



And how is Saudi Arabia getting on? (or more evidence of a deteriorating situation...)

Posted by [Heading Out](#) on January 3, 2007 - 12:21pm

Topic: [Supply/Production](#)

Tags: [csis](#), [khurais](#), [khursaniyah](#), [oil production](#), [saudi arabia](#), [shaybah](#) [[list all tags](#)]

When I wrote about some of the stories that are likely to be discussed [over the next year](#), one of those that I mentioned is the delay before we see further increases in production from KSA. In the piece I quoted from [the Arab News](#) about the latest projections of Aramco production increases over the next two years. While there has not been much change in the total projected production over the last eighteen months, there have been some, as the Kingdom has moved toward a goal of 130 rigs operating there by May of this year. Over the time we have posted here, we have quite often revisited the planned production increases from the Kingdom, and so I thought it worth having a quick look to see how things are going.

Note that in a [June 2005 post](#) [the Center for Strategic and International Studies \(CSIS\)](#) was quoted as suggesting the following for current and projected Saudi oil output by field.

Current plans to reach a 12.5 mbd goal call for the following production numbers (according to Cordesman and the CSIS)

Abqaiq - 400,000 bd
Ghawar - 5,500,000 bd
Berri - 400,000 bd
Safaniya - 1,500,000 bd
Abu Sa'fah - 300,000 bd
Zuluf - 800,000 bd
Marjan - 450,000 bd
Haradh - 170,000 bd
Shaybah - 500,000 bd
Munifa - 1,000,000 bd

This gives the 11 mbd that they claim to be able to currently produce - though it includes Munifa, of which we have commented negatively earlier.

To bring this up to 12.5 mbd they plan an additional

Haradh - 300,000 bd
Khursaniyah 500,000 bd
Shaybah - 500,000 bd
Khurais - 1,100,000 bd

when you include an anticipated 800,000 bpd loss due to old fields declining, the sum comes in just over the required number.

Now of these Aramco has already brought [Haradh](#) on line, [ahead of schedule](#) last March. In contrast Munifa is now (as I mentioned in the post) not going to be around until 2011 – so we need to scratch that from current availability.

Further if we look at the prediction in the Arab News we find that the list of fields where the production increase will come from has seen the addition of another field.

The Abu Hadriyah, Fadhili and Khursaniyah fields are being developed, with production of 500,000 bpd of Arabian Light crude oil, plus more than one billion standard cubic feet/day (scfd) of associated gas. This is forecast to come online in December next year.

Located deep in the Rub Al-Khali, or Empty Quarter, the Shaybah field has been delivering 500,000 bpd of Arab Extra Light crude oil since its start-up in 1998. Plans call for increasing production capacity to one million bpd, with the first increment of 250,000 bpd under implementation and slated to come onstream by the end of 2008.

Two other major field development projects on track to meet the maximum production capacity target are the Khurais and Nuayyim fields. The Khurais project, which will also include production from the Abu Jifan and Mazalij fields, is projected to produce 1.2 million bpd of Arab Light crude oil in 2009. The Nuayyim project, a central Arabian field, is slated to add 100,000 bpd of Arabian Super Light crude oil by 2008.

The three-field development that is scheduled to come on line at the end of this year has not changed. Abu Hadriyah is not in itself new (the following picture of a Saudi team drilling there was taken in [1960](#)).

□

Further when the CERA list on which it appears [was reviewed here](#) in Sept 05, Interlofer quoted Matt Simmons in expressing [some cynicism](#) about Aramco ability to sustain the higher levels of production projected for these fields. Peter Jackson, of CERA, [disagrees \(pdf file\)](#) The [project](#) currently appears to be on schedule.

Now it should be born in mind that the Saudi [Strategic Energy Initiative](#) is to have enough spare capacity to be able, by June of this year, to replace Iran's production, should there be a problem. And, for this reason, it is perhaps a little presumptive to assume that they are currently producing at a maximum level. However, it should be noted that this also assumes that the three-field increased production will be on line by that time. As noted above, it now appears that it will be later in the year before this happens.

Musing about these numbers, what struck me was that we are now seeing increments in production coming from multiple fields rather than just further development of a single one. After the first new increment for Shaybah comes on line, work for which is [now underway](#), (but which may now be only 200,000 bpd by April of 2008, with another 300,000 bpd being added by 2010) the next development, Khurais, is also going to be a [three-field project](#). It will also include the Abu Jifan and Mazalij fields, and will need injection of an additional 4.5 mbd of treated water into those fields to achieve that production level.

And to achieve the target production Aramco has added another field, Nuayyim, which is

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anticipated to produce 100,000 bd by February 2009. This schedule has been [accelerated over earlier projections](#).

The President of Aramco talked about the challenges in meeting these goals at a [recent SPE meeting](#) and said, among other things

Let me begin by first looking at hydrocarbon resources from the perspective of new petroleum technologies. In fact, I think that viewing high-potential hydrocarbon resource opportunities around the world as “technology targets” is a very useful approach, and yields four major, distinct areas of activities or strategies for the future. These are:

- First, expanding the size of the oil-in-place pie by finding new oil fields;
- Second, increasing ultimate recovery from both the existing and yet-to-be discovered fields;
- Third, giving special attention to areas which are hard to explore and produce, thereby reducing costs and making uneconomic plays feasible, and finally;
- Exploiting the potential of unconventional oil resources.

From which he went on to say

at last summer’s OPEC Seminar I challenged explorationists around the world to find no less than eight trillion barrels of oil-in-place—the higher end of the current range of estimates. That should allow us to add roughly a trillion barrels of total proven oil reserves in the form of new discoveries: a massive target to which technological enhancements could be applied in order to achieve even higher recoveries. I would like to renew that challenge tonight through the SPE, and to urge exploration specialists and technology developers to draw upon their skills, knowledge and experience to meet that challenge.

In regard to point two he said the following:

Just think: increasing recovery by just one percent could add about 80 billion barrels of oil to global reserves—equivalent to nearly a quarter-century’s worth of Saudi Aramco’s current production. Once again, I look at past trends in recovery rates and the ingenuity of scientists, engineers and professionals like you, and I see no reason why we can’t increase the global average recovery rate to 50 percent in the next several decades. Frankly, I’m still not happy about leaving that other 50 percent to Mother Earth, but even hitting the halfway mark will allow us to add another trillion barrels to the world’s reserves base. I must add however that as Saudi Aramco, our target for recovery will be aimed at much higher recovery rates, in the range of 70 percent, and that is the grand challenge you will be engaged in for decades to come. There is no more efficient way to grow future reserves than to go after the resources we already know exist, and by identifying, developing and implementing technologies which will minimize the amount of these already discovered resources left behind.

In that regard I agree with his point, though do not see the investment being made that will meet his challenge.

For those that have those answers, I was initially led to write the post by an e-mail we received

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from Pilgrim, who suggested that we look to see what sort of folks Aramco were looking to hire. Their [web site](#) led me to the remarks I have quoted above. As with any company that is producing at the level, and with the challenges that Aramco face, the ageing of their workforce (which was recognized in the speech) and the loss of company knowledge that it will entail, gives them a challenge in turn that they might find it very hard to meet.



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