	0.33	1.31	0.79	1.04
2009	0.046	0.036	0.082	29.05	2.38	0.14	0.67	1.58	0.32	1.26	0.74	0.93
2010	0.039	0.041	0.079	29.05	2.30	0.14	0.64	1.51	0.30	1.21	0.69	0.83
2011	0.032	0.044	0.076	29.05	2.22	0.14	0.62	1.45	0.29	1.16	0.64	0.75
2012	0.027	0.047	0.074	29.05	2.14	0.14	0.60	1.40	0.00	1.40	0.60	0.84
2013	0.022	0.039	0.061	29.05	1.78	0.14	0.50	1.14	0.00	1.14	0.56	0.64
2014	0.019	0.033	0.051	29.05	1.49	0.14	0.42	0.93	0.00	0.93	0.53	0.49
2015	0.016	0.027	0.043	29.05	1.24	0.14	0.35	0.75	0.00	0.75	0.49	0.37
2016	0.013	0.023	0.036	29.05	1.04	0.14	0.29	0.61	0.00	0.61	0.46	0.28
2017	0.011	0.019	0.030	29.05	0.87	0.14	0.24	0.48	0.00	0.48	0.43	0.21
2018	0.009	0.016	0.025	29.05	0.72	0.14	0.20	0.38	0.00	0.38	0.40	0.15
2019	0.008	0.013	0.021	29.05	0.60	0.14	0.17	0.29	0.00	0.29	0.37	0.11
2020	0.006	0.011	0.017	29.05	0.50	0.14	0.14	0.22	0.00	0.22	0.35	0.08
2021	0.005	0.009	0.015	29.05	0.42	0.14	0.12	0.16	0.00	0.16	0.33	0.05
2022	0.004	0.008	0.012	29.05	0.35	0.14	0.10	0.11	0.00	0.11	0.31	0.03
2023	0.004	0.006	0.010	29.05	0.29	0.14	0.08	0.07	0.00	0.07	0.29	0.02
2024	0.003	0.005	0.008	29.05	0.25	0.14	0.07	0.04	0.00	0.04	0.27	0.01

**Royal Dutch Petroleum**  
**Net Present Value Calculation**

Constant Oil Price (\$/bbl):	28	35	40	50
Present Value per Barrel (\$):	8.90	11.00	12.50	15.60
Oil and Gas Reserves (million barrels equivalent):	8,455	8,455	8,455	8,455
Present Value of Oil and Gas Reserves (\$mm):	75,200	93,000	105,700	131,900
Short Life Uplift (\$mm):	9,700	9,700	9,700	9,700
Present Value of Other Businesses (\$mm):	43,800	43,800	43,800	43,800
Total Present Value (\$mm):	128,700	146,500	159,200	185,400
Debt (\$mm):	25,600	25,600	25,600	25,600
Present Value of Equity (\$mm):	103,100	120,900	133,600	159,800
Shares (mm):	2,031	2,031	2,031	2,031
Net Present Value (\$/sh):	51	60	66	79

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### **Statement on Structure Expected in November**

It would be an historic development if the 60% owner and the 40% owner of Royal Dutch/Shell group could be combined as a single company. Considering the unfavorable publicity the group received earlier in 2004 on disclosure of reserves and the change of management at the top, there should be pressure to make that structural simplification. Mr. Jeroen van der Veer, the chief executive officer of the group, attests that executives are working long hours on an expedited schedule to resolve the issue. Mr. van der Veer says the process is more complicated than it may seem because of tax implications among other factors. The CEO's watchwords for Structure and Governance are "Effectiveness + accountability + transparency + simplicity". We would like to think the last word favors a single owner of the Royal Dutch/Shell group.

A single Royal Dutch/Shell stock would eliminate a key distinction, not necessarily helpful, between RD/SC and peers. Otherwise the group has more in common than not with peers, particularly in its low financial risk and diversified assets with appreciation potential. Reserve life is somewhat shorter while cash flow multiple is also lower to offset that in part. While the group is slightly more concentrated on downstream, it has refineries that are well-positioned to handle the heavy crude that accounts for an increasing proportion of world supply.

Kurt H. Wulff, CFA

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