Through a chemical fingerprinting process, University of South Florida researchers have definitively linked clouds of underwater oil in the northern Gulf of Mexico to BP's runaway Deepwater Horizon well — the first direct scientific link between the subsurface oil clouds commonly known as "plumes" and the BP oil spill, USF officials said Friday.

Until now, scientists had circumstantial evidence, but lacked that definitive scientific link.

The announcement came on the same day that the National Oceanic and Atmospheric Administration announced that its researchers have confirmed the existence of the subsea plumes at depths of 3,300 to 4,300 feet below the surface of the Gulf. NOAA said its detection equipment also implicated the BP well in the plumes' creation.

Together, the two studies confirm what in the early days of the spill was denied by BP and viewed skeptically by NOAA's chief — that much of the crude that gushed from the Deepwater Horizon well stayed beneath the surface of the water.

"What we have learned completely changes the idea of what an oil spill is," said chemical oceanographer David Hollander, one of three USF researchers credited with the matching samples of oil taken from the water with samples from the BP well. "It has gone from a two-dimensional disaster to a three-dimensional catastrophe."

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