

MR 1905-60

The State of Wyoming.  
Office of State Geologist,  
Cheyenne.

Cheyenne, Wyo. August 10, 1905.

Prof. J. H. Ware,

Pres't. Shawnee Copper Mining Co.,

Shawnee, Oklahoma.

My dear Sir:-

herewith I hand you brief report on the Raven Group of claims, in eastern Carbon County, this State, as per your application of August 6th last.

In my opinion, the showings on this property fully warrant the expenditure necessary to open up and prove these deposits, and I trust your Company may be successful in so doing.

Very truly yours,

*Henry C. Beeler*  
State Geologist.

GEOLOGICAL SURVEY OF WYOMING

The State of Wyoming.  
Office of State Geologist,  
Cheyenne.

A BRIEF REPORT  
ON  
THE RAVEN GROUP OF CLAIMS.  
CARBON COUNTY, WYOMING.

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LOCATION.

The Raven Group is situated on Iron Creek, a small tributary of French Creek, on the western slope of the Medicine Bow Range of Mountains, in Sections 15, 21 and 22; Township 14 North, Range 80 west near the eastern line of Carbon County, Wyoming, and about twenty-five miles east of the town of Encampment. The nearest shipping and railroad point is Walcott, on the Union Pacific R. R., about sixty miles west and north of the property.

EXTENT.

The Raven Group consists of three claims, namely:-

The Raven,

Raven Extension,

Raven No. 1.

These are full claims, each 600 feet by 1500 feet and comprise about sixty acres of land. It is recommended that additional claims be located on either side of the present group, to fully protect the rights and privileges of the present holdings, secure additional timber and water rights and to give all necessary ground for suitable building sites etc., which may become desirable as work proceeds.

#### PRESENT TITLE.

The claims are held by location and discovery under the laws of the United States and the State of Wyoming by Arthur H. Crow<sup>etal</sup> of Encampment, Wyoming, and it is recommended that a move to patent the group be made as soon as possible and the requisite amount of work has been done.

#### GENERAL GEOLOGY.

In general, the geology of the Medicine Bow Range may be said to consist of a core of granite, with bands of schists and quartzites of varying size, extent, dip and direction, and the whole overlaid towards the North Platte Valley by the carboniferous limestones and succeeding Sedimentary formations.

#### IRON CREEK.

The formation at this point consists principally of schist and quartzite, both much altered and changed, both in appearance and composition, the schist to a considerable extent being replaced by silica showing a hard silicious outcrop at many exposed places, notably on the Ak-Sar-Ben Claim, east of the Raven Group, and the quartzite usually much stained by iron oxides.

#### IRON LEDGE!

This is the name locally applied to the huge outcrops of hard oxidized iron material found lying between the schist and quartzite above described at this point.

It consists of a silicious oxide of iron, very hard where exposed to the weather, as on the upper or eastern end, and soft where covered

by the surface wash, as on the Raven Group.

The general trend or direction of this ledge is north-east and south-west and has been traced by its outcrops for a distance of about two miles, the width showing from thirty feet to seventy feet; it lies conformably with the formation of the district.

On the north east end of the Ak-Sar-Ben claims a shaft has been sunk to a depth of 35 feet on an outcrop of hard silicious red and black hematite, with some soft brown limonite and quartz showing in the *shaft* material, and on the southern end near the Raven end line, a shaft has been sunk to a depth of 80 feet with cross cuts 72 feet across the veins.

As this is practically at the Raven lines the showings here may be taken as what may be expected on the latter claims.

The surface cap at this point was exposed and therefore hard, and this being cut through, a softer condition was encountered and the schist showed well stained with iron oxides, and also showed considerable manganese and graphite in the ledge matter; This continued to the present depth of the shaft, (80 feet) the level of permanent water and the sulphide ores not yet having been reached.

#### THE RAVEN GROUP!

This extends from near the above workings south-westerly for a distance of 4500 feet, the length of three full claims and the iron ledge has been traced for the whole distance by cuts and shallow workings through the surface wash, as well as the usual outcrops at intervals.

At the upper, or <sup>o</sup>n<sub>^</sub>rth east end, holes have been sunk to a depth of ten and fifteen feet deep and a heavy streak or band of soft yellow limonite exposed; this material is very light and spongy and is considered ~~a~~ good showing on which to do the first shaft work.

It is therefore recommended that a shaft be sunk on this material and that it be put down as a regulation four feet by nine feet double compartment shaft, properly and securely timbered, and all adjacent ground properly secured against caving or accident in a substantial manner. This shaft would cost about \$20.00 per foot by contract and would be of sufficient size to permit a thorough prospecting and investigation of the deep formations at this point.

After the first 100 feet of work has been done, a plant may be installed on second contract let to contractor with hoist and requisite machinery for handling probable water etc. before a permanent plant is purchased or installed by the Company.

No present figures can be given by any one as to probable depth of the oxidized iron cap on these formations, but it is believed to be considerable and preparations should be made to handle material from great depths.

After the ore has been fully proven, a tunnel site from French Creek may be considered, but at the present time the only practicable method of prospecting and development is a shaft as above.

The claims are covered with timber suitable for all mining purposes, and Iron Creek furnishes water necessary for all purposes. Steam power would be most economical for this plant, owing to wood fuel at hand.

The present wagon road for the latter part of the distance from the main Rambler-Encampment road should be relocated and built but cost need not exceed \$500.00 for this work and should give a good practicable road.

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The development of the Copper ores in the Grand Encampment District for the past five years has demonstrated the existence of these ores in commercial quantity with depth, and the experience of the past year has been especially fruitful in proving this theory, and the iron cap is accepted as the leading and most reliable surface guide to these deep ores. Every successful mine of the district has shown the same conditions as shown in the present iron ledge, but few so large or extensive.

The amount of copper showing in the surface ores has uniformly been small, and the ores proven to be chalcopyrite-bornite ores of concentrating grade and this may confidently be expected to be the same at these present claims.

Respectfully Submitted,

*Amory L. Peeler*  
State Geologist.

date of Examination  
August 7, 1905.