STATE OF NEVADA

Bureau of Mines

JAY A. CARPENTER, DIRECTOR

BOX C, UNIVERSITY STATION

MACKAY SCHOOL OF MINES

RENO, NEVADA

151
Item 4

08300004

A RECONNAISSANCE OF A PORTION OF THE GROUP OF CLAIMS OWNED BY A. E. RALEIGH AT TENABO, LANDER COUNTY, NEVADA.

The Raleigh group of claims is about 3/4 of a mile west of the townsite of Tenabo and adjoining the north side of the Gold Quartz group of claims. Tenabo is on the east flank of the Shoshone Range about 22 miles south-southwest of Beowawe, in Lander County, Nevada.

I visited the property on August 10, 1945 at the request of Jay A. Carpenter, director of the Nevada State Bureau of Mines, while on a reconnaissance study of the adjoining Gold Quartz mine.

The relief at Tenabo is slight with only low rolling hills so that the natural exposures are obscured by rock debris. However, with the number of pits and shafts that have been dug a sketchy knowledge of the geologic features can be obtained.

The rock formations which occupy the greater part of the area of this group of claims are fine grained quartzites and silicified shales. Their stratigraphic relationships are not clear but the area studied appears to be in a horizon of interbedded shales and quartzites between quartzite to the west and shale to the east. The bedding dips are usually moderate but not conformable, and due to both faulting and folding, dip toward all points of the compass.

Cutting across the south end of the Gylding No. 1 and Gylding No.2 claims is an east-west striking rhyolite (quartz porphyry) dike which

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is approximately 50 feet in width. This dike is probably of the same origin and age as a large rhyolite dike cutting both the granodiorite and the sediments about 2,000 feet to the south on the Phoenix mine.

No granitic rocks were found to outcrop within these claims, but granodiorite outcrops on the Ajax claim about 400 feet south of the Gold Zone south end line. The intrusives undoubtedly underly these claims at depth.

The mineral deposits appear in all cases I studied to be a replacement either in sheeted zones or along faults, and are not quartz filled fissures. However, some quartz replacement has occurred.

A shaft, now inaccessible, has been sunk in an east-west rhyolite dike on the Gylding No. 1 claim about on the projected strike of the north-south Riggs vein in the Gold Quartz mine. The mineralized rock is from a sheeted zone as indicated by the character of the dump rock, pieces of which show a series of thin knife edge mineralized seams. These have a pyrite and arsenopyrite (?) coating, but only assay a trace of gold. This sheeted zone could not be traced into the Gold Quartz mine because of the alluvium covering; therefore, it is not known if it is actually a continuation of the Riggs vein as its position would indicate.

The incline shaft and drift, about 1,500 feet northeast of the shaft in the rhyolite, were driven on a pronounced fault, which dips

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about 30 degrees to the northwest. The gouge and breccia between walls varies from one foot to 4 or 5 feet, with some ore having been mined from a stope above the drift and from a winze below the stope both near the face of the drift. Here the gouge mined was about one foot thick.

The rhyolite containing the mineralization is definitely younger than the granodiorite intrusive, so there are several possible theories about the origin of the ore. The intense brecciation and leaching effects noted underground at the Gold Quartz mine indicate much recurrent movement along the main fractures with probable extended and overlapping periods of hydrothermal deposition.

The sample locations on the sketch are approximate, the distances from the Riggs shaft, which is a known point on the sketch, being estimated. The numbers refer to sample numbers, assays of which are listed below.

Sample No. 1--Shaft dump. Shows seams of pyrite and possible arsenopyrite in rhyolite.
Au - Trace Ag - Trace

Sample No. 2--20-foot cut in sheeted zone in silicious shale and fine-grained quartzite. 30 foot incline.
Au - 0.06 Ag - 0.7

Sample No. 3--2-foot cut in fault gouge at side of old workings.
Au - 0.04 Ag - 1.8

Sample No. 4--4-foot cut in fault gouge and breccia 15 feet from face of drift.
Au - 0.06 Ag - 1.7

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RENO, NEVADA

A. E. Raleigh's Claims at Tenabo, Nevada - 4 -

Sample No. 5--1-foot cut on east side of incline winze 20 feet down.
Some stoping.

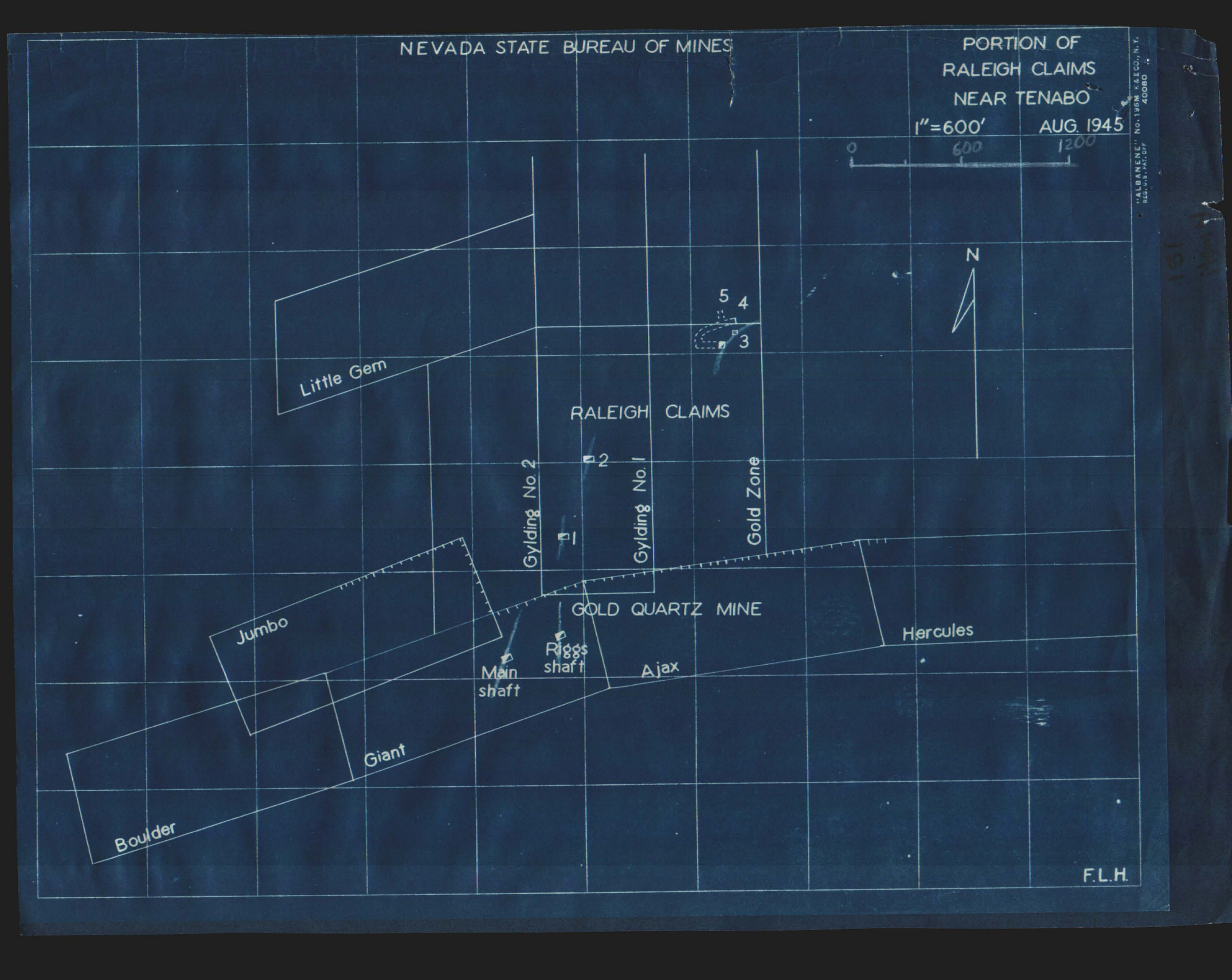
Au - 0.36 Ag - 0.80

Fred L. Humphrey

Fred L. Humphrey, Mining Engineer

Nevada State Bureau of Mines

10/1/45


NEVADA STATE BUREAU OF MINES
PORTION OF
RALEIGH CLAIMS
NEAR TENABO
1"=600'
AUG. 1945
0
600
1200
"ALBANENE" NO. 195M K&E CO., N.Y.
REG. U.S. PAT. OFF
40080
N
5
4
3
2
1
Little Gem
RALEIGH CLAIMS
Gylding No. 2
Gylding No. 1
Gold Zone
GOLD QUARTZ MINE
Jumbo
Main shaft
Riggs shaft
Ajax
Hercules
Giant
Boulder
F.L.H.

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MACKAY SCHOOL OF MINES

RENO, NEVADA

0830 0004

(COPY)

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Fred L. Humphrey

Fred L. Humphrey, Mining Engineer

Nevada State Bureau of Mines

10/1/45

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PORTION OF RALEIGH CLAIMS NEAR TENABO

1"=600' AUG. 1945

0 600 1200 ft.

N

"ALBANENE" No. 195M K&E CO., N.Y. REG. U.S. PAT. OFF 40080

5 4

3

Little Gem

RALEIGH CLAIMS

2

Gylding No. 2

Gylding No. 1

Gold Zone

1

GOLD QUARTZ MINE

Jumbo

Riggs shaft

Main shaft

Ajax

Hercules

Giant

Boulder

F.L.H.