

Interactive comment on “Revisiting the DeepWater Horizon spill: High resolution model simulations of effects of oil droplet size distribution and river fronts” by Lars R. Hole et al.

Hole

lrh@met.no

Received and published: 7 January 2019

We thank the reviewer for very thorough comments to our manuscript. We do agree that the initialization of droplet size distribution needs to be described better and we are now preparing a better description. In the manus we describe that we release oil particles in a polygon at the surface (from satellite obs) + a point source at the sea floor. The release rates are quantified on p5, but we will move this further up. The size distribution is initially uniform and will develop over time, but we show that the DS88 and Li17 formulations give near identical size distributions after 24hours. We believe that this is a new and interesting result. We also refer to Röhrs et al. for detailed

C1

description of the size distribution formulations.

The amount of oil at the surface and in the water column is shown in Fig 7.

One main conclusion from our work is the the two oil droplet size distribution formulations give near identical results. This is also a new result, and we will try to state this even clearer.

Sincerely, Lars R. Hole

Interactive comment on Ocean Sci. Discuss., <https://doi.org/10.5194/os-2018-130>, 2018.

C2