

Sierra Club Three Lakes Group Spring 2011 Newsletter

Three Lakes Group Officers: Roger Blanchard, Chair; Annemarie Askwith, Treasurer; Cathy Akre, Secretary; Carol Ward, Forestry; Diane Meyer, Conservation Chair.

Spring Program Schedule

Spring programs will be held at Bayliss Public Library in Sault Ste. Marie. Cookies and drinks will be supplied at the programs.

Thursday February , 6:30 pm:

Thursday March 6:30 pm,

Thursday April 6:30 pm,

Recent Commentary

Recently I wrote the commentary below that went to the Association for the Study of Peak Oil-USA newsletter and Energy Bulletin. It's my effort to win friends at National Public Radio.

Bakken Shale and U.S. Oil Production **By Roger Blanchard**

On Sept. 25, 2011 National Public Radio's All Things Considered program had a segment consisting of what I considered highly questionable information concerning oil production in the Bakken Shale region of North Dakota and U.S. oil production in general. The segment indicated that U.S. oil production would rise dramatically in the foreseeable future due to new technological developments. Segments like that may play well to the public's desire for optimism but they don't present an accurate assessment of future oil production in the Bakken Shale region or in the U.S.

Early in the segment, the host Guy Raz stated that there was 11 to 20 billion barrels of oil in the Bakken Shale formation. I was surprised by the 11 and 20 billion barrel figures because an April 2008 U.S. Geological Survey (USGS) report estimated the amount of technically recoverable oil within the Bakken Shale formation at 3.0 to 4.3 billion barrels, with a mean of 3.65 billion barrels.

The USGS has had a sorted history when it comes to estimating oil reserves. To illustrate their estimation problems, it's only necessary to look at their estimates for the National Petroleum Reserve-Alaska (NPR-A). Prior to 2002, their mean estimate of technically recoverable reserves was 9.3 billion barrels (Gb). In 2002, they upped their estimate to 10.5 Gb. In 2010 they had to downgrade their estimate to 0.896 Gb when it became obvious their previous estimates were far too high. For a long time I had been stating that the NPR-A would not produce anything remotely close to 9-10 Gb.

The state of North Dakota also released a report in April 2008 which estimated that there is 2.1 billion barrels of technically recoverable oil in the Bakken Shale formation.

In reality, the actual volume of oil that can be economically recovered from a region will be considerably less than the technically recoverable estimates by government agencies, assuming the estimates are reasonably accurate. I personally think that an ultimate recovery from the Bakken Shale formation of 1.5 Gb is realistic if not a bit optimistic. Based upon my modeling of Bakken Shale oil production with a 1.5 Gb ultimate recovery, peak production would occur in the 2013-2014 period.

In recent years there has been intense oil development in the Bakken Shale region with an average annual oil production increase during the 2008-2010 period for North Dakota of 36.0%/year. When production of a resource such as oil is increasing rapidly, it's easy to think that the production will continue to increase for a long time. Unfortunately, history is replete with examples of oil production increasingly rapidly within a region then in short order declining rapidly. I expect that to happen in the Bakken region.

Only two U.S. states have had oil production increases in recent years worth mentioning: North Dakota and Texas. There have been minor production increases in a few western states such as New Mexico and Colorado as well. The vast majority of oil producing states had either flat or declining production in recent years in spite of the high price of oil.

In 2009 and 2010, oil production increased significantly in the deepwater Gulf of Mexico, contributing to U.S. oil production increases during those years but in the first half of 2011, Gulf of Mexico oil production was down 11.1% (188,000 b/d) compared to the first half of 2010. I've made the case for a long time that deepwater GOM oil production would peak around 2010 (<http://www.energybulletin.net/node/44870>) and that prediction looks good.

With mature fields in the deepwater GOM declining at average rates of 10-20%/year, it takes many new developments just to replace the declining production from older fields. The problem for future deepwater GOM production is that there are few fields that are projected to come on-line in coming years and the best areas of the deepwater GOM have been quite thoroughly explored and developed.

Interestingly, one of the oil experts in the NPR segment was Amy Jaffe. Apparently NPR news programs don't vet their experts. If they did, it would be obvious that Ms. Jaffe has at best a dismal forecasting record when it comes to oil. Here is the summary of an article she wrote in 2000:

As oil flirts with prices that call to mind the shocks of the 1970s, the usual Cassandras have been warning of dwindling oil supplies and sky-high prices. But the danger is precisely the opposite. The next two decades will witness a prolonged surplus of oil, which will tamp prices down. This world of cheap oil will have serious political reverberations. Without rising oil revenues, such key states as Saudi Arabia, Russia, Mexico, and Colombia will face worsening crises at home. The same is true in spades for Central Asia, where Washington's current wrongheaded policies could drag it into crises that make the Balkans look like a pregame warm-up. **The world should worry less about a scarcity of oil than about a glut.**

The price of oil in recent years hasn't even been close to the 2000 average of \$27.39/barrel (U.S. average domestic price) that Ms. Jaffe considered so high at the time. For the period 2005-2010, the average annual oil price was never less than \$50/barrel and in 2011, it will average approximately \$90/barrel.

Considering that global oil production (crude oil + condensate) has been essentially flat since the start of 2005 and that the exportable amount of global oil production declined by over 2 mb/d during the 2005-2009 period based upon US DOE/EIA data, I don't think anyone can make the case that there is a glut of oil on the world market.

Ms. Jaffe gave what I thought was very deceptive information concerning future U.S. oil production. She stated that,

"In 5 to 10 years, U.S. oil production will go up dramatically, not by 10% but by considerable volumes"

Unfortunately she didn't provide a numerical value for the absolute or percentage increase she expected but my impression was that an increase of 50% or greater is what she meant. At a 50%

production increase over 2010, U.S. oil production would have to increase ~2.7 mb/d. I view that as not in the realm of possibility over any time frame.

The NPR segment conflated Bakken Shale and what is termed “oil shale”, the shale in places like Colorado that has a solid organic material called kerogen in it. In Bakken Shale, there is actually oil impregnated into the shale which can be obtained through fracking. That is not the case for most shale in the U.S. During the segment, Mr. Raz provided an oil reserves estimate for the U.S. of 2 trillion barrels. That’s quite an impressive figure but the vast majority of that estimate is based upon oil shale that has kerogen in it, not oil. No amount of fracking will remove the kerogen from the shale to provide oil.

In general, media in the U.S. act as cheerleaders for the oil and gas industry. If the public is to understand important aspects of our energy supply, it’s important that they receive unbiased and independent reporting on energy issues. Without unbiased and independent reporting, it’s easy for the public to believe that U.S. oil resources are infinite, which appears to be the present case for a significant percentage of the public.

Sierra Club Calendars

The sale of Sierra Club calendars provides funds for the Three Lakes Group. If you would like a calendar or calendars, they can be ordered from Annemarie Askwith at:

askwitha@lighthouse.net

Price: \$12 for wall; \$13 for engagement.

Three Lakes Group Meetings

Three Lakes Group meetings will be held on the second Tuesday of the month at 5:30 pm for the months in which we don’t have programs: January, May, June, July, August and December. At this point in time it appears that the meetings will be held in one of the meeting rooms at Studebakers Restaurant on the I-75 Spur in Sault Ste. Marie but it’s possible that may change. Notices will be sent out prior to meetings with the location included.