



CONTACT INFORMATION  
Mining Records Curator  
Arizona Geological Survey  
416 W. Congress St., Suite 100  
Tucson, Arizona 85701  
602-771-1601  
<http://www.azgs.az.gov>  
[inquiries@azgs.az.gov](mailto:inquiries@azgs.az.gov)

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FAIRPLAY, NYE CO. Sheet :Tonopah

Sources: F.C. Lincoln, 1923, 167

V.E. Kral, 1951, Mineral resources of Nye Co., Nev. Univ. Nev. Bull., Geol. & Min. Series No. 50, 57-60

REGIONAL SETTING

Structure: Unknown.

Production Belts: In National-Mina high-production belt

Lithology: Within general limits of a large volcanic field; but Tv not shown here on Tectonic Map of U.S.

LOCAL GEOLOGY

Country Rock: Tertiary latite and andesite intruded by rhyolite dikes. Mineralized zones usually near the dikes.

ORE DEPOSITS

Butler mine only Producer (small). Ore in quartz vein 2-10' wide, on either side of a rhyolite dike 20-100' wide. 45° incline shaft 280' deep, sporadic gold and silver on 150' level.

Davis #1 mine (see Tonopah sheet) explored by Oatman United Gold Co. in the 20s. 300 ft. vertical shaft, milling ore said to be on 50, 100, 200-ft. levels. Country rock andesite, intruded by large rhyolite dike, apparently same dike as at the Butler; may be same dike as that at Jim mine at Goldyke. (?)

Jim mine, adjacent to town of Goldyke (see Map 2, Bull. 50); small shafts, cuts, between a fine-grained rhyolite dike and a parallel shear zone 200' SW, strike N25W, dip 60SW. Country rock andesite, showing intense hydrothermal alteration. A number of quartz veins carrying a little galena.

Pfeffercorn property 2.7 mi. NW of Goldyke. Mineralized zone near rhyolite intruding andesite. Quartz with pyrite. Small 45° incline shaft.

Production: None recorded.

CONCLUSIONS

Regional setting seems favorable, as is the association with rhyolite dikes. However, relief in the area is slight; andesite series may be thin. It is possible that erosion has cut down into an ore zone which is unimportant. District should be inspected, however.

MEMORANDUM FOR:  
Edward Wisser

January 21, 1966

Geology & Ore Deposits of  
Fairplay District, Nye County, Nevada

### ROCKS OF THE DISTRICT

Rock nomenclature used herein is taken from Vitaliano's Ione Quadrangle map and, as used by Martin in the Penelas-Broken Hills area.

Oldest rocks in the district are metamorphosed Paleozoic and Mesozoic sediments. Resting unconformably on the metasediments is a rhyolite tuff and ignimbrite, grading upward to quartz latite. This rhyolitic unit is comparable to the lower lower volcanic of Vitaliano. Latites grading upwards to andesites overlie the rhyolites conformably or with slight unconformity and are comparable to the lower upper volcanics of Vitaliano. Moderately altered rhyolite or latite dikes intrude the lower division rhyolites at Fairplay. Vitaliano and Callaghan, in their Paradise Peak quadrangle map, show some of these dikes as late Tertiary or early Quaternary. However, the relation of these dikes to ore deposition as well as their alteration, leads me to suspect that they are early Tertiary, perhaps feeders for the lower upper division volcanics.

Resting unconformably on the lower upper volcanics is the Oddie rhyolite.

### STRUCTURE OF THE DISTRICT

Dominant fault trends of the district are the northeast trending Basin and Range structures which appear to offset an earlier northwest trending fault system. At the camp of Fairplay there is a mineralized northeast trending fault system which may be related to the Basin and Range system.

<sup>Volcanic</sup>  
^ Rocks of the district are domed along <sup>a</sup> the northwest trending axis parallel to the northwest trending fault system. To the north in the vicinity of Gabbs, Vitaliano and Callaghan mapped several northwest trending folds in the Mesozoic and Paleozoic sediments. It would thus seem possible that the volcanic doming is a resumption of activity along an early structural grain.

### ORE DEPOSITION

The most extensive development at Fairplay seems to be concentrated along the intrusive dikes discussed above, or on faults bounding these dikes. Much of the development is ~~and~~ on the northwest trending system, but the Davis and Butler mines, apparently the largest in the district, are along the northeast trending fault and dike system.

The relation of the northwest trending faults and dikes at Fairplay to the pre-Tertiary structural grain is obvious. The relation of the northeast trending structure at Fairplay to the pre-Tertiary structural grain and the volcanic dome is obscure.

#### MINES & PROSPECTS

#1 & 2. Davis and Butler Mines respectively. These two mines are largest in the district and are along the northeast fault trend bounding a rhyolite dike. Vein is 3 to 4 feet of brecciated white quartz with some iron staining and gouge. Alteration is kaolinization but because of widespread alteration in the rhyolite dikes, it is difficult to determine what is attributable to activity along the fault.

#3 & 4. Prospects along Northwest Trending Rhyolite Dikes. Veins are 1 to 2 feet of gouge and rubble with minor brecciated quartz and iron stain. Alteration is about 20 feet of kaolinization on either side of the vein.

#5. Prospect along Shear Zone in Andesite Flows. Minor brecciated vuggy quartz with disseminated pyrite. Alteration is 10 feet of kaolinization with weak pyritic dissemination on either side of the vein.

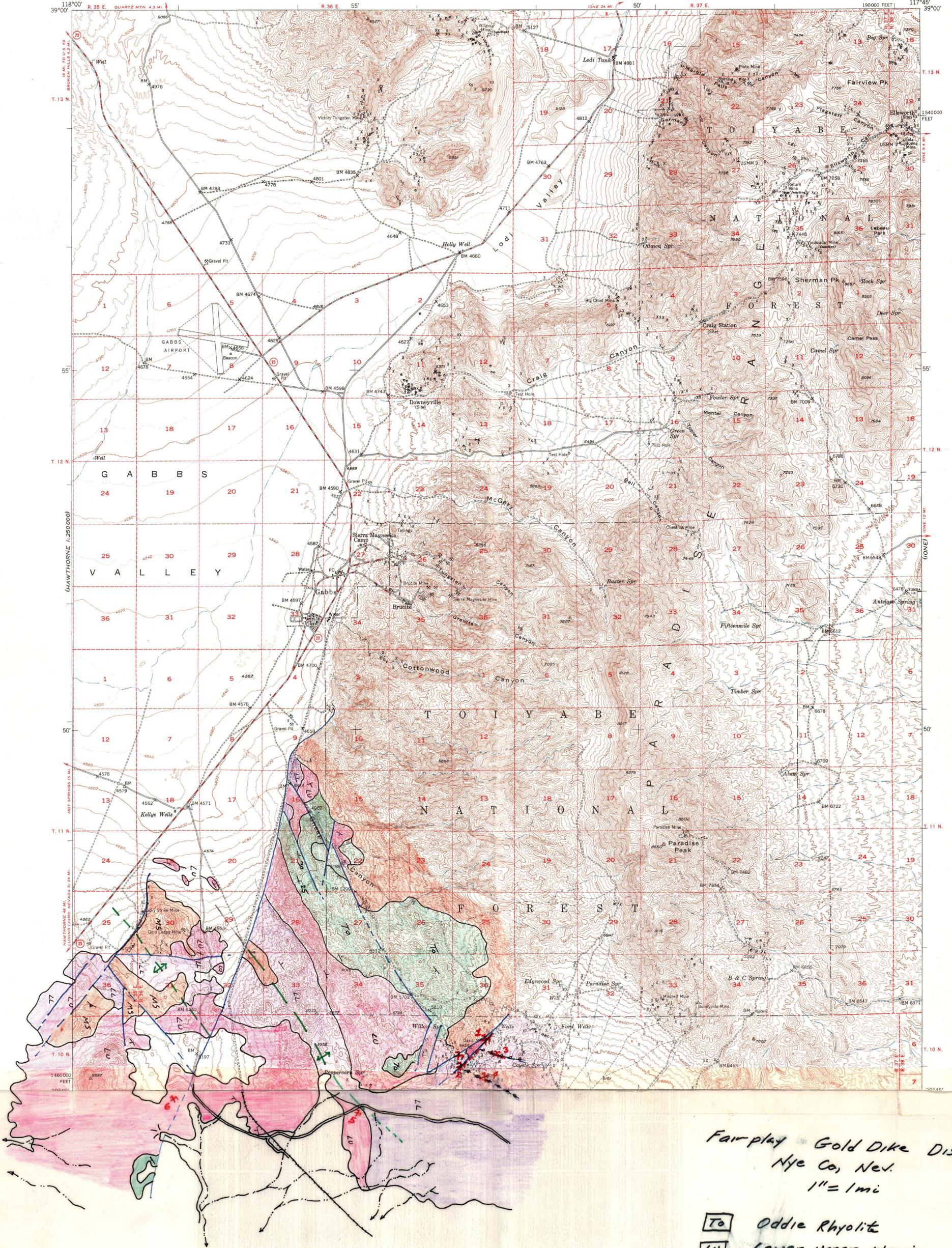
#6. Mercury Mine presently operated. No discernible structure trend. Cinnabar occurs as dissemination in widespread kaolinized volcanics.

E. H. Lindsey

GARSON SWK  
1:25000

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

PARADISE PEAK QUADRANGLE  
NEVADA-NYE CO.  
15 MINUTE SERIES (TOPOGRAPHIC)



Fairplay Gold Dike Dist.  
Nye Co, Nev.  
1" = 1 mi

- To Oddie Rhyolite
- LU Lower upper volcanics  
latite and Andesite
- █ Rhyolite and latite dikes
- LL Lower lower volcanics  
Rhyolite tuff and ignimbrites and latite
- MS Paleozoic and Mesozoic  
meta sed.