

Mr. M. M. Duncan, Vice-Pres. & Gen. Mgr.,

Ishpeming, Michigan.

Dear Sir:

I beg to submit the following report of the work done in the  
Gwinn District for the year ending December 31st, 1920.

The various subjects have been taken up under the following  
heads:

GENERAL REMARKS

AUSTIN MINE

STEPHENSON MINE

PRINCETON MINE

GWINN MINE

JOPLING MINE

FRANCIS MINE

GARDNER AND MACKINAW MINES

GENERAL SURFACE

ANALYSIS OF COST SHEETS

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GENERAL REMARKS

The product of the Gwinn District Mines for the years 1920-1919 was as follows:

	<u>1920</u>	<u>1919</u>	<u>INCREASE</u>	<u>DECREASE</u>
Stephenson Mine,	174,782	2,402	172,380	
Princeton Mine,	156,746	193,228		36,482
Gwinn Mine,	96,595	137,847		41,252
Francis Mine,	80,056	80,528		472
Mackinaw Mine,	72,990	50,168	22,822	
Gardner Mine,	57,398	19,158	38,240	
Austin Mine,	0	14,896		14,896
TOTAL,	638,567	498,227		
INCREASE 1920,			140,340	

The Stephenson and Princeton Mines produced 52% of the ore mined in 1920. The product from the Stephenson Mine shows a large increase over 1919. This, however, was to be expected, as the mine was unwatered in November, 1919, and gotten into condition for production by the first of March, 1920.

The Princeton Mine shows a decrease from the previous year due to putting the mine on single shift on March 1st, and reducing the number of men employed underground, to provide men for operating the Stephenson.

The Gwinn also shows a decrease from the previous year, first and mainly to the shortage of labor, and later, for a short time, to the lack of available working places in ore.

The Francis product is practically the same as the previous year, due to the fact that there was not sufficient labor available to permit of increasing the product, until in December.

Both the Gardner and Mackinaw Mines shows increases over the previous year. This increase would have been greater if the property had not closed down on November 30th.

The Austin Mine was not operated during 1919-1920.

During January and February, diamond drilling was done on the Jopling property, but no ore was found. The lease on this property was then surrendered, and after moving the equipment from the property, a dam was installed on the Gwinn Mine property near the boundary line to seal off the Jopling water.

GENERAL REMARKS:

There was a shortage of labor in the Gwinn District until December 1st, when, owing to the closing down the Gardner-Mackinaw Mine, and the curtailing of operations in other districts, the labor supply became abundant. The labor shortage during the year decreased the output and increased the cost of production at all the mines in the district. It also made it necessary to postpone considerable surface work.

On January 1st, 1920, there were 739 men employed in the district; on December 31st, there were 709, the decrease for the year being 30.

The company did not build any houses during 1920 at any of the locations. However, in Gwinn there was one new house erected on a lot which had been sold, and the new store building, which was started in 1919, was completed at a cost in excess of \$10,000.00.

There was a comparatively short re-occurrence of the influenza epidemic in February. Fortunately, the malignant form only appeared at one boarding house, where there were two deaths; the balance of cases were milder than in the previous year.

All the company houses in the district were occupied at the end of the year. There is at the present time, however, no housing difficulties, due to the fact that the Gardner and Mackinaw locations are available as homes for the men working at Gwinn and Francis Mines.

During the past year sinking has been completed at the Gwinn and Francis Mines, which finishes the greater part of all expenditures for development work at these properties. This will have a marked influence on the future cost of ore at these mines.