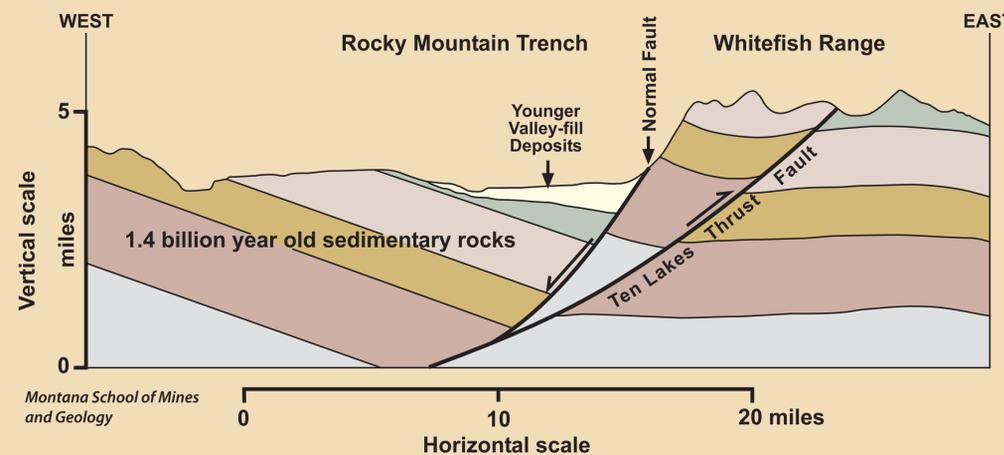


The Rocky Mountain Trench



Eureka is situated in a 1000-mile long valley called the Rocky Mountain Trench. This gigantic rift valley stretches all the way from the British Columbia-Yukon border south to the St. Ignatius area and averages about 15-miles wide. The high mountains on both sides of the trench are composed of Precambrian sedimentary rocks that were deposited in an inland sea more than 1.4 billion years ago. But the mountains themselves did not begin forming until about 110 million years ago when the North American tectonic plate overrode the Pacific plate far to the west. This collision shoved enormous pieces of the earth's crust eastward, where they rode up and over the rocks to the east along thrust faults and stacked up "like shingles on a roof" to create the Rocky Mountains. Then, about 55 million years ago, the tectonic setting changed and the earth's crust in this region began to pull apart, reversing the movement on some of the "shingles" and dropping them back down along normal faults.

The rounded hills along the highway north of Eureka are called drumlins. The elongated hills consist of glacial till that form near the lower ends of glaciers where the ice is thin. The hills are oriented parallel to the movement of the ice with the higher blunt end facing into the glacial movement and the thin tails trailing off in the downflow direction. Drumlins are whale-shaped in profile and like schools of monstrous tadpoles from the air. The hills usually occur in groups called a drumlin field.



The Long, Long Trail
 Montana Highway 37 originated as part of the Theodore Roosevelt Highway, an early interstate highway that stretched 4,000 miles between Portland, Maine and Portland, Oregon. The road was an interconnected series of county roads that spanned 750 miles across Montana. The Bureau of Public Roads constructed the section from Eureka west to Libby in 1922; it was the last section of the road to be completed in Montana.

Geo-Facts:

- In Canada, the Rocky Mountain Trench is sometimes called "The Valley of a Thousand Peaks."
- Scientists aren't sure how drumlins form because they form out of sight under the ice. Many think that they are created when highly pressurized water floods out from underneath glacial ice. Perhaps they are waveforms similar to ripples of sand at the bottom of a stream.
- The Theodore Roosevelt Highway is now known as US Highway 2.

Geo-Activity:

- Look at the drumlins as you pass by on the highway and see if you can tell from which direction the ice sheets came from.