EXPERT REPORT OF JOSEPH R. GERACI, V.M.D., PH.D.

Rebuttal Report to the Expert Report of Donald F. Boesch, Ph.D.

In Re Oil Spill by the Oil Rig "*Deepwater Horizon*" in the Gulf of Mexico, on April 20, 2010
MDL 2179
U.S. District Court for the Eastern District of Louisiana

September 12, 2014

Joseph R. Geraci, V.M.D., Ph.D. — Date: Sept 12, 2014

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Exhibit No. _____
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C. Many of the 2011 Barataria Bay dolphins that were given a "guarded or worse" prognosis or were "not expected to survive" by Schwacke et al. (2014) (as carried forth in the government's report) were re-sighted in subsequent years, calling into question the basis for the original determinations.

Over eighty-five percent of the dolphins given a "guarded," "poor," or "grave" prognosis by Schwacke et al. (2014) were re-sighted following the 2011 study. Since May 2010 and continuing through 2014, opportunistic photo-ID studies have been conducted annually in Barataria Bay and in other locations along the Gulf Coast to record sightings of individual dolphins for the purpose of documenting fecundity, survival, and potential changes in abundance of estuarine bottlenose dolphin stocks. As part of the study, photo-ID images are taken of an individual animal's unique natural dorsal fin markings, nicks, or gouges and transferred to NOAA's FinBase database. Animals that were part of the 2011 dolphin health assessment studies have a freeze brand number marking the dorsal fin, which was photographed if the animal was re-sighted following the 2011 health assessment in that year or in subsequent years.

The government's expert report, relying on Schwacke et al. (2014), claims that of the 29 dolphins captured-released as part of the dolphin health assessment study in 2011, "47% were given a guarded or worse prognosis and 17% were considered poor or grave and not expected to survive." Boesch at 39. NOAA has recently provided BP with the freeze brand numbers associated with these prognoses, attached as Appendix G. *See* Table 1, below. The data show that the two dolphins given a grave prognosis were not re-sighted in 2012 or 2013. All the other dolphins including the 20 given a fair, guarded, or poor prognosis were sighted again in 2012, and of those, over 60% were re-sighted again in 2013. Accordingly, the prognoses assigned to the 2011 dolphins, and used to support a prediction of survivorship in the Barataria Bay population are not supported by the data from the photo-ID studies.

Table 1. Prognoses assigned by Schwacke et al. (2014) to 2011 dolphins as compared to re-sighting of those individuals in subsequent years.

Freeze Brand	Sex	Age (years) at initial capture	Schwacke et. al. (2014) Prognosis in 2011	Obs. 2011	Obs. 2012	Obs. 2013
Y00	M	8	Good	X	X	X
Y01	F	42	Good	X	X	X
Y02	M	17	Guarded	X	X	X
Y03	F	6.5	Guarded	X	X	X
Y04	M	21	Fair	X	X	
Y05	F	16	Grave	X		
Y06	M	4	Fair	X	X	X
Y07	F	5	Guarded	X	X	X
Y09	F	22	Fair	X	X	
Y10	M	ND	Poor	X	X	X
Y11	F	19.5	Guarded	X	X	
Y12	M	16	Grave	X		
Y13	F	17	Good	X	X	X
Y14	M	5.75	Fair	X	X	
Y15	F	3.75	Guarded	X	X	X
Y16	M	21	Guarded	X	X	
Y17	F	5	Guarded	X	X	X
Y18	M	ND	Fair	X	X	X
Y19	F	6	Good	X	X	X
Y20	M	21	Fair	X	X	X
Y21	F	16	Poor	X	X	X
Y22	M	12	Fair	X	X	
Y23	F	4	Good	X	X	X
Y27	F	NA	Good	X	X	
Y31	F	NA	Poor	X	X	X
Y33	F	NA	Guarded	X	X	
Y35	F	NA	Good	X	X	
Y37	F	NA	Fair	X	X	
Y39	F	NA	Guarded	X	X	X