Massive oil plumes remain in the Gulf, study shows

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A new study of underwater oil plumes in the Gulf of Mexico by scientists with the Woods Hole Oceanographic Institution (WHOI) in Massachusetts contradicts assertions made by BP and federal scientists who claim the oil remaining in the Gulf is rapidly biodegrading. The study, published in the journal *Science*, is the first peer-reviewed scientific study of the Deepwater Horizon oil spill.

Between June 19 and 28, a team of researchers led by WHOI oceanographer Richard Camilli conducted a survey of waters surrounding the Macondo well head. *Science* reports the research team carried out more than 57,000 chemical analyses of a massive oil plume lying southwest of the well.

The researchers' findings "indicate the presence of a continuous plume over 35 km [22 miles] in length, at approximately 1100 m depth that persisted for months without substantial biodegradation." The plume examined by the WHOI team was found to be 200 meters thick and 2 kilometers wide. These findings directly contradict the now widely discredited National Oceanic and Atmospheric Administration (NOAA) report released in early August that implied dispersed oil would simply vanish from the Gulf.

Much of what remains is highly toxic. The massive plume contains 50 micrograms per liter of "a group of particularly toxic petroleum compounds that includes benzene." According to the report, between 6 and 7 percent of the total BTEX—concentrations of benzene, toluene, ethylbenzene, and xylene—released from the runaway Macondo well is contained in the plume itself.

Contradicting claims that oil plumes in the Gulf were, in part or in whole, the result of naturally occurring oil and gas seepage from the ocean floor, Camilli said during a press conference his evidence "shows fairly clearly that it was created by the Macondo site, the Deepwater Horizon well, and it was not created by naturally occurring seeps." Camilli also suggested the plume surveyed by his team could extend much farther than their present numbers indicate because subsequent measurements were prevented by Hurricane Alex's arrival in the Gulf of Mexico. The plume is "going to persist for quite awhile before it finally dissipates or dilutes away," Camilli added.

While the plume observed by Camilli and his team is significant, other independent researchers say there are even larger plumes in the Gulf which require investigation. Biochemist Samantha Joye with the University of Georgia, Athens, has said the plume examined by the WHOI team "doesn't hold a candle" to a plume which her team observed in May.

Researchers first discovered the existence of underwater oil plumes nearly one month after the April 20 blowout at BP's Deepwater Horizon rig. Federal scientists at NOAA, however, would not confirm their existence until June. Tony Hayward, then CEO of BP, continued to deny their existence outright even then, claiming "The oil is on the surface. There aren't any plumes."

The recent assertions put forward by NOAA that three fourths of the oil spilled from the Macondo well are now gone and that the remaining oil is rapidly dissipating have been repeatedly discredited by independent scientists since their release earlier this month. On Thursday, Bill Lehr, a senior scientist with NOAA, was forced to admit during a congressional hearing that 90 percent of the oil spilled into the Gulf still remains in the environment.

Four months into the Deepwater Horizon disaster, the Obama administration and BP continue to misrepresent the size of the oil spill and the devastation caused to the Gulf of Mexico and the coastal states.

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