1

## TOWNSHIP 12 NORTH, RANGE 31 EAST, MOUNT DIABLO MERIDIAN, NEVADA

## CHAINS

The following field notes are those of the survey of the west boundary, a portion of the north boundary and a portion of the subdivisional lines of Township 12 North, Range 31 East, Mount Diablo Meridian, Nevada.

The corner of Townships 12 and 13 North, Ranges 30 and 31 East, was established and monumented by U.S. Surveyor and U.S. Cadastral Engineer E. Voigt in 1920-22 under Group No. 66. The south and east boundaries, the east three miles of the north boundary and a portion of the subdivisional lines were surveyed by U.S. Cadastral Engineer C.S. Swanholm and U.S. Transitmen R. F. Guinn, C. Pettengill, S. M. Ackerman, C.P. Devine and H. Westfall in 1936 under Group No. 181.

The diagram representing the official protraction of the rectangular system of survey for T. 12 N., R. 31 E. is shown on Nevada Protraction Diagram No. 35, Unit No. 56A, approved May 16, 1962.

In order to simplify the record, the true line notes only are supplied herewith, which refer to the completed survey.

The survey was executed in accordance with the specifications set forth in the Manual of Surveying Instructions, 1973, and the Special Instructions for Group No. 865, dated May 30, 2008.

Measurements were made with Trimble 4700, 5700 and 5800 Global Positioning System (GPS) receivers using the real-time kinematic (RTK) and static methods and refer to the true meridian based on geodetic methods. The mean bearings of the lines and horizontal equivalents of ground distances only are entered in the field notes.

The NAD 1983 (CORS 96) geographic position of the corner of secs. 32 and 33, on the south boundary of the township, determined from GPS static observations processed by National Geodetic Survey, Online Positioning User Service (OPUS), utilizing Continuously Operating Reference Stations (CORS) UPSAL HOGBACK CORS ARP, GABBS CORS ARP, and TUNGSTEN CORS ARP, in 2008, is as follows:

Latitude: 38°51'07.441" N. Longitude: 118°31'58.141" W.

The 1987 mean magnetic declination is  $15^{\circ}30'$  E., as shown on the U.S.G.S. 7 1/2 minute quadrangle map "GHOST DANCE RIDGE, NEVADA", provisional edition dated 1987.

## SURVEY OF THE WEST BOUNDARY, T. 12 N., R. 31 E., MOUNT DIABLO MERIDIAN, NEVADA

Beginning at the cor. of Tps. 12 N., Rs. 30 and 31 E., monumented with an iron post, 3 ins. diam., firmly set, projecting 6 ins. above the ground, with brass cap mkd. as described in the field notes of the survey of T. 12 N., R. 30 E., executed under Group No. 181, with a mound of stone, 5 ft. base, 3 ft. high, N. of cor.

N.  $0^{\circ}02'10''$  W., bet. secs. 31 and 36.

Over gradual NE. slope, through medium undergrowth.