

Chaffee County

Browns Canyon District

The Browns Canyon District was one of the nation's largest producers of fluorspar from 1927 until 1949. The district covers about 9 square miles approximately 10 miles north of Poncha Springs. More than 260,000 tons of ore were mined, yielding 130,000 tons of fluorspar at an estimated value of more than \$5 million (Brady, 1975). The grade of the product ranged from 85% CaF₂ (metallurgical grade - 59% of shipments) to 92-97% CaF₂ (ceramic grade - 39% of shipments) and 98% CaF₂ (acid grade - 2% of shipments) (Van Alstine and Cox, 1969). Four mills operated in the district at the height of its production.

The fluorspar deposits occurred as filling in fractures and fault breccia zones. The faults occur in country rock of granite gneiss, schist and a porphyritic rhyolite flow (Del Rio, 1960). The shear zones trend NW-SE, dipping steeply. The zone is known to exceed 3.5 miles in length. Van Alstine and Cox (1969) estimate 2 million tons of ore and suggested that more probably exists along the unexplored trends of the fault zone.

Most of the fluorspar veins were 3 to 6 feet in width, but some reached 40 feet. Individual veins are traceable for 1000 feet or more (Cox, 1945). While there was some sulfides present, the fluorspar was accompanied mainly by chalcedonic silica. Other minerals reported include coarse quartz, opal, calcite, barite, pyrite, marcasite, clay minerals and oxides of iron and manganese.

Minerals reported in the districts are the following:

Barite	Gangue
Calcite	Gangue
Fluorite	Ore
Goethite	Gangue
Hematite	Gangue
Kaolinite	Gangue
Manganite	Gangue
Montmorillonite	Gangue
Opal	Gangue
Psilomelane	Gangue
Pyrite	Gangue
Pyrolusite	Gangue
Quartz	Gangue

References:

[Mineral Resource Data System \(MRDS\) - Online Spatial Data – Browns Canyon](#)

Brady, Bruce, 1975, Map Showing Fluorspar Deposits in Colorado, U.S. Geological Survey Minerals Investigations Resource Map MR-70.

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Del Rio, S. M., 1960, Mineral Resources of Colorado First Sequel, State of Colorado Mineral Resources Board, Denver, CO.

Van Alstine, R.E. and Cox, D.C., 1969, Fluorspar mines and psospects in Geology and Mineral Deposits of the Poncha Springs NE Quadrangle, Chaffee County, Colorado; USGS Professional Paper 626, P. 38-43