1300 0010
NBMG OFR 83-11
See also 83-12 for geochemical results.

Q5
Item 10

CRESCENT DISTRICT

The Crescent (Crescent Peak) mining district is located in the northern end of the New York Mountains and the southern end of the McCullough Range, straddling Nevada Highway 68, approximately 12 miles west of Searchlight, Nevada, in T28S, R61E. The district is accessible from Nevada Highway 68 by way of fair to poor dirt roads. It is bound by the approximately latitudes 35°25' and 35°35', and longitudes 115°05' and 115°15'.

An Indian known as Prospector Johnnie was thought to have made the first recorded turquoise discovery southeast of Crescent Peak in 1894, although the area had been mined for turquoise around 1200 A.D. by native Americans (Lincoln, 1923; Morrissey, 1968). Other turquoise properties were soon discovered and considerable turquoise was mined between 1894 and 1906. Ransome (1907) states that the district was first exploited for precious metals about 1895 and again in 1905. The district has had small and intermittent activity throughout its history with peak periods in 1905-1907, 1911, 1930, and 1934-1941 (Longwell, et al. 1965). The district has been explored sporadically since 1954, mostly drilling and claims staking by various companies, coinciding with the rise and fall of mineral prices. There is currently ongoing small scale activity in the district, mostly by private individuals. Many of the older workings have been obliterated by recent surface exploration. Recorded production for the district from gold, silver, copper (turquoise), and lead, with minor molybdenum and vanadium is approximately $63,000 (Longwell, et al. 1965), however, turquoise production has been estimated as high as $1,000,000 (Morrissey, 1968).

The workings in the Crescent district are centered around Crescent Peak which is underlain by Precambrian, medium to fine-grained, quartzo-feldspathic augen gneisses which grade from granite to granodiorite and locally include small masses of schist and quartz (Bingler, Bonham, 1972). The Precambrian rocks are intruded by a highly fractured and altered quartz monzonite pluton which is

pervasively silicified and sericitized (Bingler, Bonham, 1972). The pluton has been dated Tertiary-Cretaceous by Bingler and Bonham (1972), but a lead-alpha age from a granite sample indicates it to be Precambrian age or about 927 $\pm$ 90 m.y. (Schilling, 1965). The pluton is intruded by pegmatite dikes, up to several yards wide and containing radial aggregates of muscovite-biotite several feet wide; massive white quartz veins up to a foot wide; and pre-alteration diorite(?) dikes, mostly on the east side of the pluton (Archbold, Santos, 1962).

There are four distinct alteration zones within the quartz monzonite pluton; an argillic and coarse-grained sericite zone within the central core, surrounded by fine-grained quartz and sericite zone, and an overlapping quartz flood alteration zone (Archbold, Santos, 1962). Shattered masses of quartzite, which are cemented with silver and gold bearing quartz, outcrop in the vicinity of the Crescent townsite. Ransome (1907) suggests that these are remnants of an eroded syncline which overlaid the Precambrian gneisses.

There are two prominent fault zones in the district, one striking northwesterly, and the other easterly to northeasterly. Many of the faults are difficult to trace due to the extensive alteration on the surface. Hydrothermal quartz cements the fault zones and carries crystalline and disseminated auriferous pyrite, chalcopyrite, argentiferous galena and tetrahedrite. Locally, the sulfides are found disseminated in the granitic and gneissic rocks in the vicinity of the quartz veins (Longwell, et al. 1965). Supergene copper minerals stain the country rock throughout the district.

Turquoise is associated with quartz veinlets in the argillic and coarse sericite alteration zones while gold is associated with quartz veins, disseminated pyrite, or fault zones. The pluton contains disseminated copper minerals and has been suggested as a site for a copper porphyry deposit (Archbold, Santos, 1962).

In the extreme western portion of the district, south of the highway to Nipton and near the California state line, Hydro-Met Corporation of Victorville, California

has recently operated the Lily claim area. A large open pit has been started on a wide shear zone reported to contain low-grade values in gold. The property has been idle for about one year, but may resume mining and heap leaching if metal prices remain at a reasonable level. To the north of this area, on the west pediment of the McCullough range, a large claim block had recently been staked by Houston International Minerals, probably a gold exploration play.

REFERENCES - Crescent District

Anonymous (1982) McCullough Mountains G-E-M Resources Area: Great Basin GEM Joint Venture Technical Report, GRA no. NV-36.

Archbold, N. L. and Santos, J. W. (1962) Geology of the Crescent area, Clark County, Nevada: NBMG Open-file #25, Item 1.

Bingler, E. C. and Bonham, H. F., Jr. (1973) Reconnaissance geologic map of the McCullough Range and adjacent areas, Clark County, Nevada: NBMG Map 45.

Garside, L. J. (1973) Radioactive mineral occurrences in Nevada: NBMG Bulletin 81.

Hewett, D. F., et al. (1936) Mineral resources of the region around Boulder Dam: USGS Bulletin 871.

_____ (1956) Geology and mineral resources of the Ivanpah quadrangle, California and Nevada: USGS Professional Paper 275.

Hill, J. M. (1912) The mining district of the Western United States: USGS Bulletin 507.

Lincoln, F. C. (1923) Mining districts and mineral resources of Nevada: Nevada Publications Co., Reno.

Longwell, C. R., et al. (1965) Geology and mineral deposits of Clark County, Nevada: NBMG Bulletin 62.

Morrissey, F. R. (1968) Turquoise deposits in Nevada: NBMG Report 17.

Olson, J. C. and Hinrichs, E. N. (1960) Beryl-bearing pegmatites in the Ruby Mountains and other areas in Nevada and northwestern Arizona: USGS Bulletin 1082-E.

Papke, K. G. (1970) Montmorillonite, bentonite, and fuller's earth deposits in Nevada: NBMG Bulletin 76.

_____ (1979) Fluorspar in Nevada: NBMG Bulletin 93.

Qualheim, B. J. (1978) Hydrogeochemical and stream sediment reconnaissance basic data report for Kingman NTMS quadrangle, Arizona, California, and Nevada: NBMG Open-file Report-122 (78)

Ransome, F. L. (1907) Preliminary account of Goldfield, Bullfrog, and other mining districts in southern Nevada: USGS Bulletin 303.

Schilling, J. H. (1965) Isotopic age determinations of Nevada's rocks: NBMG Report 10.

Schilling, J. H. (1968) Molybdenum resources of Nevada: NBMG Open-file Report 79-3.