

DEBUNKING MAINSTREAM MEDIA'S LIES ABOUT OIL

***FTW's* Dale Allen Pfeiffer Goes Head to Head With Pulitzer Prize Winner Daniel Yergin**

By Dale Allen Pfeiffer – ***FTW*** Contributing Editor for Energy

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The word about peak oil has barely reached the surface of the major media, and already there are many experts shouting loudly that this is not true. As the crisis worsens, we will no doubt see more and more experts claiming ever more loudly that there is no problem at all. And we will likely hear more claims about the benefits of a transition to hydrogen fuel cells, fusion, nuclear fast breeders, and other more exotic technologies (such as zero-point energy). All of this hype may pacify people and prevent them from realizing what is actually happening, but it won't reverse decreasing oil production nor lead to meaningful alternative technologies. If there is a magic bullet solution for Peak Oil, it has not yet been demonstrated in a way that permits independent verification or establishes a significantly positive Energy Return for Energy Invested (EROEI).

One example of the disinformation being fed to the public by the mass media is an article written by Daniel Yergin published in *The San Francisco Chronicle* (Sunday, April 13, 2003).¹ Evidently, the Chronicle was so swayed by Yergin's name that they forgot to check the facts behind his story.

Though Daniel Yergin is considered to be an authority on international politics, economics and energy, he is neither a scientist nor an engineer. Despite this lack of credentials, Daniel Yergin was awarded a Pulitzer for his book *The Prize: The Epic Quest for Oil, Money and Power*, and he is currently a member of the Board of the United States Energy Association, the National Petroleum Council, the US Secretary of Energy's Advisory Board, and the US Department of Energy's Task Force on Strategic Energy Research and Development. He is also a member of the Committee on Studies of the Council on Foreign Relations and a Foreign Associate of the Royal Institute of International Affairs.

With all of these credentials, one might wonder how he could author an article which is so misleading. However, I have seen him in action, arguing with several of my colleagues, and I can state that the man is a true cornucopian. He will not recognize any data that might shake his faith in Neoliberalism or free market economic theory. No doubt, he will consider this article to be rubbish, if he even bothers to read it.

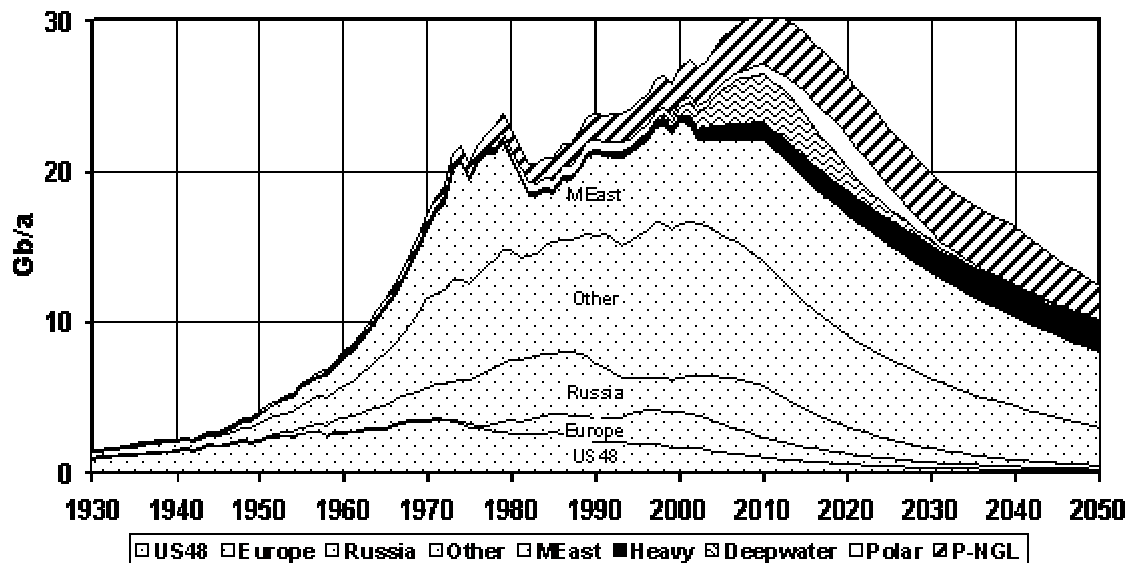
In his article for the *SF Chronicle*, Mr. Yergin claims that Iraqi oil counts for such a small percentage of the global oil picture that its influence on oil markets is negligible. In fact, he downplays the significance of all Middle Eastern oil. Let us take a look at Mr. Yergin's claims and compare them with documented studies and factual reports.

To inflate his data on oil reserves, Mr. Yergin accepts industry and EIA (Energy Information Association) figures without question (rather like the embedded journalists reporting on the invasion of Iraq). He refuses to backdate discoveries (account for the fact that oil companies routinely under-report new finds to reduce taxes) and he accepts inflated numbers for Caspian reserves even as the oil majors pull out of the area for lack of interest. But one of the most interesting techniques he uses to inflate his data is to include all hydrocarbon deposits regardless of source or extraction techniques. Whether tar sands, deep sea deposits or conventional oil, it is all one to Mr. Yergin.

Never mind that harvesting tar sands is energy and water intensive. Tar sands are extracted and processed utilizing stranded natural gas. (Small pockets of gas that are not profitable to pump at current prices). But as the price of natural gas has increased, so has the price of using NG to harvest and process tar sands. As natural gas prices rise, the stranded gas is sold in the marketplace leaving little for tar sands. Industry analysts have all but admitted that North America is falling off the natural gas cliff (i.e. natural gas reserves are almost empty). Allowing for seasonal changes, the price of NG will only increase from now on.^{2 3} Tar sand processing also utilizes a vast quantity of water. Production has heavily taxed local aquifers and left large retention ponds of tainted water needing to be purified at an energy and economic expense. Due to these factors, various companies are beginning to cancel tar sands projects or place them on hold.⁴ Beyond this, tar sands are harvested by strip mining, not by pumping. Production from tar sands comes at the additional cost of destroyed landscape, and the additional expense of remediation and waste disposal. And in any mining operation, there is always a notable portion of the resource that is deemed unrecoverable, either because the seam is too small, or because of fault or other physical factors that limit the viability of production.

For all these many reasons and more, tar sands and other unconventional forms of hydrocarbons should be considered separately from conventional oil. Once conventional oil production begins to decline worldwide, non-conventional production will be constrained by the rising price of energy input. Furthermore, even if unconstrained, non-conventional sources will not replace conventional oil, they will only help to ease the decline. The following graph, based upon the most current of data, incorporates non-conventional sources into the energy picture.

Oil & Natural Gas Liquids 2003 Base Case Scenario



From the ASPO Newsletter; graph developed by Colin Campbell.

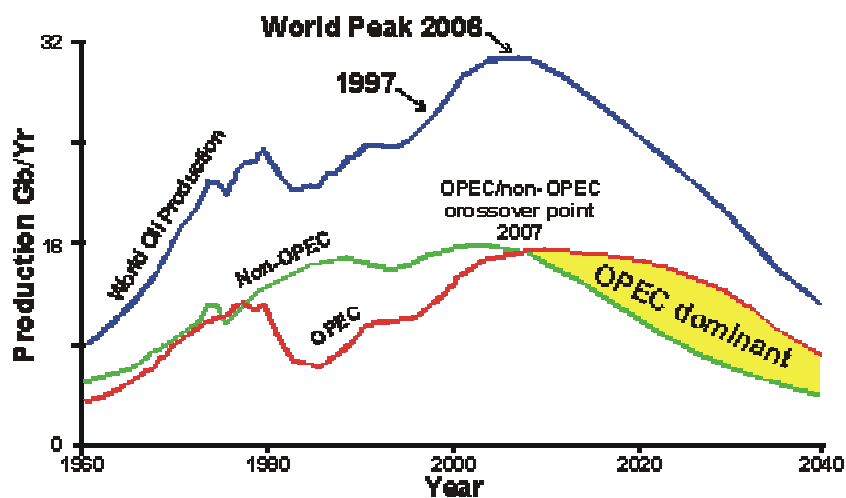
<http://www.asponews.org/>

If we exclude non-conventional sources and look only at conventional oil the figures change---giving us a much clearer picture of the importance of Middle Eastern oil, and of Iraqi oil. Instead of the 3% figure given by Mr. Yergin, the accepted figure for Iraqi deposits hovers around 7% of worldwide conventional oil reserves.⁵ In their 1998 paper, **The World Petroleum Lifecycle**, Richard Duncan and Walter Youngquist state that Iraq controls 7.3% of the oil reserves in the top 42 oil producing nations.⁶ **World Oil** reported that Iraq contained 115 billion barrels of known reserves in 2002; the **Oil & Gas Journal** reported 112.5 billion barrels for the same year. Colin Campbell estimates 118 billion barrels of known reserves. Given known world reserves of 1767 billion barrels, this comes out to about 6.7% of world reserves.⁷

Mr. Yergin states that Iraq and the entire Middle East are not very important to US oil consumption, noting that the US gets 70% of its crude supplies from its own production or from neighboring countries in North and South America. According to the latest data from the EIA, the US consumes 19.6 million barrels of oil per day (million bbl/d). US production at 8.1 million barrels per day (and falling) only accounts for 41% of demand. Mexico (1.46 million bbl/d) supplies 7.4% of our demand, and Canada (1.37 million bbl/d) another 7%. This brings us up to 55.4% of US demand.⁸ It should be noted that Mexican production peaked in the last couple years⁹ while Canada appears to be peaking right now.¹⁰ The entire North American region peaked in 1985.¹¹ Venezuela (1.14 million bbl/d) adds another 6% to our picture, bringing regional imports up to 61.4% of US demand.¹² Adding in Colombian and other American sources might bring us up to 65% of US demand, not quite the 70% of Mr. Yergin's boast. And we must bear in mind

that Latin America is at peak production right now, so their capability of meeting our demand is going into decline.[13](#) [14](#)

Compared to this, Iraq's contribution to US demand (449,000 bbl/d) seems to be but a paltry 4.2% of total US demand.[15](#) However, Iraq is one of the few countries in the world with the capacity to increase its output. When we add this current import data to Iraq's neighbor Saudi Arabia (the top source of US imports at 1.49 million bbl/d) we find that the US is dependent upon these two countries for 11.8% of its oil demand, or 20.1% of its imports).[16](#) Moreover, these two countries will be among the last to reach peak production (Saudi Arabia in 2013 and Iraq in 2019).[17](#) Regionally, the Middle East will be the last area in the world to peak in oil production, probably around the year 2014.[18](#) Every other region in the world has already peaked in production. Soon declining production in all other regions will result in what has been termed "the crossover event". Beyond this point, Middle Eastern production will make up for the difference between demand and declining production until this region also peaks.



The OPEC crossover point in world oil production.
Duncan & Youngquist. <http://www.dieoff.com/page133.htm>

It is in this light that the Middle East, and Iraq in particular, demonstrates its true importance. Control of Iraqi oil would be most useful in thwarting OPEC, and in an attempt to prevent the oil market from converting to the Euro.

Yet, Mr. Yergin tells us that oil has nothing to do with the invasion of Iraq. Mr. Yergin insists on the party line that this is about weapons of mass destruction.

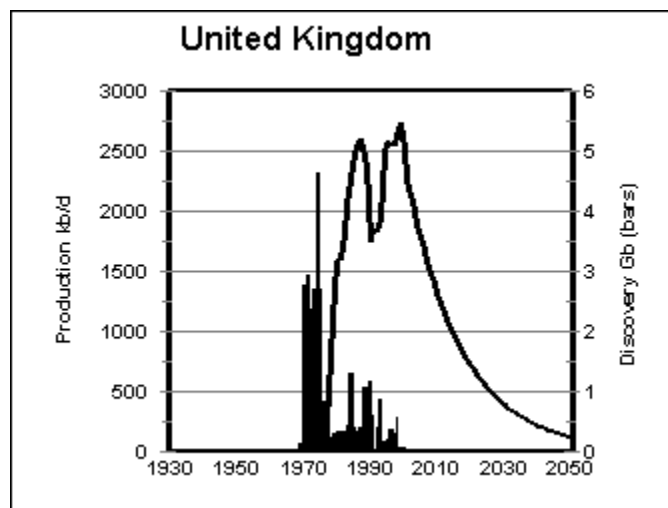
Isn't it interesting that we have yet to find a weapon of mass destruction in Iraq? Oh yes, I forgot, the weapons of mass destruction were not in Iraq; Saddam Hussein hid them in neighboring Syria. In any case, we have control of the country now, and we can begin to build a safe democracy for the people of Iraq. Let's begin the process by encouraging the Iraqi people to loot the various ministries and museums full of antiquities. Ah, but we will protect the valuable records of the petroleum ministry.

Come on Mr. Yergin, do you really expect us to believe that this invasion was not about oil?

No, Daniel Yergin insists, new sources of oil have limited OPEC's clout over the last couple of decades and more oil is being found all the time. He points to the North Sea, Alaska, Russia and that greatest of all oil mirages—the Caspian Sea.

North Sea

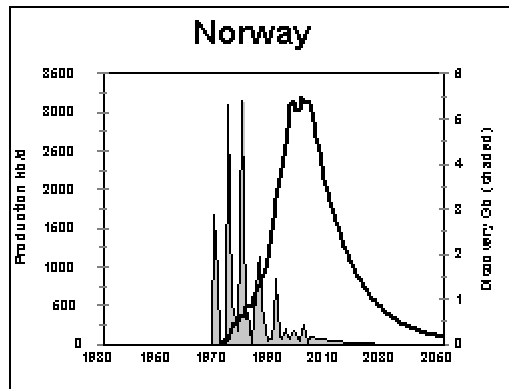
The North Sea oil fields belong to the countries Norway and the United Kingdom. The United Kingdom pumped its fields vigorously, utilizing all the latest technology. As a result, they squandered their oil very quickly, and did such a thorough job of it that their depletion rate (currently 6.1%) gives the downward side of their production curve the shape of a cliff rather than a gentle slope. The United Kingdom peaked in 1999. They will be lucky to produce 720,000 barrels per day by 2020.[19](#)



**United Kingdom Production Curve (with discovery as a bar graph),
courtesy of Colin Campbell.**

<http://www.asponews.org/ASPO.newsletter.020.php#83>

Norway has perhaps the best documented oil fields in the world. And in the last couple of years, they have very honestly admitted that their oil fields are peaking. They have not exploited their fields as thoroughly as the United Kingdom. However, the effect of modern pumping technology can still be plainly seen in their production statistics: production was brought up quickly, the fields had a relatively short life, and the depletion curve is steep. Norway's production peak is occurring this year (2003). Their depletion rate is currently 7%. By the year 2020, they will be lucky to pump 900,000 barrels per day.[20](#)

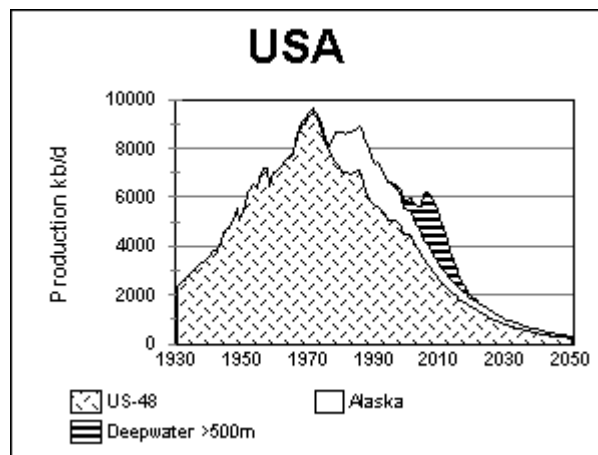


**Norway Production Curve (with discovery in gray),
courtesy of Colin Campbell.**

<http://www.asponews.org/ASPO.newsletter.025.php#129>

Alaska

Discovered in 1969, the giant Prudhoe Bay field added 13 billion barrels of oil to US reserves just when it was sorely needed. However, this field was exploited using the latest technology and was soon depleted. Overall, it did not change the production peak for the US, but it did give the country a secondary (smaller) peak, and broadened out the downward side of the production curve. Due to geology, additional fields (including ANWR) are smaller by orders of magnitude. The current depletion rate for the entire US is 6%. By 2020, the US will be lucky to produce 1.4 million bbl/d, and will be importing 90% of its oil.²¹



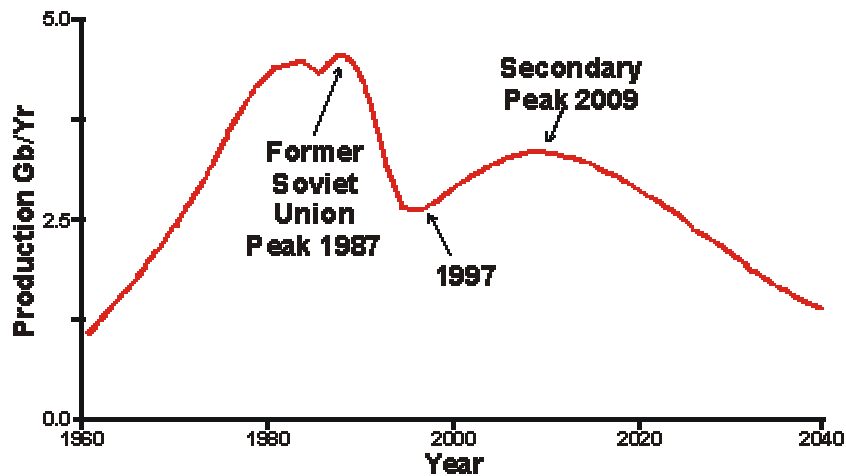
**US Production Curve (with Alaska and deepwater),
courtesy of Colin Campbell.**

<http://www.asponews.org/ASPO.newsletter.023.php#109>

Russia

Daniel Yergin points to Russia as a foil to Middle Eastern oil dominance. However, it is well known that Russian oil production peaked in 1987.²² Though Russia has boosted its production tremendously in the last few years, it has done so at a cost. Russian oil is currently much more expensive

to produce than Middle Eastern oil; they will lose their profit margin if oil prices dip much below \$20/barrel. And the increased production will result in a much steeper depletion rate. The graph below was drawn in 1998, before Russia stepped up production. Now it is likely that the secondary peak will occur sooner and the downward side of the production slope will be much steeper. It would be foolish to bet on Russian oil production to thwart OPEC beyond 2010.



Russian Production Curve, Duncan & Yougquist, 1998.
<http://www.dieoff.com/page133.htm>

The Caspian Region—Central Asia

This leaves the much touted Central Asian—Caspian Sea region. Yet, as I reported last December, exploration of this area has yielded dismal results.²³ The latest news to add is that Shell Oil is pulling out of Turkmenistan, following on the heels of Exxon-Mobil.²⁴ Below is a table comparing EIA figures of proven reserves with Colin Campbell's figures for total known and future reserves in four key Central Asian countries. It is obvious upon reviewing this data that Central Asia will present no threat to OPEC hegemony after the OPEC crossover event. This point is further driven home when we factor in problems inherent with the Central Asian and Caspian oil: the problem of transporting it to areas of demand, and unresolved political squabbles about ownership of Caspian Sea oil. And dare we mention that most of the oil discovered in this region has a high sulfur content, which makes it even less desirable?

Country (in billions of barrels, Gb)	EIA Proven Reserves	CJ Campbell Projected Total Reserves
Azerbaijan	1.2	21
Kazakhstan	5.4	36
Turkmenistan	0.546	4.4
Uzbekistan	0.594	2.4

Total	7.74	63.8
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Derived from EIA data (<http://www.eia.doe.gov/emeu/cabs/contents.html>) & **data supplied by Colin Campbell** (<http://www.asponews.org/ASPO.newsletter.026.php>)

Daniel Yergin claims that new discoveries will be made, mentioning that every year oil companies spend billions of dollars searching for new reserves. Perhaps Mr. Yergin is not aware of all the signs of industry downsizing.²⁵ Oil exploration had a bumper year for discovery in 2000 at 24 billion barrels (Gb) of newly discovered oil. But this figure dipped sharply in 2001 to 16 Gb, slightly above the ten year average of 14 Gb. The latest data from BP placed daily world oil consumption at around 75 million bbl/d in 2001.²⁶ That means that in the year 2001, the world consumed approximately 26.7 Gb of oil, or about 11% more oil than was discovered in the previous halcyon year of 2000. In 2002, the Executive Vice-President and Director of Exxon-Mobil (the world's largest oil company) confirmed that oil discovery peaked in the 1960s.²⁷

In the last couple of years, many officials of the oil majors have made coded statements confirming oil depletion.²⁸ BP admitted the problem of oil depletion by spinning it into a challenge to develop solar energy.²⁹ Robert Anderson, the former head of ARCO, said it quite plainly, stating that the oil industry was "a sunset industry—and the sun is low in the sky."³⁰ They say actions speak louder than words, and in the last few years industry mergers and layoffs have emphasized these whispered words. Industry layoffs target exploration and development staff. Shell has begun the latest round of layoffs, cutting 1,000 exploration & production jobs in its European staff.³¹

Beyond this, Daniel Yergin falls back onto the feeble arguments that new technologies will find oil where none existed before and render previously unproductive fields economical. There is a modicum of truth to this. DOFF technology (digital oil field of the future) will find some more small puddles of oil, but the big fields have already been mapped, and most of them have been produced to their peak. DOFF will also lower the costs of extraction somewhat. But it will also increase current production from fields and so hasten their peak and decline.

In the end, we will not find enough new oil to offset the world oil peak, and little enough to ameliorate the downward slope. Non-conventional production is already running into severe cost overruns.³² And, in any case, non-conventional oil will not drastically change the profile of world energy production, as exemplified by the first graph in this article.

Mr. Yergin is simply trotting out a line of disinformation to pacify investors and the public at large, and to obfuscate the real reasons for the invasion of Iraq.

A Note on North American Natural Gas

Bloomberg's recently released an article stating that US natural gas supplies are still severely depleted. Normally April is the time of year to begin restocking NG supplies. However, this spring has been chilly enough in many areas of the country that NG demand is still up and the restocking of supplies has not yet commenced. Bloomberg's warns that supplies are so depleted that it will be hard to prepare for next winter. And if this summer is hot, summer cooling demand will likely push NG prices above the record highs of earlier this year.³³

People hoping for an economic recovery had better hold their breath and pray for a mild winter next year (and a mild summer this year).

¹ **Gulf oil -- How important is it, anyway?**, Daniel Yergin. San Francisco Chronicle, Sunday, 4/13/2003.
<http://sfgate.com/cgi-bin/article.cgi?f=/c/a/2003/04/13/IN307923.DTL>

² **Emptying the Larder**, Dale Allen Pfeiffer. From the Wilderness, 1/30/2003.
http://www.fromthewilderness.com/members/013003_empty_larder.html

³ **U.S. natural gas demand expected to out-pace production 3-1, says EIA.**
<http://www.petroleumnewsalaska.com/03031604.html>

⁴ Op Cit. See note 2.

⁵ **Iraq Country Analysis Brief.** EIA, October 2002. <http://www.eia.doe.gov/emeu/cabs/iraq.html>

⁶ **The World Petroleum Lifecycle**, Richard Duncan & Walter Youngquist. Presented at the PTTC Workshop "OPEC Oil Pricing and Independent Oil Producers", Petroleum Technology Transfer Council, Petroleum Engineering Program. University of Southern California, Los Angeles, California, October 22, 1998. <http://www.dieoff.com/page133.htm>

⁷ **ASPO Newsletter No. 26—February 2003**, Colin Campbell. The Association for the Study of Peak Oil. <http://www.asponews.org/ASPO.newsletter.026.php>

⁸ **United States Country Analysis Brief.** EIA, November, 2002.
<http://www.eia.doe.gov/emeu/cabs/usa.html>

⁹ Op Cit. See note 7.

¹⁰ **NEB's 2002 Oil Production Data Contains Eye-Opening Figures.** 3/21/2003.
http://www.rigzone.com/news/article_pf.asp?a_id=6005

¹¹ Op Cit. See note 6.

¹² Op Cit. See note 8.

¹³ Op Cit. See note 6.

¹⁴ Op Cit. See note 7.

¹⁵ Op Cit. See note 5.

¹⁶ Op Cit. See note 8.

[17](#) Op Cit. See note 7.

[18](#) Ibid.

[19](#) **ASPO Newsletter No. 20—August 2002**, Colin Campbell. The Association for the Study of Peak Oil. <http://www.asponews.org/ASPO.newsletter.020.php#83>

[20](#) **ASPO Newsletter No. 25—January 2003**, Colin Campbell. The Association for the Study of Peak Oil. <http://www.asponews.org/ASPO.newsletter.025.php#129>

[21](#) **ASPO Newsletter No. 23—November 2002**, Colin Campbell. The Association for the Study of Peak Oil. <http://www.asponews.org/ASPO.newsletter.023.php#109>

[22](#) Op Cit. See note 7.

[23](#) **Much Ado about Nothing**, Dale Allen Pfeiffer. From the Wilderness, 12/5/2002. http://www.fromthewilderness.com/free/ww3/120502_caspian.html

[24](#) **Shell set to pull-out of Turkmenistan**, AFP. http://www.bday.co.za/bday/content/direct/1_3523_1308080-6078-0,00.html

[25](#) **ASPO Newsletter No. 18, June 2002**, Colin Campbell. The Association for the Study of Peak Oil. <http://www.asponews.org/ASPO.newsletter.018.php>

[26](#) **BP Statistical Review of World Energy 2002**. <http://www.bp.com/centres/energy2002/oil/consumption.asp#>

[27](#) Op Cit. See note 20. Colin Campbell referencing **World Energy**, v. 5, No. 3, 2002.

[28](#) **ASPO Newsletter No. 27—March 2003, Colin Campbell**. The Association for the Study of Peak Oil. <http://www.asponews.org/ASPO.newsletter.027.php>

[29](#) Op Cit. See note 21.

[30](#) Op Cit. See note 20.

[31](#) **Shell cuts 1,000 jobs in Europe**, by Malcolm Moore. The Telegraph, 4/4/2003. [http://money.telegraph.co.uk/money/main.jhtml;\\$sessionid\\$302J30ECXLDERQFIQMGCFFOAVCBQIIV0?xml=/money/2003/04/04/cnshell04.xml&menuId=242&sSheet=/money/2003/04/04/ixcity.html](http://money.telegraph.co.uk/money/main.jhtml;$sessionid$302J30ECXLDERQFIQMGCFFOAVCBQIIV0?xml=/money/2003/04/04/cnshell04.xml&menuId=242&sSheet=/money/2003/04/04/ixcity.html)

[32](#) Op Cit. See note 19.

[33](#) **Natural gas still depleted**. The Houston Chronicle, 4/21/2003. Bloomberg Business News. <http://www.chron.com/cs/CDA/ssistory.mpl/business/1877278>