

Township 45 North, Range 33 East

Chains

The south and east boundaries, a portion of the north and west boundaries and a portion of the subdivisional lines were surveyed by G. W. Garthside and C. L. Preble in 1874. The south one mile of the west boundary was dependently resurveyed by J. W. Hardison in 1938. The south boundary was dependently resurveyed by W. H. Sylvester concurrently under this same group.

The following field notes are those of a dependent resurvey of the east boundary, a portion of the north boundary, and a portion of the subdivision of T. 45 N., R. 33 E.

The survey was requested by the Bureau of Land Management State Supervisor for Nevada, to provide identification of boundaries of desert land entries in an area believed to have adequate underground water supply and to locate certain range improvements.

The survey was executed with W. and L. E. Gurley transits, serial numbers 541409 and 570628, both being the property of the Bureau of Land Management, and constructed in accordance with their standard specifications.

The horizontal plates have two double verniers placed opposite to each other and the vertical circles have one double vernier. The horizontal verniers are graduated to 30" of arc and the vertical verniers are graduated to single minutes of arc. The instruments were in good adjustment, and prior to the beginning of the field work they were examined and all errors eliminated. They were maintained in good adjustment during the survey.

The directions of all lines were determined by stellar observation and by direct solar method and the measurements were made with Lufkin steel tapes 8 chains in length, graduated to one tenth link for the first 10 links, and each link for the next 90 links, and every 10 links for the balance. The tapes were tested by comparison with a one chain standard tape and found correct. All measurements were made on the slope, and the vertical angle of each interval ascertained by a clinometer in good adjustment; the horizontal equivalents only are entered in the field note record.

The transits were checked from time to time on the camp meridian which was established by the following direct solar observation: July 12, 1958, at cor. of secs. 21, 22, 27 and 28, T. 46 N., R. 33 E., in latitude $41^{\circ} 49' 40''$ N. and longitude $118^{\circ} 15' 30''$ W., I make a series of 6 altitude observations upon the sun for azimuth, 3 each with the telescope in direct and reversed positions, and observe the horizontal angle from a flag on a random sec. line, in clockwise direction to the sun.

Time of observation (120th meridian, standard time)	9h 00m
Mean observed vertical angle	$35^{\circ} 47'$
Mean horizontal angle	$91^{\circ} 26' 30''$
Declination of the sun	$12^{\circ} 24' 40''$ N.
True bearing of line	N. $0^{\circ} 02'$ E.

The geographic position of the SE. cor. of the township is latitude $41^{\circ} 42' 30''$ N.; longitude $118^{\circ} 12' 17''$ W.

The mean declination is $18^{\circ} 30'$ E.

Dependent Resurvey of the E. Bdy., T. 45 N., R. 33 E.

Reestablishment of the survey executed by G. W. Garthside and C. L. Preble in 1874.

Beg. at the cor. of Tps. 44 and 45 N., Rs. 33 and 34 E., set, mkd. and witnessed as described in the field notes of T. 44 N., R. 34 E., surveyed concurrently under this same group.