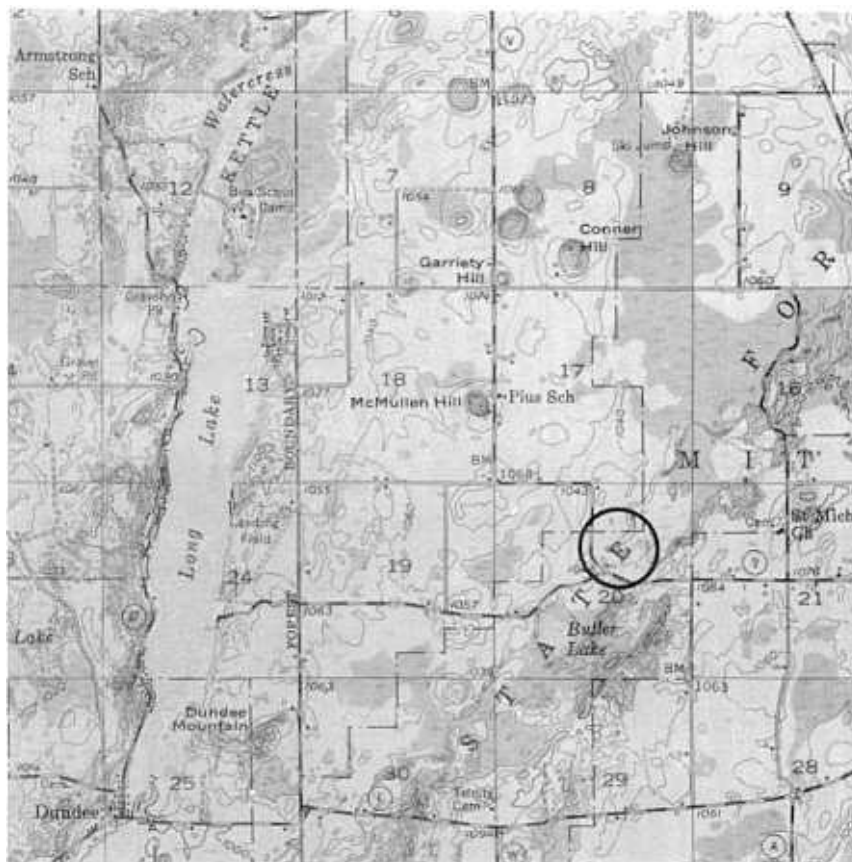


Title: Parnell Esker - Gravel Pit

Location: SW 1/4, NE 1/4, Sec. 20, T. 14 N., R. 20 E., Kewauskum 15' Quadrangle, Sheboygan County. Stop along the road and walk in to the old gravel pit.



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Description: If you drove in from the north, you may have noticed a long, low ridge across the field to the east. You can now examine the materials in the ridge. Contrast the nature of the deposit with Garriety Hill. Since the gravel pit is no longer used, bedding due to water deposition is difficult to see but it is there. If the exposure were good, you would see that it is collapsed along the edges of the ridge. Unlike Garriety Hill, the materials are well rounded (most of the sharp edges are worn off) suggesting water transport. The deposit is also better sorted and shows less range in grain size. In addition, unlike Garriety Hill, no inclusions of till are present in the exposure. Thus we see evidence of considerable transport by running water in contact with glacier ice.

The environment of deposition that can be postulated for an esker like this is a stream flowing in a tunnel beneath or in glacial ice. The Parnell esker can be traced as a discontinuous ridge for several miles and was produced as water flowed toward the southwest through an ice tunnel. Gravels deposited by the stream filled the tunnel and, after the surrounding ice melted, produced this long sinuous ridge. Eskers and kames are considered to be ice-contact stratified drift.

Significance: This and Garriety Hill show a number of clear contrasts even though the deposits are both considered ice-contact stratified drift. Try to list these differences.

References: Alden 1918, Black 1971, 1974