

INTERSTATE COMMERCE COMMISSION  
WASHINGTON

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INVESTIGATION NO. 2713  
THE MISSOURI PACIFIC RAILROAD COMPANY  
REPORT IN RE ACCIDENT  
NEAR VAUGHN, LA., ON  
JULY 19, 1943

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SUMMARY

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Railroad: Missouri Pacific  
Date: July 19, 1943  
Location: Vaughn, La.  
Kind of accident: Derailment  
Train involved: Freight  
Train number: 807  
Engine number: 25  
Consist: 48 cars, caboose  
Speed: 30 m. p. h.  
Operation: Timetable and train orders  
Track: Single; tangent; level  
Weather: Clear  
Time: About 1:30 p. m.  
Casualties: 1 killed; 1 injured  
Cause: Kinked track

INTERSTATE COMMERCE COMMISSION

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INVESTIGATION NO. 2713

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

THE MISSOURI PACIFIC RAILROAD COMPANY

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August 24, 1943.

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Accident near Vaughn, La., on July 19, 1943, caused by  
kinked track.

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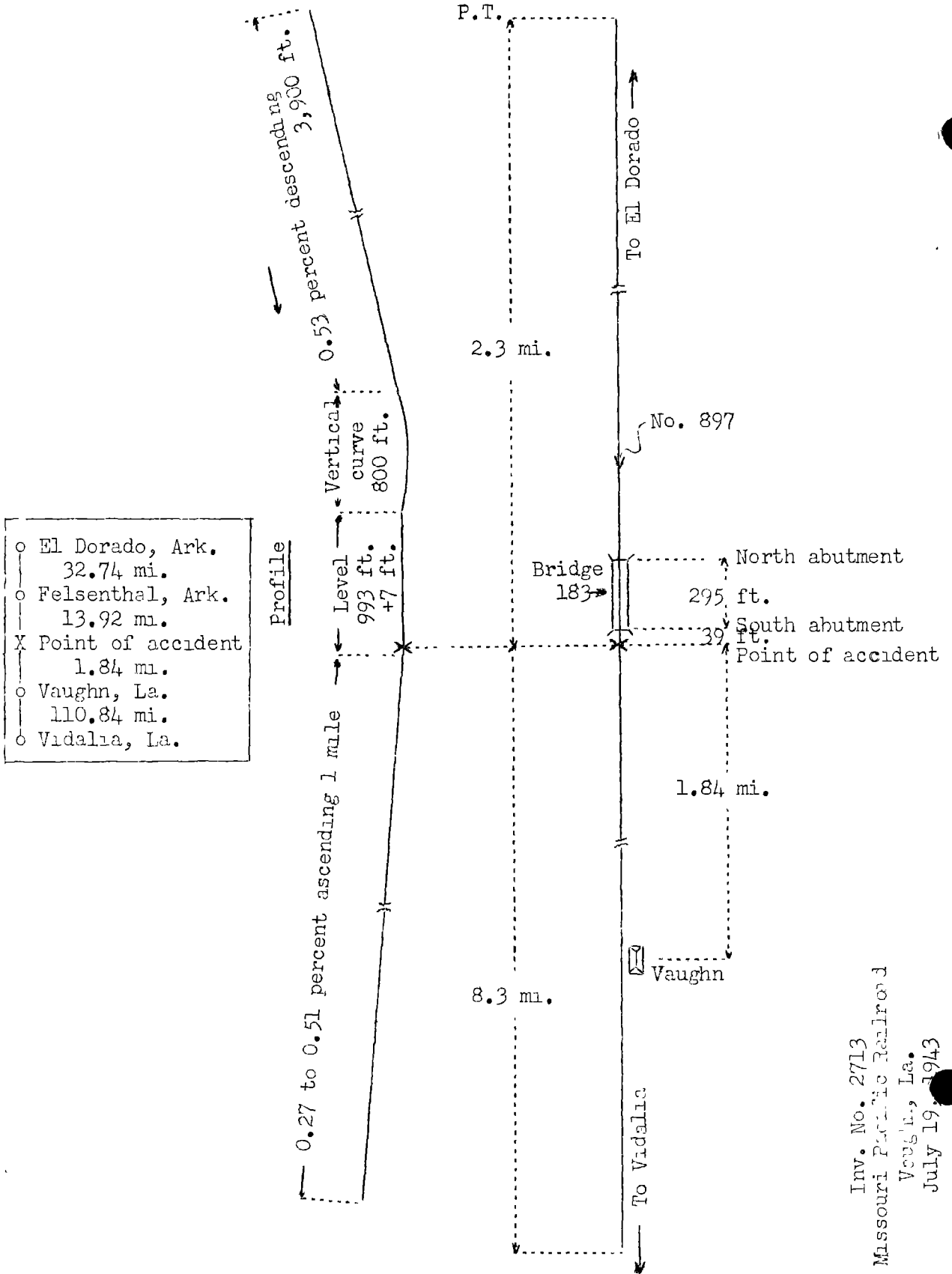
REPORT OF THE COMMISSION<sup>1</sup>

PATTERSON, Commissioner:

On July 19, 1943, there was a derailment of a freight train on the Missouri Pacific Railroad near Vaughn, La., which resulted in the death of one employee and the injury of one employee.

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<sup>1</sup>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.



Inv. No. 2713  
 Missouri Pacific Railroad  
 Vaughn, La.  
 July 19, 1943

### Location of Accident and Method of Operation

This accident occurred on that part of the Louisiana and Little Rock Divisions designated as the Collinston Subdivision and extending between El Dorado, Ark., and Vidalia, La., 159.34 miles. In the vicinity of the point of accident this was a single-track line over which trains were operated by timetable and train orders. There was no block system in use. The accident occurred 1.34 miles north of Vaughn. As the vicinity was approached from the north the track was tangent 2.5 miles to the point of accident and 8.3 miles beyond. The grade for south-bound trains was 0.53 percent descending 3,000 feet, then there was a vertical curve 800 feet, followed, successively, by level track 993 feet to the point of accident and 7 feet beyond, and an ascending grade varying between 0.27 and 0.51 percent more than 1 mile.

The track was laid on a fill about 12 feet in height. The track structure consisted of 85-pound rail, 33 feet in length, laid on 20 ties to the rail length. It was fully tieplated, single-spiked, and was ballasted with gravel and cinders to a depth of about 8 inches. The south abutment of Bridge 103, an open-deck 32-bent pile-and-timber trestle 295 feet in length, was located 39 feet north of the point of derailment. Throughout a considerable distance immediately south of this bridge there was practically no ballast above the level of the bottoms of the ties. Between points 2,000 feet north and 6 feet south of Bridge 103 no rail anchors were provided.

The maximum authorized speed for freight trains was 30 miles per hour.

### Description of Accident

No. 897, a south-bound second-class freight train, consisting of engine 25, 48 cars and a caboose, departed from Felsenthal, 15.76 miles north of Vaughn, at 12:45 p. m., 3 hours 5 minutes late. While this train was moving at an estimated speed of 30 miles per hour the rear truck of the forty-fifth car, the forty-sixth to the forty-eighth cars, inclusive, and the caboose were derailed 1.84 miles north of Vaughn.

The engine and the first 45 cars remained coupled and stopped with the engine standing about 3,200 feet south of the point of derailment. The forty-sixth car became separated from the forty-fifth car. The rear three cars and the

caboose stopped, badly damaged, in various positions west of the track and about 400 feet south of the point of derailment.

The temperature recorded at 1:30 p. m., July 19, at Monroe, La., 35 miles south of Vaughn, was 94 degrees. It was clear at the time of the accident, which occurred about 1:30 p. m.

The flagman was killed and the conductor was injured.

#### Discussion

No. 897, consisting of engine 25, 48 cars and a caboose, was moving on tangent track at an estimated speed of 30 miles per hour, in territory where the maximum authorized speed was 50 miles per hour, when the rear truck of the forty-fifth car, the next three cars and the caboose became derailed 39 feet south of the south abutment of Bridge 183. The enginemen, the front brakeman and the swing brakeman, who were in the engine cab, stated that prior to the occurrence of the accident the engine was riding smoothly and there was no indication of defective condition of the track. The first they knew of anything being wrong was when the air brakes became applied in emergency and the train stopped abruptly. The conductor said his first knowledge of the accident was when he felt the caboose sway and lurch, then the derailment occurred. It could not be determined when the flagman first became aware of the occurrence, as he was killed in the accident.

After the accident a section of track about 25 feet long, beginning at a point 31 feet south of the south abutment of Bridge 183, was found to be deflected to the left. The maximum deflection, which was 11-1/2 inches, was located midway of this section, and it formed at least a 45-degree curve to the right. Beginning at a point 8 feet south of the north end of the displaced track, a flange mark appeared on the outside edge of the base of the east rail. Throughout a distance of about 200 feet southward from this mark, the ties bore wheel marks outside the east rail and inside the west rail. From this point southward a distance of about 200 feet to the point where the rear three cars and the caboose overturned to the west, wheel marks appeared on the ties outside the west rail and inside the east rail. Marks on the base of the rails on the bridge and north of it indicated that the rails had crept.

The track foreman last inspected the track in this vicinity about 5 hours prior to the occurrence of the accident, and no unusual condition was observed. In order to raise the track

on the fill where the accident occurred, a considerable part of the ballast had been tamped under the ties and additional ballast had not been provided to refill the cribs.

The displacement of the track occurred on level tangent track. Beginning at a point 5,793 feet north of the point of derailment, there was a 0.53 percent descending grade southward 3,900 feet. South of the foot of this grade there was a vertical curve 800 feet in length, and south of this the track was level 993 feet to the point where the displacement occurred and 7 feet beyond, then there was a 0.27 percent to 0.51 percent ascending grade southward. The rails on the gradients would have a tendency to creep downward toward the bottoms of the grades and thereby cause the rails at the lower ends of the grades to be compressed. Rail anchors were not provided throughout a distance of approximately 2,000 feet north of the point where the displacement occurred, and an average of only 8 rail anchors per rail length was provided south of that point. This condition, combined with high temperature and ballast that offered very little resistance to lateral movement resulted in the track being kinked.

Cause

It is found that this accident was caused by kinked track.

Dated at Washington, D. C., this twenty-fourth day of August, 1943.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,  
Secretary.