

T. 21 S., R. 62 E.

Chains

Resurvey commenced February 2, 1943, and executed with Young and Sons solar transit No. 8395 and Buff and Buff solar transit No. 17994. The instruments are the property of the General Land Office and are equipped with Smith solar attachments and full vertical circles. The horizontal limbs are provided with two double verniers placed opposite to each other and reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs and vertical circles. The instruments were approved for use on this survey, conditional upon satisfactory field tests, by the district cadastral engineer in assignment instructions dated September 24, 1943. The instruments were in good adjustment at the beginning of the resurvey, and were tested and found free from any appreciable error.

The country over which the lines were extended was open, and the solar attachments were not used. All azimuths in the record are referred to true meridians determined by observations made upon Polaris during the progress of the work. The bearings of the lines were determined by deflection angles from these true meridians, and the lines were carried forward by fore and back sights.

The measurements were made with Lallie steel tapes 5 chs. in length, graduated every link for the first 100 links and thereafter at intervals of 10 links. The tapes were tested, comparison being made with a Lufkin standard steel tape one chain in length and found correct. The measurements were made on the slope, the vertical angle determined with clinometers in good adjustment, and the slope measurements properly reduced to true horizontal distances which appear in this record.

Preliminary to the resurvey, the lines of the original survey are retraced and diligent search is made for all original corners. Identified corners of the original survey are restored in their original positions. All lost corners are reestablished at proportionate positions, based on the record of the original survey. The retracement data are thoroughly verified and only the true line notes are given herein.

The approximate geographic position of the southeast corner of the township is latitude $36^{\circ} 04' N.$ and longitude $114^{\circ} 59' 30'' W.$

Dependent Resurvey of the Fifth Standard Parallel South;
along the South Boundary of T. 20 S., R. 62 E.

Reestablishment of surveys executed by Brunt and Proctor,
Deputy Surveyors, in 1881:

March 29, 1943, stationed at the stan. cor. of Tps. 20 S., Rs. 62 and 63 E., an iron post, 3 ins. diam., set, mkd., and witnessed as described in the official record, in approximate latitude $36^{\circ} 09' N.$, longitude $114^{\circ} 59' 30'' W.$, at 7^h 24^m a.m., local mean time, I make an hour angle observation on Polaris east of the meridian, making four observations, two each with the telescope in direct and reversed positions, reading the horizontal deflection angle from a flagpole about 20 chs. to the N., in a clockwise direction to the star.

Watch time of observation - - - - - 7h 04.0m a.m.
Mean horizontal deflection angle,
star to flagpole - - - - - $1^{\circ} 15'$.
Azimuth of Polaris - - - - - $1^{\circ} 15' E.$
True bearing to flagpole - - - - - North.

S. $89^{\circ} 31' W.$, along the S. bdy. of sec. 36, T. 20 S., R. 62 E.

Ascend broken SE. slope of mountainous land, through dense short undergrowth.