



Photo 1. Looking east toward Sentinel Mountain. Notice the vegetation on the lower Dakota sand on top of the mountain and the scalloped erosional pattern of the upper Dakota sand. Benton and probably Niobrara formations underly the topographically flat areas from this position to the base of Sentinel Mountain.

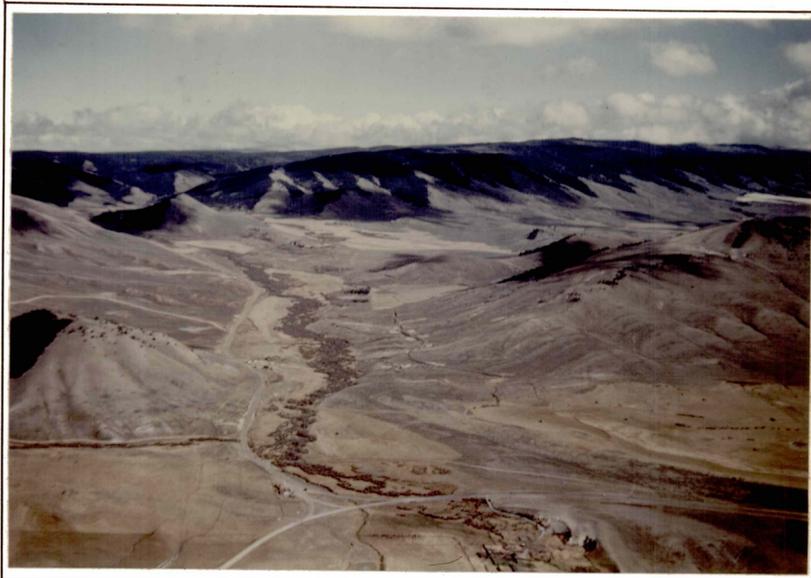


Photo 2. Air view looking east. Sentinel Mountain is at right center. The stream valley is following the trace of the Independence Mountain Fault System which truncated the fold at right. There are two faults in this system, each of which passes on either side of the two small hills of pre-Cambrian rock in left foreground and distance. Erosion along these faults has produced these topographic features.



Photo 3. Looking south toward Sentinel Mountain at right. The nob at left is pre-Cambrian overlain by west dipping sediments. The valley and vegetated slope are Chugwater. The lower line of vegetation marks the Sundance sand, with the Lower Dakota vegetation atop Sentinel Mountain. Notice the soil coloration of the Chugwater in the foreground.



Photo 4. Air view looking north. Sentinel Mountain in center of picture with vegetated Lower Dakota on top. Notice the scalloped Upper Dakota member swing around the nose of the mountain indicating an anticlinal fold. The small hill in upper right background is pre-Cambrian core of this fold.



Photo 5. Air view looking south. Sentinel Mountain at right, pre-Cambrian nob in center overlain by dipping strata. The small valley at left of nob marks reverse fault involving the pre-Cambrian nob and the sediments to the right. Notice the red coloration in the railroad cut here. This is Chugwater which rests against gray colored Benton shales to the left which, in turn, rest on Dakota sands out of picture to left. This Chugwater is almost vertical and indicates folding of the sediments over the pre-Cambrian core prior to faulting.



Photo 6. Air view looking south. Sentinel Mountain is center. The pre-Cambrian is seen at far left followed by Chugwater (vegetated), Sundance (first ridge), Morrison, Lower Dakota (vegetated and atop Sentinel Mountain), Upper Dakota (scalloped), and Benton shales which are poorly exposed. Notice the tendency of the beds to swing to the left around the nose of the pre-Cambrian nob. An east-west fault lies approximately in the stream left foreground and has truncated this nose.