LOW-BTU Gas Areas in Kansas.

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Low BTU gas, defined as having a heating value <950 BTU/scf, has commonly been shut in behind pipe or abandoned after discovery if it could not be blended with any readily available higher-BTU gas. Utilization of this low-BTU resource is increasingly possible with new upgrading technologies and favorable pricing for natural gas.

Low-BTU gas in Kansas is primarily diluted with the non-combustibles gas nitrogen, and subsidiary amounts of helium. The presence of helium can be good because it can be recovered as a salable gas. Argon and carbon dioxide can also be present, but they are usually not a problem, commonly composing less than 0.5% of the total gas.

Low-BTU gas comprises as many as one third of the gas discoveries in Kansas. The percentage of noncombustible component gases and the nitrogen-to-helium ratio of natural gas increases with decreasing age of the producing formation.

Several localities have sufficient recorded occurrences of low-BTU gas to indicate the presence of a producing trend or play. Some of these trends include: Permian Chase Group west of the Central Kansas uplift and on the eastern side of the Hugoton gas field; Pennsylvanian Topeka Limestone and Permian Red Cave Sandstone in the vicinity of the Greenwood gas field; Cambrian-Ordovician Arbuckle, Pennsylvanian Lansing-Kansas City, Shawnee and Douglas Groups on the perimeter of the Central Kansas uplift and in sporadic localities in the southern Cherokee basin and Sedgwick basins; and Mississippian chat on the western flank of the Pratt anticline.