

Harry Severance Spring

Crook County
T 18 S, R 22 E, SW corner
Sec. 24 or NW corner Sec. 25.

This spring is located in an isolated canyon of the South Fork of the Crooked River south of the Post-Paulina highway. It is reached best by way of the road up Camp Creek which takes off from the highway at a point about eight miles west of the South Fork crossing.

The Camp Creek road leads by a reservoir and then past a grassy meadow approximately ten miles from the highway. A secondary access road turns from the Camp Creek road on the top of a steep hill adjacent to the meadow. The turn off is in the form of a sharp switchback to the left, following which the secondary road winds its way eastward over the divide to a point on the plateau near the breaks to the South Fork canyon.

Four gates are encountered between the switchback and the eastern margin of the South Fork canyon. The first gate leads thru a fence line on the first branch road encountered. This gate and the branch road should be ignored and the fork which follows along the south side of the fence should be followed. The second gate should be passed through, after which the road leads around a hill for a mile or so and thence back to the fence and the third gate. The fourth gate is located a very short distance beyond the third gate, but it is in a clump of juniper trees and can be very easily missed. One should park by this gate even though the road continues on toward the river.

From the fourth gate one must walk generally northward for approximately half a mile over a rocky field and low hill to the head of the first ravine which descends to the river from the north side of the hill. This ravine must be followed to the river, from which point cowtrails lead upstream to, and on past, the springs. Twelvemile Table, a broad flat, uneroded lava surface, borders the eastern flank of the river canyon in the spring area. The river margin of this surface is recessed in only one place by a short but conspicuous draw which enters the river a few hundred yards downstream from the mouth of the access ravine. This draw is conspicuous from the head of the access ravine and at most times during the descent. It serves as a landmark for identifying the access ravine.

The spring is comprised of two areas in which gas is given off from a number of closely spaced places on the river bottom. These places can be recognized by gas which rises to the surface in a chain of small bubbles, in some places continuously, and in other places intermittently. Only one small seepage occurs on land and this issues from an area not over a yard square situated directly in the river bank.

One of the ^{spring} areas is located along a fifty foot section of the west bank. The gas escape is most abundant along the bank, but leakage also occurs from random midstream points as well. The second site of gas escape is located about 300 feet upstream from the one just described. It occupies a smaller area, has fewer points from which gas is given off, and the discharge has a tendency to be more sporadic than at the downstream spring. Another difference is that the upstream spring has a weak, but clean-cut line of leakage points which extends diagonally across the river to the east bank. The above-water seepage on the west bank is on this line.

The water from the seepage tastes mildly soda-like and has a temperature of 58° F. That given from the bed of the river could not be tested, but there was a soapy cast to the water in the quiet portions of the pools in each escape area and a greater abundance of water plants in these pools. From this it may be inferred that the springs, particularly the downstream set, contribute a fairly strong flow of water to the river, if the apparent lag of co-mingling between the spring waters and the river water is any criteria.

No evidence of any additional outflow of soda water on the banks, or of gas in the river, was observed for a distance of a half mile above the uppermost spring and a quarter mile below the downriver stream. It can be concluded therefore that the springs are restricted to the areas already described unless there are unobservable dry leakages of gas at places in the unconsolidated rubble of sediments and talus which line the river banks.

No gas sample was taken because of the isolated location of the springs and the relatively small areas over which leakage can be observed. Various informants report that the gas is carbon dioxide, however, and, in view of the soda-like nature of the water, it probably is.

Porphyritic Tertiary andesite covers the plateau surface on the eastern side of the canyon. Other Tertiary volcanics, including tuffs, underlie the surface andesites and these constitute the bedrock in the canyon bottom where the spring discharges occur.

Examination by: Wagner & Brooks.

Reported by: N. S. Wagner

Date of exam: Sept. 7, 1958.

Date of report: Feb. 24, 1959