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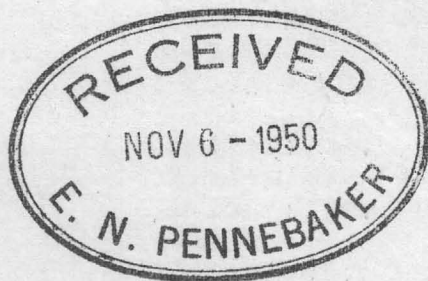
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Superior, Arizona

Nov. 4, 1950

From: R. W. Ludden  
To: John Hope, Chief Geologist  
Subject: Weekly Report (Oct. 30 thru Nov. 4)

Scouting from Superior was virtually completed this week, with a reconnaissance in the vicinity of Ray. The mineralization in the region surrounding Ray is apparently confined to scattered mineralized zones and to areas containing limonite which exhibit little evidence of copper.

*Copper Butte*

A reconnaissance was made of a very interesting region north and west of The Spine ( a ridge just north of the Gila River in southeast corner of the Florence quadrangle). A Tertiary conglomerate exhibiting varying amounts of iron oxides and copper oxides crop out in at least three large areas. The two most widely separated outcrops are approximately three miles apart. The erosion of the overlying volcanics has exposed these vivid red outcrops with their associated copper oxides. Apparently a considerable tonnage of the conglomerate containing copper oxides has been mined by open pit just north of the north end of The Spine. Open pit mining is going on there at present. Approximately 2 miles southwest of this operation churn drilling has been done in what is apparently the same conglomerate.

The extent of the outcrops, the apparent thicknesses involved, and the vast amount of oxidized mineralization suggests a very large mineralized source. It is believed that to find this source, if it exists, would take a considerable amount of study.

*R. W. Ludden*

cc - Mr. E. N. Pennebaker

Safford, Arizona  
February 11, 1950

FROM: R. B. Nichols

TO: John Hope, Jr.; Chief Geologist

SUBJECT: Weekly Report: (Feb. 6 through Feb. 11).

D. D. Hole No. S-D 4 was collared Monday morning, February 6.

The road extension from S-2 to SD-4 was measured, surveyed and plotted on the Clara sheet. The extension measured 1250 feet.

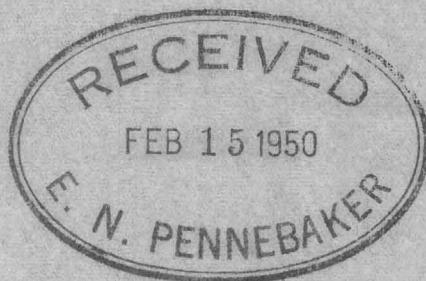
Five geologic maps of the Yerington Project have been completed.

Location work on Star No. 2 claim was begun Thursday morning, February 9, 1950, and is now nearing completion.

Respectfully submitted,

*R. B. Nichols*

R. B. Nichols





FROM R. W. Ludden, Asst. Geologist  
J. Hope, Chief Geologist  
TO  
SUBJECT REPORT ON SCOUTING FROM PHOENIX, ARIZONA

Tucson, Arizona  
CITY  
January 5, 1951  
DATE

### INTRODUCTION:

#### Extent of Region Covered:

The scouting from Phoenix has roughly covered the territory bounded by the Verde River on the east and the Hassayampa River on the west. The southern extreme includes the Salt River Mountains and the northern extent is the town of Cordes. More precisely an imaginary boundary can be traced as follows: beginning at the Salt River Mountains, it goes just east of the Phoenix Mountains, north to the northern end of the McDowell Mountains, northeast to the Verde River, up the Verde River to the Gila-Yavapai County line, northwest to Turret Peak, west to Cordes, southwest to Towers Mountain (2½ miles northwest of Crown King) west to Wagoner, west to Yarnell, west to Congress, south to Wickenburg, southeast to, and including, the Salt River Mountains.

#### Maps:

Maps of use in scouting this region are the Congress, Bradshaw Mountains, Turret Peak, Cave Creek, Crown King, Bumblebee and Wagoner Quadrangles; Geologic map of the state of Arizona; the production map of Arizona, Arizona highway maps.

### SCOUTING:

A region to be scouted usually resolves itself into logical areas, portions of the region, to be scouted to a practical extent as individuals. This report will discuss them as such. The following are their arbitrary names: Cave Creek, Copper Queen, Black Canyon, Crown King, Morristown-Constellation-Castle Hot Springs, Congress-Octave, Salt River Mts., Vulture (Reconn. only), White Tank Mts., (Reconn. only).

#### Cave Creek (Cave Creek Quadrangle)

Cave Creek is located approximately twenty miles north of Phoenix. The outcropping rocks in this area consist largely of a coarse grained granite, schist and pre and post-mineral volcanics. A large portion of the area is covered by post-mineral volcanics. Most of the mineralization seen is included in an area that fans out in a northeast direction from Cave Creek for approximately 12 miles. Only a few small indications of copper mineralization were seen. These are in the northern extremity of the area. A few sizable pyritized outcrops occur in the area. The overall mineralization, alteration, and metallization is classed as weak.



R. W. Ludden, Asst. Geologist

Tucson, Arizona

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Copper Queen (Turret Peak Quadrangle)

The Copper Queen Mine near the center of this area is located approximately ten miles west of Bloody Basin in the western central part of the Turret Peak Quadrangle. The outcrops consist mainly of granite rocks and volcanics. Mining in the area was concerned with a comparatively few, isolated veins or zones. No other mineralization of interest was seen.

Black Canyon (New River to Cordes - Bradshaw Mts. Quad.)

The Black Canyon road is located near the long axis of the area. Cordes lies at the northern extremity and New River near the southern end. Granites, schist and volcanics predominate the rock types. Limonite after pyrite is quite common throughout the area. Large outcrops containing a substantial amount of limonite, resulting from the oxidation of ferromagnesium minerals, occur in the northern portion of the area. Copper metallization is in evidence locally in the area but only to a very minor degree.

Crown King (Bradshaw Mts. Quad.)

Crown King is located in the northeast quarter of Township 10 north, Range 1 west of the Bradshaw Mountain Quadrangle. Rocks outcropping in the area consist largely of granite and schist. Except for the scattered mineralized zones and veins, the rock in general is quite fresh. Some copper has been shipped from the area, but very few indications of a porphyry copper type of deposit were seen.

Morristown-Constellation-Castle Hot Springs (Not completely covered by quadrangle, see state geologic map.)

These three locations form a triangle which, plus a four mile extension in the northeast, roughly covers this area. Morristown is approximately forty miles northwest of Phoenix on Highway 89. Constellation is approximately fifteen miles north of Morristown while Castle Hot Springs is approximately twenty five miles northeast of Morristown.

The predominate rocks of this area are granites, schist, pre-mineral and post-mineral volcanics.

The mineralization throughout the area varies considerably. There are large portions which are barren of any type of mineralization. Large, moderately altered, pyritized outcrops occur in the



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southwest portion of the area. However, but little evidence of copper was noted. Mineralized veins and zones, occasionally containing evidence of copper metallization occur predominately to the north. However, the definite lack, throughout the area, of any appreciable evidence of copper metallization is quite impressive.

Although there is no reason to believe the post-mineral volcanics cover any large copper deposit, mineralized rock was seen to disappear beneath these volcanics in some locations.

Congress-Octave (Congress Quadrangle)

Congress is three miles northwest of Congress Junction that in turn is located sixteen miles north of Wickenburg on Highway 89. Octave is approximately ten miles east of Congress Junction.

Little need be said about this area. Granite, which is largely untouched by alteration or mineralization, is the main rock outcrop. Apparently a few strong veins and zones contributed the bulk of the ore. The main interest here is gold.

Salt River Mountains (Phoenix Quadrangle)

The Salt River Mountains are located five miles south of Phoenix. They are composed largely of granite and schist. Nothing to warrant detailed scouting was seen.

RECONNAISSANCE:

Vulture (See state geologic map)

The Vulture mine is located approximately twelve miles south of Wickenburg. Although nothing of imperative interest was seen on a reconnaissance of the area, it is believed conditions here warrant further scouting.

White Tank Mountains (See state geologic map)

The White Tank Mountains are located twelve miles west of Peoria. They will require very little additional work.

CONCLUSIONS:

A considerable amount of mineralization exists in this region. However, there is no display of mineralization that possesses the size, alteration, and copper content which would approach a porphyry copper type of deposit.

s/ R. W. LUDDEN