



May 2008 EIA Oil Production Record. Will it Too be Revised Downward?

Posted by [Gail the Actuary](#) on August 7, 2008 - 10:28am

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Yesterday, August 6, the EIA published new International Petroleum Monthly data. The new data revised downward previously published estimates, all the way back to 2002, with the biggest revisions in 2007 and 2008. With the revisions, the latest month, May 2008, shows new record-high oil production. Other recent months which had previously set records are now 67,000 barrels per day to 417,000 barrels per day lower than reported just a month ago. In this post, I offer a few thoughts on what the new data suggests.

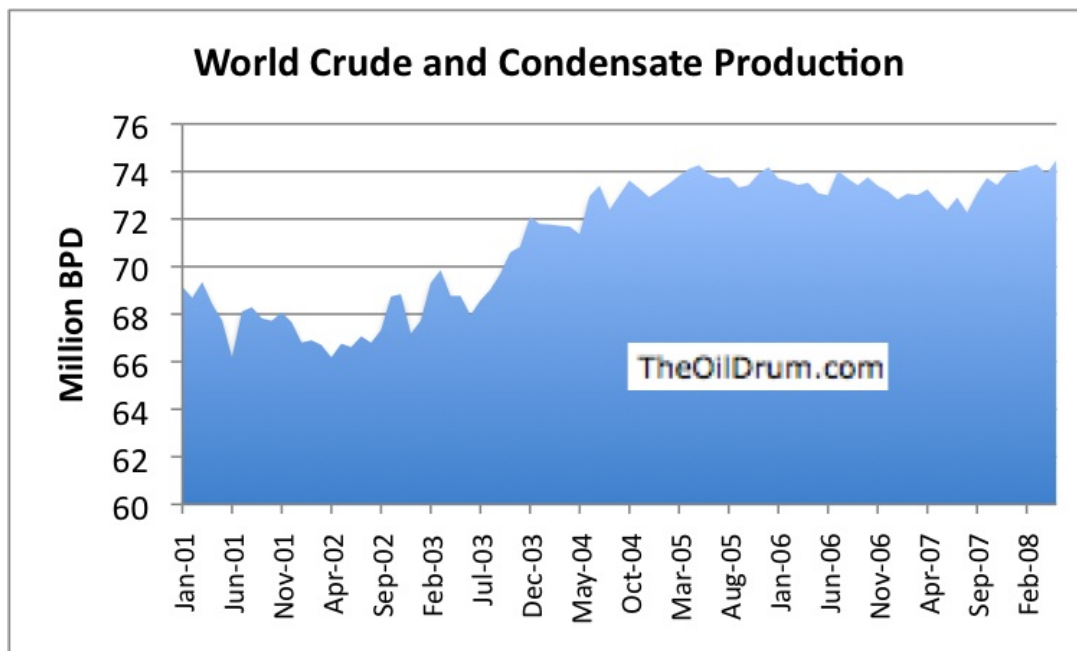


Figure 1. World crude and condensate production, based on August 2008 EIA [International Petroleum Monthly](#)

How Frequent are EIA Data Revisions

Khebab did an [analysis](#) of EIA data revisions back in October 2006. His analysis showed that at that time, crude estimates on average were revised down by about 300,000 barrels from their initial estimate. The downward revision took about three years. Estimates of other liquids tended to get revised upward over time. On a "total liquids" basis, one might expect some offset, since

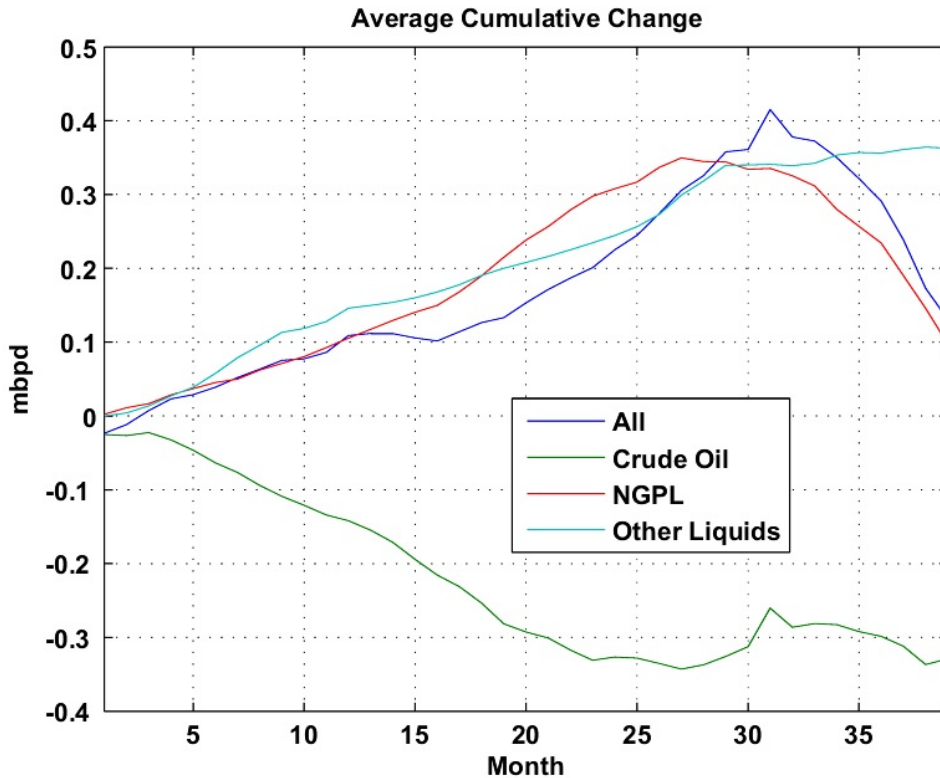


Figure 2. Khebab's Chart showing average EIA revisions, based on 2006 data

Khebab made these estimates of expected bias in 2006. It is likely that they will change over time. One possible reason for such biases is the practice of estimating future production based on past production, if new numbers are not yet available. If production is declining, as is often the case with crude and condensate, there would tend to be a bias toward over-estimation. Also, if wells are taken off-line for maintenance, or because of a storm, using recent months production as an estimate will tend to miss these dips in production, also leading to overstatements.

Khebab's analysis showed that for portions of "All Liquids" other than crude and condensate, estimates tend to be revised upward. If we think about the matter, these liquids, such as ethanol, tend to be growing over time as a percentage of all liquids. If the same method is used for estimating these (using past months actuals to estimate the most recent month where production is unknown), it is not surprising that they will tend to be biased low, and show upward development over time. Since the "other" items tend to move in the opposite direction of crude and condensate, it is likely that there will be less bias in total liquids estimate than in the pieces.

In this analysis, we are really concerned with the crude portion, not the other items Khebab analyzed. If anything, we might expect crude estimates to be even more overstated in 2008 than 2006, because more countries are experiencing production declines.

One thing we can learn from the recent revisions and from Khebab's 2006 analysis is that we shouldn't put too much faith in the estimates for recent months. The crude and condensate estimate of 74.481 million barrels per day appears to be new record, but this is only 215,000 barrels higher than the record of 74.266 set in May 2005. If we estimate the expected downward revision at 300,000 barrels per day based on Khebab's analysis, the revised amount is expected to be less than the May 2005 record.

Saudi Arabia and Iraq

When we look at the data, the majority of the recent increase in production is from Saudi Arabia and Iraq. I have graphed the EIA crude and condensate production for these two countries, in this stacked graph.

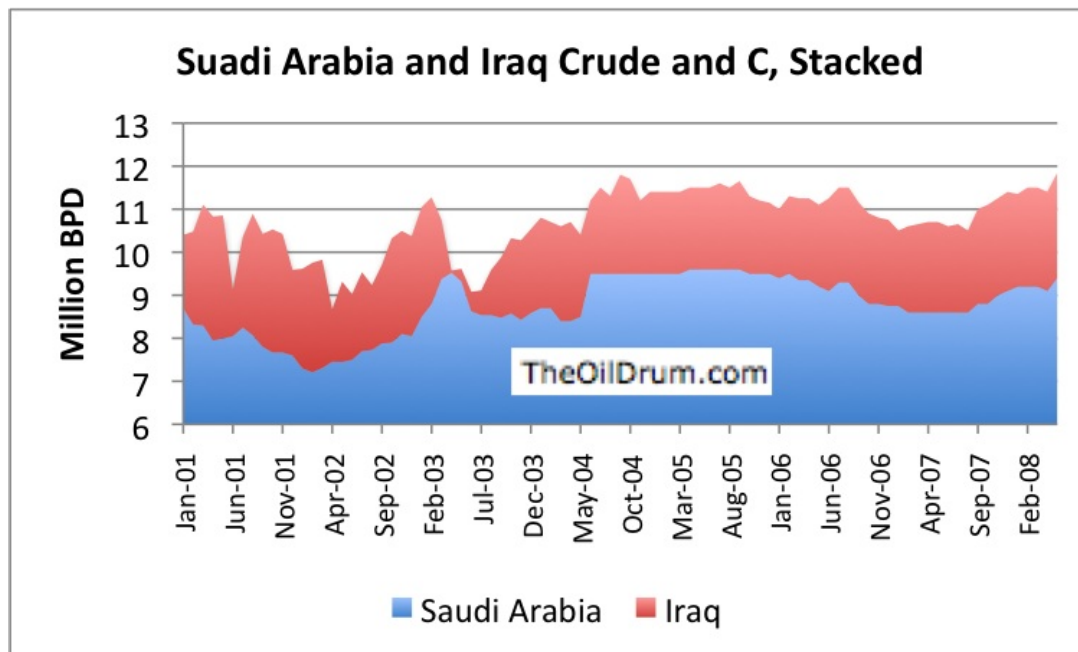


Figure 3. Saudi Arabia and Iraq crude and condensate production, based on August 2008 EIA International Petroleum Monthly

One thing that a person notices about this data is that it is very irregular. The reason that May 2008 looks high is because there were dips in production in 2007 for both countries. The May 2008 numbers are close to the highest production each of these countries have reached, during the period graphed.

One thing [ace](#) pointed out to me is that while the May 2008 production estimate for Saudi Arabia is shown as 9.4 million barrels a day, both [OPEC](#) and IEA data show Saudi Arabia's production for May as about 9.2 million barrels a day (9.18 million BPD for OPEC and 9.21 million BPD for IEA). Since both of these sources agree with the EIA's April production estimate of 9.1 million barrels per day, the differences in May production estimates raise questions as to whether EIA's May estimate is correct.

The estimation of Saudi oil production is very politically charged at this time, with the election in November. If the EIA gets its initial Saudi estimates from a third party, it might be that the third party allows political motivations to affect its estimates. If the estimate is wrong on the high side, it might be pleasing to the current administration. Who would notice an extra 200,000 downward revision, with all of the other revisions? This additional estimation issue adds further to the apparent bias in the May numbers.

Production Trends for Other Groupings

I thought it might be interesting to look at production trends for other groupings as well.

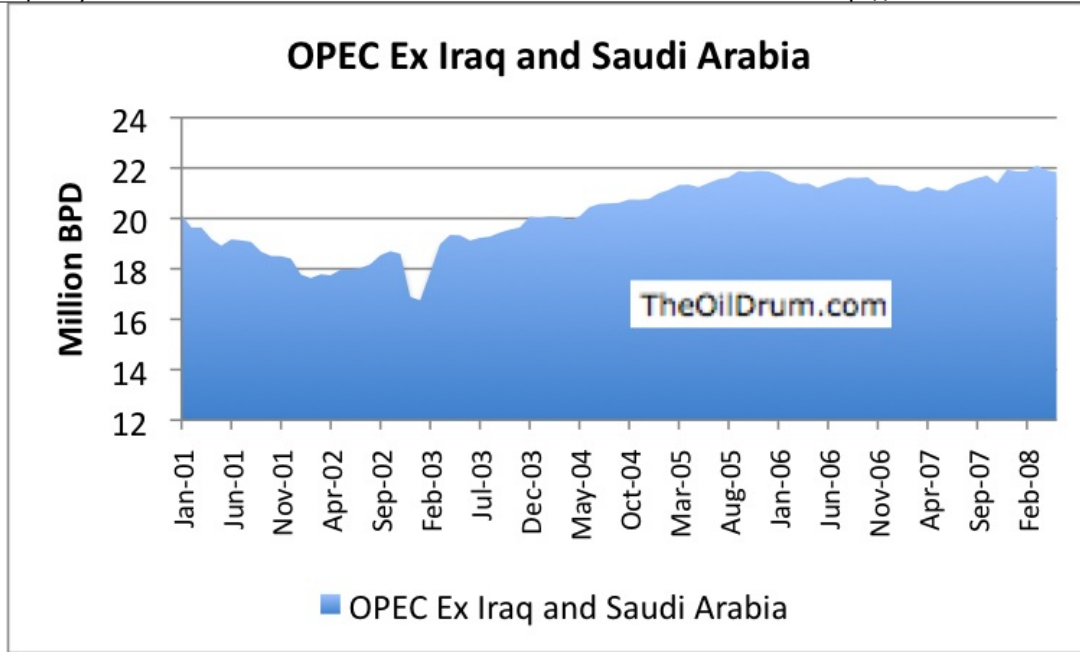


Figure 4. OPEC other than Saudi Arabia and Iraq production of crude and condensate, based on August 2008 EIA International Petroleum Monthly

The graph shows that production now is at a level similar to that in late 2005, when increased production was requested after Katrina hit. Production for these countries also dipped in 2007, similar to the pattern we saw for Iraq and Saudi Arabia.

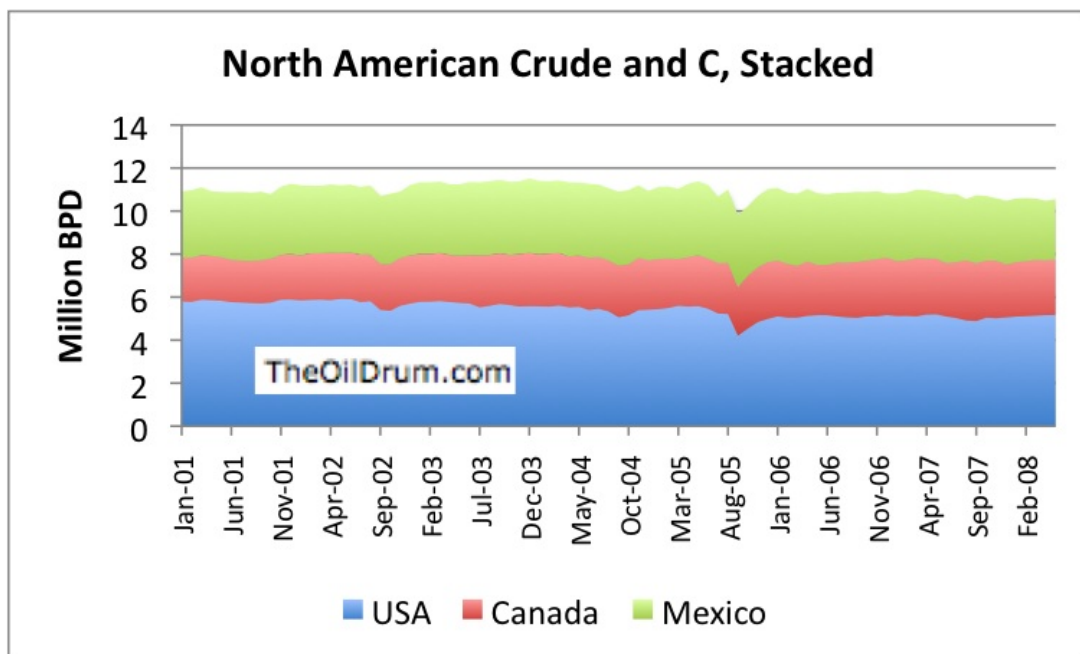


Figure 5. North American production of crude and condensate, based on August 2008 EIA International Petroleum Monthly

This graph shows the stacked production of the United States, Canada, and Mexico. I have grouped these, since these are our closest trading partners. The dip in 2005 shows the impact of hurricane Katrina and other 2005 hurricanes. Oil production in United States has been declining since 1970. Mexican production began declining in 2005. Canadian conventional production is

declining but tar sands production is increasing, providing a small overall increase. One can see from the graph that in total, North American oil production seems now to be declining slightly (about 300,000 BPD in the past year).

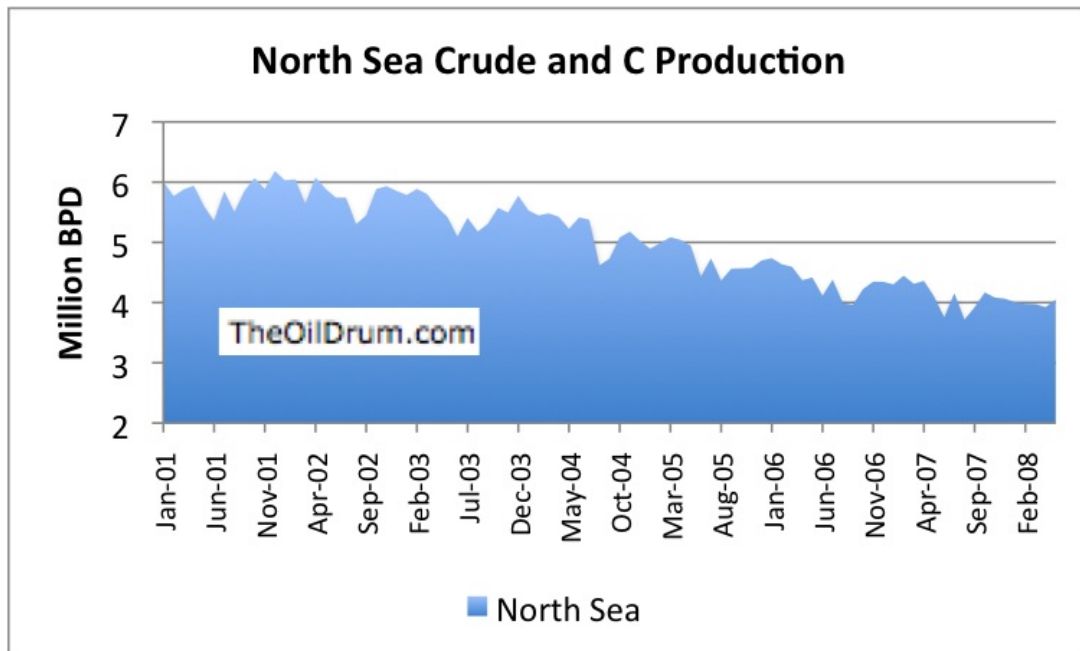


Figure 6. North Sea production of crude and condensate, based on August 2008 EIA International Petroleum Monthly

This graph shows that North Sea production has been declining, since 2001. The various attempts to hold production up do not seem to have reversed the decline.

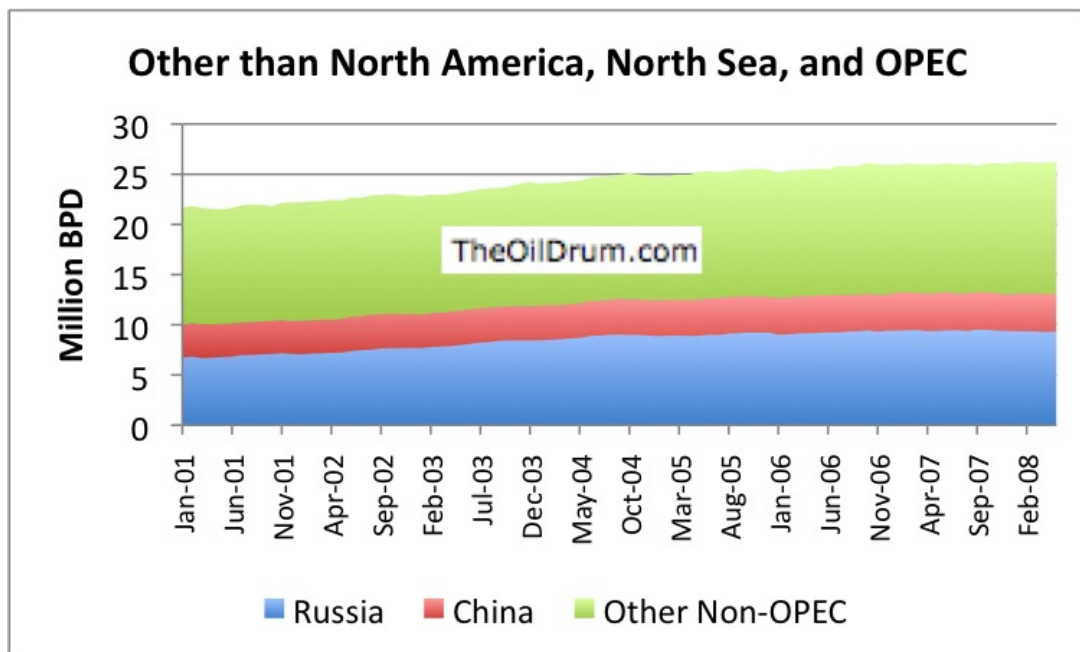


Figure 7. Other than OPEC, North American and North Sea production of crude and condensate, based on August 2008 EIA International Petroleum Monthly

This graph shows recent trend in oil production for the "all other" category. The biggest countries in this grouping are Russia and China, which I have shown separately. This grouping also includes

all of the non-OPEC countries in South America (including Brazil), the non-OPEC countries in Africa, the various Former Soviet Union countries, other than Russia, and Asian and Australian production.

One can see from the graph that the production for this grouping is still increasing slightly. In the past year, production for this grouping has risen by about 200,000 barrels a day.

Observations

In looking back over the graphs, there is not really very much upward trend in oil production for any of the groupings shown. OPEC production bounces around; an upward trend is not clear. North America and the North Sea both show declining production. The "All other" group with Russia, China, Brazil, and the "stan" countries shows only a slight upward trend--not enough to offset the declines elsewhere.



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