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MUSINGS FROM THE OIL PATCH

July 25, 2006

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Note: *Musings from the Oil Patch* reflects an eclectic collection of stories and analyses dealing with issues and developments within the energy industry that I feel have potentially significant implications for executives operating oilfield service companies. The newsletter currently anticipates a semi-monthly publishing schedule, but periodically the event and news flow may dictate a more frequent schedule. As always, I welcome your comments and observations. Allen Brooks

OSX Down Over 7% - Did Bernard Yell “Fire”?

Earnings season for the oilfield service industry began last Thursday when Weatherford International (WFT-NYSE) reported its second quarter results. The company earned \$0.53 per share before an extraordinary charge of \$0.01 for severance charges associated with the ongoing restructuring of the company's operations following its purchase of the oilfield service assets of Precision Drilling (PDS-NYSE). While adjusted earnings per share number matched the consensus estimate of the 22 financial analysts who follow the company, the headline number, the penny shortfall from consensus, is what initially received media attention and hurt the stock price.

With oil prices falling from over \$78 per barrel to \$73, before rebounding at week's end, investors abandoned energy-related stocks

Last week was not a good one for oilfield service and energy stocks as crude oil prices fell after climbing to an all-time high the prior week in response to the start of hostilities between Israel and Lebanon as concern about an expanding war was replaced by the belief that a ceasefire was imminent. With oil prices falling from over \$78 per barrel to \$73, before rebounding at week's end, investors abandoned energy-related stocks.

It is interesting, but possibly a serious problem for this sector's stock prices, that many analysts have earnings estimates well above management guidance. For Weatherford, management previously provided earnings per share guidance of \$0.51 to \$0.53 for the quarter. Results were at the upper end of guidance. However, the range of analyst estimates was \$0.51 to \$0.56, suggesting a group of analysts were disappointed by actual results.

For oilfield service companies with extensive operational exposure to Canada, where oilfield activity is severely disrupted during spring breakup as thawing temperatures force a ban on the movement of oilfield equipment effectively stopping drilling activity, earnings are

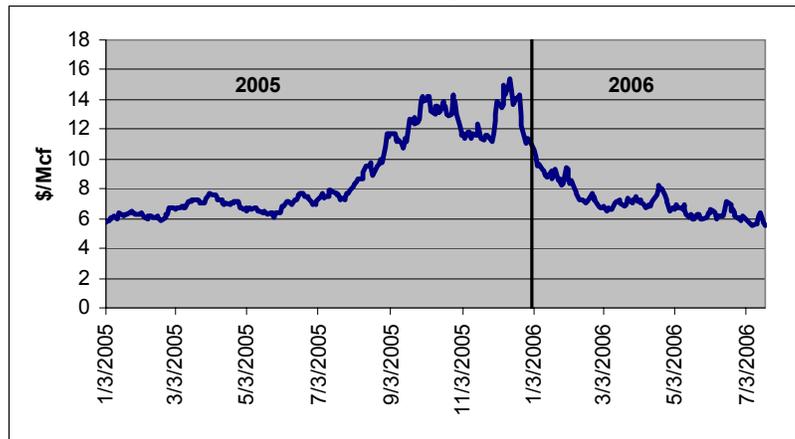
Analysts have a great degree of difficulty in estimating the financial impact on companies from spring breakup

always weaker in the second quarter. This year's spring breakup was longer and more severe than in prior years causing a greater downturn in business than usually occurs. Analysts have a great degree of difficulty in estimating the financial impact on companies from spring breakup, especially when it deviates from the average.

Gas prices mid last week were about \$5.55 per thousand cubic feet, the lowest price since the fall of 2003

As spring has turned into summer, weakness in natural gas prices has begun to take a toll on U.S. oilfield activity – especially drilling and associated well service work. The spike in natural gas prices that occurred following Hurricane Katrina has evaporated in the heat of a warmer than normal winter and a more mild spring and early summer. The lack of gas demand, coupled with rising production in response to the sharp upturn in gas-related drilling over the past few years, has created a bulge in gas storage volumes. With demand down and supplies up, natural gas futures prices have collapsed. Gas prices mid last week were about \$5.55 per thousand cubic feet, the lowest price since the fall of 2003. In the intervening three-year period, gas volumes from unconventional resources such as coal bed methane, tight gas sands and gas shales, which tend to be significantly more expensive to develop, have grown substantially. The profit margins on these resources are now being squeezed.

Exhibit 1. Gas Prices Are Below Any Recorded in 2005



Source: EIA, NYMEX, PPHB

Weatherford's CEO said he sees flat North American oilfield activity over the next 9-12 months

Fear about weakening North American oilfield activity has hurt energy stock prices. That fear was heightened when Weatherford CEO Bernard Duroc-Danner, on the company's earnings conference call with analysts, made comments that conservatively he sees flat North American oilfield activity over the next 9-12 months due to weak gas prices. Flat revenues, coupled with rising costs equals falling profit margins, weak earnings and a reduced valuation.

The flat outlook comment was the equivalent of yelling "Fire" in the stock market

Management's flat outlook comment was the equivalent of yelling "Fire" in the stock market. From the close of business the night before Weatherford reported earnings to the end of the trading week, the Philadelphia Stock Exchange Oil Service Index (OSX) dropped 7.3%, while Weatherford's stock was punished by losing

13.5% of its price. For all of last week, the OSX was off 10.5% versus Weatherford's 14.2% drop.

Exhibit 2. The Gains of 2006 Are Now Gone



Source: Big Charts

Schlumberger reported a 37% increase in revenues and expanding profit margins as every geographic region showed at least 20% revenue growth

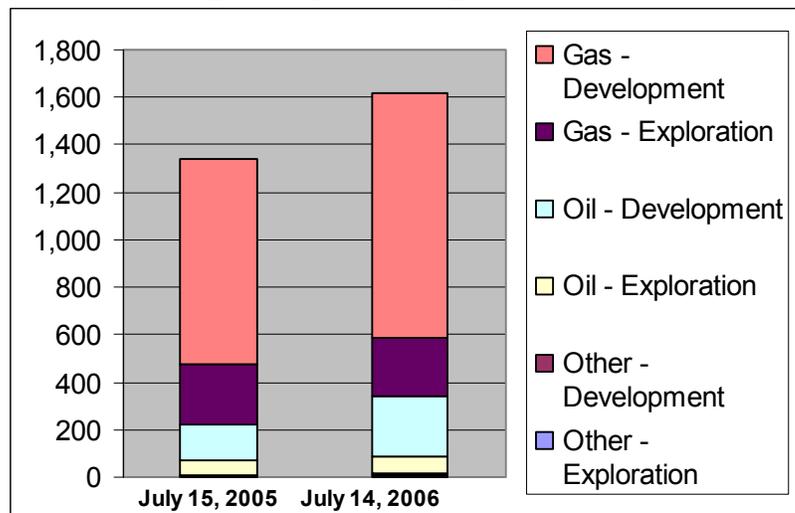
Last Friday, the two largest oilfield service companies reported their second quarter results. Schlumberger Ltd. (SLB-NYSE) reported earnings per share of \$0.69, up 78% from last year. Moreover, the company handily beat the consensus estimate of \$0.63. Importantly, Schlumberger reported a 37% increase in revenues and expanding profit margins as every geographic region showed at least 20% revenue growth. In contrast, Halliburton Company (HAL-NYSE) reported \$0.48 per share after special items, which was a penny short of the consensus view. While very optimistic about the outlook for its oilfield business, Halliburton announced that it was now pursuing a tax-free spin-off of its KBR construction subsidiary rather than its prior plan for an IPO of a portion of that unit, then to be followed by a spin-off of the balance to shareholders. This news was negative as it means Halliburton will not receive the cash from selling a portion of KBR to the public. Management reiterated its view it will complete the transaction within the next nine months. The weakness of the IPO market caused the strategy shift and the reduction in value to Halliburton.

High-quality gas in the Gulf of Mexico is being replaced by lower-quality gas found onshore in non-conventional sources such as tight gas sands and coal bed methane wells, along with greater Canadian supplies

Schlumberger was the first company to hold its earnings conference call on Friday morning, and the first to talk to the investing community following Weatherford's comments on the outlook for North American activity. Analysts questioned CEO Andrew Gould about his view of North American activity. Mr. Gould presented an interesting analysis. He pointed to the problem North America has with gas supply being on a treadmill as a result of the accelerating decline in Gulf of Mexico production. That decline is largely due to natural factors, but it has also been impacted by hurricane damage. The reality, as suggested by Mr. Gould, is that high-quality gas in the Gulf of Mexico is being replaced by lower-quality gas found onshore in non-conventional sources such as tight gas sands and coal bed methane wells, along with greater Canadian supplies. These resources are more oilfield service intensive. The greater efficiency of Gulf of Mexico well completions has merely accelerated the rate at which we drain gas supplies. So while North American natural gas-related activity is negatively impacted by current gas prices, the fundamental trends underlying the shift in supplies will drive future activity higher and contribute to higher sustained gas prices.

Mr. Gould was questioned about what industry data he followed that might signal his view was wrong. He responded that he followed the components of the weekly drilling rig count. He looks at the mix of wells being drilled, which are divided into oil – exploration and oil – development along with gas – exploration and gas – development. Generally, the weekly well count is reported in total for the U.S., while the details receive less attention. Baker Hughes (BHI-NYSE) reports the U.S. rig count divided between gas and oil. Smith International (SII-NYSE) provides a weekly rig count that gives more quality data about wells being drilled, but it requires more analytical work to extract the data.

Exhibit 3. Drilling Activity Is Shifting Towards Oil



Source: Smith International, PPHB

To see what has happened to the quality of drilling over the past 12

Well analysis results suggest producers are shifting their drilling focus from gas to oil, but the bigger change is the lack of new exploration in favor of more development

months, we broke down the Smith weekly rig count for the week ending July 14, 2006, and the prior year's comparable week. It was enlightening to note the changes between the two years, although we are cautious about drawing too many conclusions. One really needs to look at trends over time to see how sustainable these differences might be.

For the week of July 14, 2006, compared to the same week last year, the number of oil and gas wells being drilled grew 20%. Natural gas wells being drilled increased 14.4%, while oil wells were up 48.9%. In terms of well type, natural gas exploratory wells declined 3.9%, while development wells were up 19.8%. In contrast, exploratory oil wells were flat while development wells increased 69.5%. These results suggest that producers are shifting their drilling focus from gas to oil, but the bigger change is the lack of new exploration in favor of more development. That shift might make future drilling activity increasingly susceptible to weak gas prices as development drilling becomes sensitive to the timing of initial well production. These statistics truly point out how drilling tends to ebb and flow over time between oil and gas and exploration and development in response to market conditions.

The punishment oilfield service stocks suffered last week wiped out all the gains previously made by the OSX this year

We suspect the 'Dog Days of Summer' doldrums may impact oilfield service stocks, and energy stocks, too, for the next few months. Overly optimistic Wall Street analyst estimates for second quarter earnings and the ongoing debate over the impact of current weak gas prices on future North American oilfield activity may mute positive investor response to generally strong earnings and business trends. The punishment oilfield service stocks suffered last week wiped out all the gains previously made by the OSX this year. With a forecast by the National Oceanic and Atmospheric Administration (NOAA) calling for a warm winter (temperatures well above normal across the country), we may be heading into an extended period of weaker North American drilling and oilfield activity than previously anticipated just as a surge in new drilling equipment hits the market.

Could the current North American natural gas storage situation lead us into another "gas sausage" market environment like we experienced in the late 1980s and early 1990s?

Could the current North American natural gas storage situation lead us into another "gas sausage" market environment like we experienced in the late 1980s and early 1990s? If so, then pressure on drilling and service contractors to shift equipment to international markets will build. At the moment, the industry is blessed with strong international markets, but maybe the contractors will need to move quickly in order to capture term work before the avalanche of shifting equipment overwhelms pricing. Even with healthy commodity prices, investors could abandon these stocks as earnings growth prospects dim. Not a pretty picture to contemplate.

New Drilling Permits Down: Impact on Drilling?

The Lehman Brothers oilfield service analyst team reported last week that the 30-state drilling permit database they maintain showed a 4.9% decline in newly issued permits between May and June. The

The declines in Wyoming and West Virginia reflects the impact of more costly natural gas coming from unconventional reserves that dominate their resource base

decline was adjusted for the difference in filing days in the respective months. The decline was led by Wyoming (-25%, adjusted) and West Virginia (-28%, adjusted).

The magnitude of the declines in these two states reflects the impact of more costly natural gas coming from unconventional reserves that dominate the respective states' resource base. That, plus an attempt to better time the typical surge in initial gas production from these types of wells (coal bed methane, in particular), explains the sharp drop in new permits. An operator would like to bring on a well's maximum production at the optimal time, i.e., winter, when gas prices are likely to be at their highest for the year.

The Fireworks on Bastille Day

The fear of a possible expansion of the battle into Syria, or possibly Iran, sent crude oil prices to an intraday record high of \$78.40 per barrel

July 14 is Bastille Day in France; that country's day for celebrating its freedom. The fireworks were real in the Middle East and symbolic in Washington. Most Americans and Europeans awoke that morning to news of the escalation of violence between Lebanon and Israel. The fear of a possible expansion of the battle into Syria, or possibly Iran, with fears of oil supply disruptions, sent crude oil prices to an intraday record high of \$78.40 per barrel. Even though oil prices dropped as the day progressed, largely due to profit taking and concern among traders that violence could ease over the weekend, most trading experts suggested that the market's momentum was upward. Comments were made that \$80 per barrel was days away, with the potential of \$90-\$100 if the war expanded.

The first half of 2006 was the warmest on record for the country

In the United States, the National Climatic Data Center announced that the first half of 2006 was the warmest on record for the country. It reported that the average temperature for the 48 contiguous United States from January through June was 51.8 degrees, or 3.4 degrees above the average of the 20th century. That was the warmest period since record keeping began in 1895. No state in the union was cooler than average and five states – Texas, Oklahoma, Kansas, Nebraska and Missouri – experienced record warmth for the period. The news set off many media stories citing the data as the latest to support concern over global warming.

The study's conclusion was that the basic research model had serious fundamental flaws that biased its conclusions

That same day, *The Wall Street Journal* editorialized about a study of the science underlying the global warming movement. The editorial used as its take-off point the publication that morning of a study by a panel of distinguished statisticians for the U.S. House Committee on Energy & Commerce reviewing the research behind two statistical studies that model a "hockey stick" upward move in global temperatures in recent years that underlies virtually all of the claims over the impending doom from the global warming trend. The study's conclusion was that the basic research model had serious fundamental flaws that biased its conclusions. Moreover, the study's authors concluded that the reason there had not been a serious challenge to the model from climatologists was their close-knit relationship that compromises their ability to be objective.

Does Bastille Day 2006 carry any long-term significance? It will only be at some point in the future when we look back that we will know the day's significance, if any. In the near-term, the violence in the Middle East is likely to continue for some time until Israel achieves its objective of smashing its enemy, Hezbollah, based in Lebanon. The challenge in keeping the violence from escalating is the level of support given Hezbollah by the governments of Syria and Iran. Should events unfold that show more than financial and tacit support of Hezbollah by Syria and Iran, such as Iranian military being involved in the capture of two Israeli soldiers that kicked off the violence, or Syria providing Hezbollah with weapons of mass destruction, one could expect expanded violence. That would likely cause crude oil prices to spike and up the risk of a global recession.

The House Energy Committee study was prepared by a panel of distinguished statisticians headed by Dr. Edward Wegman

The House Energy Committee study was prepared by a panel of distinguished statisticians headed by Dr. Edward Wegman, a professor of statistics at George Mason University and the chair of the National Academy of Sciences Committee on Applied and Theoretical Statistics. Dr. Wegman is also a board member of the American Statistical Association. Dr. Wegman assembled a committee of statisticians, including Dr. David Scott of Rice University and Dr. Yasmin Said of The Johns Hopkins University. Also contributing were Denise Reeves of MITRE Corp. and John T. Rigsby of the Naval Surface Warfare Center. All worked independent of the committee, pro bono, at the direction of Dr. Wegman. Aspects of the analysis were discussed and presented to other statisticians including the Board of the American Statistical Association.

The key findings and recommendations of the committee included:

- The authors of the model misused certain statistical methods in their studies, which inappropriately produce hockey stick shapes in the temperature history. These errors suggest that the work cannot support the claim that the 1990s were the warmest decade of the millennium.
- A social network analysis reveals that a small group of climatologists review each other's papers and reuse many of the same data sets, which calls into question the independence of peer-review and temperature reconstructions.
- Although the climate researchers rely heavily on statistical methods in their work, it appears they do not rely on the statistical community for assistance or review.
- "Authors of policy-related science assessments should not assess their own work."
- "Policy-related climate science should have a more intense level of scrutiny and review involving statisticians."
- "Federal research should emphasize fundamental understanding of the mechanisms of climate change, and should focus on interdisciplinary teams to avoid narrowly focused discipline research."

"Authors of policy-related science assessments should not assess their own work."

The three climatology professors' papers featured temperature reconstructions going back as far as 1,000 years

After reading the 91-page committee report, we were most impressed with the dissection of the peer review issue because of its implications for the battle in academia, the media and government over global warming and the possible remedies. The principle report that drives the global warming debate is Climate Change 2001: Third Assessment Report, authored by the U.N. Intergovernmental Panel on Climate Change. That report features alarming statistics concerning the rapid rise in global temperatures during the decade of the 1990s and suggests that the rapid rise was due principally to anthropogenically generated greenhouse gas emissions, specifically carbon dioxide. This study provided the support for the effort to enact the Kyoto Accord. The study relied prominently on the work of three climatology professors, Dr. Michael Mann, Dr. Raymond Bradley and Dr. Malcolm Hughes. Their papers featured temperature reconstructions going back as far as 1,000 years. The analysis employed by these professors was the subject of a critical study by two Canadians, Ross McKittrick and Steven McIntyre, that showed that Mann's methodology could produce hockey sticks from even random, trendless data. From this challenge, the battle over the Mann methodology began with sometimes bitter exchanges on a series of web sites.

As Dr. Wegman put it, "our perception is that this group [fellow climatologists] has a self-reinforcing feedback mechanism"

After Dr. Wegman's review of the Mann study data and the committee's inability to replicate the study (the normal requirement for scientific studies), he and the committee concluded that there were serious flaws in the statistical techniques employed in the original study. Those flaws, the committee concluded, destroyed the validity of the study's conclusions. Why these flaws were not uncovered, or fairly evaluated once they were pointed out, was a major part of Dr. Wegman's report. As Dr. Wegman concluded, the problem is the close-knit association of climatologists, documented by the committee's examination of all the peer-reviewed papers issued and the number of papers that included the lead authors as participants. As Dr. Wegman put it, "our perception is that this group [fellow climatologists] has a self-reinforcing feedback mechanism and, moreover, the work has been sufficiently politicized that they can hardly reassess their public positions without losing credibility." In other words, friends with vested interests in the outcome of the movement spurred by the climate report are not going to be critical of it.

The global warming work is being done with little, or no, contribution from statisticians

Some of the conclusions of Dr. Wegman's committee's study focus on the lack of involvement of statisticians in the climate research effort, especially since statistics play such a role in the models and conclusions. In contrast to applications to the Food and Drug Administration for approval of new drugs where statisticians, who review and comment on the significance of the studies, are included in the analytical committees, the global warming work is being done with little, or no, contribution from statisticians. Implicitly, it seems Dr. Wegman is endorsing that old saw: garbage in; garbage out.

We doubt this new study will significantly alter the global warming debate in the near term. It should cause many people sitting on the

Hot weather and high gasoline prices are what will frame the debate about energy for the immediate future

fence over this debate to take a wait-and-see attitude about the remedies. We further doubt that this new study will alter attendance at Al Gore's movie, An Inconvenient Truth, even though its premise is built on this faulty research. We expect the media to downplay the new study and, instead, to focus on the government report about how warm it was during the first half of 2006. Hot weather and high gasoline prices are what will frame the debate about energy for the immediate future.

The last event on Bastille Day dealing with energy and temperatures was a web conference on hurricanes. Prichard Capital sponsored a conference call/web cast with AccuWeather.com's chief hurricane forecaster, Joe Bastardi, who discussed his outlook for hurricane activity this year. His forecast is predicated on current and projected weather conditions in the U.S. and offshore in the Atlantic basin, along with analog-year hurricane patterns. One of Bastardi's key variables in his forecast is a warm mid-part of the country coupled with that warmth moving eastward. The eastward movement of warmth encourages tropical storms to target the East Coast. The current heat wave being experienced in the western and central regions of the U.S. provides ammunition for Bastardi's forecast for an active hurricane season. That may be one aspect of the heat people may be failing to grasp as they struggle to keep cool.

Rhode Island and Massachusetts Challenge LNG**Gov. Carcieri signed legislation that prohibits assets of the state of Rhode Island from being in the safety and security zones for LNG tankers**

Gov. Donald Carcieri (R-Rhode Island) recently signed legislation that prohibits assets of the state of Rhode Island from being in the safety and security zones for LNG tankers as established by the Coast Guard. That zone extends two miles ahead of the ship, one mile behind it, 1,000 yards on each side and 30 feet above the ship. This bill is designed to thwart the construction of the Hess LNG terminal in Fall River, Massachusetts.

The bill prohibits from the security zone any people, piers, wharves, docks, bulkheads, waterfront facilities, flammable materials, hunting grounds or areas from which an incendiary device could be launched, or where welding, torch-cutting or hot work is being performed. According to maps of the proposed route that LNG tankers would take in traversing Narragansett Bay and the Sakonnet River on their way to the Hess LNG terminal, locations such as Fort Adams and Brenton state parks in Newport, R.I., and the Roger Williams University campus in Bristol, R.I., among other locations, would fall into the zone.

Officials of Hess LNG maintain their position that the legislation is unconstitutional

Officials of Hess LNG maintain their position that the legislation is unconstitutional. Their view is based on long-standing precedent that the Coast Guard has relied on federal law to preempt state law involving these kinds of projects. On the other hand, the state representative who drafted and introduced the bill claims that it was created with provisions laid out in the Coast Guard's Safety and Security Zone regulations.

Recently, a bill was introduced in Congress that would repeal the legislative provision protecting the bridge

Whatever becomes of this legislation, it represents another attempt by politicians to introduce legislation to establish new hurdles for the Hess LNG terminal to overcome. Previously, Reps. James P. McGovern (D-Mass) and Barney Frank (D-Mass) had inserted a provision in the 2005 Federal Transportation Bill to prevent the use of any federal money to dismantle the Brightman Street bridge that needs, and was planned, to be removed to allow large LNG tankers to deliver cargoes to the Hess terminal. Recently, a bill was introduced in Congress by Wyoming Senator Craig Thomas (R-WY) called The Energy Production, Refining, Infrastructure, Conservation and Efficiency Act, which would repeal the legislative provision protecting the bridge.

FERC has always had the authority over sitting energy facilities under federal legislation with the advice from impacted states and localities

Rhode Island Attorney General Patrick C. Lynch called on the state's senator, Lincoln Chafee (R-RI) to do all he can to defeat the bill. Attorney General Lynch commented on the politicization of the LNG debate. He said, "Previously, a Congressman from the Midwest was able to insert a last-minute amendment to a massive spending bill that expanded FERC's authority in sitting an LNG terminal. Now, we have a Senator from Wyoming trying to shove this ill-advised proposal down the throats of the people of Massachusetts and Rhode Island. We need Senator Chafee to stand firm in the face of an Administration that's bent on catering to the whims of the LNG industry."

While excellent rhetoric, Lynch's comment misses a critical point, which is that FERC has always had the authority over sitting energy facilities under federal legislation with the advice from impacted states and localities. The recent legal maneuvering of Northeast states to try to thwart those legal rules over new LNG terminals was what prompted the legislation. Second, we never heard any objection over Alaska politicians inserting un-debated legislation into the Coast Guard authorization bill to block the Cape Wind windfarm project offshore Cape Cod. We guess politicians from the other side of the country aren't meddling in local affairs if they act in concert with local objections.

One of the more recent developments favorable for new LNG supplies for New England was the Commonwealth of Massachusetts Environmental Administration approval of an offshore terminal planned by Excelerate Energy LLC. The project involves a mooring facility 13 miles off Gloucester where LNG tankers would re-gasify the liquid and deliver it into an underwater pipeline that would connect with the region's distribution network. What the project lacks, however, is onshore gas storage facilities. This could create supply problems when cargoes of LNG arrive and pump the gas into the pipeline. We have seen some of these problems associated with the expansion of the Cove Point, Maryland LNG terminal.

Possibly helping these offshore terminals, and helping to kill the Hess LNG terminal, was legislation introduced into the House and Senate in Massachusetts to amend Chapter 102 of the General Laws on Harbors and Harbormasters. The amendment would

We suspect all Hess LNG tankers will fail to meet these new standards

prevent a person from operating a vessel carrying LNG through a bridge having a horizontal clearance of 250 feet or less unless the beam of the vessel is equal to or less than two-thirds of the horizontal clearance of the bridge. Operation of a vessel under a bridge having a vertical clearance of 185 feet or less is also prohibited. The bill will only affect transportation of LNG to facilities that were built or expanded after July 1, 2006.

This legislation, anticipated to be passed by the legislature and enacted into law, is aimed at killing the Hess project while not hurting the offshore Massachusetts terminal proposals or the prior expansion of the Distrigas terminal in Everett, Massachusetts. While we haven't measured the Brightman Street bridge clearance, we suspect all Hess LNG tankers will fail to meet these new standards. Whether the legislation withstands a legal challenge is questionable.

An additional project championed by a company that owns the Distrigas LNG terminal is a few weeks behind the Excelerate project in seeking environmental approval for an offshore terminal 10 miles off Gloucester. Massachusetts Environmental Secretary Stephen Prichard has recommended that the two projects utilize the same underwater pipeline and be located closer together in order to lie in one offshore security zone to reduce the cost and potential disruption of offshore activities. How and when the political battles over new energy infrastructure in New England end is uncertain, but the continuing struggle reflects the emotional tensions LNG terminals are generating in this region.

EIA's Gasoline Demand Growth Analysis

The analysis shows that even though gasoline demand is rising sharply now, it is well below where it would have been had demand continued to grow at historic trend rates since the summer of 2002

Last week, the Energy Information Agency (EIA) released its usual weekly report on petroleum inventories and market analysis. The figures showed that for the four-week period ending the week of July 14, gasoline demand was 9.569 million barrels per day (b/d). The EIA noted that gasoline demand had increased 1.9% over the comparable four-week period last year. Even though weekly gasoline inventories grew in the most recent week, the strength in demand helped keep gasoline prices strong.

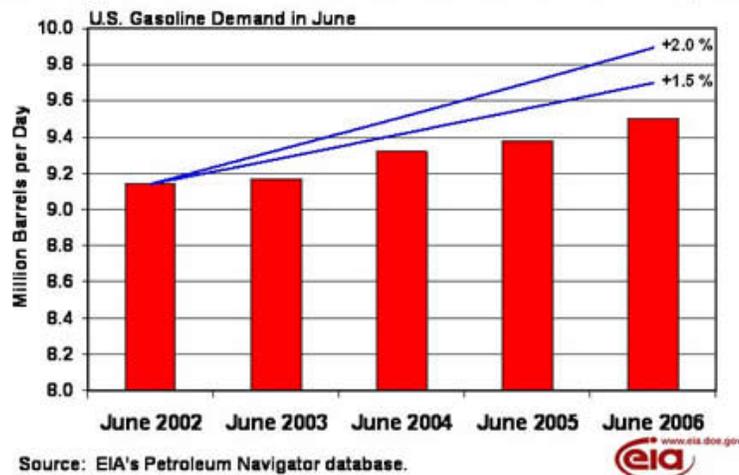
In the EIA's report, *This Week In Petroleum*, published later on the day it released the inventory figures, the headline story was entitled: News Flash: High Gasoline Prices Do Restrain Demand. We read the analysis with interest because it was designed to show that even though gasoline demand is rising sharply now, it is well below where it would have been had demand continued to grow at historic trend rates since the summer of 2002. We wondered if the EIA was really asking the wrong question when it posed: "how can gasoline demand be growing at a rate within the 1.5 to 2 percent range experienced during periods of significantly lower gasoline prices, even when the national average prices for regular gasoline is close to \$3 per gallon?"

Had gasoline demand growth averaged 1.5% over the four-year period, demand this June would have been 0.2 million b/d higher than it was

The EIA presented an argument that the growth in recent weeks has been so strong only because demand growth in prior periods was relatively weak. Using June and July 2002 as base demand points, the EIA presented two graphs showing that had gasoline demand continued to grow at between 1.5% and 2.0% per year, demand in the most recent periods would have been much higher than reported. It made the point that gasoline prices averaged \$1.38 per gallon in June 2002, \$1.49 per gallon in June 2003, \$1.97 per gallon in June 2004, \$2.16 per gallon in June 2005, and \$2.88 per gallon last month. According to its analysis, had gasoline demand growth averaged 1.5% over the four-year period, demand this June would have been 0.2 million b/d higher than it was. At a 2.0% annual demand growth rate, the reported June 2006 gasoline demand would have been 0.4 million b/d higher.

Exhibit 4. Should Gasoline Demand Be Greater?

If Gasoline Demand Had Grown at Typical Rates Recently, Demand This June Would Be Much Higher



Source: EIA

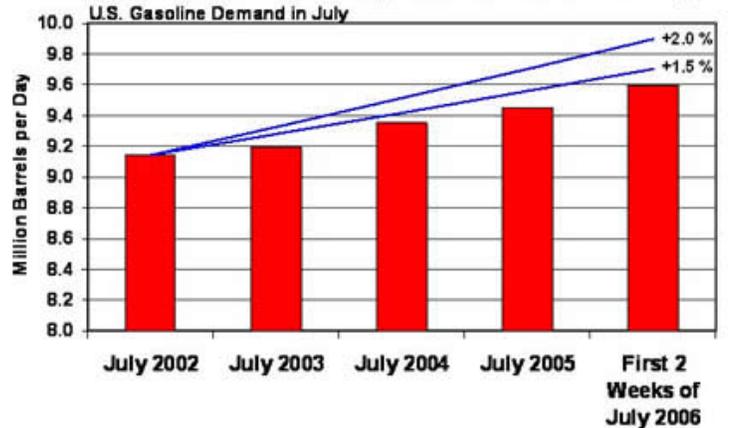
The EIA also showed that this shortfall compared to the historical rate would have been true for gasoline demand for the first two weeks of July 2006. At the 1.5% growth rate, demand should have been 0.1 million b/d higher, and at the 2.0% rate it should have been 0.3 million b/d greater. Based on this analysis, the EIA concludes that high gasoline prices are having a negative impact on demand.

If one looks at the EIA's charts with their demand projections, every year in the intervening period falls short of meeting the projected demand growth. Why is that?

While this analysis is intuitively correct, we wondered if the analysis should have focused on the numbers from a different perspective. If one looks at the EIA's charts with their demand projections, every year in the intervening period falls short of meeting the projected demand growth. Why is that? What the EIA never defines is over what historic period they came up with their "typical" gasoline demand growth rate. Remember, in 1998 and 1997, crude oil prices were hovering in the \$10 per barrel range and regular gasoline

Exhibit 5. July Gasoline Demand Is Below Trend Line Growth

If Gasoline Demand Had Grown at Typical Rates Recently, Demand This July Would Be Much Higher



Source: EIA's Petroleum Navigator database.

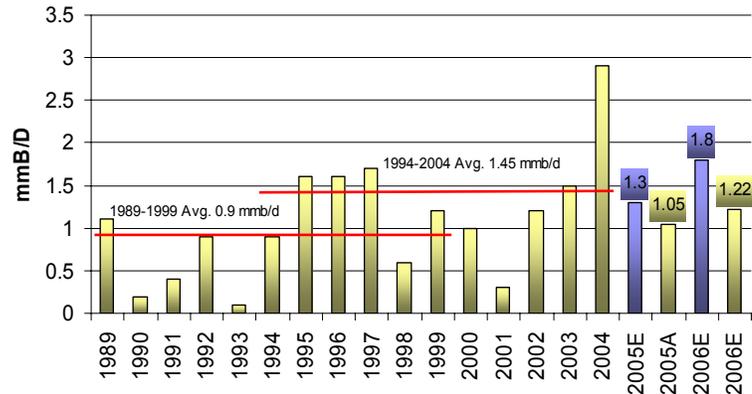


Source: EIA

prices were below \$1.00 per gallon. If you go back to 1990, gasoline prices were in the low \$1.00 range with price spikes taking them to \$1.25 per gallon during the intervening seven years. So is it possible that gasoline prices of \$1.49, \$1.97 and \$2.16 per gallon were actually crimping demand more than we thought? Or could it have been the health of the economy?

High prices probably are choking off some demand, but the economy may be much stronger than many people suspect for gasoline demand to be growing as fast as reported

As the EIA admits in its analysis, "gasoline demand is influenced by economic growth as well as prices, and at least some of the impact of prices on demand has been offset by the demand-increasing effect of strong economic growth." In that context, the recent gasoline demand figures present an interesting conundrum. High prices probably are choking off some demand, but the economy may be much stronger than many people suspect for gasoline demand to be growing as fast as reported. The EIA's analysis seems to reflect a view that many forecasters have adopted that the recent global oil demand up tick (1994-2004 average annual global oil demand increase of 1.45 million b/d versus 1989-1999 when it increased 0.9 million b/d), which includes the impact of 2004's growth, has established a new, higher level of demand growth for the future. Could 2004's demand growth have been an aberration? Likewise, is current gasoline demand growth reflecting a considerably stronger economy than government officials comprehend (which would make Larry Kudlow happy) with significant implications for inflation and Federal Reserve actions required to cool off the economy?

Exhibit 6. Was 2004 Demand Growth An Aberration?

Source: IEA, PPHB

Federal Government Hitting Peak Oil

The Government Accountability Office (GAO) reported on its six-month investigation of the accounting for royalties received by the government for oil and gas production on federal lands. These royalties have not been growing despite the sharp rise in crude oil and natural gas prices over the past few years. Democrats in Congress have been highly critical of the Bush Administration for, in their view, lack of aggressiveness in collecting royalties plus the impact of special tax breaks it has granted to the oil and gas industry. The GAO study shoots holes in those arguments.

The production fall-off resulted in a reduction in federal revenues of almost \$2 billion, almost totally offsetting the surge in energy prices

According to the GAO, even though oil prices rose 90% and natural gas prices increased 30% over the period 2001 to 2005, federal royalties only increased by 12%. The GAO has found that oil and gas production on federal land declined more than 20% over the period. This production fall-off resulted in a reduction in federal revenues of almost \$2 billion, almost totally offsetting the surge in energy prices. Allowing oil companies to pay royalties in crude oil injected into the Strategic Petroleum Reserve rather than cash cost the government about \$1 billion.

The Interior Department's published statistics show that natural gas production on federal leases totaled 6.7 trillion cubic feet in 2005. After the GAO revised the statistics based on corrections to royalty payments from previous years, the estimated production fell by about a fifth to roughly 5.4 trillion cubic feet. This analysis suggests that federal lands are experiencing peak oil problems, which may underscore that argument and raise concern about the ability of U.S. federal leasehold production helping to hold off a more serious decline in domestic production. These revised production figures may force a re-evaluation of oil and gas supply/demand forecasts.

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