

BOILING SPRINGS

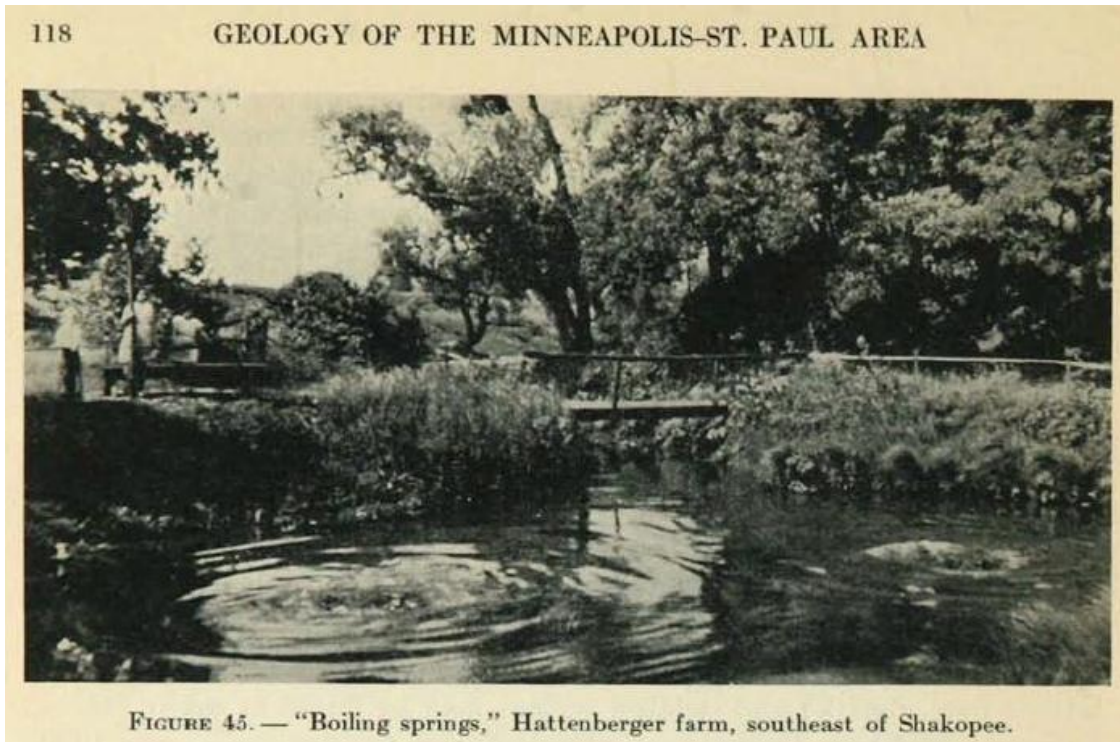
Boiling Springs (T. 115, R. 21, S. 18) is the origin of Eagle Creek, a trout stream located in Scott County, which flows 1.9 miles northeast across a floodplain to the Minnesota River near the city of Savage, MN. It is called a “boiling” spring not because of its temperature, as it is actually a cold water resource, but because the spring water upwells into a small pool of water, “boiling” its surface. The boiling is not continuous, but occurs at intervals, because the fine sediments in the pool periodically settle out of the water column sufficiently to block the orifice. The spring water eventually erupts through this cap, however, and the cycle begins anew.

While the spring was doubtless known to early settlers, the first substantive account by a geologist is by Newton Horace Winchell (1888), in his *Final Report*, Vol 2, p. 146:

Springs. The remarkable springs which supply the water-powers of several mills in northern Scott county, have been already mentioned. One of these, on the west branch of Eagle creek, near the west line of section 18, Glendale, is said to be intermittent, alternately flowing a few minutes and then stopping for an equal or longer time. It seems probable that Prior lake, which has no visible outlet, flows underground to some of these springs in sections 17 and 18, Glendale. At its northeast extremity a narrow strait leads into a little lakelet, called Pocket lake, having an area of about two acres. At times of low water in Prior lake, which is said to vary six feet in its height, a current runs from it into Pocket lake; and it is reported that once the water was so low as to divide them, when Pocket lake became nearly drained, being made several feet lower than Prior lake.

Schwartz (1936) in *Minnesota Geological Survey Bulletin 27*, devotes one paragraph to it, including a photograph:

The so-called “boiling springs” on the Hattenberger farm, about three and one-half miles west of Savage (Sec. 18, T. 115 N., R. 21 W., Glendale Twp.), are probably of this same type. Tests indicate that the dolomite lies only 30 feet below these springs, which form a pool along a small creek valley. These springs “boil” vigorously at intervals of a few minutes. Normally the “boiling” raises the water a foot or more above the surface of the pools but the owners report that occasionally the agitation is much more violent, reaching a height of two or three feet. The water is of normal temperature and the “boiling” is merely an up-welling of water under pressure, probably due to a very fine suspended clay in the pool, which settles down and confines the water until the pressure builds up sufficiently to burst through the clay. This would also explain why the “boiling” shifts from place to place in the pool. (See Figure 45.) It is possible that the water may be supplied from fissures in the dolomite rather than from unconsolidated deposits.



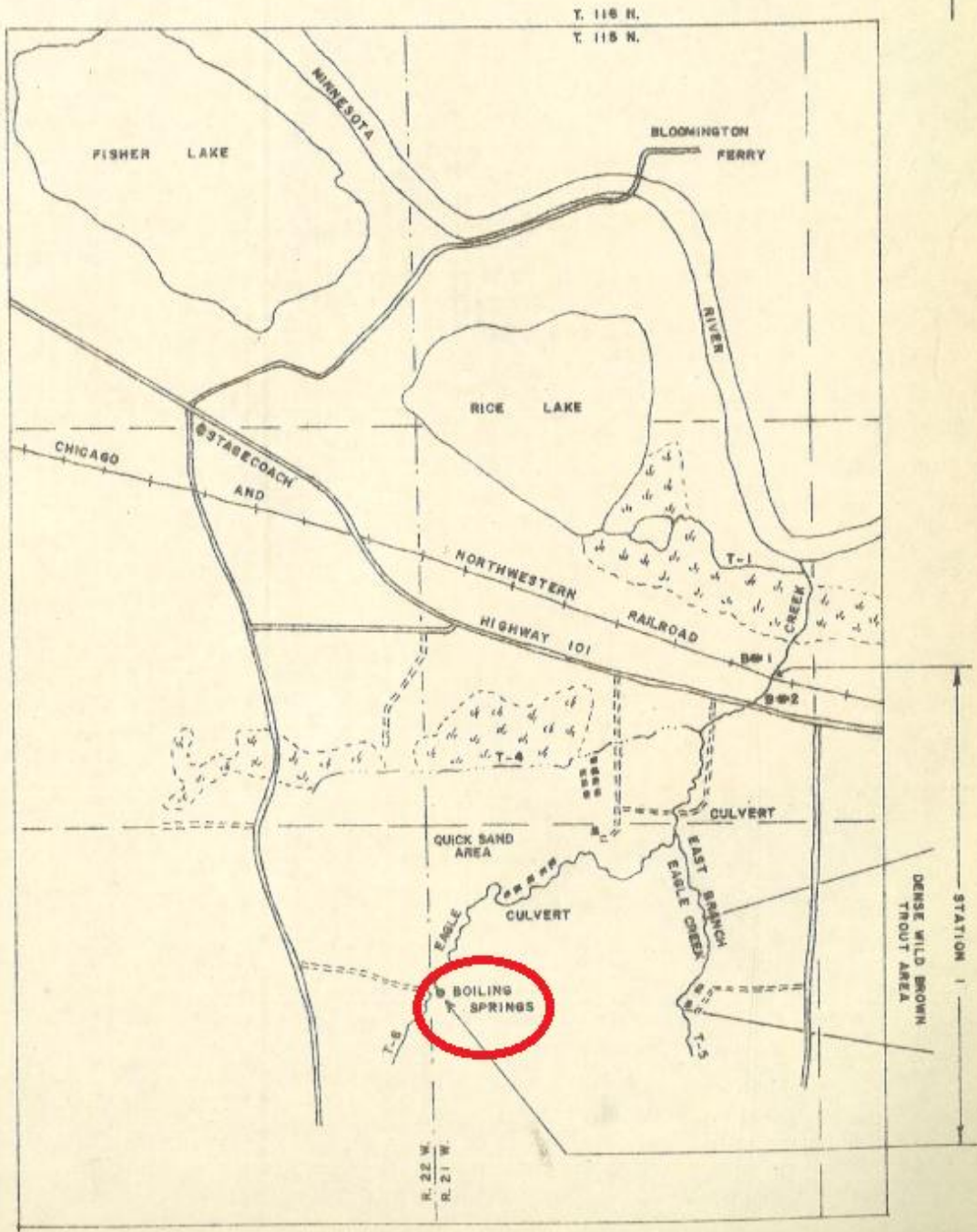
This information on Boiling Springs is repeated verbatim by Schwartz and Thiel (1954) in *Minnesota Geological Survey Bulletin 37*. According to the 1982 *Geologic Atlas of Scott County*, the bedrock at Boiling Springs is Prairie du Chien Group (Plate 5) and the surficial geology is Holocene “Dune Sediment” (Plate 2). Groundwater flowing upwards under artesian conditions from the underlying dolomite bedrock passes through the unconsolidated overburden onto the surface.

The Boiling Springs parcel is on record as being currently owned by DNR Lands and Minerals.

HAZARDS. A Stream Survey by DNR Fisheries were completed in 1954, and updated in 1967. The 1967 survey states that “Boiling Springs...creates a ‘quick sand’ situation. This area has been fenced to eliminate the hazard. The spring flow was measured at 4.0 c.f.s in 1954 and appears to have about the same flow now.... There is another spring similar to Boiling Springs but much smaller, located about ½ mile downstream.... A nearby landowner related how some time ago he rescued a fisherman who was stuck and sinking there.” The map accompanying the 1967 survey notes a “Quick Sand Area” nearby. However, the 1980, 2002, and 2005 surveys do not describe further incidents.

1967

EAGLE CREEK
SCOTT COUNTY
T. 115 N. R. 21, 22 W.



TRIBUTARY STREAM INVENTORY - METRO REGION - PART 2

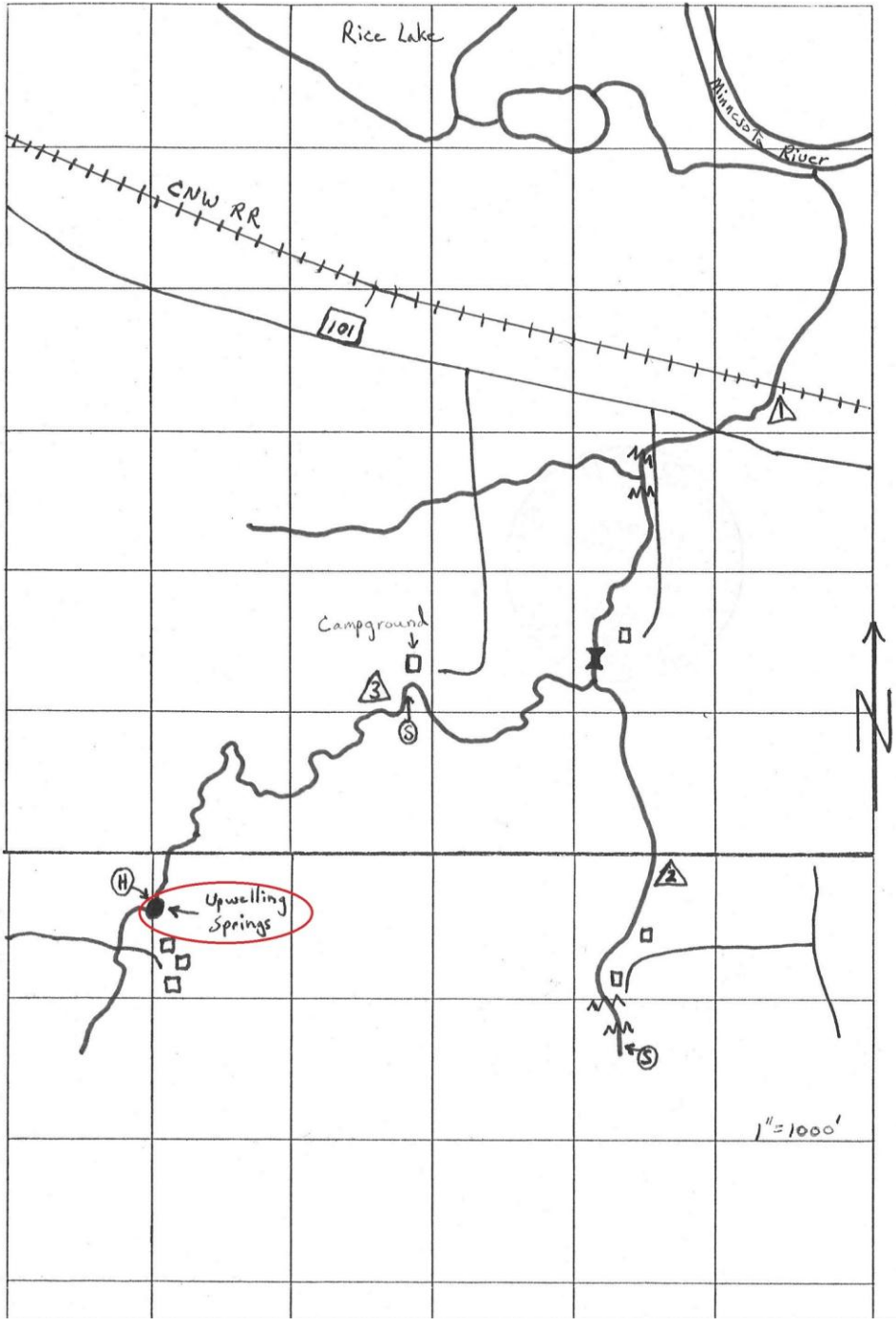
STREAM NAME : *Eagle Creek* COUNTY : *Scott*

TOWNSHIP(S) : *116* RANGE(S) : *21* SECTION(S) : *7, 18*

TRIBUTARY NUMBER : *M-559, M-55-23* LENGTH OF STREAM : *2.3* miles

TOWNSHIP N

TOWNSHIP N



1980