

THE COMSTOCK
A VERY BRIEF SUMMARY

BY

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HISTORY & PAST PRODUCTION

May, 1850 Placer Au found at mouth of Gold Canyon near the current town of Dayton.

April, 1858 In place "lode" mineralized crushed qtz. "the red ledge" found at Gold Hill, current location of the Con-Imperial Pit, discovered as placer trenches dug through alluvial cover.

June, 1858 Lode mineralization found at north end of district while digging placer trenches "blue mud" was location of "Ophir Bonanza".

"Bonanza Years", seven high grade ore bodies "bonanzas" discovered at 300,000+ tons each, many smaller ore bodies also found. Estimated production for this period from 54 mines:

7,189,430 tons at 1.00 oz. Au/Ton 30.00 oz. Ag/Ton

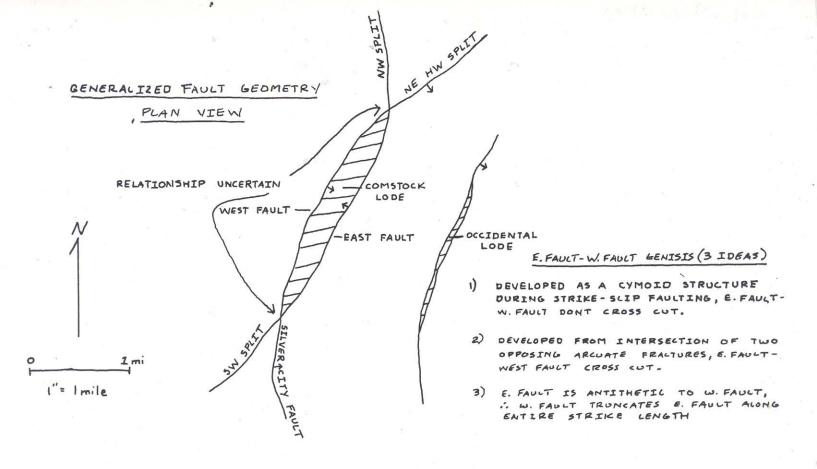
GEOLOGY

The Comstock Lode may be classified with other Tertiary age volcanic hosted epithermal Au-Ag vein deposits occurring in the Basin & Range Province. The district occurs within the Walker Lane lineament along with other districts such as Goldfield, Tonopah, Gold Dikes, Como, Peavine, etc.

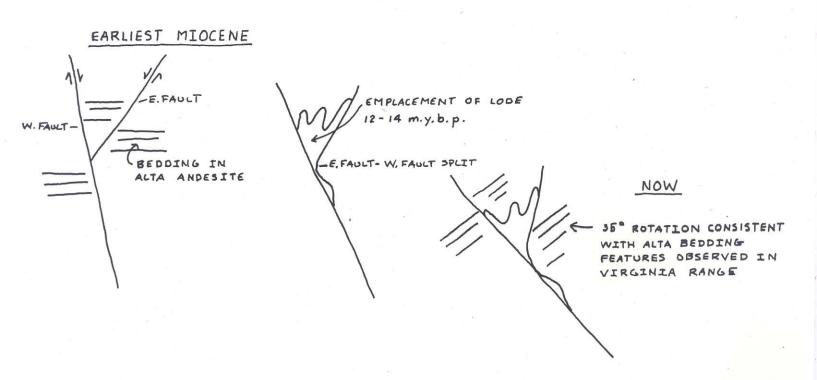
The host rocks are flows and flow-breccias of the Alta andesite, K-Ar dated at 14.4-16.5 m.y.b.p. (early Miocene).

The Lode proper is a zone of faulting and brecciation which has been stockwork veined and silicified many times. It is comprised of wedges or lenses of Alta andesites and vast quantities of low grade (0.020-0.250 oz. Au/Ton, 1.00-15.00 oz Ag/Ton) to near barren quartz surrounding high grade pods or zones of mineralization "bonanzas". The Lode is 2.5 miles long and up to 600' wide with an average strike and dip of N30E, 40-80SE.

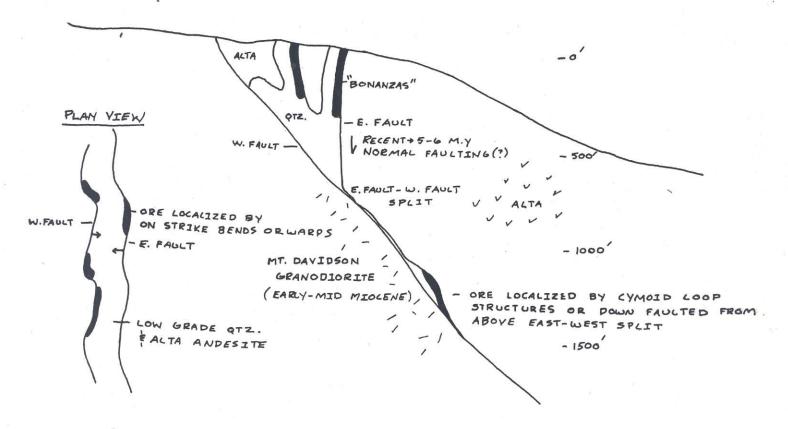
The Lode is bounded on the west by the northeast striking, east dipping West fault and on the east by the northeast striking west dipping East fault. These faults converge then diverge or cross at the northern and southern ends of the Lode, a relationship which is disputed among previous workers and uncertain.



The East fault may have developed antithetic to the West fault. The two faults converge 500 ft. - 800 ft. below the present level of erosion.



Ore bodies located above the West fault-East fault split are localized by onstrike warps or bends in the fault system.

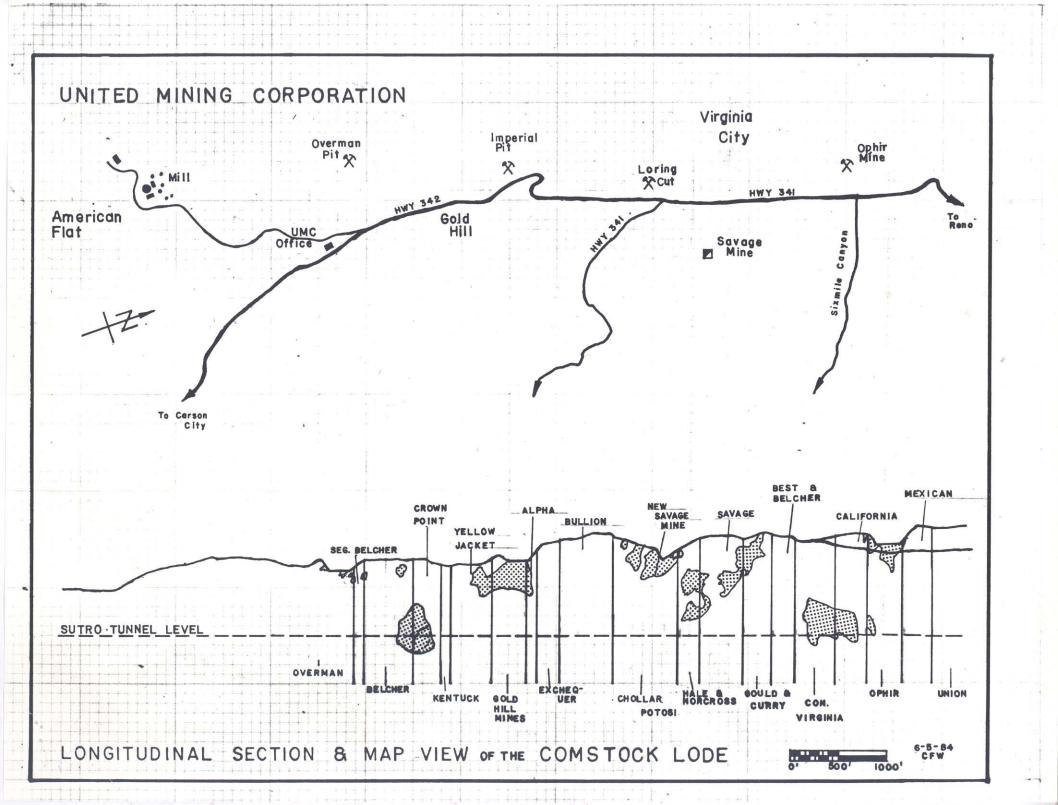


Ore bodies located below or at the West-East fault split may be controlled by down dip cymoid loop structures or be downfaulted portions of ore bodies occurring above the split.

The productive levels of the Lode occurred no deeper than 1,500 ft. below the present serface. It is uncertain whether this is a mineralogical or structural bottoming.

MINERALIZATION

The Lode consists of up to 30 generations of quartz, most of which is sugary, milky and very fine grained. Banding in quartz veins is rare. Emplacement of barren and low grade quartz pre and post date the main metallization event(s).



Age dating of adularia and sericite within the Lode have yielded the following:

Adularia - 13.7± 0.4 m.y.b.p.
12.8± 0.4 m.y.b.p.

Sericite - 14.6± 0.4 m.y.b.p.

Ore minerals: gold (Au)

electrum (Au,Ag)

pyrite (FeS₂)

argentite (Ag₂S)

sphalerite (ZnS)

galena (PbS)

chalcopyrite (CuFeS₂)
polybasite (Ag₁₆ Sb₂S₁₁)
stephanite (Ag₅SbS₄)

Gangue Minerals:

quartz(SiO₂) calcite (CaCO₃) pyrite (FeS₂)

Ag:Au = 40:1

WALL ROCK ALTERATION

The Alta andesite within the Lode is dominated by a propylitic assemblege comprised ot chlorite-calcite-epidote-albite. Argillic alteration is confined to faults and shear zones within the Lode. Silicification and seritization may or may not halo individual quartz veins or shoots within the Lode.

A large zone of quartz-adularia-sericite-montmorillonite alteration occurs in a northerly trend about 0.25 miles east of the Lode proper. This zone may be the surface manifestation (low PH caps) of a Comstock Lode system at depth occurring in a parallel fault zone or may be an easterly down faulted portion of high level alteration which once was located above the Lode proper. More work needs to be done here.