

Appleton Group LLC

TEST REPORT

SCOPE OF WORKS

Test conducted in accordance with ASTM B117 – 18 “*Standard Practice for Operating Salt Spray (Fog) Apparatus*”, except for some deviations.

REPORT NUMBER

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TEST REPORT FOR APPLETON GROUP LLC

Report No.: 103772887CHI-001

Date: January 30, 2019

OBJECTIVE

Intertek conduct Salt-Fog performance testing on various industry conduit bodies. There is a total of 39 conduit bodies. All are of the ¾ trade size. Intertek to prepare a performance report and provide to Appleton Group.

Conduct ASTM-B117 Salt Fog testing on the Conduit Body samples identified under the Samples section below and in accordance with the procedure identified in the Test Procedure section below

HYPOTHESIS

To determine performance corrosion resistance characteristic of the various corrosion protection methods employed on these Conduit Bodies.

CONCLUSION

The test is for information only, the data is supplied to the client without conclusion. Final evaluation to be conducted by the client



Sr. Project Engineer
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SECTION 1

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SECTION 2

OBJECTIVE

Conduct ASTM-B117 Salt Fog testing on the Conduit Body samples identified under the samples section below and in accordance with the procedure identified in the Test Procedure section below.

SECTION 3

PARAMETERS

Test Sample disposition, preparation, and configuration.

a) Preparation:

- i. All test samples have steel (zinc-plated) Appleton PLG plugs installed in the iron samples and aluminum plugs with Teflon tape in the aluminum samples. This is to prevent Salt-Fog from entering the interior of the conduit bodies.
- All covers were torqued to 20 in-Lb.

Test Procedure:

Test were conducted in accordance with ASTM B117 – 18 “Standard Practice for Operating Salt Spray (Fog) Apparatus”. The salt-solution is 5% plus/minus 1%. The requirements for this standard was followed, except for the below deviations.

*Clause 6.5 Unless otherwise specified, the cut edges of plated, coated, or duplex materials and areas containing identification marks or in contact with the racks or supports shall be protected with a suitable coating stable under the conditions of the practice. **DISREGARDED.***

*Clause 7.1.1 Unless otherwise specified, the specimens shall be supported or suspended between 15 and 30° from the vertical and preferably parallel to the principal direction of flow of fog through the chamber, based upon the dominant surface being tested. **DISREGARDED.***

DEVIATION: Position samples so that the cover plane is perpendicular to the ground with the conduit body on its side.

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Period of Exposure.

DEVIATION: The test samples were removed from the salt-fog chamber and inspected and photographed at the following intervals: These are plus/minus 2 hours intervals.

In Chamber	Hours	Out of Chamber and Photos Taken	Photo Prep (Hours)	Back in Chamber
12/18/18 12:30 PM	24	12/19/18 12:30 PM	2	12/19/18 02:30 PM
12/19/18 02:30 PM	48	12/20/18 02:30 PM	2	12/20/18 04:30 PM
12/20/18 04:30 PM	96	12/22/18 04:30 PM	2	12/22/18 06:30 PM
12/22/18 06:30 PM	204	12/27/18 06:30 AM	2	12/27/18 08:30 AM
12/27/18 08:30 AM	260	12/29/18 04:30 PM	2	12/29/18 06:30 PM
12/29/18 06:30 PM	370	01/03/19 08:30 AM	2	01/03/19 10:30 AM
01/03/19 10:30 AM	420	01/05/19 12:30 PM	2	01/05/19 02:30 PM
01/05/19 02:30 PM	510	01/09/19 08:30 AM	2	01/09/19 10:30 AM
01/09/19 10:30 AM	556	01/11/19 08:30 AM	2	01/11/19 10:30 AM
01/11/19 10:30 AM	650	01/15/19 08:30 AM	2	01/15/19 10:30 AM
01/15/19 10:30 AM	720	01/18/19 08:30 AM	2	01/18/19 10:30 AM
01/18/19 10:30 AM	820	01/22/19 02:30 PM	2	01/22/19 04:30 PM
01/22/19 04:30 PM	890	01/25/19 02:30 PM	2	01/25/19 04:30 PM
01/25/19 04:30 PM	1008	01/30/19 02:30 PM	2	01/30/19 04:30 PM

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SECTION 4
TEST SAMPLES

Sample No.	Series	Cover Catalog No. and Materials	Body Catalog No. and Materials
A1	Form 35	K75-CM [Malleable Iron (Plated/Painted)]	LB75-M [Malleable Iron (Plated/Painted)]
C1	Form 5	K75-SG [Stamped Steel (Plated/Painted)]	LB75-M [Malleable Iron (Plated)]
T1	Series 35	K75M [Malleable Iron ((Plated))]	LB75MTB [Malleable Iron (Plated/Painted)]
A2	Form 35	K75-CM [Malleable Iron (Plated/Painted)]	LB75-M [Malleable Iron (Plated/Painted)]
C2	Form 5	K75-SG [Stamped Steel (Plated/Painted)]	LB75-M [Malleable Iron (Plated)]
T2	Series 35	K75M [Malleable Iron ((Plated))]	LB75MTB [Malleable Iron (Plated/Painted)]
A3	Form 35	K75-CM [Malleable Iron (Plated/Painted)]	LB75-M [Malleable Iron (Plated/Painted)]
C3	Form 5	K75-SG [Stamped Steel (Plated/Painted)]	LB75-M [Malleable Iron (Plated)]
T3	Series 35	K75M [Malleable Iron ((Plated))]	LB75MTB [Malleable Iron (Plated/Painted)]
A6	Form 85	K75-CA [Cast Aluminum (Painted)]	LB75-A [Die-Cast Aluminum (Painted)]
C6	Series 5	250G [Stamped Aluminum]	LB25 [Die-Cast Aluminum ((Painted))]
----	----	----	----
A7	Form 85	K75-CA [Cast Aluminum (Painted)]	LB75-A [Die-Cast Aluminum (Painted)]
C7	Series 5	250G [Stamped Aluminum]	LB25 [Die-Cast Aluminum ((Painted))]
----	----	----	----
A8	Form 85	K75-CA [Cast Aluminum (Painted)]	LB75-A [Die-Cast Aluminum (Painted)]
C8	Series 5	250G [Stamped Aluminum]	LB25 [Die-Cast Aluminum ((Painted))]
----	----	----	----
A11	FM7	270FIG [Cast Iron (Plated/Painted)]	LB27 [Cast Iron (Plated/Painted)]
C11	Form 7	270FG [Cast Iron (Plated/Painted)]	LB27 [Cast Iron (Plated/Painted)]
T11	Form 7	270F [Cast Iron (Plated/Painted)]	LB27 [Cast Iron (Plated/Painted)]
A12	FM7	270FIG [Cast Iron (Plated/Painted)]	LB27 [Cast Iron (Plated/Painted)]
C12	Form 7	270FG [Cast Iron (Plated/Painted)]	LB27 [Cast Iron (Plated/Painted)]
T12	Form 7	270F [Cast Iron (Plated/Painted)]	LB27 [Cast Iron (Plated/Painted)]
A13	FM7	270FIG [Cast Iron (Plated/Painted)]	LB27 [Cast Iron (Plated/Painted)]
C13	Form 7	270FG [Cast Iron (Plated/Painted)]	LB27 [Cast Iron (Plated/Painted)]
T13	Form 7	270F [Cast Iron (Plated/Painted)]	LB27 [Cast Iron (Plated/Painted)]
A16	FM8	280FIG [Cast Iron (Plated/Painted)]	LB28 [Cast Iron (Plated/Painted)]
C16	FM8	280F [Cast Iron (Plated/Painted)]	LB28 [Cast Iron (Plated/Painted)]
T16	FM8	280F [Cast Iron (Plated/Painted)]	LB28 [Cast Iron (Plated/Painted)]
A17	FM8	280FIG [Cast Iron (Plated/Painted)]	LB28 [Cast Iron (Plated/Painted)]
C17	FM8	280F [Cast Iron (Plated/Painted)]	LB28 [Cast Iron (Plated/Painted)]
T17	FM8	280F [Cast Iron (Plated/Painted)]	LB28 [Cast Iron (Plated/Painted)]
A18	FM8	280FIG [Cast Iron (Plated/Painted)]	LB28 [Cast Iron (Plated/Painted)]
C18	FM8	280F [Cast Iron (Plated/Painted)]	LB28 [Cast Iron (Plated/Painted)]
T18	FM8	280F [Cast Iron (Plated/Painted)]	LB28 [Cast Iron (Plated/Painted)]
A21	FM9	290IG [Stamped Aluminum]	LB29 [Cast Aluminum (unpainted)]
C21	Mark 9	290G [Stamped Aluminum]	LB29 [Cast Aluminum (unpainted)]
----	----	----	----
A22	FM9	290IG [Stamped Aluminum]	LB29 [Cast Aluminum (unpainted)]
C22	Mark 9	290G [Stamped Aluminum]	LB29 [Cast Aluminum (unpainted)]
----	----	----	----
A23	FM9	290IG [Stamped Aluminum]	LB29 [Cast Aluminum (unpainted)]
C23	Mark 9	290G [Stamped Aluminum]	LB29 [Cast Aluminum (unpainted)]
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SECTION 5

HYPOTHESIS

The determine performance corrosion resistance characteristic of the various corrosion protection methods employed on these Conduit Bodies.

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SECTION 7
EQUIPMENT LIST

#	EQUIPMENT DESCRIPTION	MANUFACTURER'S NAME / MODEL # / SERIAL #	INTERTEK ASSET #	CALIBRATION DATE	CALIBRATION DUE	RANGE USED
1	Salt Fog Corrosion Chamber, 30-cubic foot, Interior Dimension: 48" x 30" x 36" deep. Humidity Test Package (ASTM D2247, B380). Solution Spray/Rainfall Test. Multi-Test Control Package ASTM G85(A2, A3, and A4) G87.	Singleton Corp / SCCH22 / SCCH22-43125	CHI0229	10/04/2018	10/04/2019	NA
2	0 to 30 PSI gauge. Used with Singleton Corp SCCH22 Salt Fog chamber CHI0229. Accuracy - from 0.0-psi to 7.5 - psi +/- 0.9; from 7.5 - psi to 22.5 - psi +/- 0.6; from 22.5 - psi to 30 - psi +/- 0.9.	Wilka / 0-30-PSI / none	CHI0229c	10/04/2018	10/04/2019	psi
3	Ambient datalogger	Extech / SD700 / Q774096	CHI0279	10/05/2018	10/05/2019	°C, %RH
4						
5						
<p>Note: The equipment measurement uncertainty is stated in the Test Procedure.</p>						





Testing was conducted at: Intertek, 545 East Algonquin Road, Suite H, Arlington Heights, IL 60005 USA

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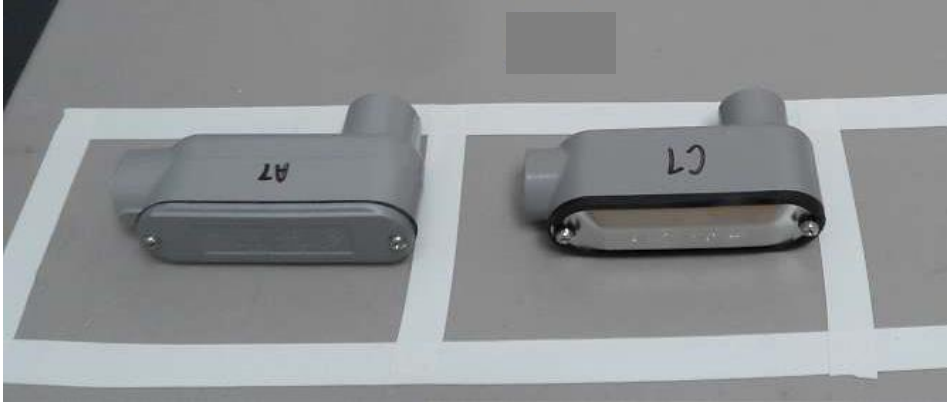



SECTION 8

ASTM-B117 SALT FOG TESTING ON THE CONDUIT BODY SAMPLES -DATA SHEET

Group No.	Sample No.	Series	<u>0 Hours</u>
1	A1	Form 35	
	C1	Form 5	
	T1	Series 35	
2	A2	Form 35	
	C2	Form 5	
	T2	Series 35	
3	A3	Form 35	
	C3	Form 5	
	T3	Series 35	
4	A6	Form 85	
	C6	Series 5	
	----	----	





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5	A7	Form 85	
	C7	Series 5	
	----	----	
6	A8	Form 85	
	C8	Series 5	
	----	----	
7	A11	FM7	
	C11	Form 7	
	T11	Form 7	
8	A12	FM7	
	C12	Form 7	
	T12	Form 7	

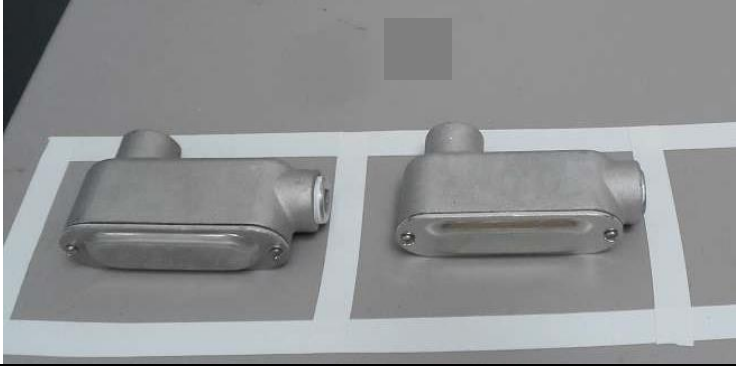

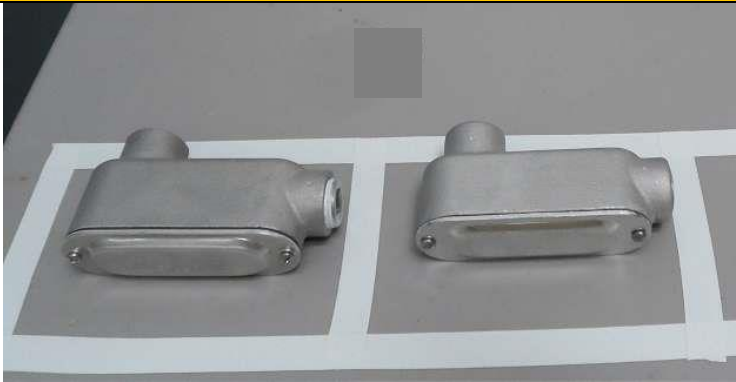
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9	A13	FM7	
	C13	Form 7	
	T13	Form 7	
10	A16	FM8	
	C16	FM8	
	T16	FM8	
11	A17	FM8	
	C17	FM8	
	T17	FM8	
12	A18	FM8	
	C18	FM8	
	T18	FM8	

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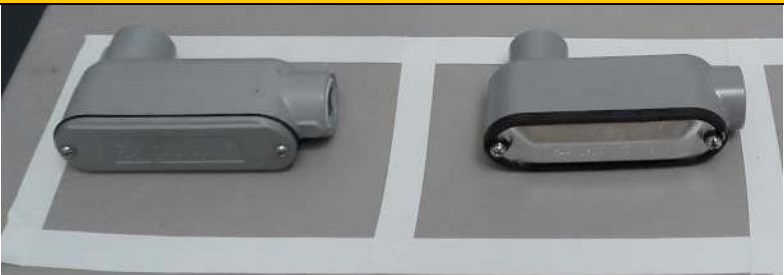
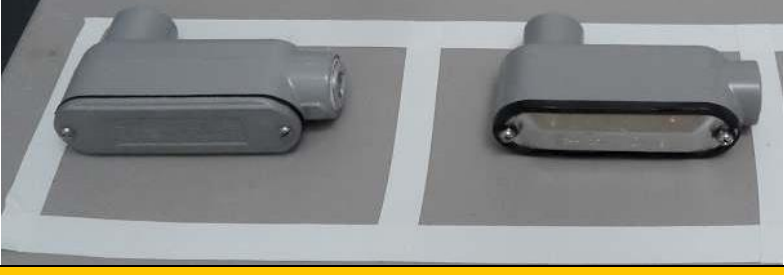
13	A21	FM9	
	C21	Mark 9	
	----	----	
14	A22	FM9	
	C22	Mark 9	
	----	----	
15	A23	FM9	
	C23	Mark 9	
	----	----	

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INITIAL VIEW INSIDE SALT FOG CHAMBER

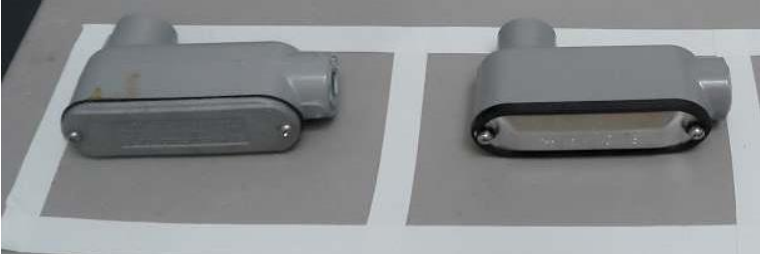







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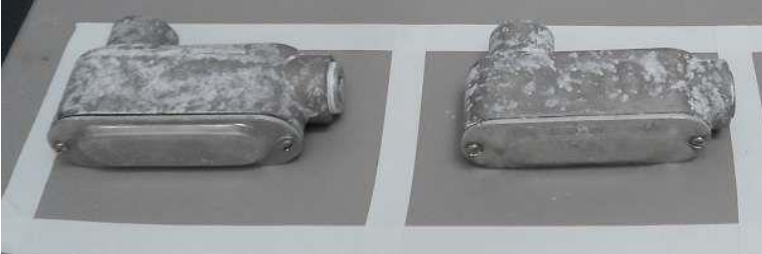

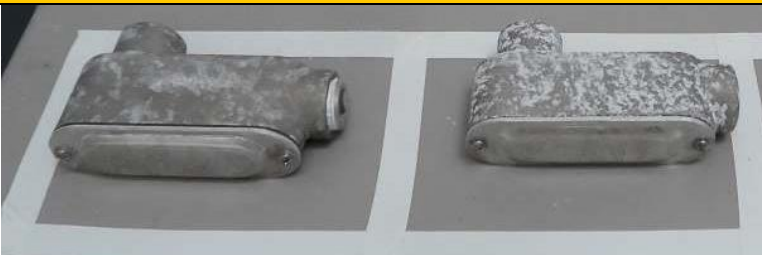
Group No.	Sample No.	Series	24 Hours
1	A1	Form 35	
	C1	Form 5	
	T1	Series 35	
2	A2	Form 35	
	C2	Form 5	
	T2	Series 35	
3	A3	Form 35	
	C3	Form 5	
	T3	Series 35	
4	A6	Form 85	
	C6	Series 5	
	---	---	
5	A7	Form 85	
	C7	Series 5	
	---	---	

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6	A8	Form 85	
	C8	Series 5	
	---	---	
7	A11	FM7	
	C11	Form 7	
	T11	Form 7	
8	A12	FM7	
	C12	Form 7	
	T12	Form 7	
9	A13	FM7	
	C13	Form 7	
	T13	Form 7	
10	A16	FM8	
	C16	FM8	
	T16	FM8	
11	A17	FM8	
	C17	FM8	
	T17	FM8	

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12	A18	FM8	
	C18	FM8	
	T18	FM8	
13	A21	FM9	
	C21	Mark 9	
	----	----	
14	A22	FM9	
	C22	Mark 9	
	----	----	
15	A23	FM9	
	C23	Mark 9	
	----	----	







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Group No.	Sample No.	Series	48 Hours		
1	A1	Form 35			
	C1	Form 5			
	T1	Series 35			
2	A2	Form 35			
	C2	Form 5			
	T2	Series 35			
3	A3	Form 35			
	C3	Form 5			
	T3	Series 35			
4	A6	Form 85			
	C6	Series 5			
	---	---			
5	A7	Form 85			
	C7	Series 5			
	---	---			



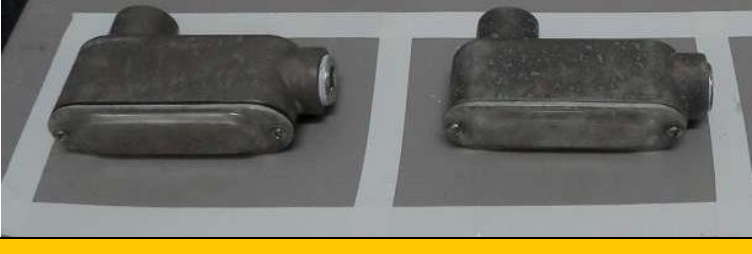

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6	A8	Form 85	
	C8	Series 5	
	----	----	
7	A11	FM7	
	C11	Form 7	
	T11	Form 7	
8	A12	FM7	
	C12	Form 7	
	T12	Form 7	
9	A13	FM7	
	C13	Form 7	
	T13	Form 7	
10	A16	FM8	
	C16	FM8	
	T16	FM8	
11	A17	FM8	
	C17	FM8	
	T17	FM8	

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12	A18	FM8	
	C18	FM8	
	T18	FM8	
13	A21	FM9	
	C21	Mark 9	
	----	----	
14	A22	FM9	
	C22	Mark 9	
	----	----	
15	A23	FM9	
	C23	Mark 9	
	----	----	

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Group No.	Sample No.	Series	96 Hours		
1	A1	Form 35			
	C1	Form 5			
	T1	Series 35			
2	A2	Form 35			
	C2	Form 5			
	T2	Series 35			
3	A3	Form 35			
	C3	Form 5			
	T3	Series 35			
4	A6	Form 85			
	C6	Series 5			
	----	----			
5	A7	Form 85			
	C7	Series 5			
	----	----			
6	A8	Form 85			
	C8	Series 5			
	----	----			

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7	A11	FM7	
	C11	Form 7	
	T11	Form 7	
8	A12	FM7	
	C12	Form 7	
	T12	Form 7	
9	A13	FM7	
	C13	Form 7	
	T13	Form 7	
10	A16	FM8	
	C16	FM8	
	T16	FM8	
11	A17	FM8	
	C17	FM8	
	T17	FM8	
12	A18	FM8	
	C18	FM8	
	T18	FM8	

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13	A21	FM9	
	C21	Mark 9	
	----	----	
14	A22	FM9	
	C22	Mark 9	
	----	----	
15	A23	FM9	
	C23	Mark 9	
	----	----	

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Group No.	Sample No.	Series	204 Hours	
1	A1	Form 35		
	C1	Form 5		
	T1	Series 35		
2	A2	Form 35		
	C2	Form 5		
	T2	Series 35		
3	A3	Form 35		
	C3	Form 5		
	T3	Series 35		
4	A6	Form 85		
	C6	Series 5		
	---	---		
5	A7	Form 85		
	C7	Series 5		
	---	---		
6	A8	Form 85		
	C8	Series 5		
	---	---		


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7	A11	FM7	
	C11	Form 7	
	T11	Form 7	
8	A12	FM7	
	C12	Form 7	
	T12	Form 7	
9	A13	FM7	
	C13	Form 7	
	T13	Form 7	
10	A16	FM8	
	C16	FM8	
	T16	FM8	
11	A17	FM8	
	C17	FM8	
	T17	FM8	
12	A18	FM8	
	C18	FM8	
	T18	FM8	

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13	A21	FM9	
	C21	Mark 9	
	----	----	
14	A22	FM9	
	C22	Mark 9	
	----	----	
15	A23	FM9	
	C23	Mark 9	
	----	----	







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Group No.	Sample No.	Series	260 Hours	
1	A1	Form 35		
	C1	Form 5		
	T1	Series 35		
2	A2	Form 35		
	C2	Form 5		
	T2	Series 35		
3	A3	Form 35		
	C3	Form 5		
	T3	Series 35		
4	A6	Form 85		
	C6	Series 5		
	---	---		
5	A7	Form 85		
	C7	Series 5		
	---	---		
6	A8	Form 85		
	C8	Series 5		
	---	---		



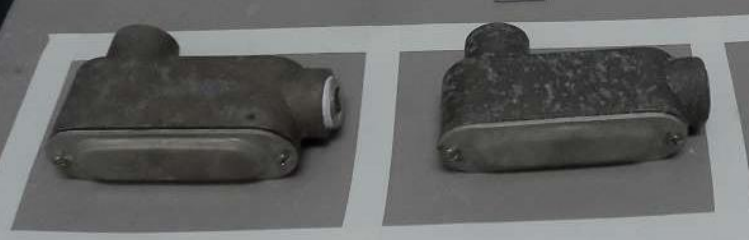
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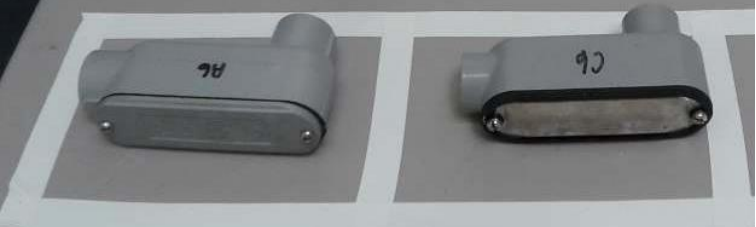
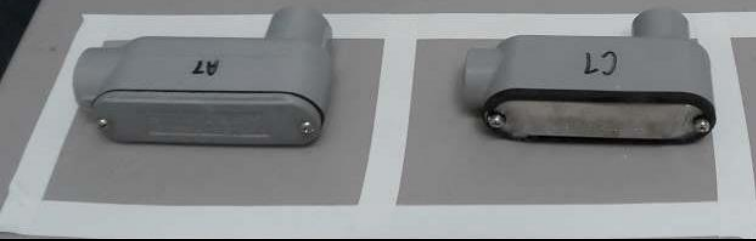
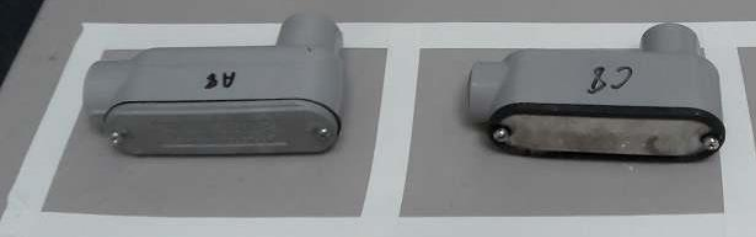
7	A11	FM7	
	C11	Form 7	
	T11	Form 7	
8	A12	FM7	
	C12	Form 7	
	T12	Form 7	
9	A13	FM7	
	C13	Form 7	
	T13	Form 7	
10	A16	FM8	
	C16	FM8	
	T16	FM8	
11	A17	FM8	
	C17	FM8	
	T17	FM8	
12	A18	FM8	
	C18	FM8	
	T18	FM8	

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13	A21	FM9	
	C21	Mark 9	
	----	----	
14	A22	FM9	
	C22	Mark 9	
	----	----	
15	A23	FM9	
	C23	Mark 9	
	----	----	

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Group No.	Sample No.	Series	370 Hours		
1	A1	Form 35			
	C1	Form 5			
	T1	Series 35			
2	A2	Form 35			
	C2	Form 5			
	T2	Series 35			
3	A3	Form 35			
	C3	Form 5			
	T3	Series 35			
4	A6	Form 85			
	C6	Series 5			
	---	---			
5	A7	Form 85			
	C7	Series 5			
	---	---			
6	A8	Form 85			
	C8	Series 5			
	---	---			




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7	A11	FM7	
	C11	Form 7	
	T11	Form 7	
8	A12	FM7	
	C12	Form 7	
	T12	Form 7	
9	A13	FM7	
	C13	Form 7	
	T13	Form 7	
10	A16	FM8	
	C16	FM8	
	T16	FM8	
11	A17	FM8	
	C17	FM8	
	T17	FM8	
12	A18	FM8	
	C18	FM8	
	T18	FM8	

Benchmark and Non-standard Test Report: Report must be reproduced in its entirety

Date: January 30, 2019






13	A21	FM9	
	C21	Mark 9	
	----	----	
14	A22	FM9	
	C22	Mark 9	
	----	----	
15	A23	FM9	
	C23	Mark 9	
	----	----	

Benchmark and Non-standard Test Report: Report must be reproduced in its entirety

Group No.	Sample No.	Series	420 Hours		
1	A1	Form 35			
	C1	Form 5			
	T1	Series 35			
2	A2	Form 35			
	C2	Form 5			
	T2	Series 35			
3	A3	Form 35			
	C3	Form 5			
	T3	Series 35			
4	A6	Form 85			
	C6	Series 5			
	----	----			
5	A7	Form 85			
	C7	Series 5			
	----	----			
6	A8	Form 85			
	C8	Series 5			
	----	----			




Benchmark and Non-standard Test Report: Report must be reproduced in its entirety

Date: January 30, 2019

7	A11	FM7	
	C11	Form 7	
	T11	Form 7	
8	A12	FM7	
	C12	Form 7	
	T12	Form 7	
9	A13	FM7	
	C13	Form 7	
	T13	Form 7	
10	A16	FM8	
	C16	FM8	
	T16	FM8	
11	A17	FM8	
	C17	FM8	
	T17	FM8	
12	A18	FM8	
	C18	FM8	
	T18	FM8	

Benchmark and Non-standard Test Report: Report must be reproduced in its entirety

Date: January 30, 2019

13	A21	FM9	
	C21	Mark 9	
	----	----	
14	A22	FM9	
	C22	Mark 9	
	----	----	
15	A23	FM9	
	C23	Mark 9	
	----	----	







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Date: January 30, 2019

Group No.	Sample No.	Series	510 Hours	
1	A1	Form 35		
	C1	Form 5		
	T1	Series 35		
2	A2	Form 35		
	C2	Form 5		
	T2	Series 35		
3	A3	Form 35		
	C3	Form 5		
	T3	Series 35		
4	A6	Form 85		
	C6	Series 5		
	----	----		
5	A7	Form 85		
	C7	Series 5		
	----	----		

Benchmark and Non-standard Test Report: Report must be reproduced in its entirety

Date: January 30, 2019

6	A8	Form 85	
	C8	Series 5	
	---	---	
7	A11	FM7	
	C11	Form 7	
	T11	Form 7	
8	A12	FM7	
	C12	Form 7	
	T12	Form 7	
9	A13	FM7	
	C13	Form 7	
	T13	Form 7	
10	A16	FM8	
	C16	FM8	
	T16	FM8	
11	A17	FM8	
	C17	FM8	
	T17	FM8	





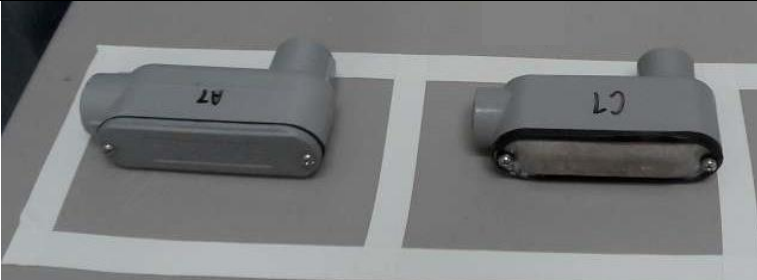
Benchmark and Non-standard Test Report: Report must be reproduced in its entirety

Date: January 30, 2019

12	A18	FM8	
	C18	FM8	
	T18	FM8	
13	A21	FM9	
	C21	Mark 9	
	----	----	
14	A22	FM9	
	C22	Mark 9	
	----	----	
15	A23	FM9	
	C23	Mark 9	
	----	----	

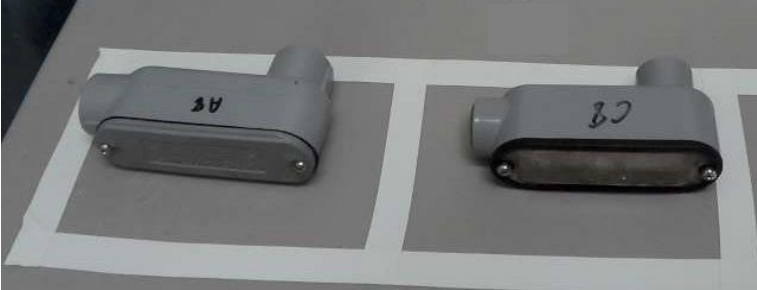




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Date: January 30, 2019

Group No.	Sample No.	Series	556 Hours	
1	A1	Form 35		
	C1	Form 5		
	T1	Series 35		
2	A2	Form 35		
	C2	Form 5		
	T2	Series 35		
3	A3	Form 35		
	C3	Form 5		
	T3	Series 35		
4	A6	Form 85		
	C6	Series 5		
	----	----		
5	A7	Form 85		
	C7	Series 5		
	----	----		

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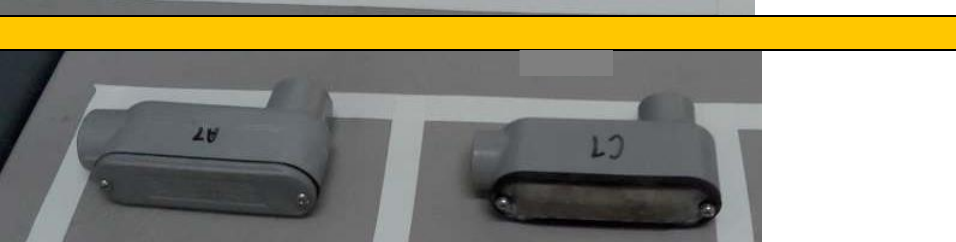
6	A8	Form 85	
	C8	Series 5	
	---	---	
7	A11	FM7	
	C11	Form 7	
	T11	Form 7	
8	A12	FM7	
	C12	Form 7	
	T12	Form 7	
9	A13	FM7	
	C13	Form 7	
	T13	Form 7	
10	A16	FM8	
	C16	FM8	
	T16	FM8	

Benchmark and Non-standard Test Report: Report must be reproduced in its entirety

11	A17	FM8	
	C17	FM8	
	T17	FM8	
12	A18	FM8	
	C18	FM8	
	T18	FM8	
13	A21	FM9	
	C21	Mark 9	
	----	----	
14	A22	FM9	
	C22	Mark 9	
	----	----	
15	A23	FM9	
	C23	Mark 9	
	----	----	






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Date: January 30, 2019

Group No.	Sample No.	Series	650 Hours	
1	A1	Form 35		
	C1	Form 5		
	T1	Series 35		
2	A2	Form 35		
	C2	Form 5		
	T2	Series 35		
3	A3	Form 35		
	C3	Form 5		
	T3	Series 35		
4	A6	Form 85		
	C6	Series 5		
	----	----		
5	A7	Form 85		
	C7	Series 5		
	----	----		



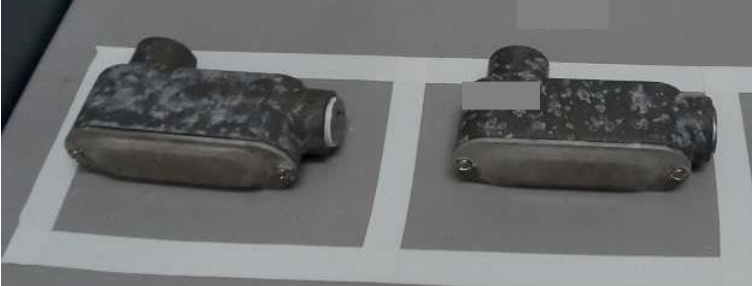


Benchmark and Non-standard Test Report: Report must be reproduced in its entirety

Date: January 30, 2019

6	A8	Form 85	
	C8	Series 5	
	----	----	
7	A11	FM7	
	C11	Form 7	
	T11	Form 7	
8	A12	FM7	
	C12	Form 7	
	T12	Form 7	
9	A13	FM7	
	C13	Form 7	
	T13	Form 7	
10	A16	FM8	
	C16	FM8	
	T16	FM8	

Benchmark and Non-standard Test Report: Report must be reproduced in its entirety

Date: January 30, 2019

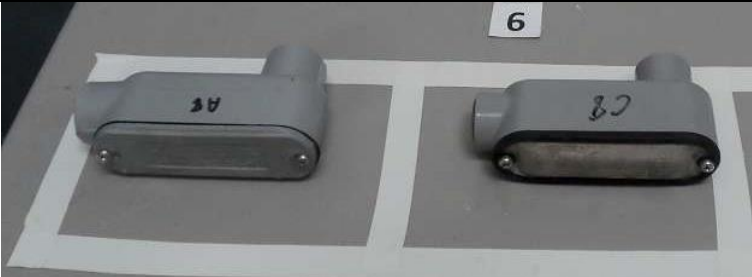


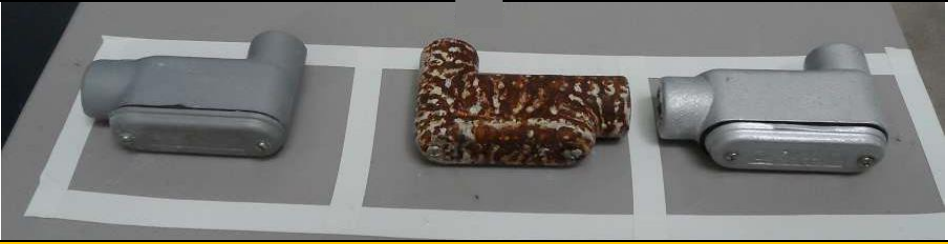


11	A17	FM8	
	C17	FM8	
	T17	FM8	
12	A18	FM8	
	C18	FM8	
	T18	FM8	
13	A21	FM9	
	C21	Mark 9	
	----	----	
14	A22	FM9	
	C22	Mark 9	
	----	----	
15	A23	FM9	
	C23	Mark 9	
	----	----	

Benchmark and Non-standard Test Report: Report must be reproduced in its entirety

Group No.	Sample No.	Series	720 Hours
1	A1	Form 35	
	C1	Form 5	
	T1	Series 35	
2	A2	Form 35	
	C2	Form 5	
	T2	Series 35	
3	A3	Form 35	
	C3	Form 5	
	T3	Series 35	
4	A6	Form 85	<div style="text-align: center;">4</div>
	C6	Series 5	
	----	----	
5	A7	Form 85	
	C7	Series 5	
	----	----	





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6	A8	Form 85	
	C8	Series 5	
	---	---	
7	A11	FM7	
	C11	Form 7	
	T11	Form 7	
8	A12	FM7	
	C12	Form 7	
	T12	Form 7	
9	A13	FM7	
	C13	Form 7	
	T13	Form 7	
10	A16	FM8	
	C16	FM8	
	T16	FM8	
11	A17	FM8	
	C17	FM8	
	T17	FM8	

Benchmark and Non-standard Test Report: Report must be reproduced in its entirety

Date: January 30, 2019

12	A18	FM8	
	C18	FM8	
	T18	FM8	
13	A21	FM9	
	C21	Mark 9	
	----	----	
14	A22	FM9	
	C22	Mark 9	
	----	----	
15	A23	FM9	
	C23	Mark 9	
	----	----	

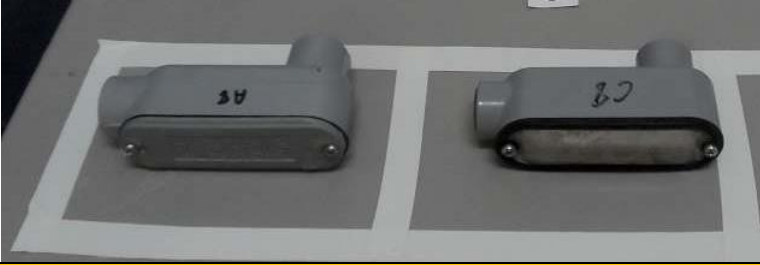





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Date: January 30, 2019

Group No.	Sample No.	Series	820 Hours	
1	A1	Form 35		
	C1	Form 5		
	T1	Series 35		
2	A2	Form 35		
	C2	Form 5		
	T2	Series 35		
3	A3	Form 35		
	C3	Form 5		
	T3	Series 35		
4	A6	Form 85		
	C6	Series 5		
	----	----		
5	A7	Form 85		
	C7	Series 5		
	----	----		




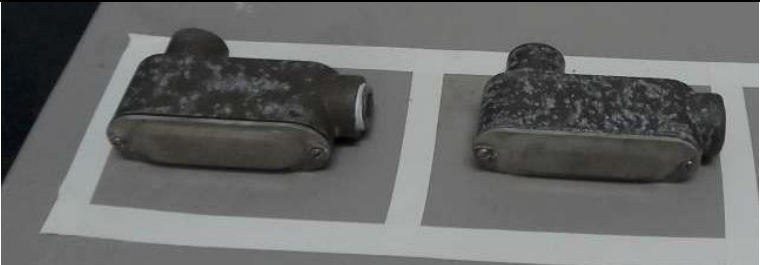
Benchmark and Non-standard Test Report: Report must be reproduced in its entirety

Date: January 30, 2019




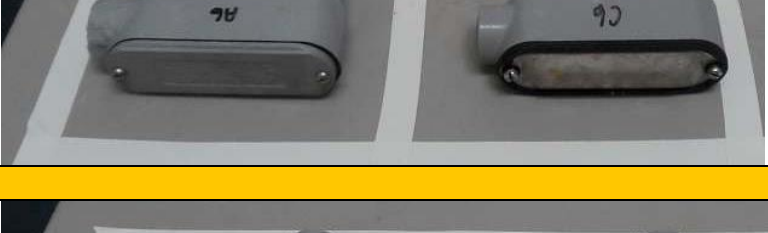


6	A8	Form 85	
	C8	Series 5	
	---	---	
7	A11	FM7	
	C11	Form 7	
	T11	Form 7	
8	A12	FM7	
	C12	Form 7	
	T12	Form 7	
9	A13	FM7	
	C13	Form 7	
	T13	Form 7	
10	A16	FM8	
	C16	FM8	
	T16	FM8	
11	A17	FM8	
	C17	FM8	
	T17	FM8	

Benchmark and Non-standard Test Report: Report must be reproduced in its entirety

Date: January 30, 2019







12	A18	FM8	
	C18	FM8	
	T18	FM8	
13	A21	FM9	
	C21	Mark 9	
	----	----	
14	A22	FM9	
	C22	Mark 9	
	----	----	
15	A23	FM9	
	C23	Mark 9	
	----	----	

Benchmark and Non-standard Test Report: Report must be reproduced in its entirety

Group No.	Sample No.	Series	890 Hours		
1	A1	Form 35			
	C1	Form 5			
	T1	Series 35			
2	A2	Form 35			
	C2	Form 5			
	T2	Series 35			
3	A3	Form 35			
	C3	Form 5			
	T3	Series 35			
4	A6	Form 85			
	C6	Series 5			
	---	---			
5	A7	Form 85			
	C7	Series 5			
	---	---			
6	A8	Form 85			
	C8	Series 5			
	---	---			




Benchmark and Non-standard Test Report: Report must be reproduced in its entirety

Date: January 30, 2019

7	A11	FM7	
	C11	Form 7	
	T11	Form 7	
8	A12	FM7	
	C12	Form 7	
	T12	Form 7	
9	A13	FM7	
	C13	Form 7	
	T13	Form 7	
10	A16	FM8	
	C16	FM8	
	T16	FM8	
11	A17	FM8	
	C17	FM8	
	T17	FM8	
12	A18	FM8	
	C18	FM8	
	T18	FM8	







Benchmark and Non-standard Test Report: Report must be reproduced in its entirety

Date: January 30, 2019

13	A21	FM9	
	C21	Mark 9	
	----	----	
14	A22	FM9	
	C22	Mark 9	
	----	----	
15	A23	FM9	
	C23	Mark 9	
	----	----	







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Date: January 30, 2019

Group No.	Sample No.	Series	1008 Hours		
1	A1	Form 35			
	C1	Form 5			
	T1	Series 35			
2	A2	Form 35			
	C2	Form 5			
	T2	Series 35			
3	A3	Form 35			
	C3	Form 5			
	T3	Series 35			
4	A6	Form 85			
	C6	Series 5			
	---	---			
5	A7	Form 85			
	C7	Series 5			
	---	---			
6	A8	Form 85			
	C8	Series 5			
	---	---			

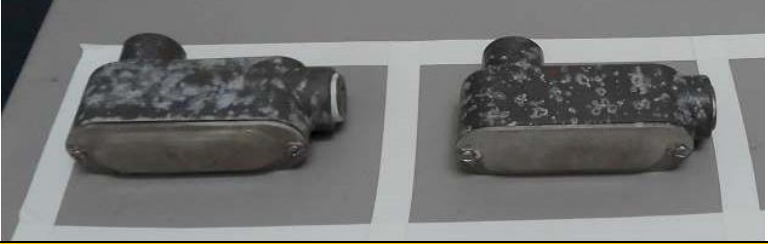


Benchmark and Non-standard Test Report: Report must be reproduced in its entirety

Date: January 30, 2019

7	A11	FM7	
	C11	Form 7	
	T11	Form 7	
8	A12	FM7	
	C12	Form 7	
	T12	Form 7	
9	A13	FM7	
	C13	Form 7	
	T13	Form 7	
10	A16	FM8	
	C16	FM8	
	T16	FM8	
11	A17	FM8	
	C17	FM8	
	T17	FM8	
12	A18	FM8	
	C18	FM8	
	T18	FM8	

Benchmark and Non-standard Test Report: Report must be reproduced in its entirety

Date: January 30, 2019

13	A21	FM9	
	C21	Mark 9	
	----	----	
14	A22	FM9	
	C22	Mark 9	
	----	----	
15	A23	FM9	
	C23	Mark 9	
	----	----	

SECTION 9 CONCLUSION

The test is for information only, the data is supplied to the client without conclusion. Final evaluation to be conducted by the client