# INTERSTATE COMMERCE COMMISSION WASHINGTON

REPORT NO. 3381

MAINE CENTRAL RAILROAD COMPANY

IN RE ACCIDENT

NEAR LAMBERT LAKE, MAINE, ON

DECEMBER 12, 1950

#### Report No. 3381 - 2 -

#### SUMMARY

December 12, 1950 Date:

Railroad: Maine Central

Location: Lambert Lake, Maine

Kind of accident: Derailment

Train involved: Freight

Train number: 951

2597 and 5166 Engine numbers:

34 cars. 2 cabooses Consist:

30 m. p. h. Estimated speed:

Timetable, train orders and Eutomatic Operation:

block-signal system

Single; 3°55' curve; 1.12 percent ascending grade westward Track:

Weather: Raining

Time: 5:15 a. m.

Casualties: 2 killed; 3 injured

Cause: Washout

#### INTERSTATE COMMERCE COMMISSION

#### REPORT NO. 3381

IN THE MATTER OF MAKING ACCIDENT INVESTIGATION REPORTS UNDER THE ACCIDENT REPORTS ACT OF MAY 6, 1910.

MAINE CENTRAL RAILROAD COMPANY

February 7, 1951

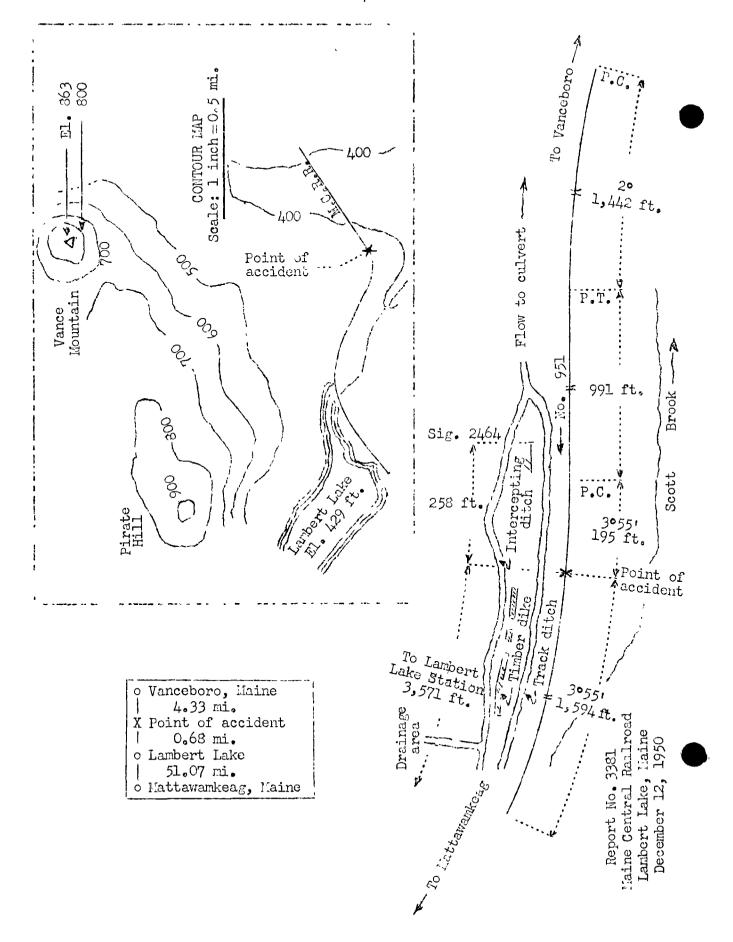
Accident near Lambert Lake, Maine, on December 12, 1950, caused by a washout.

REPORT OF THE COMMISSION

## PATTERSON, Commissioner:

On December 12, 1950, there was a derailment of a Canadian Pacific Railway freight train on the Maine Central Railroad near Lambert Lake, Maine, which resulted in the death of two employees and the injury of three employees. This accident was investigated in conjunction with a representative of the Maine Public Utilities Commission.

Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.



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#### Location of Accident and Method of Operation

This accident occurred on that part of the Eastern Division extending between Vanceboro and Mattawamkeag, Maine, 56.08 miles, a single-track line, over which trains are operated by timetable, train orders and an automatic blocksignal system. Trains of the Canadian Pacific Railway regularly are operated over this line. The accident occurred on the main track 4.33 miles west of Vanceboro and 3,571 feet cast of the station at Lambert Lake. From the east there are, in succession, a 2° curve to the left 1,442 feet in length, a tangent 991 feet and a 3°55' curve to the right 195 feet to the point of accident and 1,594 feet westward. The grade varies between 0.54 percent and 1.48 percent ascending westward throughout a distance of 1,700 feet eart of the point of accident and is 1.12 percent ascending at that point.

The track structure consists of 112-pound rail, 39 feet in length, laid on an average of 22 treated ties to the rail length. It is fully tieplated with double-shoulder tieplates, spiked with two rail-holding and two anchor spikes per tieplate, and is provided with 4-hole 24-inch head-free toeless joint bars and an average of 8 rail anchors per rail. The track is ballasted with pit-run gravel to a depth of 18 inches below the bottoms of the ties.

Vance Mountain and Pirate Hill rise gradually to elevations of approximately 450 feet above the level of the track at points about 1.5 miles north of the track. Drainage from these two elevations flows southward to Scott Brook located south of the track. In the vicinity of the point of accident the roadbed crosses this drainage course at practically right angles, and the track structure is laid in a shallow cut. The carrier had constructed an intercepting ditch about 35 feet north of the track to divert surface water from the slope. This ditch is about 3 feet wide at the bottom and 4 feet deep, and extends about 500 feet west and 400 feet east of the point of accident. a distance of about 350 feet immediately west of the point of accident there is a timber dike about 1-1/2 feet high along the south side of the ditch to prevent water flowing to the track. At the point of accident the bottom of the ditch is about 1 foot above the level of the tops of the rails. The track ditch parallels the track on the north at a distance of about 10 feet and the intercepting ditch joins the track ditch about 400 feet east of the point of accident. from the track ditch flows under the track through a stonebox culvert located about 1,100 feet east of the point of accident.

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Automatic signal 2454, governing west-bound movements through the block in which the accident occurred, is located 258 feet east of the point of accident. It is of the two-arm lower-juddrant semaphore type and displays three aspects. It is approach lighted.

This carrier's operating rules read in part as follows:

#### SECTION FOREMEN.

1027. They must see that the roadway and tracks are properly patrolled and watched. During violent storms or high water they will make special and frequent examination of their sections and see that every precaution is taken to protect trains and prevent accident to property, keeping patrol men out higher when necessary. \* \* \*

They will report promptly to the Superintendent and Roadmaster any indication of trouble.

They must personally inspect every part of their section at least twice a week.

The maximum authorized speed for freight trains is 45 miles per bour.

# Description of Accident

No. 951, a west-bound second-class Canadian Pacific freight train, consisted of engines 2507 and 5166, 34 cars and 2 cabooses. This train departed from Vanceboro, the last open office, at 5:05 a.m., 1 hour 30 minutes late, passed signal 2464, which indicated Froceed, and while moving at an estimated speed of 30 miles per hour, the engines, the first 16 cars and the front truck of the seventeenth car were derailed.

Both engines were decailed to the north and stopped on their right sides, in line with the track, with the front end of the first engine 165 feet west of the point of decailment. The first 16 cars stopped in various positions on or near the track. Both engines and 13 cars were badly damaged and 3 cars were slightly damaged. About 300 feet of track were destroyed.

The engineer and the fireman of engine 5166 were killed. The engineer and the fireman of engine 2597 and the front brakeman were injured.

It was raining at the time of the accident, which occurred at 5:15 a.m.

C.P. engine 2597 is of the 4-6-2 type and the combined weight of the engine and tender, in working order, is 431,000 pounds. C.P. engine 5166 is of the 2-8-2 type and the combined weight of the engine and tender, in working order, is 518,000 pounds.

### Discussion

As No. 951 was approaching the point where the accident occurred the speed was about 35 miles per hour. The brakes of this train, which were being controlled by the engineer of the first engine, had been tested and had functioned properly when used en route. The headlight of the first engine was lighted brightly. The engineer and the fireman of the first engine and the front brakeman were in the cab of the first engine and were maintaining a lookout ahead. The engineer and the firemen of the second engine were in the cab of that engine and the conductor and the flagman were in the caboose. The engineer of the first engine sold that it was raining hard as the train approached signal 2464 and that water was running down the side of the cut with considerable force, a condition he had never before observed. He was watching the track closely and after the engine passed signal 2464, which indicated Proceed, he observed that the ballast had been washed from under the north ends of the ties. He immediately made an emergency application of the brakes and the speed was reduced to about 30 miles per hour when the derailment occurred.

Because of the heavy rain the track was being patrolled ahead of all passenger trains. The section foremen had inspected the track about 4 p. m. the previous day and then had assigned two employees to patrol the track during the night. One patrolman had inspected the track and had observed conditions in the vicinity of the point of accident about 3 a. m., 2 hours 15 minutes before the derailment occurred. He examined both ditches and did not consider the flow of water to be excessive. At that time there were no indications of scouring and he saw no condition which he considered abnormal or dangerous.

The track supervisor said that he had been resigned to this territory about 7 years and that during that period there had been no excessive overflow from the ditches in the midialty of the point of accident. It was his opinion that a temporary dam across a ravine on the slope had been formed by debris, and that when this obstruction was broken the resulting surge of water overflowed the dike in sufficient volume and with sufficient force to undermine the track structure.

The engineer and the firemen of Extra 5332 East, an east-bound C.P. freight train, which passed over the point where the accident occur ad about 1 hour 35 minutes prior to the derailment of No. 951, said that at that time it was raining hard but that the engine rode smoothly and they noticed no vater on the track nor any other unusual condition.

#### Cause

It is found that this accident was caused by a washout.

Dated at Washington, D. C., this seventh day of Fabruary, 1951.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,

Secretary.