**Introduction**

The U.S. Geological Survey (USGS) has completed an assessment of the undiscovered technically recoverable oil and associated gas resources of the Bakken Formation in the U.S. portion of the Williston Basin of Montana and North Dakota. The assessment was designed to provide estimates of undiscovered technically recoverable oil and associated gas resources to support resource management and planning decisions. The assessment was based on an evaluation of the geology and geophysics of the Bakken Formation, the oil- and gas-producing areas within the Williston Basin, and the potential for future exploration and development.

**Basin Setting and Evolution, and Tectonic Elements**

The Williston Basin is an intracratonic basin that developed on the North American craton during the Ordovician. The basin occupies an area of approximately 120,000 square kilometers and is bounded by the Trans-Hudson Orogenic Belt to the north and east, and the Rocky Mountains to the west and south. The basin is characterized by a series of fault-blocks and half-grabens that provide structural relief and control the distribution of oil and gas deposits.

**Williston Basin Stratigraphy, Total Petroleum Systems, and Hydrocarbon Production**

Approximately 295 million years of sedimentary rocks of the Bakken Formation are present in the Williston Basin. The formation is composed of alternations of sandstone, siltstone, and shale, and contains a variety of oil- and gas-producing reservoirs. The Bakken Formation is a complex succession of sedimentary rocks that were deposited in a variety of tectonic settings, including fore-arc basins and back-arc basins. The formation is characterized by a variety of depositional environments, including marine and non-marine settings, and contains a variety of oil- and gas-producing reservoirs.

**Bakken Formation and Bakken Composite Continuous Reservoir**

Major exploration and development activity in the Bakken Formation has occurred in the Williston Basin since its first discovery at Antelope Field in 1951. The Bakken Formation is composed of a series of stacked sandstone units that were deposited in a variety of tectonic settings, including fore-arc basins and back-arc basins. The formation is characterized by a variety of depositional environments, including marine and non-marine settings, and contains a variety of oil- and gas-producing reservoirs.

**Bakken Deposition and Bakken-Lopegepe TPS**

The Bakken Formation is a series of carbonate deposits that were deposited in a variety of tectonic settings, including fore-arc basins and back-arc basins. The formation is characterized by a variety of depositional environments, including marine and non-marine settings, and contains a variety of oil- and gas-producing reservoirs. The Bakken Formation is a complex succession of sedimentary rocks that were deposited in a variety of tectonic settings, including fore-arc basins and back-arc basins. The formation is characterized by a variety of depositional environments, including marine and non-marine settings, and contains a variety of oil- and gas-producing reservoirs.