

Humboldt formation of late Miocene and early Pliocene age. Most of the Humboldt beds are light colored and contrast sharply with the dark volcanic rocks. The rocks were closely examined at a number of places along the road, but no evidence of mineralization was found anywhere in this area.

(136) No. 12. Tungsten mine. Old mine workings are present on or near Garvey land in the extreme southwest corner of T. 39 N., R. 42 E., high on the west slope of the Osgood Range. A poor road leads from the Eden Valley road up Anderson Canyon to the workings. An examination was made to check the geology and the extent of the workings and to determine what metals are present.

The metal sought here is tungsten. It occurs in a broad, highly altered contact zone between Paleozoic sedimentary rocks on the northwest and an older intrusive stock on the southeast. The Paleozoic rocks are limestone, schist, and metavolcanic rocks, which have been intruded by medium-grained, light gray granodiorite or quartz monzonite. The contact zone is marked by large bodies of tactite composed dominantly of dark brown to brownish green garnet, with much coarse crystalline pyrite, quartz, and epidote. As seen on the dumps, scheelite is only a minor constituent of the tactite, suggesting that the ore may have been of relatively low grade.

The tactite zone and related structures are opened by a large adit near the bottom of the canyon, by a large quarry-like open cut about 125 feet above the adit, and by various cuts and other workings still higher on the ridge. The general appearance of the workings

suggests that they date back at least to World War II, but there also are large cuts both here and across the canyon where more recent drilling has been done. Presumably this drilling did not find commercial ore. In any event, the mineralized area, both here and at other workings visible to the south, has been thoroughly prospected. In view of this fact and the fact that tungsten is the metal, no further work seems justified in this immediate area.

(136) No. 13. Dry Hills area. Some of the Garvey lands on the lower west slope of the Osgood Range lie in an area of Tertiary volcanic rocks in the west central part of T. 38 N., R. 41 E. This block of ground is called "Dry Hills" on some maps. In view of the probable presence of strong faults bounding and probably cutting this block, as well as the adjoining Paleozoic sedimentary rocks, a fairly thorough inspection was made by working off old ranch roads. No signs of any zones of alteration or mineralization were found.

(127) No. 14. Central Hot Springs Range. The geologic map shows two small igneous intrusions in the southeast part of T. 39 N., R. 40 E., on or near the crest of the Hot Springs Range. As some such bodies are loci for mineralization, these were checked. A badly washed desert road leads from the Eden Valley road to a point near Willow Spring on the middle east slope of the range. From here I climbed on foot to the crest of the range and examined an area of about two square miles.

Paleozoic sedimentary rocks occupy most of the area. They include extensive beds of hard, fine-grained, light brown quartzite,