

BIG BLACKFOOT RAILWAY
VALUATION SECTION MONTANA 1.

Valuation Section Montana 1 of the Big Blackfoot Railway covered the line owned by that Company, extending in a general easterly direction through Missoula and Powell Counties from a connection with the C. M. & St. P. Railway Company's Spur at Bonner, Montana to Browne Lake, comprising about 60 miles of line.

Grading was completed and track laid to a connection with the Anaconda Copper Mining Company's Logging Spur in Mile Eleven in 1909-10-11. The grading on the remainder was under way in 1910 when work was discontinued, and it has not as yet been completed.

In September, 1907, a reconnaissance was made beginning at Bonner, Montana, and extending in a general northeasterly direction along the Big Blackfoot and Clear Water Rivers. A second reconnaissance of this same territory was made in March, 1909. This last reconnaissance was followed by instrumental surveys. The surveys at this time did not terminate at Browne Lake, but extended on north along the Clear Water River. Construction was begun on the first 11 miles in December, 1909. The surveys had been made rather hurriedly due to the fact that other railroads had parties in the field at the same time, and when construction was undertaken, numerous revisions were made. In June, 1910, instructions were issued to extend the line east to a terminus at Browns Lake and surveys were made accordingly.

The line as located and adopted crosses the Big Blackfoot River soon after leaving the connection with the C. M. & St. P. Spur at Bonner, and follows the north bank of the river in a general easterly direction to its junction with the Clear Water River; thence follows the Clear Water River almost due north for about 4 miles to a crossing of the river in Mile Thirty-three; thence swings east to Ovando, touching the north bank of the Big Blackfoot River about 4 miles east of the Clear Water crossing. From Ovando the line swings south of east to the terminus at Browns Lake.

A spur about a mile long leaves the main line at Blackfoot Junction and crosses the river to a connection with the A. C. M. Company's logging road.

The first 19 miles of the line lies along the Big Blackfoot River Canyon and the curvature is quite sharp, although the gradients are light, the maximum being .5 percent. From Mile Nineteen to the Clear Water crossing the line lies in what is locally known as Nine Mile Prairie, and the gradients and curvature are moderate. East of the Clear Water crossing the line traverses a rather rough, mountainous territory.

The C. M. & St. P. Spur was built in the Fall of 1909, just prior to the beginning of construction on the Big Blackfoot Railway. A connection was made between this spur and the Northern Pacific Bonner Mill track, which tracks are used jointly by the two companies.

As previously indicated construction was authorized in December, 1909, for about 11 miles of line, extending from the C. M. & St. P. Spur at Bonner, to a connection with A. C. M. logging road near Blackfoot Junction. An office was established in Bonner for the Assistant Engineer in charge of the work, who reported directly to Mr. J. R. Tools, President of the Company. The Assistant Engineer had the usual office force and one Resident Engineer and party. Contract for the grading and culvert work was let to Clifton, Applegate & Company. Contract for the timber trestle work was let to O. E. Peppard of Missoula.

When it was decided to extend the line on to Browns Lake in June, 1910, Clifton, Applegate and Company were awarded the contract, who in turn sublet the work above Mile Eleven to the White Construction Company.

Good wagon roads were in existence from Bonner to the connection with the logging road, but about 2 miles of road were opened up above that point, the principal expense of which was the construction of three temporary wagon bridges across the river. The bridges were built with stringers of trees cut from near by timber on rock filled crib piers, and the floors were of poles. A bridge was also built across the river on Mile Two near Station 103. This bridge was of the same construction, with the exception that the floor was of plank, which were afterwards used for sway bracing on the railway bridges.

The grading on the first 11 miles was moderately heavy, varying from 15 to 50 thousand cubic yards per mile, the average being about 33,000. Classified material predominated, being about 90 percent of the total. The grading was largely done by station men with the usual outfit of cars and track. Clifton, Applegate & Company used a model 40 Marion Shovel with $1\frac{1}{2}$ yard cars in the heavy cut at Bonner and several cuts on Miles Five and Six, and on Mile Nine.

In moving the steam shovel from the cut at Bonner to the work on Mile Five, it was found necessary to dismantle it and reassemble it at its new location. For the other moves the shovel was not dismantled.

In November, 1910, orders were issued to discontinue all work, and the Engineering forces were laid off by the middle of December. In July, 1911, orders were issued to complete the work to the connection with the logging road, and this work was finished in October, 1911. When the work was closed down in November, 1910, the grading was pretty well completed on the first 9 miles. When work was resumed, it was necessary to complete the grading on Miles Ten and Eleven, and the spur at Blackfoot Junction. A steam shovel was used to take out the cuts between Stations 720 and 763, and the cut at Station 750 was taken out by the trap tunnel method.

As previously indicated the pile trestle work was done by contract. The piles were cut from the closest timber. The other material, with the exception of the stringers, was sawed in the mill at Bonner and hauled by team to the points of use. The stringers were of coast fir, shipped by rail to Bonner, thence hauled by team.

The piers for the Big Blackfoot River crossing on Mile One were built by Bates & Rogers Construction Company, and the steel work erected by the C. M. & St. P. Bridge and Building Department. The foundations at this bridge were unusually expensive as the bed of the river was covered with sunken logs, which interfered with the driving of the cofferdams. This trouble was finally overcome by cleaning up the river bottom with an orange peel dredge. The falsework here was knocked out twice by log jams. The Big Blackfoot crossing on the spur connection with A. C. M. logging road, Mile Eleven, was built by Dibble & Kelly of Spokane, the material being furnished and delivered on the ground by the Railway Company.

The line of the Railway encroached upon and interfered with the old highway, necessitating several expensive changes.

The first change began about 200 feet to the left of Station 170 on Mile Three, crossed the Blackfoot River, and continued up the south side of the river to a point opposite Station 288 in Mile Six, where it again crossed to the north side of the river, and to the north side of the track. From this point the new road was graded on the Railway Company's right of way to about Station 495, where it crossed to the south side of the track and connected with the original highway. The right of way for the new highway was paid for entirely by the Railway Company. This change also necessitated two wagon bridges across the Blackfoot River, the cost of which was borne by the Railway Company and Missoula County on a 50 percent basis. It was necessary to construct temporary bridges over the river to care

for the traffic until such time as the permanent bridges could be completed. These bridges were of log stringers and crib piers with plank floors, the plank being used later for flooring the permanent bridges. The expense of constructing the temporary bridges was borne by the Railway Company. Other changes secondary in importance were made on Miles Six and Seven, on Mile Nine, Mile Ten, and Mile Eleven.

The track material was unloaded in the material yard at Bonner. The ties for the first 3 miles were cut in the mill at Bonner and distributed during track laying. The ties for the balance of the line were delivered on the right of way from the adjoining timber. Track was laid by hand. The passing track at Bonner and about a mile and a half of main line had been laid in 1910, when work was discontinued. Track laying was completed in the Fall of 1911. The Contractor's steam shovel was cut into a gravel bank on Mile One, and enough ballast distributed and put under the track to give it a good running surface.

The C. M. & St. P. Railway Company operated this line acting as Agent for the Big Blackfoot Company until December 31, 1916. On that date the line was purchased by the C. M. & St. P. Ry. Company, and it is now operated as a part of the Missoula Division.