

Independent Resurvey, Third Stan. Par. N., along S. Bdy., T. 16 N., R. 60 E.

Chains

This line was surveyed by E. B. Monroe, Deputy Surveyor, in 1869. An examination was made of this line in 1945 by Dupree R. Averill and Roger F. Wilson, Cadastral Engineers. This examination revealed that although several original corner monuments were extant on this line, discrepancies in the original measurements render the original line unsuitable as a basis for the survey of the subdivision of T. 16 N., R. 60 E.

The following field notes are those of an independent resurvey of this line, run between the extant original corners at the SE. and SW. township corners of T. 16 N., R. 60 E. All recovered intervening original corners are destroyed.

The survey was executed with a W. and L. E. Gurley transit, property of the Bureau of Land Management, equipped with full vertical circle and Smith type telescopic solar attachment. The instrument was thoroughly tested and adjusted prior to, and was kept in good adjustment throughout the course of, the field work by comparing the solar meridional indications with true meridians determined by frequent Polaris observations. The details of one of these observations is shown below.

Measurements were made with a narrow steel tape, 5 chains long. The tape was tested prior to beginning the field work by comparison with a Lufkin standard steel tape, 1 chain long, and found correct. All measurements were made on the slope and vertical angles were determined by use of a clinometer kept in good adjustment throughout the course of the work. Only the reduced horizontal equivalents of the slope measurements appear in this final field note record.

The geographic position of the standard cor. of Ts. 16 N., Rs. 59 and 60 E., determined by scaling from U.S.G.S. topographic sheet entitled "Illipah Quadrangle" is, latitude $39^{\circ} 12' 08''$ N., longitude $115^{\circ} 16' 17''$ W.

September 15, 1953, at the standard cor. of Ts. 16 N., Rs. 60 and 61 E., in latitude $39^{\circ} 12' 09''$ N., and longitude $115^{\circ} 09' 30''$ W., at 6h 15.3m p.m., l.m.t., we make an hour angle observation on Polaris, East of the meridian, reading the horizontal deflection angle from a flag, about 20 chs. N., in the direction N. to E. (The assumed bearing of this flag, as determined by deflection from the standard parallel is North.)

Hour angle of Polaris	7h 17m 30s
Azimuth of Polaris, E. of true meridian	$1^{\circ} 09.1'$
(The average of four readings, two direct and two reversed)	
Mean horizontal angle, flag to star	$1^{\circ} 08.7'$
True bearing of flag	N. $0^{\circ} 00.4'$ E.
This indicates an error of $00.4'$ in the previously determined bearing of the standard, which is now adjusted to true bearing.	

Ind. Res., Third Stan. Par. N., along S. Bdy. of T. 16 N., R. 60 E.

Superseding the Survey Executed by
E. B. Monroe, Deputy Surveyor, in 1869.

From the standard cor. of Ts. 16 N., Rs. 60 and 61 E., which is monumented with an iron post, $2\frac{1}{2}$ ins. diam., set, mkd. and witnessed as described in the field notes of the dependent resurvey of the Third Stan. Par. N. along the S. Bdy. of T. 16 N., R. 61 E., executed concurrently in 1953 under Group 277.