



A Critical Examination of Matt Simmons' Claims on the Deepwater Spill

Posted by [Robert Rapier](#) on July 29, 2010 - 7:30am

Topic: [Supply/Production](#)

Tags: [deepwater horizon](#), [matthew simmons](#), [oil spill](#) [[list all tags](#)]

Matt Simmons, author of [Twilight in the Desert](#), has long been one of the most famous and influential voices on the subject of peak oil. After the release of his book, Simmons rose to fame as Saudi Arabian oil production declined and global oil prices skyrocketed.

However, Simmons has lately been making hyperbolic claims related to the deepwater spill in the Gulf of Mexico. Based on the scenarios Simmons has outlined, he argues for responses such as using a nuclear explosion to seal the well and evacuating 20 million people from the Gulf Coast. Extraordinary responses such as these would impact a great many people, so The Oil Drum staff felt that a critical look at some of Simmons' claims was in order.

Note: This essay is a compilation of work from multiple Oil Drum staff members, particularly [JoulesBurn](#), [aeberman](#), [Euan Mearns](#), and [Robert Rapier](#).

1. The real leak is seven miles away.

Simmons first suggested this in an interview with MSNBC's Dylan Ratigan on May 26th, 2010. In response to a question about a second leak, Simmons replied that there was reportedly a lot of oil six miles away, and said "I think that's where the wellhead is." He also mentioned that he had been telling government officials that. In a later interview on June 7, 2010, Simmons made the following claim:

I would think by the end of the week we will discover that we have an open hole with no casing in it which [inaudible] about seven miles away from where BP had been trying to fix these little tiny leaks in the drilling riser. I bet we'll find the drilling riser is still connected to the rig bore, and so they've done everything wrong.

Source: [May 26th on MSNBC](#), [June 7 on MSNBC](#)

Response

Simmons apparently came to this conclusion because the leak from the end of the severed riser seemed to him too small to account for the large and growing oil slick on the surface of the Gulf of Mexico. This, coupled with reports that a NOAA ship, the Thomas Jefferson, identified possible oil plumes beneath the waters 5-10 miles away, led him to conclude that this new location was where the real spill, and the original well, lie. That BP and the US Coast Guard continued to maintain

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that the blowout preventer (BOP) was still intact atop the original wellbore, and then proceeded to stem the flow of oil with a series of efforts, suggested to him a massive coverup.

Although it is difficult to prove that a ruse this elaborate has not been staged on the seafloor, there is clear evidence that the assemblage of ships involved in the spill response has been positioned around the Macondo-252 well location specified in the [original well plan](#) submitted to the Minerals Management Service (MMS) by BP. DigitalGlobe, a satellite imagery provider for Google Earth, has [made available](#) georeferenced photographs taken on May 24, when oil collection operations were underway. Using data from the above sources, the pictures below can be constructed showing the positions of interest on the BP well plan and the satellite image.



Figure 1. Satellite photograph (DigitalGlobe) showing relief well rigs and oil containment ships operating on May 24, 2010. Location of MC-252 well on photo ascertained using coordinates from DigitalGlobe measurements and the Macondo well plan and drilling authorization submitted to MMS by BP.

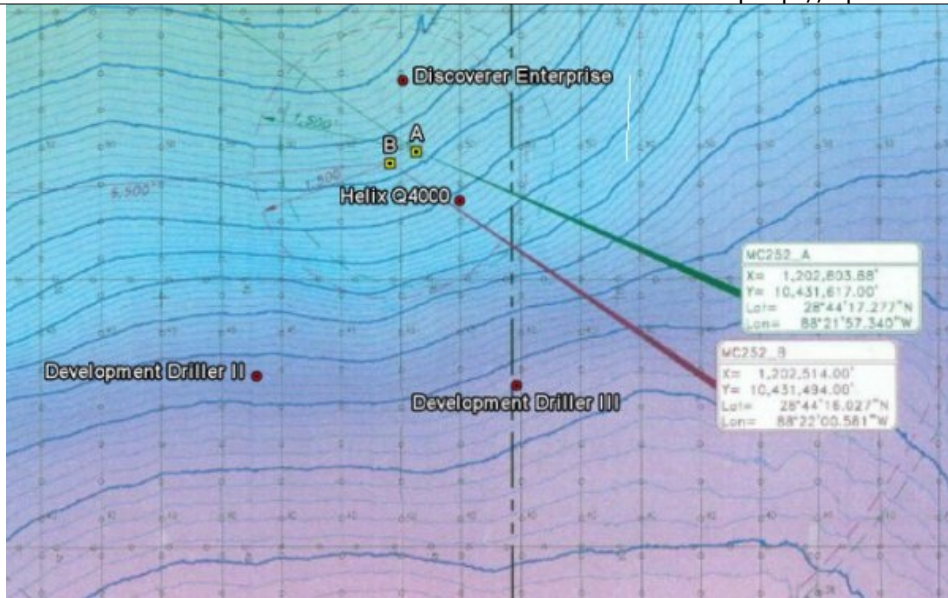


Figure 2. Map from BP well plan with ship positions (as per DigitalGlobe measurements) indicated. Well "A" is consistent with the Macondo drilling authorization.

If you go to the [MMS Gulf of Mexico Region web site](#), you can find information showing that the original well and the relief well are in the locations where activity has recently been taking place, by looking up information using 'Fast Facts', 'Application for Permit to Drill' (APD), 'Bottom Lease', and 'G32306'. A reader made this [screenshot](#) showing the coordinates of the wells and sidetracks planned. Coordinates for blowout well match well "A" on the initial Macondo well plan.

Finally, it can be shown that the burning rig was located where the MC-252 well plan indicated (and where the relief well rigs, etc. have been operating).

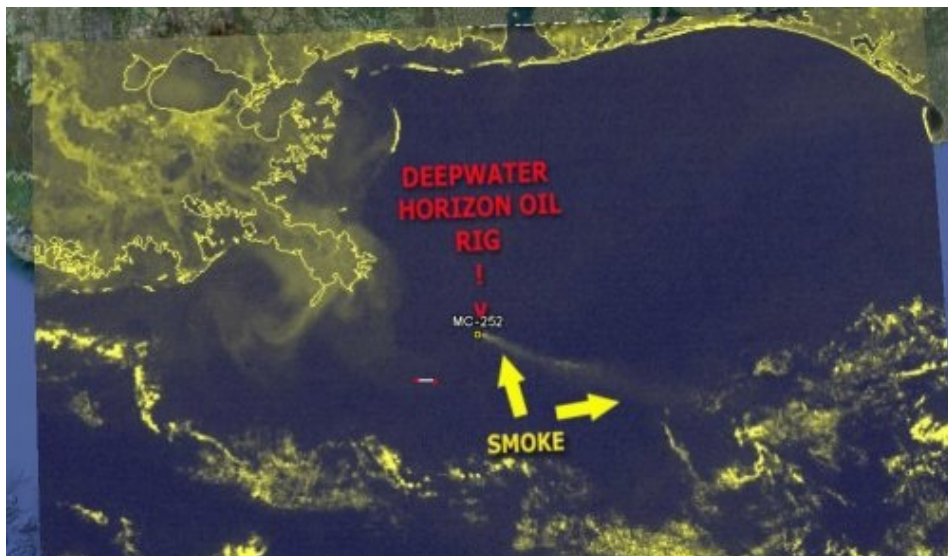


Figure 3. Satellite photo taken while the Transocean Deepwater Horizon was on fire, geo-referenced using Google Earth. MC-252 location from the Macondo well plan. 7 mile horizontal line added (to left of well) for distance reference. (click on image for larger version)

The alleged relocation of the BOP and riser several miles from an explosively uncased well, besides being inconsistent with well documented coordinates for the well, presents several logistical problems. Foremost, the BOP was initially still attached to part of the riser. Thus, this

ungainly pair would have to been launched from the well several miles until it lodged in the mud on the Gulf floor, in the correct orientation. If the riser was still attached to the Deepwater Horizon, as Simmons also suggested, this stretches credulity even further.

In short, there is no evidence that the well recently capped by BP is not the original Macondo well, or that the original well is still flowing with no casing.

2. Oil is flowing at 120,000 barrels/day

Simmons has stated on a number of occasions that he estimates that oil from the blowout is flowing into the Gulf of Mexico at a rate of 100,000 to 150,000 barrels per day. From a talk at Camden, Maine on July 15th:

Simmons described the real blowout as an open hole gushing 120,000 barrels of toxic crude every day below the surface of the Gulf six or seven miles away from the riser. And BP is ignoring it, he said.

"What you are seeing on television, what BP is saying about relief wells . . . that's a total ruse," said Simmons.

Source: [Simmons' Take on the Oil Spill in the Gulf](#)

Response

This figure appears to be a guess based on an estimated reservoir pressure of 40-50 thousand psi, which itself is a guess based on the intensity of the surface fire before the rig sank.

Oil Drum contributor Arthur Berman ([aebberman](#)) has compiled data from the MMS that summarizes all Outer Continental Shelf (OCS) well maximum flow rates. The spreadsheet can be accessed [here](#). The data show that the average well in the OCS had a maximum flow rate of 11,800 barrels per day (bpd) and the maximum flow of any well was 46,500 bpd. Thus, the flow rates Simmons postulates are far beyond any well seen to date in the OCS.

It should be noted, though, that the flow in these wells is typically constrained so as to prevent damage to the wellbore. Indeed, the flow from MC-252 (the one seen on the ROV videos) is likely constrained within the BOP and possibly in the wellbore. Given this, it is possible that an uncased well (if it existed) would support this high flow rate if the reservoir pressure was as high as Simmons suggests. However, Macondo reservoir pressures of 40-50 thousand pounds per square inch are not supported by any data.

Source: [June 7 on MSNBC](#)

3. The real spill has caused a lake of oil larger than Washington state.

In the talk at Camden, Maine, Simmons claimed that BP was intentionally misleading the public and the government about the extent of the spill and that it would take a heavy toll in human lives:

That submerged lake of oil has grown larger than the size of Washington state and is approximately 500 feet thick, according to Simmons' estimate.

"It's thick oil, flowing like lava . . . covering a large part of the Gulf of Mexico and taking the oxygen out," said Simmons. When it mixes with the upper layer, the toxicity will be released, and when it comes ashore Simmons predicts it will take a heavy toll in human lives.

Response

The area of Washington state is 71,303 square miles. If the lake is 500 feet thick, this would imply 177 trillion barrels of oil in the lake, vs. 2-4 trillion barrels estimated total reserves plus production to date for the world.

Also, claims of a quantity of oil this large are not consistent with Simmons' claim of 120,000 barrels/day from the "real" well bore. For example, at this flow rate for 90 days, a spill the size of WA would only be 10 microns thick (.01 mm).

Finally, the lake of oil defies the laws of physics by staying on the sea floor and not rising to the surface of the Gulf of Mexico, because most of this type of oil is lighter than water, so would be expected to rise.

4. Methane is lethal and toxic.

In an interview on NPR on July 15th, Simmons made the following claims:

It's this toxic waste and crude and it's releasing methane gases that are absolutely lethal which is why all the fish and dolphins and sharks and whales are dying. And workers too, which is why so many have gotten sick, or maybe really sick.

"The health problems are so serious," Simmons said. "When you inhale methane you just die."

Source: [They're still lying about the oil disaster](#)

Response

There are many natural sources of methane in the environment, including [belching cattle](#) and decomposing organic matter . Many of us use natural gas - mostly methane - to heat our homes. All of us inhale methane every day. While methane is clearly flammable and it is a potent greenhouse gas, it is completely non-toxic. Methane, like the nitrogen that makes up 78% of the earth's atmosphere, is a simple asphyxiant. What that means is that it could kill you by displacing oxygen, but methane itself is non-toxic (unlike carbon monoxide, for example).

In the same interview, Simmons discussed the toxicity of hydrogen sulfide gas, which is often present in petroleum reservoirs (although not significantly in Macondo). He noted that low-level concentrations can be fatal, and that workers are trained to put gas masks on quickly if monitors

detect its presence. He then states that methane is more toxic than hydrogen sulfide. As per above, this is completely erroneous; hydrogen sulfide is highly toxic while methane is non-toxic.

Reference: [Material Data Safety Sheet for Methane](#)

5. Use of a small bore nuclear device is the "only option" to stop the flow of oil.

In an interview on Bloomberg Television on July 21st, Simmons repeated his accusation that BP was lying about the extent of the disaster, and called it *"the biggest environmental cover-up ever."* He further stated that *"we have killed the Gulf of Mexico"*, that clean-up costs, if clean-up were even feasible, would top \$1 trillion, and that *"if they (BP) told the truth, they would all go to jail."*

Simmons had stated previously that a small nuclear device was the only option to seal the leak. In this interview, one of the reporters indicated that reports were coming in that the oil was no longer leaking and asked if that gave Simmons hope. Simmons replied:

"No, because that's not the gusher. That was a little bit of condensation that would have ended anyways. There's no way to fix the gusher because there's no casing left in the hole other than doing a small diameter nuclear bomb...It's the only way. With no casing left in the hole, the odds of the relief well working are zero."

Source: [July 21, Bloomberg TV](#)

Response

It is certainly surprising that the guy worried about toxic methane clouds isn't worried about a nuclear explosion in the Gulf of Mexico. But Simmons is not only advocating this position as "the only solution", he is telling government officials that this is the course of action that should be pursued.

The basis for his position is built upon his notion that there is a massive open hole spewing oil into the Gulf of Mexico miles from where BP is pulling off a massive scam. Per Point 1 there is no evidence to support the existence of this hole that Simmons believes will take a nuclear explosion to cap.

As previously discussed [here at TOD](#), the Soviets did in fact use nukes successfully for gas well fires. The differences between the situations then and now were 1). The leaks were onshore; 2). The leaks were gas; 3). These were actual leaks that needed to be sealed that had resisted other efforts.

Given that there is no evidence of this massive gusher -- and even if it did exist, the idea of using a nuclear explosion at those depths and under those conditions is fraught with uncertainties -- this is not a reasonable option for dealing with the spill. Further, [evidence continues to mount](#) that the leak has been slowed or perhaps stopped.

Conclusion

Those who suggest that Simmons might be right, based on some new information that arises or some misinformation supplied by BP, should identify which parts of his story are right: the gravity-defying lake of oil? Flying BOPs? Methane death clouds?

In addition, for those who ask the question "what if Simmons is right?", the answer would be that all textbooks on basic physics, chemistry, and toxicology would have to be rewritten to handle the discrepancies between what is currently believed vs. what Simmons suggests has occurred.

In conclusion, the claims made by Simmons and documented in this essay are not credible. Some - such as the idea that methane is toxic - are factual errors. Other claims, such as an open gusher that BP is covering up, defy logic. How Simmons will respond if no evidence of his claims emerges remains to be seen.



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