



NDT LLC

DAILY PROJECT FIELD
REPORT

| | | | |
|--|-------------------------------|-----------------------|---------------------------|
| Project: 500 HP Mohawk Boiler | | Project #: 068-17-001 | |
| Project Address: | | Weather: Indoor | |
| Date: 8/9/2017 | Page 1 of 17 | | |
| Report# 1 | Technician: Steve R. Siderius | | |
| Type of Testin / Inspection: Ultraound Thickness UTT | | | |
| Deficiencies Noted: | NA | NO | YES If yes, explain below |
| <p><u>Reported To:</u></p> <p>Narrative:</p> <p>On site as requested at . Met with to discuss scope of work to be performed. UTT examination is to be performed at various locations in the accessible portions of the Mohawk, 500 HP Boiler, Model # 4-5-2506, SIN 13789, National Board 13789.</p> <p>UTT examinations were performed on the following:</p> <ol style="list-style-type: none"> 1) 1st Pass — readings were collected inside the ends Of twenty four (24) Boiler tubes at approximately 1" (+1-0.125") from end of each tube. Please see the UT report and attached pictures for locations and findings. 2) Rear Tube Sheet — three (3) readings were collected above, left and right Of the Morris Tube. Please see the UT report and attached pictures for locations and findings. 3) Morris Tube four (4) readings were collected at the top, bottom, left and right sides at approximately 3" (+1-0.125") from end of the Morris Tube. Please see the UT report and attached pictures for locations and findings. 4) 2nd Pass — readings were collected inside the ends of ten (10) randomly selected Boiler tubes at approximately 1" (+1-0.125") from end of tube. Please see the UT report and attached pictures for locations and findings. 5) Front Tube Sheet — two (2) readings were collected at randomly selected locations. Please see the UT report and attached pictures for locations and findings. | | | |

6) 3 rd Pass — readings were collected inside the ends of ten (10) Boiler tubes at approximately 1" (+1- 0.125") from end of each tube. Please see the UT report and attached pictures for locations and findings. continued page 2.....

| Re resentative: Steve R Siderius | | | | | Received B | | | | |
|---|---------------|-----|-------|-------|--|----|------------|---|-----------|
| This report shall be considered preliminary until reviewed and countersigned by the NOT LLC Project Manager | | | | | Reviewed B v. <i>Steve R Siderius</i> | | | | |
| Codes | Project Times | | | Miles | Equipment | | | | |
| | Begin | End | Hours | | MT Unit | XX | UT Machine | | Generator |
| 08/09/17 N2 | | | 8.0 | 196 | | | | | |
| | | | | | Other T | | | 1 | Quanti |
| 08/14/17 report | | | 2.5 | | | | | | |

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NDT LLC

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NOT LLC

DAILY PROJECT FIELD
REPORT

| | | | | | | | |
|--|----------|------------------------|---|--------|------|---|-------|
| Project Name: 500 HP Mohawk Boiler | | Project # : 068-17-001 | | | | | |
| Date | 08/09/17 | Report# | 1 | Sheet# | Page | 2 | of 17 |
| Narrative: 7) Top of Boiler Manway — six (6) readings were collected on tubes at the approximate center line of the manway. Please see the UT report and attached pictures for locations and findings. Findings were discussed with ----- left the site. Report completed off site and emailed on 08/14/2017. | | | | | | | |

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NOT LLC

Ultrasound Inspection Report

Report # _____ page 3 Of 17

Project Name: 500 HP Mohawk Boiler Project No.: 068-17-001
 Date Tested: 08/09/17 Weather: Indoor
 Test Method Standard: Production Station Identification
 ASTM E 797 In Process UT
 Final x Model #: USN58L Acceptance
 Standard: (Include Revision I Edition) Other: Serial #: 0001R8V7
 Client's Information Only

For Welds

| | | | | |
|---------------|-------------------|--------------|---------------|--------|
| Product Form: | Type of Material: | Drawing No.; | Intermediate: | Model |
| Various | Carbon Steel | NA | Final Pass: | Serial |

| | | | | |
|-------------------------------|-------------------------------|------------------------------|---------------------------|--------------------------|
| Product I Weld Identification | Thickness Reading | Technique | 500 HP MOhawk Boiler | Complementible Sections: |
| - 1st Pass Right | 0.176 -0.195" range | | | |
| - 1st Pass Left | 0.181 - 0.202" range | Longitudinal / Straight Beam | | |
| - Rear Tube Sheet | 0.769" 0.764" & 0.771" | | | |
| - Morris Tube | 0.441" 0.442" 0.444" & 0.447" | Transverse I Shear Wave | | |
| - 2nd Pass Right | 0.178-0.183" range | Gain | 49.2 - 55.2 db | |
| - 2nd Pass Left | 0.185-0.205" range | | | |
| - Front Tube Sheet | 0.754" & 0.760" | MHz | 5 MHz (see Remarks Below) | |
| -3rd Pass Right | | | 0.179 - 0.188" range | Range 0.5 - 1.0" |
| - 3rd Pass Left | 0.183-0.198" range | | | Delay |
| - T of Boiler Manwa | 0.141"-0.154" range | | | Angle NA |

Set-Up I Location Sketch

Technician: Steve R Siderius Level: II I III Interter: Level: II / III
 Technician: Level: Received B .
 Remarks:
 Transducer: Sonatest, Dual element, 5 MHz, 0.25" Round, SIN 446/28

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NDT LLC.

Mohawk 500 HP
Boiler Serial #
13789
08/09/2017

eeeeeeoe
eeeeoe

collected in first tube at end of each row and 1st Pass
Right side

' Readings alternating between rows



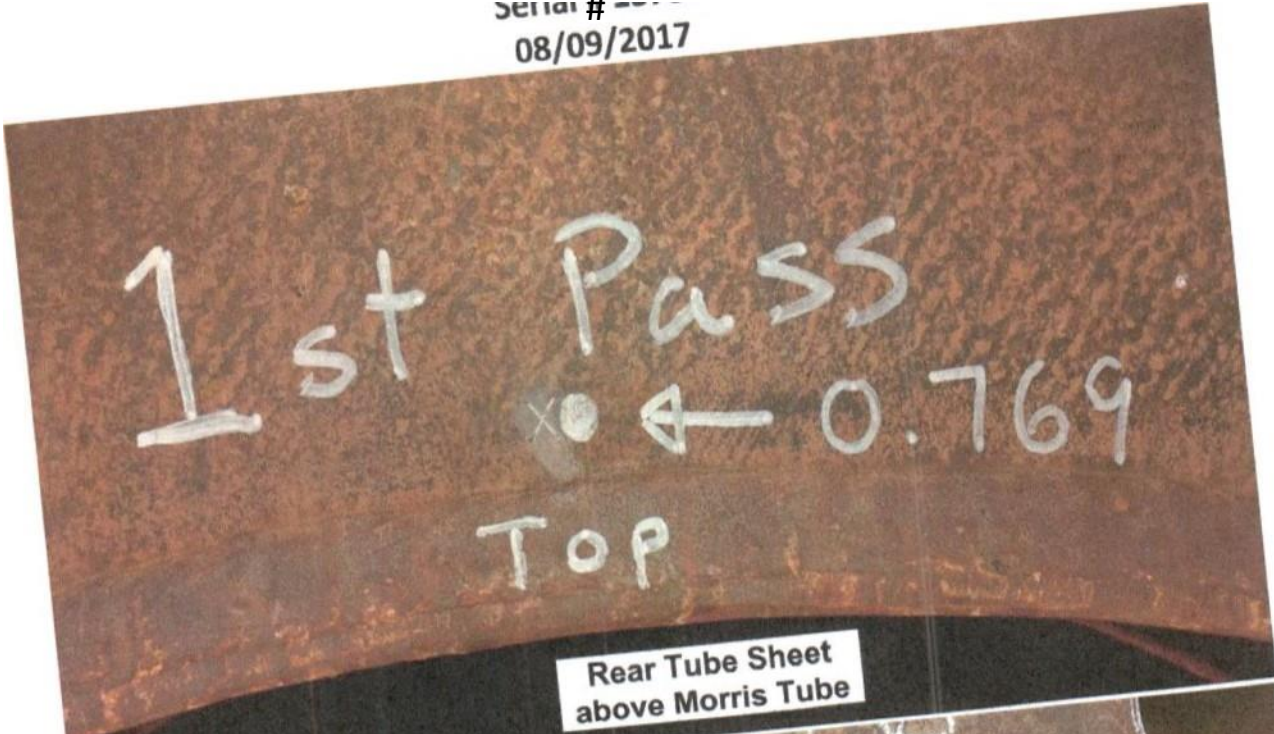
1st Pass
Left side



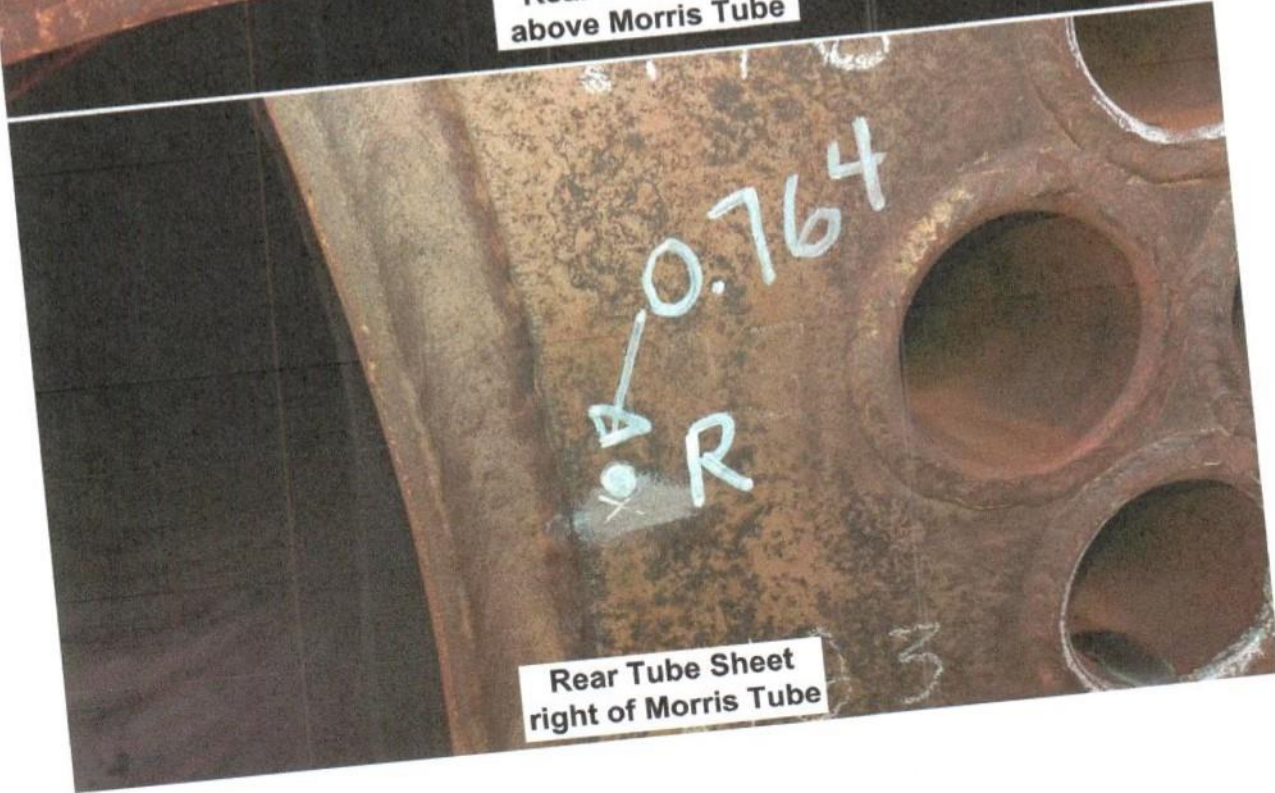
Readings collected in first tube at end of each row and alternating between rows

Mohawk HP Boiler
serial 13789
500

Serial # ---
08/09/2017



Rear Tube Sheet
above Morris Tube



Rear Tube Sheet
right of Morris Tube

Mohawk 500 HP
Boiler Serial #
13789
08/09/2017



Mohawk HP Boiler
serial 13789

SOO

Mohawk 500 HP
Boiler Serial #
13789
08/09/2017

500 HP Boiler
Serial # 13789
08/09/2017

199

188

1st Pass
TOP

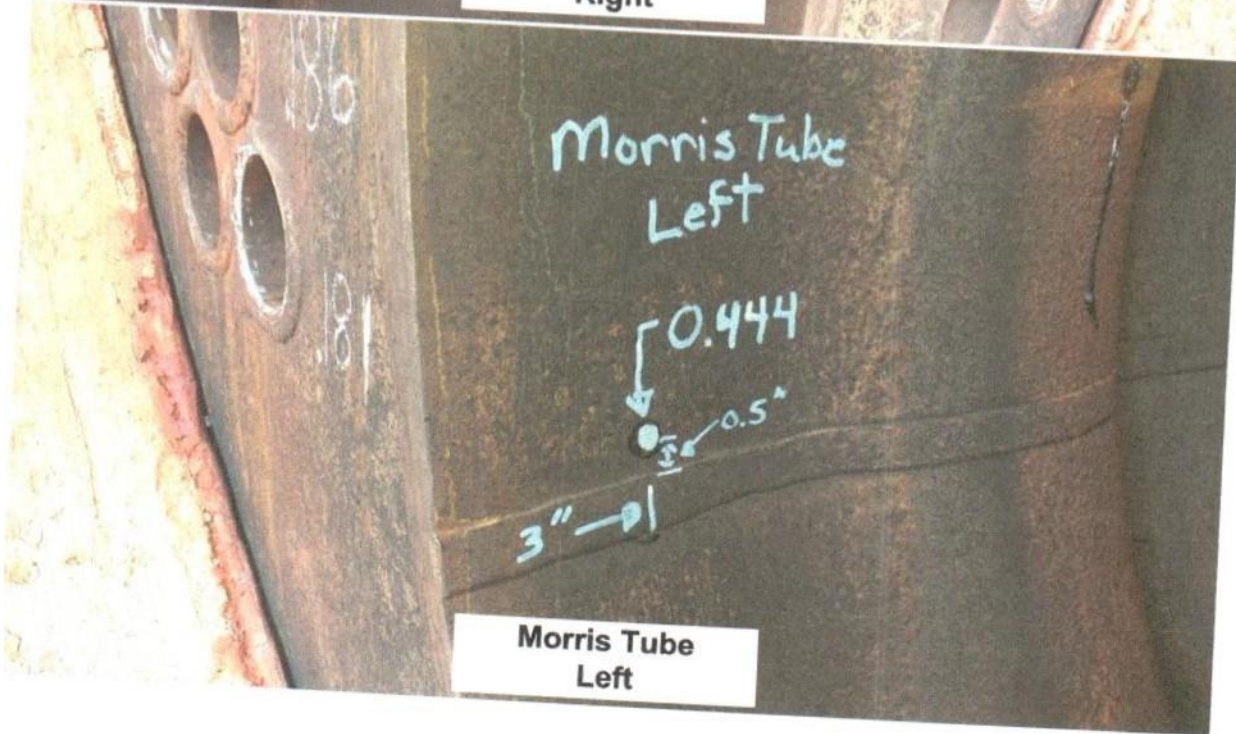
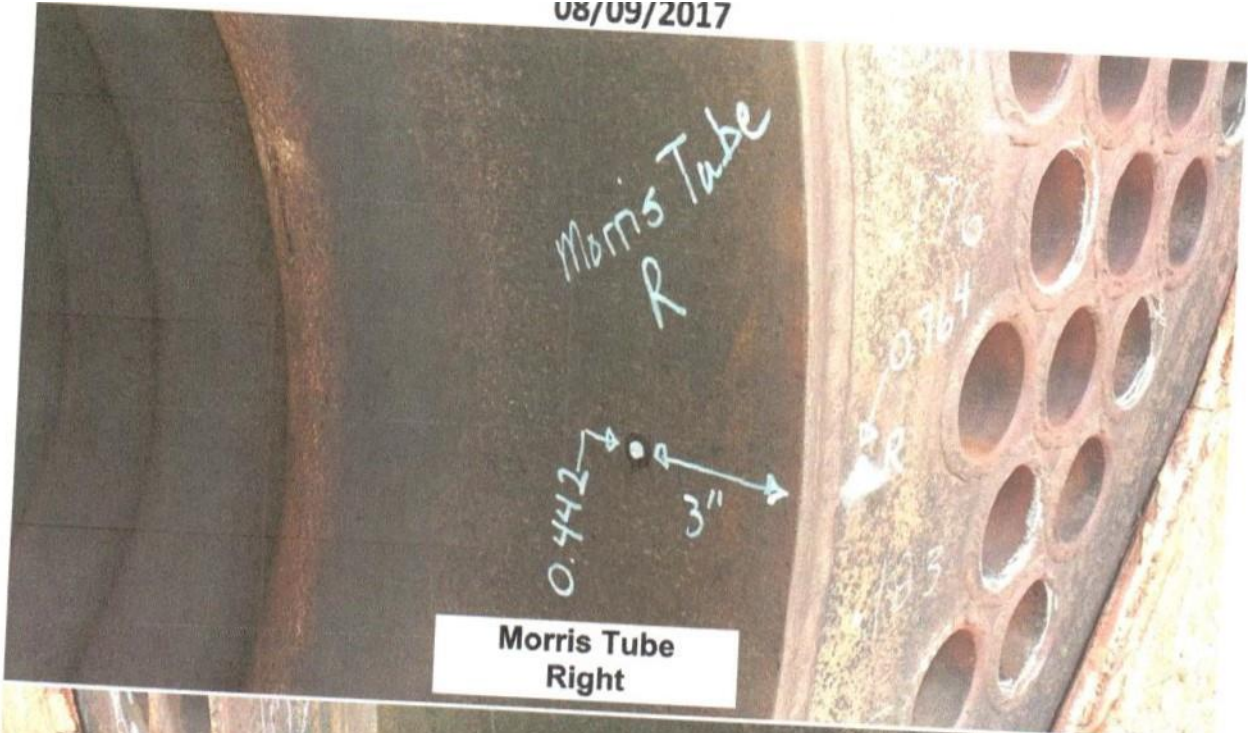
Morris Tube
Top

3"
10.441

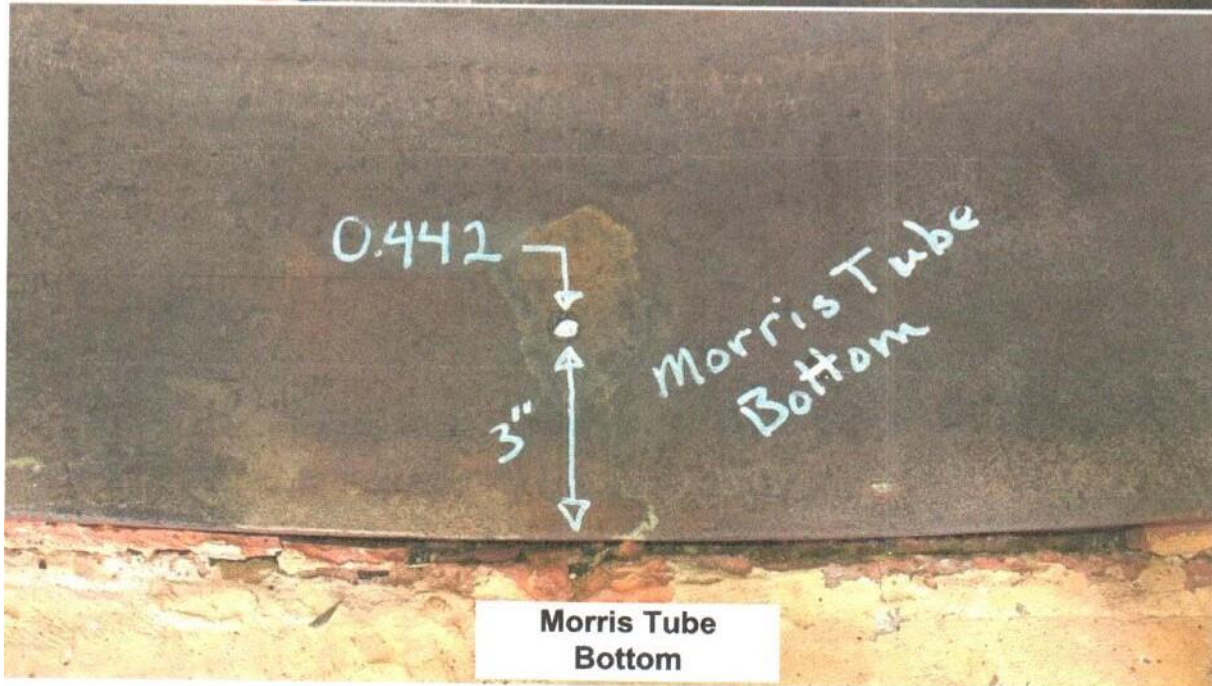
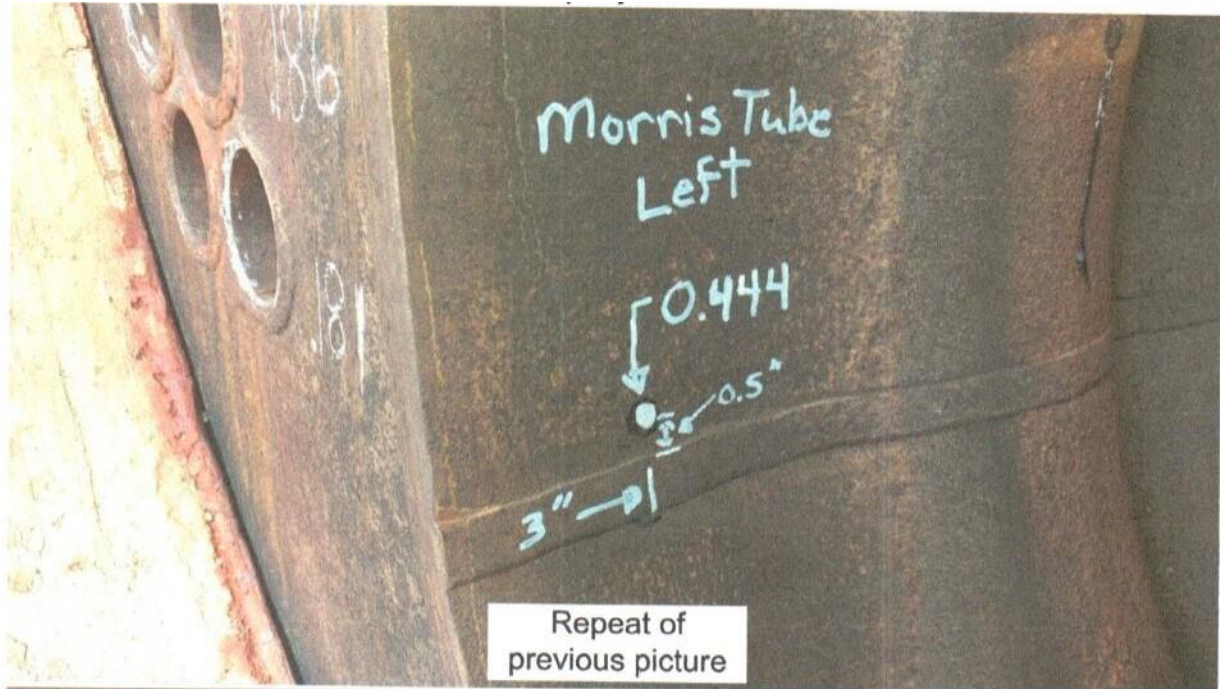
Morris Tube
Top

Mohawk HP Boiler
serial 13789

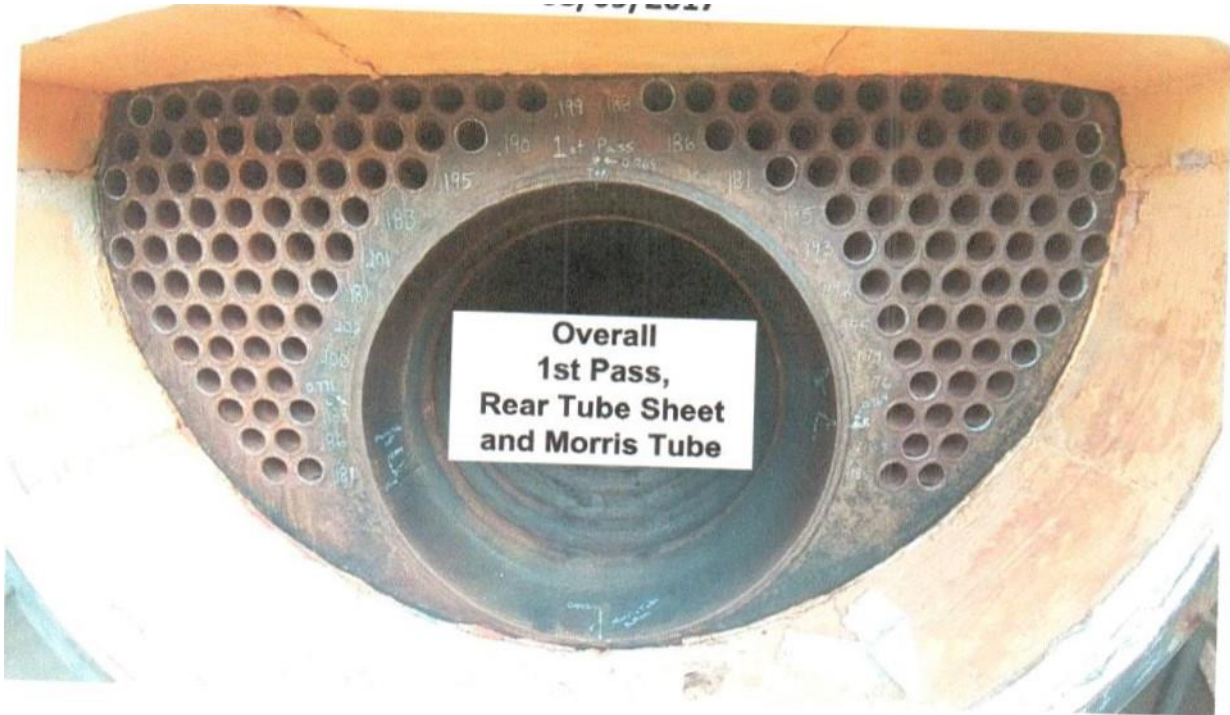
08/09/2017



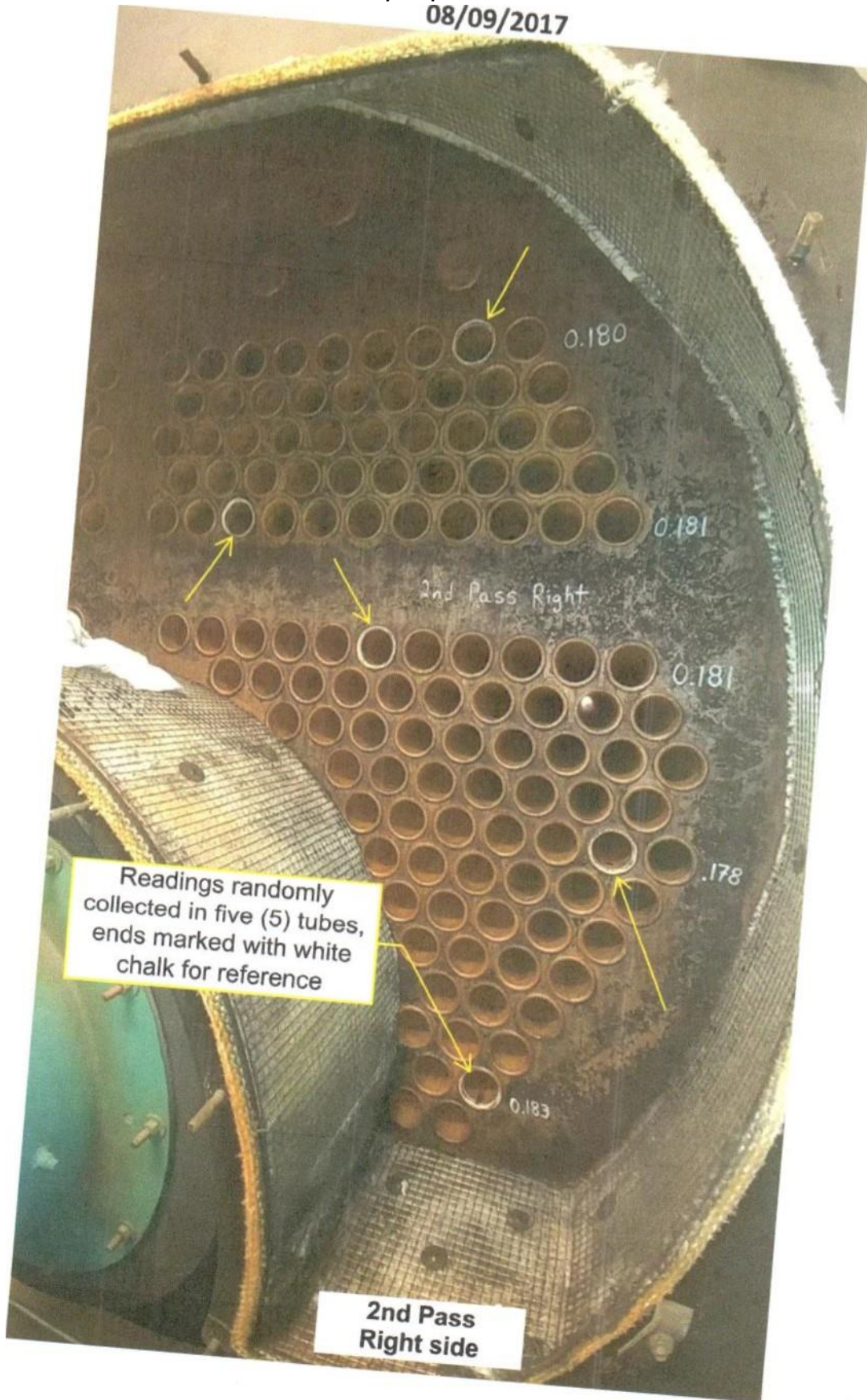
Mohawk 500 HP
Boiler Serial #
13789
08/09/2017



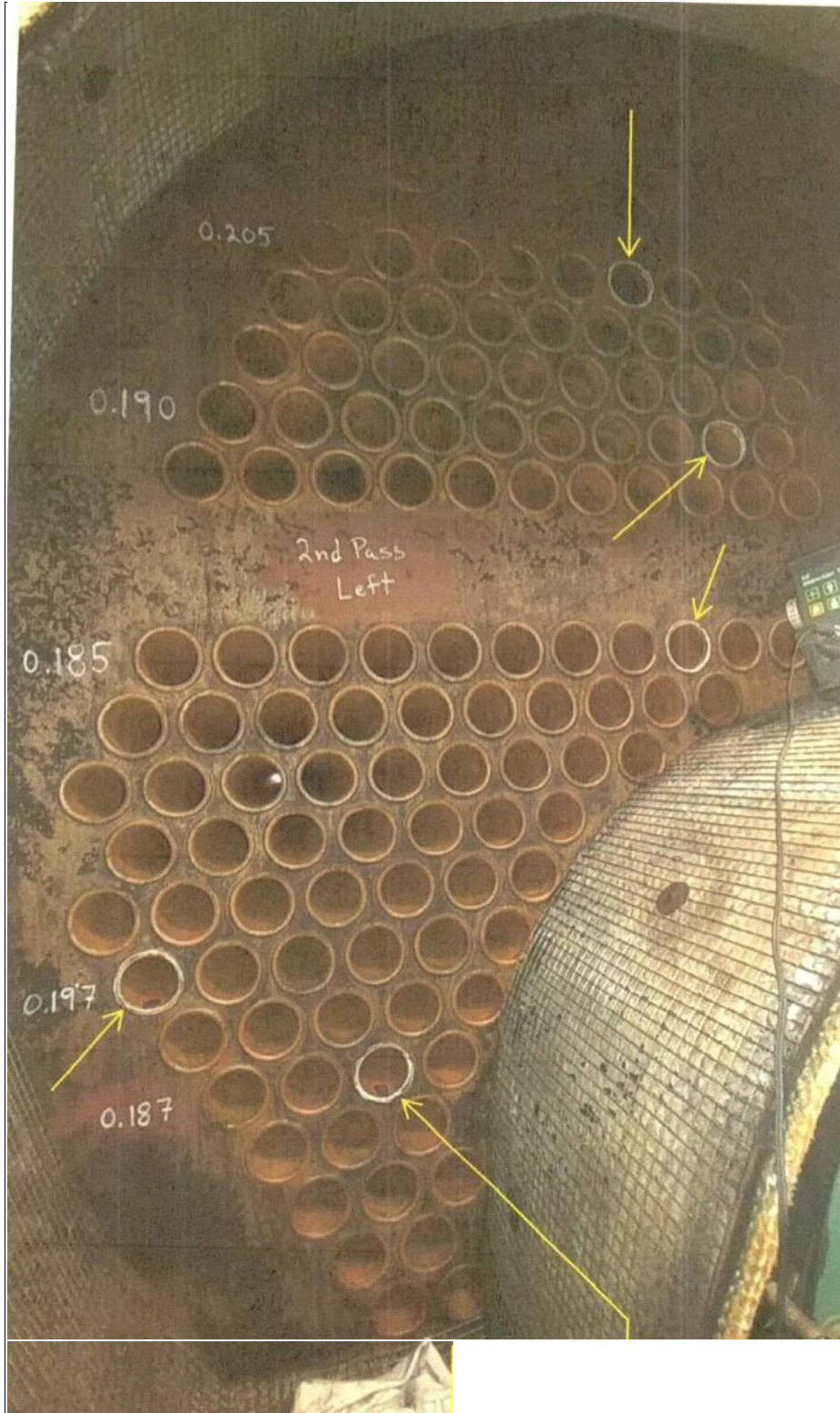
Mohawk 500 HP
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Mohawk 500 HP
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Mohawk 500 HP
Boiler Serial #
13789
08/09/2017

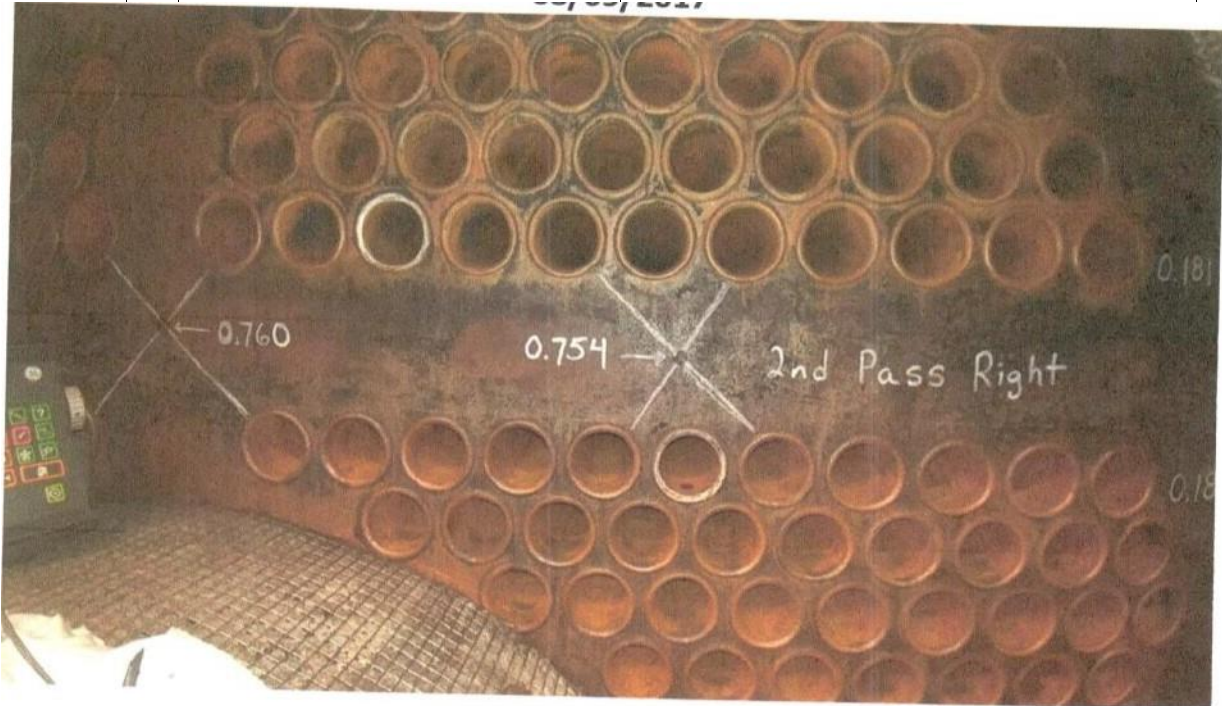


Mohawk 500 HP
Boiler Serial #
13789
08/09/2017

2nd Pass
Left side

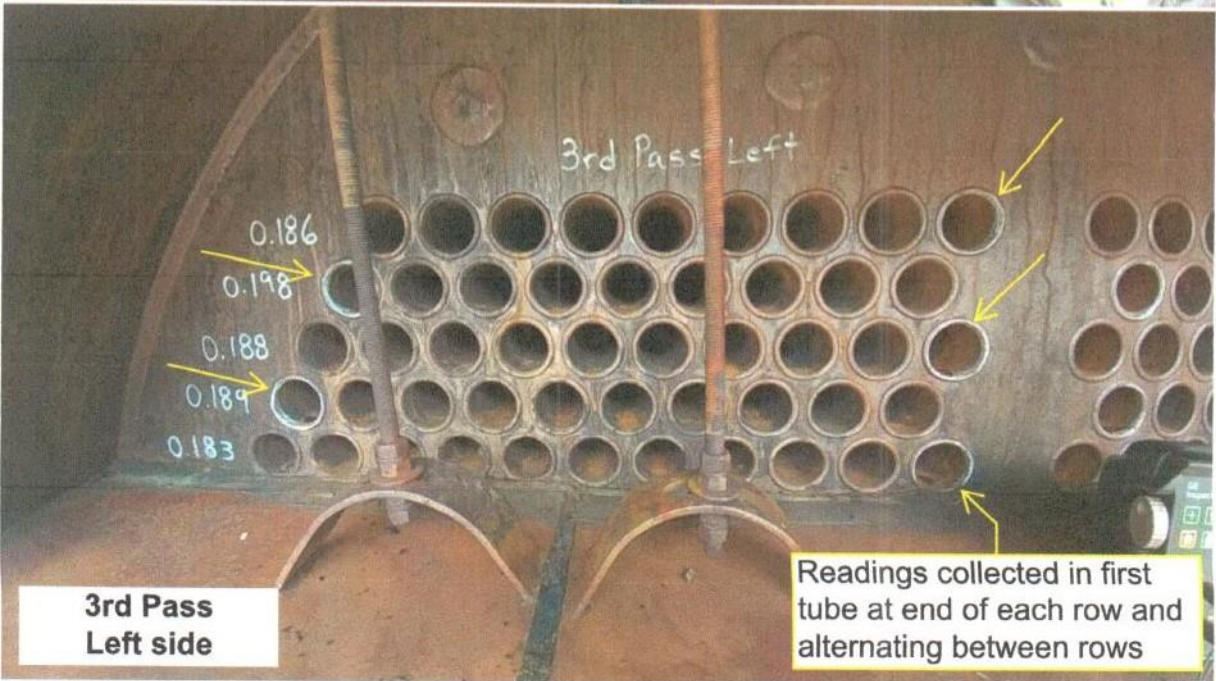
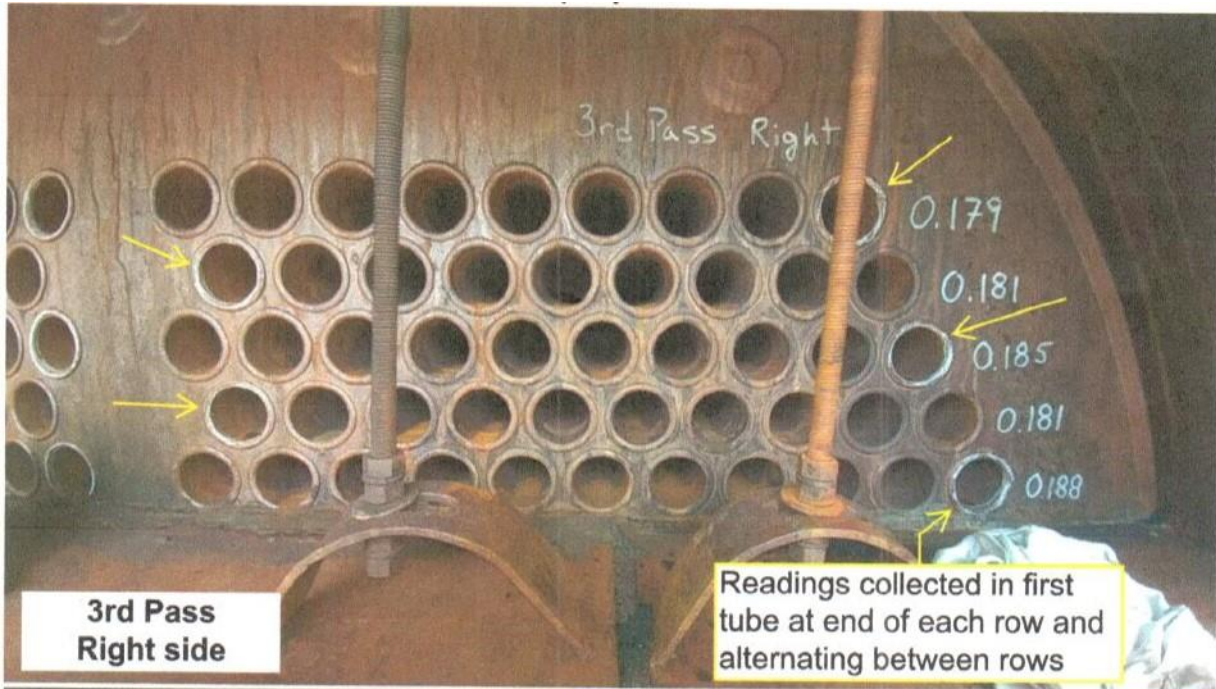


Readings randomly
collected in five
(5) tubes, ends
marked with
white chalk for
reference

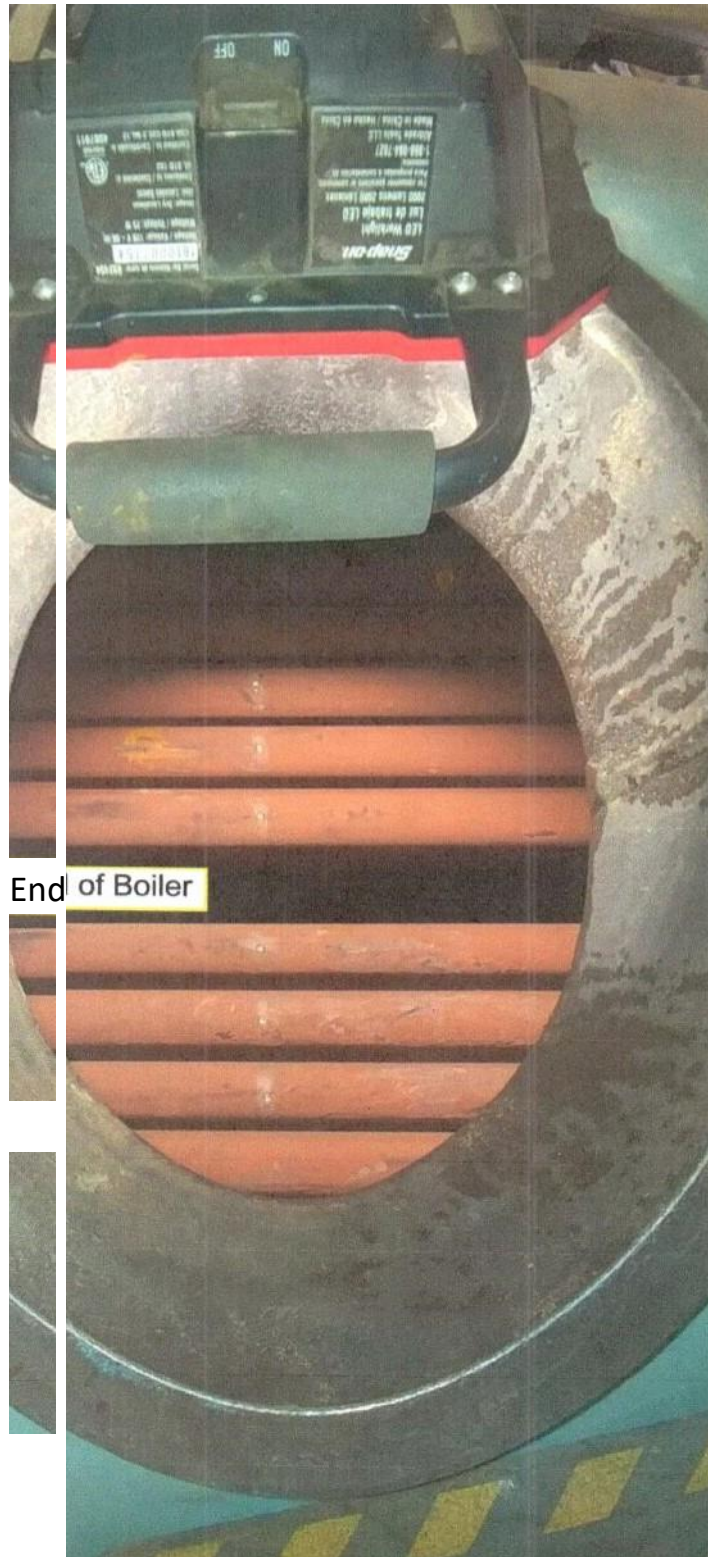


Front Tube Sheet
two (2) readings collected at
intersections of lines drawn between
centerlines of tubes above

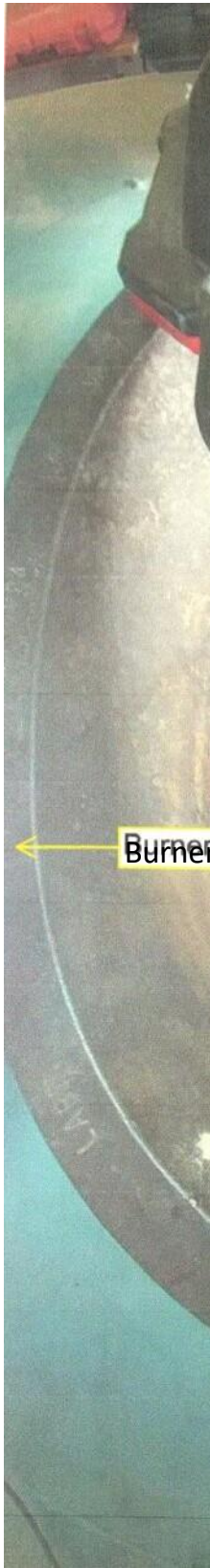
Mohawk 500 HP
Boiler Serial #
13789
08/09/2017



Mohawk 500 HP
Boiler Serial #
13789
08/09/2017



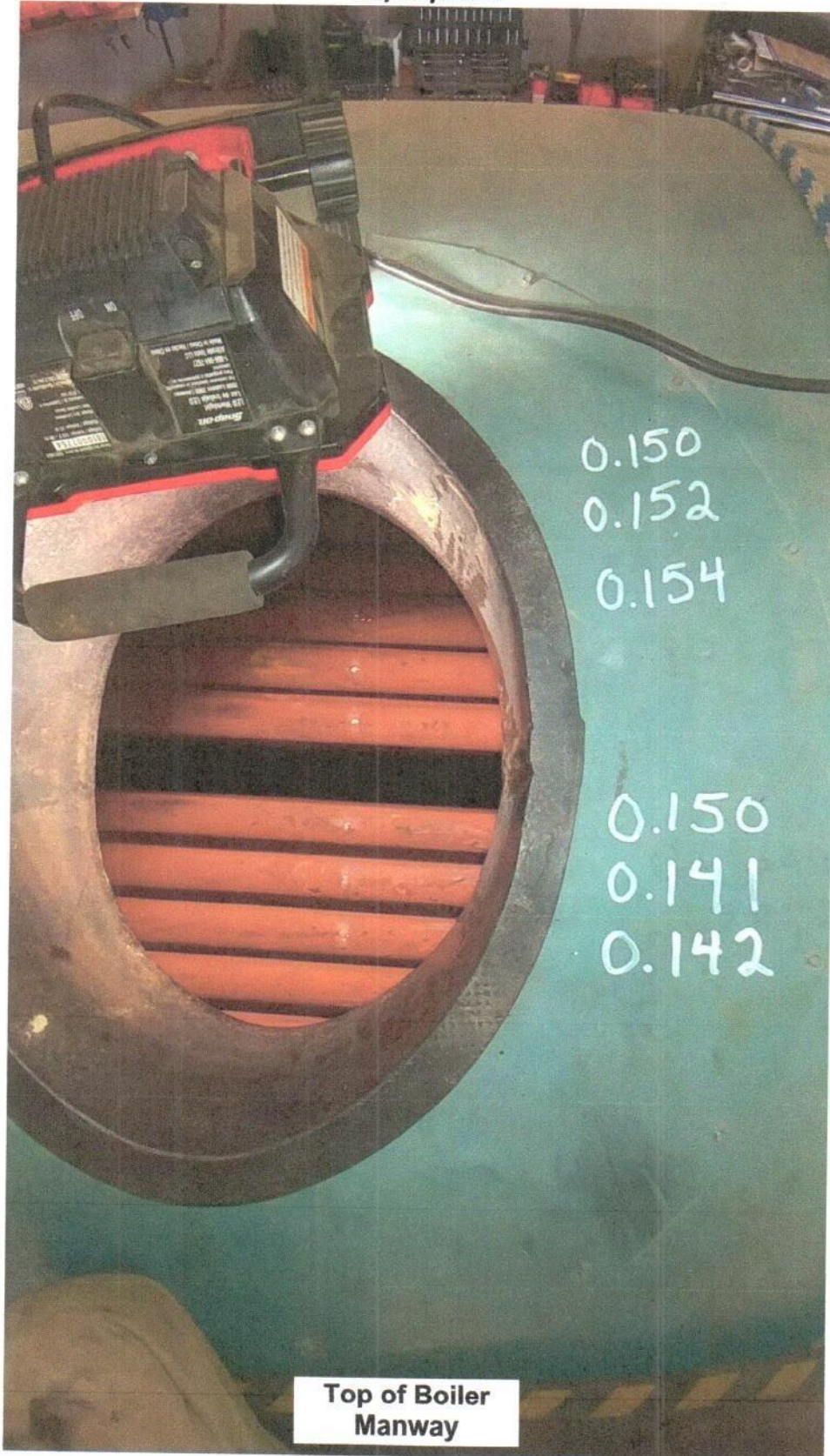
Mohawk 500 HP
Boiler Serial #
13789
08/09/2017



Top of Boiler
Manway



Mohawk 500 HP Boiler
Serial # 13789
08/09/2017



Mohawk 500 HP Boiler

Serial # 13789

08/09/2017

NAT'L BOARD NO. [REDACTED]



MOHAWK

BOILER-BURNER UNIT



MODEL NO. 4-5-2506

SERIAL NO. 13789

HEATING SURFACE 2506 SQ. FT. YEAR BUILT 1998

MAX. STEAM W.P. 150 P.S.I. MAX. WATER W.P. [REDACTED] P.S.I.

STEAM CAPACITY 17250 LBS./HR.

MIN. VALVE CAPACITY 20048 LBS./HR. (BTU./HR.)

INSTALLATION: The boiler assemblies are intended for installation in accordance with the appropriate standards of the NATIONAL FIRE PROTECTION ASSOCIATION.

For boilers operating at not more than 50 psi - 18 in. at top, sides, and rear, 48 in. from front and 18 in. from flue pipe.

For boilers operating at more than 50 psi - 48 in. at top, 36 in. at sides, and rear, 96 in. from front, and 36 in. from flue pipe.

For installation on noncombustible flooring.

SUPERIOR BOILER WORKS, INC.

3524 E. FOURTH HUTCHINSON, KS. A/C 316 662-6693