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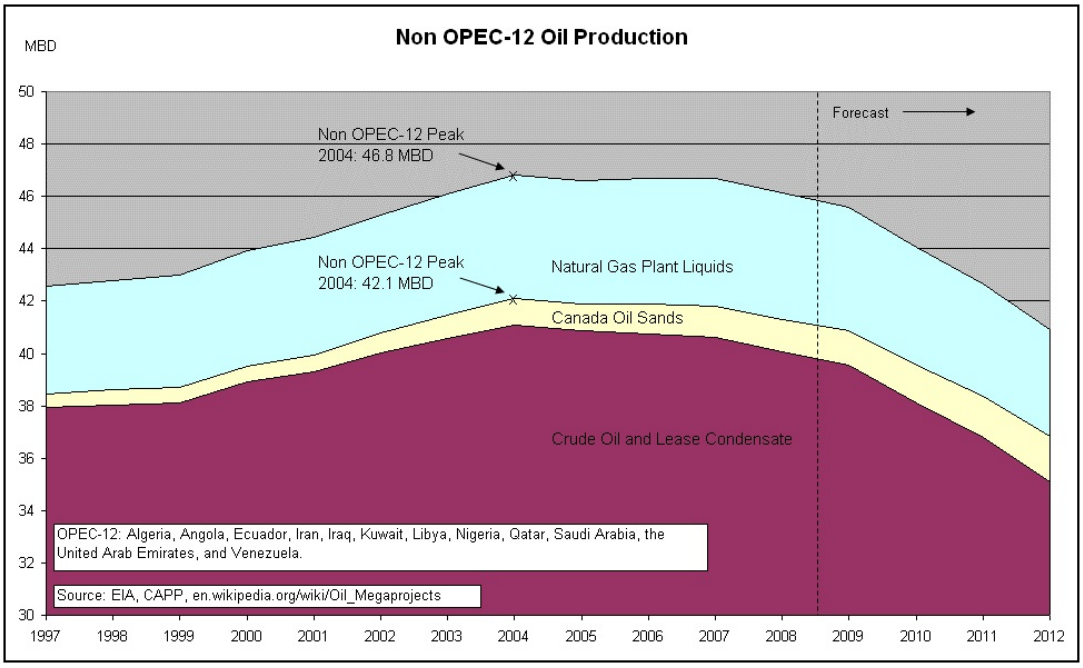
# Non OPEC-12 Oil Production Peaked in 2004

Posted by ace on February 23, 2009 - 10:36am
Topic: Supply/Production
Tags: non-opec, oil production, original, peak oil [list all tags]

Non OPEC-12 oil production peaked in 2004 at 46.8 million barrels/day (mbd) shown in the chart below. This oil definition includes crude oil, lease condensate, oil sands and natural gas plant liquids. If natural gas plant liquids are excluded, then the production peak remains in 2004 but decreases to 42.1 mbd.

The US Energy Information Administration (EIA) and the International Energy Agency (IEA) should make official statements about declining non OPEC-12 oil production to renew the focus on oil conservation and alternative energy sources.




***Non OPEC-12 Oil Production to 2012*** *- click to enlarge*

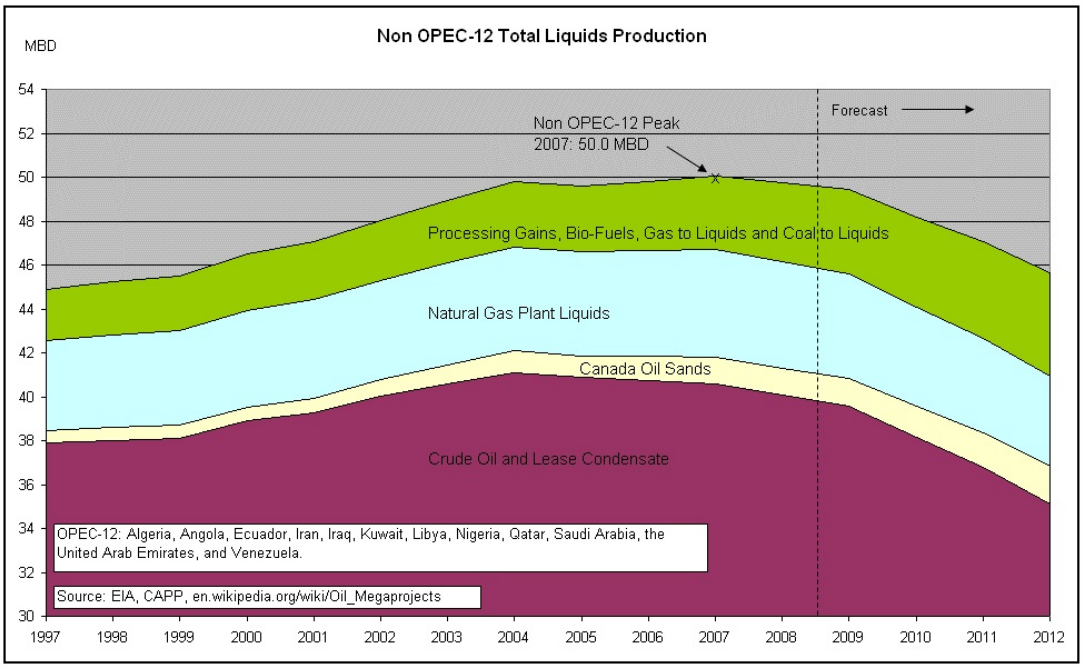
## Non OPEC-12 Total Liquids Production

The definition of oil used by the International Energy Agency (IEA) includes bio-fuels, processing gains and other liquids derived from natural gas and coal. While the IEA warned in July of last year that non OPEC-13 total liquids could peak in 2010, it now appears that non OPEC-12 total liquids peaked in 2007. Total liquids production in 2008 was slightly lower than 2007 due to Gulf of Mexico hurricanes and production outages in Azerbaijan and Kazakhstan. Unfortunately, Azerbaijan forecasts its oil production to grow by 2% or only 0.02 mbd in 2009 over 2008 due to

oil field production problems and lower oil prices. Similarly, Kazakhstan's 2009 production forecast has been revised downwards to growth of only 0.07 mbd, representing a 5% increase over 2008 production.

There is recent increasing concern about non OPEC peaking in 2007. In February 2009, Merril Lynch stated that non OPEC total liquids production may have already peaked in 2007. Colin Campbell's January 2009 newsletter is forecasting that non OPEC production has passed peak in 2007, excluding bio-fuels. Halliburton also believes that non OPEC production may have peaked in 2007 as indicated by a statement from their Q4 2008 earnings call transcript: "Non-OPEC production fell in 2008 and is likely to decline in 2009. Russia, which accounted for the majority of the increase in non-OPEC production in the past decade contracted in 2008 and will likely do so again in 2009."

**The forecast below shows a non OPEC total liquids peak of 50 mbd in 2007 which exceeded 2004 total liquids due mainly to exponential growth in bio-fuel production from countries such as the USA and Brazil.** It is assumed that production from non OPEC bio-fuels will continue increasing. However, according to a recent statement by Archer Daniels Midland, 20% of US ethanol production capacity has been shut down due to weak demand and poor margins. Consequently, US ethanol production will probably not increase until oil prices increase, marking an end to the unsustainably high US ethanol growth rate.




***Non OPEC-12 Total Liquids Production to 2012*** *- click to enlarge*

## Non OPEC-12 Crude Oil, Lease Condensate and Oil Sands Production

Neither the EIA nor the IEA have stated that non OPEC crude oil, lease condensate and oil sands production has peaked in 2004. These government agencies will probably make official statements acknowledging this 2004 peak by the end of the year as key non OPEC producer Russia has stated that its production is in decline now. Russian production could fall by 8% from 2008 to 2013. Russian crude and condensate production has fallen from 2007 at 9.44 mbd down

to 9.36 mbd in 2008. Continuing decline in Russia means that non OPEC crude, condensate and oil sands has passed its peak in 2004.

Non OPEC deepwater oil production from the USA Gulf of Mexico and Brazil has increased significantly since the mid 1990s. Unfortunately, production from the USA Gulf of Mexico peaked at just over 1.7 mbd in June 2002 and has been in steady decline. Brazil's production should increase to late 2009, followed by a bumpy production plateau for several years. The Gulf of Mexico Thunder Horse field should be producing over 0.2 mbd of oil soon. However, the annual decline rates of mature fields in deepwater regions such as the Gulf of Mexico are about 20%. Overall, additional deepwater oil production capacity from Brazil's Santos basin and offshore Ghana should ensure that total non OPEC-12 deepwater oil production remains on a peak plateau for at least five years.

There are simply too many non OPEC countries with declining production which cannot be offset by increasing production of about 0.50 mbd in 2009 from non OPEC countries including Australia (0.04), Azerbaijan (0.02), Brazil (0.19), Canada (0.10), Kazakhstan (0.07), Sudan (0.04) and Vietnam (0.04). Production declines in 2009 from Mexico (0.24), Norway (0.21), UK (0.19) and Russia (0.26) are expected to be about 0.90 mbd which is greater than the 0.50 mbd increase. **Consequently, I am forecasting non OPEC-12 crude, condensate and oil sands production to be 41.0 mbd in 2009, 0.3 mbd down from 2008 and 1.1 mbd down from the 2004 peak of 42.1 mbd.** The annual decline rate is expected to increase in 2010 because Australia, Brazil, Sudan and Vietnam are not expected to provide a production increase.

Next, I decided to send emails to the supply forecasters and senior executives at the EIA and the IEA asking the following question.

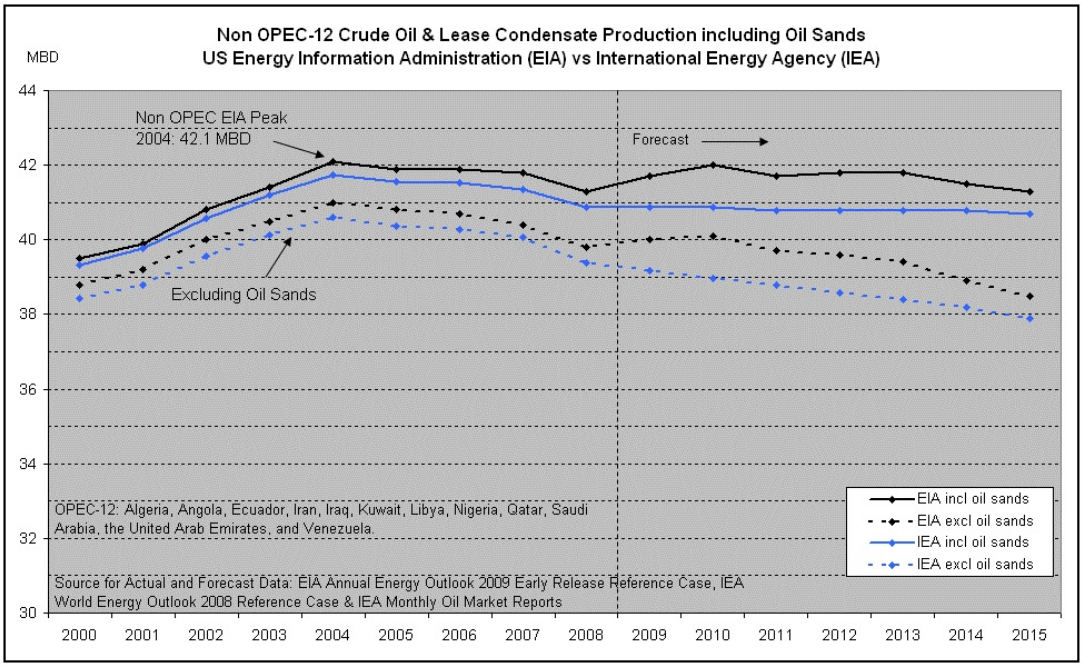
> Do you think that non OPEC-12 crude oil, lease condensate and oil sands production has passed its peak five years ago in 2004 at 42.1 mbd?

The IEA's response, after several emails, was very poor. The only response was to refer me to their publications of which Table 11.1 from the IEA WEO 2008 has some useful data points. Non OPEC-13 crude and condensate production data was given for years 2000, 2007 and 2015. Indonesian production was added to these data to get Non OPEC-12 crude and condensate for these three years. Data from the IEA's Oil Market Report was used to estimate production for the missing years from 2001 to 2006 and 2008. Historic oil sands data were also sourced from the IEA WEO 2008. Based on these estimates, the IEA data show a crude, condensate and oil sands production peak in 2004 of 41.7 mbd, as in the chart below.

The EIA's answer to the question was that "the non OPEC-12 production path when considered in the context of market events does not support the conclusion that non OPEC-12 production peaked in 2004. We have not seen the future data points yet." Nevertheless, the EIA provided an historical and forecast data extract for non OPEC-12 crude, condensate and oil sands production from their Annual Energy Outlook 2009 Early Release. Similar to the IEA data, a crude, condensate and oil sands production peak is shown also in 2004 at 42.1 mbd. The EIA projections are more optimistic than the IEA.

Notwithstanding the recent suspension of many oil sands projects, the EIA's optimistic oil sands projection is 1.9 mbd in 2010 and 2.8 mbd in 2015. The December 2008 report from the Canadian Association of Petroleum Producers (CAPP) titled Interim Update: 2008 - 2020

Western Canadian Crude Oil Forecast projects lower oil sands production of 1.5 mbd in 2010 and 2.4 mbd in 2015. If CAPP's oil sands data were used in the chart below then the EIA crude, condensate and oil sands forecast would show a decline from 2008 to 2015 rather than a bumpy plateau. The CAPP forecast will probably need to be revised further downward as the IEA is now forecasting oil sands production for 2009 at 1.34 mbd which is 0.10 mbd less than the corresponding CAPP number.




***Non OPEC-12 Oil Production to 2015 based on Forecasts from the EIA and IEA*** - *click to enlarge*

Both the EIA and the IEA continue to forecast increasing non OPEC total liquids supply as shown by the EIA STEO and IEA WEO 2008. However, non OPEC-12 crude, condensate and oil sands production has almost certainly passed peak in 2004. If the EIA and the IEA were to make official statements agreeing with this 2004 peak then this should help raise awareness of decreasing oil production and potentially increase the focus on oil conservation and alternative energy sources. As non OPEC-12 production decreases there will be a much greater dependence upon OPEC which will strengthen its market position.

**I urge everyone to send emails to the EIA and the IEA asking the question below which might persuade them to make official statements acknowledging this 2004 production peak.**

> Do you think that non OPEC-12 crude oil, lease condensate and oil sands production has passed its peak five years ago in 2004 at 42.1 mbd?

Relevant EIA email addresses can be found on this EIA contact page and those for the IEA on the Oil Market Report contact page.