

See also 83-12 for  
geochemical results.

SUNSET DISTRICT

Item 3

The Sunset (Lyons) mining district is located on the southern end of the narrow, north-trending Lucy Grey Range, in the southwest quarter of T27S, R60E, near the California-Nevada state border in Clark County, Nevada. Access to the district is from the southwest from Desert, California along rough dirt roads. The district was established in 1897 when the only producing property in the district, the Lucy Grey Mine, began operations. By 1912 the mine was operating a small cyanide plant and leaching tanks. Gold production continued until 1919 (Lincoln, 1923). Activity at the mine after 1919 has been intermittent and minor, with production figures reported for the years 1911-1928, 1940, and 1941. No activity has been reported after 1941 (Longwell, et al (1965). Production for the district has been estimated at about \$50,000 (Vanderburg, 1937), principally in gold, with minor silver, copper, and lead. Feldspar deposits in pegmatite dikes were located in 1936, however, none have been mined. Within the last 3 years, the rise in gold and silver prices has prompted extensive surface and subsurface exploration at the mine and along the surrounding ridges.

The Precambrian rocks which host the Lucy Grey deposit are garnetiferous quartz-feldspar-biotite gneisses, carrying small masses of quartz. The gneisses are locally intruded by pegmatite dikes carrying subangular fragments of dark schist (Bingler, Bonham, 1973). North of the mine, outcrops of a Precambrian quartz monzonite pluton are found and east of the workings the Tertiary Mount Davis Volcanics overlie the east slopes of the Lucy Grey Range.

The Lucy Grey mine is located along the southeast border of an elliptical breccia pipe in Precambrian granite gneiss. The pipe covers an area approximately 200 by 150 feet. Breccia fragments within the pipe range up to 1 foot wide, are cemen-

with quartz, and are cut by quartz veins up to several inches wide (Longwell, et al, 1956). The pipe experienced at least one more period fracturing. The breccia is heavily stained with iron and manganese oxides, but the surrounding gneisses are relatively free from such stains. The high grade gold ore within the pipe is confined to the hydrothermal quartz veins and along post-brecciation fractures (Hewett, 1956). Gangue minerals include jaspery quartz and iron oxides.

The western workings follow an east-west shear zone in quartzite and schists and show a greater degree of iron staining than the eastern workings where the Lucy Grey mine is located. The shear zone is cemented with sulfide bearing quartz both of which are cut with calcite/siderite veins.

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