This survey was made with K and E. transit No. 101986, with a horizontal limb 6 ins. in diam., having two opposite verniers, a full vertical circle 5 ins. diam., having one double vernier; the horizontal vernier reads to 20 seconds of arc and the vertical vernier reads to one minute of arc; the reticule is arranged to center the sun for direct solar observations.

The instrument was in good condition at the time of the survey and all adjustments were in good order.

All azimuths in this record were determined by the method of deflection angles referred to the meridian determined by the

following observation:

March 31, 1959, at Cor. No. 1 of the Primeaux Protection lode

No. 1, in latitude 40°40'40" N., and longitude 116°11'51" W., I made a series of six altitude observations upon the sun for azimuth at approximate equal time intervals, three each with the telescope in direct and reversed positions, and reading the horizontal angle from the reference point, Cor. No. 2 of the Primeaux Protection lode No. 1, southward SW. to the sun.

Mean time of observation, 105th

meridian Standard time ----- 9 hr. 12 min. A.M. Declination of sun at mean time of observation ----- 4°02'20" N. Mean observed vertical angle to sun's center ----- 38°27'20" Mean horizontal angle from reference point to sun's center ----- 34°18' S-W. True bearing to reference point ---- East.

The lines were measured with a Lufkin steel tape 500 ft. in length, graduated every foot, the end feet in tenths and hundredths; this tape was compared with a Lufkin standardized steel tape at the time of beginning the survey and found correct.

All lines and connections of this survey were run by direct

The magnetic variation observed at each corner of the survey gave a uniform value of 17°30' East:

SURVEY NO. 4863

Feet

PRIMEAUX PROTECTION LODE

At Cor: No. 1 of the Primeaux Protection Lode, identical with Cor. No. 2, Primeaux Protection lode No. 1 of this survey.

Set an iron post, $\frac{1}{2}$ ft. long, 2 ins. diam., $\frac{1}{2}$ ft. in the ground, surrounded by a mound of earth and stone, 3 ft. in diam., 2 ft. high, with a copper plate cap mkd. PP-1-PP1-2-4863, from which

The north $\frac{1}{4}$ cor. Sec. 12, T. 32 N., R. 51 E., M.D.M. bears West, 378.44 ft. dist.; a perlite rock, 6 x 7 x 15 ins., in a mound of stone, mkd. \(\frac{1}{2} \) on West face.

No local bearing objects or bearing trees available.

Thence East

155.00 | Center of road bears N. 36° E. and S. 36° W.

378.44

Lode line, discovery bears S. 37°33'30" W., 100 ft. dist.

756.88

Cor. No. 2.

Set an iron post, $4\frac{1}{2}$ ft. long, 2 ins. diam., $1\frac{1}{2}$ ft. in the ground, surrounded by a mound of earth and stone, 3 ft. in diam., 2 ft. high, with a copper plate cap mkd. PP-2-4863.

No local bearing objects or bearing trees available.

Thence S. 37°33'30" W.