70-115 OPEN FILE 1970

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

110°25'

EXPLANATION

SEISMIC NETWORK

Basic seismometer station

Supplemental seismometer station

Central recording station and tiltmeter

TREMOR HYPOCENTERS

2.1-3.0 1.6-2.0 1.0-1.5

Richter magnitude

First Month / Second Month / Third Month / Sea level

Pie segment indicates range of focal depth, above or below sea level, in thousands of feet.
Ring segment indicates first or second half of month.
Example above: Tremor of Richter magnitude between 2.1 and 3.0 with focus between 0 and 2,000 feet above sea level, occurring in the last half of the first month

MINES

Haulageways and bleeders

Mine portal

(1) (2)

(1) Mined-out areas
(2) Area mined this quarter

GEOLOGY

U D — At surface — In mine workings

Faults
U, upthrown side; D, downthrown side

Flat Station

Base from U.S. Geological Survey Sunnyside (1915 reprinted 1948), Woodside (1948), Range Creek (1954), and Flat Canyon (1954) quadrangles, 1:62,500
United States Steel Corp. reference grid (in thousands of feet)
Haulageways and bleeders of the mine workings shown compiled from Kaiser Steel Corp., United States Steel Corp., and Book Cliffs Coal Co. mine maps

APPROXIMATE MEAN DECLINATION, 1969

0 2000 4000 6000 8000 10,000 FEET
SCALE 1:24,000

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U.S. Geological Survey
OPEN FILE REPORT
This map is preliminary and has not been edited or reviewed for conformity with Geological Survey standards.

Geology compiled from maps of the:
Sunnyside No. 1 mine area (Osterwald, 1962)
Columbia area (Osterwald, Dunrud, and Doberry, 1969)
Geneva mine area

FIGURE 3.--MAP OF THE SUNNYSIDE MINING DISTRICT, UTAH, SHOWING TOPOGRAPHY, FAULTS, COAL OUTCROPS, MAJOR MINE WORKINGS, AND TREMOR HYPOCENTERS FOR THE PERIOD JANUARY THROUGH MARCH, 1968