from NBMG OFR 83-9
See also 83-10 for geochemical results.

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TUSCARORA DISTRICT

The Tuscarora mining district lies at the foot of Mount Blitzen on the east side of the northern Tuscarora Mountains about 52 miles northwest of Elko. The district historically includes placer deposits on McCann Creek below Beard Hill, and lode prospects and mines in the area generally extending from McCann Creek to the east and northeast around to the present location of the town of Tuscarora. The mining areas are concentrated in the southern half of T40N, R52E, and the northern tier of sections in T39N, R51E.

Placer gold deposits were discovered in the early summer of 1867 along McCann Creek, and mining activity was concentrated in the area around Beard Hill up until 1871 when high-grade silver veins were discovered to the east near the site of present day Tuscarora. Silver production from these veins extended from that time through about 1895, with 1878-79 being the banner production years. In 1890, the Dexter gold deposit, located along the south edge of the town, came under development and provided the bulk of Tuscarora's production through 1905. Only minor production has been reported from the Tuscarora district since the Dexter declined in 1905.

Beginning in the mid-1930's and continuing to the present time, Tuscarora has been the site of numerous exploration ventures, most of them concerned with developing large tonnages of lower grade gold-silver ore which would be minable by bulk methods. In 1979-80, a dump leaching operation began, and many of the large dumps remaining from the pre-1900 operations were removed to the leach site just southwest of town for treatment. In 1982 when the district was visited, this operation was inactive.

Most of the Tuscarora district is underlain by bedded andesite breccias and tuffs with interbedded andesite flows. These rocks are intruded in many places within the district by irregular bodies of dark green andesite. To the north, on the edge of the mineralized area, a small block of Ordovician quartzite and chert crops out, and a large stock intrudes the section northwest of the district.

The bedded andesites are regionally tilted 15°-50° E or SE, are steeply domed around the intrusive plug, and are cut by shear zones which trend east or northeast and dip steeply (Smith, 1976).

The intrusive andesite bodies which cut the bedded series are as much as half a mile wide and a mile long. The best documented contact between the bedded series and the intrusive andesites is along the Dexter structure on the south edge of the district. Here, the contact dips to the north at about 30°. The intrusive andesites are cut by steep north-south and east-west structures (Smith, 1976). Four different kinds of ore bodies have been mined over the years within the Tuscarora district. Earliest mining took place on placer gold deposits which had formed in Quarternary gravels that blanket the flanks of the range below the lode outcrops. Silver-rich vein occurrences were mined from the steep structures which cut the intrusive andesite body in the central part of the district, and gold-bearing stockworks were mined along the bedded andesite-intrusive andesite contact (the Dexter zone). In 1940, mercury deposits were discovered in the Berry Creek area and north of Tuscarora at the Red Bird property. Mercury mineralization occurs in altered, brecciated andesite along shear zones.

Both bedded rocks and the intrusive andesite bodies that cut them are extensively propylitized. Silicification is localized near the ore occurrences,

and adularia is found near the centers of mineralization. Adularia from one of the east-west striking silver veins along the north side of the district (the DeFrees vein) has been dated at 38 m.y. (McKee and Coats, 1975). This is described as being the oldest Tertiary epithermal vein mineral deposit in northern or central Nevada (McKee and Coats, 1975). For a district with as long a production history as Tuscarora, the detailed geology of the ore occurrences has not been well described. The contact relationships of the bedded series and the intrusive bodies are obviously important, yet a detailed map of the district geology is not available. In the central part of the district, the major ore occurrences are concentrated generally along two major shear zones which trend east-west and coincide with the north and south margins of one of the intrusive andesite bodies. North-south fissures which cut this body are also mineralized, and ore chutes appear to occur in the north-south structures at or near their intersections with one of the major east-west structures. The Navajo silver lode occurred along the west side of the district along a north trending structure near its intersection with the east-west Dexter contact-shear zone. The Dexter itself occurred along the east-west contact-shear zone. To the north, the Belle Isle, North Belle Isle, Commonwealth, and North Commonwealth were mined near the point their north-trending veins approached an intersection with the east-west structures which pass through the Grand Prize, Argenta, Independence, and DeFrees mines. Ore bodies in the Grand Prize, Argenta, Independence, and DeFrees were along the east-west fissures, but are reported (Smith, 1976) to have pitched northward along the structural intersections. There are areas in the district where potentially important intrusive contact-shear zone intersections may occur but are obscured by gravel cover. A detailed mapping program in the Tuscarora district could be rewarding.

There are also placer occurrences remaining in the district which could be of future importance. Several placer exploration ventures have examined gravels located along the mouth of McCann Creek from the area of the Quarter Circle S ranch to the Owyhee River. The gravels contain gold and, although are in an environmentally sensitive area, could someday constitute a minable resource.

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