

T. 16 N., R. 45 E.

Chains

This survey was executed with Buff and Buff solar transit No. 9983 and W. and L. E. Gurley solar transit No. 262669, property of the General Land Office. These instruments were equipped with Smith solar attachments and with full vertical circles. The horizontal circles are equipped with two double verniers, reading to single minutes of arc, which is also the least count of the verniers of the vertical circles and the latitude and declination arcs of the solar attachments.

These instruments, having been tested and found free from appreciable error, were approved by the district cadastral engineer in assignment instructions dated June 3, 1937. These instruments were maintained in good adjustment during the progress of the field work. Gurley transit No. 262669 was kept in the best possible condition for the special purpose of determining meridians by stellar and solar observations at points on line during the survey.

In this survey, all controlling meridians were established by observations upon Polaris and the true bearings of the surveyed lines were deflected from the meridians thus obtained and carried forward by transit angle, taking direct and reversed sights at each transit station. The solar attachments, while kept in satisfactory adjustment and frequently tested against the meridian, were not used. Determination of meridians by direct solar or Polaris observations were frequently made. The detailed record of these observations is to be found in the field notes of T. 16 N., R. 46 E. surveyed under this group.

The measurements were made with Lallie steel ribbon tapes eight chains in length. These tapes were graduated every link for the first 100 links and thereafter at intervals of 10 links. The tapes were compared with a Lufkin standard steel tape one chain in length and found to be correct. Measurements were made on the slopes; the vertical angles were determined with improved type clinometers; the slope measurements were properly reduced to corresponding horizontal distances which appear in these notes.

DEPENDENT RESURVEY OF A PORTION OF THE THIRD STANDARD PARALLEL NORTH
THRU RANGE 45 EAST

Reestablishing the survey executed by C. C. Tracy, Deputy Surveyor,
in 1867.

The std. cor. of secs. 33 and 34 on the S. bdy. of T. 16 N., R. 45 E., is a decayed aspen stake, 2x2x26 ins., with faint scribe marks on two faces, lying on a small distinct mound of earth.

At point for cor., in center of mound,

Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, with the original corner stake deposited at the base, for the standard cor. of secs. 33 and 34, with brass cap mkd.

SC

T16N R45E

S33 | S34

1937

raise a mound

of stone, 2 $\frac{1}{2}$ ft. base, 2 ft. high, N. of cor.

Thence

S. 89° 05' E., on true line, along S. bdy. sec. 34 (west $\frac{1}{2}$ mile).

Over gentle W. slope thru medium dense low undergrowth.

39.98

The std. $\frac{1}{4}$ sec. cor. of sec. 34, which is an aspen stake, 2x2x24 ins. lying on a small mound of earth and stones. No markings visible on the stake although the surfaced faces definitely indicate it to be the original monument.