Appendix A.
TTCI DAS Rail Break Trial Results and Analysis Report

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TTCI DAS Rail Break Trial

Results & Analysis Report

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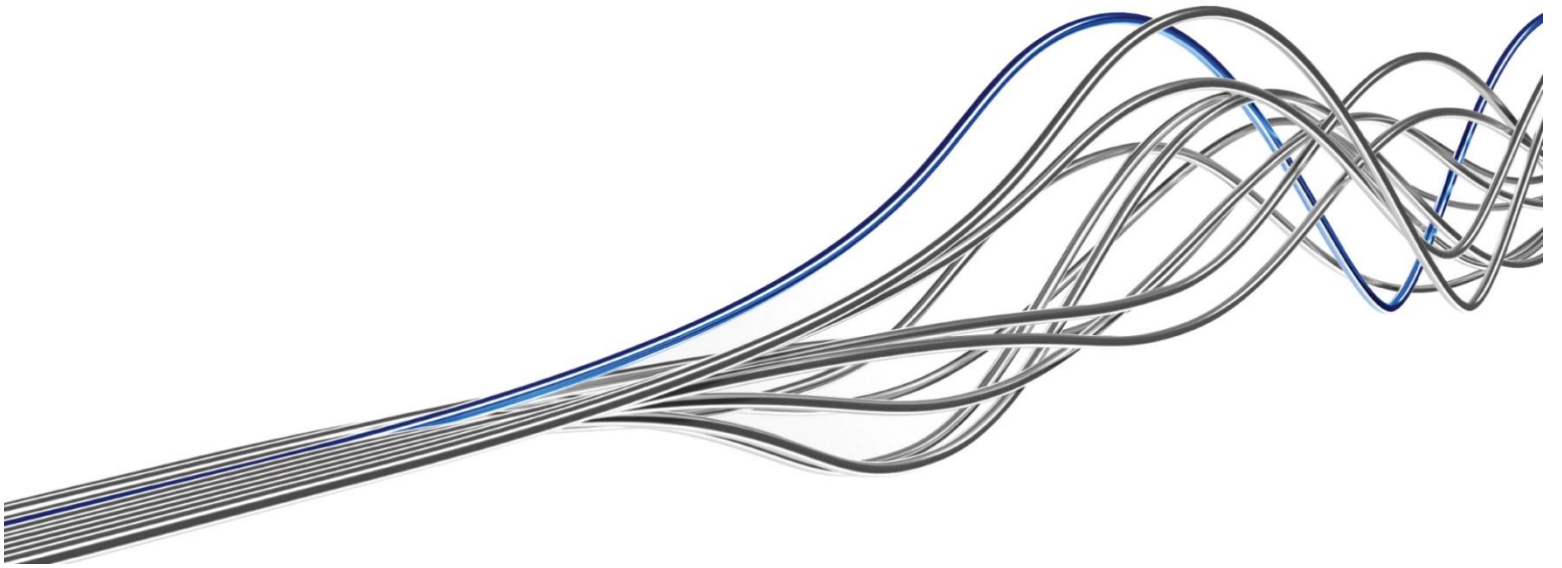

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Executive Summary

Distributed Acoustic Sensing (DAS) has been identified by CSX and TTCI as technology which has the potential to provide a rail break detection solution over long distances of track.

TTCI have run a 25-week trial at the Facility for Accelerated Service Testing (FAST) site near Pueblo, Colorado, in which several fibre optic acoustic detection (FOAD) vendors, including OptaSense, have run sensing systems on the test track with the aim of demonstrating the capability to detect rail break events.

The primary objective for the testing was to evaluate the “true positive” detection rate, which indicated the percentage of rail break events for which an automatic detection was generated by the rail break algorithm, or additionally if there was a distinct signal visible in the sensor data which can be attributed to the break.

The secondary objective of the trial was to assess the “false positive” detection rate, representing the number of alarms not correlated with a genuine rail break. These metrics are both important in evaluating the operational effectiveness of such a system in a real-world environment.

The live trial ran from October 2016 until November 2017, and was split into 3 test seasons. The test activities involved running a heavily laden freight train continuously around the 2.8-mile test track for around 7 hours per night. Each time a rail break was identified (either manually or via a red signal triggered by the track circuit), the train was stopped, the break documented and repaired, and the testing resumed.

OptaSense strongly believe that a quantitative DAS solution is the preferred approach for reliable detection of track condition anomalies (including but not limited to rail break) and implemented their 3rd generation quantitative ODH-3 DAS unit for the trials.

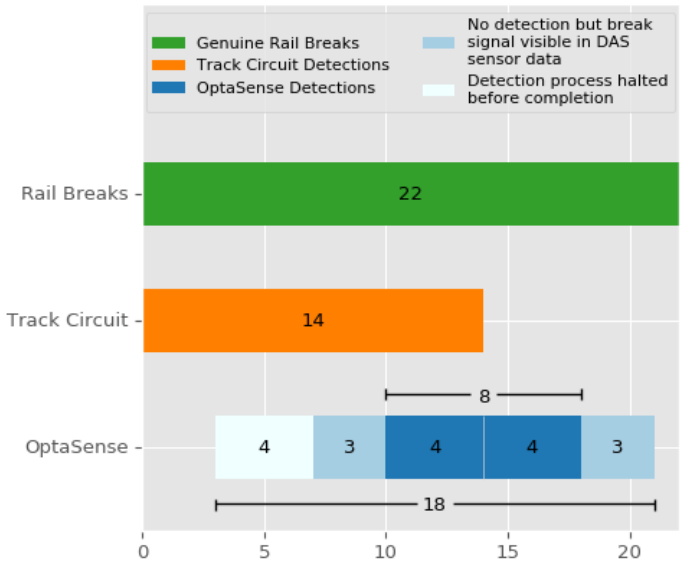

Figure 1: Rail break detection results for the OptaSense DAS and track circuit systems during the 20-week test period in 2017.

OptaSense have extracted and analysed the sensor data for all rail break alerts generated over the course of the trial, and evaluated these against genuine break information derived from the daily log files supplied by TTCI.

The rail break detection summary statistics for all 22 rail break events recorded during the 20-week trial period in 2017 are summarised in Figure 1. 14 of the 22 break events (63.6%) produced signals that were clearly visible in the DAS data. OptaSense detected 8 of these breaks automatically via the live algorithm. A further 4 DAS detections were in progress before the train stopped as a result of being automatically stopped by the track circuit red signal. Without this process it would likely have led to a DAS classification.

It is clear from the results that OptaSense can play an important role in narrowing the gap between events solely detectable by track circuit and the total number of breaks. Moreover, on dual classified breaks, the two technologies play a synergistic role with DAS able to locate breaks to ~±23 feet. By categorising the photographs of the breaks by the response of each system, we predict that certain types of breaks are more likely to be detected by OptaSense DAS than the track circuit system: Specifically, broken rails which maintain contact but show disjoined or chipped rail heads. OptaSense additionally detects other non-break defects (such as slipped ties) suggests DAS has a key role to play as a “track condition anomaly detector” and similar has a strong role in forensic investigation (Appendix III).

Similar statistics have been analysed for the number of false positives with the data suggesting a current real-world deployment rate of ~38 alerts / day / 1000 miles, dropping to less than 10 if the algorithm is constrained to operating within the current design envelope.

OptaSense are currently developing the next generation of Distributed Acoustic Sensing technology which is specifically designed for railway monitoring and will provide a much higher sensitivity, dynamic range and acoustic signal fidelity, as well as having a sensing range of 30 km or more. It is anticipated that this will provide great improvements for applications such as track and rolling stock condition monitoring.

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1 Introduction

The North American Class I railroad network covers around 140,000 miles of track[1]. The Federal Railroad Authority has identified broken rails as a major issue facing railroad operators aiming for safe and reliable operations. Consequently, there is a demand within the railroad industry for a system with the capability to reliably detect and locate broken rails over long lengths of track.

Distributed Acoustic Sensing (DAS) is a technology that has been identified by CSX and TTCI as having the potential to detect broken rails. In order to assess the capability of DAS as a technology for detecting rail breaks, TTCI have conducted a 25-week trial on the High Tonnage Line (HTL) at the Facility for Accelerated Service Testing (FAST), which is located northeast of Pueblo, Colorado. OptaSense was one of the DAS vendors participating within this trial.

An OptaSense Quantitative-DAS rail monitoring system was connected to a fibre optic cable running alongside the HTL track. A bespoke rail break detection algorithm continuously monitored the acoustic response of the train running around the track, and produced an automatic alert when the characteristic signal of a rail break was identified. These rail break alerts were accumulated throughout the trial along with the unprocessed acoustic sensor data from the DAS system.

The approach taken by OptaSense in evaluating the DAS system performance for rail break detection has been to analyse the data recorded for each of the genuine rail break events, and evaluate in conjunction with the daily log files supplied by TTCI, which provided information on the physical situation and attributes of the break. OptaSense have also conducted a detailed investigation into the false positive alerts that were generated by the system during the trial, providing a breakdown of the sources of the alerts and how they can be addressed. This analysis allows us to make some predictions as to how the system will likely perform in a real-world situation.

The purpose of this report is to provide the final rail break detection statistics for the OptaSense system during the trial, and a detailed explanation of the system response for each rail break event. OptaSense anticipates that TTCI could use this report as supplementary materials to support their own report and findings from the rail break trial.

Further detail on the signal detection and analysis methodology used to interpret the results acquired during the rail break trial is included in Appendix I of this report. Additionally, Appendix III provides a summary of the analysis carried out into derailment event that was recorded on the HTL test track in May 2015.

[1] Freightworks

2 Rail Break Trial Scope

The TTCI rail break trial incorporated 25 weeks of live running of the OptaSense DAS system and rail break detection algorithm on the High Tonnage Loop track at FAST. The objective of the trial was to assess both the performance of the OptaSense DAS sensing unit (known as an Interrogator Unit, or IU) and the current implementation of the OptaSense rail break detection algorithm.

2.1 Trial Overview and Timeline

The full project timeline is given in Figure 2 below. As indicated, there were two separate preliminary data gathering periods in 2015 – initially a 2-week period in May 2015 (in which the DAS equipment was originally installed on the test site) and additionally 2-month period from mid-September to mid-November 2015.

The live trial initially started in February 2016 and that period of live testing carried on until the 11th May 2016, where the testing was halted due to the derailment of the freight train running on the HTL. OptaSense captured this event within the sensor data recorded by the DAS system, and subsequently provided detailed analysis of this derailment event to TTCI indicating the origin of the derailment and subsequent timeline of events. An overview of this derailment analysis is included in Appendix I in this report.

Due to the derailment and subsequent remedial works that had to be carried out on the test track, TTCI opted to restart the live trial from the beginning in October 2016. There were then 4 weeks of rail break trial which ran until November 2016, and a further week of testing carried out in December 2016 (which was used to evaluate the feasibility of the DAS system for wheel flat detections in addition to rail breaks).

In January 2017 the OptaSense rail break algorithm was updated with several improvements designed to reduce the number of false positive detections being generated. At the same time, the OptaSense "Back Office" software, which provides a vendor neutral web-browser based interface for viewing the rail break detections, was enabled by OptaSense. The rail break testing in 2017 comprised of a 13-week Spring test season (from February to June) followed by a 7-week Autumn test season (from September to November).

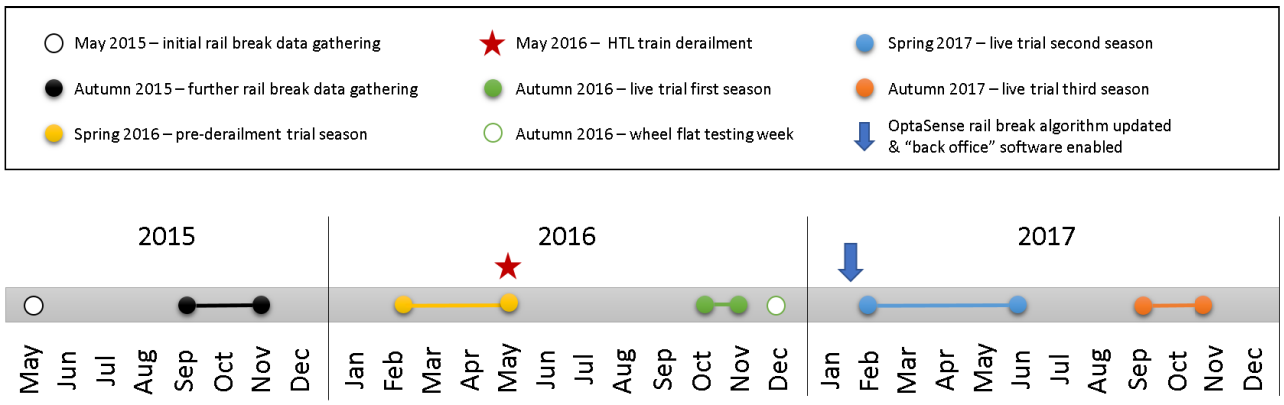

Figure 2: Full project timeline for OptaSense testing at FAST, including the precursor testing and live rail break trial period. The additional events indicated on the timeline are the HTL train derailment in May 2016 and the activation of the OptaSense back office software in February 2017.

2.2 DAS System Installation at FAST

A map of the HTL test track at TTCI is shown in Figure 3. The OptaSense DAS equipment was installed in an equipment building adjacent to the HTL track. The HTL track itself it highlighted as the solid blue line, the route of the fibre cable used by the OptaSense system is shown as the red dotted line, and the locations of the HTL track sections used for referencing rail break locations are indicated by the white circle markers. The HTL track circuit has a length of approximately 2.8 miles (4.5 km). The high-speed Railroad Test Track (RTT) passes close to the North-West section of the HTL loop, as indicated in Figure 3.

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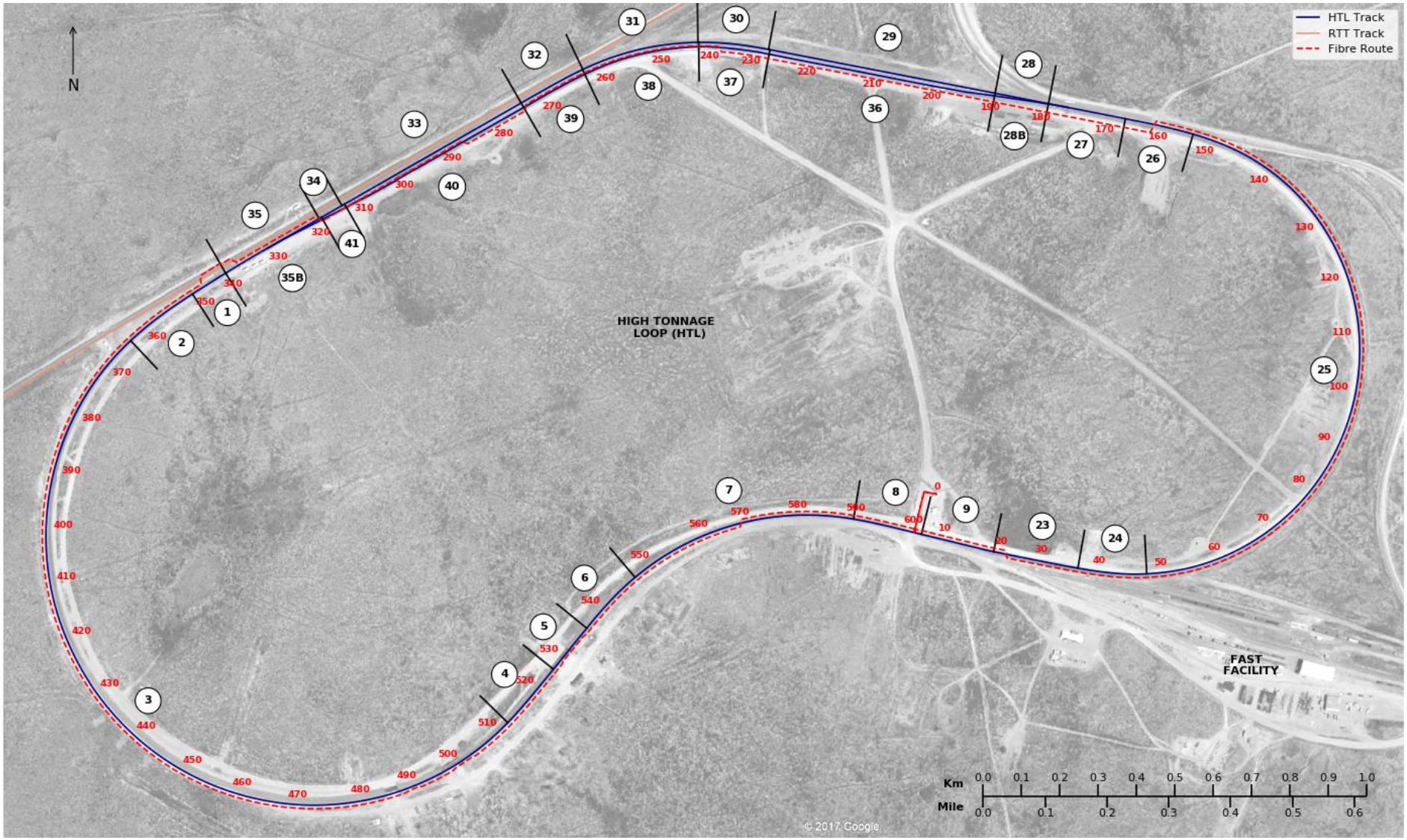

Figure 3: Map of HTL test track, with annotations showing the track sections and the route of the fibre optic cable used as the sensor by the OptaSense DAS system. The track section numbers are shows within the white circle markers, and the approximate locations of every 10th fibre channel are shown in red.

The model of Interrogator Unit that OptaSense used for the trial was an ODH-3 unit, which was originally designed for seismic measurements in the down-well oil and gas market. This IU provides a quantitative, phase-coherent signal output, and has a sensing range of 5-10 km under typical setup parameters. This model of Interrogator Unit was used for the trial as the sensing range was sufficient to cover the full length of fibre around the perimeter of the HTL track (where the total fibre length was approximately 4.8 km) and the quantitative phase-coherent nature of the system output provides a consistent system response for each train pass. Small variations in the signal at a particular location (possibly resulting for a rail break) can therefore be identified.

From our work with TTCI, CSX and other operators, we are firmly of the belief that a quantitative system is essential for producing reliable alarm events in the railroad environment. To that end we are committed to delivering in 2018 our Long Range Quantitative DAS interrogator which will deliver over 30km range at the bandwidths we believe are required for reliable rail break detection.

A comparison of the signal response from quantitative and non-quantitative DAS systems for a high-speed passenger train is shown in Figure 4. The quantitative system displays high consistency in the signal for each bogey passing, whereas the non-quantitative system gives a high signal amplitude during the train pass but with little consistency in the signal for successive bogeys.

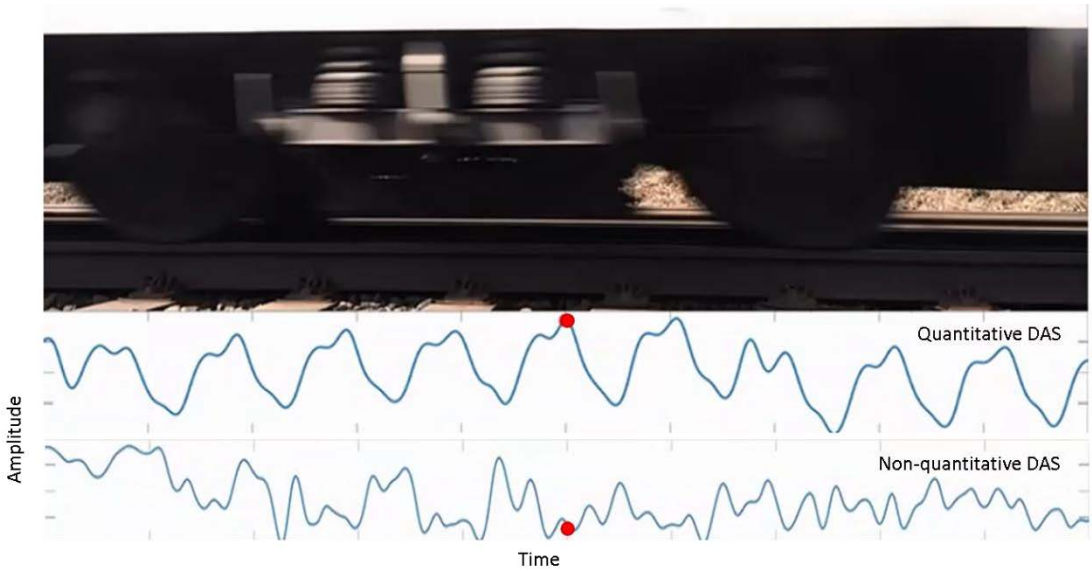

Figure 4: Comparison of the response of quantitative DAS and non-quantitative DAS systems for a high-speed passenger train. The signal graphs show around 5 seconds of data, corresponding to 10 cars passing.

The ODH-3 IU was installed along with a PC (which was used for running the data acquisition software and rail break detection algorithms) at the equipment building between track sections 8 and 9. Fibre calibration (also referred to as “geo-referencing”) was carried out during the preliminary site visits, where the fibre distance from the IU to key points on the track were referenced to the map coordinates, and this information was used to map the OptaSense sensor data (and rail break alerts) to the associated track locations. Approximate locations of key fibre channels are shown in red in Figure 3.

2.3 Trial Activities

The rail break testing at FAST involved running a heavy-laden freight train repeatedly around the HTL track loop continuously, at a roughly consistent speed, for an extended period of time. The train normally ran for around 7 hours per night, 4 times per week, during the live testing phases. The freight train itself was long – around 1.2 miles (2 km) in length – which meant almost half of the test track was occupied at any point in time. The heavy axle loading and repeated running of the train over the same section of track increases the likelihood of a rail break significantly, and hence provides frequent break events that can be captured and analysed by the detection systems under test.

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When a break occurs during the testing, the FAST operations team were alerted to the break either via a red signal (generated by the track circuit system – TTCI's operational rail break detector system running on the HTL) or via manual identification of the break (for example via the manual identification of the audible signal of the break as carriages pass over it). When a break occurred during the testing, the freight train was stopped away from the break and the track break was welded back together, and details of the break (including the time and location) were recorded on the log sheet.

As part of the trial, after each day of testing, TTCI released the running log sheets and from the FAST operators to all DAS vendors. These log files included the track circuit results and photographs and any diagnostics of the verified break events. OptaSense used this information to analyse the DAS rail break detection results sent to the back office, along with the algorithm log files and recorded sensor data. OptaSense then produced a weekly report following each week of testing, which was sent to TTCI to keep them updated on the performance of the system. Much of the analysis provided in these weekly reports has fed into the final results and explanations provided in the following sections of this report.

Additionally, OptaSense recorded the raw acoustic sensor data acquired from the DAS system in addition to the processed outputs associated with the rail break events. This sensor data was written in real time to two RDX disks installed in the system control PC. Due to the high volume of the raw sensor data, a disk change had to be carried out by TTCI every week, with one of the disks being returned to OptaSense for further analysis and the other copy provided to TTCI.

2.4 Rail Break Algorithm

The rail break algorithm OptaSense deployed during the trial was designed for the train activity patterns that are generally expected from a test facility such as FAST, and in particular from discussions with TTCI regarding the plan for the rail break testing. This usually involved a single, heavily laden freight train, with a relatively uniform distribution of loads throughout the train, running repeatedly around the circuit at a relatively constant speed.

As such, the algorithm included a number of built-in requirements that formed certain stages of the processing chain. To optimise the probability of detecting a rail break event during the "current" train pass (i.e. to detect the break in the shortest time possible as the train is passing over), the algorithm evaluated the signal profile over the length of the train to monitor of any significant changes. As such, if train was accelerating or decelerating significantly during a single train pass, then there would be change in response as the train passed over, creating an alert. Thus, to prevent potential nuisance alarms from the train during start-up and stopping, the alert capability was disabled while the train was measured to be rapidly changing speed.

Further, to enable the ability to detect a break that may have occurred at the very start of the train (i.e. on the first axle passing) the algorithm also compared the signal from a given train pass to a model generated from the previous train passes. Thus, any acceleration or deceleration, or situations where the train switched tracks between passes, would cause a change in response, creating false alerts. Also, when a train is running on the RTT track, which runs adjacent to the HTL circuit for a short section, and the trains pass at the same time there will be signal interference causing a variation in the inter-pass train signal model, which may also cause false alarms.

In Section 4, the break events where the train stopped almost immediately when the rail break occurred (as a result of a red signal from the track circuit) are labelled as "detection process halted before completion", as in those breaks the pre-requisite conditions of the algorithm were not met (due to rapid deceleration) and the behaviour did not reflect a real-world situation where the break had not been otherwise detected.

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3 Trial Weekly Summary Statistics

The table below gives the weekly summary statistics for the full duration of the 25-week trial. There were normally 4 nights of train running (Monday – Thursday) each week, and the weeks are numbered 1 to 24 (with an additional week included at the end of the Autumn 2016 test phase to carry out wheel flat testing).

Season	Trial Week	Test Dates (mm/dd)	Rail breaks	Track circuit alerts	OptaSense DAS true positives	Breaks visible in DAS data	OptaSense DAS false positives
Autumn 2016	1	10/17 – 10/20	0	0	0	0	40
	2	10/31 – 11/03	1	1	0	0	2
	3	11/07 – 11/10	3	2	2	2	3
	4	11/14 – 11/17	2	2	1	1	7
	Wheel flat	12/05 – 12/08	2	2	0	1	0
Spring 2017	5	02/13 – 02/16	1	1	1	1	3
	6	02/20 – 02/23	1	1	0	0	1
	7	02/27 – 03/02	1	1	0	1	9
	8	03/06 – 03/09	1	0	0	0	0
	9	03/13 – 03/16	2	2	1	1	1
	10	03/28 – 03/31	1	1	0	1	5
	11	04/03 – 04/06	2	1	1	1	2
	12	04/17 – 04/20	0	0	0	0	0
	13	04/24 – 04/27	1	0	0	1	8
	14	05/01 – 05/04	0	0	0	0	8
	15	05/15 – 05/19	0	1	0	0	14
	16	06/06 – 06/09	0	0	0	0	11
	17	06/12 – 06/15	1	0	0	1	5
Autumn 2017	18	09/18 – 09/21	1	0	1	1	2
	19	09/25 – 09/28	1	0	0	1	0
	20	10/09 – 10/12	2	2	1	1	2
	21	10/16 – 10/19	2	1	1	1	2
	22	10/23 – 10/26	3	2	1	1	0
	23	10/30 – 11/02	0	0	0	0	2
	24	11/06 – 11/09	2	1	1	1	1
		Total	**30**	**21**	**11**	**17**	**128**

Table 1: Weekly rail break alert statistics for the 25-week trial period

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The figures for the number of rail breaks each week, as well as the number of which were detected by the track circuit system, were identified from the daily FAST log sheets supplied by TTCI. The following definitions are provided for relating to the OptaSense data:

- The *OptaSense DAS true positives* column gives the rail break alerts which were found to correspond to a genuine rail break event.
- The *breaks visible in DAS data* refers to those break events for which a distinct signal is visible within the recorded sensor data and the time and place of a break event, and includes the true positives. These are false negative events in terms of the current live rail break algorithm but may be considered as true positive events for the DAS "sensor" (i.e. if the signal is clearly visible against the background noise then it is likely that a more advanced algorithm could be developed to detect such an event automatically).
- The *OptaSense DAS false positives* are the number of alerts generated by OptaSense which were found to not correspond to a recorded rail break event.

The summary statistics in Table 1 show that the OptaSense DAS system automatically detected 11 out of the 30 verified rail breaks (37%) during the trial period. On subsequent investigation of the recorded sensor data, 17 of the break events (57%) displayed a distinct signal which was visible to the OptaSense data analyst. In comparison, the track circuit system detected 21 out of the 30 rail breaks (70%).

Although the raw statistics show higher detection rates for the track circuit compared to the OptaSense system, the breaks detected by OptaSense are not a subset of those detected by the track circuit – the analysis conducted in the following sections shows that certain different types of breaks are more likely to be detected by OptaSense than the track circuit system.

Additionally, rather than solely being a "Rail Break" solution we consider the output from the OptaSense Distributed Acoustic Sensing system lends itself towards operating as a "track condition problem detector", and therefore has the capability to detect additional types defects or issues (such as tie slipping) that are not visible to rail break-specific sensors such as the track circuit as the following analysis will show.

It should also be noted that the "breaks visible in DAS data" category referenced in the table only includes those events that were visible using a standard set of data processing techniques – it is likely that further investigation of the recorded sensor data using more varied techniques could yield additional break events that fall into this category.

The OptaSense and track circuit alerts for the genuine rail breaks are detailed in Section 4, and the false positive alerts generated by OptaSense are accounted for in Section 5.

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4 Analysis of Rail Break Events

In total there were 30 recorded rail break events on the HTL during the 25-week trial period. The details of each rail break are listed in Table 2 below, including which rail broke in each case and the relative fibre position – both given as either inside ("I") or outside ("O") of the HTL track loop. A brief explanation of why the break might not have produced an automatic detection within the OptaSense system is also given.

Break #	Week and Day	Track Section and Tie	Fibre Chan.	Break Rail (I/O)	Fibre Pos. (I/O)	Track Circuit Alert	OptaSense Alert	Visible in OptaSense DAS Data	Reason if no automatic OptaSense alert
1	Week 2 Day 2	32-6	263	O	I	✓	×	×	Unknown
2	Week 3 Day 1	3-1108	432	O	O	×	✓	✓	
3	Week 3 Day 2	33-59	279	O	I	✓	×	×	Break partially supported on tie
4	Week 3 Day 3	3-114	372	O	O	✓	✓	✓	
5	Week 4 Day 4	3-1072	437	O	O	✓	×	×	Unknown
6	Week 4 Day 4	25-1572	149	O	O	✓	✓	✓	
7	Wheel Flat Day 2	33-104	283	I	I	✓	×	×	Insufficient pre-passes
8	Wheel Flat Day 4	32-150	274	I	I	✓	×	×	Train tracker not tracking train
9	Week 5 Day 2	3-1469	468	O	O	✓	✓	✓	
10	Week 6 Day 4	40-250	291	I	O	✓	×	×	Unknown
11	Week 7 Day 1	25-1254	125	O	O	✓	×	✓	Train stopping during break pass
12	Week 8 Day 4	25-1122	120	O	O	×	×	×	Break supported on tie
13	Week 9 Day 1	31-266	260	O	I	✓	×	×	Unknown
14	Week 9 Day 2	29-296	206	I	I	✓	✓	✓	
15	Week 10 Day 2	3-1369	460	O	O	✓	×	✓	Pre-passes out of velocity tolerance
16	Week 11 Day 1	3-899	424	O	O	✓	×	✓	Train stopped quickly - alerted after restart

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Break #	Week and Day	Track Section and Tie	Fibre Chan.	Break Rail (I/O)	Fibre Pos. (I/O)	Track Circuit Alert	OptaSense Alert	Visible in OptaSense DAS Data	Reason if no automatic OptaSense alert
17	Week 11 Day 1	26-38	156	O	O	×	✓	✓	
18	Week 13 Day 2	23-101	30	I	O	×	×	✓	Gain visible but below threshold
19	Week 17 Day 2	3-1669	474	O	O	×	×	✓	Break still in contact, no gaps
20	Week 18 Day 1	3-104	365	O	O	×	✓	✓	
21	Week 19 Day 2	3-1901	494	O	O	×	×	✓	Small gain visible in final train pass
22	Week 20 Day 1	24-19	38	O	O	✓	✓	✓	
23	Week 20 Day 1	23-166	33	I	O	✓	×	×	Insufficient pre-passes
24	Week 21 Day 2	3-1081	438	I	O	×	✓	✓	
25	Week 21 Day 2	7-522	584	I	I	✓	×	×	Train accelerating
26	Week 22 Day 2	24-89	42	I	O	✓	×	×	Break supported on tie
27	Week 22 Day 4	25-1439	138	O	O	✓	×	×	Insufficient pre-passes
28	Week 22 Day 4	3-935	413	O	O	×	✓	✓	
29	Week 24 Day 2	5-62	534	I	O	✓	×	×	Only 5 pre-passes, break well supported
30	Week 24 Day 4	3-1349	443	O	O	✓	✓	✓	

Table 2: Time and location of all 30 recorded rail breaks, with the corresponding alert response of the OptaSense and track circuit systems.

The locations of the 30 recorded rail break events are given in terms of both the track section and tie, and approximate fibre channel number – which is dependent on the accuracy of the fibre geo-referencing work carried out prior to the trial. The date of each event can be attained from the test week and day using the date range associated with the test weeks as given in Table 1. This information enables these break events to be identified within the test log sheets provided by TTCI.

For the cases where OptaSense did not produce an automatic rail break alert for a rail break, a brief reason for why no alert was generated is given in the table. These explanations are derived from the event analysis conducted within the weekly trial reports as well as the subsequent investigation of the recorded sensor data and associated ground truth information.

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4.1 System Rail Break Alerts Comparison

The rail break details provided in Table 2 includes the alert status of both the OptaSense and track circuit systems for each recorded break event. This information allows us to determine which of the following six categories each break event fell into:

1. Detected by track circuit but not detected by OptaSense, and not visible in sensor data
2. Detected by track circuit but not detected by OptaSense, but was visible in sensor data
3. Detected by both track circuit and OptaSense
4. Detected by OptaSense but not the track circuit
5. Not detected by OptaSense or track circuit, but signal visible in OptaSense sensor data
6. Not detected by OptaSense or track circuit, and not visible in OptaSense sensor data

Sorting the 30 break events into these 6 categories enables us to visualise the alert response of the OptaSense and track circuit systems. These results are displayed in Figures 5 and 6, where Figure 5 gives the results for the first 5 weeks of the trial during 2016 (prior to the software change in January 2017) and Figure 6 gives the results for the 20 trial weeks that ran in 2017 after the software update.

Note that the rail break numbers on the horizontal axis in Figures 5 and 6 do not correspond to the break numbers given in Table 2, as the results have been sorted according to the alert response of the OptaSense and track circuit systems.

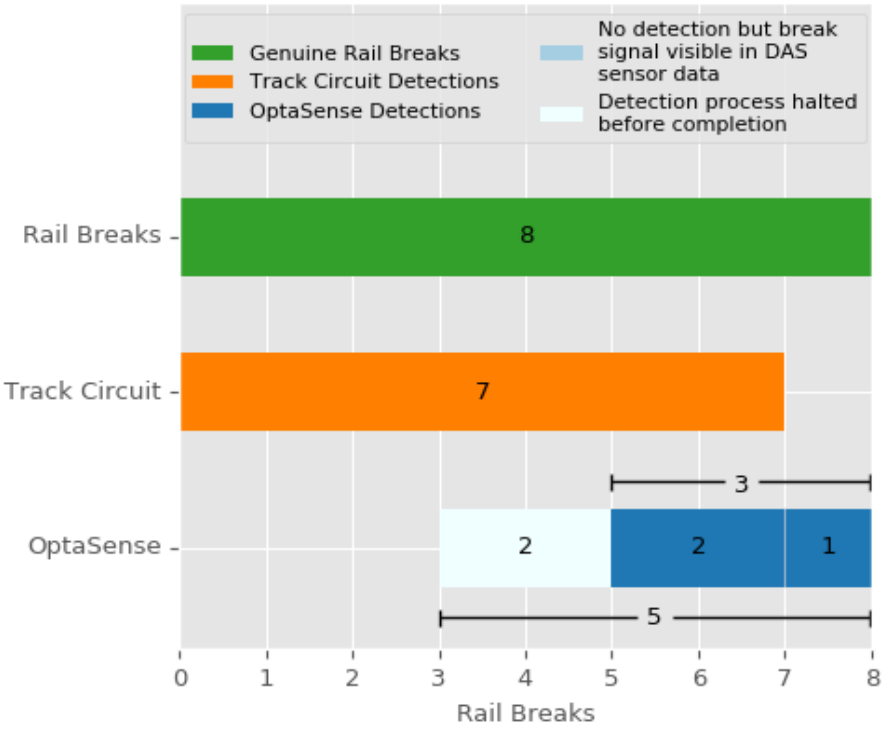

Figure 5: Comparison between the OptaSense and track circuit results for the 8 rail break events recorded during 5-week trial period during 2016, prior to the software update.

The results for the 5-week trial period in 2016 shown in Figure 5 show that although only 3 out of 8 breaks were detected automatically by OptaSense, one of those breaks was missed by the track circuit – and so when the results from the track circuit and OptaSense combined then all breaks during this period were detected automatically. Additionally, there were 2 breaks during this period where the detection process was determined to have halted before completion – generally due to the train stopping during the same pass as the break due to an immediate red signal, or the train accelerating leading up to the break leading to an insufficient number of pre-passes observed.

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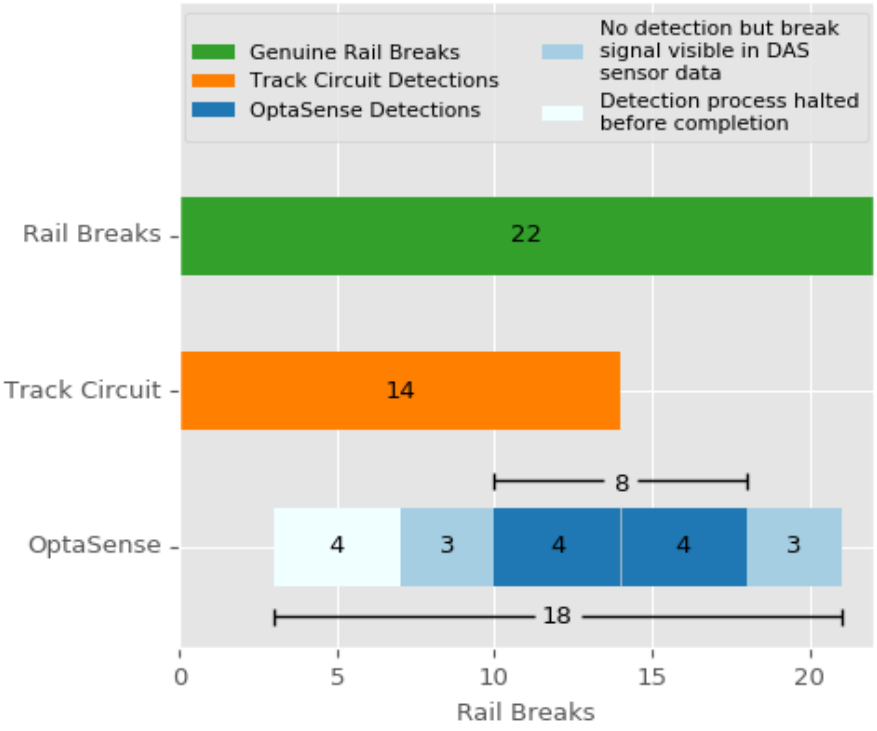

Figure 6: Comparison between the OptaSense and track circuit results for the 22 rail break events recorded during 20-week trial period during 2017, following the OptaSense software update.

As Figure 6 shows, there were 4 rail break events that were detected by both the OptaSense and track circuit systems, and 4 events that were detected by OptaSense but not the track circuit system. There were also 3 events in each of those categories where OptaSense didn't register an alert but a distinct signal was clearly visible in the sensor data. Finally, there were 4 breaks for which the detection process was determined to have halted before completion.

Another key point to note is that there were only 1 break event out of 22 which was both not detected by the track circuit and not clearly visible in the OptaSense sensor data. This break is shown in the following subsection to be a low severity break – i.e. a small hairline fracture which is well supported on the centre of a tie.

4.2 Break Event Categorisation by System Alerts

Photographs of the recorded rail break events were included as part of the daily log files supplied by TTCI to OptaSense over the course of the trial. These photographs were taken once the break had been identified and before any remedial works were carried out. They are therefore of particular use in understanding the physical features and situation of the break, and hence interpreting the response of the OptaSense system on subsequent train passes.

The supplied photos for each of the break events are shown in Table 3, in which they are grouped based on the six rail break categories which were described in the previous subsection. Break number 24 is showing as "no image" as OptaSense as the image may have been missed from the log sheet. Larger versions of these images are given in Appendix I.

Additionally, the break events not automatically detected by the OptaSense algorithm are grouped by colour markers which indicate the reason for alert being given, with the reasons being summarised in the key.

There are several interesting examples that can be identified from this break categorisation table:

- The breaks in the top left and middle left cells in the table (i.e. those detected by the track and detected or visible by OptaSense) are all relatively clean breaks which appear to have occurred offset from a tie. Indeed the 3 breaks which were visible but not detected by OptaSense are all

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attributed to an “algorithm limitation to the observed train behaviour”, indicating that the change in signal was clearly visible but one or more prerequisites of the algorithm (such as the number of consistent pre-passes) were not satisfied.

- The breaks in the top right and middle right cells (those detected or visible with OptaSense but not by the track circuit) are mostly in close contact, with only break number 18 being a showing a visible gap, with the track circuit being linked through the metal plate attached to the tie. Breaks 2 and 20 are of particular interest as both retain contact in the rails but have chipped rail head. The detection results indicate that this type of break could be one for which OptaSense are more capable at detecting than the track circuit system.
- For the breaks in the bottom left cell (i.e. those detected by the track circuit but not obviously visible in the OptaSense data) numbers 3, 26 and 29 are all marked as missed due to “break features”, where the photographs show the break centred above a tie. It might be expected that there would be less movement of the rail in these cases, resulting in a different acoustic signal induced in the fibre than is received from an inter-tie break. Further investigation is required to confirm this.
- Break numbers 7, 8, 23, 25 and 27 are all positioned between ties and look like relatively clean breaks, however in these cases the limitations of the current rail break algorithm (e.g. the intolerance to accelerating/decelerating trains) prevented a detection.
- Further investigation – and potentially further acquisition of ground truth information – will be required to understand why no detections were made for breaks 1, 5, 10 and 13.
- Break 12 was not detected by either OptaSense or the track circuit system. The reasons for this are clear on inspecting the break features – it is a hairline crack that is well supported on a tie and bridged by a tie plate, and is barely visible in the supplied photo, so as such is likely to be a low-severity break.

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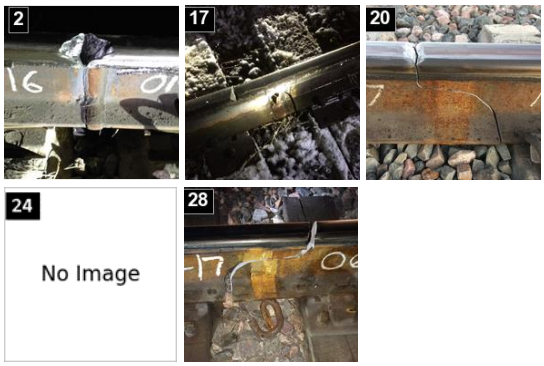
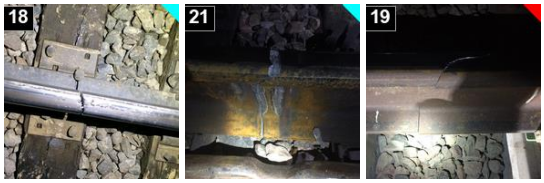
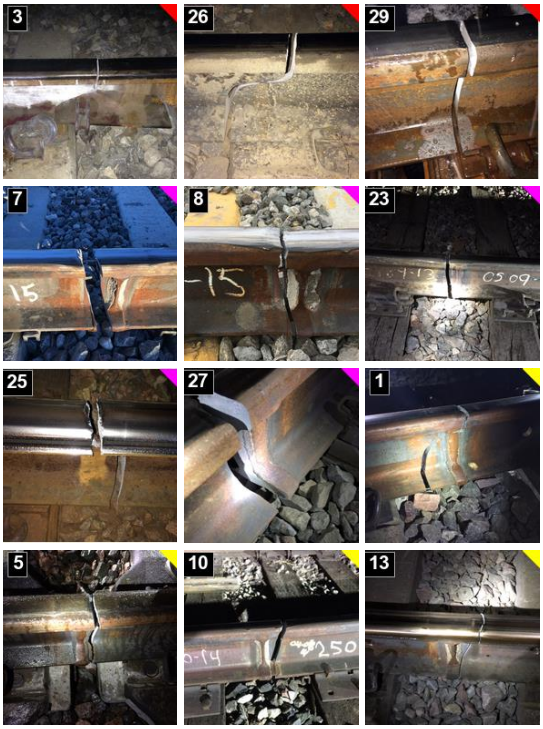
	Track Circuit – Alert	Track Circuit – No Alert
OptaSense – Alert		
OptaSense – No alert but visible in DAS data		
OptaSense – No alert		**Reason break not detected automatically by OptaSense** Break features Algorithm limitation (e.g. No. of pre-passes) Train slowing/stopping during break pass Signal amplitude below threshold Software not running Reason currently unknown

Table 3: Break event images classified by the detection result for both the OptaSense and track circuit systems. The break numbers are shown. The breaks for which OptaSense did not produce an automatic alert are grouped by the colour markers which identify the reason for no alert being generated. The two breaks in the lower right cell highlight the low severity of the cases where there was no indication of a break given by either system. Higher resolution versions of these images are given in Appendix II.

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5 Analysis of False Positive Alarms

In addition to the analysis of the of the genuine rail break events presented in the previous section, it is important to consider the overall operational effectiveness of the DAS system as a potential rail break detection technology for “real world” track environments.

To be specific, the 3 primary types of detection events for an operational rail break system are true positive, false positive and false negative alarms, which can be defined as:

- A *true positive* alert is a detection of a genuine rail break event.
- A *false positive* is any rail break alert generated by the detection system that was not caused by an actual break in the rail.
- A *false negative* is a break in the rail that was verified by on-site inspectors for which the detection system did not produce an automatic alert.

The previous section dealt with the true positive and false negative alarm situations – namely situations where a genuine rail break event occurred. In this section we provide a breakdown of the false positive alerts registered by the OptaSense system over the duration of the trial.

The distribution of all 128 false positives alerts generated by the OptaSense system are shown in Figure 7. The position of each point on the graph corresponds to the location (fibre channel) and time (trial week number) of the corresponding alert. The false positive alerts have been grouped into the categories listed in the figure key, which correspond to the source of the alert.

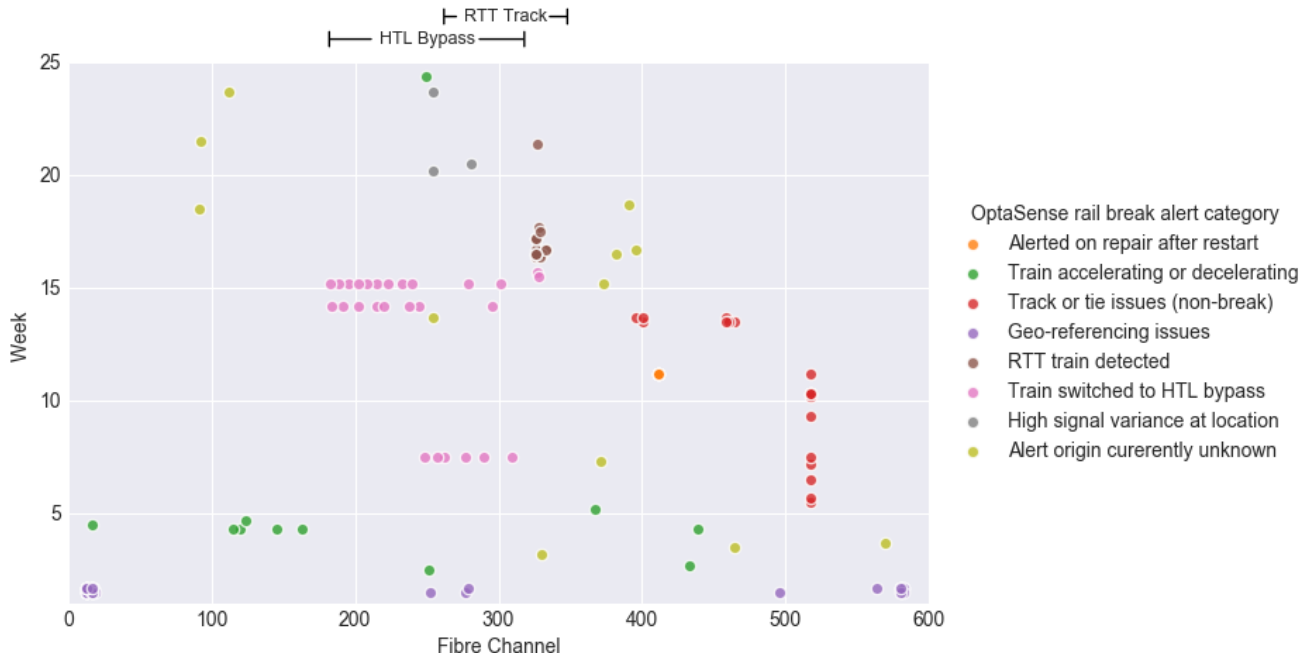

Figure 7: Categorisation of all 128 false positive rail break alerts generated by OptaSense during the trial. The alerts have been grouped into categories based on the of the identified source of the alarms.

Figure 7 above displays a number of obvious clustering of certain false-positive alert types based on location or time. For example, the vertical line of red markers around channel 518 between weeks 5 and 12 were due to new types of track ties that TTCI were trialling at that location, and which were moving and slipping during train passes. This resulted in a low level of consistency in the signal received from the train at that location, which the rail break algorithm interpreted as a change in track condition and so produced an alert.

Fibre channel 518 was masked out within the rail break detection algorithm from week 13 to prevent further false positives. It is also worth considering that while these alarms were “false positives” in terms of rail break detection, they did correspond to underlying variation in the track bed, and so would still likely be useful to track operators in a real-world environment.

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The purple points visible at the bottom of the graph were caused by errors in the geo-referencing of the system – these errors were corrected at the end of week 1 by adjusting the fibre calibration.

Within the first 5 weeks there appears to be a high number of green markers (representing alerts being triggered by the train changing speed) – changes were made to the detection algorithm in week 5 with the aim of reducing these false alarms. Only 1 such alarm is visible for the remaining 20 weeks of the trial, which indicates that the change was successful.

The rows of pink markers between fibre channels 180 and 320 in weeks 7, 13 and 15 were all a result of the train switching over to the bypass section of the HTL. This activity was outside of the tolerance of the rail break algorithm used in the trial and hence false alerts were generated.

The cluster of brown markers around fibre channel 330 were a caused by a fast-moving train that was running on the adjacent RTT track while the HTL testing was being carried out. As shown in Figure 3, the fibre deviates closer to the RTT track for a short section. Therefore, when both trains passed this location simultaneously the interference of the vibrational signals resulted in false alarms being generated.

The total numbers of false positive alerts in each category are given as a bar chart in Figure 8 below.

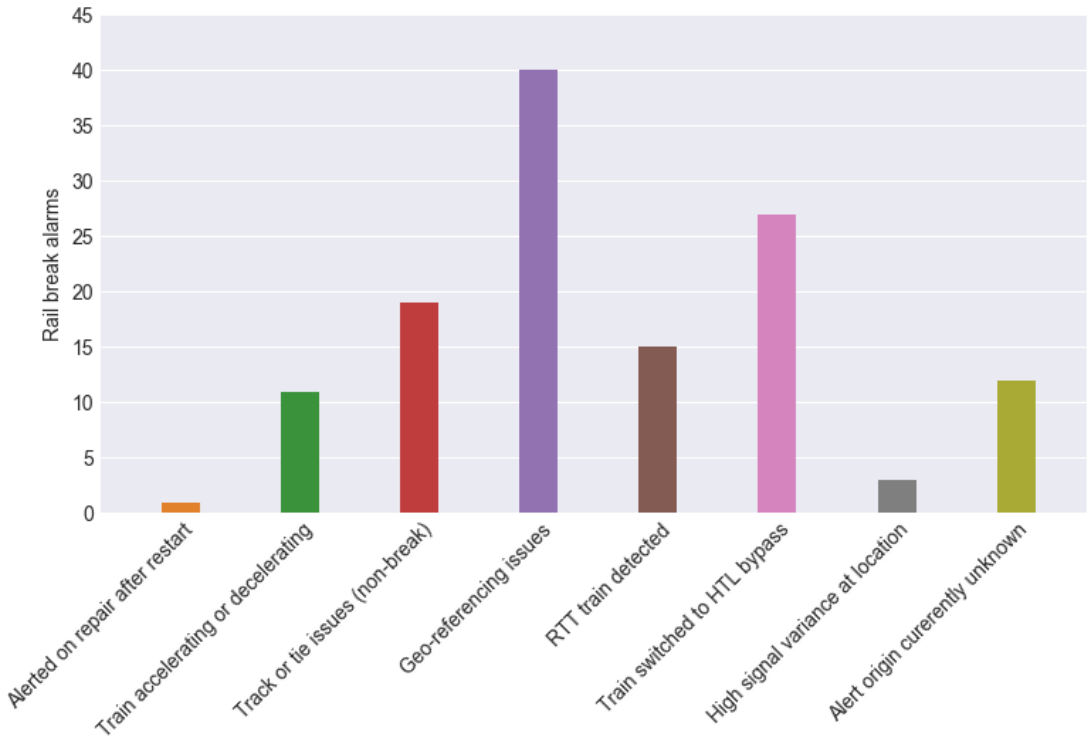

Figure 8: Number of OptaSense false positive alarms generated over the course of the trial, grouped by the alarm source category (which follows the same colour scheme as the scatter plot in Figure 7)

We can comment on the classification as follows:

- Alert after restart — Clear potential for a True Positive – e.g. if train had continued
- Train Speed Change — Algorithm operating outside of current envelope – restrict or develop
- Track / Tie Issues — Positive useful output “Track Anomaly Detection”
- Geo Referencing — Resolve with improved calibration
- RTT Train — Algorithm operating outside of current envelope – restrict or develop
- Track Switch — Algorithm operating outside of current envelope – restrict or develop
- Signal Variance — Resolve with improved calibration / “Fibre Anomaly Detection”
- Unknown — True Base case of Nuisance Alarms

With this grouping we can consider the number of false alarms cascading as follows:

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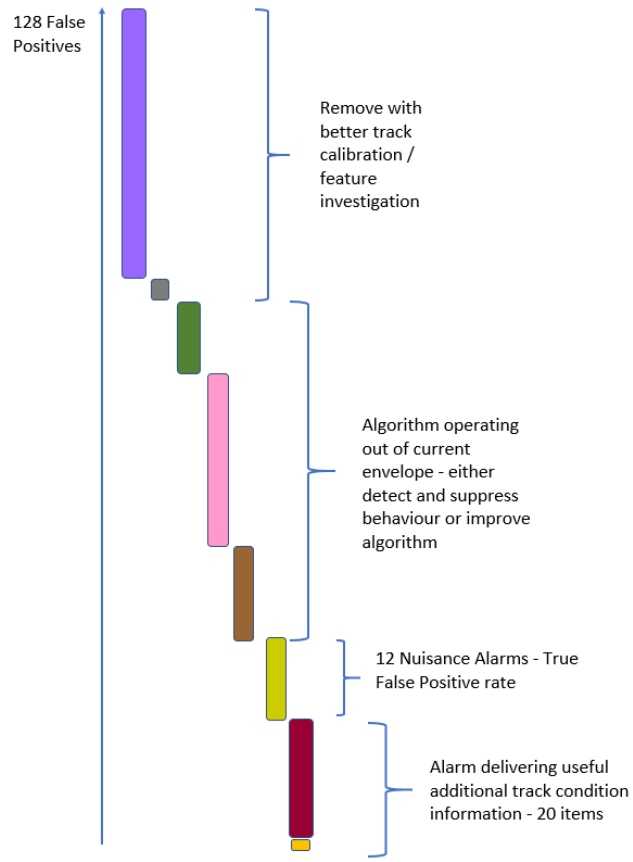

Figure 9: Decomposing the waterfall of False Positive Types to get to the true Nuisance Alarm rate

5.1 Expected Real World Performance

We now consider how we would expect the OptaSense rail break detection system to perform in a “real world” track environment given the information gained during the trial.

The train during the trial ran on the test track for around 7 hours per night on average, and the known length of the test track is 2.8 miles (4.5 km). We can use this information to calculate the average false positive alarm rate over distance and time – the results of which are included in Table 4.

As the algorithm was modified prior to week 5 to address some of the false positive alarm issues, the alerts accumulated between weeks 5 and 24 have been used to calculate the average statistics shown in Table 4, as this period best represents the “final” performance of the OptaSense system under test within the trial.

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False Positive Alert Category	Alerts over full trial period	Alerts during weeks 5 24	Average false positive rate (alerts / hour / 1000 mile)	Average nuisance alarm" rate (alerts / hour / 1000 mile)	Estimated real world" nuisance alarm rate (alarms / day / 1000 mile)
Alerted after restart	1	1	0.6	-	-
Train speed changing	11	2	1.3	1.3	1.4
Track or tie issues	19	19	12.0	-	-
Geo-referencing issues	40	0	0.0	0.0	0.0
RTT train signal	15	15	9.4	9.4	10.2
HTL bypass	27	27	17.0	17.0	18.4
High signal variance	3	3	1.9	1.9	2.0
Unknown reason	12	9	5.7	5.7	6.1
Estimated total "real-world" nuisance alarm rate (alarms / day / 1000 mile):					**38.1**
Reduced total if algorithm improvements implemented:					**<10 day / 1000 mile**

Table 4: Breakdown of false positive alert classifications for the trial, with time-distance averages and real-world estimated alarm rates (accounting for "normal" track usage rates in comparison to the HTL test track). As the "track or tie issues" category represents a genuine detection of a track condition problem it is of use to train operators and therefore this category is not included in the nuisance alarm statistics. Additionally, the "alerted after restart" is not considered a nuisance alert as the train only stopped to repair the break due to it being spotted manually, and the alert represented a notification that the track condition had changed with the repair.

Additionally, Table 4 above includes an estimated "nuisance alarm" rate for a real-world deployment, based on the false positives accumulated during the trial. To calculate these figures, we have accounted for the relatively high usage of the HTL test track compared to real-world track environments. For instance, assuming an average HTL train length 1.25 miles (2 km), the average "occupancy" of the test track while the train is running is around 44.4% (i.e. 2 km train length / 4.5 km total track length).

In contrast, using example figures[2] from CSX, we can suggest 10 trains per day, at an average length of 2 miles and speed of 40 mph as to be reasonable figures for a heavily used section of track. These figures give a "real-world" average occupancy of 2%. Hence, we have used the occupancy ratio between this example and the HTL test track to calculate the final column in Table 4, and scaled the result up to a daily alarm rate.

This figure of 38.1 nuisance alarms per day, per 1000 miles of track, represents a "best estimate" of the expected false positive alarm rate in an operational system given the results from the TTCI trial of the CURRENT algorithm operating without restriction. However, the current rail break algorithm was designed specifically for testing at FAST and has limitations that would make it unsuitable for unmodified deployment on a real-world track. Enhancements will be required to account for features such as train acceleration, trains switching tracks and multiple trains crossing simultaneously. If for example the algorithm is further

[2] Example Figures from CSX

developed to either cater for these events or alternatively is restricted to not report in these circumstances (e.g. by using a trigger from our train tracker) then the nuisance alarm rate could be expected to drop to below **10 alarms / day / 1000 miles** – where 1000 miles represents the output from at least 50 interrogator units. As the alarm output would give a locational accuracy of up to 30 ft then any inspection of the track could be very focussed minimising any disturbance of operations.

It might be expected that modifications to the rail break detection algorithm to enable deployment in a real-world track environment could increase the expected nuisance alarm rate due to the wider variety of signals that would need to be monitored. However, OptaSense expects this potential increase will be countered to some extent by a reduction in several categories of nuisance alarms that specifically derived from the limitations in the algorithm – in particular the "RTT train signal" and "HTL bypass" categories – which were by far the largest contributors of nuisance alarms during the trial and will automatically be addressed in an algorithm designed to operate in a real-world environment.

Additionally, we should consider that the "track or tie issues" category of alarms will likely be of value to rail operators – for this reason this category was excluded from the "nuisance alarm" statistics in Table 4. Alternative or more advanced DAS signal processing algorithms (possibly running on sensor data from the next-generation Interrogator Unit) may be able to separate the signal from track bed condition variation from actual rail break events, thus providing additional feedback to rail operators.

Finally, we should be aware that the final two categories in the table – namely alerts generated from continuous high signal variation at a location, or those from an unknown reason – require further analysis and potentially more detailed ground truth data to be properly assessed. It is possible that many of these false positive alerts could be prevented with a closer look at the difference between the signal features that resulted in the false detections, and those from genuine rail break events that were detected.

Figure 10 below gives the distribution of the false positive alerts which are considered to be "nuisance alerts" in the context of a real-world system. The alert categories represent a subset of those shown in Figure 7.

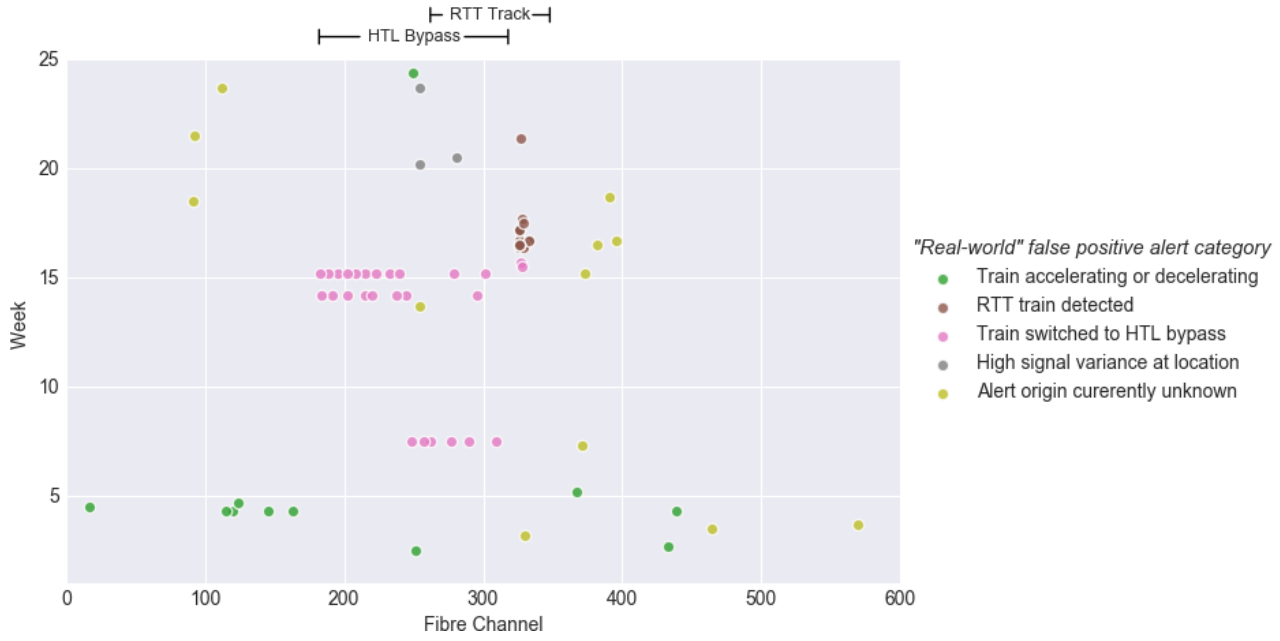

Figure 10: Categorisation of all "real world" false positive alerts generated during the trial. These are the false positive alerts which represent the "best estimated" real world performance based on the assumptions outlined in this section. The categories represent a subset of those shown in Figure 7.

6 Trial Outcomes and Future Developments

6.1 Summary of Trial Outcomes

The core objective of the trial was to test whether DAS as a technology, in the form of hardware currently available, is capable of detecting rail break events for tracks used by heavily laden freight trains. Over the course of the 25-week trial at TTCI, OptaSense have automatically detected 11 out of the 30 rail break events (37%). Subsequent analysis of the algorithm output data found that at least 17 (57%) displayed clearly visible signal characteristics which can be attributed to the rail breaks. OptaSense can conclude that the results from the trial demonstrate that the current DAS system can detect a significant proportions of rail breaks. Further analysis of the trial dataset will likely establish further evidence of detectable signals in some of the breaks that were listed as “no visibility of signal” in the initial analysis.

In addition, OptaSense has derived a “best estimate” nuisance alarm rate of around 38 nuisance alarms per day per 1000 miles for a similarly-performing system deployed on a real-world track. This estimate is based on a direct extrapolation of the false positive alarms accumulated during the trial, accounting for the intensive usage of test track during the trial. As explained below, modifications to the algorithm will be required to enable deployment on a real-world track environment, and OptaSense expects that these enhancements – coupled with the next-generation hardware providing greater signal fidelity – will contribute to minimising this figure and reducing the expected operational costs, while enhancing the benefits, of deploying a DAS system as a rail-break detection technology on extended lengths of freight track.

6.2 Current OptaSense DAS technology, and future developments

The ODH-3.1 Interrogator Unit model is optimised for down-well Oil and Gas environments. In the rail environment the signals are sometimes orders of magnitude larger, and exceed the dynamic range of the system leading to degraded data. A longer range, non-quantitative DAS system could have been used, to avoid this problem but would have resulted in lower understanding and less opportunity for future improvements.

OptaSense are currently developing the next-generation model of Interrogator Unit which is being designed specifically for railway applications, including rail break detection. This next generation IU (LRQDAS, expected availability late Spring 2018) will have all the benefits of the ODH-3.1 IU, namely quantitative, coherent signal output, but a much longer range – exceeding 30km. Furthermore, it will provide higher sensitivity, much higher dynamic range and increased spatial fidelity. This will greatly enhance the capability of OptaSense to differentiate the signal of a rail break event from the general train noise. The new interrogator is also designed to prevent overscale circumstances occurring – i.e. not be dynamic range limited by the passing of a train.

Similarly, the current version of the OptaSense rail break detection algorithm used in this trial is known to have several limitations. The algorithm was optimised for use on the test track at TTCI and as such utilises the cyclic nature of the test activities to build up a consistent model of the response of the track the passing of a train. The variety of potential situations that can be expected to be encountered on real-world track environments – for example different types of trains passing simultaneously on adjacent tracks – present additional challenges in the adaptation of the rail break capability for such an environment. OptaSense have plans to how to address these issues and develop a more rail break algorithm and the data acquired during this trial at TTCI – coupled with the likely performance gains in the next generation IU – will greatly support this endeavour.

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Appendix I – Signal Analysis and Rail Break Features

This appendix provides further detail on the signal analysis carried out on the OptaSense DAS sensor data while investigating the recorded rail break events. The objective of this section is to provide an over view of the features within the data that were identified to correlate with the physical response of the train passing over a break, and therefore explain why some of the break events were more difficult to detect using the current detection algorithm.

Signal characteristics for rail break event

As explained in the main body of the report, the rail break algorithm used in the trial benefited from several features of the test activities at FAST, which assisted in the capability in building up a consistent model of the signal response of the track from a train passing. Some examples of these features are:

- Same train running on the track for the duration of each test session
- Train normally running a consistent speed
- Axle distribution homogeneous throughout train (FAST train has all cars of the same type, and approximate axle loadings)
- The train generally uses the same single track (although it did switch on to the bypass occasionally)
- There are no trains running nearby on adjacent tracks (although occasionally a train did run on the RTT track, causing false positive alerts)

These features promote a high level of signal consistency in the processes signal “amplitude” (which is really a performance metric which is output from the algorithm). This enables a data analyst to quickly survey any outliers in the processed data output files.

An example of this is shown in the “waterfall” graph Figure 11 below. In this example, distance is represented on the horizontal axis and time on the vertical axis, and the colour represents the processed amplitude metric. The horizontal blocks of signal represent the output signal for the train running repeatedly around the track. The red circle identified the moment a rail; break was detected by the algorithm, shortly after which the train stopped the and track repaired. The temporary repair displays a relatively high amplitude after the train restart.

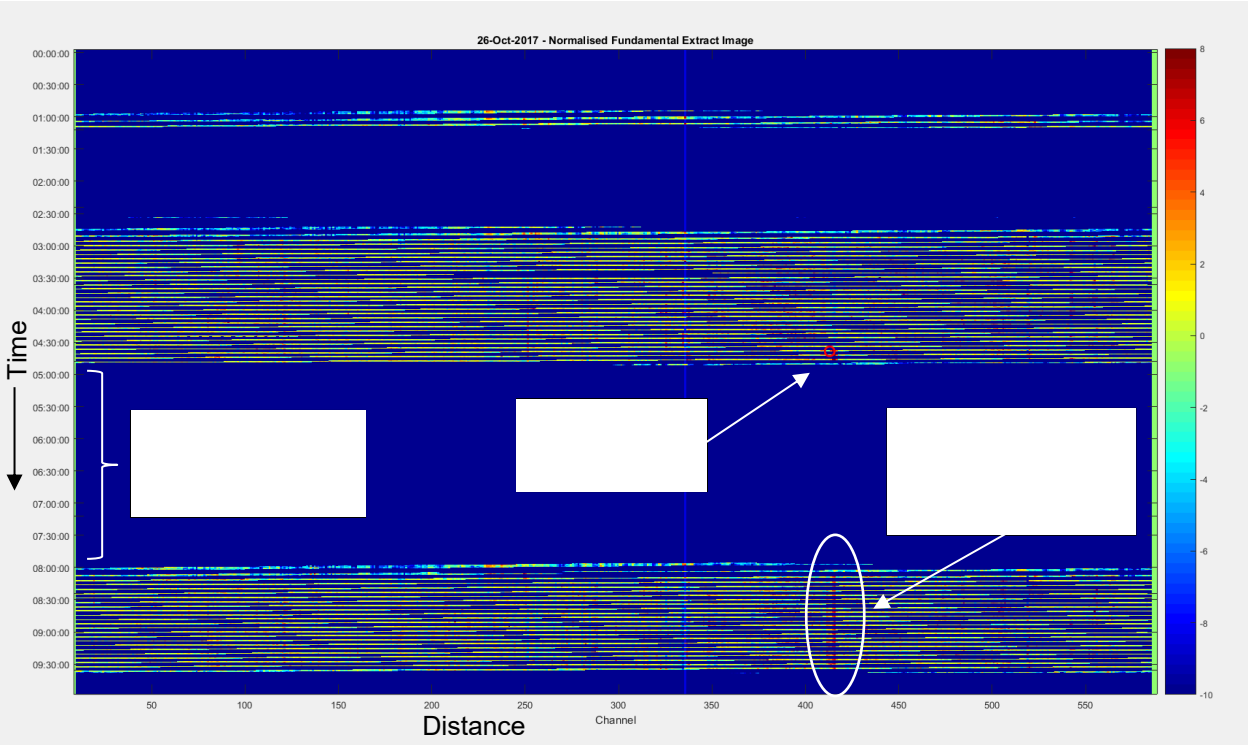

Figure 11: Waterfall showing the processed train signal amplitude, with the initial break event being detected by OptaSense, and the subsequent temporary repair showing high energy on the subsequent train passes

Figure 12 below shows the time series of the same amplitude metric for the fibre channel which experienced the rail break in Figure 11. The group of train passes for which the algorithm registered the alert are highlighted in red. This corresponds to an increased in the response metric. This is only slightly reduced after the repair is implemented. We can also see the high level of consistency of the signal prior to the rail break event, with some variation visible when the train first starts up and accelerated to normal running speed.

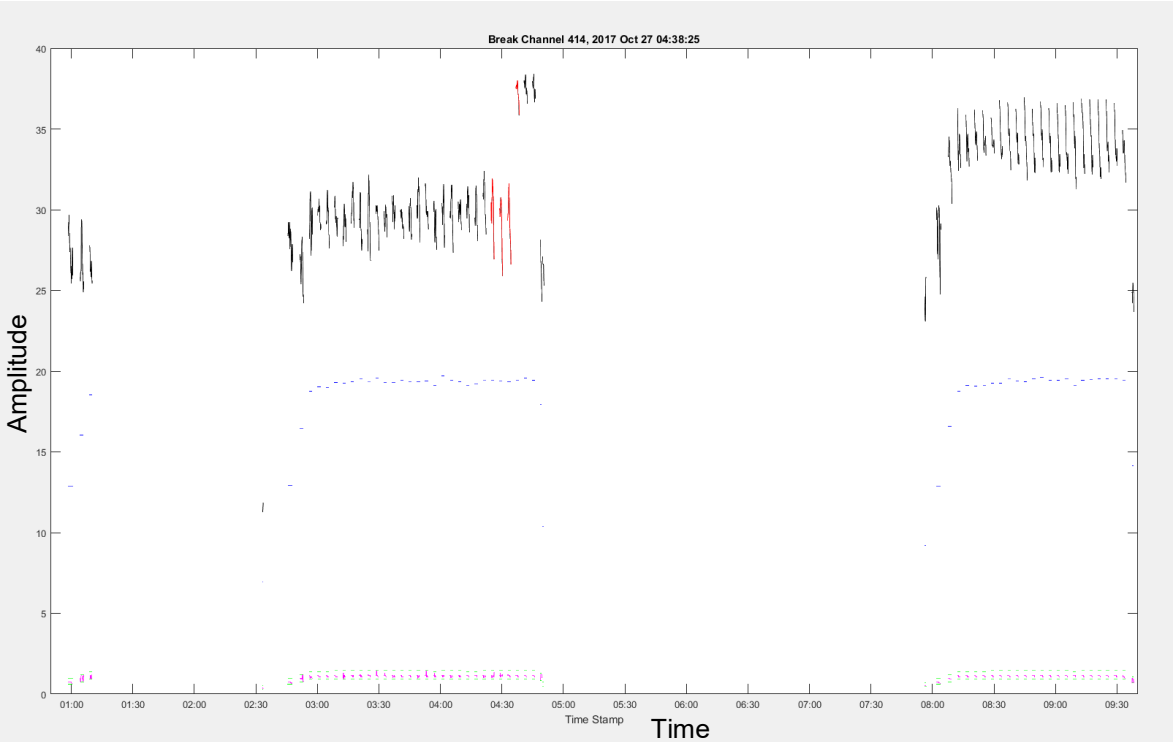

Figure 12: Line plot of processed signal amplitude metric for detected rail break event. The train passes associated with the rail break alert are highlighted in red. The train stops 3 passes after the break. The temporary mechanical fix which was applied to the break only slightly reduces the signal from the axles passing over the break, hence the high amplitude signal on passes after the train restarts

Types of break and detectability

A rail break gives features of multiple periodic impulses due to the rail discontinuity, which manifests as a distinguishable signal within a quantitative Distributed Acoustic Sensing system. This is a different feature than is detected by a track, which picks up a gap in the rail due to a broken electrical circuit. This means that the two types of sensor are sensitive to different types of break.

Illustrations of some example types of rail break are shown in Figure 13.

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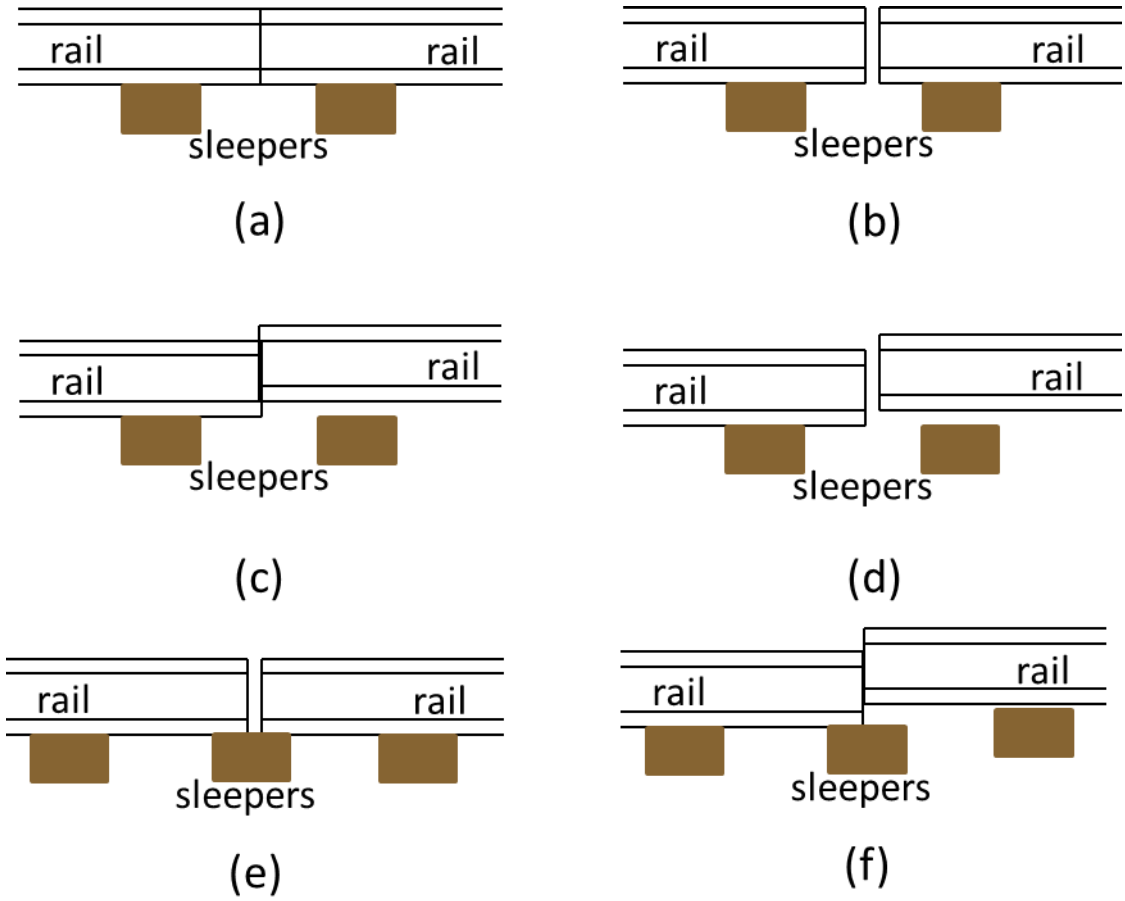

Figure 13: Non-exclusive list of possible types of break that may be experienced: (a) unbroken rail (b) unsupported gap (c) no gap with step (d) gap and step (e) supported gap (f) supported step

In the figure above, there is a list of simplified sketches for a variety of rail break types. The track circuit triggers on a loss of circuit, i.e. a gap. Hence, the track circuit will typically give an alert on (b), (d), (e) (and possibly (a) or (c), depending on how the contact changes once the train's weight passes over it). DAS will typically observe large impulsive features on break types (c), (d), (f). Breaks of types (b) will likely give a larger response than type (e) as the support provided by the track tie will limit movement under axle loading.

Track circuit and DAS detection examples

Figure 14 gives the example of break #28, which was detected by DAS, but not raised by the track circuit (the train was stopped by the engineer). Whilst the break is in the gap between ties and therefore is unsupported, there is still enough rail contact to be undetectable by the track circuit (as in break type (c)).

Figure 15 gives an example break #26, which the track circuit detected, but there were no visible features in the DAS data. The break is a similar "S"-shape, with the bottom part being supported by a track tie, limiting the 'hammer and anvil' effect of axles passing over the rail. However, the break has produced enough of a gap so as to lose contact for the track circuit (representing break type (e)).

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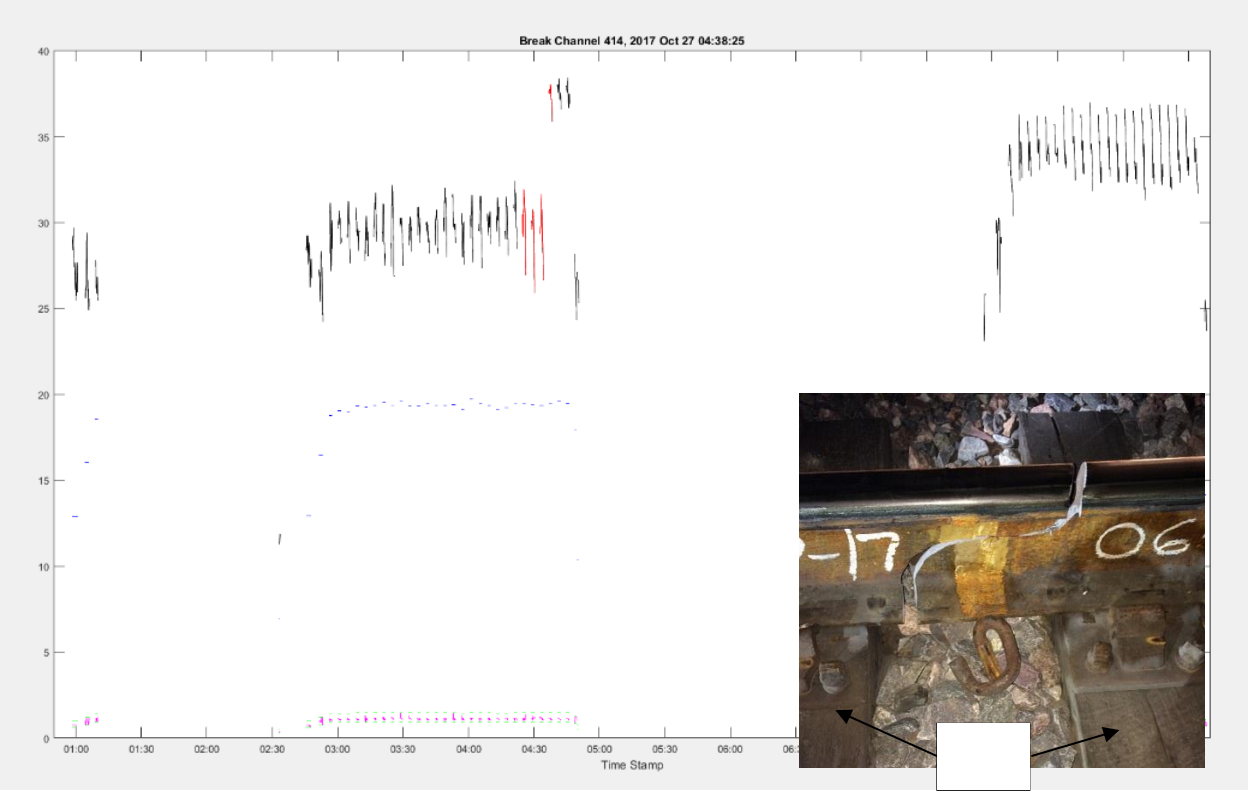

Figure 14: Processed signal data for break #28, which OptaSense detected automatically but was not detected by the track circuit. The break is in the gap between track ties, enabling suppression of the rail under axle loading and likely creating a disjoin which produced high amplitude acoustic impulses.

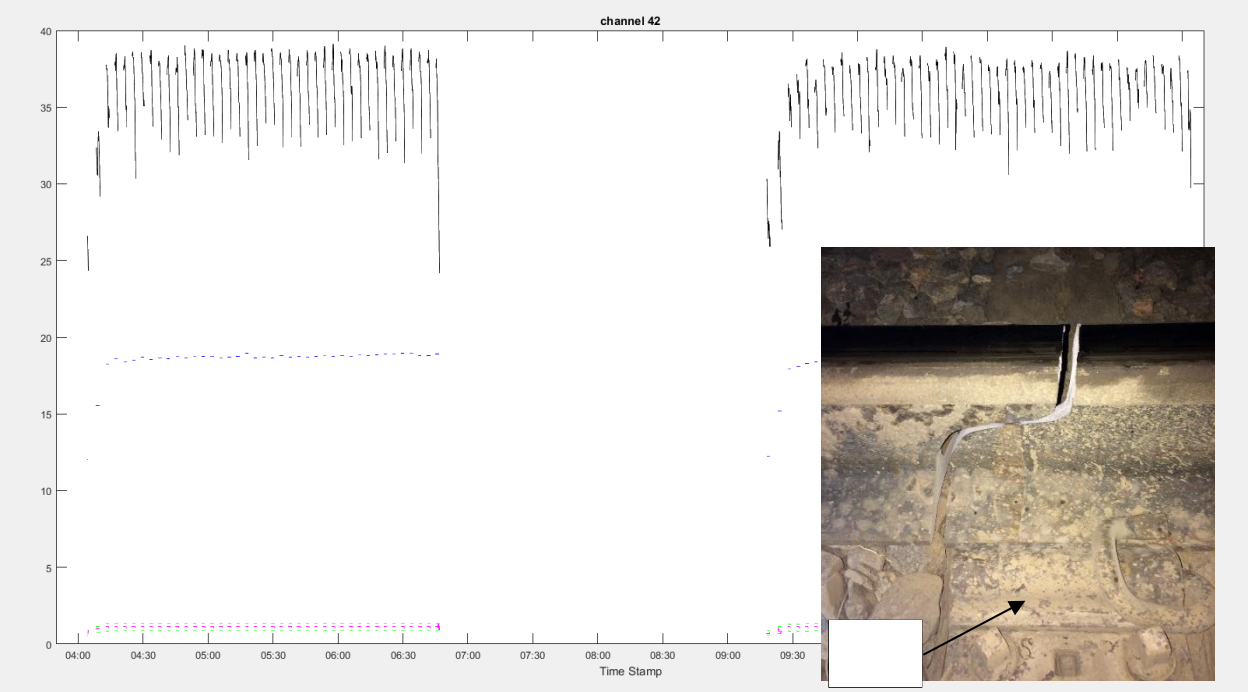

Figure 15: Processed signal data for break #226, which the track circuit detected but for which there was no visible signal change in the OptaSense data. The break is well supported, with the lower part of the break resting on a tie and the top half resting on the lower half of the break. Hence little movement under axle pressure would be expected in this case.

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DAS nuisance alarm examples

There are a variety of other physical attributes that can affect the signal amplitude metric. One example that produced a series of false positive alarms on channel 518 in weeks 5-12 was found to result from new track ties which were being tested, and were broken and moving around on each train pass.

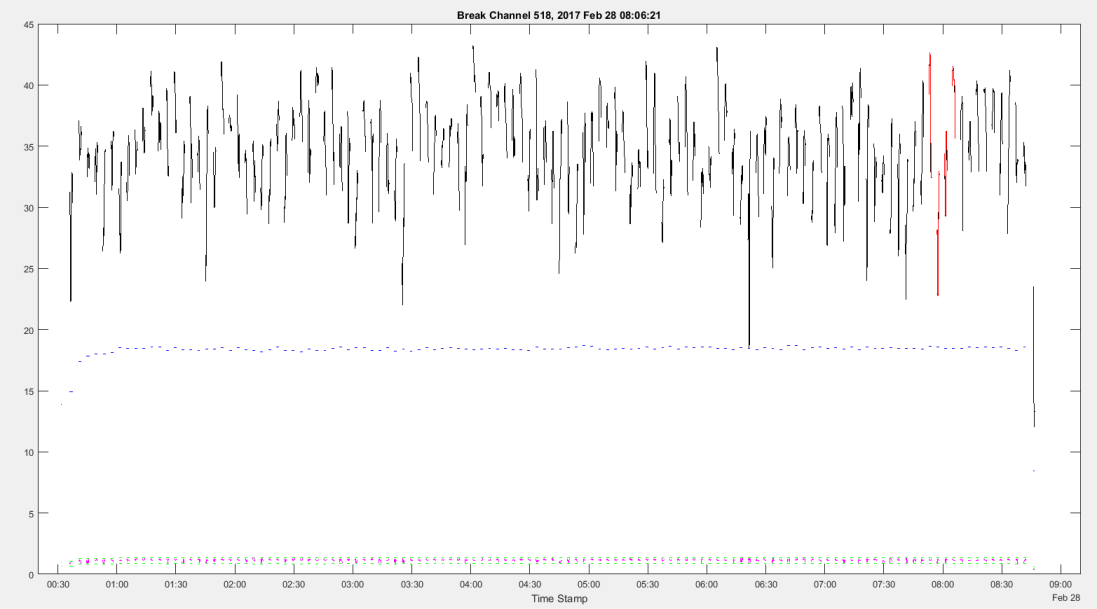

Figure 16: False positive detection due to DEMON energy fluctuations as a result of broken ties

In another example, OptaSense were experiencing false alarms around section 29/30, where the fibre moves closer to the RTT track. This turned out to be due to train running on the other track, which resulted in an energy spike when both trains passed that by simultaneously.

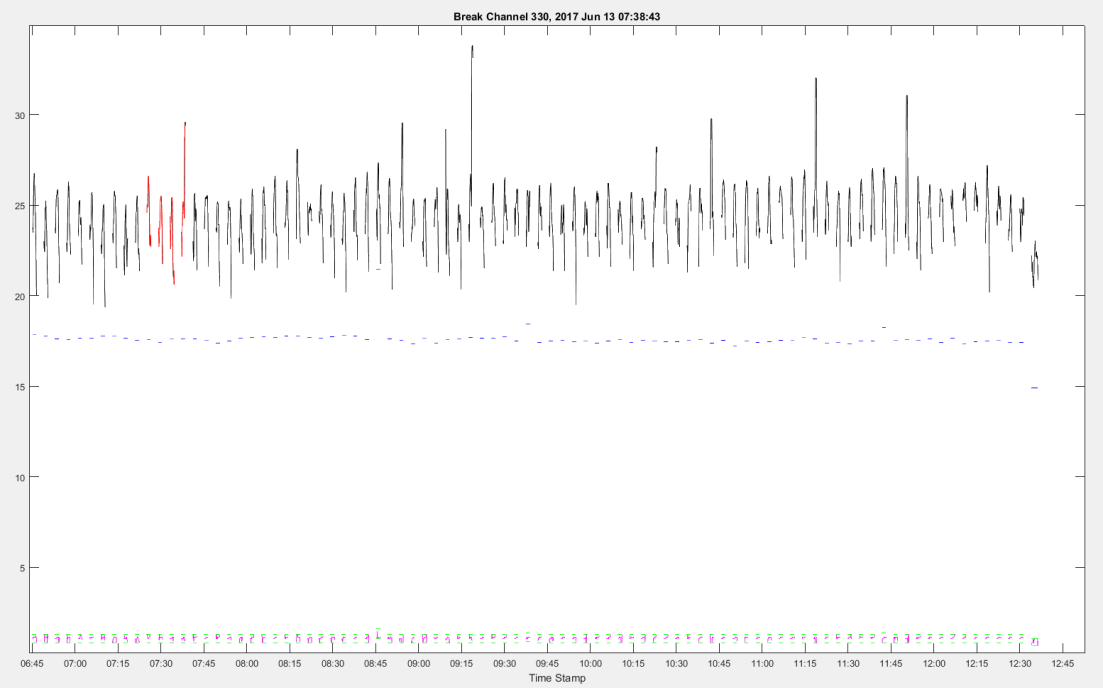

Figure 17: False alarm due to energy spikes from the superposition of the RTT and HTL train signals

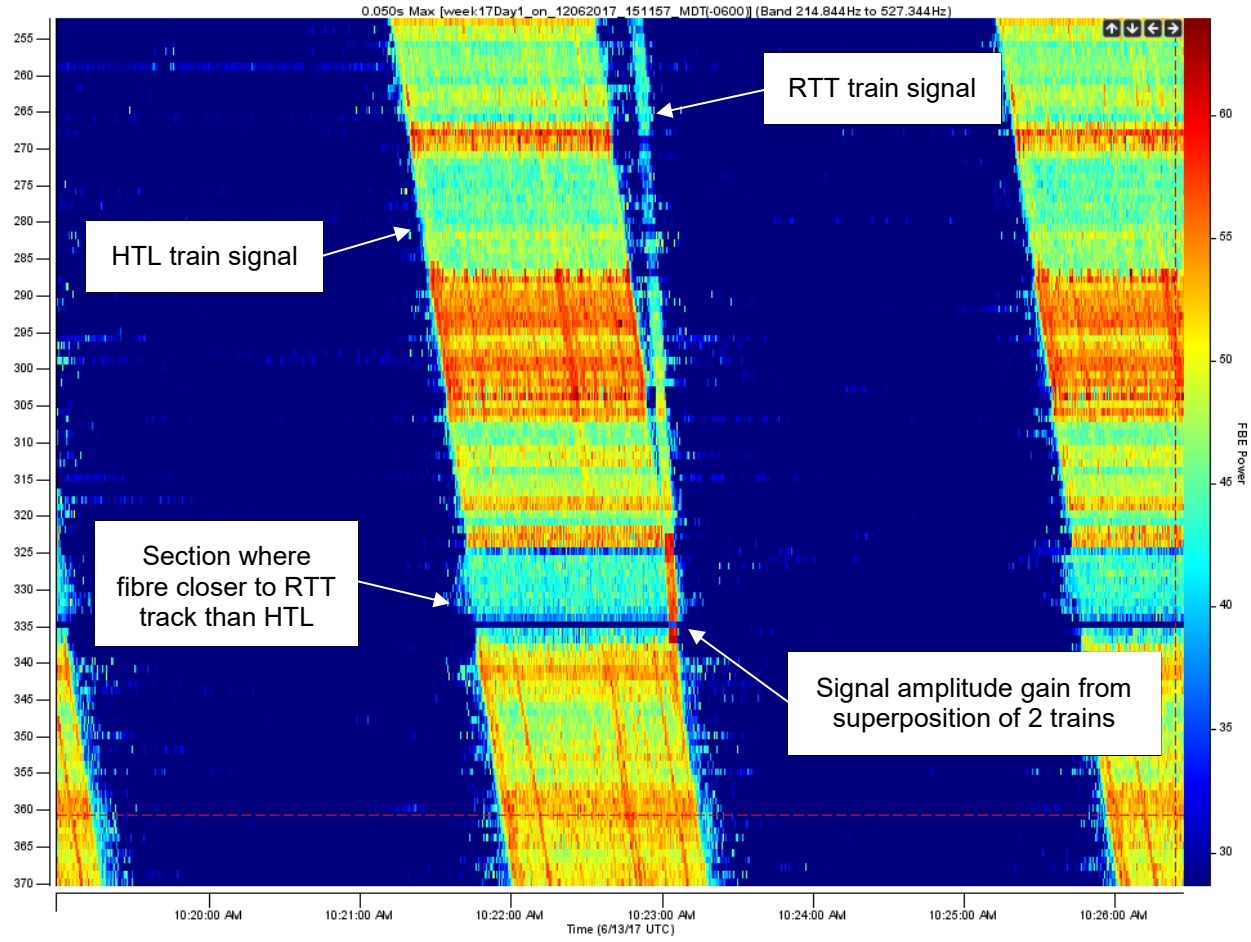

Figure 18: Example showing the effect on the acoustic signal amplitude as measured by OptaSense

The information gathered during the trial on these and other features which resulted in nuisance alarms will be valuable in feeding into future algorithm improvement work, and in particular adapting the technology for use on a real-world track environment.

Appendix II – Break Photographs

This appendix provides higher-resolution versions of the break photographs that are shown in Table 3, which may be useful for closer inspection.

The break numbers are given on the images, and the corner markers represent the break category.

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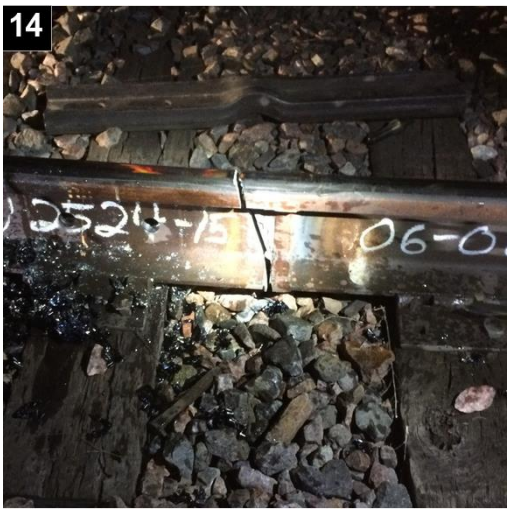
14

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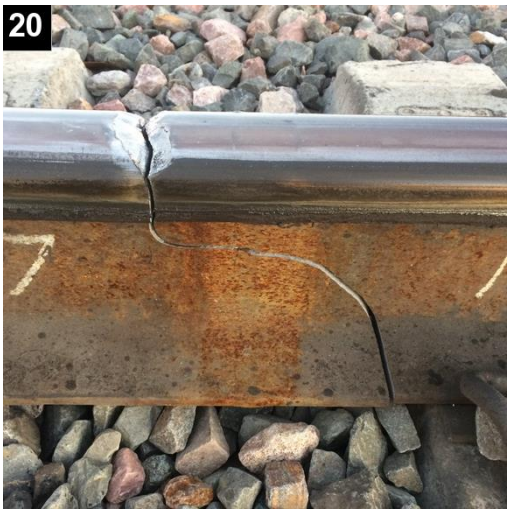
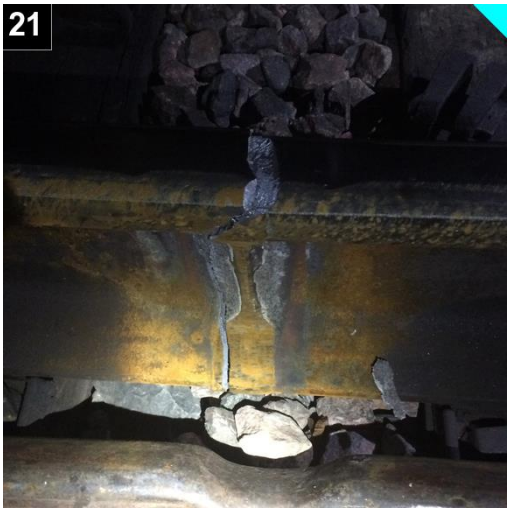

20


21

22

23

25

Reason break not detected automatically by OptaSense

- Break features
- Algorithm limitation (e.g. No. of pre-passes)
- Train slowing/stopping during break pass
- Signal amplitude below threshold
- Software not running
- Reason currently unknown

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Appendix III – Derailment Analysis

As is indicated in the project timeline shown in Figure 2 of this report, a train derailment occurred on the HTL test track on the 11th May 2016. This event was captured by the OptaSense system and the recorded sensor data was used by OptaSense to provide post-event analysis of the events leading up to and during the derailment, to assist TTCI in understanding exactly what happened. Some of this analysis is included in this appendix as supporting materials for the rail break analysis included in the report.

Figure 19 below shows the DAS sensor amplitude data for the two train passes leading up to the derailment, averaged between 20 and 250 Hz. In these figures, the horizontal axis represents distance and the vertical axis represents time. The derailment is visible in the top right hand corner of the figure, where the front of the train slows and stops, and there is a split in the middle. As annotated on the figure, a rail break was reported to have occurred 2 passes prior to the derailment, around section 7 tie 390, as highlighted on the figure.

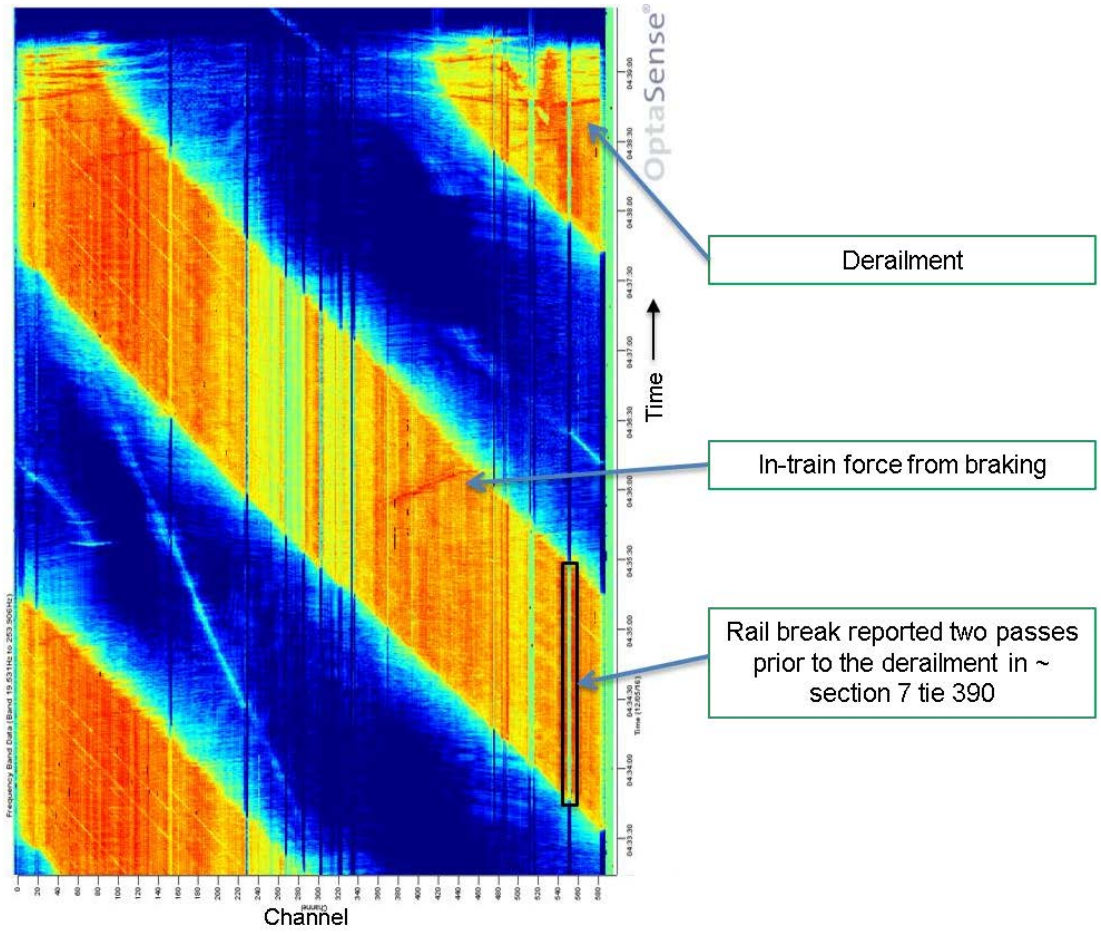

Figure 19: Sensor "waterfall" data for the two train passes prior to the HTL derailment. The location of the rail break suspected to have occurred two passes prior to the break is indicated.

Figure 20 shows the waterfall data focused on the derailment event itself. The annotations highlight two key events visible within the data:

- A high amplitude event around section 7 tie 315, which is approximately 50 m further along the track from the estimated location of the rail break and corresponds to the location at which the back half of the train decouples from the front half, and starts to derail.
- A sequence of very high amplitude events around fibre channel 535 (i.e. section 5 tie 40) starting around 8 seconds after the initial event, and lasting for around 35 seconds. This location is around 200 m further along the track from the reported rail break and 150 m along from the initial decoupling event.

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From the signal pattern identified within the data OptaSense and TTCI concluded that the back half of the train did indeed decouple and being to derail around 150 m prior to the bridge. Then, 8 seconds later the carriages in the back half of the train reached the bridge and proceeded to crash down onto the ground below, one after another.

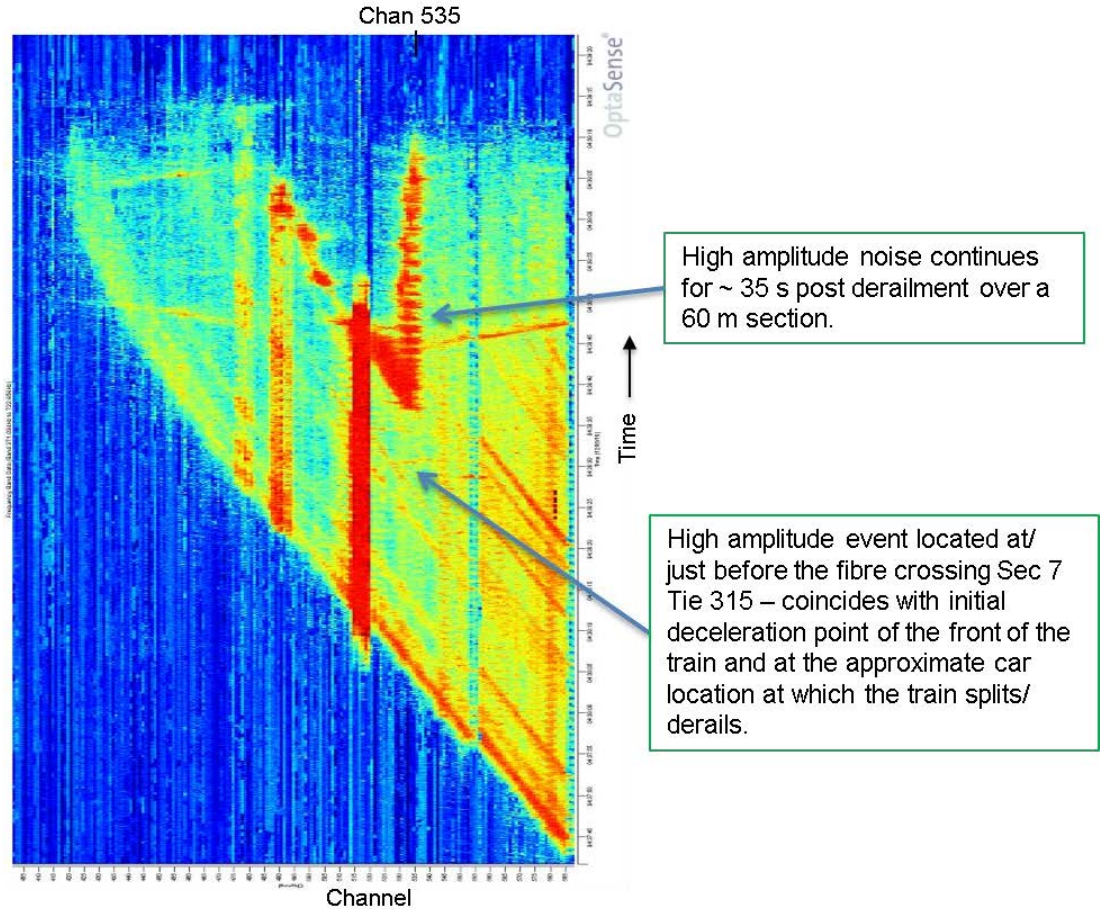

Figure 20: Image of waterfall data, focused around the derailment. High amplitude events relating to the initial derailment and subsequent impacts of carriages on the bridge are highlighted.

A large in-train force signal is visible in Figure 20 starting around 5 seconds after the initial bridge impact signals at channel 535, and which propagates to the back of the train. This may have resulted from the build-up of the first few carriages that had impacted the bridge forming a blockade for subsequent carriages, applying enough force to slow the remaining part of the train to a standstill within a further 20 seconds.

There is another, subtler, in-train force visible in Figure 20 starting at approximately the time of the initial decoupling of the train. This force is highlighted in the higher frequency waterfall image in Figure 21, and is thought to correspond to the initial force of the emergency brakes being applied on the decoupling of the train.

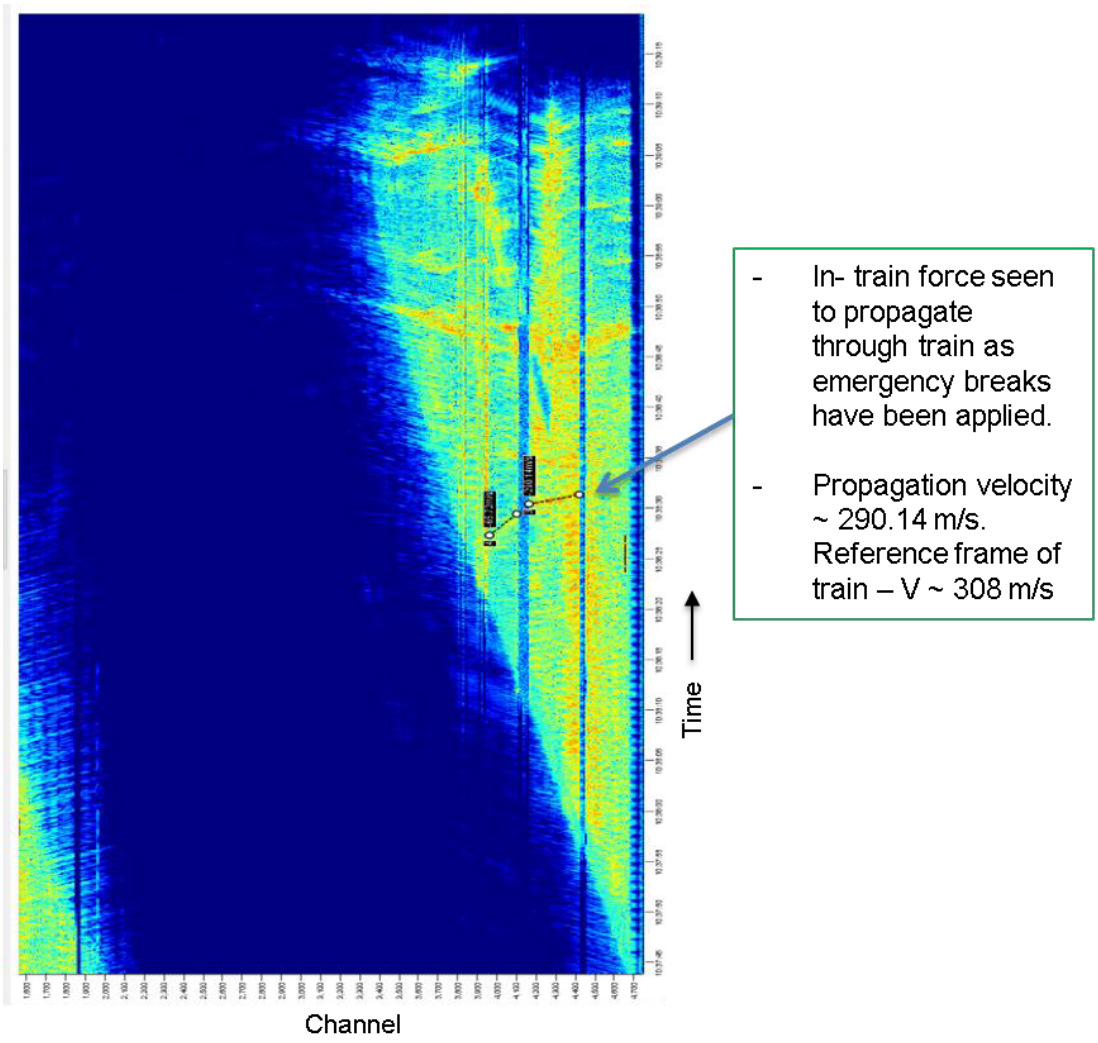

Figure 21: Signal from in-train force immediately before the derailment is highlighted.

Finally, we can look at the weight signal of carriages (or specifically, bogeys) passing over the fibre crossing which is close to the location ofthe rail break and train decoupling. Figure 22 shows the weight signal of a series of carriages passed over the fibre crossing, where the decoupling event that is indicated clearly corresponds to a phase change in the signal where there is now a clear gap between subsequent carriages. The car arrival time graph (also in Figure 22) indicates the phase change on decoupling between cars 34 and 35 (via the step change in arrival time) as well as the subsequent slowdown of the decoupled train via the gradually increasing arrival times for the remaining cars.

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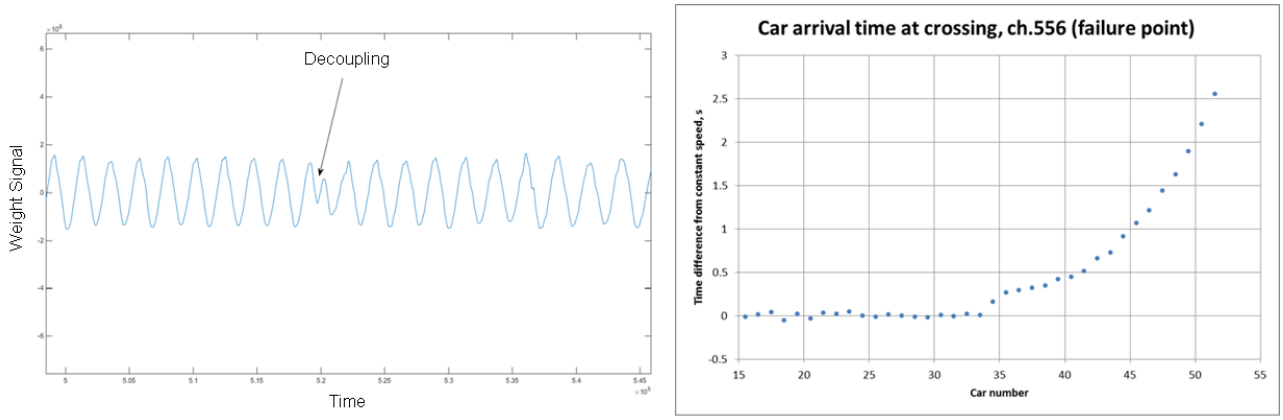

Figure 22: Weight signal of bogeys passing over the fibre crossing that is close to the derailment location (left), and arrival time separation between sequential cars relative to the average for the initial train speed (right). The phase change in the carriage arrival times corresponding to the car decoupling is visible in the weight signal graph and the "jump" in arrival time for car 34. The subsequent slowdown in the back half of the train is also visible in the arrival times.

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Appendix B.
Compilation of FAST Logs

949 - 1048 J3116

Test Events Log

Test Controller M. Colloona **Air Temp** 77.7

Test Title Fast Train Operations **Date** 10/31/16 11/1/16

Run No. 5127 **Direction** CCW Mainline

Summary of test events **Start** 1600 **Stop** 0142 **WO#** BSO[illegible]1

Time	Event
1600	Fast occupied
1600	# Switches Lined Locked Green
1615	Pre test meeting
1650	# Loco Eng on Board
1702	Brake test set and release
1710	# Brake test complete start TCR
1722	TCR complet and cut #1
1728	# 2
1732	# 3
1736	# 4
1740	# 5
1744	# 6
1748	# 7
1752	# 8
1756	# 9
1800	# 10 Hot Box OK
1804	# 11
1808	# 12
1812	# 13
1816	# 14
1820	# 15
1824	# 16
1828	# 17
1832	# 18
1836	# 19
1840	# 20 Hot Box OK
1844	# 21
1848	# 22 32' 3/8 1/4 24' 1/8 1/8
1852	# 23
1856	# 24 Steel Bridge 3/8 3/8 9/16 9/16
1900	# 25
1904	# 26
1908	# 27
1912	# 28
1916	# 29
1920	# 30
1924	# 31
1928	# 32
1932	# 33
1936	# 34
1940	# 35
1944	# 36
1948	# 37
1952	# 38
1956	# 39
2000	# 40 Hot Box OK
2004	# 41
2008	# 42 32' 3/8 1/4 24' 1/8 1/8
2012	# 43
2016	# 44 Steel Bridge 3/8 3/8 9/16 9/16
2020	# 45
2024	# 46
2028	# 47
2032	# 48
2036	# 49
2040	# 50
2044	# 51
2048	# 52
2052	# 53
2056	# 54
2100	# 55
2104	# 56
2108	# 57
2112	# 58
2116	# 59
2120	# 60 Hot Box OK
2124	# 61
2128	# 62 32' 3/8 1/4 24' 1/8 1/8
2132	# 63
2136	# 64 Steel Bridge 3/8 3/8 1/2 9/16
2140	# 65
2144	# 66
2148	# 67
2152	# 68
2156	# 69
2200	# 70
2204	# 71
2208	# 72
2212	# 73
2216	# 74
2220	# 75
2224	# 76
2228	# 77
2232	# 78
2236	# 79
2240	# 80 Hot Box OK
2244	# 81
2248	# 82 32' 3/8 1/4 24' 1/8 1/8
2252	# 83
2256	# 84 Steel Bridge 3/8 3/8 1/2 9/16
2300	# 85
2304	# 86
2308	# 87
2312	# 88
2316	# 89
2320	# 90
2324	# 91
2328	# 92
2332	# 93
2336	# 94
2340	# 95
2344	# 96
2348	# 97
2352	# 98
2356	# 99
0000	# 100 Hot Box OK
0004	# 101
0008	# 102 32' 3/8 1/4 24' 1/8 1/8
0012	# 103
0016	# 104 Steel Bridge 3/8 3/8 1/2 9/16
0020	# 105
0024	# 106
0028	# 107
0032	# 108
0036	# 109
0040	# 110

Test Events Log

Test Controller M. CORDOVA **Air Temp** 77.7

Test Title FAST TRAIN OPERATIONS **Date** 10/31/16 11/1/16

Run No. 5127 **Direction** CCW MAINLINE

Summary of test events **Start** 1600 **Stop** 0142 **WO#** 13501.151

Time	Event	Time	Event
0044 0048	# 111 112		#
0052 0056	# 113 114		#
0100 0104	# 115 116		#
0108 0112	# 117 118		#
0116 0120	# 119 120 ~~rept~~ I30X OK		#
0124 0128	# 121 122		#
0132 0136	# 123 124		#
0142	# OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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TTCI Internal Notes:

Date: 11/2/16 **Time of Red Signal:** 0614 **Time Stopped:** 0021

Weld, Rail, Joint (check one)

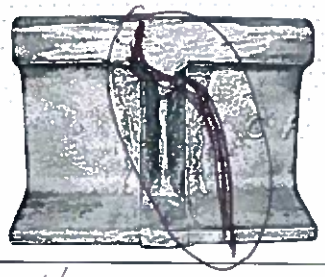
☐ Rail	☑ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☑ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☐ Web	☑ Base	☐ Bolt Hole	☐ Other

Section	32
Tie	6
I or O Rail	OSR
Weld #	HAOW-2658-16
Weld Install Date	03-02-16
Rail Temp	58°
Air Temp	41.3°
	
Head Gap	1/2
Web Gap	1/2
Base Gap	1/2
Rail Size POS	131
Rail Size NEG	141
Comments:	

Switch Checklist

RTT					
Switch	**Status**	**Derail**	**Time**	**Init.**	**Comments**
301	G-R	2-On Off			
602 A	G-R	N/A			
602 B	G-R	N/A			
302	G-R	N/A			
304	G-R	On Off			
501 A	G-R	N/A			
501 B	G-R	N/A			
305	G-R	N/A			

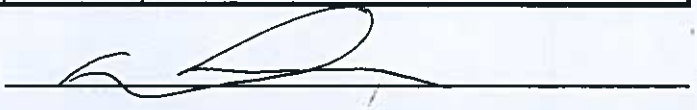
TTT					
Switch	**Status**	**Derail**	**Time**	**Init.**	**Comments**
602 A	G-R	N/A			
602 B	G-R	N/A			
701	G-R	N/A			
703	G-R	On Off			
704	G-R	On Off			

HTL					
Switch	**Status**	**Derail**	**Time**	**Init.**	**Comments**
405	G-R	N/A	1615	MAC	
407	G-R	N/A	1615	MAC	
408	G-R	N/A	1615	MAC	
407 MPF	G-R	N/A	1615	MAC	

WRM					
Switch	**Status**	**Derail**	**Time**	**Init.**	**Comments**
401 A	G-R	N/A			
401 B	G-R	N/A			
402	G-R	N/A			
409	G-R	N/A			
410	G-R	N/A			

PTT					
Switch	**Status**	**Derail**	**Time**	**Init.**	**Comments**
901	G-R	On Off			
902	G-R	N/A			

TDT					
Switch	**Status**	**Derail**	**Time**	**Init.**	**Comments**
304	G-R	On Off			
401 A	G-R	N/A			
401 B	G-R	N/A			

Signature 

GPRX 103618 WO# HYTO.P3

Test Events Log

Test Controller M. Cordova **Air Temp** 62 0

Test Title FAST TRAIN OPERATIONS **Date** 11/1/16 11/2/16

Run No. 5128 **Direction** CCW MAINLINE

Summary of test events **Start** 1600 **Stop** 0130 **WO#** BS01.31

Time	Event	Time	Event
1600 1615	# FAST OCCUPIED SWITCHES LINED LOCKED GREEN	2058 2102	# 53 54
1622 1705	# PRE TEST MEETING 1600 ENG. ON BOARD	2106 2110	# 55 56
1710 1716	# BRAKE TEST SET AND RELEASE BRAKE TEST COMPLETE START TCR	2114 2118	# 57 58
1729 1734	# TCR COMPLETE AND LAP #1 2	2122 2126	# 59 60 HOT BOX OK
1738 1742	# 3 4	2130 2134	# 61 62 32' 3/8 1/4 24' 1/8 1/8
1746 1750	# 5 6	2138 2142	# 63 64 STEEL BRIDGE 3/8 3/8 1/2 9/16
1754 1758	# 7 8	2146 2150	# 65 66
1802 1806	# 9 10 HOT BOX OK	2154 2158	# 67 68
1810 1814	# 11 12	2202 2206	# 69 70
1818 1822	# 13 14	2210 2214	# 71 72
1826 1830	# 15 16	2218 2222	# 73 74
1834 1838	# 17 18	2226 2230	# 75 76
1842 1846	# 19 20 HOT BOX OK	2234 2238	# 77 78
1850 1854	# 21 22 32' 3/8 1/4 24' 1/8 1/8	2242 2246	# 79 80 HOT BOX OK
1858 1902	# 23 24 STEEL BRIDGE 3/8 3/8 1/2 9/16	2250 2254	# 81 82 32' 3/8 1/4 24' 1/8 1/8
1906 1910	# 25 26	2258 2302	# 83 84 STEEL BRIDGE 3/8 7/16 1/2 9/16
1914 1918	# 27 28	2306 2310	# 85 86
1922 1926	# 29 30	2314 2318	# 87 88
1930 1934	# 31 32	2322 2326	# 89 90
1938 1942	# 33 34	2330 2334	# 91 92
1946 1950	# 35 36	2338 2342	# 93 94
1954 1958	# 37 38	2346 2350	# 95 96
2002 2006	# 39 40 HOT BOX OK	2354 2358	# 97 98
2010 2014	# 41 42 32' 3/8 1/4 24' 1/8 1/8	0002 0006	# 99 100 HOT BOX OK
2018 2022	# 43 44 STEEL BRIDGE 3/8 7/8 1/2 9/16	0010 0014	# 101 102 RED SIGNAL DSR SEC 32
2026 2030	# 45 46	0021 0047	# STOPPED BROKEN RAIL SEC 32 BACK TRAIN UP TO START POINT
2034 2038	# 47 48	0056 0120	# STOPPED TO FIX BREAK TOOK BACK TOGETHER GREEN SIGNAL
2042 2046	# 49 50	0130	# OPERATIONS COMPLETE
2050 2054	# 51 52		#

Test Events Log

Test Controller M. CORDOVA **Air Temp** 63.7

Test Title FAST TRAIN OPERATIONS **Date** 11/2/16 11/3/16

Run No. 5129 **Direction** CW MAIN/IDLE

Summary of test events **Start** 1600 **Stop** 0151 **WO#** 3501.B.1

Time	Event	Time	Event
1600 1610	# FAST OCCUPIED SWITCHES LINED LOCKED GREEN	2107 2111	#53 54
1620 1715	# PRE TEST MEETING LOCO ENG. ON BOARD	2115 2119	#55 56
1725 1728	# BRAKE TEST SET AND RELEASE BRAKE TEST COMPLETE START TCR	2123 2127	#57 58
1738 1743	TCR COMPLETE AND TAPE 1 #2	2131 2135	#59 60 HOT BOX OK CHECKED AT BUNGALOW
1747 1751	#3 4	2139 2143	#61 62 32' 3/8 1/4 24' 1/8 1/8
1755 1759	#5 6	2147 2151	#63 64 STEEL BRIDGE 3/8 3/8 1/2 9/16
1803 1807	#7 8	2155 2159	#65 66
1811 1815	#9 10 HOT BOX OK	2203 2207	#67 68
1819 1823	#11 12	2211 2215	#69 70
1827 1831	#13 14	2219 2223	#71 72
1835 1839	#15 16	2227 2231	#73 74
1843 1847	#17 18	2235 2239	#75 76
1851 1855	#19 20 HOT BOX OK	2243 2247	#77 78
1859 1903	#21 22 32' 3/8 1/4 24' 1/8 1/8	2251 2255	#79 80 HOT BOX OK
1907 1911	#23 24 STEEL BRIDGE 3/8 3/8 1/2 9/16	2259 2303	#81 82 32' 3/8 1/4 24' 1/8 1/8
1915 1919	#25 26	2307 2311	#83 84 STEEL BRIDGE 3/8 3/8 1/2 9/16
1923 1927	#27 28	2315 2319	#85 86
1931 1935	#29 30	2323 2327	#87 88
1939 1943	#31 32	2331 2335	#89 90
1947 1951	#33 34	2339 2343	#91 92
1955 1959	#35 36	2347 2351	#93 94 START DRY DOWN
2003 2007	#37 38	2355 2359	#95 96
2011 2015	#39 HOT BOX OK 40	0003 0007	#97 98
2019 2023	#41 42 32' 3/8 1/4 24' 1/8 1/8	0011 0015	#99 100 HOT BOX OK
2027 2031	#43 44 STEEL BRIDGE 3/8 3/8 1/2 9/16	0019 0023	#101 102 32' 3/8 1/4 24' 1/8 1/8
2035 2039	#45 46	0027 0031	#103 104 STEEL BRIDGE 3/8 3/8 1/2 9/16
2043 2047	#47 48	0035 0039	#105 106
2051 2055	#49 50	0043 0047	#107 108
2059 2103	#51 52	0051 0055	#109 110

Test Events Log

Test Controller M. CORDOVA **Air Temp** 63.7

Test Title FAST TRAIN OPERATIONS **Date** 11/2/16 11/3/16

Run No. 5129 **Direction** CW MAIN LINE

Summary of test events **Start** 1600 **Stop** 0151 **WO#** 1501.B.1

Time	Event	Time	Event
0059 0103	# 111 112		#
0107 0111	# 113 114		#
0115 0119	# 115 116		#
0124 0128	# 117 118		#
0132 0136	# 119 120		#
0140 0144	# 121 122		#
0148 0151	# 123 124 OPERATIONS COMPLETE		#
	#		#
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Test Events Log

Test Controller M. CORDOVA **Air Temp** 66.4

Test Title FAST TRAIN OPERATIONS **Date** 11/3/16 11/4/16

Run No. 5130 **Direction** CW BYPASS

Summary of test events **Start** 1600 **Stop** 0143 **WO#** BSDI.13.1

Time	Event
1600	# FAST occupied
1615	# SWITCHES CLOSED locked GREEN
1625	# PTC TEST MEETING
1700	# Loco ENG. ON BOARD
1714	# BRAKE TEST SET AND RELEASE
1726	# BRAKE TEST COMPLETE SIGALT TCK
1729	# TCK COMPLETE AND INP #1
1734	# 2 20 mph
1739	#3
1743	#4
1747	# 5 STOPPING TO RESET COMPUTER
1755	# STOPPED TO REBOOT COMPUTER
1805	# BRAKE TEST SET AND RELEASE
1807	# ON BOARD COMPUTER PROBLEMS REBOOT
1821	# BRAKE TEST SET AND RELEASE
1832	# BACK ON THE MOVE
1834	# LAP 6 COMPLETE
1842	#7
1848	#8
1852	#9
1856	# 10 HOT BOX OK
1900	#11
1904	#12
1908	#13
1912	#14
1916	#15
1920	#16
1924	#17
1928	#18
1932	#19
1936	# 20 HOT BOX OK
1940	#21
1944	#22
1948	#23 32' 3/8 1/4 24' 1/8 1/8
1952	#24
1956	#25 STEEL BRIDGE 7/8 3/8 1/2 9/16
2000	#26
2004	#27
2008	#28
2012	#29
2016	#30
2020	#31
2024	#32
2028	#33
2032	#34
2036	#35
2040	#36
2044	#37
2048	#38
2052	#39
2056	# 40 HOT BOX OK
2100	#41
2104	#42
2108	#43 32' 3/8 1/4 24' 1/8 1/8
2112	#44
2116	#45 STEEL BRIDGE 7/8 3/8 1/2 9/16
2120	#46
2124	#47
2128	#48
2132	#49
2136	#50
2140	#51
2144	#52
2148	#53
2152	#54
2156	#55
2200	#56
2204	#57
2208	#58
2212	#59
2216	# 60 HOT BOX OK
2220	#61
2224	#62
2228	#63 32' 3/8 1/4 24' 1/8 1/8
2232	#64
2236	#65 STEEL BRIDGE 3/8 7/8 1/2 9/16
2240	#66
2244	#67
2248	#68
2252	#69
2256	#70
2300	#71
2304	#72
2308	#73
2312	#74
2316	#75
2320	#76
2324	#77
2328	#78
2332	#79
2336	# 80 HOT BOX OK
2340	#81
2344	#82
2348	#83 32' 3/8 1/4 24' 1/8 1/8
2352	#84
2356	#85 STEEL BRIDGE 7/8 7/8 1/2 9/16
0000	#86
0004	#87
0008	#88
0012	#89
0016	#90
0020	#91
0024	#92
0028	#93
0032	#94
0036	#95
0040	#96
0044	#97
0048	#98
0052	#99
0056	#100 HOT BOX OK
0100	#101
0104	#102
0108	#103 32' 3/8 1/4 24' 1/8 1/8
0112	#104
0116	#105 STEEL BRIDGE 7/8 3/8 1/2 9/16

Test Events Log

Test Controller M. CORDOVA **Air Temp** 66.4

Test Title FAST TRACK OPERATIONS **Date** 11/3/16 11/4/16

Run No. 5130 **Direction** CW BYPASS

Summary of test events **Start** 1600 **Stop** 0143 **WO#** 1551.8.1

Time	Event	Time	Event
0123 0124	# 106 107		#
0128 0132	# 108 109		#
0136 0141	# 110 111		#
0143	# 112 OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller CASEY MRAOVICH **Air Temp** 59°

Test Title FAST TRAIN OPERATIONS **Date** 11-9-16 11-10-16

Run No. 5133 **Direction** CW / MAINLINE

Summary of test events **Start** 1600 **Stop** _____ **WO#** BS01.B1

Time	Event	Time	Event
1600	FAST occupied	2046	#53
1610	# Switches Lined Locked Green	2050	#54
1620	Pre test meeting	2054	#55
1645	# Loco Eng on board	2058	#56
1656	Brake test set & release	2102	#57
1705	# Brake test complete start TCR	2106	#58
1716	TCR complete Lap #1	2110	#59
1721	#2	2114	#60
1726	#3	2118	#61 Steel Bridge ok
1730	#4	2122	#62 32-3/8 3/8 24-3/16 3/16
1734	#5	2126	#63
1738	#6	2130	#64 3/8 3/8 5/8 5/8
1742	#7	2134	#65
1746	#8	2138	#66
1750	#9	2142	#67
1754	#10 Hot Box ok	2146	#68
1758	#11	2150	#69
1807	#12	2154	#70 Hot Box ok
1806	#13	2158	#71
1810	#14	2202	#73
1814	#15	2206	#74
1818	#16	2210	#75
1822	#17	2214	#76
1826	#18	2218	#77
1830	#19	2222	#78
1834	#20 steel Bridge ok	2226	#79
1838	#21 32'-3/8 3/8 24-3/16 3/16	2228	# Red signal Brake Sec 9 Tre 168
1842	#22	2231	Train stopped
1846	#23 3/8 3/8 5/8 5/8	2308	# BARR & Finish Put together
1850	#24	2312	Brake test set & release
1854	#25	2320	# Start TCR & LAP - 80
1858	#26	2331	TCR complete & LAP - 81
1902	#27	2337	#82
1906	#28	2341	#83 Steel Bridge ok
1910	#29		# 32-3/8 3/8 24-3/16 3/16
1914	#30 Hot Box ok		3/8 3/8 5/8 5/8
1918	#31	2344	# Red signal
1922	#32	2347	Train stopped
1926	#33	0125	# Red Brake Sec 3 Tre 114 Outside
M30	#34		Drill Four Holes & BAR
1934	#35	0130	# Train Heat data
1938	#36		#
1942	#37		#
1946	#38		#
1950	#39 Steel Bridge ok		#
1954	#40 32'-3/8 3/8 24-3/16 3/16		#
1958	#41		#
2002	#42 3/8 3/8 5/8 5/8		#
2006	#43		#
2010	#44		#
2014	#45		#
2018	#46		#
2022	#47		#
2026	#48		#
2030	#49		#
2034	#50 Hot Box ok		#
2038	#51		#
2042	#52		#

TTCI Internal Notes:

Date: 11-9-16 **Time of Red Signal:** 2228 **Time Stopped:** 2231

Weld, Rail, Joint (check one)

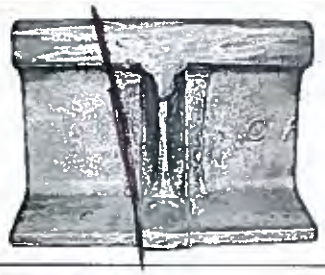
☐ Rail	☒ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☒ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☐ Web	☒ Base	☐ Bolt Hole	☐ Other

Section	9
Tie	168
I or O Rail	O
Weld #	BW-2669-16
Weld Install Date	3-16-16
Rail Temp	41
Air Temp	34°
	
Head Gap	3/8
Web Gap	1/4
Base Gap	1/4
Rail Size POS	136
Rail Size NEG	136
Comments:	

TTCI Internal Notes:

Date: 11-9-16 **Time of Red Signal:** 2344 **Time Stopped:** 2347

Weld, Rail, Joint (check one)

☐ Rail	☒ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☒ Web	☐ Base	☐ Bolt Hole	☐ Other

Section	3
Tie	114
I or O Rail	O
Weld #	HAOW-2626-16
Weld Install Date	02-03-16
Rail Temp	43.8°
Air Temp	34°
Head Gap	1"
Web Gap	1"
Base Gap	1"
Rail Size POS	141
Rail Size NEG	141
Comments:	wood Concret transition area Concret tie shattered

Test Events Log

Test Controller CASEY MRAOUICH **Air Temp** 60°

Test Title FAST TRAIN OPERATIONS **Date** 11-10-16 11-11-16

Run No. 5134 **Direction** CW/Bypass

Summary of test events **Start** 1600 **Stop** 0130 **WO#** BSD1.B.1

Time	Event	Time	Event
1600	# FAST occupied	2127	# 50 Hot Box OK
1615	switches Lined & Locked	2131	# 51
1635	# Pretest meeting	2135	# 52
1705	Loco ENG on Board	2139	# 53
1714	# Brake test set & release	2143	# 54
1724	Brake test complete start TCR	2147	# 55
1735	# TCR complete & LAP 1	2151	# 56
1741	# 2	2155	# 57
1745	# 3	2159	# 58
1749	# 4	2205	# 59
1753	# 5	2207	# 60
1757	# 6	2211	# 61 Steel Bridge ok
1800	# Computer stopped train ATC control Issue	2215	# 62 32-3/8 3/8 24-3/16 3/16
1813	reset Computer & take train to start point	2219	# 63 3/8 3/8 5/8 5/8
1817	# Brake test set & release	2223	# 64
1827	Brake test complete start TCR & LAP 7	2227	# 65
1837	# TCR complete & LAP 8	2231	# 66
1843	# 9	2235	# 67
1847	# 10	2239	# 68
1851	# 11 Hot Box OK	2243	# 69 Hot Box OK
1855	# 12	2247	# 70
1859	# 13	2251	# 71
1903	# 14	2255	# 72
1907	# 15	2259	# 73
1911	# 16	2303	# 74
1915	# 17	2307	# 75
1919	# 18	2311	# 76
1923	# 19	2315	# 77
1927	# 20	2319	# 78
1931	# 21	2323	# 79
1935	# 22 Steel Bridge ok	2327	# 80
1939	# 23 32-3/8 3/8 24-3/16 3/16	2331	# 81
1943	# 24	2335	# 82 Steel Bridge ok
1947	# 25 3/8 3/8 5/8 5/8	2339	# 83 32 3/8 3/8 24-3/16 3/16
1951	# 26	2343	# 84
1955	# 27	2347	# 85 3/8 3/8 5/8 5/8
1959	# 28	2351	# 86
2003	# 29	2355	# 87
2007	# 30 Hot Box ok	2359	# 88
2011	# 31	0003	# 89
2015	# 32	0007	# 90
2019	# 33	0011	# 91 Hot Box OK
2023	# 34	0015	# 92
2027	# 35	0019	# 93
2031	# 36	0023	# 94
2035	# 37	0027	# 95
2039	# 38	0051	# 96
2043	# 39	0035	# 97
2047	# 40 Steel Bridge ok	0059	# 98
2051	# 41 32-3/8 3/8 24-3/16 3/16	0043	# 99 Steel Bridge ok
2055	# 42	0047	# 100 52-3/8 3/8 24-3/16 3/16
2059	# 43 3/8 3/8 5/8 5/8	0051	# 101
2103	# 44	0055	# 102 3/8 3/8 5/8 5/8
2107	# 45	0059	# 103
2111	# 46	0103	# 104
2115	# 47	0107	# 105
2119	# 48	0111	# 106
2123	# 49	0115	# 107

Test Events Log

Test Controller CASEY MRAOVICH **Air Temp** 61°

Test Title FAST TRAIN OPERATIONS **Date** 11-10-16 - 11-11-16

Run No. 5134 **Direction** CW/Bypass

Summary of test events **Start** 1600 **Stop** 0130 **WO#** BSD1.B.1

Time	Event	Time	Event
0119	# 108		#
0123	# 109		#
0128	# 110		#
0130	# 111 Train signal test complete		#
	#		#
	#		#
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Test Events Log

Test Controller M. COLOSIMO **Air Temp** 64.2°

Test Title FAST TRAIN OPERATIONS **Date** 11/4/15 11/5/16

Run No. 5135 **Direction** CCW BYPASS

Summary of test events **Start** 1600 **Stop** 0149 **WO#** BSDL.B.1

Time	Event
1600	FAST OCCUPIED
1615	# SWITCHES LINED AND LOCKED
1625	PRE TEST MEETING
1700	# LOCO ENG. ON BOARD
1718	BRAKE TEST SET AND RELEASE
1721	# BRAKE TEST COMPLETE START TCR
1733	TCR COMPLETE AND IAP #1
1738	#2
1742	#3
1746	#4
1750	#5
1754	#6
1758	#7
1802	#8 STEVE D AND 1 GUEST CLEAR
1806	#9
1810	#10 HOT BOX OK
1814	#11
1818	#12
1822	#13
1826	#14
1830	#15
1834	#16
1838	#17
1842	#18
1846	#19
1850	#20 HOT BOX OK
1854	#21
1858	#22 32' 3/8 1/4 24' 1/8 1/8
1902	#23
1906	#24 STEEL BRIDGE 3/8 3/8 1/2 9/16
1910	#25
1914	#26
1918	#27
1922	#28
1926	#29
1930	#30
1934	#31
1938	#32
1942	#33
1946	#34
1950	#35
1954	#36
1959	#37
2003	#38
2007	#39
2011	#40 HOT BOX OK
2015	#41
2019	#42 32' 3/8 1/4 24' 1/8 1/8
2023	#43
2027	#44 STEEL BRIDGE 3/8 3/8 1/2 9/16
2031	#45
2035	#46
2039	#47
2043	#48
2047	#49
2051	#50
2055	#51
2059	#52

Time	Event
2103	#53
2107	#54
2111	#55
2115	#56
2119	#57
2123	#58
2127	#59
2131	#60 HOT BOX OK
2135	#61
2139	#62 32' 3/8 1/4 24' 1/8 1/8
2143	#63
2147	#64 STEEL BRIDGE 3/8 3/8 1/2 9/16
2151	#65
2155	#66
2159	#67
2203	#68
2207	#69
2211	#70
2215	#71
2219	#72
2223	#73
2227	#74
2231	#75
2235	#76
2239	#77
2243	#78
2247	#79
2251	#80 HOT BOX OK
2255	#81
2259	#82 32' 3/8 1/4 24' 1/8 1/8
2303	#83
2307	#84 STEEL BRIDGE 3/8 3/8 1/2 9/16
2311	#85
2315	#86
2319	#87
2323	#88
2327	#89
2331	#90
2335	#91
2339	#92
2343	#93
2547	#94 MATT H. AND GUEST'S CLEAR
2351	#95
2355	#96
2359	#97
0003	#98
0007	#99
0011	#100 HOT BOX OK
0015	#101
0019	#102 32' 3/8 1/4 24' 1/8 1/8
0023	#103
0027	#104 STEEL BRIDGE 3/8 3/8 1/2 9/16
0031	#105
0035	#106
0039	#107
0043	#108
0047	#109
0051	#110

Test Events Log

Test Controller M. CORDOVA **Air Temp** 64.2°

Test Title FAST TRAIN OPERATIONS **Date** 11/14/16 11/15/16

Run No. 5135 **Direction** CCW BYPASS

Summary of test events **Start** 1600 **Stop** 0149 **WO#** BS01.81

Time	Event	Time	Event
0055	#111		#
0059	#112		#
0103	#113		#
0107	#114		#
0111	#115		#
0115	#116		#
0119	#117		#
0123	#118		#
0127	#119		#
0131	#120 HOT BOX OK		#
0135	#121		#
0139	#122		#
0143	#123		#
0149	OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller M. CORDOVA **Air Temp** 63°

Test Title FAST TRAIN OPERATIONS **Date** 11/5/16 11/6/16

Run No. 5136 **Direction** CCW MAIN LINE

Summary of test events **Start** 1600 **Stop** 0137 **WO#** B501.13.1

Time	Event
1600	# FAST OCCUPIED
1655	SWITCHES CLOSED LOCKED GREEN
1640	PRE TEST MEETING
11720	# LOCO ENG ON BOARD
1731	BRAKE TEST SET AND RELEASE
1737	# BRAKE TEST COMPLETE START TLR
1747	TLR COMPLETE AND LAP #1
1752	#2
1756	#3
1800	STOPPED for ON BOARD COMPUTER TROUBLE
1805	BRAKE TEST SET AND RELEASE
1810	# BACK ON THE MOVE
1813	LAP #4 COMPLETE
1822	#5
1827	#6
1831	#7
1835	#8
1839	#9
1843	#10 HOT BOX OK
1847	#11
1851	#12
1855	#13
1859	#14
1903	#15
1907	#16
1911	#17
1915	#18
1919	#19
1923	#20 HOT BOX OK
1927	#21
1931	#22
1935	#23 32' 7/8 1/4 24' 1/8 1/8
1939	#24
1943	#25 STEEL BRIDGE 3/8 3/8 1/2 9/16
1947	#26
1951	#27
1955	#28
1959	#29
2003	#30
2007	#31
2011	#32
2015	#33
2019	#34
2023	#35
2027	#36
2031	#37
2035	#38
2039	#39
2043	#40 HOT BOX OK
2047	#41
2051	#42
2055	#43 32' 3/8 1/4 24' 1/8 1/8
2059	#44
2103	#45 STEEL BRIDGE 3/8 3/8 1/2 9/16
2107	#46
2111	#47
2115	#48
2119	#49

Time	Event
2123	#50
2127	#51
2131	#52
2135	#53
2139	#54
2143	#55
2147	#56
2151	#57
2155	#58
2159	#59
2203	#60 HOT BOX OK
2207	#61
2211	#62
2215	#63 32' 3/8 1/4 24' 1/8 1/8
2219	#64
2223	#65 STEEL BRIDGE 3/8 3/8 1/2 9/16
2227	#66
2231	#67
2235	#68
2239	#69
2243	#70
2247	#71
2251	#72
2255	#73
2259	#74
2303	#75
2307	#76
2311	#77
2315	#78
2319	#79
2323	#80 HOT BOX OK
2327	#81
2331	#82
2335	#83 32' 7/8 1/4 24' 1/8 1/8
2339	#84
2343	#85 STEEL BRIDGE 3/8 3/8 1/2 9/16
2347	#86
2351	#87
2355	#88
2359	#89
0003	#90
0007	#91
0011	#92
0015	#93
0019	#94
0023	#95
0027	#96
0031	#97
0035	#98
0039	#99
0043	#100 HOT BOX OK
0047	#101
0051	#102
0055	#103 32' 3/8 1/4 24' 1/8 1/8
0059	#104
0103	#105 STEEL BRIDGE 3/8 3/8 1/2 9/16
0107	#106
0111	#107

Test Events Log

Test Controller M. CORDOVA **Air Temp** 63°

Test Title FAST TURBINE OPERATIONS **Date** 11/15/16 11/16/16

Run No. 5136 **Direction** CCW MAIN LINE

Summary of test events **Start** 1600 **Stop** 0137 **WO#** 85018.1

Time	Event	Time	Event
0115 0119	#108 #109		#
0123 0127	#110 #111		#
0131 0137	#112 # OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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2235
314 outside 256 AXLE
33389 143° **Test Events Log**
33186 A-2 164°

Test Controller M CORDOVA **Air Temp** 61°

Test Title FAST TRAIN OPERATIONS **Date** 11/16/16 11/17/16

Run No. 5137 **Direction** CW MAINLINE

Summary of test events **Start** 1600 **Stop** 0146 **WO#** B5D1.B.1

Time	Event	Time	Event
1600	# FAST OCCUPIED	2106	# 53
1605	SWITCHES LINED LOCKED CLEAN	2110	# 54
1650	# PRETEST MEETING	2114	# 55
1715	LOCO ENG ON BOARD	2118	# 56
1721	# BRAKE TEST SET AND RELEASE	2122	# 57
1726	BRAKE TEST COMPLETE START TCR	2126	# 58
1736	# TCR COMPLETE AND LAP #1	2130	# 59
1741	#2	2134	# 60 HOT BOX OK
1746	#3	2138	# 61
1750	#4	2142	# 62 32' 3/8 1/4 24' 1/8 1/8
1754	#5	2146	# 63
1758	#6	2150	# 64 STEEL BRIDGE 3/8 3/8 1/2 9/16
1802	#7	2154	# 65
1806	#8	2158	# 66
1810	#9	2202	# 67
1814	#10 HOT BOX OK	2206	# 68
1818	#11	2210	# 69
1822	#12	2214	# 70
1826	#13	2218	# 71
1830	#14	2222	# 72
1834	#15	2226	# 73
1838	#16	2230	# 74
1842	#17	2234	# 75
1846	#18	2239	# 76 STOPPED FOR HOT BOX AXLE 256 O/S
1850	#19	2324	# BRAKE TEST SET RELEASE
1854	#20 HOT BOX OK	2328	# BACK ON THE MOVE
1858	#21	2331	# LAP #76 COMPLETE
1902	#22 32' 3/8 1/4 24' 1/8 1/8	2340	#77
1906	#23	2345	# 78
1910	#24 STEEL BRIDGE 3/8 3/8 1/2 9/16	2349	# 79
1914	#25	2353	# 80 HOT BOX OK
1918	#26	2357	# 81
1922	#27	0001	# 82
1926	#28	0005	# 83 32' 3/8 1/4 24' 1/8 1/8
1930	#29	0009	# 84
1934	#30	0013	# 85 STEEL BRIDGE 3/8 3/8 1/2 9/16
1938	#31	0017	# 86
1942	#32	0021	# 87
1946	#33	0025	# 88
1950	#34	0029	# 89
1954	#35	0033	# 90
1958	#36	0037	# 91
2002	#37	0041	# 92
2006	#38	0045	# 93
2010	#39	0049	# 94
2014	#40 HOT BOX OK	0053	# 95
2018	#41	0057	# 96
2022	#42 32' 3/8 1/4 24' 1/8 1/8	0101	# 97
2026	#43	0105	# 98
2030	#44 STEEL BRIDGE 3/8 3/8 1/2 9/16	0109	# 99
2034	#45	0113	# 100
2038	#46	0117	# 101
2042	#47	0121	# 102
2046	#48	0125	# 103
2050	#49	0129	# 104
2054	#50	0133	# 105
2058	#51	0137	# 106
2102	#52	0142	# 107
		0146	# 108 SPECIFICATIONS COMPLETE

TTCI Internal Notes:

Date: 11/12/16 **Time of Red Signal:** 1737 **Time Stopped:** 1739

Weld, Rail, Joint (check one)

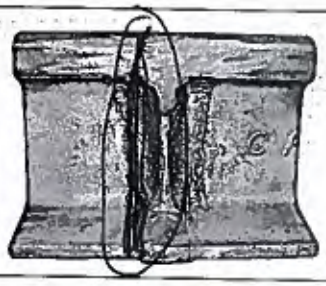
☐ Rail	☒ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☐ Web	☒ Base	☐ Bolt Hole	☐ Other

Section	3
Tie	1072
I or O Rail	OSK
Weld #	HAOW 2617 -16
Weld Install Date	01-18-16
Rail Temp	26°
Air Temp	30°
	
Head Gap	1/4
Web Gap	1/4
Base Gap	1/4
Rail Size POS	1/4
Rail Size NEG	141 POS 141 NEG
Comments:	

TTCI Internal Notes:

Date: 11/17/16 **Time of Red Signal:** 2341 **Time Stopped:** 2343

Weld, Rail, Joint (check one)

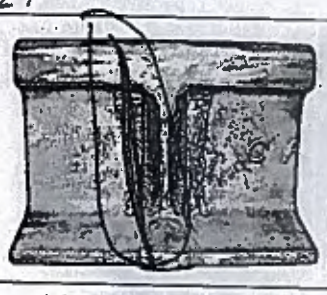
☐ Rail	☒ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☐ Web	☒ Base	☐ Bolt Hole	☐ Other

Section	25
Tie	1572
I or O Rail	OSR
Weld #	JW-2718-16
Weld Install Date	7-29-16
Rail Temp	31°
Air Temp	27°
	
Head Gap	2 1/2
Web Gap	2 1/2
Base Gap	2 1/2
Rail Size POS	136
Rail Size NEG	136
Comments:	

Test Events Log

Test Controller M. CORDOVA **Air Temp** 33.1°

Test Title FAST TRAIN OPERATIONS **Date** 11/17/16 11/18/16

Run No. 5138 **Direction** CW MAINLINE

Summary of test events **Start** 1600 **Stop** _____ **WO#** 1551.131

Time	Event
1600	# FAST dumped
1612	# SWITCHES LOCKED LOCKED GREEN
1624	# PRETEST MEETING
1652	# LOCO ENG. ON BOARD
1701	# BRAKE TEST SET AND RELEASE
	# BRAKE TEST COMPLETE START TCR
1703	# ON BOARD COMPUTER PROBLEMS
1706	# BRAKE TEST SET AND RELEASE
1720	# BRAKE TEST COMPLETE START TCR
1721	# TCR COMPLETE AND Imp #1
1727	#2
1731	#3
1735	#4
1737	# RED SIGNAL BROKEN RAIL SEC 305R
1739	# STOPPED
1747	# BACK TRAIN UP TO START POINT
1753	# STOPPED TO BAR RAIL BEGIN
1825	# TRUCK BACK TOGETHOR GREEN SIGNAL
1829	# BRAKE TEST SET AND RELEASE
1834	# BACK ON THE MOVE
1845	#5
1851	#6
1855	#7
1900	#8
1904	#9
1908	#10 HOT BOX OK
1912	#11
1916	#12
1920	#13
1924	#14
1928	#15
1932	#16
1936	#17
1940	#18
1944	#19
1948	#20 HOT BOX OK
1952	#21
1956	#22 32' 3/8 1/4 24' 1/8 1/8
2000	#23
2004	#24 STEEL BRIDGE 3/8 3/8 1/2 9/16
2008	#25
2012	#26
2016	#27
2020	#28
2024	#29
2028	#30
2032	#31
2036	#32
2040	#33
2044	#34
2048	#35
2052	#36
2056	#37
2100	#38
2104	#39
2108	#40 HOT BOX OK
2112	#41
2116	#42 32' 3/8 1/4 24' 1/8 1/8
2120	#43
2124	#44 STEEL BRIDGE 3/8 3/8 1/2 9/16
2128	#45
2132	#46
2136	#47
2140	#48
2144	#49
2148	#50
2152	#51
2156	#52
2200	#53
2204	#54
2208	#55
2212	#56
2216	#57
2220	#58
2224	#59
2228	#60 HOT BOX OK
2232	#61
2236	#62 32' 3/8 1/4 24' 1/8 1/8
2240	#63
2244	#64 STEEL BRIDGE 3/8 3/8 1/2 9/16
2248	#65
2252	#66
2256	#67
2300	#68
2304	#69
2308	#70
2312	#71
2316	#72
2320	#73
2324	#74
2328	#75
2332	#76
2336	#77 START DRY DOWN
2340	#78
2341	# RED SIGNAL
2343	# STOPPED
0032	# TRUCK BACK TOGETHOR 6
0050	# NO COMMS CLOSED SIGNAL IN DOX SEC 42
0102	# START BACK UP CASEY WILL RUN TRAIN.
	# MARKER START IN SEC 35
0110	#79
0115	#80
0120	#81
0124	#82
0128	#83
0132	#84
0136	#85
0141	#86
0145	#87
0147	#88 OPERATIONS COMPLETE
	#
	#
	#

2617-16

16
7-2

Test Events Log

Test Controller Bill Thomas **Air Temp** 59.3°

Test Title FAST Operations / Fiber opt. **Date** 12-5-16

Run No. 5139 **Direction** Counter clock wise

Summary of test events **Start** 1131 **Stop** 1619 **WO#** A468.0.2

Time	Event	Time	Event
1125	# SET + RELEASE OK.	1554	#28 20 MPH
1131	# START OPS. 3 LOCOS. 70 CARS 20B. 50G. CCN	1601	#29 20 MPH
1131	#1 10MPH TCR START	1610	#30 20MPH
1149	#2 10MPH TCR COMPLETE	1619	# COMPLETE OPS. TRAIN TO HTL LOCOS RUNNING ALL NIGHT.
1203	#3 10MPH		#
1220	#4 10 MPH		#
1235	#5 10 MPH		#
1250	#6 10MPH		#
1306	#7 10 MPH		#
1321	#8 10 MPH		#
1336	#9 10MPH		#
1351	#10 10MPH		#
1404	#11 30MPH		#
1410	#12 30MPH		#
1416	#13 30MPH		#
1420	#14 30MPH		#
1426	#15 30MPH		#
1432	#16 30MPH		#
1437	#17 30MPH		#
1442	#18 30MPH		#
1448	#19 30MPH		#
1453	#20 30MPH		#
1459	#21 20MPH		#
1507	#22 20MPH		#
1515	#23 20 MPH		#
1523	#24 20 MPH		#
1530	#25 20 MPH		#
1538	#26 20 MPH		#
1546	#27 20 MPH		#

Test Events Log

Test Controller BILL THOMAS **Air Temp** 3.9°

Test Title FAST OPS / FIBER OPTIC **Date** 12-6-16

Run No. 5140 **Direction** CCW

Summary of test events **Start** 0704 **Stop** 0934 **WO#** A4G8.D.2

Time	Event	Time	Event
0658	# SET + RELEASE OK		#
0704	# START OPS. 3 LOCOS, 70 CARS 108.5 OG CCW		#
0704	#1 START TCR		#
0713	# TCR COMPLETE RED SIGNAL		#
0717	# BROKEN RAIL. SEC 33 TZE 104 ISR BW 2589-15 10/13/15 BASE DEFECT		#
0720	# SHOVE TRAIN BACK TO ESB.		#
0729	# STAND BY FOR TRACK REPAIR		#
0835	# 2 RESUME OPS HTL. 17° AIR TEMP		#
0844	# 3 40 MPH		#
0848	# 4 40 MPH		#
0852	# 5 40 MPH		#
0856	# 6 40 MPH		#
0900	# 7 40 MPH		#
0904	# 8 40 MPH		#
0908	# 9 40 MPH		#
0912	# 10 40 MPH		#
0917	# 11 40 MPH		#
0921	# 12 40 MPH		#
0925	# 13 RUNS COMPLETE. BRING TRAIN AROUND TO ESB		#
0934	# OPERATIONS COMPLETE. START LOGISTICS FOR FLAT SPOT CARS.		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#

Test Events Log

Test Controller Bill Thomas **Air Temp** 26.3

Test Title FAST OPS / FIBER OPTIC **Date** 12-6-16

Run No. 5141 **Direction** CCW

Summary of test events **Start** 1239 **Stop** 1505 **WO#** A4GB.D.2

Time	Event	Time	Event
0934	# START LOGS. SWITCH AROUND FAST CARS WITH FLAT SPOTS AND ADD 3 FLAT SPOT CARS TO REAR		#
1145	# STOP LOGS CHARGE AIR. MAKE NEW CAR LIST. START AIR TEST		#
1215	# RUN 2 VSP. 3 FLAT SPOT CARS. ALL OK		#
1232	# SET AND RELEASE OK.		#
1239	# START OPS. 3 LOCOS. 73 CARS IDB LOG. CCW		#
1239	#1 10 MPH TCR START		#
1257	#2 10 MPH TCR COMPLETE		#
1312	#3 10 MPH		#
1326	#4 10 MPH		#
1340	#5 10 MPH		#
1353	#6 30 MPH		#
1358	#7 30 MPH		#
1404	#8 30 MPH		#
1409	#9 30 MPH		#
1414	#10 30 MPH		#
1420	#11 20 MPH		#
1428	#12 20 MPH		#
1436	#13 20 MPH		#
1444	#14 20 MPH		#
1452	#15 20 MPH		#
1505	# COMPLETE OPS TRAIN TO HTZ LOCOS RUNNING ALL NIGHT.		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#

Test Events Log

Test Controller BILL THOMAS **Air Temp** 21.4°

Test Title FAST OPS / FIBER OPTIC **Date** 12-7-16

Run No. 5142 **Direction** CCW

Summary of test events **Start** 1014 **Stop** 1346 **WO#** A4G8.D.2

Time	Event	Time	Event
0851	# START LOGS SWITCH OUT FLAT SPOT CARS IN MIDDLE OF TRAIN AND PLACE IN REAR.		#
0950	# FINISH LOGS WAIT FOR CUSTOMER		#
1014	# START OPS. 3 LOCOS. 73 CARS 108 5 OSC CCW SET + RELEASE OK.		#
1014	#1 10 MPH START TCR		#
1033	#2 10 MPH TCR COMPLETE		#
1048	#3 10 MPH		#
1103	#4 10 MPH		#
1118	#5 10 MPH		#
1130	#6 30 MPH		#
1136	#7 30 MPH		#
1141	#8 30 MPH		#
1147	#9 30 MPH		#
1152	#10 30 MPH		#
1157	#11 30 MPH		#
1203	#12 30 MPH		#
1208	#13 30 MPH		#
1214	#14 30 MPH		#
1219	#15 30 MPH		#
1225	#16 20 MPH		#
1233	#17 20 MPH		#
1241	#18 20 MPH		#
1249	#19 20 MPH		#
1256	#20 20 MPH		#
1304	#21 20 MPH		#
1312	#22 20 MPH		#
1320	#23 20 MPH		#
1328	#24 20 MPH		#
1336	#25 20 MPH		#
1346	# COMPLETE OPS. START LOGS REMOVING FLAT SPOT CARS FROM REAR.		#

Test Events Log

Test Controller BILL THOMAS **Air Temp** 16.1°

Test Title FAST OPS / FIBER OPTIC **Date** 12-8-16

Run No. 5143 **Direction** CCW

Summary of test events **Start** 1038 **Stop** 1629 **WO#** A4G8.D.2

Time	Event	Time	Event
0740	# SET AND RELEASE OR.	1431	# TRACK WORK COMPLETE. RESUME OPS
0750	# READY TO RUN. STAND BY FOR SYSTEM.	1431	# 8 40 MPH
0907	# START LOGS. PULL TRAIN DOWN TO XING TO CLEAR DEFECT AREA.	1439	# 9 40 MPH
0915	# START TRACK WORK. CREATE .5" GAP	1443	# 10 40 MPH
1036	# TRACK WORK COMPLETE. GOOD SIGNAL	1447	# 11 SLOWDOWN LAP
1038	# START OPS. 3 LOCOS. 66 CARS 10B 5 OK CCW NO DEFECT SEC 3 T 1051	1455	# OPS COMPLETE. START TRACK WORK FOR NEXT DEFECT.
1038	# 1 20 MPH START TCR	1512	# TRACK WORK COMPLETE. SHOVE TRAIN BACK TO STARTING POINT
1050	# 2 20 MPH TCR COMPLETE	1517	# STOP LOGS WAIT FOR RAIL BREAK SYSTEM RESET.
1058	# 3 20 MPH	1527	# START OPS HTL. 3 LOCOS, 66 CARS 10B 5 OK CCW 1" DEFECT
1106	# 4 20 MPH	1528	# 1 20 MPH
1113	# 5 20 MPH	1538	# 2 20 MPH
1121	# 6 40 MPH	1546	# 3 20 MPH
1126	# 7 40 MPH	1554	# 4 20 MPH
1130	# 8 40 MPH	1602	# 5 20 MPH
1134	# 9 40 MPH	1608	# 6 40 MPH
1138	# 10 40 MPH	1612	# 7 40 MPH
1143	# 11 LAP FOR SLOW DOWN	1617	# 8 40 MPH
1150	# COMPLETE OPS. 11 LAPS. START TRACK WORK	1621	# 9 40 MPH
1235	# TRACK WORK COMPLETE. SHOVE TRAIN BACK TO START POINT AFTER EVERYONE CLEAR.	1625	# 10 40 MPH
1241	# START LOGS. SHOVE TRAIN TO START POINT	1629	# 11 SLOWDOWN LAP. COMPLETE OPS.
1249	# LOGS COMPLETE. START OPS HTL. 3 LOCOS, 66 CARS 10B 5 OK CCW. .5" DEFECT SEC 3 T 1051	1629	# START LOGS. PUT TRAIN AWAY.
1249	# 1 20 MPH	1757	# LOGS COMPLETE.
1300	# 2 20 MPH		#
1308	# 3 20 MPH		#
1315	# 4 20 MPH		#
1323	# 5 20 MPH		#
1330	# 6 40 MPH		#
1335	# 7 40 MPH		#
1339	# RED SIGNAL BROKEN RAIL SEC 32 TZE 150 BEGIN REPAIR. BAR RAIL.		#

BW 2670-16
BW-2588-15
10-13-15

68-15

7-15

Test Events Log

Test Controller M. Cordova **Air Temp** 41°

Test Title Fast Train Operations **Date** 12/10/17 12/11/17

Run No. 5144 **Direction** CCW Mainline

Summary of test events **Start** 1500 **Stop** 0040 **WO#** 2001.3.1

Time	Event	Time	Event
1430 1430	# FAST coupled SUBTRACT LOADED LOADING GREEN	1946 1950	#53 54
1440 1520	# PRE TEST MEETING 100 Ends on Board	1954 1958	#55 56
1530 1535	# BRAKE TEST SET AND RELEASE BRAKE TEST COMPLETE START TCR	2002 2006	#57 58
1543 1557	# TCR COMPLET AND LAP #1 #2	2010 2014	#59 60 HOT BOX OK
1605 1614	#3 4	2018 2022	#61 62 32' 3/8 1/4 24' 1/8 1/8
1622 1630	#5 6	2026 2030	#63 64 STEEL BRIDGE 3/8 3/8 1/2 9/16
1636 1641	#7 8	2034 2038	#65 66
1647 1652	#9 10 HOT BOX OK	2042 2046	#67 68
1658 1702	#11 12	2050 2054	#69 70
1706 1710	#13 14	2058 2102	#71 72
1714 1718	#15 16	2106 2110	#73 74
1722 1726	#17 18	2114 2118	#75 76
1730 1734	#19 20 HOT BOX OK	2122 2126	#77 78
1738 1742	#21 22 32' 3/8 1/4 24' 1/8 1/8	2130 2134	#79 80 HOT BOX OK
1746 1750	#23 24 STEEL BRIDGE 3/8 3/8 1/2 9/16	2138 2142	#81 82 32' 3/8 1/4 24' 1/8 1/8
1754 1758	#25 26	2146 2150	#83 84 STEEL BRIDGE 3/8 3/8 1/2 9/16
1802 1806	#27 28	2154 2158	#85 86
1810 1814	#29 30	2202 2206	#87 88
1818 1822	#31 32	2210 2214	#89 90
1826 1830	#33 34	2218 2222	#91 92
1834 1838	#35 36	2226 2230	#93 94
1842 1846	#37 38	2234 2238	#95 96
1850 1854	#39 40 HOT BOX OK	2242 2246	#97 98
1858 1902	#41 42 32' 3/8 1/4 24' 1/8 1/8	2250 2254	#99 100 HOT BOX OK
1906 1910	#43 44 STEEL BRIDGE 3/8 3/8 1/2 9/16	2258 2302	#101 102 32' 3/8 1/4 24' 1/8 1/8
1914 1918	#45 46	2306 2310	#103 104 STEEL BRIDGE 3/8 3/8 1/2 9/16
1922 1926	#47 48	2314 2318	#105 106
1930 1934	#49 50	2322 2326	#107 108
1938 1942	#51 52	2330 2334	#109 110

Test Events Log

Test Controller M. CORDOVA **Air Temp** 41°

Test Title FAST TRAIN OPERATIONS **Date** 2/13/17 2/14/17

Run No. 5144 **Direction** CCW MAINLINE

Summary of test events **Start** 1500 **Stop** 0040 **WO#** R5D1.81

Time	Event	Time	Event
2338 2342	# 111 112		#
2346 2350	# 113 114		#
2354 2358	# 115 116		#
0002 0006	# 117 118		#
0010 0014	# 119 120 HOT BOX OK		#
0018 0022	# 121 122 32' 3/8 1/4 24' 1/8 1/8		#
0026 0030	# 123 125 STEEL BRIDGE 3/8 3/8 1/2 9/16		#
0034 0040	# 126 OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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	#		#
	#		#

TTCI Internal Notes:

Date: 2/14/17 **Time of Red Signal:** 2008 **Time Stopped:** 2010

Weld, Rail, Joint (check one)

☐ Rail	☒ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☐ Web	☒ Base	☐ Bolt Hole	☐ Other

Section	3
Tie	1469
I or O Rail	OSR
Weld #	BW-2664 2016
Weld Install Date	3-9-16
Rail Temp	40°
Air Temp	32°
Head Gap	5/8
Web Gap	5/8
Base Gap	1/2
Rail Size POS	136
Rail Size NEG	136
Comments:	

Test Events Log

Test Controller M. Cordova **Air Temp** 49°

Test Title Fast Train Operations **Date** 2/14/17 2/15/17

Run No. 5145 **Direction** CCW By Pass

Summary of test events **Start** 1500 **Stop** 0017 **WO#** 231X.B.1

Time	Event	Time	Event
1500 1510	# FAST ORIENTED SWITCHES LINED LOCKED CLEAR	2004 2010	# RED SIGNAL STOPPED TO BAR BWELD
1540 1550	# PRE TEST MEETING LOCO ENG ON BOARD	2058 2103	# TRAIN BACK TOGETHER CLEARED SIGNAL BRAKE BACK TRAIN TO RESTART
1605 1611	# BRAKE TEST SET AND RELEASE BRAKE TEST COMPLETE START TCR	2113 2116	# STOPPED TO SET UP COMPUTER BRAKE TEST SET AND RELEASE
1623 1632	# TCR COMPLETE AND TAP # 1 2	2120 2134	# BRAKE TEST COMPLETE BACK ON THE MOVE TAP #53 COMPLETE
1640 1648	# 3 4	2138 2142	# 54 55 STEEL BRIDGE 3/8 3/8 1/2 9/16
1654 1700	# 5 6	2147 2151	# 56 57
1706 1710	# 7 8	2155 2159	# 58 59
1714 1718	# 9 10 HOT BOX OK	2203 2207	# 60 61
1722 1726	# 11 12	2211 2215	# 62 63
1730 1734	# 13 14	2219 2223	# 64 65
1738 1742	# 15 16	2227 2231	# 66 67
1746 1750	# 17 18	2235 2239	# 68 69
1754 1758	# 19 20 HOT BOX OK	2243 2247	# 70 HOT BOX OK 71
1802 1806	# 21 22	2251 2255	# 72 73 32' 3/8 1/4 24' 1/8 1/8
1810 1814	# 23 24	2259 2303	# 74 75 STEEL BRIDGE 3/8 3/8 1/2 9/16
1818 1822	# 25 26	2307 2311	# 76 77
1826 1830	# 27 28	2315 2319	# 78 79
1834 1838	# 29 30 32' 3/8 1/4 24' 1/8 1/8	2323 2327	# 80 81
1842 1846	# 31 32 STEEL BRIDGE 3/8 3/8 1/2 9/16	2331 2335	# 82 83
1850 1854	# 33 34	2339 2343	# 84 85
1858 1902	# 35 36	2347 2351	# 86 87
1906 1910	# 37 38	2355 2359	# 88 89
1914 1918	# 39 40	0003 0007	# 90 HOT BOX OK 91
1922 1926	# 41 42	0011 0017	# 92 OPERATIONS COMPLETE
1930 1934	# 43 44		#
1938 1942	# 45 46		#
1946 1950	# 47 48		#
1954 1958	# 49 50 HOT BOX OK		#
2002 2006	# 51 52 32' 3/8 1/4 24' 1/8 1/8		#

1178 1180 1182

Test Events Log

Test Controller M. Cokluva **Air Temp** 63°

Test Title Fast Train Oblations **Date** 2/15/17 2/16/17

Run No. 5146 **Direction** CW Bypass

Summary of test events **Start** 1500 **Stop** 0014 **WO#** RBDLB1

Time	Event	Time	Event
1500 1535	# FAST OCCUPIED SWITCHES LINED (ABS) GREEN	2014 2023	#53 #54
1535 1538	# PRETEST MEETING LOCO ENG. ON BOARD	2029 2031	#55 #56
1624 1637	# BRAKE TEST SET AND RELEASE BRAKE TEST COMPLETE START TCR	2035 2039	#57 #58
1649 1654	# TCR COMPLETE AND LAP #1 #2	2043 2047	#59 #60
1659 1703	#3 #4	2051 2055	#61 #62 HOT BOX OIC CHECK AT Bungalow no COMM'S
1707 1711	#5 #6	2059 2103	#63 #64 32' 3/8 1/4 24' 1/8 1/8
1715 1719	#7 #8	2107 2111	#65 #66 STEEL BRIDGE 3/8 3/8 1/2 9/10
1723 1727	#9 #10 HOT BOX OIC	2115 2119	#67 #68
1731 1735	#11 #12	2123 2127	#69 #70
1739 1743	#13 #14	2131 2135	#71 #72
1747 1751	#15 #16	2139 2143	#73 #74
1755 1759	#17 #18	2147 2151	#75 #76
1803 1807	#19 #20 HOT BOX OK	2155 2159	#77 #78
1811 1815	#21 #22 32' 3/8 1/4 24' 1/8 1/8	2203 2207	#79 #80
1819 1823	#23 #24 STEEL BRIDGE 3/8 3/8 1/2 9/16	2211 2215	#81 #82 HOT BOX OK
1827 1831	#25 #26	2219 2223	#83 #84 32' 3/8 1/4 24' 1/8 1/8
1835 1839	#27 #28	2227 2231	#85 #86 STEEL BRIDGE 3/8 3/8 1/2 9/16
1843 1847	#29 #30	2235 2239	#87 #88
1851 1856	#31 #32	2243 2247	#89 #90
1859 1903	#33 #34	2251 2255	#91 #92
1907 1911	#35 #36	2259 2303	#93 #94
1915 1919	#37 #38	2307 2311	#95 #96
1923 1927	#39 #40	2315 2319	#97 #98
1931 1935	#41 #42 HOT BOX OK	2323 2327	#99 #100 HOT BOX OIC
1939 1943	#43 #44 32' 3/8 1/4 24' 1/8 1/8	2331 2335	#101 #102 32' 3/8 1/4 24' 1/8 1/8
1947 1951	#45 #46 STEEL BRIDGE 3/8 3/8 1/2 9/16	2339 2343	#103 #104 BRIDGE LIGHT ON EAST STEEL BRDG
1955 1959	#47 #48	2347 2351	#105 #106 STEEL BRIDGE 1/8 3/8 1/2 9/16 OK
2003 2007	#49 #50	2355 2359	#107 #108
2011 2015	#51 #52	0003 0008	#109 #110
		0014	OBLATIONS COMPLETE

Test Events Log

Test Controller M. CORDOVA **Air Temp** 68°

Test Title FAST TRAIN OPERATIONS **Date** 2/16/17 2/17/17

Run No. 5147 **Direction** CW MAINLINE

Summary of test events **Start** 1600 **Stop** 0136 **WO#** 2301.13.1

Time	Event
1600	# FAST OCCUPIED
1615	# SWITCHES LINED LOCKED GREEN
1625	# PRE TEST MEETING
1650	1000 ENG. ON BOARD
1659	# BRAKE TEST SET AND RELEASE
1705	# BRAKE TEST COMPLETE START TCR
1715	# TCR COMPLETE AND LAP #1
1721	#2
1728	#3
1730	#4
1734	#5
1738	#6
1742	#7
1746	#8
1750	#9
1754	#10 HOT BOX OK
1758	#11
1802	#12
1806	#13
1810	#14
1814	#15
1818	#16
1822	#17
1826	#18
1830	#19
1834	#20 HOT BOX OK
1838	#21
1842	#22 32' 3/8 1/4 24' 1/8 1/8
1846	#23
1850	#24 STEEL BRIDGE 3/8 3/8 1/2 9/16
1854	#25
1858	#26
1902	#27
1906	#28
1910	#29
1914	#30
1918	#31
1922	#32
1926	#33
1930	#34
1934	#35
1938	#36
1942	#37
1946	#38
1950	#39
1954	#40 HOT BOX OK
1958	#41
2002	#42 32' 3/8 1/4 24' 1/8 1/8
2006	#43
2010	#44 STEEL BRIDGE 3/8 3/8 1/2 9/16
2014	#45
2018	#46
2022	#47
2026	#48
2030	#49
2034	#50
2038	#51
2042	#52
2046	#53
2050	#54
2054	#55
2058	#56
2102	#57
2106	#58
2110	#59
2114	#60 HOT BOX OK
2118	#61
2122	#62 32' 3/8 1/4 24' 1/8 1/8
2126	#63
2130	#64 STEEL BRIDGE 3/8 3/8 1/2 9/16
2134	#65
2138	#66
2142	#67
2146	#68
2150	#69
2154	#70
2158	#71
2202	#72
2206	#73
2210	#74
2214	#75
2218	#76
2222	#77
2226	#78
2230	#79
2234	#80 HOT BOX OK
2238	#81
2242	#82 32' 3/8 1/4 24' 1/8 1/8
2246	#83
2250	#84 STEEL BRIDGE 3/8 3/8 1/2 9/16
2254	#85
2258	#86
2302	#87
2306	#88
2310	#89
2314	#90
2318	#91
2322	#92
2326	#93
2330	#94 START DAY DOWN
2334	#95
2338	#96
2342	#97
2346	#98
2350	#99
2354	#100 HOT BOX OK
2358	#101
0002	#102 32' 3/8 1/4 24' 1/8 1/8
0006	#103
0010	#104 STEEL BRIDGE 3/8 3/8 1/2 9/16
0014	#105
0018	#106
0022	#107
0026	#108 EAST STEEL BRIDGE LIGHT ON
0030	#109
0034	#110

Test Events Log

Test Controller M. CORDOVA **Air Temp** 68°

Test Title FAST TRAIN OPERATIONS **Date** 2/16/17 2/17/17

Run No. 5147 **Direction** CW MAINLINE

Summary of test events **Start** 1600 **Stop** 0136 **WO#** RSD1.B.1

Time	Event	Time	Event
0038 0042	#111 #112 EAST STEEL BRIDGE CHECK OK 3/8 3/8 1/2 9/16		#
0046 0050	#113 #114		#
0055 0059	#115 #116		#
0103 0107	#117 #118		#
0111 0115	#119 #120 HOT DOR OK		#
0119 0123	#121 #122		#
0127 0132	#123 #124		#
0136	# 125 OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
	#		#
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1043

Test Events Log

Test Controller A. CORDOVA **Air Temp** 70°

Test Title FAST TRAIN OPERATIONS **Date** 2/21/17 2/22/17

Run No. 5148 **Direction** CCW MAINLINE

Summary of test events **Start** 1600 **Stop** 0136 **WO#** R301.B.1

Time	Event	Time	Event
1600 1640	# FAST ALUPEED SWITCHES LINED LOCKED GREEN	2055 2059	# 53 54
1605 1658	# PRETEST MEETING LOCO ENG ON BOARD	2103 2107	# 55 56
1703 1708	# BRAKE TEST SET AND RELEASE BRAKE TEST COMPLETE START TCR	2111 2115	# 57 58
1724 1730	# TCR COMPLETE AND LAP #1 2	2119 2123	# 59 60 HOT BOX OK
1735 1739	# 3 4	2127 2131	# 61 62 32' 3/8 1/4 24' 1/8 1/8
1743 1747	# 5 6	2135 2139	# 63 64 STEEL BRIDGE 3/8 3/8 1/2 9/16
1751 1755	# 7 8	2143 2147	# 65 66
1759 1803	# 9 10 HOT BOX OK	2151 2155	# 67 68
1807 1811	# 11 12	2159 2203	# 69 70
1815 1819	# 13 14	2207 2211	# 71 72
1823 1927	# 15 16	2215 2219	# 73 74
1831 1835	# 17 18	2223 2227	# 75 76
1839 1843	# 19 20 HOT BOX OK	2231 2235	# 77 78
1847 1851	# 21 22 32' 3/8 1/4 24' 1/3 1/8	2239 2243	# 79 80 HOT BOX OK
1855 1859	# 23 24 STEEL BRIDGE 3/8 3/8 1/2 9/16	2247 2251	# 81 82 32' 3/8 1/4 24' 1/8 1/8
1903 1907	# 25 26	2255 2259	# 83 84 STEEL BRIDGE 3/8 [illegible] 1/2 9/16
1911 1915	# 27 28	2303 2307	# 85 86
1919 1923	# 29 30	2311 2315	# 87 88
1927 1931	# 31 32	2319 2323	# 89 90
1935 1939	# 33 34	2327 2331	# 91 92
1943 1947	# 35 36	2335 2339	# 93 94
1951 1985	# 37 38	2343 2347	# 95 96
1959 2003	# 39 40 HOT BOX OK	2351 2355	# 97 98
2007 2011	# 41 42 32' 3/8 1/4 24' 1/8 1/8	2359 0003	# 99 100 HOT BOX OK
2015 2019	# 43 44 STEEL BRIDGE 3/8 3/8 1/2 9/16	0007 0011	# 101 102 32' 3/8 1/4 24' 1/8 1/8
2023 2027	# 45 46	0015 0019	# 103 104 STEEL BRIDGE 3/8 3/8 1/2 9/16
2031 2035	# 47 48	0023 0027	# 105 106
2039 2043	# 49 50	0031 0035	# 107 108
2047 2051	# 51 52	0039 0043	# 109 110

Test Events Log

Test Controller M. CORDOVA **Air Temp** 70°

Test Title FAST TRAIN OPERATIONS **Date** 2/21/17 2/22/18

Run No. S148 **Direction** CCW MAINLINE

Summary of test events **Start** 1600 **Stop** 0136 **WO#** R3D1.B.1

Time	Event	Time	Event
0047	#111		#
0051	#112		#
0055	#113		#
0059	#114		#
0103	#115		#
0107	#116 BRIDGE STROBE LIGHT ON		#
0111	#117		#
0115	#118 BRIDGE CHECK OK 3/8 3/8 1/2 9/16		#
0119	#119		#
0123	#120 BRIDGE CHECK OK 3/8 3/8 1/2 9/16		#
0127	#121		#
0131	#122		#
0136	# OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller M. COLLOVA **Air Temp** 67°

Test Title FAST TRAIN OPERATIONS **Date** 2/22/17 2/23/17

Run No. 5149 **Direction** CW BYPASS

Summary of test events **Start** 1600 **Stop** 0139 **WO#** R80LB.1

Time	Event	Time	Event
1600	FAST OCCUPIED	2042	#53
1610	#1 SWITCHES CLOSED LOCKED GREEN	2046	#54
1615	#1 BRK TEST SETTING	2050	#55
1650	#1 ON BOARD	2054	#56
1654	#1 BRAKE TEST SET AND RELEASE	2058	#57
1700	#1 BRAKE TEST COMPLETE START TCK	2102	#58
1712	#2 TCK COMPLETE AND TAPE #1	2107	#59
1717		2111	#60
1722	#3	2115	#61
1726	#4	2119	#62
1730	#5	2123	#63
1734	#6	2127	#64 HOT BOX OK
1738	#7	2131	#65
1742	#8	2135	#66 32' 3/8 1/4 24' 1/8 1/8
1746	#9	2139	#67
1750	#10 HOT BOX OK	2143	#68 STEEL BRIDGE 3/8 3/8 1/2 9/16
1754	#11	2147	#69
1759	#12	2151	#70
1803	#13	2155	#71
1807	#14	2159	#72
1811	#15	2203	#73
1815	#16	2207	#74
1819	#17	2211	#75
1823	#18	2215	#76
1827	#19	2219	#77
1831	#20 HOT BOX OK	2223	#78
1835	#21	2227	#79
1839	#22 32' 3/8 1/4 24' 1/8 1/8	2231	#80
1842	#23	2235	#81
1846	#24 STEEL BRIDGE 3/8 3/8 1/2 9/16	2239	#82
1850	#25	2243	#83
1854	#26	2247	#84 HOT BOX OK
1858	#27	2251	#85
1902	#28	2255	#86 32' 3/8 1/4 24' 1/8 1/8
1906	#29	2259	#87
1910	#30	2303	#88 STEEL BRIDGE 3/8 3/8 1/2 9/16
1914	#31	2307	#89
1918	#32	2311	#90
1922	#33	2315	#91
1926	#34	2319	#92
1930	#35	2323	#93
1934	#36	2327	#94
1938	#37	2331	#95
1942	#38	2335	#96
1946	#39	2339	#97
1950	#40	2343	#98
1954	#41	2347	#99
1958	#42	2351	#100
2002	#43	2355	#101
2006	#44 HOT BOX OK	2359	#102
2010	#45	0003	#103
2014	#46 32' 3/8 1/4 24' 1/8 1/8	0007	#104 HOT BOX OK
2018	#47	0011	#105
2022	#48 STEEL BRIDGE 3/8 3/8 1/2 9/16	0015	#106 32' 3/8 1/4 24' 1/8 1/8
2026	#49	0019	#107
2030	#50	0023	#108 STEEL BRIDGE 3/8 3/8 1/2 9/16
2034	#51	0027	#109
2038	#52	0031	#110

Test Events Log

Test Controller M. CORDOVA **Air Temp** 67°

Test Title FAST TRATON OPERATIONS **Date** 2/22/17 2/23/17

Run No. S149 **Direction** CW BYPASS

Summary of test events **Start** 1600 **Stop** 0139 **WO#** R1501,81

Time	Event	Time	Event
0035			#
0039	#111 #112		#
0043	#113		#
0047	#114		#
0051	#115		#
0055	#116		#
0059	#117		#
0103	#118		#
0107	#119		#
0111	#120		#
0115	#121		#
0119	#122		#
0123	#123		#
0127	#124		#
0131	#125		#
0135	#126		#
0139	#127 OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
	#		#
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TTCI Internal Notes:

Date: 2/23/17 **Time of Red Signal:** 2217 **Time Stopped:** 2219

Weld, Rail, Joint (check one)

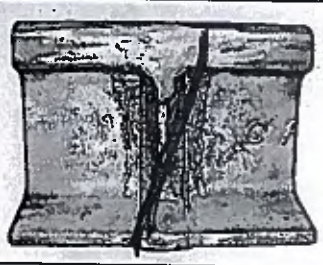
☐ Rail	☒ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☐ Web	☒ Base	☐ Bolt Hole	☐ Other

Section	40
Tie	250
I or O Rail	ISR
Weld #	BW 2310
Weld Install Date	2014
Rail Temp	14°
Air Temp	20°
	
Head Gap	3/4
Web Gap	3/4
Base Gap	3/4
Rail Size POS	141
Rail Size NEG	136
Comments:	

Test Events Log

Test Controller M. CORDOVA **Air Temp** 42°

Test Title FAST TRAIN OPERATIONS **Date** 2/23/17 2/24/17

Run No. 5150 **Direction** CW BYPASS

Summary of test events **Start** 1600 **Stop** 0135 **WO#** EDDL.J.L

Time	Event
1600	FAST DUMPED
1610	#1 SWITCHES LINED LOCKED
1618	TTC TEST MEETING
1649	#100 Enb. on BOARD
1649	#DRAKE TEST SET AND RELEASE
1653	#DRAKE TEST COMPLETE AND TCR
1705	#TCR COMPLET AND CAP #1
1711	#2
1716	#3
1720	#4
1724	#5
1728	#6
1732	#7
1736	#8
1740	#9
1744	#10 HOT BOX OK
1748	#11
1752	#12
1756	#13
1800	#14
1804	#15
1808	#16
1812	#17
1816	#18
1820	#19
1824	#20 HOT BOX OK
1828	#21
1833	#22 32' 3/8 1/4 24' 1/8 1/8
1837	#23
1841	#24 STEEL BRIDGE 3/8 7/8 1/2 9/16
1845	#25
1849	#26
1853	#27
1857	#28
1901	#29
1905	#30
1909	#31
1913	#32
1917	#33
1921	#34
1925	#35
1929	#36
1933	#37
1937	#38
1941	#39
1945	#40 HOT BOX OK
1949	#41
1953	#42 32' 3/8 7/8 24' 1/8 1/8
1957	#43
2001	#44 STEEL BRIDGE 3/8 7/8 1/2 9/16
2005	#45
2009	#46
2013	#47
2017	#48
2021	#49
2025	#50
2029	#51
2033	#52
2037	#53
2041	#54
2045	#55
2049	#56
2053	#57
2057	#58
2101	#59
2105	#60 HOT BOX OK
2109	#61
2113	#62 32' 3/8 1/4 24' 1/8 1/8
2117	#63
2121	#64 STEEL BRIDGE 3/8 3/8 1/2 9/16
2125	#65
2129	#66
2133	#67
2137	#68
2141	#69
2145	#70
2149	#71
2153	#72
2157	#73
2201	#74
2205	#75
2209	#76
2213	#77
2217	#78 RED SIGNAL
2219	# STOPPED BROKEN RAIL WELD SEC40
2309	# TRAIN BACK TOGETHER
2311	# BACK TRAIN UP TO RESTART
2323	# DRAKE TEST SET AND RELEASE
2329	# BACK ON THE MOVE
2339	#79
2345	#80
2350	#81 HOT BOX OK
2354	#82
2358	#83
0003	#84
0007	#85 32' 3/8 1/4 24' 1/8 1/8
0011	#86
0015	#87 STEEL BRIDGE 3/8 7/8 1/2 9/16
0019	#88
0023	#89
0027	#90
0031	#91
0035	#92
0039	#93
0043	#94
0047	#95
0051	#96
0055	#97
0059	#98
0103	#99
0107	#100
0111	#101
0115	#102
0119	#103
0123	#104
0127	#105
0132	106
5 0135	107 OPERATIONS COMPLETE

BW2310-14

hJ-01

Test Events Log

Test Controller CASEY MRAOVICH **Air Temp** 54°

Test Title FAST TRAIN OPERATIONS **Date** 2/27/17 2/28/17

Run No. 5151 **Direction** CCW MAINLINE

Summary of test events **Start** 1600 **Stop** 0212 **WO#** R151.51

Time	Event
1600	#1 FAST CONSISTS SWITCHES LINED LOCKED GREEN
1620 1640	#1 PRE TEST MEETING 1010 ENG. ON BOARD
1655 1704	#BRAKE TEST SET AND RELEASE #BRAKE TEST COMPLETE START TCR
1722 1731	#2 TCR Complete LAP #1
1736 1740	#3 #4
1745 1749	#5 #6
1753 1757	#7 #8
1801 1805	#9 #10 HOT BOX ok
1809 1813	#11 #12 1810 Lead Entered FAST
1817 1821	#13 #14 Kane Subd. Left RTL
1825 1829	#15 #16
1833 1837	#17 #18
1841 1845	#19 #20 steel Bridge ok
1849 1853	#21 #22 32-3/8 3/8 24-3/16 3/16
1857 1901	#23 #24 3/8 3/8 Y2 5/8
1905 1909	#25 #26
1913 1917	#27 #28
1921 1925	#29 #30 Hot Box ok
1429 1933	#31 #32
1937 1941	#33 #34
1945 1949	#35 #36
1953 1957	#37 #38
2001 2005	#39 #40 steel Bridge ok
2009 2013	#41 #42 32-3/8 3/8 24-3/16 3/16
2017 2021	#45 #44 3/8 3/8 Y2 5/8
2025 2029	#45 #46
2033 2037	#47 #48
2041 2045	#49 #50 Hot Box ok
2049 2053	#51 #52
2057 2101	#53 #54
2105 2109	#55 #56
2113 2117	#57 #58
2121 2125	#59 #60 steel Bridge ok 32-3/8 3/8 24-3/16 3/16
2129 2133	#61 #62 -3/8 3/8 Y2 5/8
2137 2141	#63 #64
2145 2149	#65 #66
2153 2157	#67 #68
2201 2205	#69 #70 Hot Box ok
2209 2213	#71 #72
2217 2221	#73 #74
2225 2229	#75 #76
2233 2237	#77 #78
2241 2245	#79 #80 steel Bridge ok 32-3/8 3/8 24-3/16 3/16
2249 2253	#81 #82 3/8 3/8 Y2 5/8
2257 2301	#83 #84
2305 2309	#85 #86
2313 2317	#87 #88
2321 2325	#89 #90 Hot Box ok
2329 2333	#91 #92
2337 2341	#93 #94
2345 2349	#95 #96
2353 2357	#97 #98
0001 0005	#99 #100 steel Bridge ok
0009 0013	#101 #102 32-3/8 3/8 24-3/16 3/16
0017 0021	#103 #104 3/8 3/8 Y2 5/8
0025 0029	#105 #106
0033 0037	#107 #108
0041 0045	#109 #110 Hot Box ok

Test Events Log

Test Controller CASEY MRAOVICH **Air Temp** 54°

Test Title FAST TRAIN OPERATIONS **Date** 2/27/17-2/28/17

Run No. 5151 **Direction** CCW MAINLINE

Summary of test events **Start** 1600 **Stop** 0217 **WO#** RBD1.B1

Time	Event	Time	Event
0049	# 111		#
0053	# 112		#
0057	# 113		#
0101	# 114		#
0105	# 115		#
0109	# 116		#
0113	# 117		#
0117	# 118		#
0121	# 119		#
0125	# 120		#
0129	# 121		#
0133	# 122		#
0137	# 123		#
0141	# 124		#
0146	# stop train		#
0147	# RED signal		#
0212	# complete testing		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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TTCI Internal Notes:

Date: 2-28-17 **Time of Red Signal:** 0147 **Time Stopped:** 0146

Weld, Rail, Joint (check one)

☐ Rail	☐ Field Weld	☒ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☐ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☐ Web	☐ Base	☐ Bolt Hole	☐ Other

Section	25
Tie	1254
I or O Rail	O
Weld #	ITW 929
Weld Install Date	7/28/16
Rail Temp	37°
Air Temp	29°
Gap	3/4"
Head	3/4"
Web	3/4"
Base	5/8"
Rail Size POS	136
Rail Size NEG	136
Comments:	

Test Events Log

Test Controller CASEY MRACVICH **Air Temp** 41°

Test Title FAST TRAIN OPERATIONS **Date** 2/28/17 - 3/1/17

Run No. 5152 **Direction** CCW Bypass

Summary of test events **Start** 1600 **Stop** 0138 **WO#** RBDI.R1

Time	Event	Time	Event
1600	# Fast occupied	2103	#53
1605	switches Lined Locked	2107	#54
1610	# Pre test meeting	2111	#55
1635	Loco Eng on Board	2115	#56
1655	# Brake test set & release	2119	#57
1706	# Brake test complete start TCR	2123	#58
1721	# TCR complete LAP #1	2127	#59 steel Bridge ok
1729	#2	2131	#60 32-3/8 3/8 24-3/16 3/16
1737	#3	2135	#61 3/8 3/8 5/8 5/8
1741	#4	2139	#62
1746	#5	2143	#63
1751	#6	2147	#64
1757	#7	2151	#65
1802	#8	2155	#66
1807	#9	2159	#67
1811	#10 Hot Box ok	2203	#68
1815	#11	2207	#69
1819	#12	2211	#70 Hot Box ok
1823	#13	2215	#71
1827	#14	2219	#72
1831	#15	2223	#73
1835	#16	2227	#74
1839	#17	2231	#75
1843	#18	2235	#76
1847	#19 steel Bridge ok	2239	#77
1851	#20 32-3/8 3/8 24-3/16 3/16	2243	#78
1855	#21 3/8 3/8 5/8 5/8	2247	#79 steel Bridge ok
1859	#22	2251	#80 32-3/8 3/8 24-3/16 3/16
1903	#23	2255	#81 3/8 3/8 5/8 5/8
1907	#24	2259	#82
1911	#25	2303	#83
1915	#26	2307	#84
1919	#27	2311	#85
1923	#28	2315	#86
1927	#29	2319	#87
1931	#30 Hot Box ok	2323	#88
1935	#31	2327	#89
1939	#32	2331	#90
1943	#33	2335	#91
1947	#34	2339	#92 Hot Box ok
1951	#35	2343	#93
1955	#36	2347	#94
1959	#37	2351	#95
2003	#38	2355	#96
2007	#39 steel Bridge ok	2359	#97
2011	#40 32-3/8 3/8 24-3/16 3/16	0003	#98
2015	#41 3/8 3/8 5/8 5/8	0007	#99
2019	#42	0011	#100 steel Bridge ok
2023	#43	0015	#101 32-3/8 3/8 24-3/16 3/16
2027	#44	0019	#102
2031	#45	0023	#103 3/8 3/8 5/8 5/8
2035	#46	0027	#104
2039	#47	0031	#105
2043	#48	0035	#106
2047	#49	0039	#107
2051	#50 Hot Box ok	0043	#108
2055	#51	0047	#109
2059	#52	0051	#110

Test Events Log

Test Controller CASEY MRAOVICH **Air Temp** 41°

Test Title FAST TRAIN OPERATIONS **Date** 2/28/17 - 3/1/17

Run No. 5152 **Direction** CCW Bypass

Summary of test events **Start** 1600 **Stop** 0138 **WO#** RB01.B.1

Time	Event	Time	Event
0055	#111		#
0059	#112		#
0103	#113		#
0107	#114 Hot Box OK		#
0111	#115		#
0115	#116		#
0119	#117		#
0123	#118		#
0127	#119		#
0131	#120		#
0138	# TRAIN stopped operations complete		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller CASEY MRAOVICH **Air Temp** 41°

Test Title FAST TRAIN OPERATIONS **Date** 3/1/17 - 3/2/17

Run No. 5153/5154 **Direction** CCW BYPASS

Summary of test events **Start** 1600 **Stop** 0137 **WO#** RBD1.B.1

Time	Event
1600	# FAST occupied
1605	# switches lined & locked
1610	# Pretest meeting
1740	# Loco ENG on board
1748	# Brake test set & release
1750	# Brake test Complete start TCR
1807	# TCR complete LAP #1
1813	# 2
1819	# 3
1823	# 4
1827	# 5
1832	# 6
1836	# 7
1840	# 8
1844	# 9
1848	# 10 Hot Box OK
1852	# 11
1856	# 12
1900	# 13
1904	# 14
1908	# 15
1912	# 16
1916	# 17
1920	# 18
1924	# 19
1928	# 20
1732	# 21 steel Bridge ok
1936	# 22 32-3/8 3/8 24-3/16 3/16
1940	# 23
1944	# 24 3/8 3/8 5/8 5/8
1948	# 25
1952	# 26
1956	# 27
2000	# 28
2004	# 29
2008	# 30 252 Entered FAST
2012	# 31
2016	# 32 Hot Box ok
2020	# 33
2024	# 34
2028	# 35
2032	# 36
2036	# 37
2040	# 38
2044	# 39
2048	# 40 Steel Bridge ok
2052	# 41 32-3/8 3/8 24-3/16 3/16
2056	# 42
2100	# 43 3/8 3/8 5/8 5/8
2104	# 44
2108	# 45
2112	# 46
2115	# 47 stop train
2149	switch to main line set signals up
2155	do Brake test set & release
2204	# Brake test complete TCR ~~Lap 48~~
2215	TCR complete LAP 48
2221	# 49

Time	Event
2225	# 50
2229	# 51
2234	# 51
2238	# 52 Hot Box ok
2242	# 53
2246	# 54
2250	# 55
2254	# 56
2258	# 57
2302	# 58
2306	# 59
2310	# 60 steel Bridge ok
2314	# 61 32-7/8 3/8 24-3/16 3/16
2318	# 62 7/8 7/8 5/8 5/8
2322	# 63
2326	# 64
2330	# 65
2334	# 66
2338	# 67
2342	# 68
2346	# 69
2350	# 70
2354	# 71
2358	# 72 Hot Box ok
0002	# 73
0006	# 74
0010	# 75
0014	# 76
0018	# 77
0022	# 78
0026	# 79
0030	# 80 steel Bridge ok
0034	# 81 32-3/8 3/8 24-3/16 3/16
0038	# 82 3/8 3/8 5/8 5/8
0042	# 83
0046	# 84
0050	# 85
0054	# 86
0058	# 87
0102	# 88
0106	# 89
0110	# 90
0114	# 91
0118	# 92
0122	# 93
0126	# 94
0130	# 95 stop train complete GPS
0137	#
	#
	#
	#
	#
	#

Test Events Log

Test Controller CASEY MRAOVICH **Air Temp** 49°

Test Title FAST TRAIN OPERATIONS **Date** 3/2/17 - 3/3/17

Run No. 5155 **Direction** CW MAIN LINE

Summary of test events **Start** 2000 **Stop** 0131 **WO#** RBD1.B.1

Time	Event
1600	# FAST occupied
1605	Switches Lined & Locked
1615	# Pretest Meeting
1635	Loco Eng on Board
1695	# Brake test set & release
1656	Brake test complete start TCR
1708	TCR complete Lap #1
1713	# 2
1718	# 3
1722	# 4
1726	# 5
1730	# 6
1734	# 7
1738	# 8
1742	# 9
1746	# 10 Hot Box OK
1750	# 11 252 Entered FAST
1754	# 12
1758	# 13
1802	# 14
1806	# 15
1810	# 16
1814	# 17
1818	# 18
1822	# 19 Steel Bridge OK
1826	# 20 32-3/8 3/8 24-3/16 3/16
1830	# 21
1834	# 22 3/8 3/8 5/8 5/8
1838	# 23
1842	# 24
1846	# 25
1850	# 26
1854	# 27
1858	# 28
1902	# 29
1906	# 30 Hot Box OK
1910	# 31
1914	# 32
1918	# 33
1922	# 34
1926	# 35
1930	# 36
1934	# 37
1938	# 38
1942	# 39 252 Entered FAST
1946	# 40
1950	# 41 Steel Bridge OK
1954	# 42 32-3/8 3/8 24-3/16 3/16
1958	# 43
2002	# 44 3/8 3/8 5/8 5/8
2006	# 45
2010	# 46
2014	# 47
2018	# 48
2022	# 49
2026	# 50 Hot Box OK
2030	# 51
2034	# 52
2038	# 53
2042	# 54
2046	# 55
2050	# 56
2054	# 57
2058	# 58
2102	# 59
2106	# 60 Steel Bridge OK
2110	# 61 32-3/8 3/8 24-3/16 3/16
2114	# 62
2118	# 63
2122	# 64 3/8 3/8 5/8 5/8
2126	# 65
2130	# 66
2134	# 67
2138	# 68
2142	# 69
2146	# 70 Hot Box OK
2150	# 71
2154	# 72
2158	# 73
2202	# 74
2206	# 75
2210	# 76
2214	# 77
2218	# 78
2222	# 79
2226	# 80 Steel Bridge OK
2230	# 81
2234	# 82 32-3/8 3/8 24-3/16 3/16
2238	# 83
2242	# 84 3/8 3/8 5/8 5/8
2246	# 85
2250	# 86
2254	# 87
2258	# 88
2302	# 89
2306	# 90
2310	# 91
2314	# 92 Hot Box OK
2318	# 93
2322	# 94
2326	# 95
2330	# 96
2334	# 97
2338	# 98
2342	# 99
2346	# 100
2350	# 101
2354	# 102 Steel Bridge OK
2358	# 103 32-3/8 3/8 24-3/16 3/16
0002	# 104
0006	# 105
0010	# 106 3/8 3/8 5/8 5/8
0014	# 107
0018	# 108
0022	# 109
0026	# 110

Test Events Log

Test Controller CASEY MRAOVICH **Air Temp** 49°

Test Title FAST TRAIN OPERATIONS **Date** 3/2/17 - 3/3/17

Run No. 5155 **Direction** CW MAINLINE

Summary of test events **Start** 1600 **Stop** 0131 **WO#** RBDL.B.1

Time	Event	Time	Event
0030	#111		#
0034	#112 Hot Box ok		#
0038	#113		#
0043	#114		#
0047	#115		#
0051	#116		#
0055	#117		#
0059	#118		#
0103	#119		#
0107	#120		#
0111	#121		#
0115	#122		#
0119	#123		#
0123	#124		#
0127	#125		#
0131	#126 completed operations		#
	#		#
	#		#
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Test Events Log

Test Controller M. Cordova **Air Temp** 41°

Test Title FAST TRAIN OPERATIONS **Date** 3/6/17 3/7/17

Run No. 5156 **Direction** CCW MAINLINE

Summary of test events **Start** 1600 **Stop** 0139 **WO#** R051.B.1

Time	Event
1600	# FAST OCCUPIED
1610	# SWITCHES LINED LOCOS GREEN
1615	# PRE TEST MEETING
1647	# LOCO ENG ON BOARD
1651	# BRAKE TEST SET AND RELEASE
1657	# BRAKE TEST COMPLETE START TCR
1710	# 2 TCR COMPLETE AND LAP #1
1716	
1720	# 3
1724	4
1728	# 5
1732	6
1736	# 7
1740	8
1744	# 9
1748	10 HOT BOX OK
1752	# 11
1756	12
1800	# 13
1805	14
1809	# 15
1813	16
1817	# 17
1821	18
1825	# 19
1829	20 HOT BOX OK
1833	# 21
1836	22 32' 3/8 1/4 24' 1/8 1/8
1840	# 23
1844	24 STEEL BRIDGE 3/8 3/8 1/2 9/16
1848	# 25
1852	26
1856	# 27
1900	28
1904	# 29
1908	30
1912	# 31
1916	32
1920	# 33
1924	34
1928	# 35
1932	36
1936	# 37
1941	38
1945	# 39
1949	40
1953	# 41
1957	42
2001	# 43
2005	44 HOT BOX OK
2009	# 45
2013	46 32' 3/8 1/4 24' 1/8 1/8
2017	# 47
2021	48 STEEL BRIDGE 3/8 3/8 1/2 9/16
2025	# 49
2029	50
2033	# 51
2037	52

Time	Event
2040	# 53
2044	54
2048	# 55
2052	56
2056	# 57
2100	58
2104	# 59
2108	60
2112	# 61
2116	62
2120	# 63
2124	64 HOT BOX OK
2128	# 65
2132	66 32' 3/8 1/4 24' 1/8 1/8
2136	# 67
2140	68 STEEL BRIDGE 3/8 3/8 1/2 9/16
2144	# 69
2148	70
2152	# 71
2156	72
2201	# 73
2205	74
2209	# 75
2213	76
2217	# 77
2221	78
2225	# 79
2229	80
2233	# 81
2237	82
2241	# 83
2245	84 HOT BOX OK
2249	# 85
2253	86 32' 3/8 1/4 24' 1/8 1/8
2257	# 87
2301	88 STEEL BRIDGE 3/8 3/8 1/2 9/16
2305	# 89
2309	90
2313	# 91
2317	92
2321	# 93
2325	94
2329	# 95
2335	96
2337	# 97
2341	98
2345	# 99
2349	100
2353	# 101
2357	102
0001	# 103
0005	104 HOT BOX OK
0009	# 105
0013	106 32' 3/8 1/4 24' 1/8 1/8
0017	# 107
0021	108 STEEL BRIDGE 3/8 3/8 1/2 9/16
0025	# 109
0029	110

Test Events Log

Test Controller M. CORDOVA Air Temp 41°

Test Title FAST TRAIN OPERATIONS Date 3/6/17 3/7/17

Run No. 5156 Direction CCW MAINLINE

Summary of test events Start 1600 Stop 0139 WO# R881.B.1

Time	Event	Time	Event
0033 0037	#111 #112		#
0041 0045	#113 #114		#
0049 0053	#115 #116		#
0057 0101	#117 #118		#
0105 0109	#119 #120		#
0113 0117	#121 #122		#
0121 0125	#123 #124 HOT BOX OK		#
0129 0133	#125 #126		#
0139	# OPERATIONS COMPLETE		#
	# UP33367 CHECK, FLAT SPOTS		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller M. Cordova **Air Temp** 67°

Test Title FAST TRAIN OPERATIONS **Date** 3/7/17 3/8/17

Run No. 5157 **Direction** CCW MAINLINE

Summary of test events **Start** 1600 **Stop** 0136 **WO#** RTSD.B.1

Time	Event	Time	Event
1600	FAST occupies	2046	#53
1605	# SWITCHES LINED (akes) GREEN	2050	#54
1610	# PAX TEST meeting	2054	#55
1646	LOCO ENG. on BOARD	2058	#56
1657	# BRAKE TEST SET AND RELEASE	2102	#57
1703	# BRAKE TEST COMPLETE START TCR	2106	#58
1715	#TCR COMPLETE AUDIAP #1	2110	#59
1721	#2	2114	#60 HOT BOX OK
1725	#3	2118	#61
1730	#4	2122	#62 32' 3/8 1/4 24' 1/8 1/8
1734	#5	2126	#63
1738	#6	2130	#64 STEEL BRIDGE 3/8 3/8 1/2 9/16
1742	#7	2134	#65
1746	#8	2138	#66
1750	#9	2142	#67
1754	#10 HOT BOX OK	2146	#68
1758	#11	2150	#69
1802	#12	2154	#70
1806	#13	2158	#71
1810	#14	2202	#72
1814	#15	2206	#73
1818	#16	2210	#74
1822	#17	2214	#75
1826	#18	2218	#76
1830	#19	2222	#77
1834	#20 HOT BOX OK	2226	#78
1838	#21	2230	#79
1842	#22 32' 3/8 1/4 24' 1/8 1/8	2234	#80 HOT BOX OK
1846	#23	2238	#81
1850	#24 STEEL BRIDGE 3/8 3/8 1/2 9/16	2242	#82 32' 3/8 1/4 24' 1/8 1/8
1854	#25	2246	#83
1858	#26	2250	#84 STEEL BRIDGE 3/8 3/8 1/2 9/16
1902	#27	2254	#85
1906	#28	2258	#86
1910	#29	2302	#87
1914	#30	2306	#88
1918	#31	2310	#89
1922	#32	2314	#90
1926	#33	2318	#91
1930	#34	2322	#92
1934	#35	2326	#93
1938	#36	2330	#94
1942	#37	2334	#95
1946	#38	2338	#96
1950	#39	2342	#97
1954	#40 HOT BOX OK	2346	#98
1958	#41	2350	#99
2002	#42 32' 3/8 1/4 24' 1/8 1/8	2354	#100
2006	#43	2358	#101
2010	#44 STEEL BRIDGE 3/8 3/8 1/2 9/16	0002	#102 32' 3/8 1/4 24' 1/8 1/8
2014	#45	0006	#103
2018	#46	0010	#104 STEEL BRIDGE 3/8 3/8 1/2 9/16
2022	#47	0014	#105
2026	#48	0018	#106
2030	#49	0022	#107
2034	#50	0026	#108
2038	#51	0030	#109
2042	#52	0034	#110

Test Events Log

Test Controller M. CORDOVA **Air Temp** 67°

Test Title FAST TRAIN OPERATIONS **Date** 3/7/17 3/8/17

Run No. S157 **Direction** CCW MAINTNG

Summary of test events **Start** 1600 **Stop** 0136 **WO#** RBN.B.1

Time	Event	Time	Event
0038	#111		#
0042	#112		#
0046	#113		#
0050	#114		#
0054	#115		#
0058	#116		#
0102	#117		#
0106	#118		#
0110	#119		#
0114	#120		#
0118	#121		#
0122	#122		#
0126	#123		#
0130	#124		#
0136	# OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller M. CORDOVA **Air Temp** 74°

Test Title FAST TRAIN OPERATIONS **Date** 3/8/17 3/9/17

Run No. S158 **Direction** CW MAINLINE

Summary of test events **Start** 1600 **Stop** 0137 **WO#** RBDL.B1

Time	Event
1600	# MAST OCCUPIED
1607	# SWITCHES LONG LOCKED GREEN
1610	# PRE TEST MEETING
1641	# LEAD ENG. ON BOARD
1649	# BRAKE TEST SET AND RELEASE
1654	# BRAKE TEST COMPLETE AND TCR
1706	# TCR COMPLETE AND CAP DN
1712	#2
1716	#3
1720	#4
1724	#5
1728	#6
1733	#7
1737	#8
1741	#9
1745	#10 HOT BOX OK
1749	#11
1753	#12
1757	#13
1801	#14
1805	#15
1809	#16
1813	#17
1817	#18
1821	#19
1825	#20 HOT BOX OK
1829	#21
1833	#22 32' 5/8 3/16 24' 3/16 1/8
1837	#23
1841	#24 STEEL BRIDGE 3/8 3/8 1/2 9/16
1845	#25
1849	#26
1853	#27
1857	#28
1901	#29
1905	#30
1909	#31
1913	#32
1917	#33
1921	#34
1925	#35
1929	#36
1933	#37
1937	#38
1941	#39
1945	#40 HOT BOX OK
1949	#41
1953	#42 32' 3/8 3/16 24' 3/16 1/8
1957	#43
2001	#44 STEEL BRIDGE 3/8 D/8 1/2 9/16
2005	#45
2009	#46
2013	#47
2017	#48
2021	#49
2025	#50
2029	#51
2033	#52
2037	#53
2041	#54
2045	#55
2049	#56
2053	#57
2057	#58
2101	#59
2105	#60 HOT BOX OK
2109	#61
2113	#62 32' 9/8 3/16 24' 3/16 1/8
2117	#63
2121	#64 STEEL BRIDGE 3/8 3/8 1/2 9/16
2125	#65
2129	#66
2133	#67
2137	#68
2141	#69
2145	#70
2149	#71
2153	#72
2157	#73
2201	#74
2205	#75
2209	#76
2213	#77
2217	#78
2221	#79
2225	#80 HOT BOX OK
2229	#81
2233	#82 32' 3/8 3/16 24' 3/16 1/8
2237	#83
2241	#84 STEEL BRIDGE 3/8 3/8 1/2 9/16
2245	#85
2249	#86
2253	#87
2257	#88
2301	#89
2305	#90
2309	#91
2313	#92
2317	#93
2321	#94
2325	#95
2329	#96
2333	#97
2337	#98
2341	#99
2345	#100 HOT BOX OK
2349	#101
2353	#102
2357	#103
0001	#104
0005	#105
0009	#106 32' 7/16 3/16 24' 3/16 1/8
0013	#107
0017	#108 STEEL BRIDGE 3/8 3/8 1/2 9/16
0021	#109
0025	#110

Test Events Log

Test Controller M. Gordova **Air Temp** 74°

Test Title Fast Train Operations **Date** 3/8/17 3/9/17

Run No. 5158 **Direction** CW Main Loop

Summary of test events **Start** 1600 **Stop** 0137 **WO#** RSDL.B.1

Time	Event	Time	Event
0029	#111		#
0033	#112		
0037	#113		#
0041	#114		
0045	#115		#
0049	#116		
0053	#117		#
0057	#118		
0101	#119		#
0105	#120 Hot box ok		
0109	#121		#
0113	#122		
0117	#123		#
0121	#124		
0125	#125		#
0129	#126		
0134	#127		#
0137	#128		
	#		#
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TTCI Internal Notes:

Date: 3/6/17 **Time of Red Signal:** NONE **Time Stopped:** 2353

Weld, Rail, Joint (check one)

☒ Rail	☐ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☐ Web	☒ Base	☐ Bolt Hole	☐ Other

Section	28
Tie	1122
I or O Rail	OSR
Weld #	–
Weld Install Date	–
Rail Temp	52°
Air Temp	45°
Head Gap	1/16
Web Gap	1/16
Base Gap	1/16
Rail Size POS	136
Rail Size NEG	136
Comments:	NO RED SIGNAL JOHN DUGAN STOPPED TRAIN

Test Events Log

Test Controller M. Corrona **Air Temp** 76°

Test Title FAST TRAIN OPERATIONS **Date** 3/9/17 3/10/17

Run No. 5159 **Direction** CW MAIN TRK

Summary of test events **Start** 1600 **Stop** 0132 **WO#** RBDL8.1

Time	Event	Time	Event
1600	FAST OCCUPIED	2036	#53
1610	# SWITCHES LINED LOCKED GREEN	2040	#54
1615	PRE TEST MEETING	2044	#55
1644	# LOCO ENG. ON BOARD	2048	#56
1650	BRAKE TEST SET AND RELEASE	2052	#57
1655	# BRAKE TEST COMPLETE START TCL	2056	#58
1705	# TCL COMPLETE AND LAP #1	2100	#59
1711	#2	2104	#60 HOT BOX OK
1715	#3	2108	#61
1719	#4	2112	#62 32' 3/8 3/16 24' 3/16 1/8
1723	#5	2116	#63
1727	#6	2120	#64 STEEL SLEDGE 3/8 3/8 1/2 9/16
1731	#7	2124	#65
1735	#8	2128	#66
1739	#9	2132	#67
1743	#10 HOT BOX OK	2136	#68
1747	#11	2140	#69
1751	#12	2144	#70
1755	#13	2148	#71
1759	#14	2152	#72
1803	#15	2156	#73
1807	#16	2200	#74
1811	#17	2204	#75
1815	#18	2208	#76
1819	#19	2212	#77
1823	#20 HOT BOX OK	2216	#78
1827	#21	2220	#79
1831	#22 32' 3/8 3/16 24' 3/16 1/8	2224	#80
1835	#23	2228	#81
1839	#24 STEEL SLEDGE 3/8 3/8 1/2 9/16	2232	#82 HOT BOX OK
1843	#25	2236	#83
1847	#26	2240	#84 32' 3/8 3/16 24' 3/16 1/8
1851	#27	2244	#85
1855	#28	2248	#86 STEEL SLEDGE 3/8 3/8 1/2 9/16
1859	#29	2252	#87
1903	#30	2256	#88
1907	#31	2300	#89
1911	#32	2304	#90
1915	#33	2304	# JOHN STOPPED TRAIN BROKEN RAIL
1919	#34	2307	# STOPPED TO FIX BREAK
1923	#35	2354	# TRAIN BACK TOGETHER
1927	#36	2358	# BALL TRAIN TO RESTART
1931	#37	0007	# BRAKE TEST SET AND RELEASE
1935	#38	0012	# BACK ON THE MOVE
1939	#39	0023	#91
1943	#40 HOT BOX OK	0028	#92
1947	#41	0032	#93
1951	#42 32' 3/8 3/16 24' 3/16 1/8	0036	#94
1955	#43	0040	#95
1959	#44 STEEL SLEDGE 3/8 3/8 1/2 9/16	0044	#96
2003	#45	0048	#97
2007	#46	0052	#98
2011	#47	0056	#99
2015	#48	0100	#100 HOT BOX OK
2019	#49	0104	#101
2024	#50	0108	#102
2028	#51	0112	#103
2032	#52	0116	#104

Test Events Log

Air Temp 76°

Test Controller M. Groom

Date 3/9/17 3/10/17

Test Title Fast Train Operations

Direction CW Mainline

Run No. 5159

Summary of test events Start 16:00 Stop 0132 WO# RB01.B.1

Time	Event	Time	Event
0120 0124	# 105 106		#
0129 0132	# 107 108 Operations Complete		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#

TTCI Internal Notes:

Date: 3/3/17 **Time of Red Signal:** 0026 **Time Stopped:** 0025

Weld, Rail, Joint (check one)

☐ Rail	☒ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☐ Web	☒ Base	☐ Bolt Hole	☐ Other

Section	31
Tie	266
I or O Rail	OSR
Weld #	BW-2659
Weld Install Date	3-3-17
Rail Temp	57°
Air Temp	34°
Head Gap	1/8
Web Gap	1/8
Base Gap	1/8
Rail Size POS	141
Rail Size NEG	141
Comments:	

Test Events Log

Test Controller M. CORDOVA **Air Temp** 64°

Test Title FAST TRAIN OPERATIONS **Date** 3/13/17 3/14/17

Run No. 5/60 **Direction** CCW MAIN LINE

Summary of test events **Start** 1600 **Stop** 0120 **WO#** RBD1.B.1

Time	Event
1600	# FAST COUPLED
1605	# SWITCHES LINED LOCKED GREEN
1620	# PLB TEST NEGATIVE
1702	# 140 ENG ON BOARD
1705	# BRAKE TEST SET AND RELEASE
1712	# BRAKE TEST COMPLETE START TCR
1721	# TCR COMPLETE AND COPIED
1725	#2
1733	#3
1737	#4
1742	#5
1746	#6
1750	#7
1754	#8
1758	#9
1802	#10 CAMEL RICHCHANNELS HOT BOX NOT WORKING
1806	#11
1810	#12 RICHMANS ON SIDE AND CHECKED OUT OK
1814	#13
1818	#14
1822	#15
1826	#16
1830	#17
1834	#18
1835	# 19 ON BOARD COMPUTER SHUT DOWN
1836	# STOPPED FOR ON BOARD COMPUTER
1854	# BRAKE TEST SET AND RELEASE
1859	# BACK ON THE MOVE
1911	#20
1916	#21
1920	#22
1924	#23 HOT BOX OK
1928	#24
1932	#25 32' 3/8 1/4 24' 1/8 1/8
1936	#26
1940	#27 STEEL BRIDGE 3/8 3/8 5/8 5/8
1944	#28
1948	#29
1952	#30
1956	#31
2000	#32
2004	#33
2008	#34
2012	#35
2016	#36
2020	#37
2024	#38
2028	#39
2032	#40
2036	#41
2040	#42
2044	#43 HOT BOX OK
2048	#44
2052	#45 32' 3/8 1/4 24' 1/8 1/8
2056	#46
2100	#47 STEEL BRIDGE 3/8 3/8 5/8 5/8
2104	#48
2108	#49
2112	#50
2116	#51
2120	#52
2124	#53
2128	#54
2132	#55
2136	#56
2140	#57
2144	#58
2148	#59
2152	#60
2156	#61
2200	#62
2204	#63 HOT BOX OK
2208	#64
2212	#65 32' 3/8 1/4 24' 1/8 1/8
2216	#66
2220	#67 STEEL BRIDGE 3/8 3/8 5/8 5/8
2224	#68
2228	#69
2232	#70
2236	#71
2240	#72
2244	#73
2248	#74
2252	#75
2256	#76
2300	#77
2304	#78
2308	#79
2312	#80
2316	#81
2320	#82
2324	#83 HOT BOX OK
2328	#84
2332	#85 32' 3/8 1/4 24' 1/8 1/8
2336	#86
2340	#87 STEEL BRIDGE 3/8 3/8 5/8 5/8
2344	#88
2348	#89
2352	#90
2356	#91
0000	#92
0004	#93
0008	#94
0012	#95
0016	#96
0020	#97 RED SIGNAL
0023	# STOPPED BLOCKS FOUND WELD SIG 31 TRK 266
0109	# BACK TRAIN UP TO START POINT
0120	# OPERATIONS COMPLETE
	#
	#
	#

3-3-1

TTCI Internal Notes:

Date: 3/14/17 **Time of Red Signal:** 2238 **Time Stopped:** 2240

Weld, Rail, Joint (check one)

☐ Rail	☒ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☐ Web	☒ Base	☐ Bolt Hole	☐ Other

Section	29
Tie	296
I or O Rail	ISR
Weld #	CW-2524
Weld Install Date	6-8-15
Rail Temp	57°
Air Temp	40°
Head Gap	1/4
Web Gap	1/4
Base Gap	1/4
Rail Size POS	136
Rail Size NEG	136
Comments:	

Test Events Log

Test Controller M. CORDOVA **Air Temp** 74°

Test Title FAST TRAIN OPERATIONS **Date** 3/14/17 3/15/17

Run No. 5161 **Direction** CCW MAIN LINE

Summary of test events **Start** 1600 **Stop** 0131 **WO#** 2501.31

Time	Event
1600	FAST completed
1605	# SWITCHES LINED LOCKED GREEN
1615	PRE TEST MEETING
1700	# LOCO END ON BOARD
1707	# BRAKE TEST SET AND RELEASE
1712	# BRAKE TEST COMPLETE AND TCR
1724	# TCR COMPLETE AND CAP #1
1729	#2
1733	#3
1737	#4
1741	#5
1745	#6
1749	#7
1753	#8
1757	#9
1802	#10 HOT BOX OK
1806	#11
1810	#12
1814	#13
1818	#14
1822	#15
1826	#16
1830	#17
1834	#18
1838	#19
1842	#20 HOT BOX OK
1846	#21
1850	#22 32' 3/8 1/4 24' 1/8 1/8
1854	#23
1858	#24 STEEL BRIDGE 3/8 3/8 5/8 5/8
1902	#25
1906	#26
1910	#27
1914	#28
1918	#29
1922	#30
1926	#31
1930	#32
1934	#33
1938	#34
1942	#35
1946	#36
1950	#37
1954	#38
1958	#39
2002	#40 HOT BOX OK
2006	#41
2010	#42 32' 3/8 1/4 24' 1/8 1/8
2014	#43
2018	#44 STEEL BRIDGE 3/8 3/8 5/8 5/8
2022	#45
2026	#46
2030	#47
2034	#48
2037	#49
2041	#50
2045	#51
2049	#52
2053	#53
2057	#54
2101	#55
2106	#56
2110	#57
2114	#58
2118	#59
2122	#60 HOT BOX OK
2126	#61
2130	#62 32' 3/8 1/4 24' 1/8 1/8
2134	#63
2138	#64 STEEL BRIDGE 3/8 3/8 5/8 5/8
2142	#65
2146	#66
2150	#67
2154	#68
2158	#69
2202	#70
2206	#71
2210	#72
2214	#73
2218	#74
2222	#75
2226	#76
2230	#77
2234	#78
2238	#79 RED SIGNAL
2240	# STOPPED BROKEN RAIL WELD SEC 29
2332	# TRAIN BACK TOGETHER GREEN SIGNAL
2335	BACK TRAIN UP TO RESTART
2343	# BRAKE TEST SET AND RELEASE
2348	# BACK ON THE MOVE
0000	#80
0005	#81
0009	#82
0013	#83
0017	#84
0021	#85 HOT BOX OK
0025	#86
0030	#87
0034	#88
0038	#89 32' 3/8 1/4 24' 1/8 1/8
0042	#90
0046	#91 STEEL BRIDGE 3/8 3/8 5/8 5/8
0050	#92
0054	#93
0058	#94
0102	#95
0106	#96
0110	#97
0114	#98
0118	#99
0122	#100
0126	#101
0131	# OPERATIONS COMPLETE
	#

08-15

OW 2521-15

06-08-1

2137 S. Ike
406

JS 338

Test Events Log

Test Controller M. CORDOVA **Air Temp** 85°

Test Title FAST TRAIN OPERATIONS **Date** 3/01/17 3/16/17

Run No. 5162 **Direction** CW MAINLINE

Summary of test events **Start** 1600 **Stop** 0135 **WO#** R3U1.B.1

Time	Event
1600	# FAST DUMPED
1605	# SWITCHES LINED LOCKED GREEN
1615	# PRE TEST MEETING
1645	# ENG. ON BOARD
1650	# BRAKE TEST SET AND RELEASE
1656	# BRAKE TEST COMPLETE START TCR
1707	# TCR COMPLETE AND LAP #1
1712	# 2
1716	# 3
1720	# 4
1724	# 5
1728	# 6
1732	# 7
1736	# 8
1740	# 9
1744	# 10 HOT BOX OK
1748	# 11
1752	# 12
1756	# 13
1800	# 14
1804	# 15
1808	# 16
1812	# 17
1816	# 18
1820	# 19
1824	# 20 HOT BOX OK
1828	# 21
1832	# 22 32' 3/8 3/16 24' 3/16 1/8
1836	# 23
1840	# 24 STEEL BRIDGE 3/8 3/8 5/8 5/8
1844	# 25
1848	# 26
1851	# HOTBOX HOT BEARING ALARM AXLE 338 1/5
1852	# STOP(ED) TO CHECK BEARING TEMP ON
	# AXLE 338 CAR # UP 33282 TEMP WAS 165°
2019	# BRAKE TEST SET AND RELEASE
2025	# BACK ON THE MOVE AIR TEMP 65°
2026	# INP = 87 COMPLETE
2034	# 28
2039	# 29
2044	# 30
2048	# 31
2052	# 32
2056	# 33
2100	# 34
2104	# 35
2108	# 36
2112	# 37
2116	# 38
2120	# 39
2124	# 40 HOT BOX OK
2128	# 41
2132	# 42 32' 3/8 3/16 24' 3/16 1/8
2136	# 43
2140	# 44 STEEL BRIDGE 3/8 3/8 5/8 5/8
2144	# 45
2148	# 46
2152	# 47
2156	# 48
2200	# 49
2204	# 50
2208	# 51
2212	# 52
2216	# 53
2220	# 54
2224	# 55
2228	# 56
2232	# 57
2236	# 58
2240	# 59
2244	# 60 HOT BOX OK
2248	# 61
2252	# 62 32' 3/8 3/16 24' 3/16 1/8
2256	# 63
2300	# 64 STEEL BRIDGE 3/8 3/8 5/8 5/8
2304	# 65
2308	# 66
2312	# 67
2316	# 68
2320	# 69
2324	# 70
2328	# 71
2332	# 72
2336	# 73
2340	# 74
2344	# 75
2348	# 76
2352	# 77
2356	# 78
0000	# 79
0004	# 80 HOT BOX OK
0008	# 81
0012	# 82 32' 3/8 3/16 24' 3/16 1/8
0016	# 83
0020	# 84 STEEL BRIDGE 3/8 3/8 5/8 5/8
0024	# 85
0028	# 86
0032	# 87
0036	# 88
0040	# 89
0044	# 90
0048	# 91
0052	# 92
0056	# 93
0100	# 94
0104	# 95
0108	# 96
0112	# 97
0116	# 98
0120	# 99
0124	# 100 HOT BOX OK
0128	# 101
0132	# 102
0135	# 103 OPERATIONS COMPLETE

Test Events Log

Test Controller M. Cardova **Air Temp** 72°

Test Title Fast Train Operations **Date** 3/16/17 3/17/17

Run No. 5163 **Direction** CW Mainline

Summary of test events **Start** 1900 **Stop** 0342 **WO#** R13X.13.1

Time	Event
1840	# Fast occupied
1845	Switches Lined locked Green
1850	Pre Test meeting
1916	# Loco Eng. on Board
1920	# Brake test set and release
1929	Brake test complete and TCR
1941	# TCR complete and Lap #1
1947	#2
1951	#3
1955	#4
1959	#5
2003	#6
2007	#7
2011	#8
2015	#9
2019	#10 Hot Box OK
2023	#11
2027	#12
2031	#13
2035	#14
2039	#15
2043	#16
2047	#17
2051	#18
2055	#19
2059	#20 Hot Box OK
2103	#21
2107	#22 32' 3/8 3/16 24' 3/16 1/8
2111	#23
2115	#24 Steel Bridge 3/8 3/8 5/8 5/8
2119	#25
2123	#26
2127	#27
2131	#28
2135	#29
2139	#30
2144	#31
2148	#32
2152	#33
2156	#34
2200	#35
2204	#36
2208	#37
2212	#38
2216	#39
2220	#40 Hot Box OK
2224	#41
2228	#42 32' 3/8 3/16 24' 3/16 1/8
2232	#43
2236	#44 Steel Bridge 3/8 3/8 5/8 5/8
2240	#45
2244	#46
2248	#47
2252	#48
2256	#49
2300	#50
2304	#51
2308	#52
2312	#53
2316	#54
2320	#55
2324	#56
2328	#57
2332	#58
2336	#59
2340	#60 Hot Box OK
2344	#61
2348	#62 32' 3/8 3/16 24' 3/16 1/8
2352	#63
2356	#64 Steel Bridge 3/8 3/8 5/8 5/8
0000	#65
0004	#66
0008	#67
0012	#68
0016	#69
0020	#70
0024	#71
0028	#72
0032	#73
0036	#74
0040	#75
0044	#76
0048	#77
0052	#78
0056	#79
0100	#80 Hot Box OK
0104	#81
0108	#82 32' 3/8 3/16 24' 3/16 1/8
0112	#83
0116	#84 Steel Bridge 3/8 3/8 5/8 5/8
0120	#85
0124	#86
0128	#87
0132	#88
0136	#89
0139	#90
0143	#91
0147	#92 DPU Down
0151	#93
0155	#94
0159	#95
0204	#96
0208	#97
0212	#98
0216	#99
0220	#100 Hot Box OK
0224	#101
0228	#102 32' 3/8 3/16 24' 3/16 1/8
0232	#103
0236	#104 Steel Bridge 3/8 3/8 5/8 5/8
0240	#105
0244	#106
0248	#107
0252	#108
0256	#109
0300	#110

Test Events Log

Test Controller M. CORDOVA **Air Temp** 72°

Test Title FAST TRAIN OPERATIONS **Date** 5/16/12 5/17/12

Run No. 5163 **Direction** CW MAINLINE

Summary of test events **Start** 1900 **Stop** 0342 **WO#** RJSD1.B.1

Time	Event	Time	Event
0304	#111		#
0308	#112		#
0312	#113		#
0316	#114		#
0320	#115		#
0324	#116		#
0342	#117 OPERATIONS COMPLETE STOPPED INSIDE CAVE TEMP 192°		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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	#		#
	#		#
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	#		#
	#		#

Test Events Log

Test Controller M. CORDOVA **Air Temp** 47°

Test Title FAST TRAIN OPERATIONS **Date** 3/27/17 3/28/17

Run No. 5164 **Direction** CCW MAIN LINE

Summary of test events **Start** 2100 **Stop** 0633 **WO#** R0515.1

Time	Event
2100	#1 FAST OCCUPIED
2100	SWITCHES LINED LOCKED GREEN
2110	PRE TEST MEETING
2147	#1 LOCO END. ON BOARD
2157	#2 BRAKE TEST SET AND RELEASE
2202	BRAKE TEST COMPLETE START TCR
2218	TCR COMPLETE AND MP #1
2227	#2
2236	#3
2246	#4
2255	#5
2305	#6
2309	#7
2315	#8
2320	#9
2326	#10 HOT BOX OK
2331	#11
2336	#12
2340	#13
2344	#14
2348	#15
2352	#16
2356	#17
0000	#18
0004	#19
0008	#20 HOT BOX OK
0012	#21
0012	#22 32' 3/8 1/4 24' 3/16 1/8
0020	#23
0024	#24 STEEL BRIDGE 3/8 5/16 5/8 5/8
0028	#25
0032	#26
0036	#27
0040	#28
0044	#29
0048	#30
0051	#31
0055	#32
0059	#33
0103	#34
0107	#35
0111	#36
0115	#37
0119	#38
0123	#39
0127	#40 HOT BOX OK
0131	#41
0135	#42 32' 3/8 1/4 24' 3/16 1/8
0140	#43
0144	#44 STEEL BRIDGE 3/8 5/16 5/8 5/8
0148	#45
0152	#46
0156	#47
0200	#48
0204	#49
0208	#50
0212	#51
0216	#52
0220	#53
0224	#54
0228	#55
0232	#56
0236	#57
0240	#58
0244	#59
0248	#60 ROBO LOC SHUT DOWN FAULT LIGHT
0252	#61
0256	#62 HOT BOX OK 32' 3/8 1/4 24' 3/16 1/8
0300	#63
0304	#64 STEEL BRIDGE 3/8 5/16 5/8 5/8
0308	#65
0312	#66
0316	#67
0320	#68
0324	#69
0328	#70
0332	#71
0336	#72
0340	#73
0344	#74
0348	#75
0352	#76
0356	#77
0400	#78
0404	#79
0408	#80 HOT BOX OK
0412	#81
0416	#82 32' 3/8 1/4 24' 3/16 1/8
0420	#83
0424	#84 STEEL BRIDGE 3/8 3/8 5/8 5/8
0428	#85
0432	#86
0436	#87
0440	#88
0444	#89
0448	#90
0452	#91
0456	#92
0500	#93
0504	#94
0508	#95
0512	#96
0516	#97
0520	#98
0524	#99
0528	#100 HOT BOX OK
0532	#101
0536	#102 32' 3/8 1/4 24' 3/16 1/8
0540	#103
0544	#104 STEEL BRIDGE 3/8 3/8 5/8 5/8
0548	#105
0552	#106
0556	#107
0600	#108
0604	#109
0608	#110

Test Events Log

Test Controller M. Cordova

Air Temp 47°

Test Title Fast Train Operations

Date 3/27/17 3/28/17

Run No. 5164

Direction CCW Main Line

Summary of test events Start 2100 Stop 0633 WO# 2001.B.1

Time	Event	Time	Event
0612 0616	#111 112		#
0620 0624	#113 114		#
0628 0633	#115 Operations Complete		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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	#		#
	#		#
	#		#

TTCI Internal Notes:

Date: 2/28/17 **Time of Red Signal:** 2220 **Time Stopped:** 2223

Weld, Rail, Joint (check one)

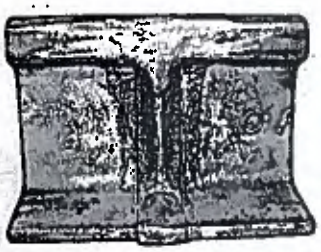
☒ Rail	☐ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☒ Break	☐ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☐ Web	☒ Base	☐ Bolt Hole	☐ Other

Section	3
Tie	1319
I or O Rail	OSR
Weld #	NONE
Weld Install Date	NONE
Rail Temp	51°
Air Temp	40°
	
Head Gap	1/2
Web Gap	1/2
Base Gap	1/2
Rail Size POS	136
Rail Size NEG	136
Comments:	BREAK IS 5' 5" FROM IN-TRACK WELD
	WELD # ITW-913

Test Events Log

Test Controller M. Corduan **Air Temp** 41°

Test Title Fast Train Operations **Date** 3/28/17 3/29/17

Run No. 5/65 **Direction** CCW Mainline

Summary of test events **Start** 2100 **Stop** 0634 **WO#** RSDI B.1

Time	Event	Time	Event
2100	Fast occupied	0237	#46
2100	# Switches Lines locked Green	0241	#47
2105	Load Fuel on Board PRE TEST MEETING	0245	#48
2130	# Load Fuel on Board	0249	#49
2141	Brake Test Set and Release	0253	#50
2146	# Brake Test complete Start TLR	0257	#51
2200	TLR complete and Label	0301	#52
2206	#2	0305	#53
2211	#3	0309	#54
2215	#4	0313	#55
2219	#5	0317	#56
2220	# RED SIGNAL	0321	#57
2223	Stopped Behind Rail Sec 3 OSR	0325	#58
2317	# Track Back to Control Green Signal	0329	#59
2323	Back up Train to Restart	0333	#60
2331	# Stopped to Reset Computer	0337	#61 Hot Box OK
2333	Brake Test Set and Release	0341	#62
2338	# Back on the Move	0345	#63 32' 3/8 1/4 24' 1/8 1/8
2353	#6	0349	#64
2359	#7	0353	#65 Steel Bridge 3/8 3/8 5/8 5/8
0007	#8	0357	#66
0008	#9	0401	#67
0012	#10	0405	#68
0016	#11 Hot Box OK	0409	#69
0020	#12	0413	#70
0024	#13	0417	#71
0028	#14	0421	#72
0032	#15	0425	#73
0036	#16	0429	#74
0040	#17	0433	#75
0044	#18	0437	#76
0048	#19	0441	#77
0052	#20	0445	#78
0056	#21 Hot Box OK	0449	#79 Hot Box OK
0100	#22	0453	#80
0104	#23 32' 3/8 1/4 24' 1/8 1/8	0457	#81 32' 3/8 1/4 24' 1/8 1/8
0108	#24	0501	#82
0112	#25 Steel Bridge 3/8 3/8 5/8 5/8	0505	#83 Steel Bridge 3/8 3/8 5/8 5/8
0116	#26	0509	#84
0120	#27	0513	#85
0124	#28	0517	#86
0128	#29	0521	#87
0132	#30	0525	#88
0136	#31	0529	#89
0140	#32	0533	#90
0144	#33	0537	#91
0148	#34	0541	#92
0152	#35	0545	#93
0157	#36	0549	#94
0201	#37	0553	#95
0205	#38	0557	#96
0209	#39	0601	#97
0213	#40	0605	#98
0217	#41 Hot Box OK	0609	#99
0221	#42	0613	#100
0225	#43 32' 3/8 1/4 24' 1/8 1/8	0617	#101
0229	#44	0621	#102
0233	#45 Steel Bridge 3/8 3/8 5/5 5/8	0625	#103

Test Events Log

Test Controller M. CORDOVA **Air Temp** 41°

Test Title FAST TRACK OPERATIONS **Date** 3/28/17 3/29/17

Run No. S165 **Direction** CCW MAINTENANCE

Summary of test events **Start** 2100 **Stop** 0634 **WO#** 12DN.131

Time	Event	Time	Event
0629 0634	# 104 OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
	#		#
	#		#
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50
505S
304-B
50
505S
309-B

Test Events Log

Test Controller M. Cuccia **Air Temp** 42°

Test Title FAST TRAIN OPERATIONS **Date** 3/29/17 3/30/17

Run No. 5166 **Direction** CW MAIN/LINE

Summary of test events **Start** 2100 **Stop** 0633 **WO#** RTSD1.13.1

Time	Event
2106	# FAST COMPLED
2105	# SWITCHES LINED (WHITE) GREEN
2110	# PRETEST MEETING
2137	# 100 ENG. on BOARD
2146	# BRAKE TEST SET AND RELEASE
2155	# BRAKE TEST COMPLETE START TCR
2205	TCR COMPLETE AND LAP #1
2211	#2
2215	#3
2219	#4
2223	#5
2227	#6
2231	#7
2235	#8
2239	#9
2243	#10 HOT BOX OK
2247	#11
2251	#12
2255	#13
2259	#14
2303	#15
2307	#16
2311	#17
2315	#18
2319	#19
2323	#20 HOT BOX OK
2327	#21
2331	#22 32' 3/8 1/4 24' 1/8 1/8
2335	#23
2339	#24 STEEL BRIDGE 3/8 3/8 1/2 5/8
2344	#25
2348	#26
2352	#27
2356	#28
0000	#29
0004	#30
0008	#31
0012	#32
0016	#33
0020	#34
0024	#35
0028	#36
0032	#37
0036	#38
0040	#39
0044	#40 HOT BOX OK
0048	#41
0052	#42 32' 3/8 1/4 24' 1/8 1/8
0056	#43
0100	#44 STEEL BRIDGE 3/8 3/8 1/2 5/8
0104	#45
0108	#46
0112	#47
0116	#48
0120	#49
0124	#50
0128	#51
0132	#52
0136	#53
0140	#54
0144	#55
0148	#56
0152	#57
0156	#58
0200	#59
0204	#60 HOT BOX OK
0208	#61
0212	#62 32' 3/8 1/4 24' 1/8 1/8
0216	#63
0220	#64 STEEL BRIDGE 3/8 3/8 1/2 5/8
0224	#65
0228	#66
0232	#67
0236	#68
0240	#69
0244	#70
0248	#71
0252	#72
0256	#73
0300	#74
0304	#75
0308	#76
0312	#77
0316	#78
0320	#79
0324	#80 HOT BOX OK
0328	#81
0332	#82 32' 3/8 1/4 24' 1/8 1/8
0336	#83
0340	#84 STEEL BRIDGE 3/8 3/8 1/2 5/8
0344	#85
0348	#86
0352	#87
0356	#88
0400	#89
0408	#90
0412	#91
0416	#92
0420	#93
0424	#94
0428	#95
0432	#96
0436	#97
0440	#98
0444	#99
0448	#100 HOT BOX OK
0449	# CONTEST IN EMERGENCY
0503	# CONTEST CHECKED OK
0505	# BACK TRAIN UP TO RESTART
0513	# STOPPED TO RESET U-BOLT CLAMP
0516	# BRAKE TEST SET AND RELEASE
0521	# BACK ON THE MOVE
0531	#101
0537	#102
0542	#103
0546	#104

Test Events Log

Test Controller M. CORDOVA **Air Temp** 42°

Test Title FAST TRAIN OPERATIONS **Date** 2/28/17 3/30/17

Run No. 5166 **Direction** CW MAINLINE

Summary of test events **Start** 2100 **Stop** 0633 **WO#** RB01.B.1

Time	Event	Time	Event
0550 0554	#105 106		#
0558 0602	#107 108 32' 3/8 1/4 24' 1/16 1/8		#
0606 0610	#109 110 STEEL BRIDGE 3/8 3/8 1/2 5/8		#
0614 0618	#111 112		#
0622 0626	#113 114		#
0630 0633	#115 116 OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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8.7

Test Events Log

Test Controller M. Conlon **Air Temp** 52°

Test Title FAST TRACK OPERATIONS **Date** 3/30/17 3/31/17

Run No. 5167 **Direction** CW BYPASS

Summary of test events **Start** 2100 **Stop** 0635 **WO#** RDD1.D.1

Time	Event
2100	# FAST CREW ON
2100	SWITCHES LENGD LOCKED LOCKED
2100	PRE TEST MEETING
2142	# 190 ENG ON BOARD
2148	PARKE TEST SET AND RELEASE
2153	# BRAKE TEST COMPLETE START TCR
2204	TCR COMPLETE HAND TAP #1
2212	# 2 RUNNING BYPASS AND SETTLEMENT TAPS
2220	# 3
2228	# 4
2237	# 5
2245	# 6
2252	# 7
2257	# 8
2303	# 9
2309	# 10 HOT BOX OK
2314	# 11
2319	# 12 SETTLEMENT TAPS COMPLETE
2323	# 13
2327	# 14
2331	# 15
2335	# 16
2339	# 17
2343	# 18
2347	# 19
2351	# 20 HOT BOX OK
2355	# 21
2359	# 22 32' 3/8 1/4 24' 1/8 1/8
0003	# 23
0007	# 24 STEEL BRIDGE 1/8 3/8 1/2 5/8
0011	# 25
0015	# 26
0019	# 27
0023	# 28
0027	# 29
0031	# 30
0035	# 31
0039	# 32
0043	# 33
0047	# 34
0051	# 35
0055	# 36
0059	# 37
0103	# 38
0107	# 39
0111	# 40 HOT BOX OK
0115	# 41
0119	# 42 32' 3/8 1/4 24' 1/8 1/8
0123	# 43
0127	# 44 STEEL BRIDGE 3/8 3/8 1/2 5/8
0131	# 45
0135	# 46
0139	# 47
0143	# 48
0147	# 49
0151	# 50
0155	# 51
0159	# 52
0203	# 53
0207	# 54
0211	# 55
0215	# 56
0219	# 57
0223	# 58
0227	# 59
0231	# 60 HOT BOX OK
0235	# 61
0239	# 62 32' 3/8 1/4 24' 1/8 1/8
0243	# 63
0247	# 64 STEEL BRIDGE 3/8 3/8 1/2 5/8
0251	# 65
0255	# 66
0259	# 67
0303	# 68
0307	# 69
0311	# 70
0316	# 71
0320	# 72
0324	# 73
0328	# 74
0332	# 75
0336	# 76
0340	# 77
0344	# 78
0348	# 79
0352	# 80 HOT BOX OK
0356	# 81
0400	# 82 32' 3/8 1/4 24' 1/8 1/8
0404	# 83
0408	# 84 STEEL BRIDGE 3/8 3/8 5/8 5/8
0412	# 85
0416	# 86
0420	# 87
0424	# 88
0428	# 89
0432	# 90
0436	# 91
0440	# 92
0444	# 93
0448	# 94
0452	# 95
0456	# 96
0500	# 97
0504	# 98
0508	# 99
0512	# 100 HOT BOX OK
0516	# 101
0520	# 102 32' 3/8 1/4 24' 1/8 1/8
0524	# 103
0528	# 104 STEEL BRIDGE 3/8 3/8 1/2 5/8
0532	# 105
0536	# 106
0540	# 107
0544	# 108
0548	# 109
0552	# 110

Test Events Log

Test Controller M. Cordova **Air Temp** 52°

Test Title Fast Train Operations **Date** 3/30/17 3/31/17

Run No. 5167 **Direction** CW Bypass

Summary of test events **Start** 2100 **Stop** ______ **WO#** RBN.B.1

Time	Event	Time	Event
0556 0600	# 111 112		#
0604 0608	# 113 114		#
0612 0616	# 115 116		#
0620 0624	# 117 118		#
0628 0632	# 119 120		#
0635	# 121 Operations complete		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#

Test Events Log

Test Controller M. Cordova **Air Temp** 41°

Test Title FAST TRAIN OPERATIONS **Date** 4/3/17 4/4/17

Run No. 5168 **Direction** CCW BYPASS

Summary of test events **Start** 2100 **Stop** _____ **WO#** R3D1.B.1

Time	Event	Time	Event
2100	# FAST CREW IED	0241	# 46
2100	# SWITCHES LINED LOCKED GREEN	0245	# 47
2105	# PRE TEST MEETING	0249	# 48
2150	# LOCO CAL ON BOARD	0253	# 49
2157	# BRAKE TEST SET AND RELEASE	0257	# 50
2203	# BRAKE TEST COMPLETE START TRN	0301	# 51
2216	# TCR COMPLETE AND MAP #1	0305	# 52
2222	#2	0309	# 53
2226	# 3	0312	# 54 JOHN STOPPED TRAIN
2230	#4	0313	
2234	# 5	0315	# STOPPED
2239	#6	0316	# BACK TRAIN UP TO START POINT
2243	# 7	0323	# STOPPED TO CHANGE RAIL SEC 26 OSL
2247	#8	0605	# TRACK BACK TOGETHOR
2251	# 9	0617	# OPERATIONS COMPLETE
2255	#10 HOT BOX OK		#
2259	# 11		#
2303	#12		
2307	# 13		#
2311	#14		
2315	# 15		#
2319	#16		
2323	# 17		#
2327	#18		
2331	# 19		#
2335	#20 HOT BOX OK		
2339	# 21		#
2343	#22 32' 3/8 1/4 24' 1/8 1/8		
2347	# 23		#
2351	#24 STEEL BRIDGE 3/8 3/8 5/8 5/8		
2355	# 25		#
2359	#26		
0003	# 27		#
0007	#28		
0011	# 29		#
0015	#30		
0019	# 31		#
0023	#32		
0024	# RED SIGNAL		#
0026	# STOPPED BROKEN FIELD WELD SEC 3 OSL		
0109	# TRACK BACK TOGETHOR GREEN SIGNAL		#
0114	# BACK TRAIN UP TO RESTART		
0123	# STOPPED TO RESET COMPUTER		#
0125	# BRAKE TEST SET AND RELEASE		
0131	# BACK ON THE MOVE		#
0145	#33		
0151	# 34		#
0156	#35		
0200	# 36		#
0204	#37		
0208	# 38		#
0213	#39 HOT BOX OK		
0217	# 40		#
0221	#41 32' 3/8 1/4 24' 1/8 1/8		
0225	# 42		#
0229	#43 STEEL BRIDGE 3/8 3/8 5/8 5/8		
0233	# 44		#
0237	#45		

TTCI Internal Notes:

Date: 4/4/17 **Time of Red Signal:** 0024 **Time Stopped:** 0026

Weld, Rail, Joint (check one)

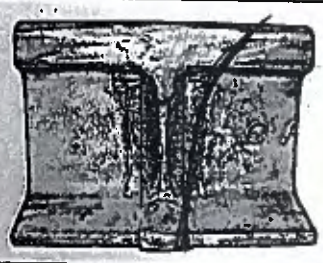
☐ Rail	☒ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☐ Web	☒ Base	☐ Bolt Hole	☐ Other

Section	3
Tie	899
I or O Rail	OSL
Weld #	HAOW 2534
Weld Install Date	7/21/15
Rail Temp	45°
Air Temp	36°
	
Head Gap	3/8
Web Gap	3/8
Base Gap	3/8
Rail Size POS	136
Rail Size NEG	141
Comments:	

TTCI Internal Notes:

Date: 4/4/16 **Time of Red Signal:** 0312 **Time Stopped:** 0315

Weld, Rail, Joint (check one)

☐ Rail	☒ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☒ Web	☐ Base	☐ Bolt Hole	☐ Other

Section	26
Tie	38
I or O Rail	OR
Weld #	BW 2674
Weld Install Date	3/25/16
Rail Temp	40°
Air Temp	32°
Head Gap	NONE
Web Gap	NONE
Base Gap	NONE
Rail Size POS	136
Rail Size NEG	136
Comments: NO GAP JOHN SPOTTED GAP AND STOPPED TRAIN	
RAIL CHANGE REMOVED 19'2 3/4" AND REPLACED 19'2 1/2"	

900
100

HAOW 253415

07-21-15

900

900

BW-2674-16

03-25-

Test Events Log

Test Controller M. Crown **Air Temp** 36°

Test Title First Train Operations **Date** 4/4/17 4/5/17

Run No. 5169 **Direction** CCW Bypass

Summary of test events **Start** 2100 **Stop** 0639 **WO#** RDDL.B.1

Time	Event	Time	Event
2100	# FAST occupied	0126	#53
2100	# Switches lined locks green	0130	#54
2105	# PRE TEST MEET Both	0134	#55
2132	# loco Eng. on board	0138	#56
2138	# Brake test set and release	0142	#57
2143	# Brake test complete start TCR	0146	#58
2155	# TCR complete and Lap #1	0150	#59
2201	#2	0154	#60 Hot Box OK
2206	#3	0158	#61
2210	#4	0202	#62 32' 3/8 1/4 24' 1/8 1/8
2214	#5	0206	#63
2218	#6	0210	#64 Steel Bridge 7/8 3/8 3/8 5/8
2222	#7	0214	#65
2226	#8	0218	#66
2230	#9	0222	#67
2234	#10 Hot Box OK	0226	#68
2238	#11	0230	#69
2242	#12	0234	#70
2246	#13	0238	#71
2250	#14	0242	#72
2254	#15	0246	#73
2258	#16	0250	#74
2302	#17	0254	#75
2306	#18	0258	#76
2310	#19	0302	#77
2314	#20 Hot Box OK	0306	#78
2318	#21	0310	#79
2322	#22 32' 3/8 1/4 24' 1/8 1/8	0314	#80 Hot Box OK
2326	#23	0318	#81
2330	#24 Steel Bridge 3/8 3/8 5/8 5/8	0322	#82 32' 3/8 1/4 24' 1/8 1/8
2334	#25	0326	#83
2338	#26	0330	#84 Steel Bridge 3/8 3/8 5/8 5/8
2342	#27	0334	#85
2346	#28	0338	#86
2350	#29	0342	#87
2354	#30	0346	#88
2358	#31	0350	#89
0002	#32	0354	#90
0006	#33	0358	#91
0009	#34	0402	#92
0013	#35	0406	#93
0017	#36	0410	#94
0021	#37	0414	#95
0025	#38	0418	#96
0029	#39	0422	#97
0033	#40 Hot Box OK	0426	#98
0037	#41	0430	#99
0041	#42 32' 3/8 1/4 24' 1/8 1/8	0434	#100 Hot Box OK
0045	#43	0438	#101
0050	#44 Steel Bridge 3/8 3/8 5/8 5/8	0442	#102 32' 3/8 1/4 24' 1/8 1/8
0054	#45	0446	#103
0058	#46	0450	#104 Steel Bridge 3/8 3/8 5/8 5/8
0102	#47	0454	#105
0106	#48	0458	#106
0110	#49	0502	#107
0114	#50	0506	#108
0118	#51	0510	#109
0122	#52	0514	#110

Test Events Log

Test Controller M. Cordova **Air Temp** 36°

Test Title Fast Train Operations **Date** 4/4/17 4/5/17

Run No. 5169 **Direction** CCW Bypass

Summary of test events **Start** 2100 **Stop** 0639 **WO#** R3013.1

Time	Event	Time	Event
0518 0522	#111 #112		#
0526 0530	#113 #114		#
0534 0538	#115 #116		#
0542 0546	#117 #118		#
0550 0554	#119 #120 Hot Box OK		#
0558 0602	#121 #122 32' 3/8 1/4 24' 1/8 1/8		#
0606 0610	#123 #124 Steel Bridge 3/8 3/8 5/8 5/8		#
0614 0618	#125 #126		#
0622 0626	#127 #128		#
0630 0634	#129 #130		#
0639	# Operations complete		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller M. Cordova **Air Temp** 38°

Test Title FAST TRAIN OPERATIONS **Date** 4/5/17 4/6/17

Run No. 5170 **Direction** CW BYPASS

Summary of test events **Start** 2100 **Stop** 0655 **WO#** RJDL.J.1

Time	Event	Time	Event
2100	FAST ACQUIRED	0140	#53
2100	#SWITCHES LINED LOCKED GREEN	0144	#54
2110	PRE TEST MEETING	0148	#55
2148	#ON ENG. ON BOARD	0152	#56
2153	BRAKE TEST SET AND RELEASE	0156	#57
2158	#BRAKE TEST COMPLETE START TCR	0200	#58
2210	TCR COMPLETE AND CAP #1	0204	#59
2215	#2	0208	#60 HOT BOX OK
2220	#3	0212	#61
2224	#4	0216	#62 32' 3/8 1/4 24' 1/8 1/8
2228	#5	0220	#63
2232	#6	0224	#64 STEEL BRIDGE 3/8 3/8 5/8 5/8
2236	#7	0228	#65
2240	#8	0232	#66
2244	#9	0236	#67
2248	#10 HOT BOX OK	0240	#68
2252	#11	0244	#69
2256	#12	0248	#70
2300	#13	0252	#71
2304	#14	0256	#72
2308	#15	0300	#73
2312	#16	0304	#74
2316	#17	0308	#75
2320	#18	0312	#76
2324	#19	0316	#77
2328	#20 HOT BOX OK	0320	#78
2332	#21	0324	#79
2336	#22 32' 3/8 1/4 24' 1/8 1/8	0328	#80 HOT BOX OK
2340	#23	0332	#81
2344	#24 STEEL BRIDGE 3/8 3/8 5/8 5/8	0336	#82 32' 3/8 1/4 24' 1/8 1/8
2348	#25	0340	#83
2352	#26	0344	#84 STEEL BRIDGE 3/8 3/8 5/8 5/8
2356	#27	0348	#85
0000	#28	0352	#86
0004	#29	0356	#87
0008	#30	0400	#88
0012	#31	0404	#89
0016	#32	0408	#90
0020	#33	0412	#91
0024	#34	0416	#92
0028	#35	0420	#93
0032	#36	0424	#94
0036	#37	0428	#95
0040	#38	0432	#96
0044	#39	0436	#97
0048	#40 HOT BOX OK	0440	#98
0052	#41	0444	#99
0056	#42 32' 3/8 1/4 24' 1/8 1/8	0448	#100 HOT BOX OK
0100	#43	0452	#101
0104	#44 STEEL BRIDGE 3/8 3/8 5/8 5/8	0456	#102 32' 3/8 1/4 24' 1/8 1/8
0108	#45	0500	#103
0112	#46	0504	#104 STEEL BRIDGE 3/8 3/8 5/8 5/8
0116	#47	0508	#105
0120	#48	0512	#106
0124	#49	0516	#107
0128	#50	0520	#108
0132	#51	0524	#109
0136	#52	0528	#110

Test Events Log

Test Controller M. CORDOVA **Air Temp** 38°

Test Title FAST TRAIN OPERATIONS **Date** 4/5/17 4/6/17

Run No. 5170 **Direction** CW BYPASS

Summary of test events **Start** 2100 **Stop** 0635 **WO#** RSDI.3.1

Time	Event	Time	Event
0532	#111		#
0536	#112		#
0540	#113		#
0544	#114		#
0548	#115		#
0552	#116		#
0556	#117		#
0600	#118		#
0604	#119		#
0608	#120		#
0612	#121		#
0616	#122		#
0620	#123		#
0624	#124		#
0628	#125		#
0632	#126		#
0635	#127 OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller FAST TRAIN OPERATIONS **Air Temp** 49°

Test Title FAST TRAIN OPERATIONS **Date** 4/6/17 4/7/17

Run No. 5171 **Direction** CW BYPASS

Summary of test events **Start** 2100 **Stop** 0640 **WO#** R501.B.1

Time	Event
2100	# FAST OCCUPIED
2100	# SWITCHES LEVER LOCKED GREEN
2105	# PRE TEST MEETING
2111	# LOCO ENG on BOARD
2147	# BRAKE TEST SET AND RELEASE
2152	# BRAKE TEST COMPLETE START TCR
2203	# TCR COMPLETE AND TAP #1
2211	# 2 SETTLEMENT TAPS
2219	#3
2227	#4
2235	#5
2241	#6
2247	#7
2252	#8
2257	#9
2302	#10 HOT BOX OK SETTLEMENT LAPS COMPLETE
2306	#11
2310	#12
2314	#13
2318	#14
2322	#15
2326	#16
2330	#17
2334	#18
2338	#19
2342	#20 HOT BOX OK
2346	#21
2350	#22 32' 3/8 1/4 24' 1/8 1/8
2354	#23
2358	#24 STEEL BRIDGE 3/8 3/8 5/8 5/8
0002	#25
0006	#26
0010	#27
0014	#28
0018	#29
0022	#30
0026	#31
0030	#32
0034	#33
0038	#34
0042	#35
0046	#36
0050	#37
0054	#38
0058	#39
0102	#40 HOT BOX OK
0106	#41
0110	#42 32' 3/8 1/4 24' 1/8 1/8
0114	#43
0118	#44 STEEL BRIDGE 3/8 3/8 5/8 5/8
0122	#45
0126	#46
0130	#47
0134	#48
0138	#49
0142	#50
0146	#51
0150	#52
0154	#53
0158	#54
0202	#55
0206	#56
0210	#57
0214	#58
0218	#59
0222	#60 HOT BOX OK
0226	#61
0230	#62 32' 3/8 1/4 24' 1/8 1/8
0234	#63
0238	#64 STEEL BRIDGE 3/8 3/8 5/8 5/8
0242	#65
0246	#66
0250	#67
0254	#68
0258	#69
0302	#70
0306	#71
0310	#72
0314	#73
0318	#74
0322	#75
0326	#76
0330	#77
0334	#78
0338	#79
0342	#80 HOT BOX OK
0346	#81
0350	#82 32' 3/8 1/4 24' 1/8 1/8
0354	#83
0358	#84 STEEL BRIDGE 3/8 3/8 5/8 5/8
0402	#85
0406	#86
0410	#87
0414	#88
0418	#89
0422	#90
0426	#91
0430	#92
0434	#93
0438	#94
0442	#95
0446	#96
0450	#97
0454	#98
0458	#99
0502	#100
0506	#101
0510	#102 32' 3/8 1/4 24' 1/8 1/8
0514	#103
0518	#104 STEEL BRIDGE 3/8 3/8 5/8 5/8
0522	#105
0526	#106
0530	#107
0534	#108
0538	#109
0542	#110

Test Events Log

Test Controller M. CORDOVA **Air Temp** 49°

Test Title FAST TRANSIENTS **Date** 4/6/17 4/7/17

Run No. 5171 **Direction** CW BYPASS

Summary of test events **Start** 2100 **Stop** 0640 **WO#** R3D1.D.1

Time	Event	Time	Event
0546	#111		#
0550	#112		#
0554	#113		#
0558	#114		#
0602	#115		#
0606	#116		#
0610	#117		#
0614	#118		#
0618	#119		#
0622	#120 NOT RUN OK		#
0626	#121		#
0630	#122		#
0634	#123 CONSIST IN EMERGENCY CHECKS OK		#
0640	#124 OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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	#		#
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Test Events Log

Test Controller M. CORDOVA **Air Temp** 58°

Test Title FAST TRAIN OPERATIONS **Date** 4/12/17 4/16/17

Run No. 5172 **Direction** CCW BYPASS

Summary of test events **Start** 2100 **Stop** 0641 **WO#** R301.J.1

Time	Event
2100	FAST CLUTCH
2100	#1 SWITCHES LEVERS LOCKED GREEN
2105	PRETEST MEETING
2155	#1 LOCO ENG. ON BOARD
2200	BRAKE TEST SET AND RELEASE
2205	#1 BRAKE TEST COMPLETE START TCR
2217	TCR COMPLETE AND LAP #1
2222	#2
2226	3
2230	#3
2234	5
2238	#4
2242	7
2246	#5
2250	9
2254	#6 HOT BOX OK
2258	11
2302	#7
2306	13
2310	#8
2314	15
2318	#9
2322	17
2326	#10
2330	19
2334	#11 HOT BOX OK
2338	21
2342	#12 32' 3/8 1/4 24' 3/16 1/8
2346	23
2350	#13 STEEL BRIDGE 3/8 3/8 5/8 5/8
2354	25
2358	#14
0002	27
0006	#15
0010	29
0014	#16
0018	31
0022	#17
0026	33
0030	#18
0034	35
0039	#19
0043	37
0047	#20
0051	39
0055	#21 HOT BOX OK
0059	41
0103	#22 ROSCO LUBE SHUT OFF AT 112
0107	43 32'3/8 1/4 24' 3/16 1/8
0111	#23
0115	45
0119	#24 STEEL BRIDGE 3/8 3/8 5/8 5/8
0123	47
0127	#25
0131	49
0135	#26
0139	51
0143	#27
0147	53
0151	#28
0155	55
0159	#29
0203	57
0207	#30
0211	59
0215	#31 HOT BOX OK
0219	61
0223	#32 32' 3/8 1/4 24' 3/16 1/8
0227	63
0231	#33 STEEL BRIDGE 3/8 3/8 5/8 5/8
0235	65
0239	#34
0243	67
0247	#35
0251	69
0255	#36
0259	71
0303	#37
0307	73
0311	#38
0315	75
0319	#39
0323	77
0327	#40
0331	79
0335	#41 HOT BOX OK
0339	81
0343	#42 32' 3/8 1/4 24' 3/16 1/8
0347	83
0351	#43 STEEL BRIDGE 3/8 3/8 5/8 5/8
0354	85
0358	#44
0402	87
0406	#45
0410	89
0414	#46
0418	91
0422	#47
0426	93
0430	#48
0434	95
0438	#49
0442	97
0446	#50
0450	99
0454	#51 HOT BOX OK
0458	101
0502	#52 32" 3/8 1/4 24' 5/16 1/8
0506	103
0510	#53 STEEL BRIDGE 3/8 3/8 5/8 5/8
0514	105
0518	#54
0522	107
0526	#55
0530	109
0534	#56

Test Events Log

Test Controller M. Cordova **Air Temp** 58°

Test Title Fast Train Operations **Date** 4/17/17 4/18/17

Run No. 5172 **Direction** CCW Bypass

Summary of test events **Start** 2100 **Stop** 0641 **WO#** R0D1.B.1

Time	Event	Time	Event
0538	#111		#
0542	#112		#
0547	#113		#
0551	#114		#
0555	#115		#
0559	#116		#
0603	#117		#
0607	#118		#
0611	#119		#
0615	#120 Hot Box OK		#
0619	#121		#
0623	#122		#
0627	#123		#
0631	#124		#
0641	# Operations Complete		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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	#		#
	#		#

Test Events Log

Test Controller M. CORDOVA **Air Temp** 63°

Test Title FAST TRAIN OPERATIONS **Date** 4/18/17 4/19/17

Run No. 5173 **Direction** CCW BYPASS

Summary of test events **Start** 2100 **Stop** 0637 **WO#** RSDL.B.1

Time	Event	Time	Event
2100	#1 FAST ACQUIRED	0130	#53
2100	SWITCHES (LONG) LOCK) GREEN	0134	#54
2105	#2 PRE TEST MEETING	0138	#55 ROJO LUBE SHUT OFF #2 NOT CARRYING
2107	LOCO ENG. ON BOARD	0142	#56 SEC 24 LUBRICATOR TURNED ON
2142	#3 BRAKE TEST SET AND RELEASE	0146	#57
2149	#4 BRAKE TEST COMPLETE START TCR	0150	#58
2201	#5 TCR COMPLETE AND CAPPED	0154	#59
2206	#6 ROJO LUBE ON SITE (ZANE)	0158	#60 HOT BOX OK
2210	#7	0202	#61
2214	#8	0206	#62 32' 3/8 1/4 24' 3/16 1/8
2219	#9	0210	#63
2223	#10	0214	#64 STEEL BRIDGE 3/8 3/8 5/8 5/8
2227	#11	0218	#65
2231	#12	0222	#66
2235	#13	0226	#67
2239	#14 HOT BOX OK	0230	#68
2243	#15	0234	#69
2247	#16	0238	#70
2251	#17	0242	#71
2255	#18	0246	#72
2259	#19	0250	#73
2303	#20	0254	#74
2307	#21	0258	#75
2311	#22 32' 3/8 1/4 24' 3/16 1/8	0302	#76
2315	#23	0306	#77
2319	#24 STEEL BRIDGE 3/8 3/8 5/8 5/8	0310	#78
2323	#25	0314	#79
2327	#26	0319	#80 HOT BOX OK
2331	#27	0323	#81
2335	#28	0327	#82 32' 3/8 1/4 24' 3/16 1/8
2339	#29	0331	#83
2343	#30	0335	#84 STEEL BRIDGE 3/8 3/8 5/8 5/8
2347	#31	0339	#85
2351	#32	0343	#86
2355	#33	0347	#87
2359	#34	0351	#88
0003	#35	0355	#89
0007	#36	0359	#90
0011	#37	0403	#91
0015	#38	0407	#92
0019	#39	0411	#93
0023	#40 HOT BOX OK	0415	#94
0027	#41	0419	#95
0031	#42 32' 3/8 1/4 24' 3/16 1/8	0423	#96
0035	#43	0427	#97
0039	#44 STEEL BRIDGE 3/8 3/8 5/8 5/8	0431	#98
0043	#45	0435	#99
0047	#46	0439	#100 HOT BOX OK
0051	#47	0443	#101
0055	#48	0447	#102 32' 3/8 1/4 24' 3/16 1/8
0059	#49	0451	#103
0103	#50	0455	#104 STEEL BRIDGE 3/8 3/8 5/8 5/8
0107	#51	0459	#105
0111	#52	0503	#106
0115		0507	#107
0118		0511	#108
0122		0515	#109
0126		0519	#110

Test Events Log

Test Controller M. COLDOUR **Air Temp** 63°

Test Title FAST TRAIN OPERATIONS **Date** 4/18/17 4/19/17

Run No. 5173 **Direction** CCW BYPASS

Summary of test events **Start** 2100 **Stop** 0637 **WO#** RBD15.1

Time	Event	Time	Event
0523 0527	#111 #112		#
0531 0535	#113 #114		#
0539 0543	#115 #116		#
0547 0551	#117 #118		#
0555 0559	#119 #120. HOT BOX OK		#
0603 0607	#121 #122		#
0611 0615	#123 #124		#
0619 0623	#125 #126		#
0627 0631	#127 #128		#
0637	# OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller FAST TRAIN OPERATIONS **Air Temp** 54°

Test Title FAST TRAIN OPERATIONS **Date** 4/19/17 4/20/17

Run No. 5174 **Direction** CW BYPASS

Summary of test events **Start** 2100 **Stop** 0636 **WO#** R501.3.1

Time	Event
2100	# FAST OCCUPIED
2055	# SWITCHES LINED LOCKED GREEN
2100	# PRE TEST MEETING
2125	# 100 ENG ON BOARD
2352	# BRAKE TEST SET AND RELEASE
2357	# BRAKE TEST COMPLETE START TCR
0007	# TCR COMPLETE AND LAP #1
0013	# 2
0017	# 3
0021	# 4
0025	# 5
0029	# 6
0033	# 7
0037	# 8
0041	# 9
0045	# 10 HOT BOX OK
0049	# 11
0053	# 12
0057	# 13
0101	# 14
0105	# 15
0109	# 16
0113	# 17
0117	# 18
0121	# 19
0125	# 20 HOT BOX OK
0129	# 21
0133	# 22 32' 3/8 1/4 24' 3/16 1/8
0137	# 23
0141	# 24 STEEL BRIDGE 3/8 3/8 5/8 5/8
0145	# 25
0149	# 26
0153	# 27
0157	# 28
0201	# 29
0205	# 30
0209	# 31
0213	# 32
0217	# 33
0221	# 34
0225	# 35
0229	# 36
0233	# 37
0237	# 38
0241	# 39
0245	# 40 HOT BOX OK
0249	# 41
0253	# 42 32' 3/8 1/4 24' 3/16 1/8
0257	# 43
0301	# 44 STEEL BRIDGE 3/8 3/8 5/8 5/8
0305	# 45
0309	# 46
0313	# 47
0317	# 48
0321	# 49
0325	# 50
0329	# 51
0333	# 52

Time	Event
0337	# 53
0341	# 54
0345	# 55
0349	# 56
0353	# 57
0357	# 58
0401	# 59
0405	# 60 HOT BOX OK
0409	# 61
0413	# 62 32' 3/8 1/4 24' 3/16 1/8
0417	# 63
0421	# 64 STEEL BRIDGE 3/8 3/8 5/8 5/8
0425	# 65
0429	# 66
0433	# 67
0437	# 68
0441	# 69
0445	# 70
0449	# 71
0453	# 72
0457	# 73
0501	# 74
0505	# 75
0509	# 76
0513	# 77
0517	# 78
0521	# 79
0525	# 80 HOT BOX OK
0529	# 81
0533	# 82 32' 7/16 1/4 24' 3/16 1/8
0537	# 83
0541	# 84 STEEL BRIDGE 3/8 3/8 5/8 5/8
0545	# 85
0549	# 86
0553	# 87
0557	# 88
0601	# 89
0605	# 90
0609	# 91
0613	# 92
0617	# 93
0621	# 94
0625	# 95
0629	# 96
0634	# 97
0636	# 98 OPERATIONS Complete
	#
	#
	#
	#
	#
	#

Test Events Log

Test Controller M. Cowdrey **Air Temp** 45°

Test Title FAST TRAIN OPERATIONS **Date** 4/20/17 4/21/17

Run No. 5175 **Direction** CW Dynamic

Summary of test events **Start** 2100 **Stop** 0620 **WO#** R501.B.1

Time	Event
2100	FAST EXCURSION
2100	# SWITCHES LINED LOCKED CLEAR
2105	PRE TEST MEETING
2150	# LOCO ENG. ON BOARD
2200	BRAKE TEST SET AND RELEASE
2205	# BRAKE TEST COMPLETE START TCR
2216	TCR COMPLETE AND CAP #1
2223	#2
2227	#3
2232	#4
2236	#5
2240	#6
2244	#7
2248	#8
2252	#9
2256	#10 HOT BOX OK
2300	#11
2304	#12
2308	#13
2312	#14
2316	#15
2320	#16
2324	#17
2328	#18
2332	#19
2336	#20 HOT BOX OK
2340	#21
2344	#22 32' 7/16 1/4 24' 3/16 1/8
2348	#23
2352	#24 STEEL BRIDGE 3/8 3/8 5/8 5/8
2356	#25
0000	#26
0004	#27
0008	#28
0012	#29
0016	#30
0020	#31
0024	#32
0028	#33
0032	#34
0036	#35
0040	#36
0044	#37
0048	#38
0052	#39
0056	#40 HOT BOX OK
0100	#41
0104	#42 32' 7/16 1/4 24' 3/16 1/8
0108	#43
0112	#44 STEEL BRIDGE 3/8 3/8 5/8 5/8
0116	#45
0120	#46
0124	#47
0128	#48
0132	#49
0136	#50
0140	#51
0144	#52
0148	#53
0152	#54
0156	#55
0200	#56
0204	#57
0208	#58
0212	#59
0216	#60 HOT BOX OK
0220	#61
0224	#62 32' 7/16 1/4 24' 3/16 1/8
0228	#63
0232	#64 STEEL BRIDGE 3/8 3/8 5/8 5/8
0236	#65
0240	#66
0244	#67
0248	#68
0252	#69
0256	#70
0300	#71
0304	#72
0308	#73
0312	#74
0316	#75
0320	#76
0324	#77
0328	#78
0332	#79
0336	#80 HOT BOX OK
0340	#81
0344	#82 32' 7/16 1/4 24' 3/16 1/8
0348	#83
0352	#84 STEEL BRIDGE 3/8 5/8 5/8 5/8
0356	#85
0400	#86
0404	#87
0408	#88
0412	#89
0416	#90
0421	#91
0425	#92
0429	#93
0433	#94
0437	#95
0441	#96
0445	#97
0449	#98
0453	#99
0457	#100
0501	#101
0505	#102 32' 7/16 1/4 24' 3/16 1/8
0509	#103
0513	#104 STEEL BRIDGE 3/8 3/8 3/8 5/8
0517	#105 CASEY RUNNING TRAIN MANUALLY
0521	#106 DO TO RAIL TEMP TO DRY DOWN
0530	#107
0536	#108
0541	#109
0546	#110

Test Events Log

Test Controller M. Cordova **Air Temp** 45°

Test Title Fast Track Obstructions **Date** 4/20/17 4/21/17

Run No. S175 **Direction** CW Bypass

Summary of test events **Start** 2100 **Stop** 0620 **WO#** RBDI BL

Time	Event	Time	Event
0550	#111		#
0555	#112		#
0600	#113		#
0605	#114		#
0610	#115		#
0615	#116		#
0620	#117 obstructions complete		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller M. Cuevas **Air Temp** 54°

Test Title Fast Train Operations **Date** 4/24/17 4/25/17

Run No. 5176 **Direction** CCW Bypass

Summary of test events **Start** 2100 **Stop** 0636 **WO#** R3D1131

Time	Event
2100	# FAST COMPLETED
2140	# SWITCHES LEVERS LOCKED GREEN
2145	# PRETEST MEETING
2225	# LOCO CONF. ON BOARD FAST WYE
2320	# BRAKE TEST SET AND RELEASE
2325	# BRAKE TEST COMPLETE START TCR
2338	# TCR COMPLETE AND LAP #1
2343	#2
2347	#3
2351	#4
2355	#5
2359	#6
0003	#7
0007	#8
0011	#9
0015	#10 HOT BOX OK
0019	#11
0023	#12
0027	#13
0031	#14
0035	#15
0039	#16
0043	#17
0047	#18
0051	#19
0055	#20 HOT BOX OK
0059	#21
0103	#22 32' 3/8 1/4 24' 3/16 1/8
0107	#23
0111	#24 STEEL BRIDGE 3/8 3/8 5/8 5/8
0115	#25
0119	#26
0123	#27
0127	#28
0131	#29
0135	#30
0139	#31
0143	#32
0147	#33
0151	#34
0155	#35
0159	#36
0203	#37
0207	#38
0211	#39
0215	#40 HOT BOX OK
0219	#41
0223	#42 32' 7/8 1/4 24' 3/16 1/8
0227	#43
0231	#44 STEEL BRIDGE 3/8 3/8 5/8 5/8
0235	#45
0239	#46
0243	#47
0247	#48
0251	#49
0255	#50
0300	#51
0304	#52
0308	#53
0312	#54
0316	#55
0320	#56
0324	#57
0328	#58
0332	#59
0336	#60 HOT BOX OK
0340	#61
0344	#62 32' 3/8 1/4 24' 3/16 1/8
0348	#63
0352	#64 STEEL BRIDGE 3/8 3/8 5/8 5/8
0356	#65 ROAD MBC SHUT OFF AT #14
0400	#66
0404	#67
0408	#68
0412	#69
0416	#70
0420	#71
0424	#72
0428	#73
0432	#74
0436	#75
0440	#76
0444	#77
0448	#78
0452	#79
0456	#80 HOT BOX OK
0500	#81
0504	#82 32' 3/8 1/4 24' 3/16 1/8
0508	#83
0512	#84 STEEL BRIDGE 3/8 3/8 5/8 5/8
0516	#85
0520	#86
0524	#87
0528	#88
0532	#89 START DRY DOWN
0536	#90
0540	#91
0544	#92
0548	#93
0552	#94
0556	#95
0600	#96
0604	#97
0608	#98
0612	#99
0616	#100
0620	#101
0624	#102
0628	#103
0632	#104
0636	# OPERATIONS COMPLETE
	#
	#

TTCI Internal Notes:

Date: 4/26/17 **Time of Red Signal:** 0357 **Time Stopped:** 0406

Weld, Rail, Joint (check one)

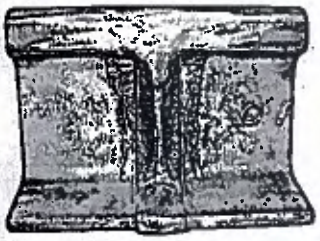
☒ Rail	☐ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☒ Break	☐ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☒ Head	☐ Web	☐ Base	☐ Bolt Hole	☐ Other

Section	24
Tie	101
I or O Rail	ISR
Weld #	NONE
Weld Install Date	NONE
Rail Temp	55°
Air Temp	54°
	
Head Gap	1/4
Web Gap	1/4
Base Gap	1/4
Rail Size POS	136
Rail Size NEG	136
Comments:	JOHN DURGIN STOPPED TRAIN NO RED SIGNAL

Test Events Log

Test Controller FAST TRAIN OPERATIONS **Air Temp** 41°

Test Title FAST TRAIN OPERATIONS **Date** 4/25/17 4/26/17

Run No. 5177 **Direction** CCW BYPASS

Summary of test events **Start** 2100 **Stop** 0634 **WO#** RDD1.B.1

Time	Event
2100	FAST OCCUPIED
2100	# SWITCHES LINED LOCKED GREEN
2105	PRE TEST MEETING
2130	# LOCO ENG. ON BOARD
2136	# BRAKE TEST SET AND RELEASE
2142	# BRAKE TEST COMPLETE START TCR
2156	# TCR COMPLETE AND INP #1
2205	# 2 SETTLEMENT LAPS
2214	#3
2223	#4
2229	#5
2235	#6
2241	#7
2247	#8 SETTLEMENT LAPS COMPLETE
2252	#9
2256	#10 HOT BOX OK
2300	#11
2304	#12
2308	#13
2312	#14
2316	#15
2320	#16 RADIO INSP SHUT OFF LOW BATT NOT CARRYING
2325	#17 SEC 24 GREASER TURNED ON
2329	#18
2332	#19
2336	#20 HOT BOX OK
2340	#21
2344	#22 32' 3/8 1/4 24' 7/16 1/8
2348	#23
2352	#24 STEEL BRIDGE 3/8 3/8 5/8 5/8
2356	#25
0000	#26
0004	#27
0008	#28
0012	#29
0016	#30
0020	#31
0024	#32
0028	#33
0032	#34
0036	#35
0040	#36
0044	#37
0048	#38
0052	#39
0056	#40 HOT BOX OK
0100	#41
0104	#42 32' 3/8 1/4 24' 3/16 1/8
0108	#43
0112	#44 STEEL BRIDGE 3/8 3/8 5/8 5/8
0116	#45
0120	#46
0124	#47
0128	#48
0132	#49
0136	#50
0140	#51
0144	#52
0148	#53
0152	#54
0156	#55
0200	#56
0204	#57
0208	#58
0212	#59
0216	#60 HOT BOX OK
0220	#61
0224	#62 32" 3/8 1/4 24' 3/16 1/8
0228	#63
0232	#64 STEEL BRIDGE 3/8 3/8 5/8 5/8
0236	#65
0240	#66
0244	#67
0248	#68
0252	#69
0256	#70
0300	#71
0304	#72
0309	#73
0313	#74
0317	#75
0321	#76
0325	#77
0329	#78
0333	#79
0337	#80 HOT BOX OK
0341	#81
0345	#82 32' 5/8 1/4 24' 3/16 1/8
0349	#83
0353	#84 STEEL BRIDGE 3/8 5/8 5/8 5/8
0357	#85 JOHN STOPPED TRAIN
0406	STOPPED BECAUSE RAIL SEC 24 ISR
0453	TRACK BACK TOGETHER GREEN SIGNAL
0457	# BRAKE TEST SET AND RELEASE
0503	RAIL ON THE MOVE
0505	# LAP #86 COMPLETE
0515	#87
0520	#88
0525	#89
0529	#90
0533	#91
0537	#92
0541	#93
0545	#94
0549	#95
0553	#96
0557	#97
0601	#98
0605	#99
0609	#100 HOT BOX OK
0613	#101
0617	#102
0621	#103
0625	#104
0629	#105
0634	OPERATIONS COMPLETE

100

Test Events Log

Test Controller M. CORDOVA **Air Temp** 48°

Test Title FAST TRAIN OPERATIONS **Date** 4/26/17 4/27/17

Run No. 5178 **Direction** CW BYPASS

Summary of test events **Start** 2100 **Stop** 0613 **WO#** RODI.151

Time	Event	Time	Event
2100	FAST OCCUPIED	0143	#53
2100	#1 SWITCHES LINED LOCKED EACH	0141	#54
2105	PRE TEST MEETING	0151	#55
2150	#1 LOW. FUEL ON BOARD	0155	#56
2156	BRAKE TEST SET AND RELEASE	0159	#57
2202	#1 BRAKE TEST COMPLETE START TCR	0203	#58
2212	TCR COMPLETE AND LAP #1	0207	#59
2218	#2	0211	#60 HOT BOX OK
2222	#3	0215	#61
2226	#4	0219	#62 32' 3/8 1/4 24' 3/16 1/8
2230	#5	0223	#63
2234	#6	0227	#64 STEEL BRIDGE 3/8 3/8 5/8 5/8
2238	#7	0231	#65
2242	#8	0235	#66
2246	#9	0239	#67
2250	#10 HOT BOX OK	0243	#68
2254	#11	0247	#69
2258	#12	0251	#70
2302	#13	0255	#71
2306	#14	0259	#72
2310	#15	0303	#73
2314	#16	0307	#74
2318	#17	0311	#75
2322	#18	0315	#76
2326	#19	0319	#77
2330	#20 HOT BOX OK	0323	#78
2334	#21	0327	#79
2338	#22 32' 3/8 1/4 24' 3/16 1/8	0331	#80 HOT BOX OK
2342	#23	0335	#81
2346	#24 STEEL BRIDGE 3/8 3/8 5/8 5/8	0339	#82 32' 3/8 1/4 24' 3/16 1/8
2350	#25	0343	#83
2354	#26	0347	#84 STEEL BRIDGE 3/8 5/8 5/8 3/8
2358	#27	0351	#85
0002	#28	0355	#86
0006	#29	0359	#87
0010	#30	0403	#88
0014	#31	0407	#89
0018	#32	0411	#90
0022	#33	0415	#91
0026	#34	0419	#92
0030	#35	0425	# STOPPED FOR RESTROOM BREAK
0034	#36	0451	# BRAKE TEST SET AND RELEASE
0038	#37	0456	# BACK IN THE MOVE
0042	#38	0458	# LAP #93 COMPLETE AND START DRY DOWN
0046	#39	0506	#94
0050	#40 HOT BOX OK	0512	#95
0054	#41	0516	#96
0058	#42 32' 3/8 1/4 24' 3/16 1/8	0520	#97
0102	#43	0524	#98
0106	#44 STEEL BRIDGE 3/8 3/8 5/8 5/8	0528	#99
0110	#45	0532	#100 HOT BOX OK
0114	#46	0536	#101 32' 3/8 1/4 24' 3/16 1/8
0118	#47	0540	#102
0122	#48	0544	#103 STEEL BRIDGE 3/8 3/8 5/8 3/8
0127	#49	0549	#104
0131	#50	0553	#105
0135	#51	0557	#106
0139	#52	0601	#107

Test Events Log

Test Controller M. Cordova **Air Temp** 48°

Test Title Fast Train Operations **Date** 4/26/17 4/28/17

Run No. 5178 **Direction** CW Bypass

Summary of test events **Start** 2100 **Stop** 0613 **WO#** RDDT.B.1

Time	Event	Time	Event
0605 0610	#108 109		#
0613	#110 Operations complete		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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8.8

Test Events Log

Test Controller M. Corsova **Air Temp** 43°

Test Title FAST TRACK OPERATIONS **Date** 4/27/17 4/28/17

Run No. 5179 **Direction** CW BYPASS

Summary of test events **Start** 2100 **Stop** 0645 **WO#** R3D1.13.1

Time	Event	Time	Event
2100	FAST COMPLETED	0138	#53
2100	# SWITCHES LINED FOR MAIN	0142	#54
2105	PRE TEST MEETING	0146	#55
2143	# LOCO CAB OP BOARD	0150	#56
2150	BRAKE TEST SET AND RELEASE	0154	#57
2157	# BRAKE TEST COMPLETE START TCR	0158	#58
2208	TCR COMPLETE AND LAP #1	0202	#59
2214	#2	0206	#60 HOT BOX OK
2218	#3	0210	#61
2222	#4	0214	#62 32' 7/16 1/4 24' 3/16 1/8
2226	#5	0218	#63
2230	#6	0222	#64 STEEL BRIDGE 3/8 3/8 5/8 5/8
2234	#7	0226	#65
2238	#8	0230	#66
2242	#9	0234	#67
2246	#10 HOT BOX OK	0238	#68
2250	#11	0242	#69
2254	#12	0246	#70
2258	#13	0250	#71
2302	#14	0254	#72
2306	#15	0258	#73
2310	#16	0302	#74
2314	#17	0306	#75
2318	#18	0310	#76
2322	#19	0314	#77
2326	#20 HOT BOX OK	0318	#78
2330	#21	0322	#79
2334	#22 32' 3/8 1/4 24' 3/16 1/8	0326	#80 HOT BOX OK
2338	#23	0330	#81
2342	#24 STEEL BRIDGE 3/8 3/8 5/8 5/8	0334	#82 32' 7/16 1/4 24' 7/16 1/8
2346	#25	0338	#83
2350	#26	0342	#84 STEEL BRIDGE 3/8 3/8 5/8 5/8
2354	#27	0346	#85
2358	#28	0350	#86
0002	#29	0354	#87
0006	#30	0358	#88
0010	#31	0402	#89
0014	#32	0406	#90
0018	#33	0410	#91
0022	#34	0414	#92
0026	#35	0418	#93
0030	#36	0422	#94
0034	#37	0426	#95
0038	#38	0430	#96
0042	#39	0434	#97
0046	#40 HOT BOX OK	0438	#98
0050	#41	0442	#99
0054	#42 32' 3/8 1/4 24' 3/16 1/8	0446	#100 HOT BOX OK
0058	#43	0450	#101
0102	#44 STEEL BRIDGE 3/8 3/8 5/8 5/8	0454	#102 32' 7/16 1/4 24' 7/16 1/8
0106	#45	0458	#103
0110	#46	0502	#104 STEEL BRIDGE 3/8 3/8 5/8 5/8
0114	#47	0506	#105
0118	#48	0510	#106
0122	#49	0514	#107
0126	#50	0518	#108
0130	#51	0522	#109
0134	#52	0526	#110

Test Events Log

Test Controller M. CORDOVA **Air Temp** 43°

Test Title FAST TRACK OPERATIONS **Date** 4/27/17 4/28/17

Run No. 5179 **Direction** CW BYPASS

Summary of test events **Start** 2100 **Stop** 0645 **WO#** R5015.81

Time	Event	Time	Event
0530 0534	#111 #112		#
0538 0542	#113 #114		#
0546 0550	#115 #116		#
0554 0558	#117 #118		#
0602 0606	#119 #120 HOT BOX OK		#
0610 0614	#121 #122 32' 7/16 1/4 24' 3/16 1/8		#
0618 0622	#123 #124 STEEL DRIDGE 3/8 3/8 3/8 3/8		#
0626 0630	#125 #126		#
0634 0638	#127 #128		#
0643 0645	#129 #130 OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller M. Cordova **Air Temp** 54°

Test Title FAST TRAIN OPERATIONS **Date** 5/1/17 5/2/17

Run No. 5180 / 5181 **Direction** CCW MAINLINE / BYPASS

Summary of test events **Start** 2100 **Stop** 0640 **WO#** R001.13.1

Time	Event	Time	Event
2100 2100	#FAST CHARTED SWITCHES LINED LOCKED GREEN	0134 0138	#53 #54
2105 2140	#PRE TEST MEETING LOCO ENG. ON BOARD	0142 0146	#55 #56
2146 2151	#BRAKE TEST SET AND RELEASE BRAKE TEST COMPLETE START TCK	0150 0158	#57 #58
2203 2209	#TCK COMPLETE ANNS LAP #1 #2	0158 0202	#59 #60 HOT BOX OK
2213 2217	#3 #4	0206 0210	#61 #62 32' 7/16 1/4 24' 3/16 1/8
2221 2226	#5 #6	0214 0218	#63 #64 STEEL BRIDGE 3/8 3/8 5/8 5/8
2230 2234	#7 #8	0222 0226	#65 #66
2238 2242	#9 #10 HOT BOX OK	0230 0234	#67 #68
2246 2250	#11 #12	0238 0243	#69 JOHN STOPPED TRAIN # STOPPED TO SWITCH TO BYPASS 408 FROG
2254 2258	#13 #14	0301 0307	SWITCHED TO BYPASS # BRAKE TEST SET AND RELEASE
2302 2306	#15 #16	0311 0315	BACK ON THE MAIN RUNNING BYPASS # LAP # 70 COMPLETE
2310 2314	#17 #18	0324 0330	#71 #72
2318 2322	#19 #20 HOT BOX OK	0334 0338	#73 #74
2326 2330	#21 #22 ROJO MAIN SHUT OFF NOT CARRYING 32' 7/16 1/4 24' 3/16 1/8 SEE 24 GREASER ON	0342 0346	#75 #76
2334 2338	#23 #24 STEEL BRIDGE 3/8 3/8 5/8 5/8	0350 0354	#77 #78
2342 2346	#25 #26	0358 0402	#79 #80 HOT BOX OK
2350 2354	#27 #28	0406 0410	#81 #82 32' 7/16 1/4 24' 3/16 1/8
2358 0002	#29 #30	0414 0418	#83 #84 STEEL BRIDGE 3/8 3/8 5/8 5/8
0006 0010	#31 #32	0422 0426	#85 #86
0014 0018	#33 #34	0430 0434	#87 #88
0022 0026	#35 #36	0438 0442	#89 #90
0030 0034	#37 #38	0446 0450	#91 #92
0038 0042	#39 #40 HOT BOX OK	0454 0458	#93 #94
0046 0050	#41 #42 32' 7/16 1/4 24' 3/16 1/8	0502 0506	#95 #96
0054 0058	#43 #44 STEEL BRIDGE 3/8 3/8 5/8 5/8	0510 0514	#97 #98
0102 0106	#45 #46	0518 0522	#99 #100 HOT BOX OK
0110 0114	#47 #48	0526 0530	#101 #102 32' 7/16 1/4 24' 3/16 1/8
0118 0122	#49 #50	0534 0538	#103 #104 STEEL BRIDGE 3/8 3/8 5/8 5/8
0126 0130	#51 #52	0542 0546	#105 #106

Test Events Log

Test Controller M. Colsoun **Air Temp** 54°

Test Title Fast Train Operations **Date** 5/1/17 5/2/17

Run No. 5180/5181 **Direction** CCW Main / Bypass

Summary of test events **Start** 2100 **Stop** 0640 **WO#** R1501.5.1

Time	Event	Time	Event
0550 0554	#107 108		#
0558 0602	#109 110		#
0606 0610	#111 112		#
0614 0618	#113 114		#
0622 0626	#115 116		#
0630 0634	#117 118		#
0640	# Operations complete		#
	#		#
	#		#
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Test Events Log

Test Controller M. Colosva **Air Temp** 47°

Test Title FAST TRAIN OPERATIONS **Date** 5/2/17 5/3/17

Run No. 5182 **Direction** CCW BYPASS

Summary of test events **Start** 2100 **Stop** 0639 **WO#** R001.13.1

Time	Event
2100 2100	# FAST COMPLETED SWITCHES LINED LOCKED GREEN
2105 2140	# PRE TEST MEETING, LOCO ENG ON BOARD
2147 2152	# BRAKE TEST SET AND RELEASE BRAKE TEST COMPLETE START TCR
2206 2212	TCR COMPLETE AND LAP #1 #2
2216 2220	#3 #4
2224 2228	#5 #6
2232 2236	#7 #8
2240 2244	#9 #10 HOT BOX OK
2248 2252	#11 #12
2256 2500	#13 #14
2304 2308	#15 #16
2312 2316	#17 #18
2320 2324	#19 #20 HOT BOX OK
2328 2332	#21 #22 32' 7/16 1/4 24' 3/16 1/8
2336 2340	#23 #24 STEEL BRIDGE 3/8 3/8 5/8 5/8
2344 2348	#25 #26
2352 2356	#27 #28 ROTO LUBE SHUT OFF NOT CARRYING PER ESDTH
0000 0004	#29 #30
0008 0012	#31 #32
0016 0020	#33 #34
0024 0028	#35 #36
0032 0036	#37 #38
0040 0044	#39 #40 HOT BOX OK
0048 0052	#41 #42 32' 7/16 1/4 24' 3/16 1/8
0056 0100	#43 #44 STEEL BRIDGE 3/8 3/8 5/8 5/8
0104 0108	#45 #46
0112 0116	#47 #48
0120 0124	#49 #50
0128 0132	#51 #52
0136 0140	#53 #54
0144 0148	#55 #56
0152 0156	#57 #58
0200 0204	#59 #60 HOT BOX OK
0208 0212	#61 #62 32' 7/16 1/4 24' 3/16 1/8
0216 0220	#63 #64 STEEL BRIDGE 3/8 3/8 5/8 5/8
0224 0228	#65 #66
0232 0236	#67 #68
0240 0245	#69 #70
0249 0253	#71 #72
0257 0301	#73 #74
0305 0309	#75 #76
0313 0317	#77 #78
0321 0325	#79 #80 HOT BOX OK
0329 0333	#81 #82 32' 7/16 1/4 24' 3/16 1/8
0337 0341	#83 #84 STEEL BRIDGE 3/8 3/8 5/8 5/8
0345 0349	#85 #86
0353 0357	#87 #88
0401 0405	#89 #90
0409 0413	#91 #92
0417 0421	#93 #94
0425 0429	#95 #96
0433 0437	#97 #98
0441 0445	#99 #100 HOT BOX OK
0449 0453	#101 #102 32' 7/16 1/4 24' 3/16 1/8
0457 0501	#103 #104 STEEL BRIDGE 3/8 3/8 5/8 5/8
0505 0509	#105 #106
0513 0517	#107 #108
0521 0525	#109 #110

Test Events Log

Test Controller M. CORDOVA **Air Temp** 47°

Test Title FAST TRANSIENT OPERATIONS **Date** 5/2/17 5/3/17

Run No. 5182 **Direction** CCW BYPASS

Summary of test events **Start** 2100 **Stop** 0639 **WO#** RSQ.B.1

Time	Event	Time	Event
0529 0553	#111 #112		#
0537 0541	#113 #114		#
0545 0549	#115 #116		#
0553 0557	#117 #118		#
0601 0605	#119 #120 HOT BAL OK		#
0609 0613	#121 #122		#
0617 0621	#123 #124		#
0625 0629	#125 #126		#
0633 0639	#127 # OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller M Cordova **Air Temp** 78°

Test Title Fast Train Operations **Date** 5/3/17 5/4/17

Run No. 5183 **Direction** CW Bypass

Summary of test events **Start** 2100 **Stop** 0637 **WO#** RBDI.13.1

Time	Event
2100	#1 Fast occupied
2105	Switches & Lights locked Green
2105	#2 Pre test meeting
2149	Loco Eng. on board
2155	#3 Brake test start and notice
2200	Brake test complete start TCR
2211	#4 TCR complete and lap #1
2217	
2221	#5
2228	
2229	#6
2235	
2237	#7
2241	#8
2245	#9
2249	#10 Hot Box OK
2253	#11
2257	#12
2301	#13
2305	#14
2309	#15
2313	#16
2317	#17
2321	#18
2325	#19
2329	#20 Hot Box OK
2333	#21
2337	#22 32' 7/16 1/4 24' 3/16 1/8
2341	#23
2345	#24 Steel Bridge 3/8 3/8 5/8 5/8
2349	#25
2353	#26
2357	#27
0001	#28
0005	#29
0009	#30
0013	#31
0017	#32
0021	#33
0025	#34
0029	#35
0033	#36
0037	#37
0041	#38
0045	#39
0049	#40 Hot Box OK
0053	#41
0057	#42 32' 7/16 1/4 24' 3/16 1/8
0101	#43
0105	#44 Steel Bridge 3/8 3/8 5/8 5/8
0109	#45
0113	#46
0117	#47
0121	#48
0125	#49
0129	#50
0133	#51
0137	#52
0141	#53
0145	#54
0149	#55
0153	#56
0157	#57
0201	#58
0205	#59
0209	#60 Hot Box OK
0213	#61
0217	#62 32' 7/16 1/4 24' 3/16 1/8
0221	#63
0225	#64 Steel Bridge 3/8 3/8 5/8 5/8
0229	#65
0233	#66
0237	#67
0241	#68
0245	#69
0249	#70
0253	#71
0257	#72
0301	#73
0305	#74
0309	#75
0313	#76
0317	#77
0321	#78
0325	#79
0329	#80 Hot Box OK
0333	#81
0337	#82 32' 7/16 1/4 24' 3/16 1/8
0341	#83
0345	#84 Steel Bridge 3/8 3/8 5/8 5/8
0349	#85
0353	#86
0357	#87
0401	#88
0405	#89
0409	#90
0413	#91
0417	#92
0421	#93
0425	#94
0429	#95
0433	#96
0437	#97
0441	#98
0445	#99
0449	#100 Hot Box OK
0453	#101
0457	#102 32' 7/16 1/4 24' 3/16 1/8
0501	#103
0505	#104 Steel Bridge 3/8 3/8 5/8 5/8
0509	#105
0513	#106
0517	#107
0521	#108
0525	#109
0529	#110

Test Events Log

Test Controller M. Colonia **Air Temp** 48°

Test Title Fast Train Operations **Date** 5/3/17 5/4/17

Run No. 5183 **Direction** CW Bypass

Summary of test events **Start** 2100 **Stop** 0637 **WO#** EBD1.0.1

Time	Event	Time	Event
0553 0557	#111 #112		#
0541 0546	#113 #114		#
0550 0554	#115 #116		#
0558 0602	#117 #118		#
0606 0610	#119 #120 NOT DOX OK		#
0614 0618	#121 #122		#
0622 0626	#123 #124		#
0630 0634	#125 #126		#
0637	#127 OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller M. Corbin **Air Temp** 54°

Test Title FAST TRAIN OPERATIONS **Date** 5/4/17 5/5/17

Run No. 5184 **Direction** CW BYPASS

Summary of test events **Start** 2100 **Stop** 0628 **WO#** 12DC131

Time	Event	Time	Event
2100	# FAST DAMPED	0140	# 53
2100	SWITCHES LEAD LOCO LOCK	0144	54
2105	# PRE TEST MEETING	0148	# 55
2148	LOCO ENG. ON BOARD	0152	56
2154	# BRAKE TEST SET AND RELEASE	0156	# 57
2159	BRAKE TEST COMPLETE START TCR	0200	58
2210	# TCR COMPLETE AND LAP #1	0204	# 59
2215	2	0208	60 HOT BOX OK
2220	# 3	0212	# 61
2224	4	0216	62 32' 7/16 1/4 24' 3/16 1/8
2228	# 5	0220	# 63
2232	6	0224	64 STEEL BRIDGE 3/8 7/8 5/8 5/8
2236	# 7	0228	# 65
2240	8	0232	66
2244	# 9	0236	# 67
2248	10 HOT BOX OK	0240	68
2252	# 11	0244	# 69
2256	12	0248	70
2300	# 13	0252	# 71
2304	14	0256	72
2308	# 15	0300	# 73
2312	16	0304	74
2316	# 17	0308	# 75
2320	18	0312	76
2324	# 19	0316	# 77
2328	20 HOT BOX OK	0320	78
2332	# 21	0324	# 79
2336	22 32' 7/16 1/4 24' 3/16 1/8	0328	80 HOT BOX OK
2340	# 23	0332	# 81
2344	24 STEEL BRIDGE 3/8 3/8 5/8 5/8	0336	82 32' 7/16 1/4 24' 3/16 1/8
2348	# 25	0340	# 83
2352	26	0344	84 STEEL BRIDGE 3/8 3/8 5/8 5/8
2356	# 27	0348	# 85
0000	28	0352	86
0004	# 29	0356	# 87
0008	30	0400	88
0012	# 31	0404	# 89
0016	32	0408	90
0020	# 33	0412	# 91
0024	34	0416	92
0028	# 35	0420	# 93
0032	36	0424	94
0036	# 37	0428	# 95
0040	38	0432	96
0044	# 39	0436	# 97
0048	40 HOT BOX OK	0440	98
0052	# 41	0444	# 99
0056	42 32' 7/16 1/4 24' 3/16 1/8	0448	100 HOT BOX OK
0100	# 43	0452	# 101
0104	44 STEEL BRIDGE 3/8 7/8 5/8 5/8	0456	102 32' 7/16 1/4 24' 3/16 1/8
0108	# 45	0500	# 103
0112	46	0504	104 STEEL BRIDGE 7/8 3/8 5/8 5/8
0116	# 47	0508	# 105 START DRY DOWN
0120	48	0512	106
0124	# 49	0516	# 107
0128	50	0520	108
0132	# 51	0524	# 109
0136	52	0528	110

Test Events Log

Test Controller M. Cordova **Air Temp** 54°

Test Title FAST TRAIN OPERATIONS **Date** 5/4/17 5/5/17

Run No. 5184 **Direction** CW BYPASS

Summary of test events **Start** 2100 **Stop** 0628 **WO#** RBD1.B.1

Time	Event	Time	Event
0532 0536	#111 112		#
0540 0544	#113 114		#
0548 0552	#115 116		#
0556 0600	#117 118		#
0604 0608	#119 120		#
0612 0617	#121 122		#
0621 0625	#123 124		#
0628	#125 OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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	#		

Test Events Log

Test Controller [signature] **Air Temp** 65° with speed 10 MPH

Test Title FAST TRAIN Operations **Date** 5-15-17 / 5-16-17

Run No. 5185 / 5186 **Direction** CW Mainline / CW Bypass

Summary of test events **Start** 1945 **Stop** 0629 **WO#** RBDIBI

Time	Event
1945	#1 FAST is OCCUPIED switches 406 407 408
2012	#2 Lined Green MAINLINE
2100	#3 SAFETY and Pretest meeting
2115	#4 MATTOW Board checking units
2158	#5 BRAKE Test set and Release
2203	#6 Completed BRAKE TEST STARTED TCR.
2214	#7 Completed TCR and LAP NO#1 Settlement LAPS
2222	#8 Completed LAP NO#2
2230	3
2236	#4
2242	5
2247	#6
2252	7
2256	#8
2300	9
2304	#10 ✓ HOT BOX OK
2308	11
2312	#12
2316	13
2320	#14
2324	15
2328	#16
2332	17
2336	#18
2340	19
2344	#20 ✓
2348	21
2352	#22
2356	23
0000	#24
0004	25
0008	#26
0012	27
0016	#28
0020	29
0024	#30 ✓ HOT BOX OK
0028	#31 24" 3/16 1/8 3/8 3/8 5/8 5/8"
0032	#32 32" 1/4 3/8
0036	33
0040	#34
0044	35
0048	#36
0052	37
0056	#38
0100	39
0104	#40 ✓
0108	#41 GOT AN INTG FAILURE ON HOT BOX
0112	#42 HOT OK
0116	43
0120	#44
0124	45
0128	#46
0132	47
0136	#48
0140	49 HOT BOX OK
0144	#50 24" 3/16 1/8 32" 1/4 3/8 3/8 3/8 5/8" 5/8"
0148	51
0152	#52

Time	Event
0156	53
0200	#54
0204	STOPPED setting UP For Bypass Running #407 Switch Point Mag Boot Lined Red 408 red
0220	BACK in UP Consist INTO Sec 26
0231	#55 Stopped Checking Rad Brake System OK
0238	Set and Released BRAKE Test
0243	#56 Completed BRAKE Test STARTED TCR
0253	Completed TCR LAP NO#1 RUN NO# 5186
0259	#57 Completed LAP NO# 2
0303	3
0307	#4
0311	5
0315	#6
0319	7 0321 STOPPING
0324	#8 STOPPED Sec 40 PULLAPART TIE 526 0.
0345	TRACK BACK Together Green signal
0348	#9 BRAKE Test set and Release OK
0353	Completed BRAKE Test BACK on the move
0404	#10 Completed LAP NO# 9
0410	11
0414	#12
0418	13
0422	#14
0426	15
0430	#16
0434	17
0438	#18
0442	19
0446	#20 ✓ HOT BOX OK
0450	21
0454	#22
0458	23
0502	#24
0506	25
0510	#26
0514	27
0518	#28
0522	29
0526	#30 ✓ HOT BOX OK
0530	#31 24" 3/16 1/8 32" 1/4 3/8 3/8 5/8" 5/8"
0534	32
0538	#33
0542	34
0546	#35
0550	36
0554	#37
0559	38
0602	#39
0606	40 ✓
0610	#41
0614	42
0618	#43
0622	# Coin Plunger Testing
0629	#
	#

Test Events Log

Test Controller Wm Reis

Air Temp 56° with Wind 18

Test Title FAST TRAIN operations

Date 5-16-17
5-17-17

Run No. 5187

Direction CCW MAINLINE

Summary of test events Start 1950 Stop 0635 WO# RBDIB1

Time	Event
1950	FAST is OCCUPIED switchs 406 407 408
3024	#1 Lined Green And Lock Green signal
2100	SAFETY AND Protect meeting
2110	#2 DATT ON Board checking units
2203	BRAKE Test Set AND Release
2207	#3 Completed BRAKE TEST STARTED TCR
2220	#4 COMPLETED TCR AND LAP NO#1
2226	#5 Completed LAP No# 2
2230	3
2234	#4
2238	5
2242	#6
2246	7
2250	#8
2254	9
2258	#10 ✓ HOT BOX OK
2302	11
2306	#12
2310	13
2314	#14
2319	15
2323	#16
2327	17
2331	#18
2335	19
2339	#20 ✓
2343	21
2347	#22
2351	23
2355	#24
2359	25
0003	#26
0007	27
0011	#28
0015	29
0019	#30 ✓ HOT BOX OK
0023	31 24' 1/8" 1/8" 32' 1/4" 3/8"
0027	#32 3/8" 3/8" 5/8" 5/8"
0031	33
0035	#34
0039	35
0043	#36
0047	37
0051	#38
0055	39
0059	#40 ✓ RoBo Lubricator shut off
0103	41
0107	#42
0111	43
0115	#44
0119	45
0123	#46
0127	47
0131	#48
0135	49
0139	#50 ✓ HOT BOX OK
0143	51 24' 1/8" 1/8" 32' 1/4 3/8
0147	#52 3/8" 3/8" 5/8 5/8
0151	#53
0155	#54
0159	55
0203	#56
0207	57
0211	#58
0215	#59 ✓
0219	#60
0223	61
0227	#62
0231	63
0235	#64
0239	65
0243	#66
0247	67
0251	#68
0255	69
0259	#70 ✓ HOT BOX OK
0303	71 24' 1/8" 1/8" 1/4 3/8 32'
0307	#72 3/8" 3/8" 5/8" 5/8"
0311	73
0315	#74
0319	75
0323	#76
0327	77
0331	#78
0335	79
0339	#80 ✓
0343	81
0347	#82
0351	83
0355	#84
0359	85
0403	#86
0407	87
0411	#88
0415	89
0419	#90 ✓ HOT BOX
0423	91 24' 1/8" 1/8" 32' 1/4" 3/8"
0427	#92 3/8" 3/8" 5/8" 5/8"
0431	93
0435	#94
0439	95
0443	#96
0447	97 RBD LUBRICATOR BACK ON
0451	#98
0455	99
0459	#100 ✓
0503	101
0507	#102
0511	103
0515	#104
0519	105
0523	#106
0527	107
0531	#108
0535	109
0539	#110 ✓ HOT BOX OK

Test Events Log

Test Controller [signature] Air Temp RAT Temp

Test Title FAST TRAIN operations Date 5-16-17 5-17-17

Run No. 5187 Direction CCW

Summary of test events Start 1950 Stop 0635 WO# 2BD1B1

Time	Event	Time	Event
0543	#111 24' 1/8 1/8 1/4 3/8 32'		#
0547	#112		
0551	#113		#
0555	#114		
0559	#115		#
0603	#116		
0607	#117		#
0611	#118		
0615	#119		#
0619	#120 ✓		
0623	#121		#
0627	#122		
0635	#123 Completed Testing		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller [signature] Air Temp 60° Wind Speed 8

Test Title FAST TRAIN operations Date 5-17-17 5-18-17

Run No. 5188 Direction CW Bypass

Summary of test events Start 1950 Stop 0636 WO# RBNB1

Time	Event
1950	FAST IS OCCUPIED Switches 406 Green
2003	#Switches 407 408 Lined Red on Lock
2100	# SAFETY and Pretest meeting
2120	# MATTOW Board checking units
2137	# Getting A BRAKE TEST set and Release
2142	# Completed BRAKE test started TCR
2154	# Completed TCR and LAP unit 1
2200	# Completed LAP unit #2
2204	#3
2208	#4
2212	#5
2216	#6
2220	#7
2224	#8
2228	#9
2232	#10 ✓ HOT BOX OK
2236	#11
2240	#12
2244	#13
2248	#14 wind speed 27 mph.
2252	#15
2257	#16
2301	#17
2305	#18
2309	#19
2313	#20 ✓
2317	#21
2321	#22
2325	#23
2329	#24
2333	#25
2337	#26
2341	#27
2345	#28
2349	#29
2353	#30 ✓ HOT BOX OK
2357	#31 24" 1/8 1/8 32" 1/4" 3/8"
0001	#32 3/8" 3/8" 5/8" 5/8"
0005	#33
0009	#34
0013	#35
0017	#36
0021	#37
0026	#38
0029	#39
0033	#40 ✓
0037	#41
0041	#42
0045	#43
0049	#44
0053	#45
0057	#46
0101	#47
0105	#48
0109	#49
0113	#50 ✓ HOT BOX OK
0117	#51 24" 1/8" 1/8" 32" 1/4" 3/8"
0121	#52 3/8" 3/8" 5/8" 5/8"
0125	#53
0129	#54
0133	#55
0137	#56
0141	#57
0145	#58
0149	#59
0153	#60 ✓
0157	#61
0201	#62
0205	#63
0209	#64
0213	#65
0217	#66
0221	#67
0225	#68
0229	#69
0233	#70 ✓ HOT BOX OK
0237	#71 24" 1/8" 1/8" 32" 1/4" 3/8"
0241	#72 3/8" 3/8" 5/8" 5/8"
0245	#73
0249	#74
0253	#75
0257	#76
0301	#77
0305	#78
0309	#79
0313	#80 ✓
0317	#81
0321	#82
0325	#83
0329	#84
0333	#85
0337	#86
0341	#87
0345	#88
0349	#89
0353	#90 ✓ HOT BOX OK
0357	#91 24" 1/8" 1/8" 32" 1/4" 3/8"
0401	#92 3/8" 3/8" 5/8" 5/8"
0405	#93
0409	#94
0413	#95
0417	#96
0421	#97
0425	#98
0429	#99
0433	#100 ✓
0437	#101
0441	#102
0445	#103
0449	#104
0453	#105
0457	#106
0501	#107
0505	#108
0509	#109
0513	#110 ✓ HOT BOX OK Chris Cutcliffe FAST AREA

UP 33119

Test Events Log

Test Controller [signature]

Air Temp 60°
Rail Temp 8

Test Title EAST TRAIL operations

Date 5-17-17
5-18-17

Run No. 5188

Direction CCW By Pass

Summary of test events Start 1950 Stop 0636 WO# RBDIB1

Time	Event	Time	Event
0517	#111 24' 1/8 1/8 32' 1/4 3/8		#
0521	#112 3/8 3/8 5/8 6/8		#
0525	#113		#
0529	#114		#
0533	#115		#
0537	#116		#
0541	#117		#
0545	#118		#
0549	#119		#
0553	#120 ✓		#
0557	#121		#
0601	#122		#
0605	#123		#
0609	#124		#
0613	#125		#
0617	#126		#
0621	#127		#
0625	#128		#
0629	#129 ✓		#
0636	#130 ✓ completed Testing		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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	#		#
	#		#
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BEA EAMS RUN [illegible] 5188 SHOULD BE 5187

Test Events Log

Test Controller [signature] **Air Temp** 39° **Wind Speed** 23

Test Title FAST TRAIN Operations **Date** 5-18-17 5-19-17

Run No. 5189 **Direction** CW MAINLINE

Summary of test events **Start** 2000 **Stop** 0637 **WO#** RBDIBL

Time	Event
2000	# FAST & OCCUPIED Switch 405 407 408
2015	# Lined Green and Locked Crossover
2100	# SAFETY & PRETEST meeting
2120	# MATT ON Board Checking units
2138	# Getting AJ BRAKE TEST SET and Release
2143	# Completed BRAKE TEST STARTED TCR
2153	# Completed TCR and LAP NO#1
2208	# Completed LAP NO#2
2201	# STOPPING
2204	# STOPPED / BRAKE on Fieldwell Sec 9-102 ISR
	# weld NOW OW 22 11-26-13 GAP 1/2"
	# BASE DEFECT RAIL Rmp 39.6 Nitrite 39
2230	# TRACK BACK together green signal
2237	# BACKING UP CONSIST
2249	# STOPPED Setting UP Computer
2253	# BRAKE TEST set and Release / completed 2258
2258	# BACK on the move
2308	# Completed LAP NO#3
2314	#4
2318	#5
2322	#6
2327	#7
2331	#8
2335	#9
2339	#10 Hot Box ok
2343	#11
2347	#12
2351	#13
2355	#14
2359	#15
0003	#16
0007	#17
0011	#18
0015	#19
0019	#20
0023	#21
0027	#22
0031	#23
0035	#24
0039	#25
0043	#26
0047	#27
0051	#28
0055	#29
0059	#30 HOT BOX
0103	#31 24' 1/8 1/8 32' 1/4 3/8
0107	#32 3/8 3/8 5/8 5/8
0111	#33
0115	#34
0119	#35
0123	#36
0127	#37
0131	#38
0135	#39
0139	#40
0143	#41
0147	#42
0151	#43
0155	#44
0159	#45
0203	#46
0207	#47
0211	#48
0215	#49
0219	#50 HOT BOX OK
0223	#51 24' 1/8 1/8 32 1/4 3/8
0227	#52
0231	#53
0235	#54
0239	#55
0243	#56
0247	#57
0251	#58
0255	#59
0259	#60
0303	#61
0307	#62
0311	#63
0315	#64
0319	#65
0323	#66
0327	#67
0331	#68
0335	#69
0339	#70 HOT BOX OK
0343	#71 24' 1/8" 1/8" 32 1/4" 3/8"
0347	#72 3/8" 3/8" 5/8" 5/8"
0351	#73
0355	#74
0359	#75
0403	#76
0407	#77
0411	#78
0415	#79
0419	#80
0423	#81
0427	#82
0431	#83
0435	#84
0439	#85
0443	#86
0447	#87
0451	#88
0455	#89
0459	#90 HOT BOX OK
0503	#91 24' 1/8 1/8 32' 1/4 3/8"
0507	#92 3/8 3/8 5/8 5/8
0511	#93
0515	#94
0519	#95
0523	#96
0527	#97
0531	#98
0535	#99
0539	#100
0543	#101

sec 25- 625 TO 746 ISR +059 Rough surface

Test Events Log

Test Controller _____ Air Temp 39° wind speed 23

Test Title EAST TRAIN operations Date 5-18-17 5-19-17

Run No. 5789 Direction CW MAINLINE

Summary of test events Start 2000 Stop 0637 WO# RBD181

Time	Event	Time	Event
0547	#102		#
0551	#103		#
0555	#104		#
0559	#105		#
0603	#106		#
0607	#107		#
0611	#108		#
0615	#109		#
0619	#110		#
0623	#111		#
0627	#112		#
0633	#113		#
0637	#Completed TESTING		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller M. Cordova **Air Temp** 68°

Test Title FAST TRAIN OPERATIONS **Date** 6/5/17 6/6/17

Run No. 5191 **Direction** CCW MAINLINE

Summary of test events **Start** 2100 **Stop** 0635 **WO#** R1501.B.1

Time	Event
2100	FAST acquired
2105	# SWITCHES LINED LOCKED CHECK
2120	# PRETEST MEETING
2150	LOCO ENG. ON BOARD
2308	# BRAKE TEST SET AND RELEASE
2304	# BRAKE TEST COMPLETE START TCR
2316	TCR COMPLETE AND LAP #1
2322	#2
2327	#3
2331	#4
2335	#5
2339	#6
2343	#7
2347	#8
2351	#9
2355	#10 HOT BOX OK
2359	#11
0003	#12 STOP TRAIN DO TO LATE TEMP
0005	# TRAIN STOPPED TEMP 191° 10 MISS IN SEC 25 (ROLLO LUBE) SHUT DOWN
0030	BACK TRAIN UP TO RESTART
0052	# BRAKE TEST SET AND RELEASE
0057	BACK ON THE MOVE SEC 25 GREASER ON
0110	#13
0116	#14
0120	#15
0125	#16
0129	#17
0133	#18
0137	#19
0141	#20
0145	#21 HOT BOX OK
0149	#22
0153	#23 32' 3/8 1/4 24' 3/16 1/8
0157	#24
0201	#25 STEEL BRIDGE 3/8 3/8 5/8 5/8
0205	#26
0209	#27
0213	#28
0217	#29
0221	#30
0225	#31
0229	#32
0233	#33
0237	#34
0241	#35
0245	#36
0249	#37
0253	#38
0257	#39
0301	#40
0305	#41 HOT BOX OK
0309	#42
0313	#43 32' 3/8 1/4 24' 3/16 1/8
0317	#44
0321	#45 STEEL BRIDGE 3/8 3/8 5/8 5/8
0325	#46
0329	#47
0333	#48
0337	#49
0341	#50
0345	#51
0349	#52
0353	#53
0357	#54
0401	#55
0405	#56
0409	#57
0413	#58
0417	#59
0421	#60
0425	#61 HOT BOX OK
0429	#62
0433	#63 32' 3/8 1/4 24' 3/16 1/8
0437	#64
0441	#65 STEEL BRIDGE 3/8 3/8 3/8 3/8
0445	#66
0449	#67
0453	#68
0457	#69
0501	#70
0505	#71
0509	#72
0513	#73
0517	#74
0521	#75
0525	#76
0529	#77
0533	#78
0537	#79
0541	#80
0545	#81 HOT BOX OK
0549	#82
0553	#83 32' 3/8 1/4 24' 3/16 1/8
0557	#84
0601	#85 STEEL BRIDGE 3/8 3/8 3/8 3/8
0605	#86
0609	#87
0613	#88
0617	#89
0621	#90
0625	#91
0629	#92
0635	OPERATIONS COMPLETE
	#
	#
	#
	#
	#
	#

Test Events Log

Test Controller FAST TRAIN OPERATIONS **Air Temp** 61°

Test Title FAST TRAIN OPERATIONS **Date** 6/6/17 6/7/17

Run No. 5192 **Direction** CCW BYPASS

Summary of test events **Start** 2100 **Stop** 0614 **WO#** R501.13.1

Time	Event	Time	Event
2100	# FAST OCCUPIED	0144	#53
2100	# SWITCHES LINED LOCKED FOR BYPASS	0148	#54
2105	# PRE TEST MEETING	0152	#55
2135	# LOCO ENG on BOARD	0156	#56
2165	# BRAKE TEST SET AND RELEASE	0200	#57
2202	# BRAKE TEST COMPLETE START TCR	0204	#58
2214	TCR COMPLETE AND LAP #1	0208	#59
2220	#2	0212	#60 HOT BOX OK
2224	#3	0216	#61
2228	#4	0220	#62 32' 3/8 1/4 24' 3/16 1/8
2232	#5	0224	#63
2236	#6	0228	#64 STEEL BRIDGE 3/8 3/8 5/8 5/8
2240	#7	0232	#65
2244	#8	0236	#66
2248	#9	0240	#67
2252	#10 HOT BOX OK	0244	#68
2256	#11	0248	#69
2300	#12	0252	#70
2304	#13	0256	#71
2308	#14	0300	#72
2312	#15	0304	#73
2316	#16	0308	#74
2320	#17	0312	#75
2324	#18	0316	#76
2328	#19	0320	#77
2332	#20 HOT BOX OK	0324	#78
2336	#21	0328	#79
2340	#22	0332	#80 HOT BOX OK
2344	#23	0336	#81
2348	#24 32' 3/8 1/4 24' 3/16 1/8	0340	#82 32' 5/8 1/4 24' 3/16 1/8
2352	#25	0344	#83
2356	#26 STEEL BRIDGE 3/8 3/8 3/8 5/8	0348	#84 STEEL BRIDGE 3/8 5/8 5/8 5/8
0000	#27	0352	#85
0004	#28	0356	#86
0008	#29	0400	#87
0012	#30	0404	#88
0016	#31	0408	#89
0020	#32	0412	#90
0024	#33	0416	#91
0028	#34	0420	#92
0032	#35	0424	#93
0036	#36	0428	#94
0040	#37	0432	#95
0044	#38	0436	#96
0048	#39	0440	#97
0052	#40 HOT BOX OK	0444	#98
0056	#41	0448	#99
0100	#42 32' 3/8 1/4 24' 3/16 1/8	0452	#100 HOT BOX OK
0104	#43	0456	#101 RED SIGNAL
0108	#44 STEEL BRIDGE 3/8 3/8 5/8 5/8	0459	# STOPPED COULD NOT LOCATE A BROKEN
0112	#45	0502	RAIL OR WELD
0116	#46	0524	# MOVE TRAIN AHEAD TO RESTART
0120	#47	0541	# BRAKE TEST SET AND RELEASE
0124	#48	0546	# BACK ON THE MOVE LAP #2 COMPLETE
0128	#49	0547	# RED SIGNAL
0132	#50	0548	# STOPPED
0136	#51	0614	# OPERATIONS COMPLETE
0140	#52		

Test Events Log

Test Controller M. Cordova **Air Temp** 62.9

Test Title FAST TRAIN OPERATIONS **Date** 6/7/17 6/8/17

Run No. 5193 **Direction** CW BYPASS

Summary of test events **Start** 2100 **Stop** 0637 **WO#** 125D1.31

Time	Event
2100	FAST OPERATIONS
2100	# SWITCHES LINED INBD FOR THE BYPASS
2105	# PRE TEST MEETING
2144	LOCO ENG. ON BOARD
2158	# BRAKE TEST SET AND RELEASE
2203	# BRAKE TEST COMPLETE START TCR
2204	# COMPUTER SHUT DOWN
2224	BRAKE TEST SET AND RELEASE
2229	# BRAKE TEST COMPLETE START TCR
2240	TCR COMPLETE AND LAP #1
2245	# 2
2250	# 3
2254	# 4
2258	# 5
2302	# 6
2306	# 7
2310	# 8
2314	# 9
2318	# 10 HOT BOX OK
2322	# 11
2326	# 12
2330	# 13
2334	# 14
2338	# 15
2342	# 16
2346	# 17
2350	# 18
2354	# 19
2358	# 20 HOT BOX OK
0002	# 21 32' 7/16 1/4 24' 3/16 1/8
0006	# 22
0010	# 23 STEEL BRIDGE 3/8 3/8 5/8 5/8
0014	# 24
0018	# 25
0022	# 26
0026	# 27
0030	# 28
0034	# 29
0038	# 30
0042	# 31
0046	# 32
0050	# 33
0054	# 34
0058	# 35
0102	# 36
0106	# 37
0110	# 38
0114	# 39
0118	# 40 HOT BOX OK
0122	# 41 32' 7/16 1/4 24' 3/16 1/8
0126	# 42
0130	# 43 STEEL BRIDGE 3/8 3/8 5/8 5/8
0134	# 44
0138	# 45
0142	# 46
0146	# 47
0150	# 48
0154	# 49
0158	# 50
0202	# 51
0206	# 52
0210	# 53
0214	# 54
0218	# 55
0222	# 56
0226	# 57
0230	# 58
0234	# 59
0238	# 60 HOT BOX OK
0242	# 61 32' 7/16 1/4 24' 3/16 1/8
0246	# 62
0250	# 63 STEEL BRIDGE 5/8 3/8 3/8 5/8
0254	# 64
0258	# 65
0302	# 66
0306	# 67
0310	# 68
0314	# 69
0318	# 70
0322	# 71
0326	# 72
0330	# 73
0334	# 74
0338	# 75
0342	# 76
0346	# 77
0350	# 78
0354	# 79
0358	# 80 HOT BOX OK
0402	# 81
0406	# 82
0410	# 83 32' 7/16 1/4 24' 3/16 1/8
0414	# 84
0418	# 85 STEEL BRIDGE 3/8 3/8 5/8 5/8
0422	# 86
0426	# 87
0430	# 88
0434	# 89
0438	# 90
0442	# 91
0446	# 92
0450	# 93
0454	# 94
0458	# 95
0502	# 96
0506	# 97
0510	# 98
0514	# 99
0518	# 100 HOT BOX OK
0522	# 101 32' 7/16 1/4 24' 3/16 1/8
0526	# 102
0530	# 103 STEEL BRIDGE 5/8 3/8 5/8 5/8
0534	# 104
0538	# 105
0542	# 106
0546	# 107

Test Events Log

Test Controller M. Cardona **Air Temp** 62.9

Test Title Fast Train Operations **Date** 6/7/17 6/8/17

Run No. S193 **Direction** CW Bypass

Summary of test events **Start** 2100 **Stop** 0637 **WO#** RSDL.B.1

Time	Event	Time	Event
0550 0554	#108 #109		#
0558 0607	#110 #111		#
0606 0610	#112 #113		#
0614 0618	#114 #115		#
0622 0626	#116 #117		#
0630 0634	#118 #119		#
0637	#120 operations complete		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller M. Garcia **Air Temp** 62°

Test Title FAST TAXIWAY OPERATIONS **Date** 6/8/17 6/9/17

Run No. S194 **Direction** CW MAINTAINT

Summary of test events **Start** 2100 **Stop** 0635 **WO#** R3D1.3.1

Time	Event	Time	Event
2100	FAST CAMPAIGN	0156	#53
2100	# SWITCHES LINED LOCKED GREEN	0200	#54
2105	# PRE TEST MEETING	0204	#55
2137	# LCO ENG. ON BOARD	0208	#56
2211	# BRAKE TEST SET AND RELEASE	0212	#57
2216	# BRAKE TEST COMPLETE START TCR	0216	#58
2227	# TCR COMPLETE MNS INP #1	0220	#59
2232	#2	0224	#60 NOT BOX OK
2236	#3	0228	#61
2240	#4	0232	#62 32' 7/16 1/4 24' 3/16 1/8
2244	#5	0236	#63
2248	#6	0240	#64 STEEL BRIDGE 3/8 3/8 5/8 5/8
2252	#7	0244	#65
2256	#8	0248	#66
2300	#9	0252	#67
2304	#10 NOT BOX OK	0256	#68
2208	#11	0300	#69
2212	#12	0304	#70
2216	#13	0308	#71
2220	#14	0312	#72
2224	#15	0316	#73
2228	#16	0320	#74
2232	#17	0324	#75
2236	#18	0328	#76
2240	#19	0332	#77
2244	#20	0336	#78
2248	#21	0340	#79
2252	#22 32' 7/16 1/4 24' 3/16 1/8	0344	#80 NOT BOX OK
2256	#23	0348	#81
0000	#24 STEEL BRIDGE 3/8 3/8 5/8 5/8	0352	#82 32' 7/16 1/4 24' 3/16 1/8
0004	#25	0356	#83
0008	#26	0100	#84 STEEL BRIDGE 3/8 3/8 5/8 5/8
0012	#27	0404	#85
0016	#28	0408	#86
0020	#29	0412	#87
0024	#30	0416	#88
0028	#31	0420	#89
0032	#32	0424	#90
0036	#33	0428	#91
0040	#34	0432	#92
0044	#35	0436	#93
0048	#36	0440	#94
0052	#37	0444	#95
0056	#38	0448	#96
0100	#39	0452	#97
0104	#40 NOT BOX OK	0456	#98
0108	#41	0500	#99
0112	#42 32' 7/16 1/4 24' 3/16 1/8	0504	#100 NOT BOX OK
0116	#43	0508	#101
0120	#44 STEEL BRIDGE 3/8 3/8 5/8 5/8	0512	#102 32' 7/16 1/4 24' 3/16 1/8
0124	#45	0516	#103
0128	#46	0520	#104 STEEL BRIDGE 5/8 3/8 5/8 5/8
0132	#47	0524	#105
0136	#48	0528	#106
0140	#49	0532	#107
0144	#50	0536	#108
0148	#51	0540	#109
0152	#52	0544	#110

Test Events Log

Test Controller M. Cordova **Air Temp** 62.9

Test Title Fast Train Operations **Date** 6/8/17 6/9/17

Run No. 5194 **Direction** CW Mainline

Summary of test events **Start** 2100 **Stop** 0635 **WO#** RRDI.B.1

Time	Event	Time	Event
0548 0552	#111 #112		#
0556 0600	#113 #114		#
0604 0608	#115 #116		#
0612 0616	#117 #118		#
0620 0624	#119 #120 Hot Box OK		#
0628 0632	#121 #122		#
0635	#123 Operations Complete		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller M. CORDOVA **Air Temp** 76°

Test Title FAST TRAIN OPERATIONS **Date** 6/12/17 6/13/17

Run No. 5195 **Direction** CCW MAIN TRK

Summary of test events **Start** 2100 **Stop** 0638 **WO#** R1501-131

Time	Event	Time	Event
2100	FAST CARRIED	0203	#53
2100	#SWITCHES CLEAR LOCKED GREEN	0207	#54
2105	PRETEST MEETING	0211	#55
2145	#1 ON EOT ON BOARD	0215	#56
2216	BRAKE TEST SET AND RELEASE	0219	#57
2222	#BRAKE TEST COMPLETE START TCR	0223	#58
2234	TCR COMPLETE AND LAP #1	0227	#59
2239	#2	0231	#60 HOT BOX OK
2243	#3	0235	#61
2247	#4	0239	#62 32' 3/8 1/4 24' 1/8 1/8
2251	#5	0243	#63
2255	#6	0247	#64 STEEL BRIDGE 3/8 3/8 5/8 5/8
2259	#7	0251	#65
2303	#8	0255	#66
2307	#9	0259	#67
2311	#10 HOT BOX OK	0303	#68
2316	#11	0308	#69
2320	#12	0312	#70
2324	#13	0316	#71
2328	#14	0320	#72
2332	#15	0324	#73
2336	#16	0328	#74
2340	#17	0332	#75
2344	#18	0336	#76
2348	#19	0340	#77
2352	#20 HOT BOX OK	0344	#78
2356	#21	0348	#79
0000	#22 32' 3/8 1/4 24' 1/8 1/8	0352	#80 HOT BOX OK
0004	#23	0356	#81
0008	#24 STEEL BRIDGE 3/8 3/8 5/8 5/8	0400	#82 32' 3/8 1/4 24' 1/8 1/8
0012	#25 RAIL TEMP 174°	0404	#83
0016	#26	0408	#84 STEEL BRIDGE 3/8 3/8 5/8 5/8
0020	#27 ROJO MOL SHUTOFF NOT PRODUCING	0412	#85
0024	#28 AIR TEMP 70°	0416	#86
0028	#29	0420	#87
0032	#30	0424	#88
0036	#31	0428	#89
0040	#32	0432	#90
0044	#33	0436	#91
0048	#34	0440	#92
0051	#35 ON BOARD COMPUTER FROZE UP	0444	#93
0055	#36	0448	#94
0059	#37	0452	#95
0103	#38	0456	#96
0107	#39	0500	#97
0111	#40 HOT BOX OK	0504	#98
0118	#41	0508	#99
0119	#42 32' 3/8 1/4 24' 1/8 1/8	0512	#100 HOT BOX OK
0123	#43	0516	#101
0127	#44 STEEL BRIDGE 3/8 3/8 5/8 5/8	0520	#102 32' 3/8 1/4 24' 1/8 1/8
0131	#45	0524	#103
0135	#46	0528	#104 STEEL BRIDGE 3/8 3/8 5/8 5/8
0139	#47	0532	#105
0143	#48	0536	#106
0147	#49	0540	#107
0151	#50	0544	#108
0155	#51	0548	#109
0159	#52	0552	#110

Test Events Log

Test Controller M. Cordova **Air Temp** 76°

Test Title Fast Train Operations **Date** 6/12/17 6/13/17

Run No. 5195 **Direction** CCW Mainline

Summary of test events **Start** 2100 **Stop** 0638 **WO#** RBD.B.1

Time	Event	Time	Event
0556	#111		#
0600	#112		#
0604	#113		#
0608	#114		#
0612	#115		#
0616	#116		#
0620	#117		#
0624	#118		#
0628	#119		#
0632	#120		#
0658	# Operations complete		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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TTCI Internal Notes:

Date: 6/14/17 **Time of Red Signal:** — (NO AGD SIGNAL) **Time Stopped:** 0300

Weld, Rail, Joint (check one)

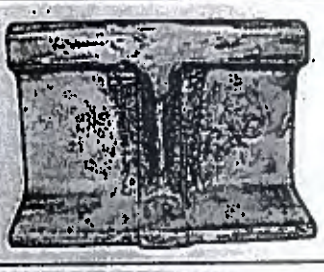
☒ Rail	☐ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☒ Break	☐ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☒ Head	☐ Web	☐ Base	☐ Bolt Hole	☐ Other

Section	3
Tie	1669
I or O Rail	OSC
Weld #	—
Weld Install Date	—
Rail Temp	89°
Air Temp	52°
	
Head Gap	NONE
Web Gap	NONE
Base Gap	NONE
Rail Size POS	136
Rail Size NEG	136
Comments:	JOHN STOPPED TRAIN 0257

Test Events Log

Test Controller M. CORDOVA **Air Temp** 62°

Test Title FAST TRAIN OPERATIONS **Date** 6/13/17 6/14/17

Run No. 5196 **Direction** CCW BYPASS

Summary of test events **Start** 2100 **Stop** 0631 **WO#** RSDI.B.1

Time	Event	Time	Event
2100	FAST OCCUPIED	0213	#53
2109	#1 SWITCHES LINED LOCKED FOR THE BYPASS	0217	#54
2105	PRETEST MEETING	0221	#55
2135	#100 ENG. ON BOARD	0225	#56
2157	BRAKE TEST SET AND RELEASE	0229	#57
2202	#BRAKE TEST COMPLETE START TCR	0233	#58
2214	TCR COMPLETE AND LAP #1	0237	#59
2222	#2 START SETTLEMENT LAPS	0241	#60 HOT BOX OK
2230	#3	0245	#61
2238	#4	0249	#62 32' 3/8 1/4 24' 1/8 1/8
2246	#5	0253	#63
2253	#6	0257	#64 JOHN STOPPED TRAIN
2259	#7	0300	# STOPPED BROKEN RAIL SEC 3 OSE
2305	#8 UP3886 SHUT DOWN / MU ALARM	0521	# TRACK BACK TOGETHER
2311	#9	0535	# BACK TRAIN UP TO RESTART
2317	#10 HOT BOX OK SETTLEMENT LAPS COMPLETE	0553	# START BRAKE TEST SET AND RELEASE
2323	#11	0558	# BACK ON THE MAIN
2328	#12	0610	#LAP 65 COMPLETE
2333	#13	0616	#66
2337	#14	0620	#67
2341	#15	0624	#68
2345	#16	0626	#69 RED SIGNAL
2349	#17	0631	# OPERATIONS COMPLETE
2353	#18 UP3886 BACK ON ING		#
2357	#19		#
0001	#20 HOT BOX OK		#
0005	#21		#
0009	#22 32' 3/8 1/4 24' 1/8 1/8		#
0013	#23		#
0017	#24 STEEL EDGE 3/8 3/8 5/8 3/8		#
0021	#25		#
0025	#26		#
0029	#27		#
0033	#28		#
0037	#29		#
0041	#30		#
0045	#31		#
0049	#32		#
0053	#33		#
0057	#34		#
0101	#35		#
0105	#36		#
0109	#37		#
0113	#38		#
0117	#39		#
0121	#40 HOT BOX OK		#
0125	#41		#
0129	#42 32' 3/8 1/4 24' 1/8 1/8		#
0133	#43		#
0137	#44 STEEL EDGE 3/8 7/8 5/8 5/8		#
0141	#45		#
0145	#46		#
0149	#47		#
0153	#48		#
0157	#49		#
0201	#50		#
0205	#51		#
0209	#52		#

2161
1
1610
10K

1670
2161
1674

Test Events Log

Test Controller M. CORDOVA **Air Temp** 74.6°

Test Title FAST TRAIN OPERATIONS **Date** 6/14/17 6/15/17

Run No. 5197 **Direction** CW BYPASS

Summary of test events **Start** 2100 **Stop** 0639 **WO#** RB01.03.1

Time	Event	Time	Event
2100	#1 FAST ORDERED	0136	#53
2100	#2 SWITCHES LINED LOCKED FOR THE BYPASS	0140	#54
2105	#3 PRE TEST MEET ENG.	0144	#55
2135	#4 LOCO ENG. ON BOARD	0148	#56
2149	#5 BRAKE TEST SET AND REGISTER	0152	#57
2155	#6 BRAKE TEST COMPLETE START TCR	0156	#58
2206	#7 TCR COMPLETE AND LAP #1	0200	#59
2211	#2	0204	#60 HOT BOX OK
2216	#8	0208	#61
2219	#1	0212	#62 32' 3/8 1/4 24' 1/8 1/8
2223	#9	0216	#63
2227	#6	0220	#64 STEEL BRIDGE 3/8 3/8 5/8 5/8
2231	#10	0224	#65
2235	#8	0228	#66
2239	#11	0232	#67
2243	#10 HOT BOX OK	0236	#68
2247	#12	0240	#69
2251	#12	0244	#70
2255	#13	0248	#71
2259	#14	0252	#72
2303	#15	0256	#73
2307	#16	0300	#74
2311	#17	0304	#75
2315	#18	0308	#76
2319	#19	0312	#77
2323	#20 HOT BOX OK	0316	#78
2327	#21	0320	#79
2331	#22 32' 3/8 1/4 24' 1/8 1/8	0324	#80 HOT BOX OK
2335	#23	0328	#81
2339	#24 STEEL BRIDGE 3/8 3/8 5/8 5/8	0332	#82 32' 3/8 1/4 24' 1/8 1/8
2343	#25	0336	#83
2347	#26	0340	#84 STEEL BRIDGE 3/8 3/8 5/8 5/8
2351	#27	0344	#85
2355	#28	0348	#86
2359	#29	0352	#87
0003	#30	0356	#88
0007	#31	0400	#89
0012	#32	0404	#90
0016	#33	0408	#91
0020	#34	0412	#92
0024	#35	0416	#93
0028	#36	0420	#94
0032	#37	0424	#95
0036	#38	0428	#96
0040	#39	0432	#97
0044	#40 HOT BOX OK	0436	#98
0048	#41	0440	#99
0052	#42 32' 3/8 1/4 24' 1/8 1/8	0444	#100 HOT BOX OK
0056	#43	0448	#101
0100	#44 STEEL BRIDGE 3/8 3/8 5/8 5/8	0452	#102 32' 3/8 1/4 24' 1/8 1/8
0104	#45	0456	#103
0108	#46	0500	#104 STEEL BRIDGE 3/8 3/8 5/8 5/8
0112	#47	0504	#105
0116	#48	0508	#106
0120	#49	0512	#107
0124	#50	0514	#108
0128	#51	0520	#109
0132	#52	0524	#110

Test Events Log

Test Controller M. Cordova **Air Temp** 74.6

Test Title FAST TRAIN OPERATIONS **Date** 6/14/17 6/15/17

Run No. 5197 **Direction** CW BYPASS

Summary of test events **Start** 2100 **Stop** 0639 **WO#** RSD1.S.1

Time	Event	Time	Event
0528 0532	#111 #112		#
0536 0540	#113 #114		#
0544 0548	#115 #116		#
0552 0556	#117 #118		#
0600 0604	#119 #120 HOT BOX OK		#
0608 0612	#121 #122		#
0616 0620	#123 #124		#
0624 0628	#125 #126		#
0632 0636	#127 #128		#
0639	#129 OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller M. CORDOVA **Air Temp** 61°

Test Title FAST TRAIN OPERATIONS **Date** 6/15/17 6/16/17

Run No. 5198 **Direction** CW MAINLINE

Summary of test events **Start** 2100 **Stop** 0638 **WO#** RDDLB.1

Time	Event	Time	Event
2100 2100	FAST CAMPBELL # SWITCHES LEADS LOCKED GREEN MAINLINE	0142 0146	#53 54
2105 2138	PRETEST MEETING # 180 ENG. ON BOARD	0150 0154	#55 56
2157 2202	BRAKE TEST SET AND RELEASE # BRAKE TEST COMPLETE START TCR	0159 0203	#57 58
2217 2218	#TCR COMPLETE AND LAP #1 #2	0207 0211	#59 60
2222 2226	#3 #4	0215 0219	#61 62 32' 3/8 1/4 24' 1/8 1/8
2230 2234	#5 #6	0223 0227	#63 64 STEEL BRIDGE 3/8 3/8 5/8 5/8
2238 2242	#7 #8	0231 0235	#65 66
2246 2250	#9 #10 HOT BOX OK	0239 0243	#67 68
2254 2258	#11 #12	0247 0251	#69 70
2302 2306	#13 #14	0255 0259	#71 72
2310 2314	#15 #16	0303 0307	#73 74
2318 2322	#17 #18	0311 0315	#75 76
2326 2330	#19 #20 HOT BOX OK	0319 0323	#77 78
2334 2338	#21 #22 32' 3/8 1/4 24' 1/8 1/8	0327 0331	#79 80 HOT BOX OK
2342 2346	#23 #24 STEEL BRIDGE 5/8 3/8 5/8 5/8	0335 0339	#81 82 32' 3/8 1/4 24' 1/8 1/8
2350 2354	#25 #26	0343 0347	#83 84 STEEL BRIDGE 3/8 3/8 5/8 5/8
2358 0002	#27 #28	0351 0355	#85 86
0006 0010	#29 #30	0359 0403	#87 88
0014 0018	#31 #32	0407 0411	#89 90
0022 0026	#33 #34	0415 0419	#91 92
0030 0034	#35 #36	0423 0427	#93 94
0038 0042	#37 #38	0431 0435	#95 96
0046 0050	#39 #40	0439 0443	#97 98
0054 0058	#41 #42 32' 3/8 1/4 24' 1/8 1/8	0447 0451	#99 100 HOT BOX OK
0102 0106	#43 #44 STEEL BRIDGE 3/8 3/8 5/8 5/8	0455 0459	#101 102 32' 3/8 1/4 24' 1/8 1/8
0110 0114	#45 #46	0503 0507	#103 104 STEEL BRIDGE 3/8 3/8 5/8 5/8
0118 0122	#47 #48	0511 0515	#105 106 START DRY DOWN
0126 0130	#49 #50	0519 0523	#107 108
0134 0138	#51 #52	0527 0531	#109 110

Test Events Log

Test Controller M. CORDOVA **Air Temp** 61°

Test Title FAST TRAIN OPERATIONS **Date** 6/15/17 6/16/17

Run No. S198 **Direction** CW MAINLINE

Summary of test events **Start** 2100 **Stop** 0638 **WO#** RBD1.B.1

Time	Event	Time	Event
0535 0539	#111 #112		#
0543 0547	#113 #114		#
0551 0555	#115 #116		#
0559 0603	#117 #118		#
0607 0611	#119 #120 NOT ISOL OK		#
0615 0619	#121 #122		#
0623 0627	#123 #124		#
0631 0635	#125 #126		#
0638	#127 OPERATIONS COMPLETE		#
	#		#
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	#		#
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TTCI Internal Notes:

Date: 9/19/17 **~~Time of Red Signal~~:** 0611 **Time Stopped:** 0613

Weld, Rail, Joint (check one)

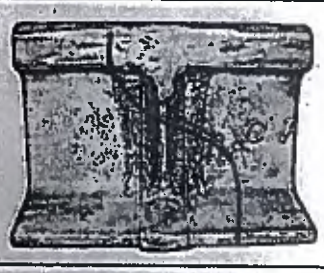
☐ Rail	☐ Field Weld	☒ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☒ Web	☐ Base	☐ Bolt Hole	☐ Other

Section	3
Tie	~~GP~~ 104
I or O Rail	OSR
Weld #	ITW - 981-17
Weld Install Date	1-26-17
Rail Temp	80.3°
Air Temp	47°
	
Head Gap	1/16
Web Gap	1/16
Base Gap	1/16
Rail Size POS	141
Rail Size NEG	141
Comments:	NO RED SIGNAL JOHN STOPPED TRAIN

Test Events Log

Test Controller M. Cordova **Air Temp** 65.5°

Test Title FAST TRAIN OPERATIONS **Date** 9/18/17 9/19/17

Run No. 5199 **Direction** CCW MAINLINE

Summary of test events **Start** 2100 **Stop** 0643 **WO#** R1501.15.1

Time	Event
2100	# FAST DAYTECH
2100	# SWITCHES (TWO) locked CLOSED
2105	# PRE TEST MEETING
2155	# loco END on (BOARD)
2237	# BRAKE TEST SET AND RELEASE
2239	# BRAKE TEST COMPLETE START TCR
2249	# TCR COMPLETE AND LAP #1
2252	#2 TRAIN STARTING DO TO COMPUTER
	# SET UP DID NOT TAKE SETTLEMENT SEQUENCE
2287	# STOPPED TO RESET COMPUTER
2314	# BRAKE TEST SET AND RELEASE
2319	# BACK ON THE MOVE
2320	# LAP # 3 COMPLETE
2334	# 4
2340	# STOPPED TRAIN TO RESET ON BOARD COMPUTER
0012	# BRAKE TEST SET AND RELEASE
0018	# BACK ON TIME MOVE
0021	LAP # 5 COMPLETE AND FINISH SETTLEMENT
0031	#6 LAPS
0040	#7
0049	#8
0057	#9
0104	#10 HOT BOX OK
0110	#11
0116	#12
0121	#13
0126	#14
0130	#15
0134	#16
0138	#17
0142	#18
0146	#19
0150	#20 HOT BOX OK
0154	#21
0158	#22 32' 3/8 1/4 24' 1/8 1/8
0202	#23
0206	#24 STEEL BRIDGE 5/16 3/8 5/8 5/8
0210	#25
0214	#26
0218	#27
0222	#28
0226	#29
0230	#30
0234	#31
0238	#32
0242	#33
0246	#34
0250	#35
0254	#36
0258	#37
0302	#38
0306	#39
0310	#40 HOT BOX OK
0314	#41
0318	#42 32' 3/8 1/4 24' 1/8 1/8
0322	#43
0326	#44 STEEL BRIDGE 5/16 3/8 5/8 5/8
0330	#45
0334	#46
0338	#47
0342	#48
0346	#49
0350	#50
0354	#51
0358	#52
0402	#53
0406	#54
0410	#55
0414	#56
0418	#57
0422	#58
0426	#59
0430	#60 HOT BOX OK
0434	#61
0438	#62 32' 3/8 1/4 24' 1/8 1/8
0442	#63
0446	#64 STEEL BRIDGE 5/16 3/8 5/8 5/8
0450	#65
0454	#66
0458	#67
0502	#68
0506	#69
0510	#70
0514	#71
0518	#72
0522	#73
0526	#74
0530	#75
0534	#76
0538	#77
0542	#78
0546	#79
0550	#80 HOT BOX OK
0554	#81
0558	#82 32' 3/8 1/4 24' 1/8 1/8
0602	#83
0606	#84 STEEL BRIDGE 5/16 3/8 5/8 5/8
0611	# JOHN STOPPED TRAIN
0613	# TRAIN STOPPED BROKEN WELD SEC 3 OSL
0643	# OPERATIONS COMPLETE
	#
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	#
	#

ITW-981-17 1-26-17

Test Events Log

Test Controller M. CORDOVA **Air Temp** 59.5°

Test Title FAST TRAIN OPERATIONS **Date** 9/19/17 9/20/17

Run No. 5200 **Direction** CCW MAINLINE

Summary of test events **Start** 2100 **Stop** 0637 **WO#** R001.8.1

Time	Event	Time	Event
2100	FAST DUMPED	0139	#53
2100	#1 SWITCHES CLOSED LOCO'S GREEN	0143	#54
2105	PRETEST MEETING	0147	#55
2130	# LOCO ENG. ON BOARD	0151	#56
2150	#BRAKE TEST SET AND RELEASE	0155	#57
2155	#BRAKE TEST COMPLETE START TCR	0159	#58
2207	#2 TCR COMPLETE AND LAP #1	0203	#59
2213		0207	#60 HOT BOX OK
2218	#3	0211	#61
2222	#4	0215	#62 32' 3/8 1/4 24' 1/8 1/8
2226	#5	0219	#63
2230	#6	0223	#64 STEEL BRIDGE 3/8 3/8 5/8 5/8
2234	#7	0227	#65
2238	#8	0231	#66
2242	#9	0235	#67
2246	#10	0239	#68
2250	#11	0243	#69
2254	#12 HOT BOX OK	0247	#70
2258	#13	0251	#71
2302	#14	0255	#72
2306	#15	0259	#73
2310	#16	0303	#74
2314	#17	0307	#75
2318	#18	0311	#76
2322	#19	0315	#77
2326	#20 HOT BOX OK	0319	#78
2330	#21	0323	#79
2334	#22 32' 3/8 1/4 24' 1/8 1/8	0327	#80 HOT BOX OK
2338	#23	0331	#81
2342	#24 STEEL BRIDGE 3/8 3/8 5/8 5/8	0335	#82 32' 3/8 1/4 24' 1/8 1/8
2346	#25	0339	#83
2350	#26	0343	#84 STEEL BRIDGE 3/8 3/8 5/8 5/8
2354	#27	0347	#85
2358	#28	0351	#86
0002	#29	0355	#87
0006	#30	0359	#88
0010	#31	0403	#89
0015	#32	0407	#90
0019	#33	0411	#91
0023	#34	0415	#92
0027	#35	0419	#93
0031	#36	0423	#94
0035	#37	0427	#95
0039	#38	0431	#96
0043	#39	0435	#97
0047	#40 HOT BOX OK	0439	#98
0051	#41	0443	#99
0055	#42 32' 3/8 1/4 24' 1/8 1/8	0447	#100 HOT BOX OK
0059	#43	0451	#101
0103	#44 STEEL BRIDGE 3/8 3/8 5/8 5/8	0455	#102 32' 5/8 1/4 24' 1/8 1/8
0107	#45	0459	#103
0111	#46	0503	#104 STEEL BRIDGE 3/8 3/8 5/8 5/8
0115	#47	0507	#105
0119	#48	0511	#106
0123	#49	0515	#107
0127	#50	0519	#108
0131	#51	0523	#109
0135	#52	0527	#110

Test Events Log

Test Controller M. CORDOVA **Air Temp** 59.5°

Test Title FAST TRAIN OPERATIONS **Date** 9/19/17 9/20/17

Run No. 5200 **Direction** CCW MAINLINE

Summary of test events **Start** 2100 **Stop** 0637 **WO#** ZI5018.1

Time	Event	Time	Event
0531	#111		#
0535	#112		#
0539	#113		#
0543	#114		#
0547	#115		#
0551	#116		#
0555	#117		#
0559	#118		#
0603	#119		#
0607	#120 HOT BOX OK		#
0611	#121		#
0615	#122		#
0619	#123		#
0623	#124		#
0627	#125		#
0631	#126		#
0637	# OPERATIONS COMPLETE		#
	#		#
	#		#
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	#		#
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Test Events Log

Test Controller M. CORDOVA **Air Temp** 63.9°

Test Title FAST TRACK OPERATIONS **Date** 9/20/12 9/21/12

Run No. S201 **Direction** CW MAIN LINE

Summary of test events **Start** 2100 **Stop** 0629 **WO#** R551.P.1

Time	Event	Time	Event
0602 0606	#98 #99		#
0610 0614	#100 #101		#
0619 0623	#102 #103		#
0627 0629	#104 #105 OPERATIONS COMPLETE		#
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OSR 348

Test Events Log

Test Controller M Cordova **Air Temp** 66.3°

Test Title Fast Train Operations **Date** 9/21/17 9/22/17

Run No. 5202 **Direction** CSW Mainline

Summary of test events **Start** 2100 **Stop** 0633 **WO#** 12301.3.1

Time	Event	Time	Event
2100	#FAST occupied	0137	#53
2100	#SWITCHES LINED looked GREEN	0141	#54
2105	PRE TEST MEETING	0145	#55
2134	#Loco ENG. on BOARD	0149	#56
2150	#BRAKE TEST SET AND RELEASE	0153	#57
2155	#BRAKE TEST COMPLETE START TCR	0157	#58
2206	#TCR complete and LAP #1	0201	#59
2212	#2	0205	#60 HOT BOX OK
2216	#3	0209	#61
2220	#4	0213	#62 32' 3/16 3/16 24' 3/16 1/8
2224	#5	0217	#63
2228	#6	0221	#64 STEEL BRIDGE 3/8 3/8 5/8 5/8
2232	#7	0225	#65
2236	#8	0229	#66
2240	#9	0233	#67
2244	#10 HOT BOX OK	0237	#68
2248	#11	0241	#69
2252	#12	0245	#70
2256	#13	0249	#71
2300	#14	0253	#72
2304	#15	0257	#73
2308	#16	0301	#74
2312	#17	0305	#75
2316	#18	0309	#76
2320	#19	0313	#77
2324	#20 HOT BOX OK	0317	#78 HOT BOX OSR AXLE 348
2328	#21	0319	STOPPED TO CHECK BEARINGS AIRTEMP 610
2332	#22 32' 3/16 3/16 24' 3/16 1/8	0347	# BACK TRAIN UP TO RESTART
2336	#23	0406	# BRAKE TEST SET AND RELEASE
2340	#24 STEEL BRIDGE 3/8 3/8 5/8 5/8	0410	# BACK IN THE MOVE
2344	#25	0420	#79
2348	#26	0427	# STOPPED FOR ON BOARD COMPUTER
2352	#27	0438	# BRAKE TEST SET AND RELEASE
2356	#28	0444	# BACK ON THE MOVE
0001	#29	0446	LAP #80 COMPLETE
0005	#30	0455	#81
0009	#31	0500	#82
0013	#32	0505	#83
0017	#33	0509	#84
0021	#34	0513	#85 HOT BOX OK
0025	#35	0517	#86
0029	#36	0521	#87 32' 3/16 3/16 24' 3/16 1/8
0033	#37	0525	#88
0037	#38	0529	#89 STEEL BRIDGE 3/8 3/8 5/8 5/8
0041	#39	0533	#90
0045	#40 HOT BOX OK	0537	#91
0049	#41	0541	#92
0053	#42 32' 3/16 3/16 24' 3/16 1/8	0545	#93
0057	#43	0549	#94
0101	#44 STEEL BRIDGE 3/8 3/8 5/8 5/8	0553	#95
0105	#45	0557	#96
0109	#46	0601	#97
0113	#47	0605	#98
0117	#48	0609	#99
0121	#49	0613	#100
0125	#50	0617	#101
0129	#51	0621	#102
0133	#52	0625	#103
		0629	104
		0633	105 OPERATIONS COMPLETE

Test Events Log

Test Controller M. Cessna **Air Temp** 50.5°

Test Title Fast Train Operations **Date** 9/25/17 9/26/17

Run No. 5203 **Direction** CCW MAINLINE

Summary of test events **Start** 2100 **Stop** 0643 **WO#** R3010.1

Time	Event	Time	Event
2100	#1 FAST OCCUPIED	0152	#49
2100	SWITCHES LOCKED LOCKED GREEN	0156	#50 32' 3/8 1/4 24' 3/16 1/8
2105	#2 PRE TEST MEETING	0200	#51
2130	LOCO EOG ON BOARD	0204	#52 STEEL BRIDGE 3/8 3/8 5/8 5/8
2149	#3 BRAKE TEST SET AND RELEASE	0208	#53
2154	BRAKE TEST COMPLETE START TCR	0212	#54
2200	#4 STOPPED AND BACK UP TO RE STOP	0216	#55
2208	STOPPED TO RESET COMPUTER (GPS)	0220	#56
2224	#5 BRAKE TEST SET AND RELEASE	0224	#57
2228	BACK IN ENGINE	0228	#58
2241	#6 TCR COMPLETE AND TAPE #1	0233	#59
2247	#2	0237	#60
2252	#3	0241	#61
2256	#4	0245	#62
2300	#5	0249	#63
2304	#6	0253	#64
2308	#7	0257	#65
2312	#8	0301	#66
2316	#9	0305	#67
2320	#10	0309	#68 HOT BOX OK
2324	#11	0313	#69
2328	#12 HOT BOX OK	0317	#70 32' 3/8 1/4 24' 3/16 1/8
2332	#13	0321	#71
2336	#14	0325	#72 STEEL BRIDGE 3/8 3/8 5/8 5/8
2340	#15	0329	#73
2344	#16	0333	#74
2348	#17	0337	#75
2352	#18	0341	#76
2356	#19	0345	#77
0000	#20	0349	#78
0004	#21	0353	#79
0008	#22	0357	#80
0012	#23	0401	#81
0017	#24	0405	#82
0020	#25	0409	#83
0024	#26	0413	#84
0028	#27	0417	#85
0032	#28 HOT BOX OK	0421	#86
0032	#29	0425	#87
0036	#30 32' 3/8 1/4 24' 3/16 1/8	0429	#88 HOT BOX OK
0040	#31	0433	#89
0044	#32 STEEL BRIDGE 3/8 3/8 5/8 5/8	0437	#90 32' 3/8 1/4 24' 3/16 1/8
0048	#33	0441	#91
0052	#34	0445	#92 STEEL BRIDGE 3/8 3/8 5/8 5/8
0056	#35	0449	#93
0100	#36	0453	#94
0104	#37	0457	#95
0108	#38	0501	#96
0112	#39	0505	#97
0116	#40	0509	#98
0120	#41	0513	#99
0124	#42	0517	#100
0128	#43	0521	#101
0132	#44	0525	#102
0136	#45	0529	#103
0140	#46	0533	#104
0144	#47	0537	#105
0148	#48 HOT BOX OK	0541	#106

Test Events Log

Test Controller M. CORDOVA **Air Temp** 50.5°

Test Title FAST TRAIN OPERATIONS **Date** 9/25/17 9/26/17

Run No. 5203 **Direction** CCW MAIN/DAC

Summary of test events **Start** 2100 **Stop** 0643 **WO#** 1251.51.1

Time	Event	Time	Event
0545 0549	#107 #108 HOT BOX OK		#
0553 0557	#109 #110		#
0601 0605	#111 #112		#
0609 0613	#113 #114		#
0617 0621	#115 #116		#
0625 0629	#117 #118		#
0633 0637	#119 #120		#
0643	# OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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TTCI Internal Notes:

Date: 9/27/17 **~~Time of Rad Signal:~~** 0513 NO RED SIGNAL **Time Stopped:** 0518

Weld, Rail, Joint (check one)

☐ Rail	☒ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☒ Head	☐ Web	☐ Base	☐ Bolt Hole	☐ Other

Section	3
Tie	1901
I or O Rail	OSR
Weld #	BW2832
Weld Install Date	9/18/17
Rail Temp	70.2°
Air Temp	52°
Head Gap	NONE
Web Gap	NONE
Base Gap	NONE
Rail Size POS	136
Rail Size NEG	136
Comments:	

Test Events Log

Test Controller M. Colonna **Air Temp** 55.7

Test Title FAST TRAIN OPERATIONS **Date** 9/26/17 9/27/17

Run No. 5204 **Direction** CCW BYPASS

Summary of test events **Start** 2100 **Stop** 0631 **WO#** RB01.3.1

Time	Event	Time	Event
2100	FAST completed	0215	#53
2100	# SWITCHES LEADO locked to CCW BYPASS	0219	#54
2105	# PRE TEST MEETING	0223	#55
2135	# LOCO Eng. on BOARD	0227	#56
2154	# BRAKE TEST SET AND RELEASE	0231	#57
2159	# BRAKE TEST Complete START TCR	0235	#58
2216	TCR complete LAP #1 START SETTLEMENT LAPS	0239	#59
2224	#2	0243	#60 HOT BOX OK
2237	#3	0247	#61
2241	#4	0251	#62 32' 3/8 1/4 24' 3/16 1/8
2249	#5	0255	#63
2258	#6	0259	#64 STEEL BRIDGE 3/8 3/8 5/8 5/8
2304	#7	0303	#65
2309	#8	0307	#66
2315	#9	0311	#67
2321	#10 HOT BOX OK	0315	#68
2327	#11	0319	#69
2331	#12 SETTLEMENT LAPS complete	0323	#70
2335	#13	0327	#71
2339	#14	0331	#72
2349	#15	0335	#73
2347	#16	0339	#74
2351	#17	0343	#75
2355	#18	0347	#76
2359	#19	0351	#77
0003	#20 HOT BOX OK	0355	#78
0007	#21	0359	#79
0011	#22 32' 3/8 1/4 24' 3/16 1/8	0403	#80 HOT BOX OK
0015	#23	0407	#81
0019	#24 STEEL BRIDGE 3/8 3/8 5/8 5/8	0411	#82 32' 3/8 1/4 24' 3/16 1/8
0023	#25	0415	#83
0027	#26	0419	#84 STEEL BRIDGE 3/8 3/8 5/8 5/8
0031	#27	0423	#85
0035	#28	0427	#86
0039	#29	0431	#87
0043	#30	0435	#88
0047	#31	0439	#89
0051	#32	0443	#90
0055	#33	0447	#91
0059	#34	0451	#92 COLIN, YIN, STEVE ARRIVE SEC 36
0103	#35	0455	#93
0107	#36	0459	#94
0111	#37	0503	#95
0115	#38	0507	#96
0119	#39	0511	#97
0123	#40 HOT BOX OK	0513	# JOHN STOPPED TRAIN
0127	#41	0515	# STOPPED BROKEN FLEXHOSE SEC 3 OSL TIE MOL
0131	#42 32' 3/8 1/4 24' 3/16 1/8	0544	TRACK BACK TOGETHER
0135	#43	0552	# START TEST IN SEC 36
0139	#44 STEEL BRIDGE 3/8 3/8 5/8 5/8	0602	# LAP 98 Complete
0143	#45	0604	# 15 MPH SEC 36
0147	#46	0611	#99
0151	#47	0614	# 15 MPH SEC 36
0155	#48	0620	#100
0159	#49	0624	# 15 MPH SEC 36
0203	#50	0631	# OPERATIONS COMPLETE
0207	#51		#
0211	#52		

Test Events Log

Test Controller M. Coldiron **Air Temp** 51.6

Test Title FAST TRACK DIGRATIONS **Date** 9/21/17 9/23/17

Run No. 5205 **Direction** CW MAINLINE

Summary of test events **Start** 2100 **Stop** 0634 **WO#** R001.13.1

Time	Event	Time	Event
2100 2100	#FAST occupied #SWITCHES LINED LOCKED CLEGG	0139 0143	#53 #54
2103 2138	#PRE TEST MEETING #120 ENG. on BOARD	0147 0151	#55 #56
2151 2155	#BLAKE TEST SET AND RELEASE #BLAKE TEST COMPLETE START TCR	0155 0159	#57 #58
2207 2213	#TCR COMPLETE AND TAP #1 #2	0207 0207	#59 #60
2218 2222	#3 #4	0211 0215	#61 #62 32' 3/8 1/4 24' 3/16 1/8
2226 2231	#5 #6	0219 0223	#63 #64 STEEL BRIDGE 3/8 3/8 5/8 5/8
2235 2239	#7 #8	0227 0231	#65 #66
2243 2247	#9 #10 NOT BOX OK	0235 0239	#67 #68
2251 2255	#11 #12	0243 0247	#69 #70
2259 2303	#13 #14	0251 0255	#71 #72
2307 2311	#15 #16	0259 0303	#73 #74
2315 2319	#17 #18	0307 0311	#75 #76
2327 2327	#19 #20 NOT BOX OK	0515 0519	#77 #78
2331 2335	#21 #22 32' 3/8 1/4 24' 3/16 1/8	0523 0527	#79 #80 NOT BOX OK
2339 2343	#23 #24 STEEL BRIDGE 3/8 3/8 5/8 5/8	0331 0335	#81 #82 32' 3/8 1/4 24' 3/16 1/8
2347 2351	#25 #26	0339 0343	#83 #84 STEEL BRIDGE 3/8 3/8 5/8 5/8
2355 2359	#27 #28	0347 0351	#85 #86
0003 0007	#29 #30	0355 0359	#87 #88
0011 0015	#31 #32	0703 0407	#89 #90
0019 0023	#33 #34	0411 0415	#91 #92
0027 0031	#35 #36	0419 0423	#93 #94
0035 0039	#37 #38	0427 0431	#95 #96
0043 0047	#39 #40	0435 0439	#97 #98
0051 0055	#41 #42 32' 3/8 1/4 24' 3/16 1/8	0443 0447	#99 #100
0059 0103	#43 #44 STEEL BRIDGE 3/8 3/8 5/8 5/8	0451 0455	#101 #102 NOT BOX OK 32' 3/8 1/4 24' 3/16 1/8
0107 0111	#45 #46	0459 0503	#103 #104 STEEL BRIDGE 3/8 3/8 5/8 5/8
0115 0119	#47 #48	0507 0511	#105 #106
0123 0127	#49 #50	0515 0519	#107 #108
0131 0135	#51 #52	0523 0527	#109 #110

Test Events Log

Test Controller M. CORDOVA **Air Temp** 57.6

Test Title FAST TRAIN OPERATIONS **Date** 9/27/17 9/28/17

Run No. 5205 **Direction** CW MAINLINE

Summary of test events **Start** 2100 **Stop** 0639 **WO#** RISK.B.1

Time	Event	Time	Event
0531 0535	#111 #112		#
0539 0543	#113 #114		#
0547 0551	#115 #116		#
0555 0559	#117 #118		#
0603 0607	#119 #120 NOT BOX OK		#
0611 0615	#121 #122		#
0619 0623	#123 #124		#
0627 0632	#125 #126		#
0637	#127 OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller M. Cardova **Air Temp** 50.2

Test Title East Train Overlap Downs **Date** 9/20/12 9/25/12

Run No. 5206 **Direction** CW Mainline

Summary of test events **Start** 2100 **Stop** 0639 **WO#** RBDL.B.1

Time	Event	Time	Event
2100	#1 FAST occupied	0131	#53
2100	Switches fence locked green	0135	#54
2105	PLC test mode ON	0139	#55
2131	#100 Eng. on Board	0143	#56
2144	#2 Brake test set and release	0147	#57
2149	#2 Brake test complete start TCR	0151	#58
2200	TCR complete and Lap #1	0155	#59
2206	#2	0159	#60 Hot Box ok
2210	#3	0203	#61
2214	#4	0207	#62 32' 3/8 1/4 24' 3/16 1/8
2218	#5	0211	#63
2222	#6	0215	#64 Steel Bridge 3/8 3/8 3/8 5/8
2226	#7	0219	#65
2230	#8	0223	#66
2234	#9	0227	#67
2238	#10 Hot Box ok	0231	#68
2242	#11	0235	#69
2246	#12	0239	#70
2250	#13	0243	#71
2254	#14	0247	#72
2258	#15	0251	#73
2302	#16	0255	#74
2306	#17	0259	#75
2310	#18	0303	#76
2314	#19	0307	#77
2318	#20 Hot Box ok	0311	#78
2322	#21	0315	#79
2326	#22 32' 3/8 1/4 24' 3/16 1/8	0319	#80 Hot Box ok
2330	#23	0323	#81
2334	#24 Steel Bridge 3/8 3/8 5/8 5/8	0327	#82 32' 3/8 1/4 24' 3/16 1/8
2338	#25	0331	#83
2342	#26	0335	#84 Steel Bridge 3/8 3/8 5/8 5/8
2346	#27	0339	#85
2350	#28	0343	#86
2354	#29	0347	#87
2358	#30	0351	#88
0002	#31	0355	#89
0006	#32	0359	#90
0010	#33	0403	#91
0014	#34	0407	#92
0018	#35	0411	#93
0022	#36	0415	#94
0026	#37	0419	#95
0030	#38	0423	#96
0034	#39	0427	#97
0038	#40 Hot Box ok	0431	#98
0042	#41	0435	#99
0046	#42 32' 3/8 1/4 24' 3/16 1/8	0439	#100 H.T Box ok
0050	#43	0443	#101
0054	#44 Steel Bridge 3/8 3/8 5/8 5/8	0447	#102 32' 3/8 1/4 24' 3/16 1/8
0058	#45	0451	#103
0102	#46	0455	#104 Steel Bridge 3/8 3/8 5/8 5/8
0106	#47	0459	#105
0110	#48	0503	#106
0114	#49	0507	#107
0118	#50	0511	#108
0123	#51	0515	#109
0127	#52	0519	#110

Test Events Log

Test Controller M. Cordova **Air Temp** 50.2

Test Title Fast Train Operations **Date** 9/28/17 9/29/17

Run No. 5206 **Direction** CW Main Line

Summary of test events **Start** 2100 **Stop** 0659 **WO#** RBUL81

Time	Event	Time	Event
0523 0527	#111 #112		#
0531 0535	#113 #114		#
0539 0543	#115 #116		#
0547 0551	#117 #118		#
0555 0559	#119 #120 Not Box OK		#
0603 0607	#121 #122		#
0611 0615	#123 #124		#
0619 0623	#125 #126		#
0627 0631	#127 #128		#
0636 0639	#129 #130 Operations Complete		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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	#		#

TTCI Internal Notes:

Date: 10/9/17 **Time of Red Signal:** 2218 **Time Stopped:** 2221

Weld, Rail, Joint (check one)

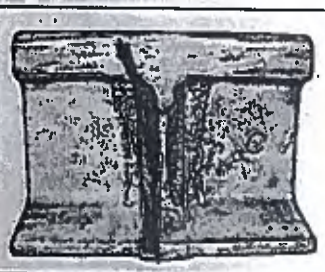
☐ Rail	☒ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☐ Web	☒ Base	☐ Bolt Hole	☐ Other

Section	[redacted] 23
Tie	166
I or O Rail	ISR
Weld #	OW 2189
Weld Install Date	5/9/13
Rail Temp	35.9°
Air Temp	35°
	
Head Gap	5/8
Web Gap	5/8
Base Gap	5/8
Rail Size POS	136
Rail Size NEG	136
Comments:	DRILLED FOUR HOLES AND BARRED

TTCI Internal Notes:

Date: 10/10/17 **Time of Red Signal:** 0120 **Time Stopped:** 0122

Weld, Rail, Joint (check one)

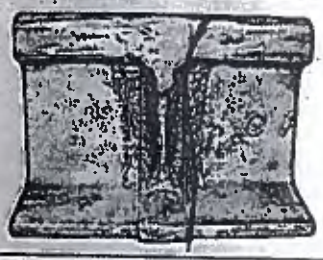
☐ Rail	☒ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☐ Web	☒ Base	☐ Bolt Hole	☐ Other

Section	24
Tie	19
I or O Rail	OSR
Weld #	HADW 2529
Weld Install Date	7/8/15
Rail Temp	36.7°
Air Temp	37.5°
	
Head Gap	1/2
Web Gap	1/2
Base Gap	1/2
Rail Size POS	136
Rail Size NEG	136
Comments:	DRILLED FOUR HOLES AND TACKED

0633 C10

Test Events Log

Test Controller M. Gibson **Air Temp** 37.3

Test Title FAST TRAIN OPERATIONS **Date** 10/9/17 10/10/17

Run No. S207 **Direction** CCW Bypass

Summary of test events **Start** 2100 **Stop** 0642 **WO#** RISOL.B.1

Time	Event	Time	Event
2100	# FAST equipped	0306	#43
2100	# SWITCHES LINED locked FOR THE BYPASS	0310	#44 STEEL BRIDGE 5/8 3/8 5/8 5/8
2105	# PRE TEST MEETING	0314	#45
2138	# loco ENG. on BOARD	0318	#46
2151	# BRAKE TEST SET AND RELEASE	0322	#47
2156	# BRAKE TEST COMPLETE START TCR	0326	#48
2210	# TCR COMPLETE AND LAP #1	0330	#49
2216	#2	0334	#50
2218	# RED SIGNAL	0338	#51
2221	# STOPPED TO BAR BREAK [redacted] TRK 166	0342	#52
2250	# TRACK BACK TOGETHER GREEN SIGNAL	0346	#53
2300	# BRAKE TEST SET AND RELEASE	0350	#54
2306	# BACK ON THE MOVE	0354	#55
2310	# LAP #3 COMPLETE	0358	#56
2319	#4	0402	#57
2325	#5	0406	#58
2329	#6	0410	#59
2333	#7	0414	#60 HOT BOX OK
2337	#8	0418	#61
2341	#9	0422	#62 32' 3/8 1/4 24' 3/16 1/8
2345	#10	0426	#63
2349	#11 HOT BOX OK	0430	#64 STEEL BLEDGE 3/8 3/8 5/8 3/8
2353	#12	0434	#65
2357	#13	0438	#66
0001	#14	0442	#67
0005	#15	0446	#68
0009	#16	0450	#69
0013	#17	0454	#70
0019	#18	0458	#71
0021	#19 HOT BOX OK	0502	#72
0025	#20	0506	#73
0029	#21 32' 3/8 1/4 24' 3/16 1/8	0510	#74 COLIN, STEVE, YIN ARRIVE SEC 36
0033	#22	0514	#75
0037	#23 STEEL BRIDGE 3/8 3/8 5/8 5/8	0518	#76
0041	#24	0522	#77
0045	#25	0526	#78
0049	#26	0530	#79
0053	#27	0534	#80 HOT BOX OK
0057	#28	0538	#81
0101	#29	0542	#82 32' 3/8 1/4 24' 3/16 1/8
0105	#30	0546	#83
0109	#31	0550	#84 STEEL BLEDGE 3/8 5/8 5/8 5/8
0113	#32	0554	#85
0117	#33	0558	#86
0120	# RED SIGNAL	0602	#87
0122	# STOPPED TO BAR BREAK SEC 24 TRK 19	0606	#88
0206	# TRACK BACK TOGETHER GREEN SIGNAL	0610	#89
0213	# BRAKE TEST SET AND RELEASE	0614	#90
0219	# BACK ON THE MOVE	0618	#91
0222	# LAP #34 COMPLETE	0622	#92
0231	#35	0626	#93
0237	#36	0630	#94
0242	#37	0642	# OPERATIONS COMPLETE
0246	#38		#
0250	#39		#
0254	#40 HOT BOX OK		
0258	#41		
0302	#42 32' 3/8 1/4 24' 3/16 1/8		

CS09-13
CS09-13

9-15 07-08-15 13

LF 15

Test Events Log

Test Controller M. Colsdon **Air Temp** 15.8

Test Title Fast Train Operations **Date** 10/10/17 10/11/17

Run No. 5208 **Direction** CCW Bypass

Summary of test events **Start** 2100 **Stop** 0638 **WO#** RDD1.D.1

Time	Event	Time	Event
2100	# FAST COUPLED	0217	# 53
2100	# SWITCHES LINED LOCKED FOR BYPASS	0221	# 54
2105	# PRE TEST MEETING	0225	# 55
2149	# LOCO ENG. ON BOARD	0229	# 56
2227	# BRAKE TEST SET AND RELEASE	0233	# 57
2233	# BRAKE TEST COMPLETE START TCR	0237	# 58
2245	# TCR COMPLETED AND LAP #1	0241	# 59
2252	# 2	0245	# 60 HOT BOX OK
2256	# 3	0249	# 61
2300	# 4	0253	# 62 32' 5/8 1/4 24' 3/16 1/8
2304	# 5	0257	# 63
2308	# 6	0301	# 64 STEEL BRIDGE 3/8 3/8 5/8 5/8
2312	# 7	0305	# 65
2316	# 8	0309	# 66
2320	# 9	0313	# 67
2324	# 10 HOT BOX OK	0317	# 68
2328	# 11	0321	# 69
2332	# 12	0325	# 70
2336	# 13	0329	# 71
2340	# 14	0333	# 72
2344	# 15	0337	# 73
2348	# 16	0341	# 74
2352	# 17	0345	# 75
2356	# 18	0349	# 76
0000	# 19	0353	# 77
0004	# 20 HOT BOX OK	0357	# 78
0008	# 21	0401	# 79
0012	# 22 32' 3/8 1/4 24' 3/16 1/8	0405	# 80 HOT BOX OK
0016	# 23	0409	# 81 STEVE AND YIN ARRIVE SECSIG
0020	# 24 STEEL BRIDGE 3/8 3/8 5/8 5/8	0413	# 82
0024	# 25	0417	# 83
0028	# 26	0421	# 84 32' 3/8 1/4 24' 3/16 1/8
0032	# 27	0425	# 85
0036	# 28	0429	# 86 STEEL BRIDGE 3/8 3/8 3/8 3/8
0040	# 29	0433	# 87
0044	# 30	0437	# 88
0048	# 31	0441	# 89
0052	# 32	0445	# 90
0056	# 33	0449	# 91
0100	# 34	0453	# 92
0104	# 35	0457	# 93
0109	# 36	0501	# 94
0113	# 37	0505	# 95
0117	# 38	0509	# 96
0121	# 39	0513	# 97
0125	# 40 HOT BOX OK	0517	# 98
0129	# 41	0521	# 99
0133	# 42 32' 3/8 1/4 24' 3/16 1/8	0525	# 100 HOT BOX OK
0137	# 43	0529	# 101
0141	# 44 STEEL BRIDGE 3/8 3/8 5/8 5/8	0533	# 102 32' 3/8 1/4 24' 3/16 1/8
0145	# 45	0537	# 103
0149	# 46	0541	# 104 STEEL BRIDGE 3/8 3/8 5/8 5/8
0153	# 47	0545	# 105
0157	# 48	0549	# 106
0201	# 49	0553	# 107
0205	# 50	0557	# 108
0209	# 51	0601	# 109
0213	# 52	0605	# 110

Test Events Log

Test Controller M. Gouveia **Air Temp** 45.8

Test Title Fast Train Operations **Date** 10/10/17 10/11/17

Run No. 5208 **Direction** CCW Bypass

Summary of test events **Start** 2100 **Stop** 0638 **WO#** RBSI.B.1

Time	Event	Time	Event
0609	#111		#
0613	#112		#
0617	#113		#
0621	#114		#
0625	#115		#
0629	#116		#
0633	#117		#
0638	# Operations complete		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller M. Colosua **Air Temp** 49.5

Test Title Fast Train Operations **Date** 10/11/17 10/12/17

Run No. 5209 **Direction** CW Bypass

Summary of test events **Start** 2100 **Stop** 0646 **WO#** RBBL.B.L

Time	Event
2100	#FAST occupied
2100	#Switches Locked for the Bypass
2105	#Pre test meeting
2135	#Loco Eng. on Board
2152	#Brake test set and release
2157	#Brake test complete sidet TCR
2208	#TCR complete and inp #1
2214	#2
2218	#3
2222	#4
2226	#5
2230	#6
2234	#7
2238	#8
2242	#9
2246	#10 Hot Box ok
2250	#11
2254	#12
2258	#13
2302	#14
2306	#15
2310	#16
2315	#17
2319	#18
2323	#19
2327	#20 Hot Box ok
2331	#21
2335	#22 32' 3/8 1/4 24' 3/16 1/8
2339	#23
2343	#24 Steel Bridge 3/8 3/8 5/8 5/8
2347	#25
2351	#26
2355	#27
2359	#28
0003	#29
0007	#30
0011	#31
0015	#32
0019	#33
0023	#34
0027	#35
0031	#36
0035	#37
0039	#38
0043	#39
0047	#40 Hot Box ok
0051	#41
0055	#42 32' 3/8 1/4 24' 3/16 1/8
0059	#43
0103	#44 Steel Bridge 3/8 3/8 5/8 5/8
0107	#45
0111	#46
0115	#47
0119	#48
0123	#49
0127	#50
0131	#51
0135	#52
0139	#53
0143	#54
0147	#55
0151	#56
0155	#57
0159	#58
0203	#59
0207	#60 Hot Box ok
0211	#61
0215	#62 32' 3/8 1/4 24' 3/16 1/8
0219	#63
0223	#64 Steel Bridge 3/8 3/8 5/8 5/8
0227	#65
0231	#66
0235	#67
0239	#68
0243	#69
0247	#70
0251	#71
0255	#72
0259	#73
0303	#74
0307	#75
0311	#76
0315	#77
0319	#78
0323	#79
0327	#80 Hot Box ok
0331	#81
0335	#82 32' 3/8 1/4 24' 3/16 1/8
0339	#83
0343	#84 Steel Bridge 3/8 3/8 5/8 5/8
0347	#85
0351	#86
0355	#87
0359	#88
0403	#89
0407	#90
0411	#91
0415	#92
0419	#93
0423	#94
0427	#95
0431	#96
0435	#97
0439	#98
0443	#99
0447	#100 Hot Box ok
0451	#101
0455	#102 32' 3/8 1/4 24' 3/16 1/8
0459	#103
0503	#104 Steel Bridge 3/8 3/8 5/8 5/8
0507	#105
0511	#106
0515	#107
0519	#108
0523	#109
0527	#110

Test Events Log

Test Controller M. Cordova **Air Temp** 49.5°

Test Title Fast Train Operations **Date** 10/11/17 10/12/17

Run No. 5209 **Direction** CW Bypass

Summary of test events **Start** 2100 **Stop** 0646 **WO#** RBSI.B.1

Time	Event	Time	Event
0531 0535	# 111 112		#
0539 0543	# 113 114		#
0547 0551	# 115 116		#
0555 0559	# 117 118		#
0603 0607	# 119 120 Not 130x OK		#
0611 0615	# 121 122		#
0619 0623	# 123 124		#
0627 0631	# 125 126		#
0635 0639	# 127 128		#
0643 0646	# 129 130 operations complete		#
	#		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller M. Condon **Air Temp** 61°

Test Title FAST TRAIN OPERATIONS **Date** 10/12/17 10/13/17

Run No. S210 **Direction** CW BYPASS

Summary of test events **Start** 2100 **Stop** 0646 **WO#** R13D1.B.1

Time	Event	Time	Event
2100	# FAST DUMPED	0138	# 53
2100	SWITCHES ISOLD INTO GREEN	0142	# 54
2105	# PRE TEST MEETING	0146	# 55
2140	LOCO ENG. OR BOARD	0150	# 56
2151	# BRAKE TEST SET AND RELEASE	0154	# 57
2156	# BRAKE TEST COMPLETE SIGNAL TCR	0158	# 58
2207	TCR COMPLETE AND LAP #1	0202	# 59
2213	# 2	0206	# 60 HOT BOX OK
2218	# 3	0210	# 61
2222	# 4	0214	# 62 32' 3/8 1/4 24' 3/16 1/8
2226	# 5	0218	# 63
2230	# 6	0222	# 64 STEEL BLEDGE 3/8 3/8 5/8 5/8
2234	# 7	0226	# 65
2238	# 8	0230	# 66
2242	# 9	0234	# 67
2246	# 10 HOT BOX OK	0238	# 68
2250	# 11	0242	# 69
2254	# 12	0246	# 70
2258	# 13	0250	# 71
2302	# 14	0254	# 72
2306	# 15	0258	# 73
2310	# 16	0302	# 74
2314	# 17	0306	# 75
2318	# 18	0310	# 76
2322	# 19	0314	# 77
2326	# 20 HOT BOX OIL	0318	# 78
2350	# 21	0322	# 79
2334	# 22 32' 3/8 1/4 24' 3/16 1/8	0326	# 80 HOT BOX OIL
2338	# 23	0330	# 81
2342	# 24 STEEL BLEDGE 3/8 3/8 5/8 5/8	0334	# 82 32' 3/8 1/4 24' 3/16 1/8
2346	# 25	0338	# 83
2350	# 26	0342	# 84 STEEL BLEDGE 3/8 3/8 5/8 5/8
2354	# 27	0346	# 85
2358	# 28	0350	# 86
0002	# 29	0354	# 87
0006	# 30	0358	# 88
0010	# 31	0402	# 89
0014	# 32	0406	# 90
0018	# 33	0410	# 91
0022	# 34	0414	# 92
0026	# 35	0418	# 93
0030	# 36	0422	# 94
0034	# 37	0426	# 95
0038	# 38	0430	# 96
0042	# 39	0434	# 97
0046	# 40 HOT BOX OIL	0438	# 98
0050	# 41	0442	# 99
0054	# 42 32' 3/8 1/4 24' 3/16 1/8	0446	# 100 HOT BOX OIL
0058	# 43	0450	# 101
0102	# 44 STEEL BLEDGE 3/8 3/8 5/8 5/8	0454	# 102 32' 3/8 1/4 24' 3/16 1/8
0106	# 45	0458	# 103
0110	# 46	0502	# 104 STEEL BLEDGE 3/8 3/8 5/8 5/8
0114	# 47	0506	# 105
0118	# 48	0510	# 106
0122	# 49	0514	# 107
0126	# 50	0518	# 108
0130	# 51	0522	# 109
0134	# 52	0526	# 110

Test Events Log

Test Controller M. Gordon **Air Temp** 61°

Test Title Fast Trip Operations **Date** 10/11/17 10/13/17

Run No. 5210 **Direction** CW Bypass

Summary of test events **Start** 2100 **Stop** 0646 **WO#** R801.8.1

Time	Event	Time	Event
0530 0534	#111 #112		#
0538 0542	#113 #114		#
0546 0550	#115 #116		#
0554 0558	#117 #118		#
0602 0606	#119 #120 NOT IJOX OK		#
0610 0614	#121 #122		#
0618 0622	#123 #124		#
0626 0630	#125 #126		#
0634 0638	#127 #128		#
0643 0646	#129 #130 OPERATIONS Complete		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller M. COLDOVA **Air Temp** 42.5

Test Title FAST TRAIN OPERATIONS **Date** 10/16/17 10/17/17

Run No. S211 **Direction** CW MAIN LINE

Summary of test events **Start** 2100 **Stop** 0640 **WO#** R301.15.1

Time	Event	Time	Event
2100	FAST ACCEPTED	0155	#53
2108	# SWITCHES LINED locks CLOSED	0159	#54
2105	PRE TEST MEETING	0203	#55
2139	# 100 CAR. ON BOARD	0207	#56
2153	BRAKE TEST SET AND RELEASE	0211	#57
2159	# BRAKE TEST COMPLETE START TCR	0216	#58
2210	TCR COMPLETE AND INPUT AND SETTLEMENT TAPS	0219	#59
2218	#2	0223	#60 HOT BOX OK
2226	#3	0227	#61
2234	#4	0231	#62 32' 3/8 1/4 24' 3/16 1/8
2240	#5	0235	#63
2245	#6	0239	#64 STEEL BRIDGE 3/8 3/8 5/8 5/8
2251	#7 SETTLEMENT TAPS COMPLETE	0243	#65
2255	#8	0247	#66
2259	#9	0251	#67
2303	#10 HOT BOX OK	0255	#68
2307	#11	0259	#69
2311	#12	0303	#70
2315	#13	0307	#71
2319	#14	0311	#72
2323	#15	0315	#73
2327	#16	0319	#74
2331	#17	0323	#75
2335	#18	0327	#76
2339	#19	0331	#77
2343	#20 HOT BOX OK	0335	#78
2347	#21	0339	#79
2351	#22 32' 3/8 1/4 24' 3/16 1/8	0343	#80 HOT BOX OK
2355	#23	0347	#81
2359	#24 STEEL BRIDGE 3/8 3/8 5/8 5/8	0351	#82 32' 3/8 1/4 24' 3/16 1/8
0003	#25	0355	#83
0007	#26	0359	#84 STEEL BRIDGE 3/8 3/8 5/8 5/8
0011	#27	0403	#85
0015	#28	0407	#86
0019	#29	0411	#87
0023	#30	0415	#88
0027	#31	0419	#89
0031	#32	0423	#90
0035	#33	0427	#91
0039	#34	0431	#92
0043	#35	0436	#93
0047	#36	0440	#94
0051	#37	0444	#95
0055	#38	0448	#96
0059	#39	0452	#97
0103	#40 HOT BOX OK	0456	#98
0107	#41	0500	#99
0111	#42 32' 3/8 1/4 24' 3/16 1/8	0504	#100 HOT BOX OK
0115	#43	0508	#101
0119	#44 STEEL BRIDGE 3/8 3/8 5/8 5/8	0512	#102 32' 3/8 1/4 24' 3/16 1/8
0123	#45	0516	#103
0127	#46	0520	#104 STEEL BRIDGE 3/8 5/8 5/8 5/8
0131	#47	0524	#105
0135	#48	0528	#106
0139	#49	0532	#107
0143	#50	0536	#108
0147	#51	0540	#109
0151	#52	0544	#110

Test Events Log

Test Controller M. CORDOVA **Air Temp** 42.5°

Test Title FAST TRAIN OPERATIONS **Date** 10/16/17 10/17/17

Run No. 5211 **Direction** CW MAINLINE

Summary of test events **Start** 2100 **Stop** 0640 **WO#** RAIL 15.1

Time	Event	Time	Event
0548 0552	#111 #112		#
0556 0600	#113 #114		#
0604 0608	#115 #116		#
0612 0616	#117 #118		#
0620 0624	#119 #120		#
0628 0632	#121 #122		#
0636 0640	#123 #124 OPERATIONS		#
	#		#
	#		#
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	#		#
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TTCI Internal Notes:

Date: 10/17/17 **~~Time of Red Signal:~~** JOHN STOPPED TRAIN 2323 **Time Stopped:** 2331

Weld, Rail, Joint (check one)

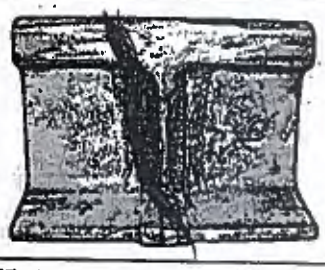
☐ Rail	☐ Field Weld	☒ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☒ Web	☐ Base	☐ Bolt Hole	☐ Other

Section	3
Tie	1081
I or O Rail	ISR
Weld #	NONE
Weld Install Date	NONE
Rail Temp	61.6
Air Temp	41°
	
Head Gap	3/8
Web Gap	3/8
Base Gap	3/8
Rail Size POS	141
Rail Size NEG	141

Comments: ITW WELD SUPPORTED ON A DOG BONE TIE
NO RED SIGNAL. CUT OUT 20' 1/2" REPLACED WITH 20' 1/4"
PLUG. DRILLED 6 HOLES AND BARRED.

TTCI Internal Notes:

Date: 10/18/17 **Time of Red Signal:** 0537 **Time Stopped:** 0539

Weld, Rail, Joint (check one)

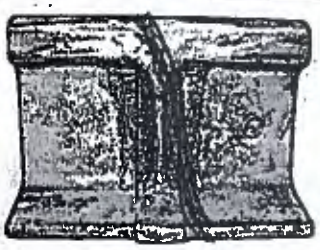
☐ Rail	☐ Field Weld	☒ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☒ Web	☐ Base	☐ Bolt Hole	☐ Other

Section	7
Tie	522
I or O Rail	ISL
Weld #	NONE
Weld Install Date	NONE
Rail Temp	41°
Air Temp	41°
	
Head Gap	1/2
Web Gap	1/2
Base Gap	1/2
Rail Size POS	136
Rail Size NEG	136
Comments:	Cut out 18'1/2" Plug replaced with 18'1/4" P/S drilled 8 holes and Bolted. Cut out A test Rail section Tie 520 - 530.

547-3819

Test Events Log

Test Controller M. Cuevas **Air Temp** 49°

Test Title FAST TRAIN OPERATIONS **Date** 10/17/18 10/18/17

Run No. 5212 **Direction** CCW MAINLINE

Summary of test events **Start** 2100 **Stop** 0625 **WO#** RJ01.3.1

Time	Event	Time	Event
2100	# FAST completed		#
2100	# SWITCHES LEVERS LOCKED CHECKED		#
2105	# PRE TEST INSPECTION.		#
2135	# ECU ENG. ON BOARD		#
2143	# BRAKE TEST SET AND RELEASED		#
2149	# BRAKE TEST COMPLETE START TCR		#
2201	# TCR COMPLETE AND LAP #1		#
2207	# 2		#
2212	# 3		#
2216	# 4		#
2220	# 5		#
2224	# 6		#
2228	# 7		#
2232	# 8		#
2236	# 9		#
2240	# 10 HOT BOX OK		#
2244	# 11		#
2248	# 12		#
2252	# 13		#
2256	# 14		#
2300	# 15		#
2304	# 16		#
2308	# 17		#
2312	# 18		#
2316	# 19		#
2320	# 20 HOT BOX OK		#
2323	# JOHN STOPPED TRAIN		#
2325	# LAP 21 COMPLETE		#
2331	# STOPPED BLOCKED ITN WELD SEC 3 ISL		#
0305	# TRACK BACK TOGETHER GREEN SIGNAL		#
0310	# BACK TRAIN UP TO RESTART		#
0321	# STOPPED TO RESET COMPUTER		#
0325	# BRAKE TEST SET AND RELEASED		#
0330	# BACK ON THE MOVE		#
0335	# RED SIGNAL		#
0339	# STOPPED BLOCKED ITN WELD SEC 7		#
0620	# TRACK BACK TOGETHER GREEN SIGNAL		#
0625	# OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller M. COLBOVA **Air Temp** 53°

Test Title FAST TRAIN OPERATIONS **Date** 10/13/17 10/15/17

Run No. 5213 **Direction** CCW MAINLINE

Summary of test events **Start** 2100 **Stop** 0647 **WO#** RSOL.B.1

Time	Event
2100	FAST CLAMPED
2100	#1 SWITCHES LOCKED LOCKED GREEN
2105	PRE TEST MEETING
2136	#1 LOCO ENG. ON BOARD
2144	BRAKE TEST SET AND RELEASE
2149	#1 BRAKE TEST COMPLETE START TCR
2202	TCR COMPLETE AND INP #1
2208	#2
2212	#3
2216	#4
2223	#5
2227	#6
2228	#7
2232	#8
2237	#9
2241	#10 NOT BOX OK
2245	#11
2249	#12
2255	#13
2257	#14
2301	#15
2305	#16
2309	#17
2313	#18
2317	#19
2321	#20 NOT BOX OK
2325	#21
2329	#22 32' 3/8 1/4 24' 3/16 1/8
2333	#23
2336	#24 STEEL BRIDGE 3/8 3/8 5/8 5/8
2340	#25
2344	#26
2348	#27
2352	#28
2356	#29
0000	#30
0004	#31
0008	#32
0012	#33
0016	#34
0020	#35
0024	#36
0028	#37
0032	#38
0036	#39
0040	#40 NOT BOX OK
0044	#41
0048	#42 32' 3/8 1/4 24' 3/16 1/8
0052	#43
0056	#44 STEEL BRIDGE 3/8 3/8 5/8 5/8
0100	#45
0104	#46
0108	#47
0112	#48
0116	#49
0120	#50
0124	#51
0128	#52
0132	#53
0136	#54
0140	#55
0144	#56
0148	#57
0152	#58
0156	#59
0200	#60 HOT BOX OK
0205	#61
0209	#62 32' 3/8 1/4 24' 5/16 1/8
0213	#63
0217	#64 STEEL BRIDGE 3/8 3/8 5/8 5/8
0221	#65
0225	#66
0229	#67
0233	#68
0237	#69
0241	#70
0245	#71
0249	#72
0253	#73
0257	#74
0301	#75
0305	#76
0309	#77
0313	#78
0317	#79
0321	#80 NOT BOX OK
0325	#81
0329	#82 32' 3/8 1/4 24' 3/16 1/8
0333	#83
0337	#84 STEEL BRIDGE 3/8 3/8 5/8 5/8
0341	#85
0345	#86
0349	#87
0353	#88
0357	#89
0401	#90
0405	#91
0409	#92
0413	#93
0417	#94
0421	#95
0425	#96
0429	#97
0433	#98 START DRY DOWN
0437	#99
0441	#100 NOT BOX OK
0445	#101
0449	#102 32' 3/8 1/4 24' 3/16 1/8
0453	#103
0457	#104 STEEL BRIDGE 3/8 3/8 5/8 5/8
0501	#105
0505	#106
0509	#107
0513	#108
0517	#109
0521	#110

Test Events Log

Test Controller M. Cordova **Air Temp** 55°

Test Title Fast Train Operations **Date** 10/18/17 10/19/17

Run No. 5213 **Direction** CCW Main/Epg

Summary of test events **Start** 2100 **Stop** 0647 **WO#** RBBI.B.1

Time	Event	Time	Event
0525 0529	#111 #112		#
0533 0537	#113 #114		#
0541 0545	#115 #116		#
0549 0553	#117 #118		#
0557 0601	#119 #120 Hot Box OIC		#
0605 0609	#121 #122		#
0613 0617	#123 #124		#
0621 0625	#125 #126		#
0629 0633	#127 #128		#
0637 0641	#129 #130		#
0647	# Operations complete		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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	#		#
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5.77
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Test Events Log

Test Controller M. Colsoun **Air Temp** 59°

Test Title FAST TRAIN OPERATIONS **Date** 10/19/17 10/20/17

Run No. 5214 **Direction** CW MAINLINE

Summary of test events **Start** 1800 **Stop** 0535 **WO#** R3DL.13.1

Time	Event	Time	Event
1800	# FAST ORDERED	2228	#53
1800	SWITCHES LEVERS LOCKED CLEGGW	2232	#54
1805	PRE TEST MEETING	2236	#55
1834	# 100 EA. ON BOARD	2240	#56
1842	# BRAKE TEST SET AND RELEASE	2244	#57
1847	# BRAKE TEST COMPLETE START TCR	2248	#58
1858	#2 TCR COMPLETE AND IAP #1	2252	#59
1904		2256	#60 HOT BOX REC.
1908	#3	2300	#61
1912	#4	2304	#62 32' 3/8 1/4 24' 3/16 1/8
1916	#5	2308	#63
1920	#6	2312	#64 STEEL BRIDGE 3/8 3/8 3/8 3/8
1924	#7	2316	#65
1928	#8	2320	#66
1932	#9	2324	#67
1936	#10 HOT BOX OK	2328	#68
1940	#11	2332	#69
1944	#12	2336	#70
1948	#13	2340	#71
1952	#14	2344	#72
1956	#15	2348	#73
2000	#16	2352	#74
2004	#17	2356	#75
2008	#18	0000	#76
2012	#19	0004	#77
2016	#20 HOT BOX OK	0008	#78
2020	#21	0012	#79
2024	#22 32' 3/8 1/4 24' 3/16 1/8	0016	#80 NOT BOX OK
2028	#23	0020	#81
2032	#24 STEEL BRIDGE 3/8 3/8 5/8 5/8	0024	#82 32' 3/8 1/4 24' 3/16 1/8
2036	#25	0028	#83
2040	#26	0032	#84 STEEL BRIDGE 3/8 3/8 5/8 5/8
2044	#27	0036	#85
2048	#28	0040	#86
2052	#29	0044	#87
2056	#30	0048	#88
2100	#31	0052	#89
2104	#32	0056	#90
2108	#33	0101	#91
2112	#34	0105	#92
2116	#35	0109	#93
2120	#36	0113	#94
2124	#37	0117	#95
2128	#38	0121	#96
2132	#39	0125	#97
2136	#40 HOT BOX OK	0129	#98
2140	#41	0133	#99
2144	#42 32' 3/8 1/4 24' 3/16 1/8	0137	#100 HOT BOX OK
2148	#43	0141	#101
2152	#44 STEEL BRIDGE 3/8 3/8 5/8 5/8	0145	#102 32' 3/8 1/4 24' 3/16 1/8
2156	#45	0149	#103
2200	#46	0153	#104 STEEL BRIDGE 3/8 3/8 3/8 5/8
2204	#47	0157	#105
2208	#48	0201	#106
2212	#49	0205	#107
2216	#50	0209	#108
2220	#51	0213	#109
2224	#52	0217	#110

Test Events Log

Test Controller M. CORDOVA **Air Temp** 59°

Test Title FAST TRAIN OPERATIONS **Date** 10/19/17 10/20/17

Run No. 5214 **Direction** CW MAIN/ENG

Summary of test events **Start** 1800 **Stop** _____ **WO#** RDA1.B.1

Time	Event	Time	Event
0221 0225	#111 #112		#
0229 0233	#113 #114		#
0237 0241	#115 #116		#
0245 0249	#117 #118		#
0253 0257	#119 #120 HOT BOX OK		#
0301 0305	#121 #122		#
0309 0313	#123 #124		#
0317 0321	#125 #126		#
0325 0329	#127 #128		#
0333 0336	#129 #130 OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
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Test Events Log

Test Controller M. Cordova **Air Temp** 40°

Test Title Post Train Operations **Date** 10/23/17 10/24/17

Run No. 5215 **Direction** CCW Main Line

Summary of test events **Start** 2100 **Stop** 0337 **WO#** RSDL17.1

Time	Event	Time	Event
2100	# Test Completed		#
2100	# Switches Lined Main Green		#
2105	# Pre Test Inspection		#
2135	# Loco Enh. via Board		#
2142	# Brake Test Set and Released		#
2148	# Brake Test Complete Start TCR		#
2201	# TCR Complete and Cap #1		#
2207	#2		#
2211	#3		#
2215	#4		#
2219	#5		#
2223	#6		#
2227	#7		#
2231	#8		#
2235	#9		#
2239	#10 Hot Box OK		#
2243	#11		#
2247	#12		#
2251	#13		#
2255	#14		#
2259	#15		#
2304	#16		#
2308	#17		#
2312	#18		#
2316	#19		#
2320	#20 Hot Box OK		#
2324	#21		#
2328	#22 32' 3/8 1/4 24' 3/16 1/8		#
2332	#23		#
2336	#24 Steel Bridge 3/8 7/8 5/8 5/8		#
2340	#25		#
2344	#26		#
2348	#27		#
2352	#28		#
2356	#29		#
0000	#30		#
0004	#31		#
0008	#32		#
0012	#33		#
0016	#34		#
0020	#35		#
0024	#36		#
0028	#37		#
0032	#38		#
0036	#39		#
0040	#40 Hot Box OK		#
0044	#41		#
0048	#42 32' 3/8 1/4 24' 3/16 1/8		#
0052	#43		#
0056	#44 Steel Bridge 3/8 3/8 5/8 5/8		#
0100	#45		#
0104	#46		#
0108	#47		#
0114	* Stopped Broken Bolts on Test Loop X2		#
	# Sec 33		#
0337	# Operations Complete		#

TTCI Internal Notes:

Date: 10/25/17 **Time of Red Signal:** 0047 **Time Stopped:** 0055

Weld, Rail, Joint (check one)

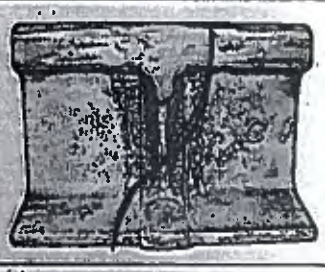
☐ Rail	☐ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☒ Other

Type of Defect (check one)

☐ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☒ Web	☐ Base	☐ Bolt Hole	☐ Other

Section	24
Tie	89
I or O Rail	ISR
Weld #	SHOP WELD
Weld Install Date	SHOP WELD
Rail Temp	43.8°
Air Temp	36°
	
Head Gap	1/2
Web Gap	1/2
Base Gap	1/2
Rail Size POS	136
Rail Size NEG	136
Comments:	CUT OUT A MAINTENANCE WELD DW-1757 01-7-11. 18 3/4' AND REPLACED WITH AN 18 1/2' PLUG DRILLED FOUR HOLES AND BARRED. TIG 80-91

Test Events Log

Test Controller M. Cordova **Air Temp** 40°

Test Title Fast Train Operations **Date** 10/24/12 10/25/12

Run No. 5216 **Direction** CCW Mainline

Summary of test events **Start** 2100 **Stop** 0638 **WO#** RSDL.B.1

Time	Event
2100	#Fast occupied
2100	#Switches Crown Point Gauge
2105	#Pre test notice
2125	#Loco Eng on Board
2145	#Brake test setting Release
2151	#Brake test complete Start TCR
2203	#TCR complete and Lap #1
2209	#2
2213	#3
2217	#4
2221	#5
2225	#6
2229	#7
2233	#8
2237	#9
2242	#10 Hot Box OK
2246	#11
2250	#12
2254	#13
2258	#14
2302	#15
2306	#16
2310	#17
2314	#18
2318	#19
2322	#20 Hot Box OK
2326	#21
2330	#22 32' 5/8 1/4 24' 3/16 1/8
2334	#23
2338	#24 Steel Bridge 3/8 3/8 5/8 5/8
2342	#25
2346	#26
2350	#27
2354	#28
2358	#29
0002	#30
0006	#31
0010	#32
0014	#33
0018	#34
0022	#35
0026	#36
0030	#37
0034	#38
0038	#39
0042	#40 Hot Box OK
0046	#41 32' 3/8 1/4 24' 3/16 1/8
0047	# Red Signal
0055	#Stopped Broken Shop Wood Sig 24 ESL MP 89
0245	#Track Back Together Green Signal
0300	#Brake Test Set and Release
0305	#Back on the Move
0309	#Lap #42 complete
0317	#43
0324	#44
0328	#45
0332	#46
0336	#47
0341	#48
0345	#49
0349	#50
0353	#51
0357	#52
0401	#53
0405	#54
0409	#55
0413	#56
0417	#57
0421	#58
0425	#59
0429	#60
0433	#61 Hot Box OK
0437	#62
0441	#63 32' 3/8 1/4 24' 3/16 1/8
0445	#64
0449	#65 Steel Bridge 3/8 3/8 5/8 5/8
0453	#66
0457	#67
0501	#68
0505	#69
0509	#70
0513	#71
0517	#72
0521	#73
0525	#74
0529	#75
0533	#76
0537	#77
0541	#78
0545	#79
0549	#80
0553	#81 Hot Box OK
0557	#82
0601	#83
0605	#84
0609	#85
0613	#86
0617	#87
0621	#88
0625	#89
0629	#90
0633	#91
0638	# Operations complete
	#
	#
	#
	#
	#
	#
	#

Test Events Log

Test Controller M. Cordova **Air Temp** 47

Test Title Fast Train Operations **Date** 10/25/17 10/26/17

Run No. S217 **Direction** CW Bypass

Summary of test events **Start** 2100 **Stop** 0639 **WO#** R1501.13.1

Time	Event
2100	Test occupied
2100	#1 Switches lined/locked for the bypass
2105	Pre test meeting
2132	#1 loco Eng. D. Ibaldo
2143	Blake test set and roll-by
2147	#1 Blake test complete start TCR
2158	TCR complete and lap #1
2204	#2
2209	#3
2213	#4
2217	#5
2221	#6
2225	#7
2229	#8
2233	#9
2237	#10 Hot box OK
2241	#11
2245	#12
2249	#13
2253	#14
2257	#15
2301	#16
2305	#17
2309	#18
2313	#19
2317	#20 Hot box OK
2321	#21
2325	#22 32' 3/8 1/4 24' 3/16 1/8
2329	#23
2333	#24 Steel bridge 3/8 3/8 5/8 5/8
2337	#25
2341	#26
2345	#27
2349	#28
2353	#29
2357	#30
0001	#31
0005	#32
0009	#33
0013	#34
0017	#35
0021	#36
0025	#37
0029	#38
0033	#39
0037	#40 Hot box OK
0041	#41
0045	#42 32' 3/8 1/4 24' 3/16 1/8
0049	#43
0053	#44 Steel bridge 3/8 3/8 5/8 5/8
0057	#45
0101	#46
0105	#47
0109	#48
0113	#49
0117	#50
0121	#51
0125	#52
0129	#53
0133	#54
0137	#55
0141	#56
0145	#57
0149	#58
0153	#59
0157	#60 Hot box OK
0201	#61
0205	#62 32' 3/8 1/4 24' 3/16 1/8
0209	#63
0213	#64 Steel bridge 3/8 3/8 5/8 5/8
0217	#65
0221	#66
0225	#67
0229	#68
0233	#69
0237	#70
0241	#71
0245	#72
0249	#73
0253	#74
0257	#75
0301	#76
0305	#77
0309	#78
0313	#79
0317	#80 Hot box OK
0321	#81
0325	#82 32' 3/8 1/4 24' 3/16 1/8
0329	#83
0333	#84 Steel bridge 3/8 3/8 5/8 5/8
0337	#85
0341	#86
0345	#87
0349	#88
0353	#89
0357	#90
0401	#91
0405	#92
0409	#93
0413	#94
0417	#95
0421	#96
0425	#97
0429	#98
0433	#99
0437	#100 Hot box OK
0441	#101
0445	#102 32' 3/8 1/4 24' 3/16 1/8
0449	#103
0453	#104 Steel bridge 3/8 3/8 5/8 5/8
0457	#105
0501	#106
0505	#107
0509	#108
0513	#109
0517	#110

Test Events Log

Test Controller M. Colloqua **Air Temp** 47°

Test Title Fast Train Operations **Date** 10/25/17 10/26/17

Run No. 5217 **Direction** CW Bypass

Summary of test events **Start** 2100 **Stop** 0639 **WO#** 1251.B.1

Time	Event	Time	Event
0521	#111		#
0528	#112		#
0529	#113		#
0533	#114		#
0537	#115		#
0541	#116		#
0545	#117		#
0549	#118		#
0553	#119		#
0557	#120 Hot box ok		#
0601	#121		#
0605	#122		#
0609	#123		#
0613	#124		#
0617	#125		#
0621	#126		#
0628	#127		#
0629	#128		#
0635	#129		#
0638	#130		#
0639	#131 Operations complete		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#
	#		#

TTCI Internal Notes:

Date: 10/26/17 **Time of Red Signal:** 1909 **Time Stopped:** 1912

Weld, Rail, Joint (check one)

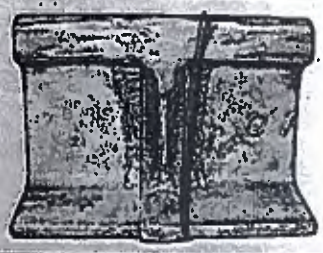
☐ Rail	☒ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☐ Web	☒ Base	☐ Bolt Hole	☐ Other

Section	25
Tie	1438
I or O Rail	OSK
Weld #	OW-2719
Weld Install Date	08-01-16
Rail Temp	40°
Air Temp	36°
	
Head Gap	3/4
Web Gap	3/4
Base Gap	3/4
Rail Size POS	136
Rail Size NEG	136
Comments:	DRILLED FOUR HOLES AND BARRED

TTCI Internal Notes:

Date: 10/26/17 **~~Time of Red Signal:~~** SO AN STOPPED TRAIN 2248 **Time Stopped:** 2259

Weld, Rail, Joint (check one)

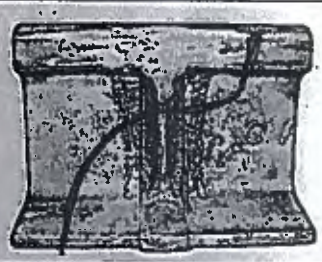
☐ Rail	☐ Field Weld	☒ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☒ Web	☐ Base	☐ Bolt Hole	☐ Other

Section	3
Tie	935
I or O Rail	OSR
Weld #	ITW-1027
Weld Install Date	06-07-17
Rail Temp	49.5°
Air Temp	33°
	
Head Gap	NONE
Web Gap	NONE
Base Gap	NONE
Rail Size POS	136
Rail Size NEG	136
Comments:	CUT OUT 14'9 3/4 AND PUT IN A 14'9 1/2" PLUG
	DRILLED FOUR HOLES AND BACKED BOTH ENDS

Test Events Log

Test Controller M. Cardova **Air Temp** 38°

Test Title Fast Train Operations **Date** 10/26/17 10/27/17

Run No. 5218 **Direction** CW Mainline

Summary of test events **Start** 1800 **Stop** 0338 **WO#** RB01.81

Time	Event	Time	Event
1803	# Fast occupied	0236	# 44
1800	# Switches lined Main Green	0240	# 45 Steel Bridge 3/8 3/8 5/8 5/8
1805	# Pretest meeting	0244	# 46
1831	# Loco Eng On Board	0248	# 47
1841	# Brake test set and release	0252	# 48
1846	# Brake test complete start TCR	0256	# 49
1857	# TCR complete and Lap #1	0300	# 50
1909	# 2	0304	# 51
1908	# 3	0308	# 52
1909	# Red Signal	0312	# 53
1912	# Stopped Broken Field Weld Sec 25 OSL	0316	# 54
2000	# Track Back to Control Green Signal	0320	# 55
2028	# Brake test set and release	0324	# 56
2033	# Back on the move	0328	# 57
2044	# Lap #4 complete	0332	# 58
2051	# 5	0336	# 59
2055	# 6	0338	# 60 Operations complete
2100	# 7		#
2104	# 8		#
2108	# 9		#
2112	# 10		#
2116	# 11 Hot Box OK		#
2120	# 12		#
2124	# 13		#
2128	# 14		#
2132	# 15		#
2136	# 16		#
2140	# 17		#
2144	# 18		#
2148	# 19		#
2152	# 20		#
2156	# 21 Hot Box OK		#
2200	# 22		#
2204	# 23 32' 3/8 1/4 24' 3/16 1/8		#
2208	# 24		#
2212	# 25 Steel Bridge 3/8 3/8 5/8 5/8		#
2216	# 26		#
2220	# 27		#
2224	# 28		#
2228	# 29		#
2232	# 30		#
2236	# 31		#
2240	# 32		#
2244	# 33		#
2248	# 34 John Stopped Train		#
2259	# Stopped Broken ITW Weld Sec 3 OSL		#
0130	# Track Back to Control Green Signal		#
0145	# Brake Test Set and Release		#
0149	# Back on the move		#
0152	# Lap #35 complete		#
0201	# 36		#
0207	# 37		#
0212	# 38		#
0216	# 39		#
0220	# 40		#
0224	# 41 Hot Box OK		#
0228	# 42		#
0232	# 43 32' 3/8 1/4 24' 3/16 1/8		#

ITW 1027-17 06-07-17

SW-2719-16

Test Events Log

Test Controller M Cowan **Air Temp** 41°

Test Title FAST TRAIN OPERATIONS **Date** 10/30/17 10/31/17

Run No. 5219 **Direction** CCW MAINLINE

Summary of test events **Start** 1600 **Stop** 0131 **WO#** R3D1.13.1

Time	Event	Time	Event
1600	FAST COMPLETED	2137	#96
1653	#SWITCHES LINED locals GREEN	2141	#47
1600	PRE TEST MEETING,	2145	#48
1644	#100 FAL ON BOARD	2149	#49
1654	#BRAKE TEST SET AND RELEASE	2153	#50
1659	#BRAKE TEST COMPLETE START TCR	2157	#51
1711	#TCR COMPLETE AND LAP #1	2201	#52
1717	#TREVOR STOPPING TRAIN for DERAILER CHANGE	2205	#53
	GPS not working, WE HAD TO RESET ALL BRAKE	2209	#54
1751	#BRAKE TEST SET AND RELEASE	2213	#55
1755	#BACK ON THE MOVE	2217	#56
1759	#LAP#2 COMPLETE	2221	#57
1808	#3	2225	#58
1811	TREVOR STOPPING ON BOARD GPS	2229	#59
1835	#BRAKE TEST SET AND RELEASED	2233	#60
1840	BACK ON THE MOVE	2238	#61 NOT BOX OK
1844	LAP#4 COMPLETE	2242	#62
1852	#5	2246	#63 32' 3/8 1/4 24' 3/16 1/8
1858	#6	2250	#64
1903	#7	2254	#65 STEEL BRIDGE 3/8 3/8 5/8 5/8
1907	#8	2258	#66
1911	#9	2302	#67
1915	#10	2306	#68
1919	#11 NOT BOX OK	2310	#69
1923	#12	2314	#70
1927	#13	2318	#71
1931	#14	2322	#72
1935	#15	2326	#73
1939	#16	2330	#74
1943	#17	2335	#75
1947	#18	2339	#76
1951	#19	2343	#77
1955	#20	2347	#78
1959	#21 NOT BOX OK	2351	#79
2003	#22	2355	#80
2007	#23 32' 3/8 1/4 24' 3/16 1/8	2359	#81 NOT BOX OK
2011	#24	0003	#82
2014	#25 STEEL BRIDGE 3/8 3/8 5/8 5/8	0008	#83 32' 3/8 1/4 24' 3/16 1/8
2018	#26	0012	#84
2022	#27 TREVOR CHANGE TRAIN MANUALLY	0016	#85 STEEL BRIDGE 3/8 3/8 5/8 5/8
2026	#28	0020	#86
2028	#29	0024	#87
2031	#30	0029	#88
2035	#31	0033	#89
2039	#32	0037	#90
2043	#33	0041	#91
2047	#34	0045	#92
2052	#35	0049	#93
2056	#36	0053	#94
2100	#37	0057	#95
2104	#38	0101	#96
2108	#39	0105	#97
2112	#40	0109	#98
2116	#41 NOT BOX OK	0113	#99
2120	#42	0117	#100
2124	#43 32' 3/8 1/4 24' 3/16 1/8	0121	#101
2128	#44	0126	#102
2132	#45 STEEL BRIDGE 3/8 3/8 5/8 5/8	0131	OPERATIONS COMPLETE

Test Events Log

Test Controller M. Cozzolino **Air Temp** 53.4

Test Title Fast Train Operations **Date** 10/31/12 11/1/12

Run No. 5220 **Direction** CCW Mainline

Summary of test events **Start** 1600 **Stop** 0946 **WO#** RSD1.B.1

Time	Event	Time	Event
1600	Fast crumpled	2200	#45
1708	#1 Switches Lined and Locked	2204	#46
1600	Pre Test Meeting	2208	#47
1658	#1 Loco Fuel on Board	2212	#48
1710	#Brake Test Set and Release	2216	#49
1715	#Brake Test Complete Start ITR	2220	#50
1727	TCR complete and Lap #1	2224	#51
1734	#2	2228	#52
1738	#3	2232	#53
1742	#4	2236	#54
1746	#5	2240	#55
1750	#6	2244	#56
1754	#7	2248	#57
1758	#8	2252	#58
1802	#9	2256	#59
1806	#10 Hot Box OK	2300	#60 Hot Box OK
1811	#11	2304	#61
1812	#Trevor stopping train to check GPS	2308	#62 32' 3/8 1/4 24' 3/16 1/8
1816	#Trevor stopped for on board GPS	2312	#63
1906	#Brake Test Set and Release	2316	#64 Steel Bridge 3/8 3/8 5/8 5/8
1911	#Back on the move	2320	#65
1914	#Lap #12 complete	2324	#66
1923	#13	2328	#67
1929	#14	2332	#68
1934	#15	2336	#69
1938	#16	2340	#70
1942	#17	2344	#71
1946	#18	2348	#72
1950	#19	2352	#73
1954	#20 Hot Box OK	2356	#74
1958	#21	0000	#75
2002	#22 32' 3/8 1/4 24' 3/16 1/8	0004	#76
2006	#23	0008	#77
2010	#24 Steel Bridge 3/8 3/8 5/8 5/8	0012	#78
2012	#Trevor Running Train Manualy	0016	#79
2014	#25	0020	#80 Hot Box OK
2018	#26	0024	#81
2025	#Stopped for GPS reset and to edit Controls	0028	#82 32' 3/8 1/4 24' 3/16 1/8
2033	#Brake Test Set and Release	0032	#83
2037	#Back on the move / Computer Running	0036	#84 Steel Bridge 3/8 3/8 5/8 5/8
2041	Lap #27 complete	0040	#85
2050	#28	0044	#86
2056	#29	0048	#87
2100	#30	0052	#88
2104	#31	0056	#89
2108	#32	0100	#90
2112	#33	0105	#91
2116	#34	0109	#92
2120	#35	0113	#93
2124	#36	0117	#94
2128	#37	0121	#95
2132	#38	0125	#96
2136	#39	0129	#97
2140	#40 Hot Box OK	0133	#98
2144	#41	0137	#99
2148	#42 32' 3/8 1/4 24' 3/16 1/8	0141	#100
2152	#43	0146	#Operations complete
2156	#44 Steel Bridge 3/8 3/8 5/8 5/8		

TTCI Internal Notes:

Date: 11/2/17 **Time of Red Signal:** 0054 **Time Stopped:** 0056

Weld, Rail, Joint (check one)

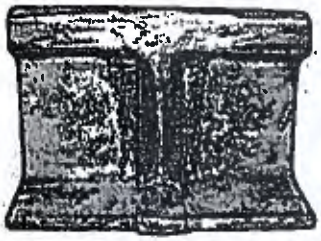
☒ Rail	☐ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☒ Head	☐ Web	☐ Base	☐ Bolt Hole	☐ Other

Section	5
Tie	46
I or O Rail	ISL
Weld #	UNK
Weld Install Date	UNK
Rail Temp	70.4°
Air Temp	56°
	
Head Gap	1/16
Web Gap	1/16
Base Gap	1/16
Rail Size POS	136
Rail Size NEG	136
Comments:	ROLL BASIC IS on TOP OF FAST STEEL BRIDGE

400
600

Test Events Log

Test Controller M. Cordova **Air Temp** 75.2°

Test Title Fast Train Operations **Date** 11/1/17 11/2/17

Run No. 5221 **Direction** CW Bypass

Summary of test events **Start** 1600 **Stop** 0136 **WO#** RBDL.B.1

Time	Event
1600	Fast Train #1 Switches Reset and Locked for the Bypass
1657	Pre Test Meeting
1605	Loco ENG On Board
1647	Brake Test Set and Release
1657	Brake Test Complete Start TCR
1702	TCR complete and Lap #1
1713	#2
1719	
1724	#3
1728	#4
1732	#5
1736	#6
1740	#7
1744	#8
1748	#9
1752	#10 Hot Box OK
1756	#11
1800	#12
1804	#13
1808	#14
1812	#15
1816	#16
1820	#17
1824	#18
1828	#19
1832	#20 Hot Box OK
1836	#21
1840	#22 32' 3/8 1/4 24' 3/16 1/8
1844	#23
1848	#24 Steel Bridge 3/8 3/8 5/8 5/8
1852	#25
1856	#26
1900	#27
1904	#28
1908	#29
1912	#30
1916	#31
1920	#32
1924	#33
1928	#34
1932	#35
1936	#36
1940	#37
1944	#38
1948	#39
1952	#40
1956	#41
2000	#42 32' 3/8 1/4 24' 3/16 1/8
2004	#43
2008	#44 Steel Bridge 3/8 3/8 5/8 5/8
2013	#45
2017	#46
2021	#47
2025	#48
2029	#49
2033	#50
2037	#51
2041	#52
2045	#53
2049	#54
2053	#55
2057	#56
2101	#57
2105	#58
2109	#59
2113	#60 Hot Box OK
2117	#61
2121	#62 32' 3/8 1/4 24' 3/16 1/8
2125	#63
2129	#64 Steel Bridge 3/8 3/8 5/8 5/8
2133	#65
2137	#66
2141	#67
2145	#68
2149	#69
2153	#70
2157	#71
2201	#72
2205	#73
2209	#74
2213	#75
2217	#76
2221	#77
2225	#78
2229	#79
2233	#80 Hot Box OK
2237	#81
2241	#82 32' 3/8 1/4 24' 3/16 1/8
2245	#83
2249	#84 Steel Bridge 3/8 3/8 5/8 5/8
2253	#85
2257	#86
2301	#87
2305	#88
2309	#89
2313	#90
2317	#91
2321	#92
2325	#93
2329	#94
2333	#95
2337	#96
2341	#97
2345	#98
2349	#99
2353	#100 Hot Box OK
2357	#101
0001	#102 32' 3/8 1/4 24' 3/16 1/8
0005	#103
0009	#104 Steel Bridge 3/8 3/8 5/8 5/8
0013	#105
0017	#106
0021	#107
0025	#108
0029	#109
0033	#110

Test Events Log

Test Controller M. CORDOVA **Air Temp** 75.2°

Test Title FAST TRACK OPERATIONS **Date** 11/1/17 11/2/17

Run No. 5221 **Direction** CW BYPASS

Summary of test events **Start** 1600 **Stop** 0136 **WO#** RB01.B.1

Time	Event	Time	Event
0037 0041	#111 112		#
0045 0049	#113 114		#
0053 0054	#115 [redacted] RED SIGNAL		#
0056	# STOPPED LOAD BREAK SECS DSL TIE 46 ON EAST STEEL BRIDGE		#
0136	#114 OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
	#		#
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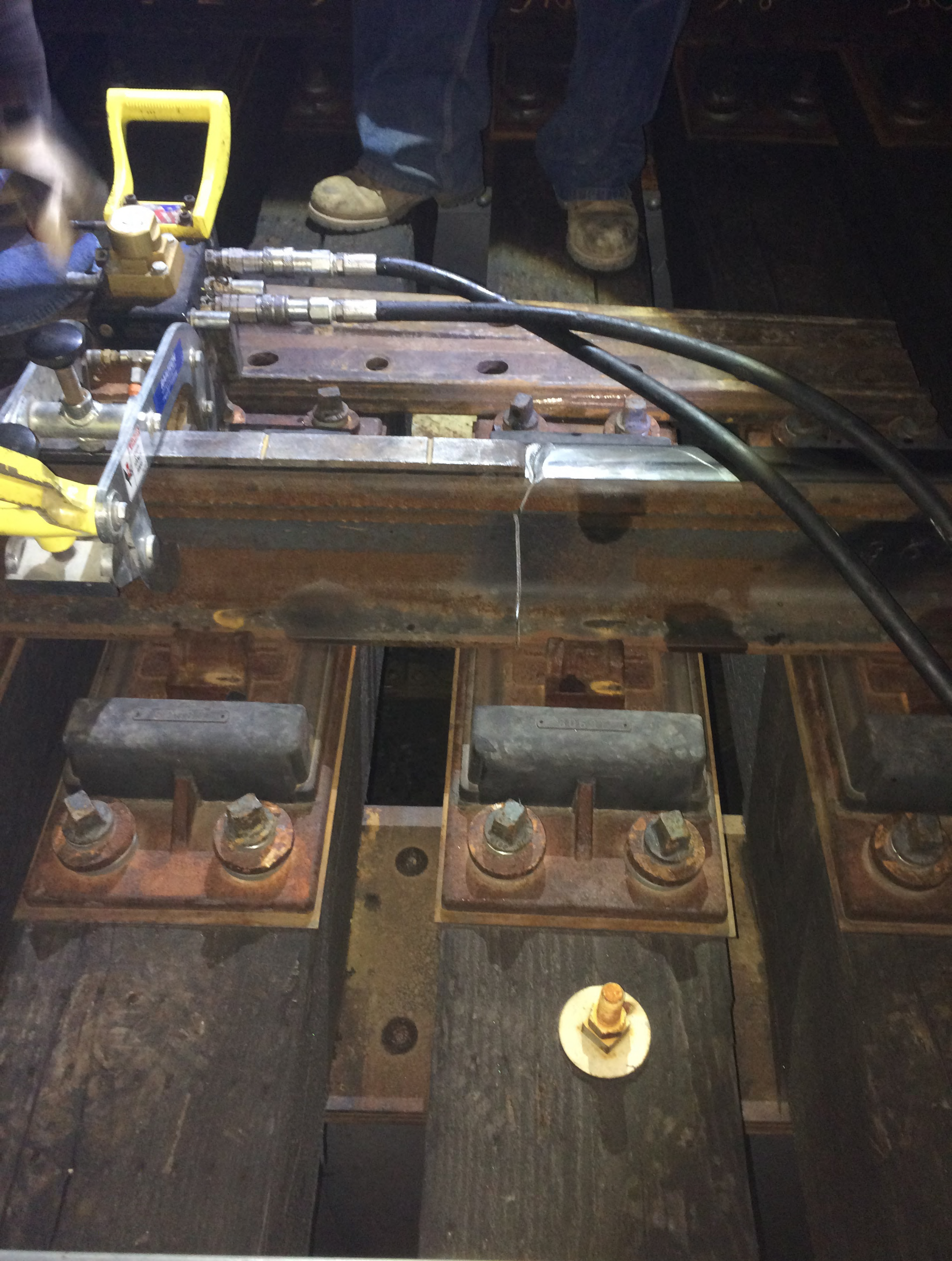
M10
RPS-01-0515
C40-6
A2 30687



TTCI Internal Notes:

Date: 11/2/17 **Time of Red Signal:** 2049 **Time Stopped:** 2053

Weld, Rail, Joint (check one)

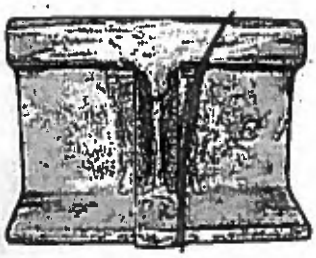
☐ Rail	☑ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☑ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☐ Web	☒ Base	☐ Bolt Hole	☐ Other

Section	9
Tie	88
I or O Rail	ISR
Weld #	BW 2808
Weld Install Date	5/24/17
Rail Temp	
Air Temp	
	
Head Gap	5/8
Web Gap	5/8
Base Gap	5/8
Rail Size POS	136
Rail Size NEG	136
Comments:	DRILLED FOUR HOLES AND BARRED

8:39
8:7

Test Events Log

Test Controller M. Gamora Air Temp 52°

Test Title East Train Operations Date 11/2/17 11/3/17

Run No. S222 Direction CW Mainline

Summary of test events Start 1600 Stop 0136 WO# 2801.01

Time	Event	Time	Event
1600 1650	# East occupied # Switches lined/locked green	2039 2043	#53 #54
1605 1644	# Pre test meeting # 1010 Eng on board	2047 2048	#55 # Red signal
1653 1657	# Brake test set and release # Brake test complete start TCR	2053 2142	# Stopped # Track back together green signal
1708 1711	# TCR complete and lap #1 #2	2146 2152	# Brake test set and release # Back on the move
1719 1723	#3 #4	2154 2203	# Lap #56 complete #57
1727 1731	#5 #6	2209 2213	#58 #59
1735 1739	#7 #8	2217 2221	#60 #61 Hot box ok
1743 1747	#9 #10 Hot box ok	2225 2229	#62 #63 32' 3/8 1/4 24' 3/16 1/8
1751 1755	#11 #12	2233 2237	#64 #65 Steel bridge 3/8 5/8 5/8 5/8
1759 1803	#13 #14	2241 2245	#66 #67
1807 1811	#15 #16	2249 2253	#68 #69
1815 1819	#17 #18	2257 2301	#70 #71
1823 1827	#19 #20 Hot box ok	2305 2309	#72 #73
1831 1835	#21 #22 32' 3/8 1/4 24' 3/16 1/8	2313 2317	#74 #75
1839 1843	#23 #24 Steel bridge 3/8 3/8 5/8 5/8	2321 2325	#76 #77
1847 1851	#25 #26	2329 2333	#78 #79
1855 1859	#27 #28	2337 2341	#80 #81
1903 1907	#29 #30	2345 2349	#82 #83 32' 3/8 1/4 24' 3/16 1/8
1911 1915	#31 #32	2353 2357	#84 #85 Steel bridge 3/8 3/8 5/8 5/8
1919 1923	#33 #34	0001 0005	#86 #87
1927 1931	#35 #36	0009 0013	#88 #89
1935 1939	#37 #38	0017 0021	#90 #91
1943 1947	#39 #40 Hot box ok	0025 0029	#92 #93
1951 1955	#41 #42 32' 3/8 1/4 24' 3/16 1/8	0033 0037	#94 #95
1959 2004	#43 #44 Steel bridge 3/8 3/8 5/8 5/8	0041 0045	#96 #97
2008 2012	#45 #46	0049 0053	#98 #99
2014 2019	#47 #48	0057 0101	#100 #101 Hot box ok
2023 2027	#49 #50	0105 0109	#102 #103
2031 2035	#51 #52	0113 0117	#104 #105

Test Events Log

Test Controller M. CORDOVA Air Temp _____

Test Title FAST TRAIN OPERATIONS Date 11/2/17 11/3/17

Run No. 5222 Direction CW MAINLINE

Summary of test events Start 1600 Stop 0136 WO# RBD1.B1

Time	Event	Time	Event
0121	#106		#
0125	#107		#
0129	#108		#
0133	#109		#
0136	#110 OPERATIONS COMPLETE		#
	#		#
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Test Events Log

Test Controller M. CORDOVA Air Temp 44°

Test Title FAST TRAIN OPERATIONS Date 11/6/17 11/7/17

Run No. S223 Direction CCW MAIN/TTC

Summary of test events Start 1600 Stop 0141 WO# R301.13.1

Time	Event	Time	Event
1600 1653	# FAST CLEARED SWITCHES LINED (LKOD)	2051 2055	# 46 47
1600 1645	# PRE TEST MEETING 1010 CAB ON BOARD	2059 2103	# 48 49
1700 1703	# BRAKE TEST SET AND RELEASE BRAKE TEST COMPLETE START TCR	2107 2111	# 50 51
1709	# TRIED TO RESET GPS AND TRAIN SET A FULL SERVICE	2115 2119	# 52 53
1710 1712	# STOPPED BACK TRACK UP	2123 2128	# 54 55
1722 1732	# STOPPED TO SWAP OUT GPS ANTENNA BRAKE TEST SET AND RELEASE	2132 2136	# 56 57
1737 1749	# BACK ON THE MOVE TCR COMPLETE AND LAP #1	2140 2144	# 58 59
1755 1759	# 2 3	2148 2152	# 60 61 HOT BOX OK
1803 1807	# 4 5	2156 2200	# 62 63 32' 3/8 1/4 24' 3/16 1/8
1811 1815	# 6 7	2204 2208	# 64 65 STEEL BRIDGE 3/8 3/8 5/8 5/8
1819 1823	# 8 9	2212 2216	# 66 67
1827 1831	# 10 11 HOT BOX OK	2220 2224	# 68 69
1835 1839	# 12 13	2228 2232	# 70 71
1843 1847	# 14 15	2236 2240	# 72 73
1851 1855	# 16 17	2244 2248	# 74 75
1859 1903	# 18 19	2252 2256	# 76 77
1907 1911	# 20 21 HOT BOX OK	2300 2304	# 78 79
1915 1919	# 22 23 32' 3/8 1/4 24' 3/16 1/8	2308 2312	# 80 81 HOT BOX OK
1923 1927	# 24 25 STEEL BRIDGE 3/8 3/8 5/8 5/8	2316 2320	# 82 83 32' 3/8 1/4 24' 3/16 1/8
1931 1935	# 26 27	2323 2327	# 84 85 STEEL BRIDGE 3/8 3/8 5/8 5/8
1939 1943	# 28 29	2331 2335	# 86 87
1947 1951	# 30 31	2339 2343	# 88 89
1955 1959	# 32 33	2347 2351	# 90 91
2003 2007	# 34 35	2355 2359	# 92 93
2011 2015	# 36 37	0003 0007	# 94 95
2019 2023	# 38 39	0011 0015	# 96 97
2027 2031	# 40 41 HOT BOX OK	0019 0023	# 98 99
2035 2039	# 42 43 32' 3/8 1/4 24' 3/16 1/8	0027 0031	# 100 101 HOT BOX OK
2043 2047	# 44 45 STEEL BRIDGE 3/8 3/8 5/8 5/8	0035 0039	# 102 103 32' 3/8 1/4 24' 3/16 1/8

Test Events Log

Test Controller M. CORDOVA **Air Temp** 44°

Test Title FAST TRAWL OPERATIONS **Date** 11/6/17 11/7/17

Run No. S223 **Direction** CCW MATCHING

Summary of test events **Start** 1600 **Stop** 0141 **WO#** R501.8.1

Time	Event	Time	Event
0043 0047	#104 #105 STEEL BLOCK 3/8 7/8 7/8 7/8		#
0051 0055	#106 #107		#
0059 0103	#108 #109		#
0107 0111	#110 #111		#
0115 0119	#112 #113		#
0123 0127	#114 #115		#
0131 0135	#116 #117		#
0141	# OPERATIONS COMPLETE		#
	#		#
	#		#
	#		#
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TTCI Internal Notes:

Date: 11/7/17 **Time of Red Signal:** 2015 **Time Stopped:** 2018

Weld, Rail, Joint (check one)

☒ Rail	☐ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☒ Web	☒ Base	☐ Bolt Hole	☐ Other

Section	5
Tie	62
I or O Rail	ISR
Weld #	NONE
Weld Install Date	NONE
Rail Temp	42.5°
Air Temp	32°
Head Gap	1/2
Web Gap	1/2
Base Gap	1/2
Rail Size POS	136
Rail Size NEG	136

Comments: BROKEN RAIL ON EAST STEEL BRIDGE DRILLED FOUR HOLES AND BARED (WEB AND BASE DEFECT) THE RAIL BREAK IS STRAIGHT AND SHOULD BE ABLE TO RUN ON ONE MORE NIGHT.

Test Events Log

Test Controller M. Gedeon **Air Temp** 32.8°

Test Title FAST TRAIN OPERATIONS **Date** 11/7/12 11/8/12

Run No. 5224 **Direction** CCW MAINLINE

Summary of test events **Start** 1600 **Stop** 0140 **WO#** R301.31

Time	Event	Time	Event
1616	#1 FAST COMPLETED	2243	#42
1626	#2 SWITCHES THROWN INTO CROSSOVER	2247	#43 32' 3/8 1/4 24' 3/16 1/8
1630	#3 PRE TEST MEETING	2251	#44
1702	#4 LOCO ON & CAR ON BOARD	2255	#45 STEEL BRIDGE 1/8 3/8 5/8 5/8
1706	#5 BRAKE TEST SET AND RELEASE	2259	#46
1711	#6 BRAKE TEST COMPLETE START TCR	2303	#47
1724	#7 TCR COMPLETE AND LAP #1	2307	#48
1730	#8	2311	#49
1735	#9	2315	#50
1740	#10	2319	#51
1744	#11	2323	#52
1748	#12	2327	#53
1752	#13	2331	#54
1756	#14	2335	#55
1800	#15	2339	#56
1804	#16 HOT BOX OK	2343	#57
1808	#17	2347	#58
1812	#18	2351	#59
1816	#19	2355	#60
1820	#20	2359	#61 HOT BOX OK
1824	#21	0003	#62
1828	#22 32' 3/8 1/4 24' 3/16 1/8	0007	#63 32' 3/8 1/4 24' 3/16 1/8
1832	#23	0011	#64
1836	#24 STEEL BRIDGE 3/8 3/8 5/8 5/8	0015	#65 STEEL BRIDGE 3/8 3/8 5/8 5/8
1840	#25	0019	#66
1844	#26 HOT BOX OK	0023	#67
1848	#27	0027	#68
1852	#28 32' 3/8 1/4 24' 3/16 1/8	0031	#69
1856	#29	0035	#70
1900	#30 STEEL BRIDGE 3/8 3/8 5/8 5/8	0039	#71
1904	#31	0043	#72
1908	#32	0047	#73
1910	#33 ATC STOPPED WORKING AND CPS WENT OUT	0051	#74
1913	#34 STOPPED TO RESET ON BOARD COMPUTER	0055	#75
1927	#35 BRAKE TEST SET AND RELEASE	0059	#76
1932	#36 BACK ON THE MOVE	0103	#77
1935	#37 LAP # 27 COMPLETE	0107	#78
1946	#38	0111	#79
1953	#39	0115	#80
1957	#40	0119	#81 HOT BOX OK
2001	#41	0123	#82
2006	#42	0127	#83
2010	#43	0131	#84
2014	#44	0135	#85
2015	#45 RED SIGNAL	0140	# OPERATIONS COMPLETE
2018	#46 STOPPED BROKEN RAIL SEC 5 TRACK 2		#
2136	#47 TRACK BACK TOGETHER GREEN SIGNAL		#
2146	#48 PULL TRAIN AHEAD TO RESTART		#
2151	#49 STOPPED TO SET UP COMPUTER		#
2155	#50 BRAKE TEST SET AND RELEASE		#
2200	#51 BACK ON THE MOVE		#
2204	#52 LAP # 35 COMPLETE		#
2215	#53		#
2221	#54		#
2226	#55		#
2230	#56		#
2234	#57		#
2238	#58 HOT BOX OK		#

Test Events Log

Test Controller M. CORDOVA **Air Temp** 36°

Test Title FAST TRAIN OPERATIONS **Date** 11/8/17 11/9/17

Run No. 5225 **Direction** CW BYPASS

Summary of test events **Start** 1600 **Stop** 0141 **WO#** 2501.0.1

Time	Event	Time	Event
1600	# FAST OCCUPIED	2105	#48
1600	SWITCHES LINED LOCKED	2109	#49
1605	# PRE TEST MEETING	2113	#50
1646	# IMD ENG ON BOARD	2117	#51
1656	# BRAKE TEST SET AND RELEASE	2121	#52
1700	# BRAKE TEST COMPETE START TCK	2125	#53
1713	# TCK COMPLETE AND LAP #1	2129	#54
1721	#2	2133	#55
1727	#3	2137	#56
1732	#4	2141	#57
1737	#5	2145	#58
1742	#6	2149	#59
1746	#7	2153	#60
1747	# THROUGH STOPPING TRAIN TO CHECK LOCOS	2157	#61 HOT BOX OK
1752	# STOPPED THE CONTROL BRAKE ON THE UP5062 WAS DOWN AND NO LOAD	2201	#62
1809	# BRAKE TEST SET AND RELEASE	2205	#63 32' 3/8 1/4 24' 3/16 1/8
1815	# BACK ON THE MOVE	2209	#64
1818	# LAP # 8 COMPLETE	2213	#65 STEEL BRIDGE 3/8 3/8 5/8 5/8
1826	#9	2217	#66
1832	#10	2221	#67
1837	#11 HOT BOX OK	2225	#68
1841	#12	2229	#69
1845	#13	2233	#70
1849	#14	2237	#71
1853	#15	2241	#72
1859	#16	2245	#73
1901	#17	2249	#74
1905	#18	2253	#75
1909	#19	2257	#76
1913	#20	2301	#77
1917	#21 HOT BOX OK	2305	#78
1921	#22	2309	#79
1925	#23 32' 3/8 1/4 24' 3/16 1/8	2313	#80
1929	#24	2317	#81 HOT BOX OK
1933	#25 STEEL BRIDGE 3/8 3/8 5/8 5/8	2321	#82
1937	#26	2325	#83 32' 3/8 1/4 24' 3/16 1/8
1941	#27	2329	#84
1945	#28	2333	#85 STEEL BRIDGE 3/8 3/8 5/8 5/8
1949	#29	2337	#86
1953	#30	2341	#87
1957	#31	2345	#88
2001	#32	2349	#89
2005	#33	2353	#90
2009	#34	2357	#91
2013	#35	0001	#92
2017	#36	0005	#93
2021	#37	0009	#94
2025	#38	0013	#95
2029	#39	0017	#96
2033	#40	0021	#97
2037	#41 HOT BOX OK	0025	#98
2041	#42	0029	#99
2045	#43 32' 3/8 1/4 24' 3/16 1/8	0033	#100
2049	#44	0037	#101 HOT BOX OK
2053	#45 STEEL BRIDGE 3/8 3/8 5/8 5/8	0041	#102
2057	#46	0045	#103
2101	#47	0049	#104
		0053	#105

Test Events Log

Test Controller M. Cordova **Air Temp** 36°

Test Title FAST TRACK OPERATIONS **Date** 11/8/17 11/9/17

Run No. 5225 **Direction** CW BYPASS

Summary of test events **Start** 1600 **Stop** 0141 **WO#** RBSI.B.1

Time	Event	Time	Event
0057	#106		#
0101	#107		
0105	#108		#
0109	#109		
0113	#110		#
0117	#111		
0121	#112		#
0125	#113		
0129	#114		#
0133	#115		
0138	#116		#
0141	#117 OPERATIONS COMPLETE		
	#		#
	#		#
	#		#
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TTCI Internal Notes:

Date: 11/9/17 **~~Time of Red Signal:~~** JOHN STOPPED TRAIN 2308 **Time Stopped:** 2313

Weld, Rail, Joint (check one)

☒ Rail	☐ Field Weld	☐ In-Track Weld.	☐ Joint	☐ Switch	☐ Other

Type of Defect (check one)

☐ Break	☒ Defect	☐ Alignment	☐ Other

Defect Location (check one)

☐ Head	☐ Web	☒ Base	☐ Bolt Hole	☐ Other

Section	~~Sec~~ 3
Tie	1349
I or O Rail	OSR
Weld #	NONE
Weld Install Date	DONE
Rail Temp	68°
Air Temp	34°
Head Gap	NONE
Web Gap	1/8
Base Gap	1/8
Rail Size POS	136
Rail Size NEG	136

Comments: RAIL CHANGE CUT OUT 18'8" AND REPLACED WITH AN 18' 7¾" PLUG DRILLED FOUR HOLES AND BARRED

Test Events Log

Test Controller M. Cunningham **Air Temp** 38°

Test Title Fast Train Operations **Date** 11/9/17 11/10/17

Run No. 5226 **Direction** CW Main Line

Summary of test events **Start** 1600 **Stop** 0130 **WO#** R3501.131

Time	Event
1600	# Fast Ops Beg
1650	# Switches Lined, Lamps Green
1600	# PCE Test Mode On
1647	# PCE On & Bonded
1652	# Brake Test Set and Release
1657	# Brake Test Complete Start TCR
1708	# TCR Complete and Lap #1
1714	#2
1719	#3
1723	#4
1727	#5
1731	#6
1736	#7
1740	#8
1744	#9
1748	#10 Hot Box OK
1752	#11
1756	#12
1800	#13
1804	#14
1808	#15
1812	#16
1816	#17
1820	#18
1823	#19
1827	#20 Hot Box OK
1831	#21
1835	#22 32' 3/8 1/4 24' 3/16 1/8
1839	#23
1843	#24 Steel Bridge 5/8 3/8 5/8 5/8
1847	#25
1851	#26
1855	#27
1859	#28
1903	#29
1908	#30
1912	#31
1916	#32
1920	#33
1924	#34
1928	#35
1932	#36
1936	#37
1940	#38
1944	#39
1948	#40 Hot Box OK
1952	#41
1956	#42 32' 3/8 3/16 24' 3/16 1/8
2000	#43
2004	#44 Steel Bridge 3/8 3/8 5/8 5/8
2008	#45
2012	#46
2016	#47
2020	#48
2024	#49
2028	#50
2032	#51
2035	#52
2039	#53
2043	#54
2047	#55
2051	#56
2055	#57
2059	#58
2103	#59
2107	#60 Hot Box OK
2111	#61
2115	#62 52' 3/8 1/4 24' 3/16 1/8
2119	#63
2123	#64 Steel Bridge 3/8 3/8 5/8 5/8
2127	#65
2131	#66
2135	#67
2139	#68
2143	#69
2147	#70
2151	#71
2155	#72
2159	#73
2203	#74
2207	#75
2211	#76
2215	#77
2219	#78
2223	#79
2227	#80 Hot Box OK
2231	#81
2235	#82 32' 3/8 1/4 24' 3/16 1/8
2239	#83
2243	#84 Steel Bridge 3/8 3/8 5/8 5/8
2247	#85
2251	#86
2255	#87
2259	#88
2303	#89
2307	#90
2308	# John Stopped Train
2313	# Stopped Broken Rail Sec 3 TIC 1349
0127	# Track Back Together Clear Signal
0130	#91 Operations Complete
	#
	#
	#
	#
	#
	#
	#
	#