



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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NOTES ON FIREBALL DISTRICT, CHURCHILL CO.

Examined 9/10/65 with Lindsey.

References: W.o.Vanderburg, 1940, Reconnaissance of Mining Districts in Churchill Co., Nev. US B.M. Information Circular 7093, p.30.  
Anon. Nevada has new gold find. EMJ vol.132(L):34,;931.

According to Vanderburg, district discovered 1930. Exploration active for several years but results were discouraging. Production 20 tons of \$30 ore. Gold and a little silver in silicified ls. cut by rhyolite and andesite.

Structure of the district is that of a horst, bounded by normal faults and trending roughly N-S. Hartford Hill rhyolite is exposed at the N and S edges of the horst. Near the N end a bull qtz vein shows a small stope. Appearance of the quartz suggests non-epithermal. The cut in Sec. 8 shows galena.

In Sec. 19, dump of several shafts looks more like epithermal. Cu as malaconite and stain. Possible ex-cpy blebs. Limonite; pyrite. Here the country rock is metashale and metavolcanics. In the N end of the horst granodiorite, probably as a rather large mass, intrudes meta-volcanics and metasediments. Limestone was not noted.

Conclusions.- Since the feeble mineralization lies in the basement, Fireball seems without interest.

FIREBALL

Lindsoy 9/22/65

All of the major mineralization in this district is in the Mesozoic basement complex. Flanking Fireball Ridge at the north and south ends are what may be thin erosional remnants of the early Tertiary Hartford Hill rhyolite. These Hartford Hill remnants and the Mesozoic complex of Fireball Ridge are in turn almost completely surrounded by late Tertiary or early Quaternary basalts.

Here, as in the southwest end of the Olinghouse district, these basalts have been assigned to the late Tertiary since they are faulted and displaced by Basin Range faults but appear to be post mineral. This is in contrast to the usual

Quaternary basalts of Nevada which appear to be post Basin Range and suffer very little tilting.

Mineralization at the north end of Fireball Ridge is composed of bull quartz veins in a Mesozoic granitic complex. These quartz veins are probably not of epithermal origin. At the south end of Fireball Ridge, mineralization occurs in north and northeasterly trending fissures which are more or less parallel to the structures which bound Fireball Ridge. Wall rock here is either a metamorphosed black slate or fine grain meta-andesite. There is almost no wall rock alteration accompanying the mineralization and there does not appear to be any significant vertical or horizontal movement along the mineralized shears.

Within these shear zones there are numerous small (1/4" to 1") quartz veins with frozen walls and druzy center lines. These quartz veins in some places engulf wall rock fragments.

Because of the absence of Tertiary volcanics except for the very thin remnants of Hartford Hill rhyolite, this district probably does not warrant any further consideration.