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Maps with Original only

SUBJECT: APPRAISAL OF POTTS FRACTION
MINE, MARYSVALE, UTAH

TO: A. M. MASTROVICH

FROM: ROBERT J. WRIGHT

DATE: AUGUST 4, 1955

cc: Wallace Macgregor

INTRODUCTION

On July 28, 1955, I visited the A. E. C. office in Salt Lake City to obtain information about the Potts Fraction Mine, Marysvale, Utah. July 29th was spent in examination of the mine. This work was done as a follow-up of a preliminary examination by M. L. Gay and A. M. Mastrovich on July 7 and 8, as reported by Mastrovich on July 18, 1955 ("Black Bear Uranium Consolidated Mining Co. Properties").

THE MINE

Ore is being mined from a mineralized zone in a canoe-shaped rhyolite body overlying quartz monzonite. The ore consists of autunite and uranophane on fracture surfaces and impregnations of a yellow uranium mineral in soft, clay-like portions of the rhyolite. Much of the high-grade ore is associated with irregular patches of powdery, purple fluorite.

The ore body, as cut by workings on the 210 level and by drill holes, appears to be elongate in plan, striking southeast and plunging 20° to 30° southeast. Its width is on the order of 50 feet and its vertical dimension is some 30 feet. Workings and drill holes have explored the ore body over a strike length of 80 feet. An ore body of these dimensions contains about 13,000 tons per 100 feet of strike length. Because the grade is irregular and horizons of barren material are present, and because mining could not recover all the ore present, it is estimated that the Potts Fraction deposit might yield 6,500 tons of inferred ore per 100 feet of strike length.

The best possibility for finding appreciable reserves is in discovering a feeder pitchblende vein in the monzonite, through which mineralization was introduced into the overlying rhyolite. Such feeders have been discovered beneath mineralized rhyolite elsewhere in the Marysvale district and contain most of the reserves in the area.

It was this thought which prompted 1085 feet of core drilling by the A. E. C. on the Potts Fraction claim. All but one hole were drilled from underground stations on the 210 level of the mine. Results of the drilling are shown on the accompanying map. Study of the drill data reveals the following facts:

1. The only mineralization found within the monzonite is in hole PF-1 on the Clays claim, which adjoins Potts Fraction on the south.
2. No ore was found on the monzonite - rhyolite contact, where cut by three holes. This contact has produced rich pitchblende ore on property of V. C. A.

3. There seems to be no possibility of a feeder vein in monzonite below the rhyolite ore body on the Potts Fraction claim.
4. The rhyolite ore body plunges to the southeast at a low angle.
5. The rhyolite ore body is only 25 feet above the upper surface of the monzonite.

CLAIM PROBLEMS

Unfortunately, the mine is near the southwest corner of the Potts Fraction claim and little ground is available along strike of the ore body. The ore body can be developed only 80 feet to the southeast before intersecting the southern edge of the claim. The western edge of the Potts Fraction is overlapped by the Farmer John No. 1 claim, now under lease to V. C. A. This claim, which predates Potts Fraction, has floated south from its original position, as shown by a mineral survey made in 1951. It might be possible to demonstrate that Farmer John No. 1 corner posts have been moved; however, as things now stand the east edge of Farmer John No. 1 overlap Potts Fraction by 90 to 150 feet. The mine workings are presently extended to the east side line of Farmer John No. 1. Between the present side line of Farmer John No. 1 and the south side line of Potts Fraction the available strike length of the rhyolite ore body is about 150 feet. This represents a recoverable inferred reserve of about 10,000 tons, of which 1,500 tons has already been mined. Between the west end line of Potts Fraction and the south side line the available strike length is about 250 feet. This represents recoverable inferred reserve of about 16,500 tons, of which 1,500 tons has already been mined.

CONCLUSIONS

1. The rhyolite ore body has a recoverable inferred reserve of 10,000 to 16,500 tons, depending on the fixing of the western property boundary. Grade is on the order of .17% U_3O_8 .
2. The rhyolite ore body has probably been fed by a primary vein structure in the monzonite. However, drilling suggests that the feeder is not present on the Potts Fraction claim. The most likely bet is that the feeder is southeast down the plunge of the ore body, on the Clays claims.
3. Because of property restriction the ground appears to have little potential except for the rhyolite ore body.

RECOMMENDATIONS

Because of its limited potential, I suggest that Climax reject the property.