



Request for Materials Laboratory Examination

Office of Research and Engineering, Materials Laboratory Division (RE-30)

Please complete all [fields](#), if possible. Fields marked with an asterisk (*) are required. To submit electronically, use the **Submit to Lab** button below. Please place a printed copy of the completed form within the shipment. Refer to the Shipping and Handling Instructions [attachment](#) for more information. Contact [Mike Budinski](#), Chief, Materials Laboratory Division, at (202) 596-0437 with any questions.

A. Accident/Incident Information (click to attach the investigation preliminary report, if available)	
Location Fort Worth, Texas	Request Submitted By Paul Stancil
Date April 24, 2019	Office and Division RPH-20
Vehicle/Aircraft UTLX 209301 and FURX 160030	Telephone [REDACTED]
Accident No. RRD19FR007 Keys No. 99303	Date of Request June 26, 2019
B. Component(s) Submitted (please include the manufacturer and model, if known)	
<ol style="list-style-type: none"> 1. UTLX 209301 reference shell plate coupon from the right-center side of Ring 2 2. UTLX 209301 shell plate with approx. 2" diameter puncture from left-center side of Ring 2 3. FURX 160030 B-end head shield plate with attached brake wheel 	
Evidence No.	Shipment Contains* Biohazard <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hazardous Materials <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C. Service History of Component(s)	
UTLX 209301, a derailed specification DOT-117R tank car, was transporting denatured ethanol and became punctured, released product and was exposed to a pool fire. The tank car was originally a specification DOT-111A and was retrofitted in 2016 to DOT-117R by the addition of a jacket, thermal protection, and head shields. The tank car was initially used in crude oil transportation and was repurposed into ethanol. The tank shell was subjected to general corrosion since the 2016 retrofit work. The brake wheel nut of FURX 160030 is believed to be the impacting/breaching object. +	
D. Explanation of Work Requested	
Laser scan tank UTLX 209301 puncture area (item 2) and compare the hole with the geometry of the brake wheel nut (item 3). Thickness mapping of the breached shell plate, examination for voids, cracking, and corrosion in the breached area. Tensile/chemical testing of the reference shell plate (item 1) for comparison with standards for AAR TC-128 gr. B steel. +	
Group Exam <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Report Type Requested <input checked="" type="checkbox"/> Full Factual <input type="checkbox"/> Short Factual (1 page, 2 photos) <input type="checkbox"/> Brief (1-2 paragraphs)
E. Return Component(s) To	
Name Michael Moore	Affiliation Union Pacific Railroad
Title Manager, Hazardous Materials	Address [REDACTED]
Telephone [REDACTED]	