

**MINERALS IN JEFFERSON COUNTY**

**BY**

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GOLDEN, COLORADO**

## MINERALS IN JEFFERSON COUNTY

Jefferson County is 54 miles long by 19 miles wide, being a long narrow county extending northerly and southerly and covering foot-hills and prairie lands about half and half.

Beginning at the northerly end of the foot-hills area, the principal minerals in Ralston Creek and Golden Gate Canon are those found in pegmatite dykes, namely - mica, feldspar, beryl and "bull" quartz.

Pegmatite dykes, by the way, characterize the county from end to end and there are at least 20 deposits which have produced Mica in commercial quantities, two that have produced beryl and eight that have produced feldspar.

Clear Creek Canon contains a deposit of basalt that breaks readily into cubes. It has been much used for paving blocks. The spawls were crushed and sold for concrete and road ballast.

The gravel of the Clerk Creek Valley is gold bearing and has been extensively worked by gold dredges and other placer mining devices.

Some gravel deposits on the prairies, as at Arvada, have been recently advertised as gold bearing. These deposits may be bench deposits marking old channels of streams which carried gold from the veins of Clear Creek and Gilpin Counties or they may be of local origin. There is some evidence of a gold enrichment which occurred in such recent geological times that early quarternary formations were slightly enriched.

Passing south of Clear Creek Canon we note a strong "iron dyke" on Mount Morrison. This is probably ilmenite and related to other serpentine dykes in the vicinity.

The mineralized serpentine dyke at Bergen Park is conspicuous amongst these. It is slightly mineralized with gold, silver, lead, zinc and copper.

Extending 5 miles southerly from this outcrop there are sporadic occurrences of lenticles of copper-zinc ore carrying some silver. No work has been done on them for 40 years.

Extending southwesterly from Bergen Park is a belt of fluorspar veins from which commercial production has been made. The main shipper was located about one mile above Evergreen on Cub Creek.

At Indian Hills there is a very interesting quarry of beautiful black rock, known to the trade as "black granite".

Continuing our survey in a southerly direction we come to Little Deer Creek and the Riley Peak Sector. It is stated that \$80,000.00 in high grade silver ore was shipped from one shaft 3 miles southwest of Critchell. The evidences on the ground show an ore bin and other signs of production.

In this sector is a large irregular deposit of nickel and zinc.

There are several good looking prospects in this neighborhood which merit exploration.

In Platte Canon there are several valuable quarries of granite.

As stated above the pegmatite dikes continue all through the foot-hill portion of the county. In Platte Canon they are remarkable for the size and purity of the feldspar bands.

In Little Deer Creek there are two very large and valuable mica deposits from which a considerable production has been made.

Turning our attention now from the foothills to the prairies or, more accurately, to the Sedimentary rocks which underlie the prairies, we find a vast storehouse of mineral wealth. There are coal, oil, silica, bentonite, sandstone, fossils, fire clay, limestone, gypsum, cement shale, potters clay, molding sand, brick clay and many other valuable deposits. With the exception of oil these minerals are not exciting. Their production and utilization progresses steadily, as industry in the State gradually becomes more diverse and more firmly entrenched, but one seldom hears of a limestone "Magnate" for instance, while "Oil kings" are fairly plenty on 17th Street.

As to oil it is interesting to note that the Dakota Sandstone between Bear Creek and Turkey Creek is so heavily charged with oil that a plant was built to utilize it. The plant was a failure but it advertised the complete saturation of this sand for a considerable distance along its outcrop.

The Rocky Mountain Range is a great pressure ridge. On its flanks the sedimentary strata have been curled up. In some places they are actually curled over backwards. It is inconceivable that this tremendous lateral pressure has left the strata under the prairies lying in undisturbed flatness. Unquestionably there are wrinkles or "structures" roughly paralleling the giant anticline of the Main Range.

Unfortunately these undulations have been covered up and hidden with unconformable recent lake-bed sediments, so drilling for oil is a shot in the dark.

The Ruby Hill oil well near Harts Corner is 4600 ft. deep. If the strata lie flat the bottom of the well should be in the midst of the Pierre shales, which shales are mud shales and too dense to make a good reservoir for oil; but the drill has encountered some hard beds which are foreign to the middle section of the Pierre Shales. There is some evidence that the bottom of the well is in the Niobrara horizon. If this is so, then one wrinkle, or anticline, has been located.

(signed)

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