

The Eberle Mine--An Appraisal

This is not intended to be a detailed geological report on the Eberle Mine, but an appraisal of the prospect potential and the program currently underway by the Challenge Mining Co,

Tracing the vein outcrops on the surface I agree in general with Mr. Dave Aker's locations. The outcrop trace as shown connecting surface points 10, 11, 12, and 13 represent tight fractures, and after a second visit to the area, I was unable to locate an associated vein. Short (80-100 foot) diamond drill holes bearing westerly out of the Lower Level drift could disprove or verify the existence of a vein at depth.

The vein followed northerly by the Upper Level drift is a part of the Queen vein system. At surface point 9 this structure changes strike abruptly to the northeast toward the hanging wall of the system. This flexure was not located in the Upper Level drift but since at this point the heading was "buried" in vein material, a hanging wall split could easily be missed. On the Lower Level this northeast striking vein could be tested by diamond drill holes less than 100 feet in depth out of the southwest heading. On the surface another structure with a similar attitude was observed near point 21, nearly parallel to the telephone line.

In addition to the outcrops indicated by Mr. Aker, I was able to locate the Maude S. vein outcrop. At this point it has a width of 8-10 feet, and strikes northwesterly toward the Deep Down mine where it was productive. It is evident, by projection, that the Maude S. vein was

not prospected in the Eberle mine west of the north drift. In my opinion, this is one of the most promising prospects on the claim and should be tested out of the north Lower Level heading both by drifting and by diamond drilling to cut the vein at greater depth. The Maude S. vein-Queen fault junction should be drilled northeast at the four way drift intersection.

An interesting feature of the Lower Level north drift is the caved oxidized material that blocks the heading, and which according to Mr. Aker has considerable silver values, and is not represented by any slumped area on the surface. This cave should be cleared, first to locate the source of the silver bearing material, and secondly to provide another entry to the level for access and ventilation. This should not necessitate a great deal of work since the caved portion must be near the surface. I took no samples at the property due to limited time and since extensive sampling has been done and is still underway. Both Mr. Aker and his partner Mr. Dick Manning are capable, experienced mining men and realize the necessity of representative samples.

In view of the planned surface stripping of the Queen vein strand, I suggest horizontal or slightly inclined down holes from the hanging wall (canyon side) of the vein to delineate the ore and aid in grade control. This could be done either by percussion drill sectional steel or a skid mounted diamond drill.


Underground, in addition to the testing for the Maude S. vein as mentioned earlier, a systematic program of drilling both hanging wall and footwall of the major veins should be initiated in view of the surface and underground evidence of vein splitting. This could be done easily and economically with a jackleg and 20 feet or so of sectional steel. This would be especially beneficial on the Lower Level in the north

heading where narrow high grade shows on the footwall in the drift and in stoping above.

A deeper level, reported to be 70 feet below the "Lower Level", developed by an interior winze, is flooded. This will be de-watered as the ore treatment proceeds, and should give additional prospect targets. This level, as well as the presently accessible levels, should be geologically mapped in detail. Such work, not entailing a great deal of time, could well encourage prospecting at greater depths as ore trends were established. Referring to this possibility of ore at depth, it should be pointed out that in vein deposits it is not unusual to have sizeable sections of barren vein vertically above lower ore. In other words, the chance of a false "bottoming out" of values always exists, and should be taken into account when considering prospecting at depth.

Mr. Aker and his partner Mr. Dick Manning are progressing in an orderly and well-planned manner and considering their many years of mining experience and their determination, I am optimistic about the success of their venture. The recent acquisition on a lease basis of a group of eight or more claims contiguous to the Eberle claim improves their position and provides additional prospect potential. Their present efforts and future development plans should result in an overall renewal of interest in the Mogollon district, an area that certainly warrants more investigation.

As the ore treatment program develops, consideration should be given to treating other ores on a custom basis. This would provide additional revenue and encourage the opening of additional properties in the district.


Owen J. Hart
Geologist

The Eberle Mine - A General Appraisal

This is not intended to be a detailed geological report on the Eberle Mine, Mogollon District, but an appraisal of the prospect potential and the program currently underway by the Challenge Mining Co.

Tracing the vein outcrops on the surface I agree in general with Mr. Dave Aker's locations. The outcrop trace as shown connecting surface points 10, 11, 12 and 13 represent tight fractures and after a second visit to the area, I was unable to locate an associated vein. Short (80-100-foot) diamond holes bearing westerly out of the No. 2 Level drift could test for the existence of a vein at depth.

The vein prospected by the No. 1 Level heading and the South Drift on No. 2 Level is a part of the Queen vein system. At surface point 9 this structure abruptly changes strike to the northeast, in the same manner as in the above mentioned drifts. This flexure, being just north of the most extensive stoping, may have had a structural role in the ore emplacement. Another fracture with a similar attitude was observed on the surface near point 21, nearly parallel to the telephone line.

In addition to the outcrops indicated by Mr. Aker, I was able to locate the Maude S. vein outcrop. Where seen it has a width of 8-10 feet with a strike trending toward the Deep Down mine where it was productive. This structure projects down to the North drift on No. 2 Level and as such provides an explanation for the caved muck that blocks the North drift, by indicating a connection with the open stope on the surface straddling the property line. Rather than con-

sidering this to be an adverse factor for finding ore, I am of the opinion that it provides an advantage. The caved muck averaged for two grab samples .13 Au, 3.29 Ag. Cleaning out the cave and reactivating the workings would provide an additional prospect entry as well as an additional ventilation facility for No. 2 Level.

A systematic program of drilling should be conducted underground to test the entire width of both the Maude S. vein and the Queen vein strand. The vein splits seen both on the surface and underground make this a necessity. This could be done quickly and economically with a jackleg and 20 feet of sectional steel. This would be especially beneficial in the North drift, No 2 Level, where narrow high grade shows on the footwall in the drift and in stoping above.

On the surface, in view of the planned stripping of the Queen vein, I suggest horizontal or slightly inclined down holes from the hanging wall (canyon side) of the vein to delineate the ore and aid in grade control. This could be done with percussion drill sectional steel but more effectively with a diamond drill (skid mounted).

A 50 foot winze (N-1) out of the North drift, No. 2 Level, on the Maude S. vein, is inaccessible. Another winze (S-1) on the Queen vein strand below the South drift, same level, is flooded. This is reported to be 70 feet deep with associated stoping along the vein for a strike length of 50 feet. The configuration of this work with the stoping above the level may indicate a southerly rake to the ore controlled by the flexure mentioned earlier. Dewatering of this stope to No. 3 Level will provide more information. This stope in addition to the presently accessible levels should be mapped geologically. Such work, not entailing a great deal of time, could well

encourage prospecting at greater depths as ore trends were established.

Referring to the possibility of ore at depth, consider the following ore lower limits reported on various veins in nearby mines.

<u>Vein</u>	<u>Lower Limit Elevation</u>
Last Chance-Confidence	6100'
Pacific	6200'
Maude S.	6200'
Fanney	5900'
Queen	6200'
Cooney	6400'

In view of the fact that the lowest elevation showing production in the Eberle Mine (Queen vein) is 6500 feet it follows that there is still ore potential at greater depth.

In addition to the above mentioned areas that should be prospected, the area northeast of the North and South drift junction should be diamond drilled to test the complete Maude S. vein-Queen vein intersection. Careful mapping of the North drift would narrow down the potential targets.

I am impressed by the well-planned manner Mr. Aker and his partner Mr. Dick Manning are progressing. Considering their many years of mining experience as well as their determination, I am optimistic about their success. The recent acquisition of additional claims contiguous to the Eberle claim on a lease basis, improves their position. Their present efforts and future development plans should result in an overall renewal of interest in the Mogollon district, an area that certainly warrants more investigation.

As the work and ore treatment program develops, consideration should be given to treating other ores on a custom basis, providing additional revenue and encouraging re-opening of other properties in the district.

A handwritten signature in cursive script, appearing to read "Owen J. Hart".

Owen J. Hart

Geologist.