Shallow Oil "Re-Discovery" at Washington Field, St. Landry Parish, Louisiana: New Life from Abandoned, Thin, Multi-Pay, Mid-Frio Zones

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EXTENDED ABSTRACT

Washington Field in central St. Landry Parish, Louisiana (Fig. 1), was discovered by Sohio in January 1952, and had produced to cessation in mid-1990s a total of 330 billion cubic ft of gas (BCFG) and 38 million barrels of liquids (MMBL) from upper Wilcox, Cockfield "B" and "D" sand intervals, and multiple thin pays in the shallower Oligocene middle-Frio sands section. All original production was spread over 8000-plus productive acres.

The established mid-Frio sands section between 6800 ft to 7900 ft subsea (Fig. 2) contains at least 10 to possibly 12 thin oil-productive sand levels, and these had already accounted for 16 million barrels of oil (MMBO) plus 35 BCFG plus large amounts of salt water (re-injected) produced by the mid-1990s. All mid-Frio oil came from very-gentle, low-relief, 20 to 80+ acre closures arrayed west-to-east along the length of the axial crest of the structurally simple Washington Field rollover anticline and downthrown to the regional Washington Field fault (see Figures 3–5). Multiple pays exist in more-or-less aligned and stacked separate four-way gentle closures—occasionally with some stratigraphic complexity (Figs. 5 and 6), and include viable attic reserves "slightly above" previously perforated and produced intervals. Economically viable thin-pay oil sections have ranged from a low of 3 ft up to a field-wide maximum observed 22 ft of oil column on water.

... (Note: The full version of this extended abstract, including complete text, illustrations, and references, will be made available at a later date on both the 2014 GCAGS convention website [www.gcags2014.com] and AAPG Search and Discovery website [www.searchanddiscovery.com]).