

1. Post-Lewis, pre-Lance time: broad regional uplift occurred along the western margin of Wyoming; a westward-trending gentle anticline formed in central Wyoming; the Medicine Bow and Uinta mountains began to rise.

2. Close of Cretaceous time: sharply folded anticlines, overthrust toward the west, developed in Jackson Hole; local anticlines formed in south-central and southwestern Wyoming; some eastward thrusting may have occurred in westernmost Wyoming; broad mountain arches rose in approximate positions of the present Salt River, Wind River, Granite, Bighorn, Medicine Bow, and Sierra Madre mountains; regional uplift occurred in the southeast corner of Wyoming.

3. Close of Paleocene time: Salt River and Wyoming ranges were thrust toward the east; southward thrusting occurred along the western part of the Owl Creek Mountains and at the south end of the Bighorn Mountains; the Wind River Mountains were thrust southwest; other mountain arches and major anticlines continued to rise.

4. Close of earliest Eocene (Indian Meadows) time: rapid uplift accompanied by extensive erosion occurred in the Bighorn, Beartooth, Owl Creek, Wind River, Granite, Medicine Bow, and Laramie mountains; the east flank of the Medicine Bow Mountains was thrust east; southward thrusting occurred along the south flank of the Owl Creek, Washakie, and Granite mountains; southeastward movement emplaced the South Fork thrust block near Cody.

5. Close of early Eocene time: southwestward thrusting occurred in the northwest part of the Wind River basin, eastward thrusting in the central Bighorn Mountains; southeastward movement emplaced the Heart Mountain thrust sheet; recurrent folding continued along many previously formed anticlines.

6. Close of middle Eocene time: the Uinta Mountains were thrust northward.

7. Close of Eocene time: southeastern Wyoming again was regionally uplifted and rugged topography developed on this upland; gentle folding and small-scale faulting occurred in southwestern and northwestern Wyoming.

8. Close of Oligocene time: gentle northwestward-trending folds developed in central Wyoming; gentle warping occurred in the Absaroka region; the southeast rim of the Powder River basin may have been tilted southeast at this time.

9. Close of early Pliocene time: extensive thrust sheets moved southwestward in southern part of Jackson Hole, and the western part of the Gros Ventre Mountains was uplifted.

10. Post-middle Pliocene, pre-Pleistocene time: large-scale block faults developed in many parts of Wyoming; the floor of Jackson Hole dropped several thousand feet; the southern end of the Wind River Mountains collapsed; the central arch of the Granite Mountains dropped several thousand feet; local areas west of the east margins of the Sierra Madre, Medicine Bow, and Laramie mountains were downdropped; part of the Rawlins uplift collapsed and a broad westward-trending anticline formed south of Rawlins; a large area southeast of the Hartville uplift was down-faulted; the southern end of the Bighorn Mountains probably collapsed at this time.

9. P. W. REINHART, Shell Oil Company, Casper, Wyoming, "The Ash Creek Oil Field, Sheridan County, Wyoming."

The Ash Creek oil field is located in the northernmost part of Sheridan County, Wyoming. Discovered in April, 1952, the field had seven producing wells as of January, 1953, and development drilling was continuing as of that date. The wells produce from an Upper Cretaceous sandstone 20 feet thick at a depth of approximately 4,700 feet. Production from the field has been curtailed to less than 100 barrels per day pending completion of arrangements to transport the oil. The oil accumulation is the result of a structural trap consisting of a broad, plunging nose cut by a transverse zone of normal faulting. The exploration methods used in mapping the geology of this area include photogeology, surface geologic mapping, seismic work, core drilling, and wildcat drilling.

10. V. E. MCKELVEY, Trace Elements Office, U. S. Geological Survey, Washington, D. C., "Search for Uranium in the Western States."

The search for uranium in the United States is one of the most intensive ever made for any metal during our history. The number of prospectors and miners involved is difficult to estimate, but some measure of the size of the effort is indicated by the fact that about 500 geologists are employed by government and industry in the work—more than the total number of geologists engaged in the study of all other minerals together except oil.

The largest part of the effort has been concentrated in the western states. No single deposit of major importance by world standards has been discovered, but the search has led to the discovery of important minable deposits of carnotite and related minerals on the Colorado Plateau; of large, low-grade deposits of uranium in phosphates in the northwestern states and in lignites in the Dakotas, Wyoming, Idaho, and New Mexico; and of many new and some promising occurrences of uranium in carnotite-like deposits and in vein deposits. Despite the fact that a large number of the districts considered favorable for the occurrence of uranium have already been examined, the outlook for future discoveries is bright, particularly for uranium in vein and in carnotite-like deposits in the Rocky Mountain states.