

# Memorandum



Long Island Rail Road

**Date** January 5, 2017

**To** John A. Swanson, Principal Engineer of Track  
Cuvis Ellis, Engineer of Track – Maintenance West

**From** John A. Hasley, Engineer of Track - Operations

**Subject** **Tribometer Readings – Atlantic Terminal Track #6 – 1/04/2017**

Upon request of the use of the Salient Systems Tribometer on Atlantic Terminal Track #6 following the derailment, the tribometer was run to provide baseline readings for top of rail measurement. Tested on track #6 behind the MW Repair Shop, coefficient of friction readings of 0.33 to 0.36 were recorded on dry track. The application of Lubriplate Chain & Cable Fluid to the rail head decreased readings to 0.23. The decrease of this lubricant gave us confidence in its proper operation.

The following employees proceeded to Atlantic Terminal:

John Hasley, Engineer of Track – Operations  
Ernest Pisani, Asst. Supervisor of MW Machinery  
Andrew Pearson, MW Mechanic – Grease Pots  
Robert DeVito, MWU – Grease Pots

## **Coefficient of Friction Measurements**

<b>Footage</b>	<b>North Rail</b>	<b>South Rail</b>
-4'6"	7074 Coupler	7074 Coupler
7		0.36
12	0.33	
14'8"		0.35
23	0.36	0.33
43	0.38	
63		0.33
76	0.34	
79	0.38	
81		0.32
90		0.40
98	0.42	
100		0.46
111'6"	POF 57 SW	POF 57 SW

Measurements were taken between approximately 11AM and 12PM with track access and RWP provided by Track Foreman Lee Levine, RWIC. We were able to inspect east past 47 Switch and visually noted no exception to dry top of rail on the leads and crossovers. Measurements were taken from 4'6" east of the coupler of the last car (LI7074) in the derailed consist. The Point of Frog of 57 Switch was 111'6" east of the starting measurement location. The north rail was measured first from west to east and the south rail was measured east to west when the tribometer was turned around.

The tribometer is moved at walking speed under a reading is generated, unit is stopped and measurement recorded. The unit must be stopped at all joint bar locations and restarted on the other side as it physically does pass across them. This is the reason for the uneven distances between readings.

It should be noted that the B-end door of 7074 was on and even with the end of the platform. The rest of that car was off (east of) the platform.

.Should you need clarification or additional information, please feel free to contact me.

**Safety is of the first importance in the discharge of duty. In cases of doubt or uncertainty, the safe course must be taken.**