

THE MOREAU BRANCH
VALUATION SECTION SOUTH DAKOTA 2.

The Moreau Branch departs from the main line at Moreau Junction near the west end of the Missouri River Bridge and extends about 62 miles in a general south and westerly direction through Corson and Dewey Counties to Isabel. The line was constructed in 1909-10 to serve the lands being opened for homestead on the Standing Rock and Cheyenne Indian Reservations.

In 1906 an exploration followed by a location survey had been made in connection with the surveys for the main line of the Puget Sound Extension. This survey crossed the Missouri River at Blue Blanket Island and ascended to the Divide between the Moreau and Grand Rivers, with heavy development work. In the Spring of 1908 when it was decided to build a branch line in this vicinity a detailed exploration was made along the west bank of the Missouri River, particularly with the idea of obtaining a typical branch line connection between the constructed main line and the old survey along the Divide between the Moreau and the Grand Rivers. The information from this exploration indicated that the more advantageous route would be via Claymore Creek; consequently location parties were placed in the field to investigate the possibilities. These surveys developed the fact that the line along Claymore Creek would be very expensive, and their efforts were turned to surveys up Snake Creek. The location along the Divide in 1906 had been made for the main line, as previously indicated, and revisions were made to make it conform to branch line standards. A total of about 195 miles of preliminary and 87 miles of location survey was made to produce the 62 miles of line adopted and constructed.

The line as adopted and constructed leaves the main line at the west end of the Missouri River Bridge and follows up the Grand River Valley about two and one-half miles, then crosses the Valley and follows Snake Creek about 18 miles to the Divide near Trail City. Crossing of the Grand River is made between Moreau Junction and Snake Creek, and two other crossings were avoided by extensive channel changes. Numerous channel changes were also made along Snake Creek. From Trail City westwardly to the end of the line at Isabel the Divide between the Moreau and Grand Rivers is followed quite closely.

The construction was carried on under the supervision of a Division Engineer and Resident Engineers in the field. The Division Engineer reported to the Engineer of Construction at Miles City. The contract for the grading, bridge and culvert work, track laying, and the handling of stores and supplies was awarded

to McIntosh Bros., who sublet the entire line to H. A. Whittier of Billings, Montana. Outfits for the work were shipped from Billings via the Northern Pacific Railway to Miles City where they were transferred to the Chicago, Milwaukee & St. Paul Line and delivered to Wakpala. A temporary material yard was constructed at Wakpala and headquarters were established at this place for the Engineers and Contractors.

A few squaw men and Indians were living on small ranches along Snake Creek, but as a whole the country traversed was undeveloped at the time of construction, and no supplies could be obtained locally. As a consequence it was necessary for the contractors to build wagon roads and transport the supplies from Wakpala. This also necessitated the construction of a ferry over the Grand River. The smaller streams were forded and as they were subject to sudden flood considerable delay was experienced in the transporting of supplies. Part of the wagon road was through gumbo soil, which made it almost impassable in wet seasons.

Teams with grading machines, freenoes and wheel scrapers were used for the grading. The materials were variant. In the Grand River Valley, silt and heavy gumbo were encountered. In the Snake Creek Valley, silt, hardpan, gumbo soil, loose and solid rock and glacial drift were encountered. Between Trail City and Isabel the soil was lighter although hardpan and loose and solid rock were encountered in some of the deeper cuts.

A large slide occurred in Mile 7 which was removed with a steam shovel and the material used for bridge filling after the track was laid.

The material for the culverts on the first 23 miles of the line was hauled from Wakpala by team. On the last 40 miles the culvert openings were cribbed and the material delivered by train after the track was laid. Cast iron pipe was used largely for culverts although in some cases concrete and vitrified pipe was used.

The most important bridge on the line is the one used for the Grand River crossing which consists of a 140 foot steel through truss span on concrete piers. The false work for this bridge was built of sufficient strength to carry traffic and track laying was not held up during its construction. The pile bridges were built by the contractors in accordance with the Railway Company's standard plans. The piling is of western cedar and the guard rail, bracing, etc., of western fir. Material for the bridges on the first few miles was hauled by team from Wakpala, and for the remainder of the line it was delivered by work train at various points along the track as it progressed westward and taken to the points of erection by team, sufficient distance being maintained between the end of track and bridge sites to insure no delay to track laying. Bridge and culvert material was furnished by the Railway Company.

The track was laid with a Roberts Bros. machine, work being begun on April 2nd, 1910 and reached Isabel on May 25th. New 65 pound rail was used, with lighter material in a few of the side tracks.

Water supply was especially hard to obtain. Seven temporary plants were installed for supply during construction. Permanent stations are maintained at Landsau, where a reservoir has been graded, Trail City, and at Timber Lake. At Trail City permanent supply is secured from a reservoir about one and one-half miles from the town, necessitating a long pipe line. At Timber Lake a test well failed to yield supply and at present a 20 by 20 foot dug well is used. Several wells were drilled in the vicinity of Isabel but supply could not be found. Notwithstanding the rather unusual expense in connection with water supply for this line, water is often hauled by train from the Missouri River during dry seasons.

Material for the buildings was delivered by train after the track was laid. Depots were built at Moreau Junction, Trail City, Timber Lake and Isabel. The right of way has been fenced where conditions require it and the proper crossing facilities placed. As previously indicated, few crossings were required at the time of construction due to the undeveloped character of the country. A large number of the crossings now in use have been graded since track was laid, and fences built, necessitating changes in the original plan. Snow fence has been provided where protection is needed.

Material for the telephone and telegraph line was delivered by a work train. The line averages 35 poles per mile and carries two wires. Telephones are used for train dispatching purposes, being installed in booths at "blind sidings" and in the depots.

The line is operated as a part of the Trans Missouri Division, the usual branch line equipment being used.