

ON POINT

Vol 2, No. 1 January 2007



GORDON ENERGY
SOLUTIONS

Candid, Forward-Looking Analysis of the Oil & Gas Industry

IN THE NEWS

Gulf of Mexico –

Royalty -- The MMS announced on 9 January that the royalty rate for deepwater federal oil and gas leases awarded beginning in 2007 will be increased from 12.5% to 16.67%.

Available Acreage in Gulf Lease Sales -- In addition to the royalty rate increase, the area south of the Sale 181 acreage will be made available after environmental reviews are complete. This move follows passage of the Gulf of Mexico Energy Security Act in December 2006. The prospective new area available for leasing covers 5.8 million acres that are mostly located in ultra-deep waters.

BP Adds Gas Project in Oman –

BP signed a PSC with Oman for a 2,800 square kilometer “tight gas” block. Two fields, Khazzan and Makarem, associated with the block were discovered in 1993 but have not been developed.

The agreement envisages an extended appraisal program with first production not likely before 2010.

This marks BP’s entry into E&P in Oman and in key respects is of the same nature as the Mukhaizna steam flood project award to Occidental last year.

In Russia, TNK-BP acquired Oxy’s 50% interest in the 45 Mb/d Vanyoganneft field for US\$485 million. Based on proved reserves only, the purchase cost is US\$5.11/boe. As a result, TNK-BP will now hold 100% of Vanyoganneft.

UPCOMING EVENTS

Gordon Energy Solutions to present at the James A. Baker III Institute for Public Policy of Rice University on [“The Changing Role of National Oil Companies in International Energy Markets”](#).

Rice University Baker Hall
Houston, TX
March 1-2, 2007

Expectations for the Coming Year

This initial issue of On Point for 2007 will highlight what we believe will be some of the more important events to watch for in the coming year.

From an average of \$30 per barrel in 2003, the first month ahead WTI crude oil futures price hit a summer peak of nearly \$77 per barrel. This price has fallen to nearly \$50 in recent days. The International Energy Agency just announced an estimated 0.6% decline in OECD oil consumption in 2006. Yes, higher prices do affect consumption.

The effects of price fluctuations over the past three years continue to echo in all aspects of the oil and gas business. These continuing effects are likely to trigger major changes in company strategies, public policy, and share values this year.

The following examples recap what has already happened. We mention these in particular because we believe they have significant longer-term implications:

Cost inflation

The 2006 average of the producer price index for the cost of drilling oil and gas wells in the US rose by a factor of almost 2 ½ times compared 2003. Other costs, including oilfield machinery and support activities have also risen but by much lower factors. As noted in previous issues, by the third quarter the median increase in 2006 operating costs as reported by a sample of companies was 21% compared to 2005. Responding to cost inflation (particularly drilling costs), several major companies have announced that drilling plans and production growth targets have been cut.

Public Policy

In 2006 producing country policy reactions to higher prices have been severe and have included (1) raising government take (primarily revenue-based take such as royalty rates), (2) reducing or limiting the IOC shares in key existing oil and gas assets or precluding access to new investment opportunities and (3) re-instating some prior privileges of the NOC. Although this process is widespread, changes have been particularly harsh in Venezuela and Russia. Erosion of the IOCs position in these two countries was more or less continuous in 2006. However, both countries ended the year with respective bangs. Venezuela made it clear that, at the minimum, PDVSA will take a majority position in the full integrated asset positions of the Orinoco projects. Also, natural gas projects have been tagged as targets. In Russia, meanwhile, the Sakhalin II partners sold a 50% interest to Gazprom. Moreover, the specific budget authority status of the project still seems unclear. For at least two reasons changes in Russia and Venezuela will have global impacts. First, investment opportunities in these countries are world scale in size and can have a radical impact on an IOCs worldwide operations. Second, multiple companies predicated a significant (in at least a few cases, a critical) element of their global strategies on programs in these countries.

Alliances, Acquisitions & Divestitures

Leading corporate deals in 2006 included (1) Anadarko’s all-cash acquisition of Kerr-McGee and Western Gas Resources, (2) EnCana and ConocoPhillips announced an integrated JV combining Canadian oil sands and US refinery projects and (3) Late in 2006 Statoil and Norsk Hydro

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CONTACTS



Gordon Energy Solutions is an energy consulting firm specializing in competitor analysis, strategic decisions, political risk analysis, and global issues concerning the international, integrated oil & gas industry. We anticipate future opportunities and challenges confronting our clients and assist in exploiting those opportunities.

By integrating the corporate and financial dimensions of strategy and performance with detailed project level analytics, we maintain a unique approach to your business. GES provides value to our clients through our forward-looking, critical analysis and unique perspective.

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announced plans to merge their upstream operations in a single company. In addition, the ConocoPhillips acquisition of Burlington Resources was announced very late in 2005 and completed in 2006.

Three Key Questions for 2007

Any outlook for 2007 must begin with a caveat: prices matter. It matters a great deal whether oil prices continue to fall or whether they stabilize and subsequently rise again. Did the oil price “bubble” burst in 2007 or are we experiencing a “pause” within an extended industry cyclical expansion that is not yet complete? If it is just a “pause”, will it be brief or is it likely to extend through the year?

Venezuela has probably over-reached.

Venezuelan policy towards the IOCs is predicated on high and rising oil prices. The importance of prices to recent policy is two-fold. The government believed that it could increase royalty and income tax rates without losing future IOC investment. President Chavez has explicitly mentioned this in his recent statements. Moreover, we suspect that it is believed that, even if IOCs cut investment or withdraw, either (1) high revenues will enable PdVSA to sustain production anyway and/or (2) other companies, specifically NOCs, will be prepared to invest at less demanding commercial terms.

The result has been:

- The destruction of investor confidence in the commercial security of the world class investments the country needs
- Probable cancellations or extended delays of major new investment programs in the Orinoco and offshore natural gas plays
- A search by IOCs for viable alternatives to previously planned Venezuelan investments and
- The creation of severe downside price and volume risks for the government

We have said before that the Venezuelan system of government take as it applied to the IOCs before prices

began to rise, had an extremely low marginal rate of take, was rigid, and could not adapt to price fluctuations. As such, when oil prices rose, the government quite legitimately saw itself losing substantial revenues. The contracts were signed in a period of much lower prices and, more importantly, a period when price expectations were anything but bullish. Predictably, policy changed after prices began to rise and, reflecting the rigidity of the contracts and fiscal system, these changes have come in fits and starts. Unfortunately for Venezuela, the policy changes have done nothing to fix the rigidity of the system or its unreliability.

As prices fall, the full extent of Venezuela’s exposure is likely to become apparent. One recent sign of the price/policy linkage is the announced plan to raise subsidized gasoline prices (which have not increased since 1997). Another potentially critical issue will be PdVSA’s capacity to invest sufficient sums to maintain production capacity. There is a certain irony in the recent announcements that Ecuador looks for PdVSA to participate in a US\$5 billion heavy oil development project and Bolivia’s YPFB is counting on PdVSA to carry its 49% share in a joint venture project planning to spend US\$1.2 billion in 2008 and 2009.

All governments have a motive to increase taxes or other forms of government take. “More is better” is an eagerly accepted principle among practitioners of government everywhere.

The essential question for 2007 is: which governments have the means with which to increase take and sustain the policy if prices are falling? This is a complex question that involves extensive evaluations of fiscal systems, competitor analysis (particularly likely reactions of competitors to policy changes and price fluctuations), national oil company capabilities forecasts, and political analysis.

If oil prices continue to fall, our assessment is that Venezuela will most probably fail the means test in 2007.

BP is likely to do one or more major acquisitions in 2007.

2006 was a rough year for BP--trouble in Alaska, further delays in the Gulf of Mexico and widespread scrutiny of their safety operations. Thus far, 2007 has not brought much relief. Now that Shell and its partners have sold a majority interest in Sakhalin-2 to Gazprom, it is clear that Russia’s quest to achieve a de facto re-nationalization of their petroleum resources will extend to previous agreements. Just recently, in a move that is notably similar to events leading to the sell-down at Sakhalin-2, Rosprirodnadzor, Russia’s environmental protection service, has initiated an investigation into the Kovykta gas field. Original plans had called for very substantial production from Kovykta soon. However, the export portion of the development plan has been on hold for some time over disputes with Gazprom concerning the export pipeline.

With its 50% stake in TNK-BP, it is clear that BP will not escape losses in Russia, but how will it happen and how much will it hurt? Russia’s latest actions suggest it could be handled much the same way as Sakhalin-2. That is, the major new project developments will be haggled and delayed until BP comes to an agreement to sell part, likely a majority, of their share in the developments to Gazprom. This would effectively strip BP of any hope of substantial growth in Russia and leave it stuck holding the higher-cost mature fields that must be continually drilled to mitigate large declines.

For some time it has been speculated that the Russian holdings in TNK-BP will be bought out. We suspect that another, more damaging scenario is more likely. In this alternative look for a 50% plus 1 share buyout equally split between both parties in TNK-BP. In short, BP loses control of the investment and becomes a minority partner at 25%. In 2005, TNK-BP accounted for 35.5% of BP’s total oil production (25% of BP’s total boe production).

Russia has been seen by BP as a new core area built as part of a strategy that explicitly focuses on material positions in the biggest fields in world class plays. The articulation of this strategy was quite clear at the time. It stipulated that BP will “invest in the largest, lowest cost basins” and has resulted in a program that we would characterize as “benign neglect” or “managed decline” in all but a few major areas outside Russia.

The net production impact of a “sale” of half of BP’s interest in TNK-BP is illustrated in Figure 1. The loss of a major portion of its Russian assets will significantly impact BP’s near-term production and long-term growth potential. The result is to significantly offset the very large production gains expected from the company’s deepwater Gulf of Mexico discoveries.

As more and more of BP’s Russian assets are siphoned away (or as the risk that this will happen rises), BP must begin to look externally for growth and sustainability.

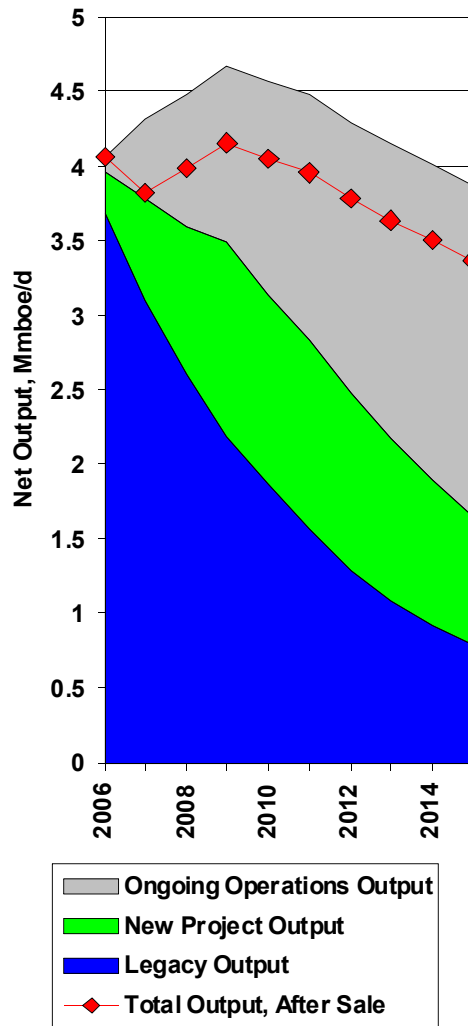
In 1998, BP acquired Amoco. Leading up to this acquisition, a central element of BP strategy over an extended period of time was cost-cutting. In our view, after gains from cost-cutting had been exhausted the company found itself with limited growth prospects. In other words, the cost cutting focus of BP strategy (a focus that was much loved by the financial community) had been pursued to the detriment of long-term growth prospects. The Amoco deal played a critically important role in replenishing a much depleted inventory of future growth prospects. It also gave BP management new opportunities to cut costs by combining redundant operations.

At the time of this deal, a low price environment helped open a window of opportunity for BP. Not all stocks are created equal; some suffer disproportionately as oil prices decline. Amoco had significant growth potential but its shares were discounted. BP lacked growth potential but, as a perceived “large-cap” oil, its shares were valued more highly.

In 2007, do not be surprised if BP makes another world scale acquisition to reduce its exposure in Russia. The just announced tight gas deal in Oman is, in our view, a reaction to the Russian problem. In many respects, this deal focuses on exploiting the “strategic advantage” of the global IOCs identified in our essay featured in the June 2006 Oxford Energy Forum on the future of the IOCs. [Link to essay](#)

The agreement with Oman is significant for three reasons. First, if the appraisal effort succeeds, production will enter the pipeline as the impact of the Gulf of

Figure 1: BP Worldwide Oil & Gas Production Outlook



Source: GES Growth & Performance Prospects Client Study

Mexico begins to fall. Second, it confirms that the company sees the risk ahead and is moving to address that risk. Third, even if the program yields the 20 to 30 Tcf mentioned in the announcement, BP’s net will not be sufficient to solve the problem. In other words, BP is not done yet.

The TNK-BP acquisition of Oxy’s 50% share of Vanyoganneft seems to be inconsistent with our expectation. However, the asset has substantial upside potential based on probable and possible reserves. Moreover, it has potential value for BP as “concession” to Russian demands.

In an ironic twist, lower oil prices could actually benefit BP. In the current high-

price environment, foreign investment in Russia is not needed, and could in fact, be seen as unwanted competition.

What permits the Russian government and Gazprom to influence and coerce companies to sell pieces of their operations is simple. In this environment, the IOC’s need Russia more than Russia needs the IOC’s. Moreover, because prices are high, the government through players like Gazprom has the means to attain its goals (again, the government passes the means test if prices remain high).

As a supplemental note, Total and Norsk Hydro have a similar but much less extreme problem with their Kharyaga field. Total holds 50% and Norsk Hydro holds 40%.

US energy policy takes a wrong turn

Now that costs have increased, natural gas prices are significantly lower, and oil prices have declined dramatically, it is time to increase the US rate of taxation of oil and gas operations. That seems to be the message as offshore oil and gas royalty relief programs in the US are under attack.

Unfortunately, multiple, un-related royalty relief issues have become “bundled” together in the thinking on Capitol Hill and the recent shift in control of the Senate and the House to the Democrats has made the industry a target. The multiple issues include:

- The logic of a lower royalty rate on deepwater leases than on shallow water leases
- The presence of price-defined limits on royalty relief and
- The failure to include price-defined limits on royalty relief for leases issued in 1998 and 1999

The President recently directed that, in future offshore lease sales, the deepwater royalty rate will be increased from 12.5% to 16.67%, i.e. the same royalty rate as applies to shallow water leases.

H.R. 6, was passed by the House of Representatives on 18 January. The bill

- Imposes significant penalties on any company that fails to re-negotiate leases that were issued without price-defined limits on royalty relief
- Repeals Sections 344 and 345 of the Energy Policy Act of 2005. These sections provide for royalty relief for shallow water deep gas and deepwater leases.
- For no particular reason other than revenue raising, the bill increases the integrated company amortization period for geological and geophysical expenses from five to seven years.

The criticism of royalty relief is, of course, heavily affected by political biases and expediency -- a fact evident from the Joint Economic Committee report.

It seems to us that there are three critically important facts that are being overlooked. These facts will be of real significance to the industry in the year ahead.

First, our criticism of Venezuela's oil and gas fiscal system applies to the US system as well. Indeed, Venezuela's rigid and regressive income tax and royalty-based system is a mirror image of the US system. It is hardly surprising then that US policy in the offshore program shows the same blunt force pattern of change as prices rise and fall. Fixed rate royalties are regressive. In high price environments, the government share of economic value declines. The resulting price impact on profitability encourages a boom in activity. In low price environments, the government share of economic value rises. The resulting price impact on profitability encourages a bust in activity and premature abandonment of otherwise viable oil and gas reserves.

Second, the repeal of deepwater royalty relief comes as prices are falling, not rising. It is being implemented despite the fact that costs have escalated dramatically. Moreover, it comes as the industry approaches a new frontier in the play, the ultra-deep water. In short, these policy changes are lagging the economics of the situation.

Third, there is an implicit assumption on Capitol Hill which is both arrogant and naive. This assumption is highlighted in two key comments in the Joint Economic Committee report:

- The royalty relief program "...does nothing to reduce U.S. dependence on foreign oil, create net new jobs, or lower energy prices for consumers." and
- "In today's economy there is no reasonable economic justification for continuing the program."

Government take, the mix of all cash claims on operations in whatever form (bonus, rents, royalties, or income taxes), is a price paid for the right to explore for and produce oil and gas reserves.

The oil and gas industry is global in every sense of the term. Capital investment flows across international boundaries readily over time and in response to differences in perceived value of oil and gas investment prospects after government take.

Major changes in policy in key producing countries (such as Russia, Venezuela, Angola or the US, to name a few) have global impacts on capital flows, competition for new investment opportunities, other countries' tax and licensing policies, and future oil and gas supply.

The US, as a major producer and a net importer of oil and gas has an unambiguous interest in diverse global sources of supply. Supply prospects in the US are just as important to this national interest in global diversity of supply as that of most other countries.

As adverse US policy changes occur, they will spill over into other parts of the world. The potential for this echo effect should be factored carefully in current long-range strategies.

Statoil/Hydro Merger of GoM Assets

As noted in last month's issue, the merger of the upstream operations of Statoil and Norsk Hydro was driven in part by the intense level of competition for international growth opportunities.

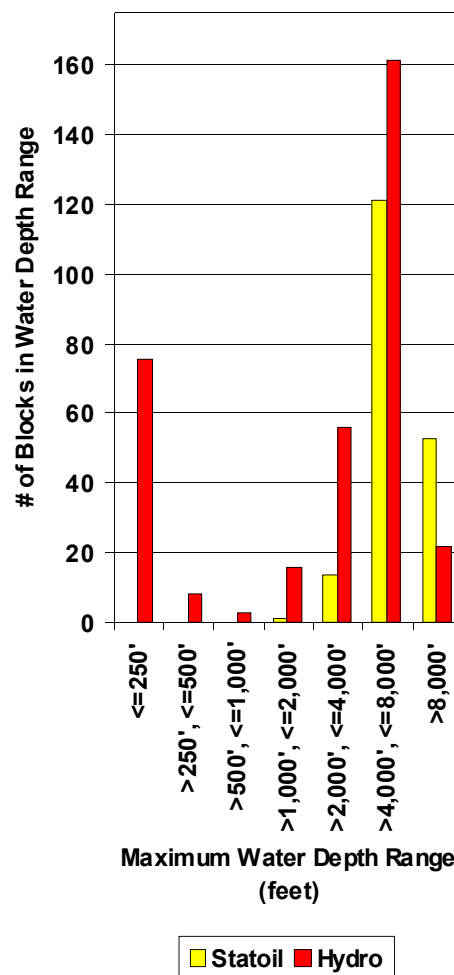
Helge Lund provided a clear statement of another key rationale for the deal when he said that "...this is a merger

driven very much by growth and growth initiatives."

The Gulf of Mexico deepwater play is a central area of mutual interest as a source of future growth. Figure 2 compares the respective companies' block holdings by water depth ranges. Hydro's Spinnaker acquisition provided them with positions across the water depth spectrum.

The merger of these two companies builds considerable depth in several ways. A more diverse position by water depth has already been illustrated.

Figure 2: Comparative Water Depths of Statoil and Norsk Hydro GoM Acreage



Source: MMS; GES Gulf of Mexico database

OUR PERSPECTIVE



There are a very small number of blocks in which both companies have working interests (less than 10 out of an estimated 525 blocks).

Average working interests are high for both companies although Statoil's median working interest is 25% compared to Hydro's 50%. This reflects the large role of Statoil's farm-in program in its acreage building to date as compared to the large role of Spinnaker blocks (an aggressive bidder in sales leading up to Hydro's acquisition of the company).

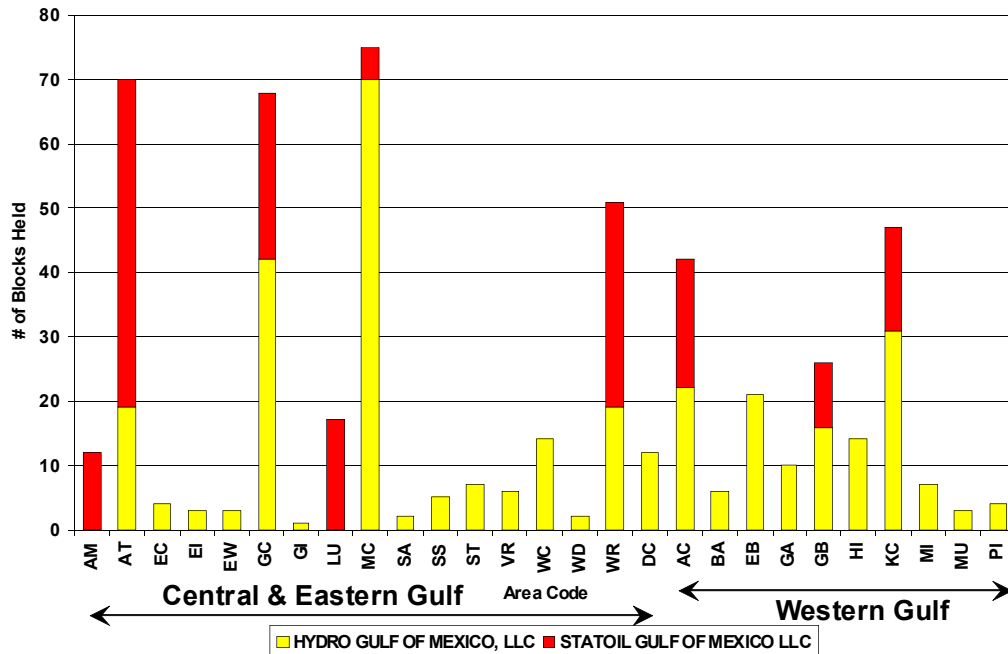
Figure 3 compares block holdings for the two companies by major area within the Gulf.

Hydro brings positions in a large number of areas not currently in Statoil's portfolio.

- A number of these are in shallow waters such as Eugene Island, Ship Shoal or West Cameron, for example.
- Also, Hydro brings significant positions in the Western Gulf: Alaminos Canyon, East Breaks, Garden Banks and Keathley Canyon, in the deepwater Western Gulf.

Finally, while the companies have few blocks in common, they do share substantial areas of interest. This "deepening" of the position in areas such as Walker Ridge, Atwater Valley or Green Canyon could help the combined company as it puts together deals.

Figure 3: Comparative Location of Gulf Acreage



Source: MMS; GES Gulf of Mexico database

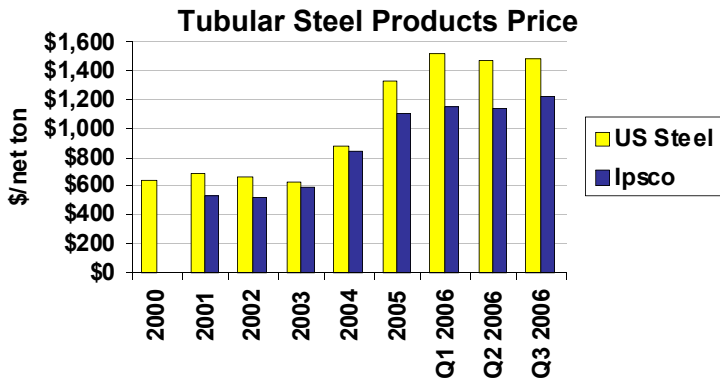
Area	Area Name	Area	Area Name	Area	Area Name
AC	Alaminos Canyon	GB	Garden Banks	SA	Sabine Pass (La)
AM	Amery Terrace	GC	Green Canyon	SS	Ship Shoal
AT	Atwater Valley	GI	Grand Isle	ST	South Timbalier
BA	Brazos	HI	High Island	VR	Vermillion
DC	Desoto Canyon	KC	Keathley Canyon	WC	West Cameron
EB	East Breaks	LU	Lund	WD	West Delta
EC	East Cameron	MC	Mississippi Canyon	WR	Walker Ridge
EI	Eugene Island	MI	Matagodas Island		
EW	Ewing Bank	MU	Mustang Island		
GA	Galveston	PI	Port Isabel		

COST WATCH



Tubular steel prices remained at their recent peak in the 3rd quarter.

Fourth quarter results are not yet available.



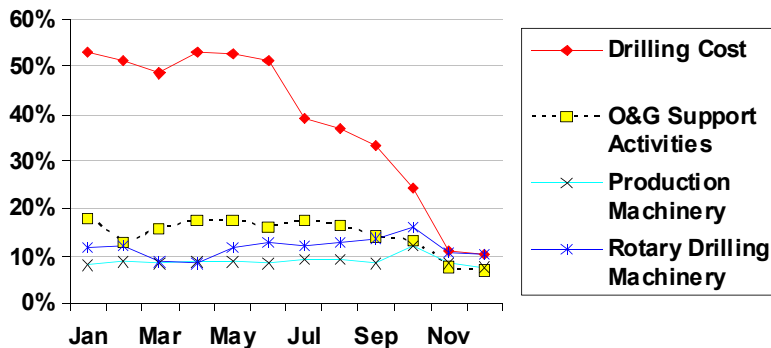
December Producer Price Indices

Monthly cost indices in 2006 are compared to the same month in 2005 to generate the annual inflation rate estimates shown in this chart.

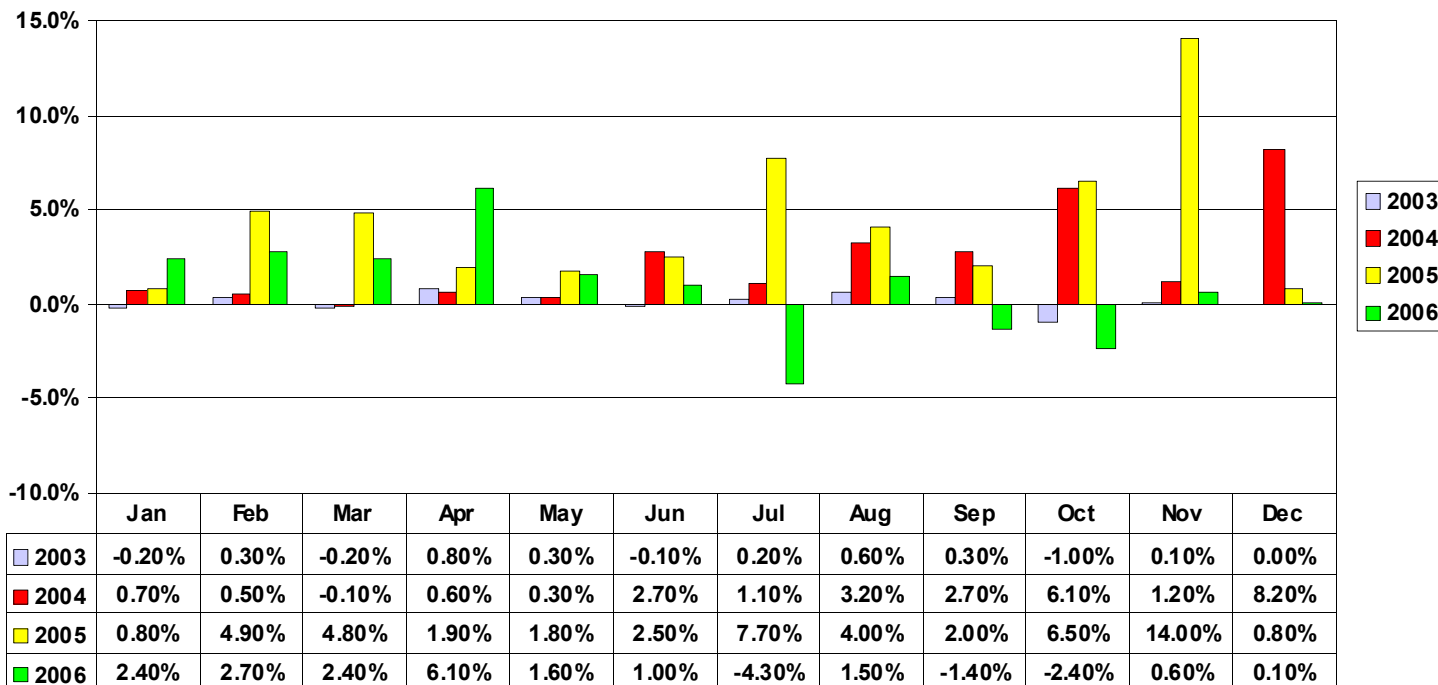
Year over year drilling cost inflation rates have fallen dramatically since June 2006. November and December rates have been estimated at roughly 10% for both drilling costs and for the cost of rotary drilling machinery. This is down radically from earlier inflation rates for drilling costs. The average drilling cost index for the year 2006 is nearly 38% higher than for 2005.

Costs associated with oil and gas support activities have also experienced very sharp declines in recent months.

Annual Inflation of Selected Industry Costs



US Producer Price Index: Monthly Percentage Change in the Cost of Drilling Oil & Gas Wells



Year over Year Percentage Change

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2005	27.2%	31.7%	36.5%	37.8%	39.4%	39.2%	45.8%	46.6%	45.9%	46.3%	59.1%	51.7%	43.2%
2006	53.3%	51.1%	48.7%	53.0%	52.7%	51.3%	39.2%	36.7%	33.3%	24.4%	11.1%	10.4%	37.5%