

Star (Ogilvie) — HARRISON PASS DIST.

The Star mine, also known as the Ogilvie property, is on the east slope of the Ruby Range, about 2 miles east of Harrison Pass, in the northwest part of T. 28 N., R. 58 E. The scheelite deposits were first discovered in 1916-17, but were not actively developed until 1940, and production was first recorded in 1941. The property was re-located in 1939 by George F. Ogilvie, E. Lane, and A. Francis, and was leased in 1942 to the Knowles Brothers for a 3-year period.

Ogilvie, Lane, and Francis recovered about 1,500 units of WO_3 in a small mill operated in 1941-42. Knowles Brothers erected a new mill in 1943, after the old one was destroyed by fire, and recovered about 5,300 units of WO_3 before the lease was abandoned in 1945. The total production was about 6,800 units of WO_3 from ore that yielded nearly 1.0 percent of WO_3 .

The tungsten deposits are on the southeast side of a quartz monzonite stock 7 miles in diameter. The quartz monzonite invades

impure limestone of the Ordovician Pogonip formation, which is altered to marble and hornfels in a belt about 1,500 feet wide adjacent to the granite stock. Thin, irregular bodies of tectite containing scheelite occur at intervals along the contact for a distance of 4,000 feet. The contact is very irregular in detail, and its pattern suggests that the intrusion may have been controlled by minor faults or by joints.

The metamorphic rocks form a homoclinal structure which dips 40° - 80° E. No major faults were recognized in the vicinity of the tungsten deposits, although many minor ones offset the granite contact and the tectite ore bodies for distances of 1 foot to 10 feet.

Tectite is present along less than 5 percent of the contact. Only 2 workable bodies were found at the Star mine (fig. 102). The

✓ Fig. 102. Geologic map of the vicinity of the Star mine, Elko County, Nevada.

Main ore body, on the south edge of Harrison Pass Creek, is 40 feet long and a few feet wide at the surface, and retains this length at depth, where the width increases to a maximum of 20 feet (fig. 102-A).

✓ Fig. 102-A. Geologic maps ^{sections,} and projections of ^{ore bodies at} workings of the Star Tungsten mine, Elko County, Nevada.

The ore body pitches southeast for a pitch length of about 170 feet, and tapers to a point. The pitch appears fairly gentle because of offsets on numerous low-angle faults. The mine was first opened through a 150-foot adit along the strike, from which a 65-foot winze was sunk in ore and short levels were turned at 45 and 65 feet. A shaft inclined at 15° for a length of 185 feet was then sunk beneath the ore, and the ore body was mined out. The content of WO₃ averaged 1.0 to 1.5 percent.

The South ore body is 1,000 feet south of the Main ore body, and 450 feet higher. The ore was 70 feet long and 3 feet wide at the surface, and extended to a depth of 50 feet. Workings consist of

a 170-foot adit that tapped the bottom of the ore, and an irregular stope to the surface.

Four other exposures of mineralised tantalite were explored on the property, but none of them proved large enough or rich enough to be minable at a profit. Other lenses similar to those mined, each containing a few thousand tons of ore averaging 1 to 2 percent of WO_3 , might be found beneath the surface. The exploration for and mining of such lenses probably would not be profitable except at very high prices for tungsten.

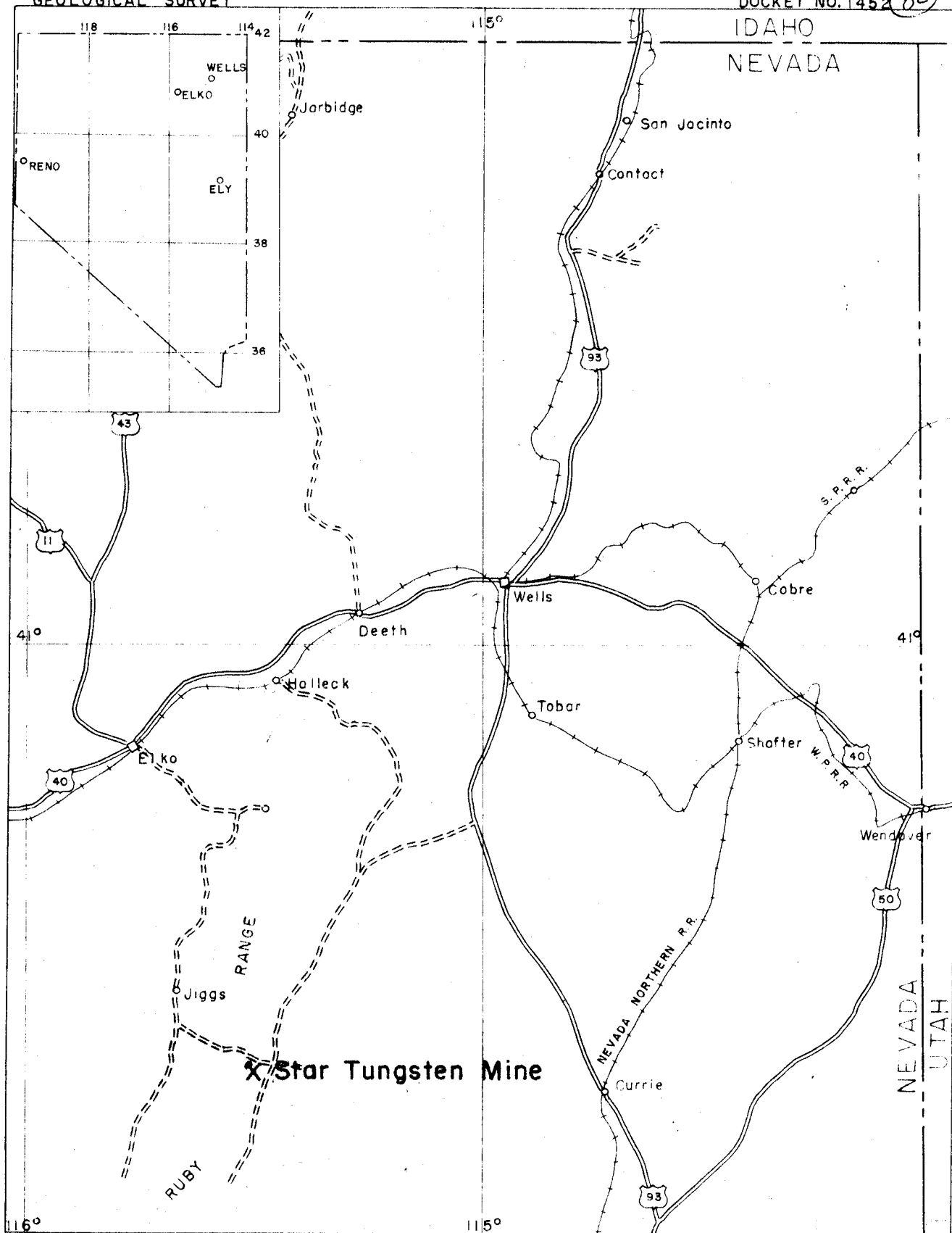


FIG. 1

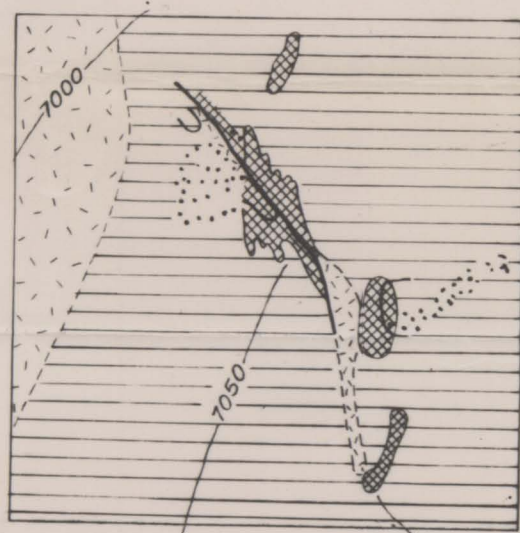
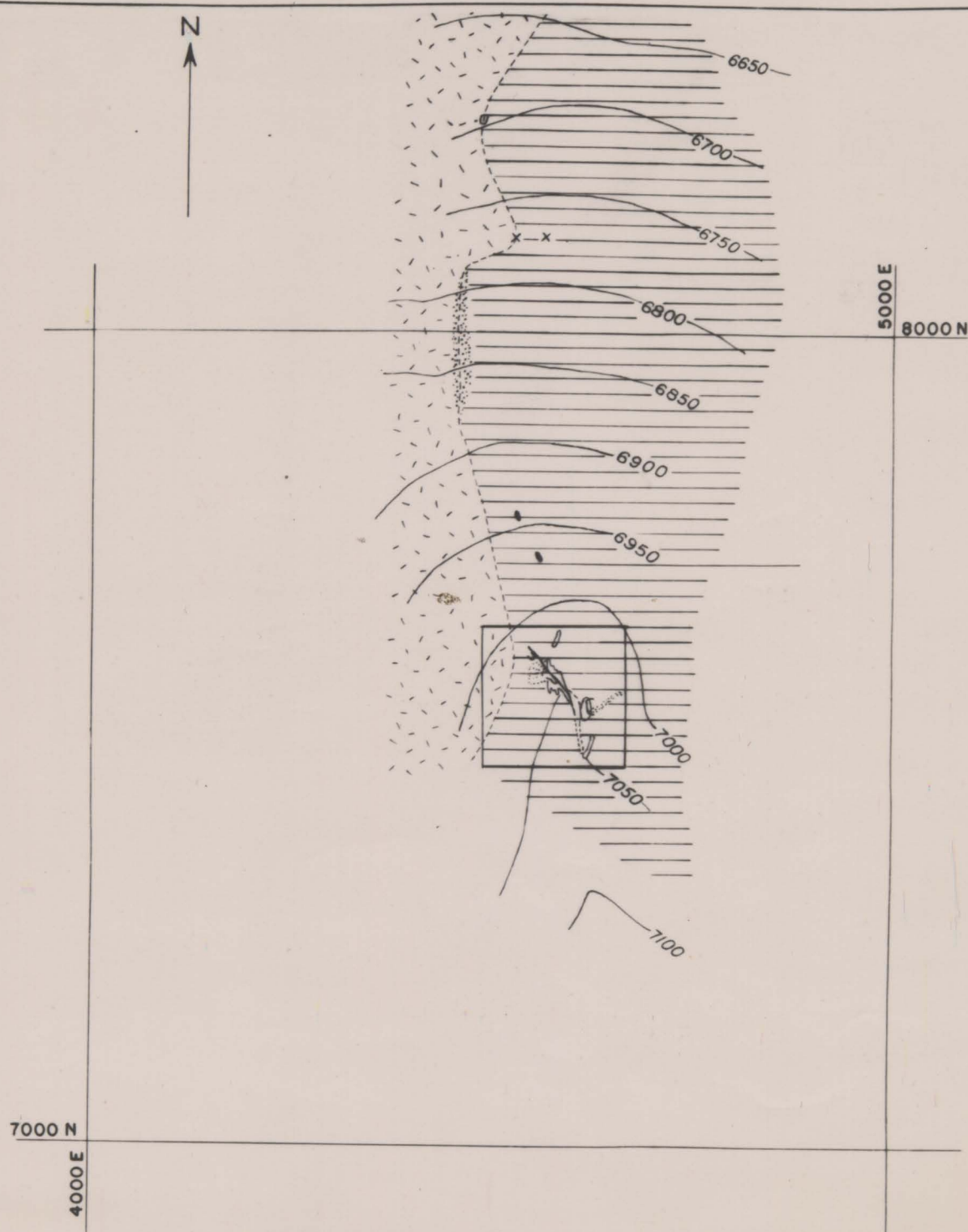
INDEX MAP OF NEVADA

0 10 20 30 40 Miles

Scale 1:1,000,000

102-A
272

STRATEGIC MINERALS INVESTIGATIONS
PRELIMINARY MAPS



Detail of outlined area

EXPLANATION

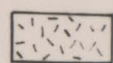
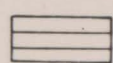

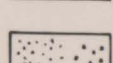
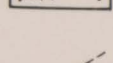


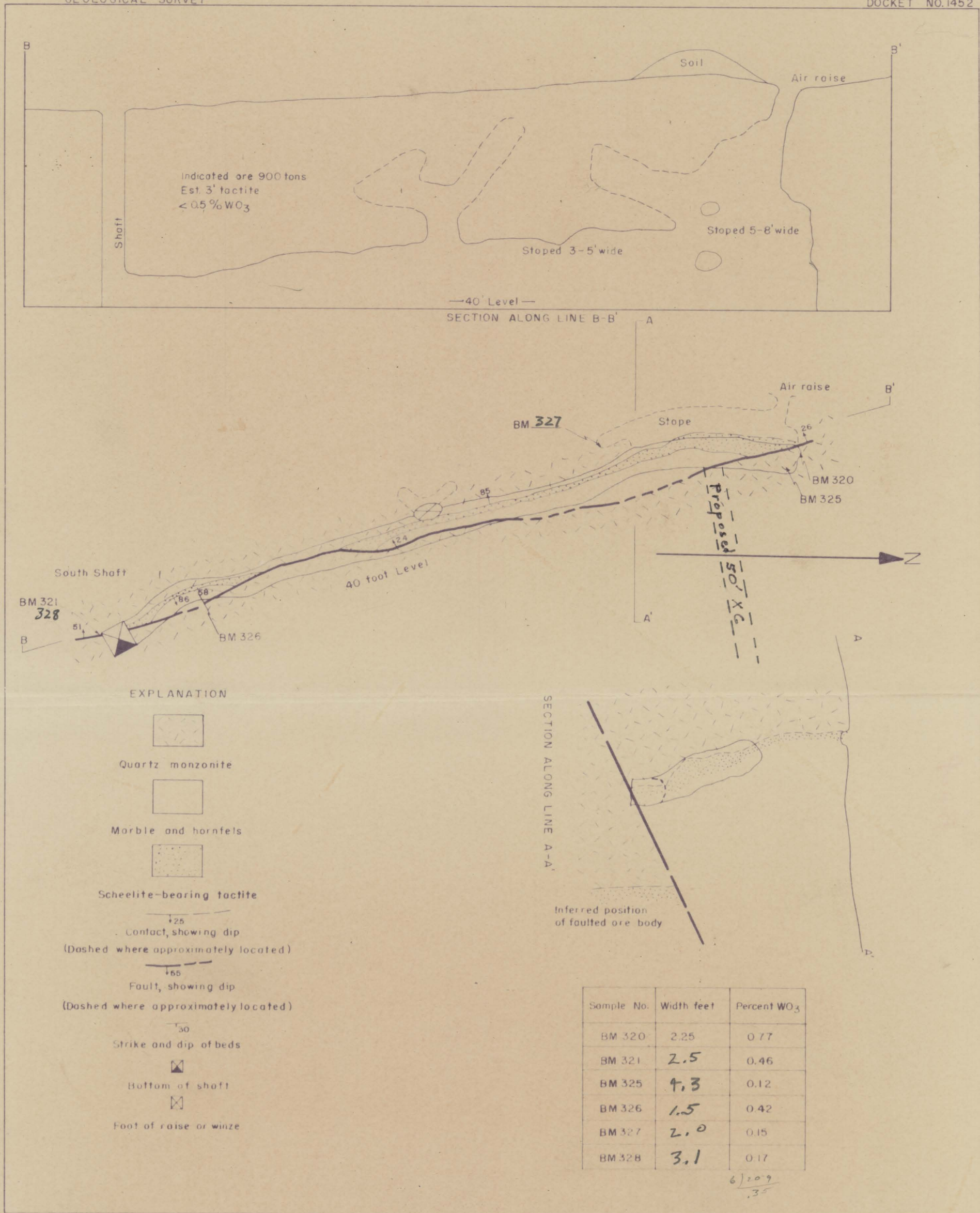
-  Quartz monzonite
-  Hornfels
-  Scheelite-bearing tactite
-  Scheelite-bearing float
-  Contact, dashed where inferred
-  Cut
-  Pit

FIGURE 5
GEOLOGIC MAP OF CAMPBELL TUNGSTEN PROPERTY
HARRISON PASS, ELKO COUNTY, NEVADA

100 0 500 Feet
Contour interval 50'

Geology by M.R. Klepper and C.M. Swinney, August 1942

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GEOLOGY BY R. M. SMITH

FIG. 3
GEOLOGIC MAP OF THE 40 FOOT LEVEL
SOUTH SHAFT-STAR TUNGSTEN MINE
ELKO COUNTY, NEVADA