

Davy Jones - A Major Wilcox Discovery and its Implications for the Ultra-deep Shelf Play in the Gulf of Mexico's Shallow Waters

Moffett, James R.¹ (1) McMoRan Exploration Co, New Orleans, LA.

McMoRan's ultra-deep play is below the salt weld (i.e. listric fault) on the shelf in the shallow waters of the Gulf of Mexico. Targets are Miocene and older age sections (i.e. Eocene/Paleocene (Wilcox)) that have been correlated to those productive sections seen in deepwater discoveries by other industry participants.

The ultra-deep McMoRan Davy Jones well in South Marsh Island Block 230 has been drilled to 28,603' MD (as of 1-20-2010), and the well has been logged with pipe-conveyed wireline logs to 28,530' MD. The well has encountered six Wilcox Sands totaling 200 net feet of porous, possibly productive sand. All of the zones were full to base. The Eocene/Paleocene (Wilcox) suite of sands logged below 27,300 feet appears to be of exceptional quality.

The well, which is permitted to 29,000' MD, is located in 20' of water, 10 miles off of the Louisiana coastline, approximately 60 miles south of Lafayette, Louisiana. The Davy Jones Prospect is a 20,000+ acre four-way dip closure. Flow testing will be required to confirm the ultimate hydrocarbon flow rates from the six separate sands. Appraisal and development wells could make Davy Jones one of the largest discoveries on the shelf of the Gulf of Mexico in decades.

The nearest Wilcox penetration is 80 miles north of the Davy Jones Discovery, onshore in St. Landry parish. Industry has reported Wilcox penetrations and discoveries (Jack, Kaskida, Cascade, Chinook, St. Malo, Tiber, and others) some 150 to 250 miles to the south and southeast of Davy Jones. The nearest Wilcox penetration to the west of Davy Jones is 120 miles away and there are no Wilcox penetrations on strike to the east.

The important geological results obtained from the Davy Jones Discovery, along with available data from other ultra-deep wells (i.e. Blackbeard), allow McMoRan to redefine its interpretation of the subsurface geologic landscape below 20,000' on the shelf of the Gulf of Mexico.

Deeper potential (below 29,000') on the Davy Jones prospect is the Tuscaloosa interval of Upper Cretaceous age, which produces 100 miles to the north at the prolific False River, Port Hudson, Moore Sams, Morganza and Judge Digby fields. McMoRan is planning an appraisal well to the southwest of the Davy Jones discovery well, which would allow it to test similar stratigraphic section approximately 1,000 feet shallower than in the Davy Jones discovery well and possibly the Cretaceous.