

Mineral Survey No. 5083

FEET

This Survey was made with a Lietz Set 3 Total Station Theodolite, Serial No. D 20810, with an incremental horizontal circle with a minimum display of 1", and an incremental vertical circle with "0" index with a minimum display of 1"; the eyepiece is equipped with a darkener cap for making direct observations on the sun. The lines were measured with this Total Station using a single prism with a standard deviation in the measurement of $\pm(5\text{mm}+3\text{ppm}\cdot\text{D})$. The instrument was in good condition at the time of the survey, and all adjustments were in good order.

All bearings in this record were determined by the method of direct angles right referred to the meridian determined by the following observation:

February 14, 1993 at Corner No. 1 of the ORIENTAL millsite, at latitude $37^{\circ}13'40''$ N. and longitude $117^{\circ}07'27''$ W., NAD 27, elevation 3980 feet above sea level and temperature 66° F., make a series of six altitude observations on the sun for azimuth at approximately equal time intervals three each with the telescope in direct and reversed positions, observing the center of the sun directly and reading the horizontal angle from Corner No. 4 of the ORIENTAL millsite.

Mean time of observation, 120th meridian standard time	= 9:34 A.M.
Declination of sun at mean time of observation	= $12^{\circ}50'13''$ S.
Mean observed vertical angle to sun's center	= $29^{\circ}04'30''$
Mean horizontal angle from Corner No. 4, ORIENTAL millsite to sun's center	= $206^{\circ}54'46''$
True bearing to Corner No. 4, ORIENTAL millsite	= N. $69^{\circ}02'$ W.

All lines and connections were run by direct methods.

The magnetic declinations observed at each corner of the survey gave a uniform value of $16^{\circ}30'$ East.

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ORIENTAL MILLSITE

At Corner No. 1 of the ORIENTAL millsite set an aluminum post, 30 ins. long, $2\frac{1}{2}$ ins. diam., in a mound of stone, 2 ft. diam., 1 ft. high, with a $3\frac{1}{4}$ -in. diam. aluminum cap mkd. OM-1 5083 1993; from which:

The $S\frac{1}{4}$ sec. corner of sec. 34, T. 8 S., R. 43 E., Mount Diablo Meridian, bears $S. 19^{\circ}04'28''$ W., 13550.83 ft. dist., monumented with a volcanic rock, 12 x 8 x 7 ins., surrounded by a mound of stone, $2\frac{1}{2}$ ft. diam.