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Meeteetse Field, Bighorn Basin, Wyoming

Meeteetse Field (T48, 49N-R99W), Park County, Wyoming is one of the Bighorn Basin's newer significant gas discoveries from Upper Cretaceous Frontier and Lower Cretaceous Muddy sandstones which account for 7 percent of the basin's discovered oil and 16 percent of its gas - 210 million barrels of oil and 110 bcf of gas from 16 Frontier fields, and 1 million barrels of oil and 20 bcf of gas from 6 Muddy fields.

Terra Resources and Cities Service discovered the Muddy shallower pool field in 1980. Ten additional wells have been drilled near the axis of the field which is located at the southern end of a long, narrow, southeast plunging, horst-associated anticline that has Laramide structural relationship to Oregon Basin Field.

Both reservoirs are shallow marine bars and consist of very fine to medium grained siliceous sandstone with clay matrix. Net pay thickness varies between 5 and 20 feet (2-6 meters) and porosities vary between 8 and 14 percent. Reservoir development is highly variable and stratigraphy is a functional aspect of trapping. Commingled ultimate primary production estimates are 5 bcf of gas plus 35,000 barrels of oil per well and 40 bcf of gas, plus 280,000 barrels of oil from the field.

The Muddy and Frontier complex depositional systems have been favorably influenced by a tectonic regime which places these formations in a variety of structural and stratigraphic traps. An active search continues for these popular objectives.