

# **THE GALLATIN PETRIFIED FOREST, TOM MINER BASIN, MONTANA - A HIKE THROUGH A 50 MILLION YEAR OLD FOREST**

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A SELF-GUIDED FIELD TRIP COMPILED BY WHITEHALL GEOGROUP, INC.

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## **Background**

Petrified forests provide a unique view of past landscapes and ecosystems. Almost 26,000

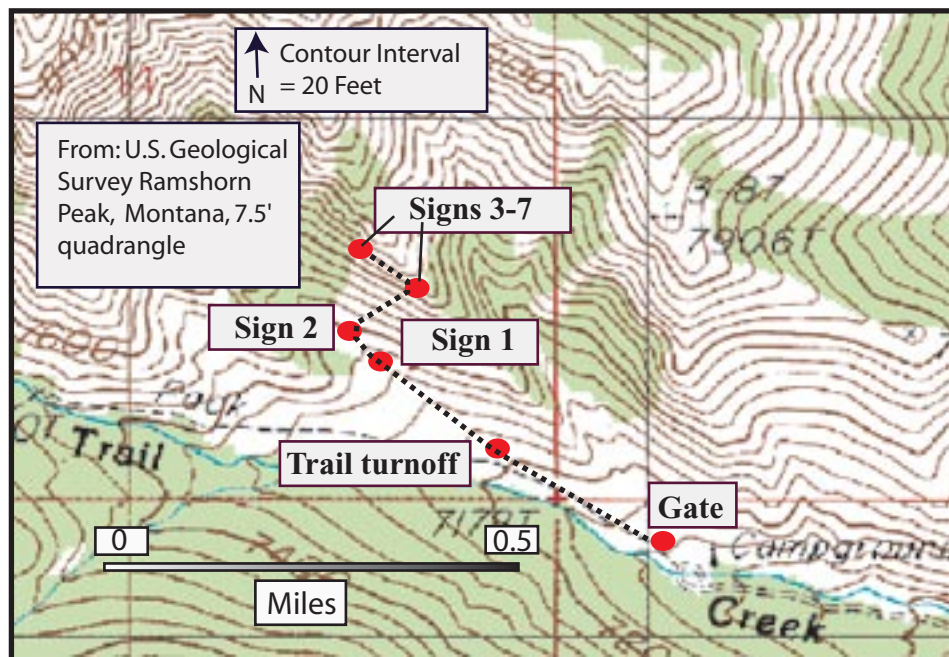


Figure 1. Petrified Forest Interpretive Trail No. 286.

acres of the southern Gallatin National Forest comprise a special management zone, the Gallatin Petrified Forest. This management zone contains one of the most well-preserved and extensive examples of an Eocene – approximately 50 million year old – forest. The U.S. Forest Service constructed a signed interpretive trail, Petrified Forest Trail No. 286, that is a two-mile loop

through a part of the Gallatin Petrified Forest. This interpretive trail lies within the upper Tom Miner Basin in sections 14 and 24, Township 8 South, Range 5 East, Gallatin County, Montana (Figure 1). The interpretive trail is the basis for the geology hike presented in this self-guided field trip.

From about 53 to 44 million years ago, in Eocene time, extensive volcanic activity occurred throughout the southwestern Montana – northwestern Wyoming region. Lava flows, thick blankets of volcanic ash, and debris flows resulted from the volcanism. The volcanic deposits and debris flows covered large portions of the landscape, burying forests and filling stream valleys. In between volcanic pulses, streams and rivers reworked ash and flow material into fluvial deposits.

The Tom Miner Basin and the surrounding peaks of the southern Gallatin Range contain approximately 6,000 feet of Eocene age rocks that yield radiometric age dates ranging from about