The evidence for prehistoric use of the Grand Portage trail has previously been relegated to the areas in the vicinity of Grand Portage Village and Fort Charlotte. This survey investigated selected areas along the full length of the Grand Portage National Monument to determine the presence or absence of prehistoric archaeological material, and possible use of the trail corridor before the historic era.

In May of 2007 the Mississippi Valley Archaeology Center at the University of Wisconsin-La Crosse in partnership with the National Park Service and the Grand Portage Band of the Lake Superior Ojibwe undertook a Phase I survey at selected sites within the Grand Portage National Monument. Survey locations were chosen on the basis of the results of recent historic archaeology surveys, inland water source locations and demonstrated posé (resting) sites. In addition, geomorphologically identified locations where the modern Grand Portage trail crosses ancient pro-glacial lake shorelines were investigated with the possibility of identifying evidence of the earliest possible human occupation (Late Paleoindian) at the Monument.

Over 220 shovel test pits were dug in six prioritized survey areas. A single shovel test on Thompson's Ridge midway along the Grand Portage trail recovered two tertiary flakes, one made from Jasper Taconite the other from Gneiss Silica. Having flakes made from two distinct materials indicates prehistoric or very early historic tool finishing or resharpening. Whether this site (Thompson Ridge II [21Ck348]) indicates prehistoric/early historic or more general subsistence/settlement use of the Poplar Creek watershed remains a topic for further investigation. Of paramount importance is determining the age and cultural affiliation of the site through recovery of diagnostic tools or a datable feature.