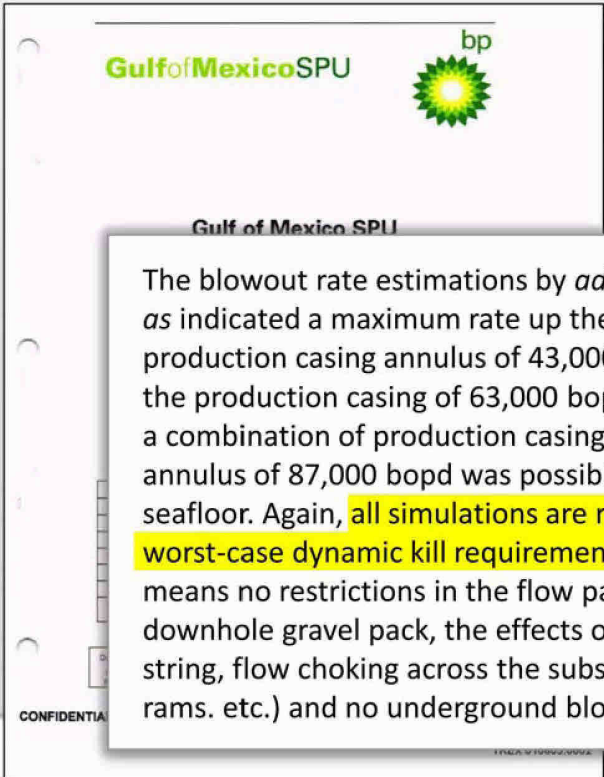



Dr. Rygg's Relief Well Modeling



Gulf of Mexico SPU 

Gulf of Mexico SPU

The blowout rate estimations by *add wellflow as* indicated a maximum rate up the production casing annulus of 43,000 bopd, up the production casing of 63,000 bopd, and up a combination of production casing and annulus of 87,000 bopd was possible at the seafloor. Again, **all simulations are run for worst-case dynamic kill requirements**, which means no restrictions in the flow path (i.e. downhole gravel pack, the effects of the wash string, flow choking across the subsea BOP rams. etc.) and no underground blowout.

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Dr. Rygg Deposition Testimony:

“The purpose of these scenarios when I was working on them was on the relief well -- relief well planning, and what we tried to do with those scenarios on the relief well planning were to define what we call the "worst cases," meaning that in order to design the relief wells, we needed to -- to make sure that we were prepared to stop the flow for each of the individual cases. So meaning that we needed to stick with what we considered as the worst cases which will stem the flow up either the casing, the annulus, or a combination of the two. So that what is the basis for -- for what we did on the relief well planning work.”