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REPORT ON THE LOUIS CAMPANELLA PROPERTY, CHERRY CREEK DISTRICT, WHITE PINE COUNTY, NEVADA

by

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The scheelite property of Louis Campanella of Cherry Creek, Nev., T. 24 N., R. 62 E., consists of six unpatented claims located in a canyon tributary to Cherry Creek Canyon. The property is 2.7 miles northwest of the tungsten mill by graded gravel and dirt roads. A road extends to one of the two zones of probable commercial ore on the property. This road could be extended without much difficulty to the other ore zone, shown near the southwest corner of the map.

Geology.--Almost the entire property is underlain by massive blue and gray limestone. Most of the sequence is believed to be the Eldorado limestone; that underlying the western part of the property may be younger. Near the eastern edge of the property Pioche shale and Prospect Mountain quartzite crop out. The limestone is well exposed in the southern part of the property, but bedding is very obscure. The few reliable attitudes that could be taken suggest a continuation of the west-dipping homoclinal structure mapped farther north in the district.

The most prominent structural feature recognized is an eastward-trending, north-dipping shear zone. Although displacement along this shear zone appears to be small, lenses of coarsely crystalline calcite, and locally ankerite or siderite with scheelite, can be traced more or less continuously across the property. Two distinct periods of movement along this zone are indicated. The first is believed to have been of the shearing type. Contemporaneous with or slightly later than this movement, coarsely crystalline carbonate minerals, and locally a little scheelite, were deposited along the zone. Where certain bedding planes or cross fractures nearly parallel to the bedding, intersect the main shear zone, larger lenses were formed. Later movement along the zone produced a breccia of limestone and coarsely crystalline carbonate fragments cemented by earthy carbonate. In the vicinity of the two adits the breccia is the footwall of the coarsely crystalline zone; near the southwest corner of the map the breccia is in the center of the coarsely crystalline zone. Total movement appears to have been small, for the limestone-shale contact, although poorly exposed, does not seem to be displaced appreciably. None of the limestone beds are distinctive enough to be recognized with certainty on opposite sides of the shear.

Near the northwest corner of the property, a zone similar to the one described above is indicated by a train of coarsely crystalline calcite float. Overburden is heavy in this area, but a few prospect pits expose calcite in place.

Scheelite Deposits.--Scheelite has been found only along the main shear zone and along cross-fractures (possibly some of these are bedding planes) that intersect the main zone. At these intersections the zone of coarsely crystalline carbonates is generally wider than elsewhere. Although exposures are not continuous enough to give conclusive evidence, it seems probable that appreciable amounts of scheelite, and the brown carbonate with which it is almost always associated, occur only at or near these intersections.

Two small bodies of commercial scheelite ore are exposed. One, hereafter referred to as the East ore body, is developed by an 80 foot adit (Upper adit). Surface and underground exposures indicate that this lens is 50 feet long, averages 4 feet - 5 feet wide, and averages between 0.5 and 0.75 percent WO_3. In the Lower adit mineralization along the shear zone is spotty and subcommercial.

The Cherry Creek Tungsten Mining Co. has just begun to develop the East ore body. They are driving the Lower adit eastward along the shear zone to intersect the projected continuation of the ore body exposed in the Upper adit. If the ore body continues down dip to the level of the Lower adit, it contains between 1,250 and 1,500 tons of ore.

The ore body shown near the southwest corner of the map has been prospected on the surface only. The south split has approximately the same dimensions as the East ore body. The grade is believed to average between 0.75 and 1.0 percent WO_3. The north split averages only 1 foot wide and is probably non-commercial. This ore body probably contains 20 tons per vertical foot. If mining of the East ore body is profitable, this western ore zone will probably be more thoroughly developed.

Other small areas of low-grade scheelite mineralization are exposed along the main shear zone and cross fractures extending away from it. It is doubtful if any of these contain commercial ore within a reasonable distance below the surface.

A little scheelite float is found in the northwest corner of the area mapped. A dozen pits have been excavated in this area, but no scheelite was found in place. It is likely that one or more small scheelite-bearing lenses occur along the shear zone, the approximate location of which is shown on the map. The sparsity of float fragments containing scheelite, and the small area in which they occur, suggest to the writer that the probability of a near-surface body of commercial ore in this area is small.

Ore Reserve.—

Ore Body	Measured			Indicated			Inferred		
	Tons	%WO_3	Units	Tons	%WO_3	Units	Tons	%WO_3	Units
East	150	0.6	90	300	0.6	180	20 @	0.6%	/ vert. ft.
West	50	0.75	38	100	0.75	75	20 @	0.75%	/ vert. ft.
Total	200		128	400		255	1000 tons probable		