

# گزارش بازرسی تیوب های بویلر به روش التراسونیک R-Scan

پروژه:

انجام بازرسی کنترل خوردگی تیوب های بویلر A  
شماره نامه

کارفرما:

شرکت سهامی پتروشیمی

مجری:

شرکت بازرسی فنی و کنترل خوردگی تکین کو

اسفند ماه سال ۱۳۹۱

ایران - منطقه



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## ۱. شرح کار

شرح کار عبارت است از آزمون تعداد 87 عدد تیوب مربوط به بویلر A برای شرکت پتروشیمی [ ] به روش آلتراسونیک فرکانس بالا و با تکنیک Pulse Echo - Contact - R-Scan. تیوب ها دارای قطر خارجی ۷۶.۲ میلیمتر وضخامت آنها ۴.۵ میلیمتر و جنس کربن استیل بوده و محدوده تست حدود یک متر از هر تیوب می باشد. لازم به ذکر است اسکن تیوب ها از پایین شروع شده و حدود یک متر به سمت بالا ادامه پیدا کرد.

## ۲. اهداف

هدف از این بازرسی تعیین وضعیت کیفی تیوب های بویلر و تعیین میزان خوردگی داخلی در تیوب ها و ارائه گزارش و مشخص کردن تیوب هایی میباشد که خوردگی آنها بیش از ۵۰ درصد ضخامت تیوب حد مجاز تعیین شده توسط کارفرما میباشد.

## ۳. دستورالعمل

اجرای بازرسی مطابق با استاندارد ASME, Article 5, Version 2010 و استاندارد ASTM E-114 version 2005 بوده و آزمون با استفاده از پراب Dry Couple با فرکانس ۵ مگاهرتز و قطر ۱۰ میلیمتر و با ماژول التراسونیک UT400 انجام گردیده است. دستگاه مورد استفاده جهت بازرسی التراسونیک، R-Scan بوده همچنین سیگنال دریافتی جهت ارزیابی بهتر فیلتر شده و میزان کنترل میانگین دستگاه افزایش یافته است.



#### ۴. گزارش بازرسی

گزارش بازرسی التراسونیک R-Scan شامل سه بخش اصلی می باشد که اطلاعات مربوط به هر بخش به شرح ذیل است:

##### بخش اول :

در این بخش (صفحات ابتدایی هر گزارش) معمولاً اطلاعات اصلی در مورد آزمون موجود می باشد که شامل موارد زیر است:

- ✓ مشخصات کارفرما ، مجری ، پروژه و قطعه مورد آزمون
- ✓ مشخصات در خواست کار ، شماره گزارش ، تاریخ اجرا
- ✓ مشخصات کامل قطعه مورد آزمون مانند جنس ، ضخامت ....
- ✓ مشخصات دستگاه ، بلوک کالیبراسیون و پرابهای مورد استفاده
- ✓ مشخصات استاندارد ، آیین نامه بازرسی ، روش بازرسی و ....
- ✓ شماتیک قطعه مورد آزمون که در آن اطلاعات تصویر تجهیز تست شده به همراه طریقه منطقه بندی آن جهت تسهیل موقعیت یابی عیوب مشخص شده است.
- ✓ حجم کار انجام شده
- ✓ امضاء بازرس ، ناظر ، کارفرما

##### بخش دوم :

در این بخش معمولاً اطلاعات خلاصه ای از کلیه نواحی مورد آزمون بصورت یک یا چند جدول گردآوری شده است . که شامل موارد زیر است:

- ✓ Item name : اسم تجهیز تست شده
- ✓ OT : ضخامت اولیه
- ✓ X,Y : مختصات محدوده خوردگی می باشد
- ✓ L : طول خوردگی
- ✓ W : عرض خوردگی
- ✓ D : عمق خوردگی
- ✓ mt : در نواحی دارای خوردگی موضعی به ضخامت باقی مانده در کنار ناحیه معیوب گفته میشود
- ✓ MT : کمترین ضخامت باقی مانده در ناحیه مورد آزمون می باشد.
- ✓ Tested Area : حجم بازرسی انجام شده
- ✓ Remark : سایر نکات



- ✓ امضاء بازرس ، ناظر ، کارفرما
- ✓ جهت سهولت کارفرمای محترم نواحی که ضخامت باقی مانده آنها کمتر از ۵۰ درصد ضخامت اولیه گزارش شده با رنگ قرمز مشخص شده اند .

#### بخش سوم :

در این بخش معمولا اطلاعات هر ناحیه مورد آزمون بصورت تفکیکی گردآوری شده است . که شامل موارد زیر است:

- ✓ نمای B-scan که مربوط به تصویر قطعه از پهلو میباشد.
- ✓ در این نما نقطه با کمترین ضخامت باقیمانده با خط قرمز مشخص شده است. لازم به توضیح است که در نمای B-Scan تیوب ها در برخی نقاط مواضع سفیدی وجود دارد که مربوط به سوئیچ کردن تنظیمات دستگاه از حالت gate to gate به حالت gate to initial Pulse بوده و عیب نمی باشد. همچنین در بعضی مواقع به هنگام گذر پراب از روی جوشهای (موسوم به جوش پنجره ای ) نقاط خالی مشهود می باشد که این نقاط نیز دارای خوردگی نمی باشد.
- ✓ امضاء بازرس ، ناظر ، کارفرما

#### ۵. بازرسین

بازرسین مجری آقایان مهندسین [REDACTED] دارای گواهینامه های معتبر سطح دو از موسسه ASNT امریکا و سرپرست عملیات بازرسی آقای مهندس [REDACTED] دارای گواهینامه های معتبر سطح سه از موسسه ASNT امریکا با سابقه کار بیش از ده سال می باشند.

#### ۶. حجم کار و مشاهدات

در تاریخ ۱۳۹۱/۱۲/۰۵ بازرسین شرکت تکین کو جهت انجام بازرسی کنترل خوردگی تیوب های بویلر A به روش R-Scan (Ultrasonic) در محل پتروشیمی [REDACTED] حاضر شدند و کارشناسان در همان روز عملیات بازرسی را آغاز نمودند. عملیات بازرسی در تاریخ ۱۳۹۱/۱۲/۰۷ به پایان رسید. تیوب های بویلر دارای قطر خارجی ۳ اینچ، ضخامت اولیه ۴.۵ میلیمتر، جنس CS بودند که با هماهنگی انجام شده با کارفرمای محترم حدود یک متر ابتدایی هر تیوب مورد بازرسی قرار گرفت. جمعا 87 شاخه تیوب با طول تقریبی ۶۹۳ متر (برای هر تیوب سه اسکن پوششی اجرا گردید ) مورد بازرسی قرار گرفت.



در سه نقطه بر روی دو عدد تیوب خوردگی موضعی با عمق بیش از ۵۰ درصد ضخامت اولیه مشاهده شد که موقعیت تیوب های معیوب به صورت زیر می باشد:

در صورتی که رو به دیواره بویلر ایستاده باشید و سمت راست شما مشعل و سمت چپ شما ورودی باشد آنگاه اولین تیوب با شماره یک نزدیک ورودی است و آخرین تیوب با شماره ۸۷ نزدیک دیواره مشعل می باشد.

با فرض شماره گذاری بالا تیوب شماره ۵۶ در دو محدوده دارای خوردگی به میزان ۲.۵ از ۴.۵ میلیمتر می باشد. کمترین ضخامت باقیمانده در محل این خوردگی ۲ میلیمتر است. محدوده خوردگی از ۵ سانتیمتری ابتدایی تیوب شروع شده و حدود ۲۳ سانتیمتر طول دارد.

همچنین تیوب شماره ۶۰ دارای خوردگی به میزان ۲.۸ از ۴.۵ میلیمتر می باشد. کمترین ضخامت باقیمانده در محل این خوردگی ۱.۷ میلیمتر است. محدوده خوردگی از ۲۰ سانتیمتری ابتدایی تیوب شروع شده و حدود ۱۶ سانتیمتر طول دارد.



## ۷. گزارش بازرسی



# Corrosion Mapping Report

CN-GEN-RS-001.00

<b>Client:</b> [REDACTED]	<b>Request No:</b> 700-10-7680
<b>Project:</b> Boiler Tubes Testing	<b>Report No:</b> CM-RS-MPC-001
<b>Plant/Shop:</b> [REDACTED] Petrochemical Co.	<b>Exam Date:</b> 1391-12-05 to 07
<b>Item Name:</b> Boiler A	<b>Page No.:</b> 1 of 242

<b>Item Specification</b>						<b>Inspection Subject</b>	
Item Name & No.: <b>Boiler A</b>						Base Metal <input checked="" type="checkbox"/> Weld Metal <input type="checkbox"/> Casting <input type="checkbox"/>	
DWG No.: - Material: <b>Steel</b>						① Groove Type: -	
Surface Condition: <b>As wire brushed</b> Thickness: <b>4.5 mm</b>						② Welding Process: -	
Equipment: <b>R-Scan Lite</b> Model: <b>UT400B</b> Ser.: <b>2291111</b>						Basic Calibration Block: <b>V1 &amp; V2</b>	
Probe No.	Type/Ser. No.	Freq. (MHz)	Size / No. (mm)	Angle (°)	Index (mm)	Reference dB: <b>12</b>	
1	<b>CMF74 / R2431111</b>	<b>5</b>	<b>10</b>	<b>0</b>	--	Correction dB: -	
2	---	--	--	--	--	Scanning dB: <b>18</b>	
3	---	--	--	--	--	Couplant: <b>Water</b>	
Code/Standard: <b>ASME-Sec V – Article 5</b> Revision: <b>2010</b>						<b>Sensitivity Calibration</b>	
Procedure No.: <b>CN-GEN-RS-001</b> Revision: <b>00</b>						SDH <input type="checkbox"/> BW <input checked="" type="checkbox"/> FBH <input type="checkbox"/> Notch <input type="checkbox"/>	
Other: Size:						Other: Size:	

<b>Inspection Method</b>				<b>Sensitivity Evaluation Method</b>			
Contact <input checked="" type="checkbox"/>	Pulse Echo <input checked="" type="checkbox"/>	Immersion <input type="checkbox"/>	Through Transmission <input type="checkbox"/>	RH <input type="checkbox"/>	RL <input checked="" type="checkbox"/>	DAC <input type="checkbox"/>	DGS <input type="checkbox"/>

### Sketch:



**Result:** Minimum remaining thickness in tube 56 is 2mm from 4.5 mm and tube 60 is 1.7 mm from 4.5 mm.  
 One meter from ground for each tube inspected.  
 Totally 228 tubes inspected.

① SV: Single-V-Groove	DU: Double-U-Groove	SB: Single-Bevel-Groove	DB: Double-Bevel-Groove	Other:
② SMAW: Shield Metal Arc Welding	GMAW: Gas Metal Arc Welding	SAW: Submerge Arc Welding	Other:	
Abbreviations:	DAC: Distance Amplitude Correction Curve	DGS: Distance, Gain, Size	RL: Reference Level	
SDH: side Drilled Hole	BW: Back Wall	FBH: Flat Bottom Hole	RH: Reference Height	

<b>Inspector(s):</b> [REDACTED] Level:II Date:21-12-1391	<b>Reported By :</b> [REDACTED] Level:II Date:21-12-1391	<b>Client :</b> [REDACTED] Date:
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

<b>Client:</b> [REDACTED]	<b>Request No:</b> 700-10-7680
<b>Project:</b> Boiler Tubes Testing	<b>Report No:</b> CM-RS-MPC-001
<b>Plant/Shop:</b> [REDACTED] Petrochemical Co.	<b>Exam Date:</b> 1391-12-05 to 07
<b>Item Name:</b> Boiler A	<b>Page No.:</b> 2 of 242

No.	Item Name	OT	Ind. Location & Size (mm)							Tested Area(m)	Remark
			X	Y	L	W	D	mt	MT		
1	Tube 1	4.5	-	-	-	-	-	-	3.8	3	-
2	Tube 2	4.5	-	-	-	-	-	-	3.8	3	-
3	Tube 3	4.5	-	-	-	-	-	-	3.9	3	-
4	Tube 4	4.5	-	-	-	-	-	-	3.8	3	-
5	Tube 5	4.5	-	-	-	-	-	-	4	3	-
6	Tube 6	4.5	-	-	-	-	-	-	4	3	-
7	Tube 7	4.5	-	-	-	-	-	-	3.7	3	-
8	Tube 8	4.5	-	-	-	-	-	-	3.5	3	-
9	Tube 9	4.5	-	-	-	-	-	-	4.4	2.4	-
10	Tube 10	4.5	-	-	-	-	-	-	4.4	2.4	-
11	Tube 11	4.5	-	-	-	-	-	-	3.7	2.4	-
12	Tube 12	4.5	-	-	-	-	-	-	3.6	2.4	-
13	Tube 13	4.5	-	-	-	-	-	-	4	2.4	-
14	Tube 14	4.5	-	-	-	-	-	-	3.7	2.4	-
15	Tube 15	4.5	-	-	-	-	-	-	3.9	2.4	-
16	Tube 16	4.5	-	-	-	-	-	-	3.5	2.4	-
17	Tube 17	4.5	-	-	-	-	-	-	4	2.4	-
18	Tube 18	4.5	-	-	-	-	-	-	3.3	2.4	-
19	Tube 19	4.5	-	-	-	-	-	-	3.4	2.4	-

Abbreviations:	X & Y: defect position	L :Local metal loss length (mm)	OT: Original thickness	Disc.: Discontinuity
	MT : minimum thickness	W: local metal loss width (mm)	Att.: Attenuation	Ref : reference
	mt : minimum remaining wall thickness around the area of local metal loss	D :local metal loss depth (mm)	Disc.: Discontinuity	Ind.: Indication

<b>Inspector(s):</b> [REDACTED] Level:II Date:21-12-1391	<b>Reported By :</b> [REDACTED] Level:II Date:21-12-1391	<b>Client :</b> [REDACTED] Date:
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

<b>Client:</b> [REDACTED]	<b>Request No:</b> 700-10-7680
<b>Project:</b> Boiler Tubes Testing	<b>Report No:</b> CM-RS-MPC-001
<b>Plant/Shop:</b> [REDACTED] Petrochemical Co.	<b>Exam Date:</b> 1391-12-05 to 07
<b>Item Name:</b> Boiler A	<b>Page No.:</b> 3 of 242

No.	Item Name	OT	Ind. Location & Size (mm)							Tested Area(m)	Remark
			X	Y	L	W	D	mt	MT		
20	Tube 20	4.5	-	-	-	-	-	-	3.3	3	-
21	Tube 21	4.5	-	-	-	-	-	-	3.3	3	-
22	Tube 22	4.5	-	-	-	-	-	-	3.5	3	-
23	Tube 23	4.5	-	-	-	-	-	-	4	3	-
24	Tube 24	4.5	-	-	-	-	-	-	3.2	3	-
25	Tube 25	4.5	-	-	-	-	-	-	4	3	-
26	Tube 26	4.5	-	-	-	-	-	-	3.8	3	-
27	Tube 27	4.5	-	-	-	-	-	-	4.1	3	-
28	Tube 28	4.5	-	-	-	-	-	-	3.2	2.4	-
29	Tube 29	4.5	-	-	-	-	-	-	4	2.4	-
30	Tube 30	4.5	-	-	-	-	-	-	3.7	2.4	-
31	Tube 31	4.5	-	-	-	-	-	-	3.9	2.4	-
32	Tube 32	4.5	-	-	-	-	-	-	3.6	2.4	-
33	Tube 33	4.5	-	-	-	-	-	-	4	2.4	-
34	Tube 34	4.5	-	-	-	-	-	-	3.8	2.4	-
35	Tube 35	4.5	-	-	-	-	-	-	3.7	2.4	-
36	Tube 36	4.5	-	-	-	-	-	-	3.9	2.4	-
37	Tube 37	4.5	-	-	-	-	-	-	4	2.4	-
38	Tube 38	4.5	-	-	-	-	-	-	3.4	2.4	-

Abbreviations:	X & Y: defect position	L :Local metal loss length (mm)	OT: Original thickness	Disc.: Discontinuity
	MT : minimum thickness	W: local metal loss width (mm)	Att.: Attenuation	Ref : reference
	mt : minimum remaining wall thickness around the area of local metal loss	D :local metal loss depth (mm)	Disc.: Discontinuity	Ind.: Indication

<b>Inspector(s):</b> [REDACTED] Level:II Date:21-12-1391	<b>Reported By :</b> [REDACTED] Level:II Date:21-12-1391	<b>Client :</b> [REDACTED] Date:
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# Corrosion Mapping Report

CN-GEN-RS-001.00

<b>Client:</b> [REDACTED]	<b>Request No:</b> 700-10-7680
<b>Project:</b> Boiler Tubes Testing	<b>Report No:</b> CM-RS-MPC-001
<b>Plant/Shop:</b> [REDACTED] Petrochemical Co.	<b>Exam Date:</b> 1391-12-05 to 07
<b>Item Name:</b> Boiler A	<b>Page No.:</b> 4 of 242

No.	Item Name	OT	Ind. Location & Size (mm)							Tested Area(m)	Remark
			X	Y	L	W	D	mt	MT		
39	Tube 39	4.5	-	-	-	-	-	-	3.8	2.4	-
40	Tube 40	4.5	-	-	-	-	-	-	3.5	2.4	-
41	Tube 41	4.5	-	-	-	-	-	-	4	2.4	-
42	Tube 42	4.5	-	-	-	-	-	-	3.7	2.4	-
43	Tube 43	4.5	-	-	-	-	-	-	3.8	2.4	-
44	Tube 44	4.5	-	-	-	-	-	-	4.1	2.4	-
45	Tube 45	4.5	-	-	-	-	-	-	4	2.4	-
46	Tube 46	4.5	-	-	-	-	-	-	3.2	2.4	-
47	Tube 47	4.5	-	-	-	-	-	-	3.4	2.4	-
48	Tube 48	4.5	-	-	-	-	-	-	3.7	2.4	-
49	Tube 49	4.5	-	-	-	-	-	-	3.8	2.4	-
50	Tube 50	4.5	-	-	-	-	-	-	4.1	2.4	-
51	Tube 51	4.5	-	-	-	-	-	-	3.5	2.4	-
52	Tube 52	4.5	-	-	-	-	-	-	3.9	2.4	-
53	Tube 53	4.5	-	-	-	-	-	-	4.1	2.4	-
54	Tube 54	4.5	-	-	-	-	-	-	3.7	2.4	-
55	Tube 55	4.5	-	-	-	-	-	-	4	2.4	-
56	Tube 56	4.5	50	10	230	9	2	2.5	2	2.4	-
57	Tube 57	4.5	-	-	-	-	-	-	4.1	2.4	-

Abbreviations:	X & Y: defect position	L :Local metal loss length (mm)	OT: Original thickness	Disc.: Discontinuity
	MT : minimum thickness	W: local metal loss width (mm)	Att.: Attenuation	Ref : reference
	mt : minimum remaining wall thickness around the area of local metal loss	D :local metal loss depth (mm)	Disc.: Discontinuity	Ind.: Indication

<b>Inspector(s):</b> [REDACTED] Level:II Date:21-12-1391	<b>Reported By :</b> [REDACTED] Level:II Date:21-12-1391	<b>Client :</b> [REDACTED] Date:
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# Corrosion Mapping Report

CN-GEN-RS-001.00

<b>Client:</b> [REDACTED]	<b>Request No:</b> 700-10-7680
<b>Project:</b> Boiler Tubes Testing	<b>Report No:</b> CM-RS-MPC-001
<b>Plant/Shop:</b> [REDACTED] Petrochemical Co.	<b>Exam Date:</b> 1391-12-05 to 07
<b>Item Name:</b> Boiler A	<b>Page No.:</b> 5 of 242

No.	Item Name	OT	Ind. Location & Size (mm)							Tested Area(m)	Remark
			X	Y	L	W	D	mt	MT		
58	Tube 58	4.5	-	-	-	-	-	-	3.4	2.4	-
59	Tube 59	4.5	-	-	-	-	-	-	3.9	2.4	-
60	Tube 60	4.5	200	11	160	7	1.7	2.8	1.7	2.4	-
61	Tube 61	4.5	-	-	-	-	-	-	3.8	2.4	-
62	Tube 62	4.5	-	-	-	-	-	-	3.6	2.4	-
63	Tube 63	4.5	-	-	-	-	-	-	3.5	2.4	-
64	Tube 64	4.5	-	-	-	-	-	-	3.5	2.4	-
65	Tube 65	4.5	-	-	-	-	-	-	4.1	2.4	-
66	Tube 66	4.5	-	-	-	-	-	-	3.6	2.4	-
67	Tube 67	4.5	-	-	-	-	-	-	3.8	2.4	-
68	Tube 68	4.5	-	-	-	-	-	-	3.4	2.4	-
69	Tube 69	4.5	-	-	-	-	-	-	3.7	2.4	-
70	Tube 70	4.5	-	-	-	-	-	-	3.5	2.4	-
71	Tube 71	4.5	-	-	-	-	-	-	4.2	2.4	-
72	Tube 72	4.5	-	-	-	-	-	-	4.3	2.4	-
73	Tube 73	4.5	-	-	-	-	-	-	3.8	2.4	-
74	Tube 74	4.5	-	-	-	-	-	-	3.2	2.4	-
75	Tube 75	4.5	-	-	-	-	-	-	3.3	2.4	-
76	Tube 76	4.5	-	-	-	-	-	-	3.7	2.4	-

Abbreviations:	X & Y: defect position	L :Local metal loss length (mm)	OT: Original thickness	Disc.: Discontinuity
	MT : minimum thickness	W: local metal loss width (mm)	Att.: Attenuation	Ref : reference
	mt : minimum remaining wall thickness around the area of local metal loss	D :local metal loss depth (mm)	Disc.: Discontinuity	Ind.: Indication

<b>Inspector(s):</b> [REDACTED] Level:II Date:21-12-1391	<b>Reported By :</b> [REDACTED] Level:II Date:21-12-1391	<b>Client :</b> [REDACTED] Date:
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# Corrosion Mapping Report

CN-GEN-RS-001.00

<b>Client:</b> ██████████ <b>Project:</b> Boiler Tubes Testing <b>Plant/Shop:</b> ██████████ Petrochemical Co. <b>Item Name:</b> Boiler A	<b>Request No:</b> 700-10-7680 <b>Report No:</b> CM-RS-MPC-001 <b>Exam Date:</b> 1391-12-05 to 07 <b>Page No.:</b> 6 of 242
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No.	Item Name	OT	Ind. Location & Size (mm)							Tested Area(m)	Remark
			X	Y	L	W	D	mt	MT		
77	Tube 77	4.5	-	-	-	-	-	-	4.4	2.4	-
78	Tube 78	4.5	-	-	-	-	-	-	4	2.4	-
79	Tube 79	4.5	-	-	-	-	-	-	4	2.4	-
80	Tube 80	4.5	-	-	-	-	-	-	3.6	2.4	-
81	Tube 81	4.5	-	-	-	-	-	-	3.8	2.4	-
82	Tube 82	4.5	-	-	-	-	-	-	3.8	2.4	-
83	Tube 83	4.5	-	-	-	-	-	-	4.3	2.4	-
84	Tube 84	4.5	-	-	-	-	-	-	3.9	2.4	-
85	Tube 85	4.5	-	-	-	-	-	-	3.8	2.4	-
86	Tube 86	4.5	-	-	-	-	-	-	3.7	2.4	-
87	Tube 87	4.5	-	-	-	-	-	-	4.3	2.4	-
88	Tube 88	4.5	-	-	-	-	-	-	3.9	3	-
89	Tube 89	4.5	-	-	-	-	-	-	3.9	3	-
90	Tube 90	4.5	-	-	-	-	-	-	3.5	3	-
91	Tube 91	4.5	-	-	-	-	-	-	3.8	3	-
92	Tube 92	4.5	-	-	-	-	-	-	3.7	3	-
93	Tube 93	4.5	-	-	-	-	-	-	3.7	3	-
94	Tube 94	4.5	-	-	-	-	-	-	4	3	-
95	Tube 95	4.5	-	-	-	-	-	-	4	3	-

Abbreviations:	X & Y: defect position	L :Local metal loss length (mm)	OT: Original thickness	Disc.: Discontinuity
	MT : minimum thickness	W: local metal loss width (mm)	Att.: Attenuation	Ref : reference
	mt : minimum remaining wall thickness around the area of local metal loss	D :local metal loss depth (mm)	Disc.: Discontinuity	Ind.: Indication

<b>Inspector(s):</b> ██████████ Level:II Date:21-12-1391	<b>Reported By :</b> ██████████ Level:II Date:21-12-1391	<b>Client :</b> ██████████ Date:
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

<b>Client:</b> [REDACTED]	<b>Request No:</b> 700-10-7680
<b>Project:</b> Boiler Tubes Testing	<b>Report No:</b> CM-RS-MPC-001
<b>Plant/Shop:</b> [REDACTED] Petrochemical Co.	<b>Exam Date:</b> 1391-12-05 to 07
<b>Item Name:</b> Boiler A	<b>Page No.:</b> 7 of 242

No.	Item Name	OT	Ind. Location & Size (mm)							Tested Area(m)	Remark
			X	Y	L	W	D	mt	MT		
96	Tube 96	4.5	-	-	-	-	-	-	3.7	3	-
97	Tube 97	4.5	-	-	-	-	-	-	3.9	3	-
98	Tube 98	4.5	-	-	-	-	-	-	4.1	3	-
99	Tube 99	4.5	-	-	-	-	-	-	3.7	3	-
100	Tube 100	4.5	-	-	-	-	-	-	3.9	3	-
101	Tube 101	4.5	-	-	-	-	-	-	3.9	3	-
102	Tube 102	4.5	-	-	-	-	-	-	4.1	3	-
103	Tube 103	4.5	-	-	-	-	-	-	4.4	3	-
104	Tube 104	4.5	-	-	-	-	-	-	3.8	3	-
105	Tube 105	4.5	-	-	-	-	-	-	4.1	3	-
106	Tube 106	4.5	-	-	-	-	-	-	4.1	3	-
107	Tube 107	4.5	-	-	-	-	-	-	3.4	3	-
108	Tube 108	4.5	-	-	-	-	-	-	4.2	3.6	-
109	Tube 109	4.5	-	-	-	-	-	-	3.6	3.6	-
110	Tube 110	4.5	-	-	-	-	-	-	4.1	3.6	-
111	Tube 111	4.5	-	-	-	-	-	-	4.1	3.6	-
112	Tube 112	4.5	-	-	-	-	-	-	3.4	3.6	-
113	Tube 113	4.5	-	-	-	-	-	-	4.4	3.6	-
114	Tube 114	4.5	-	-	-	-	-	-	4.1	3.6	-

Abbreviations:	X & Y: defect position	L :Local metal loss length (mm)	OT: Original thickness	Disc.: Discontinuity
	MT : minimum thickness	W: local metal loss width (mm)	Att.: Attenuation	Ref : reference
	mt : minimum remaining wall thickness around the area of local metal loss	D :local metal loss depth (mm)	Disc.: Discontinuity	Ind.: Indication

<b>Inspector(s):</b> [REDACTED] Level:II Date:21-12-1391	<b>Reported By :</b> [REDACTED] Level:II Date:21-12-1391	<b>Client :</b> [REDACTED] Date:
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# Corrosion Mapping Report

CN-GEN-RS-001.00

<b>Client:</b> [REDACTED]	<b>Request No:</b> 700-10-7680
<b>Project:</b> Boiler Tubes Testing	<b>Report No:</b> CM-RS-MPC-001
<b>Plant/Shop:</b> [REDACTED] Petrochemical Co.	<b>Exam Date:</b> 1391-12-05 to 07
<b>Item Name:</b> Boiler A	<b>Page No.:</b> 8 of 242

No.	Item Name	OT	Ind. Location & Size (mm)							Tested Area(m)	Remark
			X	Y	L	W	D	mt	MT		
115	Tube 115	4.5	-	-	-	-	-	-	4.1	3	-
116	Tube 116	4.5	-	-	-	-	-	-	4.1	3	-
117	Tube 117	4.5	-	-	-	-	-	-	4.1	3	-
118	Tube 118	4.5	-	-	-	-	-	-	4.1	3	-
119	Tube 119	4.5	-	-	-	-	-	-	4	3	-
120	Tube 120	4.5	-	-	-	-	-	-	4.1	3	-
121	Tube 121	4.5	-	-	-	-	-	-	4.1	3	-
122	Tube 122	4.5	-	-	-	-	-	-	4.1	3	-
123	Tube 123	4.5	-	-	-	-	-	-	3.9	2.4	-
124	Tube 124	4.5	-	-	-	-	-	-	4.2	2.4	-
125	Tube 125	4.5	-	-	-	-	-	-	4.1	2.4	-
126	Tube 126	4.5	-	-	-	-	-	-	4	2.4	-
127	Tube 127	4.5	-	-	-	-	-	-	3.9	2.4	-
128	Tube 128	4.5	-	-	-	-	-	-	4.1	2.4	-
129	Tube 129	4.5	-	-	-	-	-	-	4.3	2.4	-
130	Tube 130	4.5	-	-	-	-	-	-	4.2	2.4	-
131	Tube 131	4.5	-	-	-	-	-	-	3.9	2.4	-
132	Tube 132	4.5	-	-	-	-	-	-	4.1	2.4	-
133	Tube 133	4.5	-	-	-	-	-	-	3.9	2.4	-

Abbreviations:	X & Y: defect position	L :Local metal loss length (mm)	OT: Original thickness	Disc.: Discontinuity
	MT : minimum thickness	W: local metal loss width (mm)	Att.: Attenuation	Ref : reference
	mt : minimum remaining wall thickness around the area of local metal loss	D :local metal loss depth (mm)	Disc.: Discontinuity	Ind.: Indication

<b>Inspector(s):</b> [REDACTED] Level:II Date:21-12-1391	<b>Reported By :</b> [REDACTED] Level:II Date:21-12-1391	<b>Client :</b> [REDACTED] Date:
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

<b>Client:</b> [REDACTED]	<b>Request No:</b> 700-10-7680
<b>Project:</b> Boiler Tubes Testing	<b>Report No:</b> CM-RS-MPC-001
<b>Plant/Shop:</b> [REDACTED] Petrochemical Co.	<b>Exam Date:</b> 1391-12-05 to 07
<b>Item Name:</b> Boiler A	<b>Page No.:</b> 9 of 242

No.	Item Name	OT	Ind. Location & Size (mm)							Tested Area(m)	Remark
			X	Y	L	W	D	mt	MT		
134	Tube 134	4.5	-	-	-	-	-	-	4.1	3.6	-
135	Tube 135	4.5	-	-	-	-	-	-	3.9	3.6	-
136	Tube 136	4.5	-	-	-	-	-	-	4	3.6	-
137	Tube 137	4.5	-	-	-	-	-	-	4.2	3.6	-
138	Tube 138	4.5	-	-	-	-	-	-	4.1	3.6	-
139	Tube 139	4.5	-	-	-	-	-	-	4.1	3.6	-
140	Tube 140	4.5	-	-	-	-	-	-	4.4	3.6	-
141	Tube 141	4.5	-	-	-	-	-	-	4.2	3.6	-
142	Tube 142	4.5	-	-	-	-	-	-	4.3	3.6	-
143	Tube 143	4.5	-	-	-	-	-	-	4.4	3.6	-
144	Tube 144	4.5	-	-	-	-	-	-	4.2	3.6	-
145	Tube 145	4.5	-	-	-	-	-	-	4	3.6	-
146	Tube 146	4.5	-	-	-	-	-	-	4.1	3.6	-
147	Tube 147	4.5	-	-	-	-	-	-	4	3.6	-
148	Tube 148	4.5	-	-	-	-	-	-	4.1	3.6	-
149	Tube 149	4.5	-	-	-	-	-	-	4.1	3.6	-
150	Tube 150	4.5	-	-	-	-	-	-	3.9	3.6	-
151	Tube 151	4.5	-	-	-	-	-	-	3.9	3.6	-
152	Tube 152	4.5	-	-	-	-	-	-	4.1	3.6	-

Abbreviations:	X & Y: defect position	L :Local metal loss length (mm)	OT: Original thickness	Disc.: Discontinuity
	MT : minimum thickness	W: local metal loss width (mm)	Att.: Attenuation	Ref : reference
	mt : minimum remaining wall thickness around the area of local metal loss	D :local metal loss depth (mm)	Disc.: Discontinuity	Ind.: Indication

<b>Inspector(s):</b> [REDACTED] Level:II Date:21-12-1391	<b>Reported By :</b> [REDACTED] Level:II Date:21-12-1391	<b>Client :</b> [REDACTED] Date:
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# Corrosion Mapping Report

CN-GEN-RS-001.00

<b>Client:</b> [REDACTED]	<b>Request No:</b> 700-10-7680
<b>Project:</b> Boiler Tubes Testing	<b>Report No:</b> CM-RS-MPC-001
<b>Plant/Shop:</b> [REDACTED] Petrochemical Co.	<b>Exam Date:</b> 1391-12-05 to 07
<b>Item Name:</b> Boiler A	<b>Page No.:</b> 10 of 242

No.	Item Name	OT	Ind. Location & Size (mm)							Tested Area(m)	Remark
			X	Y	L	W	D	mt	MT		
153	Tube 153	4.5	-	-	-	-	-	-	3.9	3.6	-
154	Tube 154	4.5	-	-	-	-	-	-	3.9	3.6	-
155	Tube 155	4.5	-	-	-	-	-	-	4	3.6	-
156	Tube 156	4.5	-	-	-	-	-	-	4.1	3.6	-
157	Tube 157	4.5	-	-	-	-	-	-	4.2	3.6	-
158	Tube 158	4.5	-	-	-	-	-	-	4	3.6	-
159	Tube 159	4.5	-	-	-	-	-	-	4	3.6	-
160	Tube 160	4.5	-	-	-	-	-	-	3.9	3.6	-
161	Tube 161	4.5	-	-	-	-	-	-	3.9	3.6	-
162	Tube 162	4.5	-	-	-	-	-	-	3.8	3.6	-
163	Tube 163	4.5	-	-	-	-	-	-	3.8	3.6	-
164	Tube 164	4.5	-	-	-	-	-	-	3.7	3.6	-
165	Tube 165	4.5	-	-	-	-	-	-	4	3.6	-
166	Tube 166	4.5	-	-	-	-	-	-	3.6	3.6	-
167	Tube 167	4.5	-	-	-	-	-	-	3.8	3.6	-
168	Tube 168	4.5	-	-	-	-	-	-	4	3.6	-
169	Tube 169	4.5	-	-	-	-	-	-	3.9	3.6	-
170	Tube 170	4.5	-	-	-	-	-	-	3.8	3.6	-
171	Tube 171	4.5	-	-	-	-	-	-	3.9	3.6	-

Abbreviations:	X & Y: defect position	L :Local metal loss length (mm)	OT: Original thickness	Disc.: Discontinuity
	MT : minimum thickness	W: local metal loss width (mm)	Att.: Attenuation	Ref : reference
	mt : minimum remaining wall thickness around the area of local metal loss	D :local metal loss depth (mm)	Disc.: Discontinuity	Ind.: Indication

<b>Inspector(s):</b> [REDACTED] Level:II Date:21-12-1391	<b>Reported By :</b> [REDACTED] Level:II Date:21-12-1391	<b>Client :</b> [REDACTED] Date:
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# Corrosion Mapping Report

CN-GEN-RS-001.00

<b>Client:</b> [REDACTED]	<b>Request No:</b> 700-10-7680
<b>Project:</b> Boiler Tubes Testing	<b>Report No:</b> CM-RS-MPC-001
<b>Plant/Shop:</b> [REDACTED] Petrochemical Co.	<b>Exam Date:</b> 1391-12-05 to 07
<b>Item Name:</b> Boiler A	<b>Page No.:</b> 11 of 242

No.	Item Name	OT	Ind. Location & Size (mm)							Tested Area(m)	Remark
			X	Y	L	W	D	mt	MT		
172	Tube 172	4.5	-	-	-	-	-	-	3.9	3.6	-
173	Tube 173	4.5	-	-	-	-	-	-	3.8	3.6	-
174	Tube 174	4.5	-	-	-	-	-	-	3.9	3.6	-
175	Tube 175	4.5	-	-	-	-	-	-	3.8	3.6	-
176	Tube 176	4.5	-	-	-	-	-	-	4	3.6	-
177	Tube 177	4.5	-	-	-	-	-	-	3.8	3.6	-
178	Tube 178	4.5	-	-	-	-	-	-	3.8	3.6	-
179	Tube 179	4.5	-	-	-	-	-	-	3.8	3.6	-
180	Tube 180	4.5	-	-	-	-	-	-	4	3.6	-
181	Tube 181	4.5	-	-	-	-	-	-	3.8	3.6	-
182	Tube 182	4.5	-	-	-	-	-	-	3.8	3.6	-
183	Tube 183	4.5	-	-	-	-	-	-	3.8	3.6	-
184	Tube 184	4.5	-	-	-	-	-	-	3.8	3.6	-
185	Tube 185	4.5	-	-	-	-	-	-	3.9	3.6	-
186	Tube 186	4.5	-	-	-	-	-	-	4.1	3.6	-
187	Tube 187	4.5	-	-	-	-	-	-	3.6	3.6	-
188	Tube 188	4.5	-	-	-	-	-	-	3.7	3.6	-
189	Tube 189	4.5	-	-	-	-	-	-	3.8	3.6	-
190	Tube 190	4.5	-	-	-	-	-	-	3.8	3.6	-

Abbreviations: X & Y: defect position      L :Local metal loss length (mm)      OT: Original thickness      Disc.: Discontinuity  
MT : minimum thickness      W: local metal loss width (mm)      Att.: Attenuation      Ref : reference  
mt : minimum remaining wall thickness around the area of local metal loss      D :local metal loss depth (mm)      Disc.: Discontinuity      Ind.: Indication

<b>Inspector(s):</b> [REDACTED] Level:II Date:21-12-1391	<b>Reported By :</b> [REDACTED] Level:II Date:21-12-1391	<b>Client :</b> [REDACTED] Date:
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# Corrosion Mapping Report

CN-GEN-RS-001.00

<b>Client:</b> [REDACTED]	<b>Request No:</b> 700-10-7680
<b>Project:</b> Boiler Tubes Testing	<b>Report No:</b> CM-RS-MPC-001
<b>Plant/Shop:</b> [REDACTED] Petrochemical Co.	<b>Exam Date:</b> 1391-12-05 to 07
<b>Item Name:</b> Boiler A	<b>Page No.:</b> 12 of 242

No.	Item Name	OT	Ind. Location & Size (mm)							Tested Area(m)	Remark
			X	Y	L	W	D	mt	MT		
191	Tube 191	4.5	-	-	-	-	-	-	3.8	3.6	-
192	Tube 192	4.5	-	-	-	-	-	-	3.9	3.6	-
193	Tube 193	4.5	-	-	-	-	-	-	3.3	3.6	-
194	Tube 194	4.5	-	-	-	-	-	-	3.8	3.6	-
195	Tube 195	4.5	-	-	-	-	-	-	3.8	3.6	-
196	Tube 196	4.5	-	-	-	-	-	-	3.8	3.6	-
197	Tube 197	4.5	-	-	-	-	-	-	3.8	3.6	-
198	Tube 198	4.5	-	-	-	-	-	-	3.8	3.6	-
199	Tube 199	4.5	-	-	-	-	-	-	3.7	3.6	-
200	Tube 200	4.5	-	-	-	-	-	-	3.8	3.6	-
201	Tube 201	4.5	-	-	-	-	-	-	4	3.6	-
202	Tube 202	4.5	-	-	-	-	-	-	4	3.6	-
203	Tube 203	4.5	-	-	-	-	-	-	3.8	3.6	-
204	Tube 204	4.5	-	-	-	-	-	-	3.7	3.6	-
205	Tube 205	4.5	-	-	-	-	-	-	3.7	3	-
206	Tube 206	4.5	-	-	-	-	-	-	3.8	3	-
207	Tube 207	4.5	-	-	-	-	-	-	3.6	3	-
208	Tube 208	4.5	-	-	-	-	-	-	3.9	3	-
209	Tube 209	4.5	-	-	-	-	-	-	4	3	-

Abbreviations:	X & Y: defect position	L :Local metal loss length (mm)	OT: Original thickness	Disc.: Discontinuity
	MT : minimum thickness	W: local metal loss width (mm)	Att.: Attenuation	Ref : reference
	mt : minimum remaining wall thickness around the area of local metal loss	D :local metal loss depth (mm)	Disc.: Discontinuity	Ind.: Indication

<b>Inspector(s):</b> [REDACTED] Level:II Date:21-12-1391	<b>Reported By :</b> [REDACTED] Level:II Date:21-12-1391	<b>Client :</b> [REDACTED] Date:
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# Corrosion Mapping Report

CN-GEN-RS-001.00

<b>Client:</b> ██████████ <b>Project:</b> Boiler Tubes Testing <b>Plant/Shop:</b> ██████████ Petrochemical Co. <b>Item Name:</b> Boiler A	<b>Request No:</b> 700-10-7680 <b>Report No:</b> CM-RS-MPC-001 <b>Exam Date:</b> 1391-12-05 to 07 <b>Page No.:</b> 13 of 242
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No.	Item Name	OT	Ind. Location & Size (mm)							Tested Area(m)	Remark
			X	Y	L	W	D	mt	MT		
210	Tube 210	4.5	-	-	-	-	-	-	3.7	3	-
211	Tube 211	4.5	-	-	-	-	-	-	3.5	3	-
212	Tube 212	4.5	-	-	-	-	-	-	4.4	3	-
213	Tube 213	4.5	-	-	-	-	-	-	4.4	3	-
214	Tube 214	4.5	-	-	-	-	-	-	4.3	3	-
215	Tube 215	4.5	-	-	-	-	-	-	4.4	3	-
216	Tube 216	4.5	-	-	-	-	-	-	4.4	3	-
217	Tube 217	4.5	-	-	-	-	-	-	4.5	3	-
218	Tube 218	4.5	-	-	-	-	-	-	4.3	3	-
219	Tube 219	4.5	-	-	-	-	-	-	4.4	3	-
220	Tube 220	4.5	-	-	-	-	-	-	4.2	3	-
221	Tube 221	4.5	-	-	-	-	-	-	4.3	3	-
222	Tube 222	4.5	-	-	-	-	-	-	4.4	3	-
223	Tube 223	4.5	-	-	-	-	-	-	4.5	3	-
224	Tube 224	4.5	-	-	-	-	-	-	4.4	3	-
225	Tube 225	4.5	-	-	-	-	-	-	4.3	3	-
226	Tube 226	4.5	-	-	-	-	-	-	4.4	3	-
227	Tube 227	4.5	-	-	-	-	-	-	4.4	3	-
228	Tube 228	4.5	-	-	-	-	-	-	4.3	3	-

Abbreviations:	X & Y: defect position	L :Local metal loss length (mm)	OT: Original thickness	Disc.: Discontinuity
	MT : minimum thickness	W: local metal loss width (mm)	Att.: Attenuation	Ref : reference
	mt : minimum remaining wall thickness around the area of local metal loss	D :local metal loss depth (mm)	Disc.: Discontinuity	Ind.: Indication

<b>Inspector(s):</b> ██████████ Level:II Date:21-12-1391	<b>Reported By :</b> ██████████ Level:II Date:21-12-1391	<b>Client :</b> ██████████ Date:
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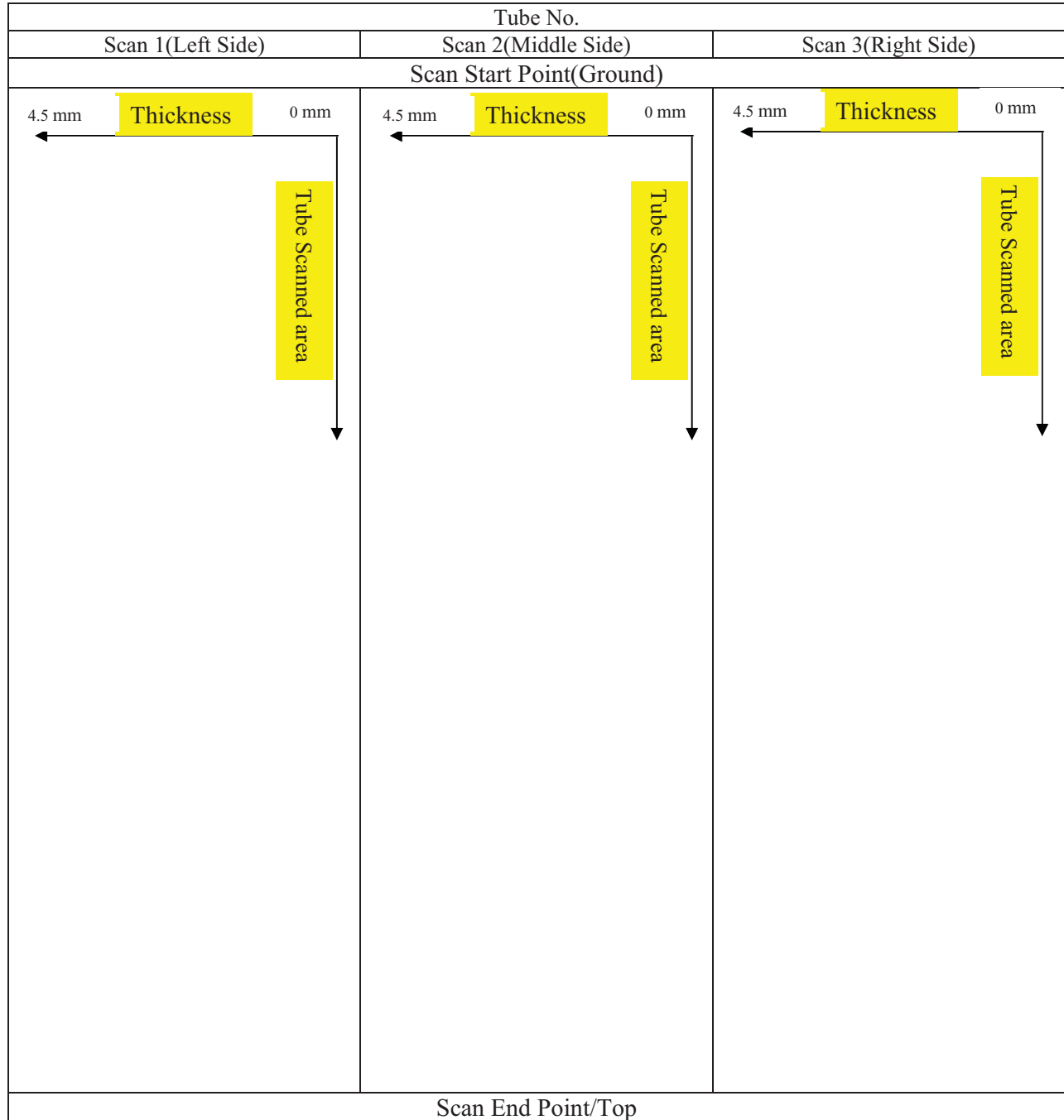
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [Redacted]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [Redacted] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 14 of 242



<b>Inspector(s):</b> [Redacted] Level:II Date:21-12-1391	<b>Reported By :</b> [Redacted] Level:II Date:21-12-1391	<b>Client :</b> [Redacted] Date:
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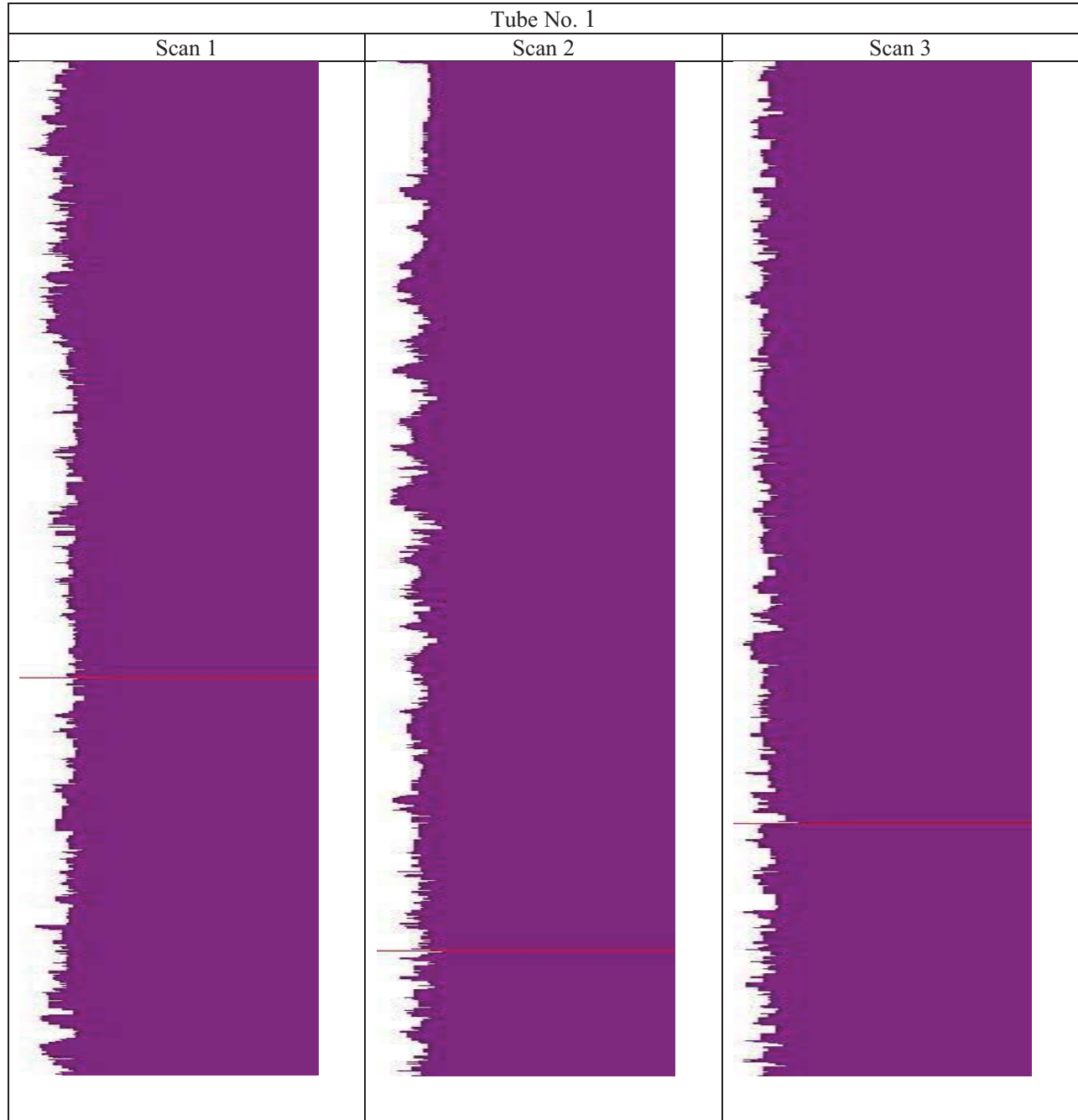
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 15 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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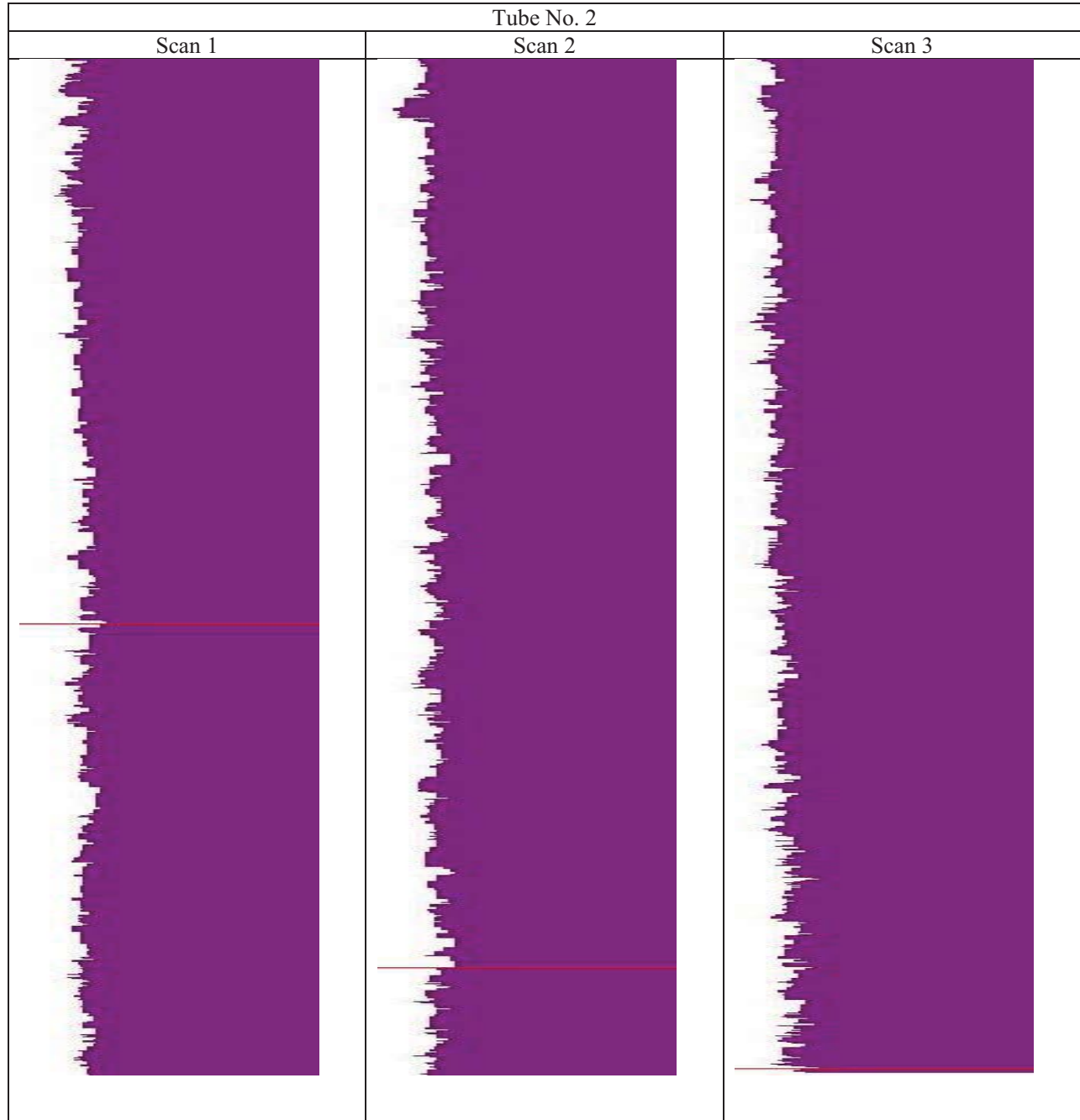
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 16 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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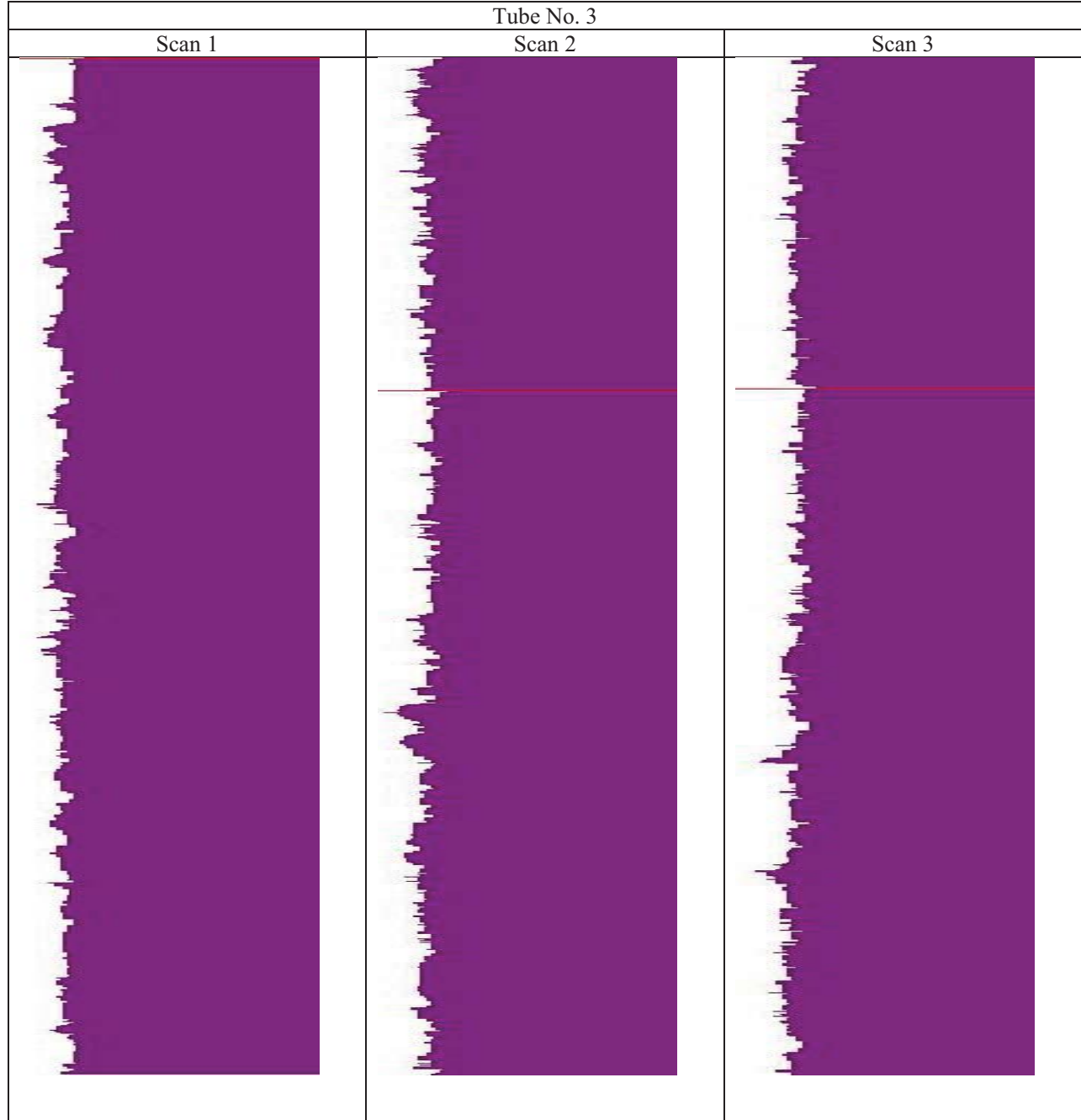
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 17 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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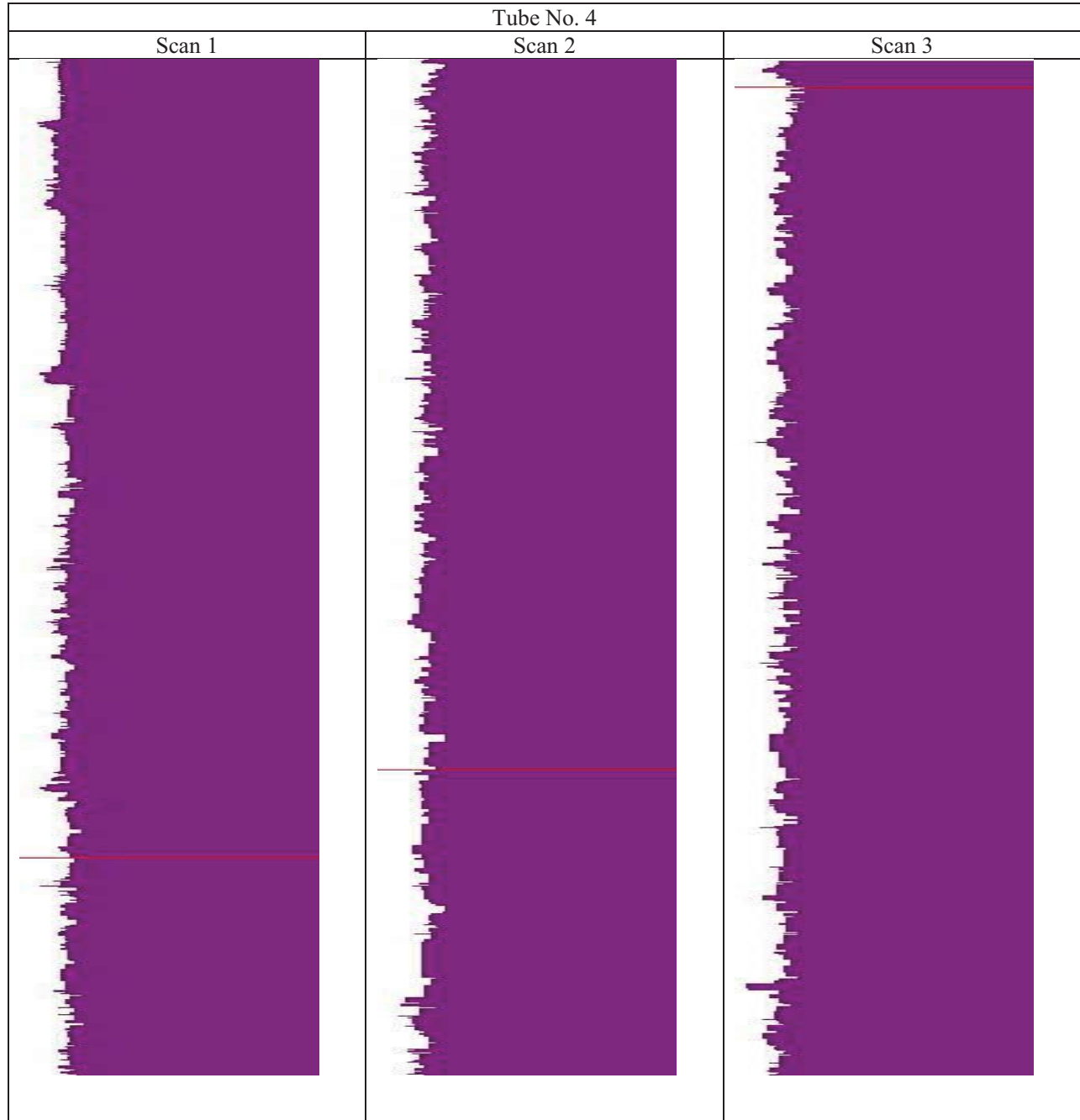
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 18 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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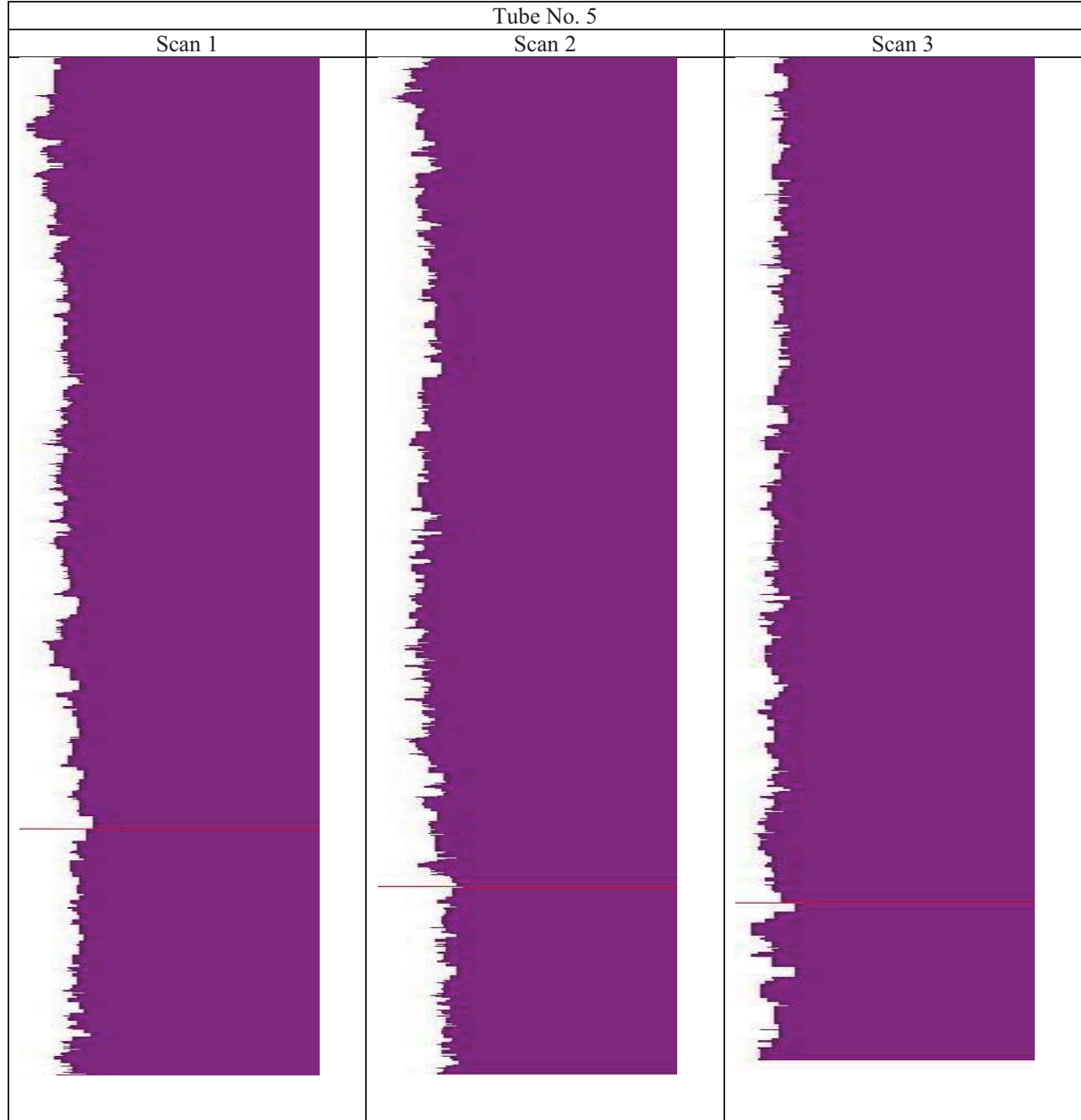
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 19 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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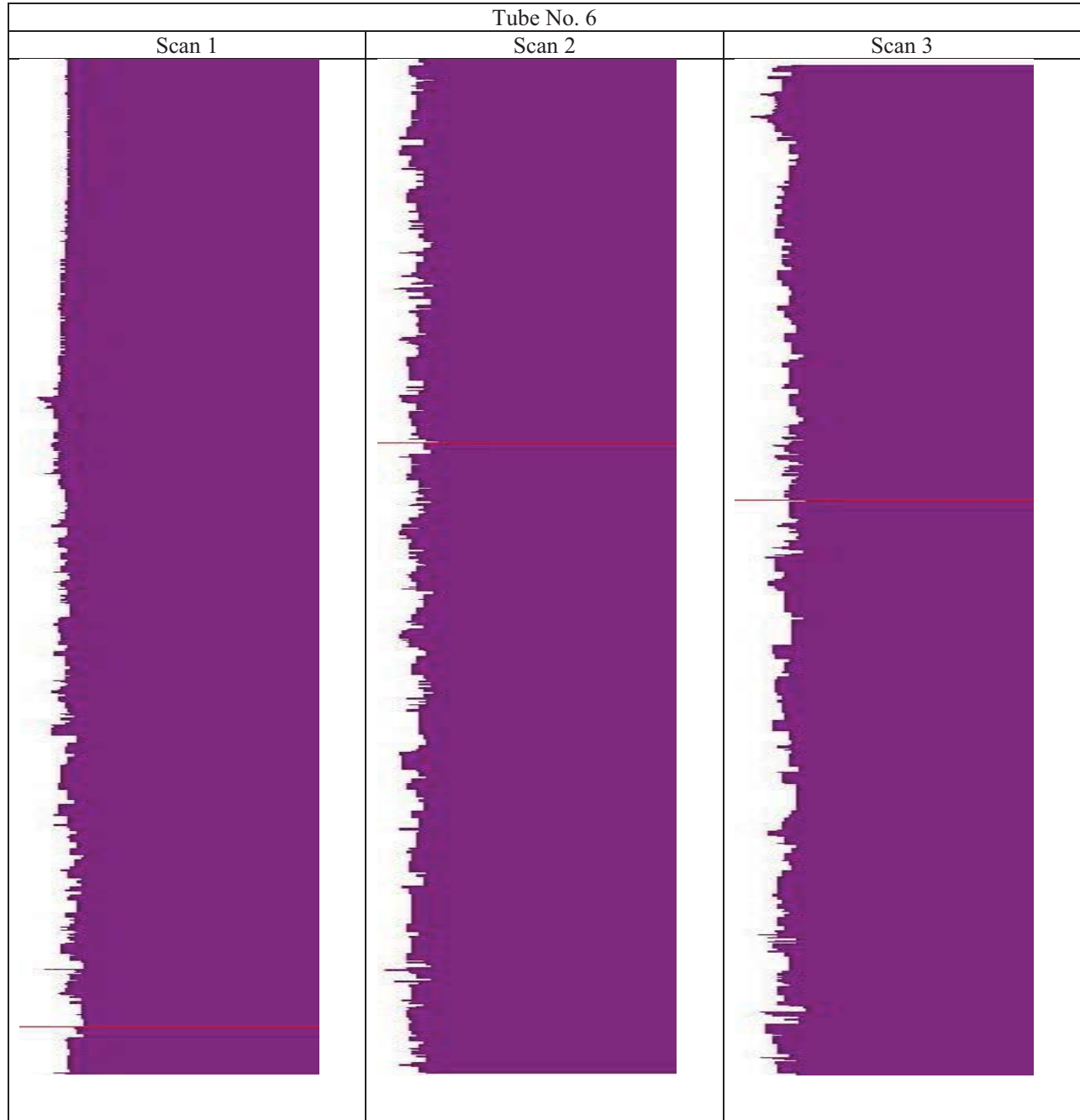
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 20 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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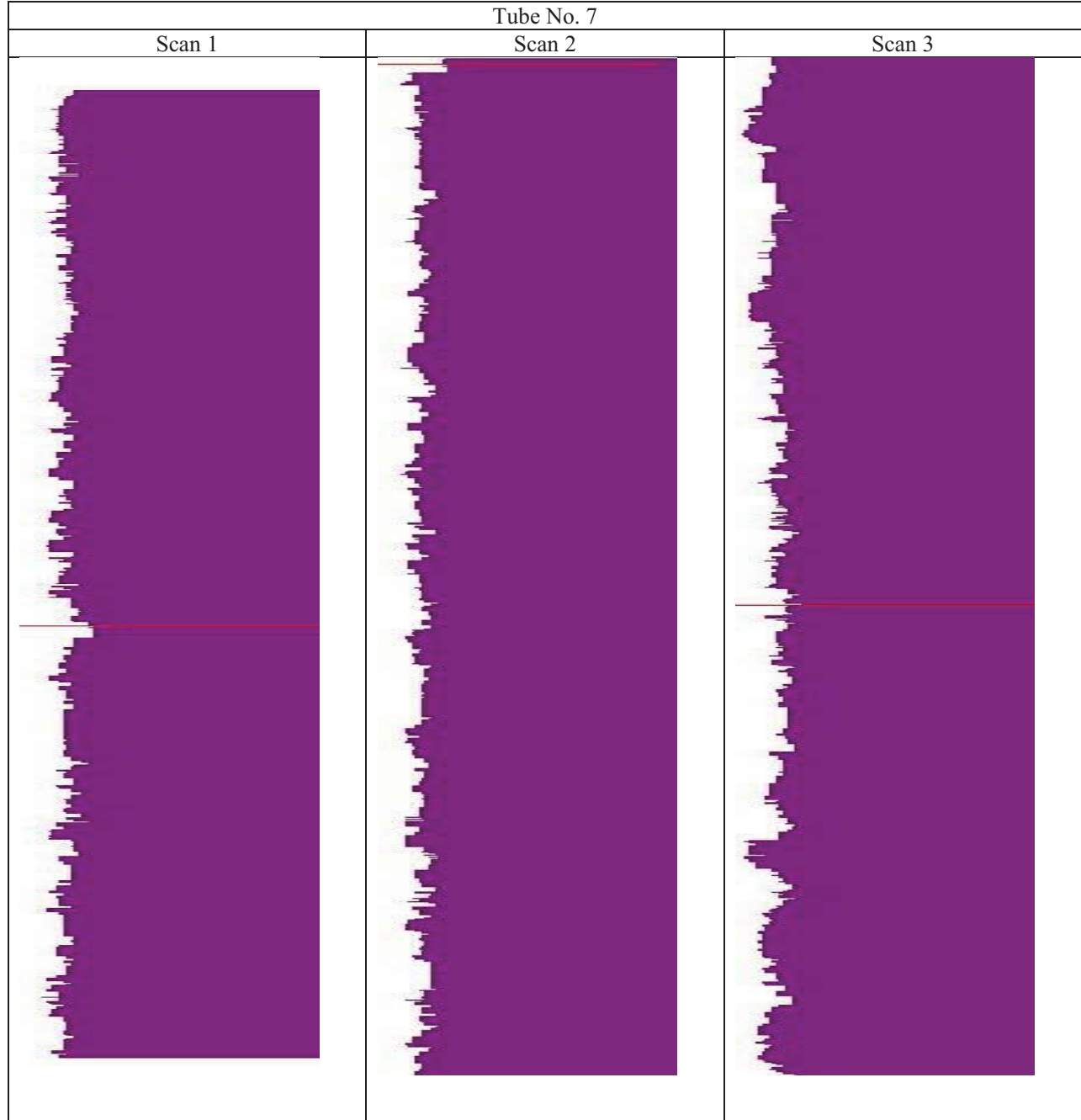
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 21 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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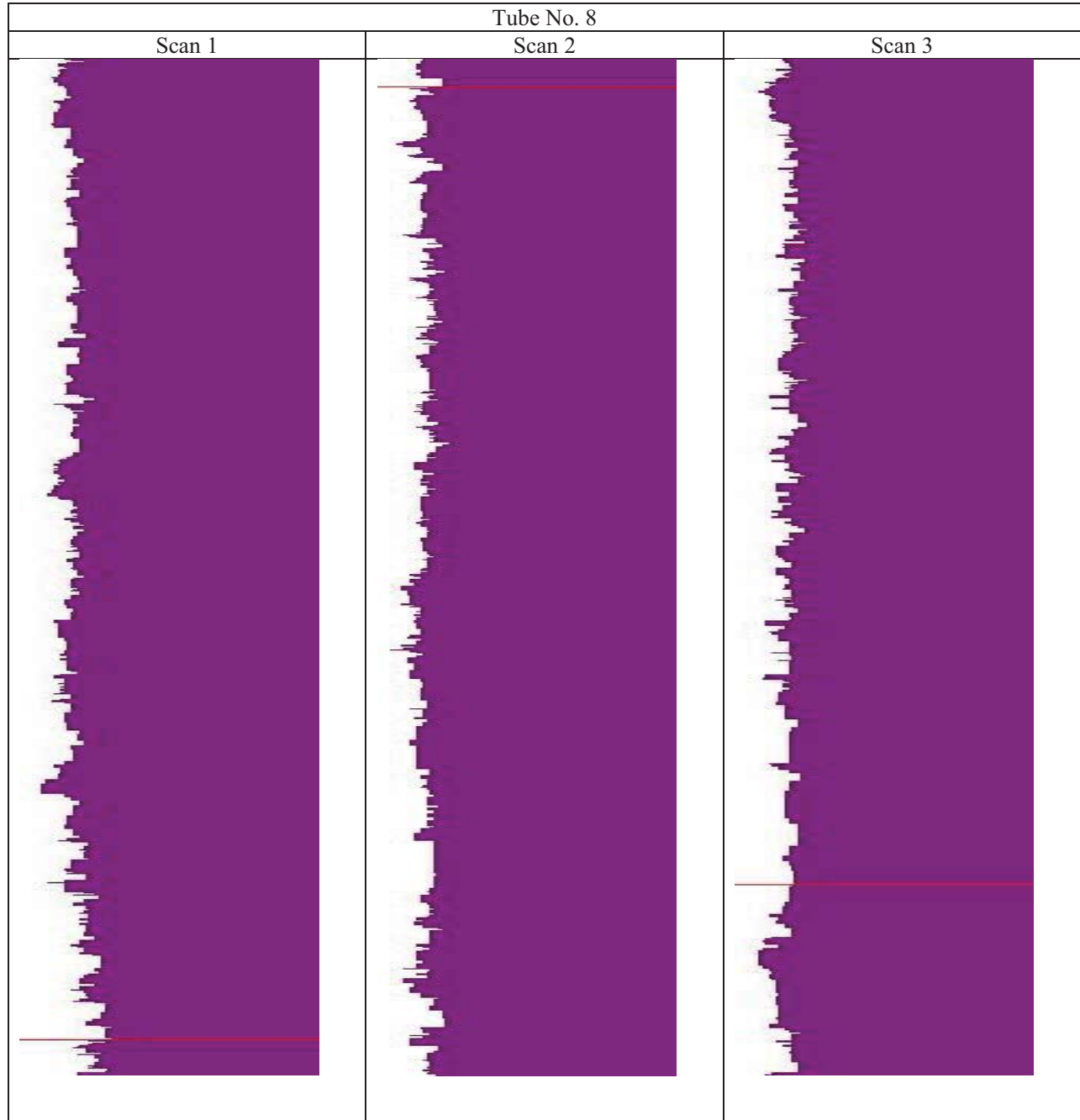
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 22 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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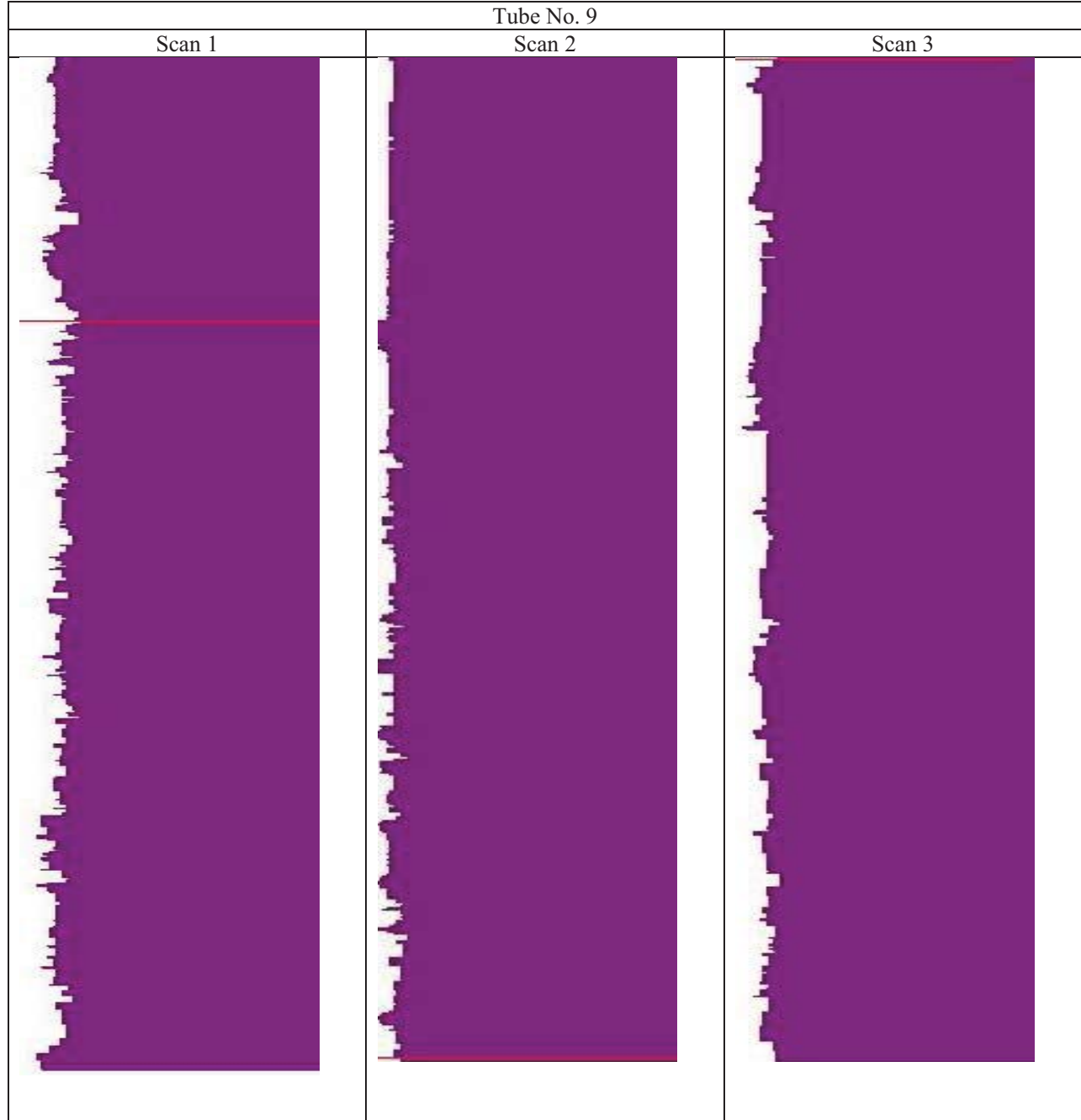
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 23 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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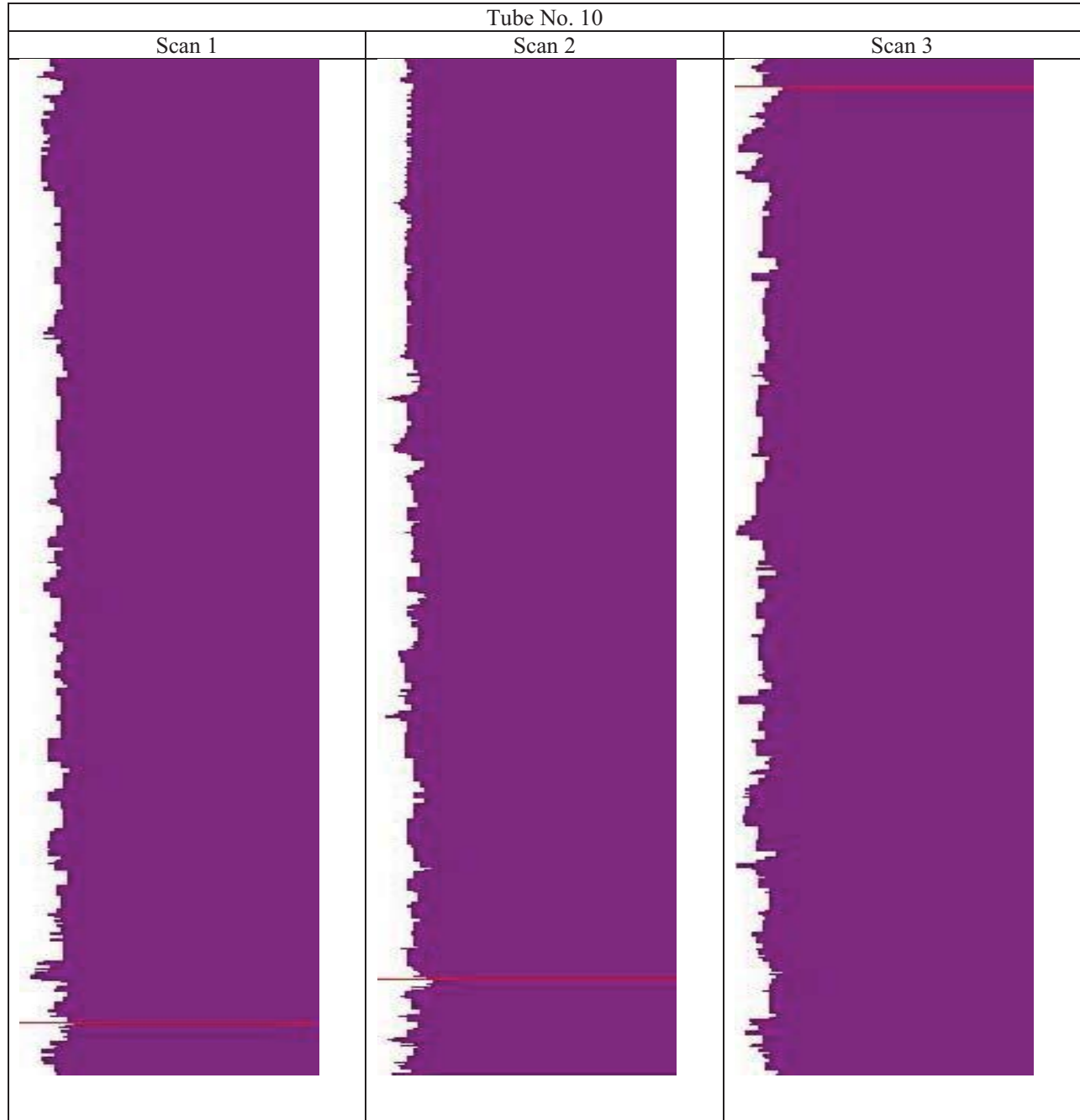
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 24 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 25 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 26 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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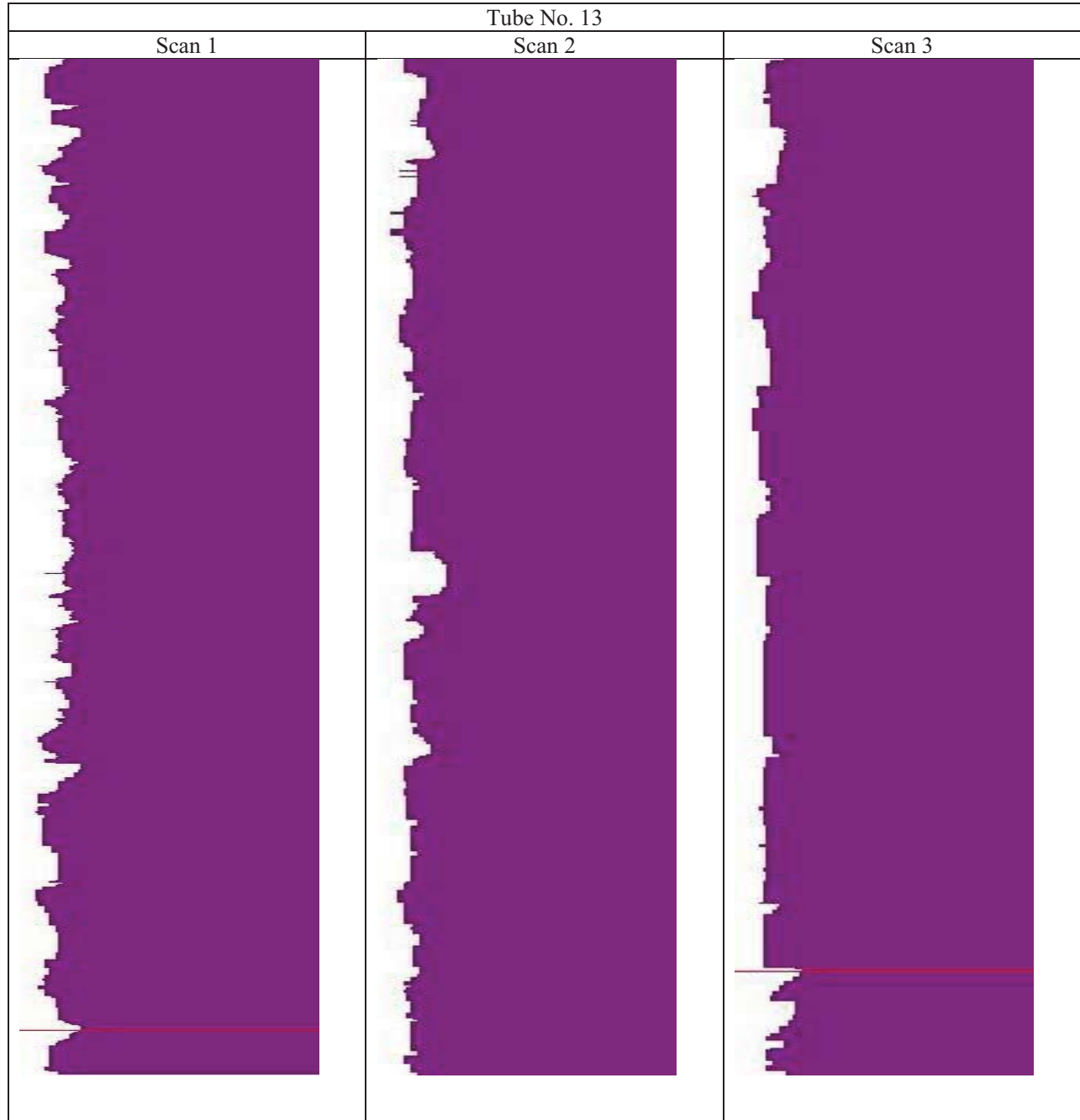
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 27 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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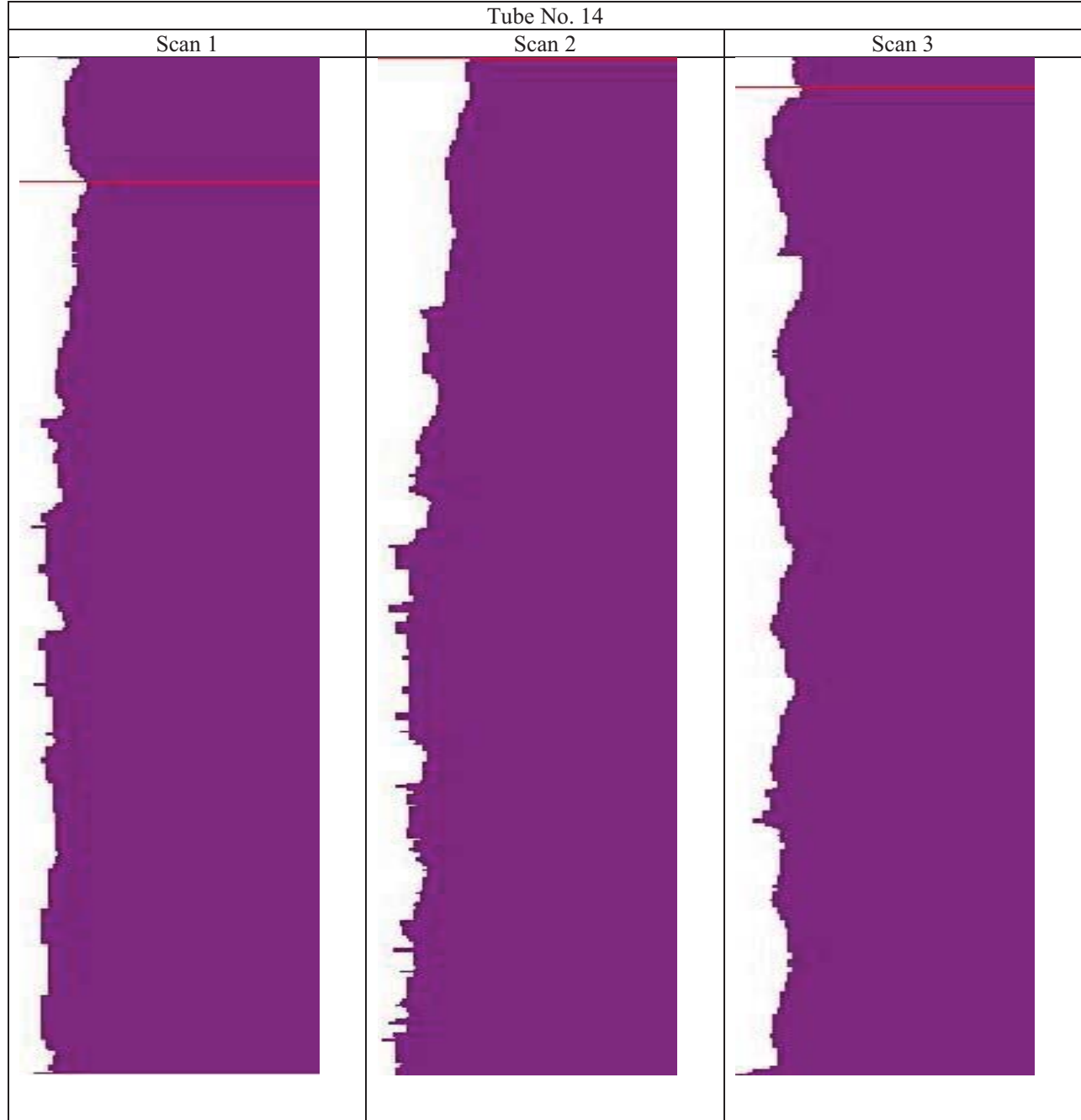
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 28 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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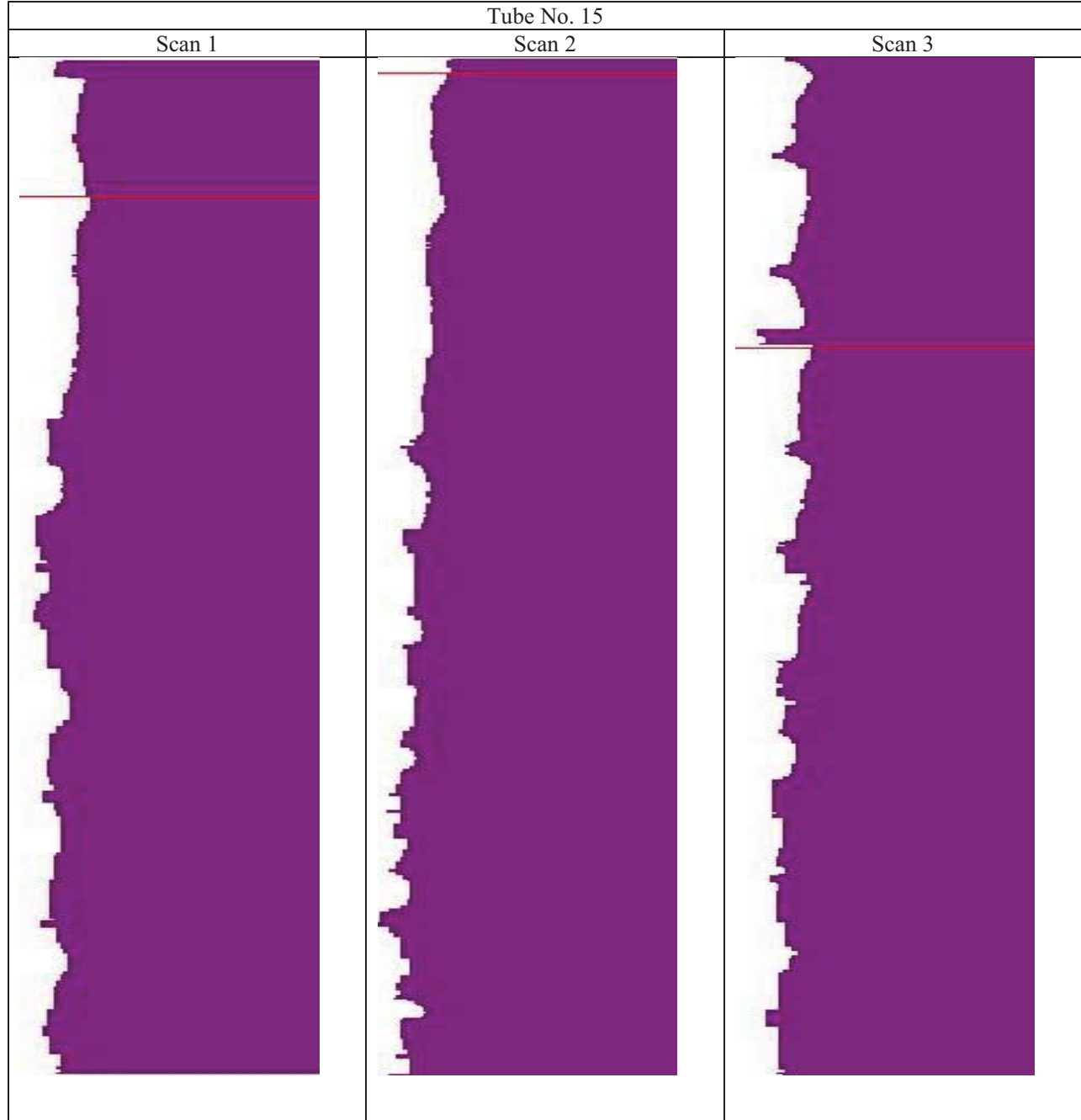
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 29 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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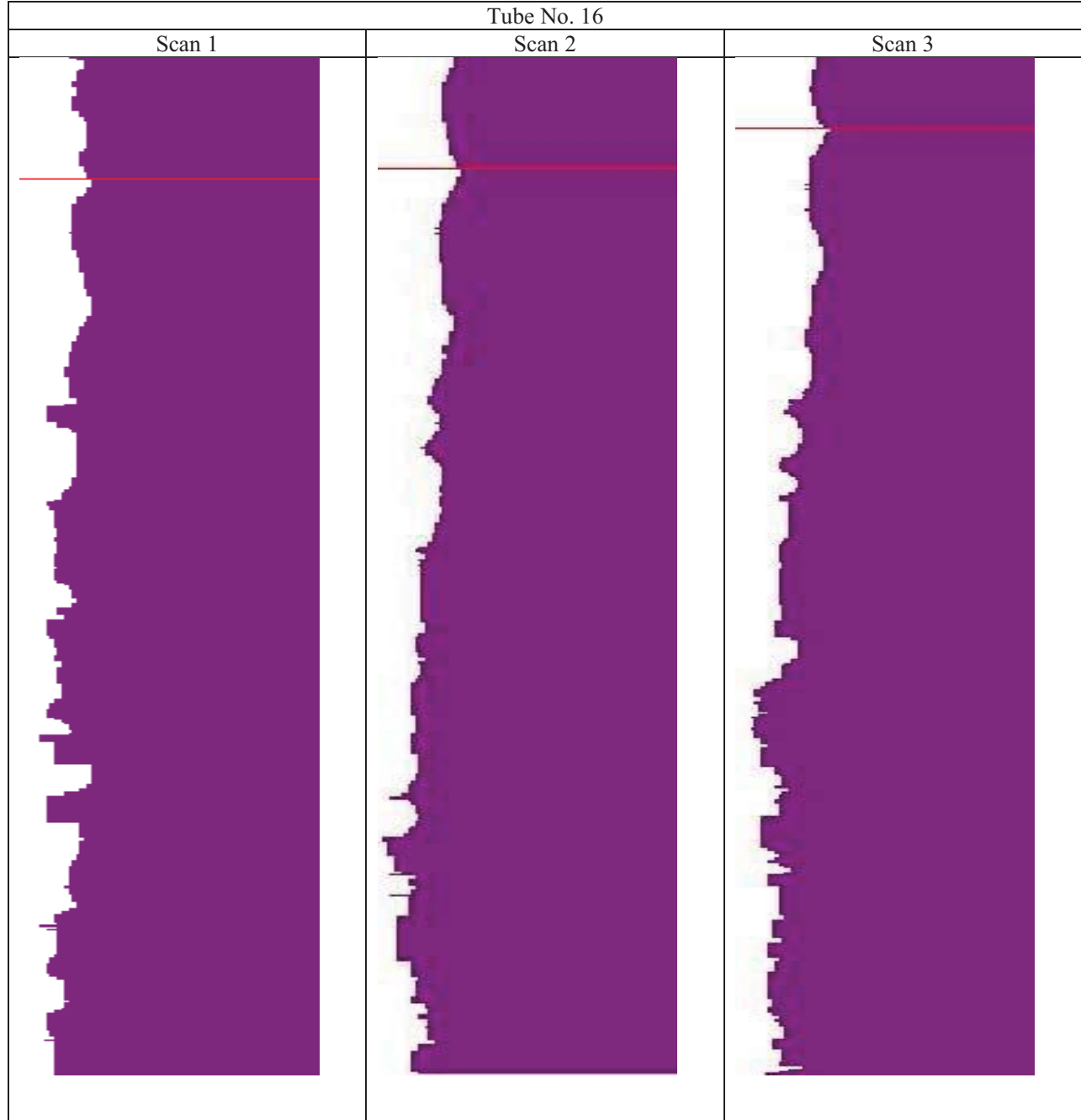
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 30 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 31 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 32 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 33 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 34 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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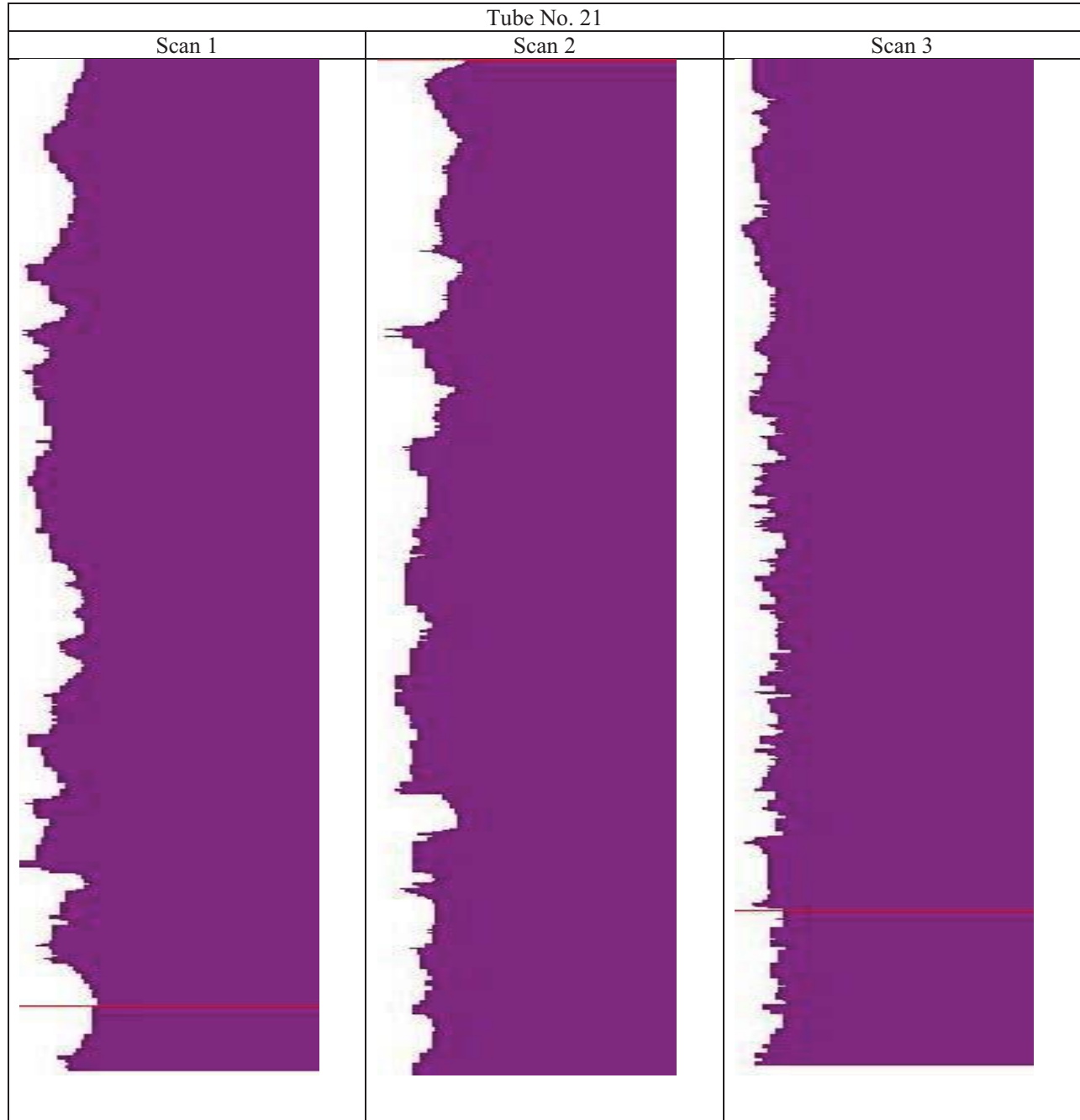
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 35 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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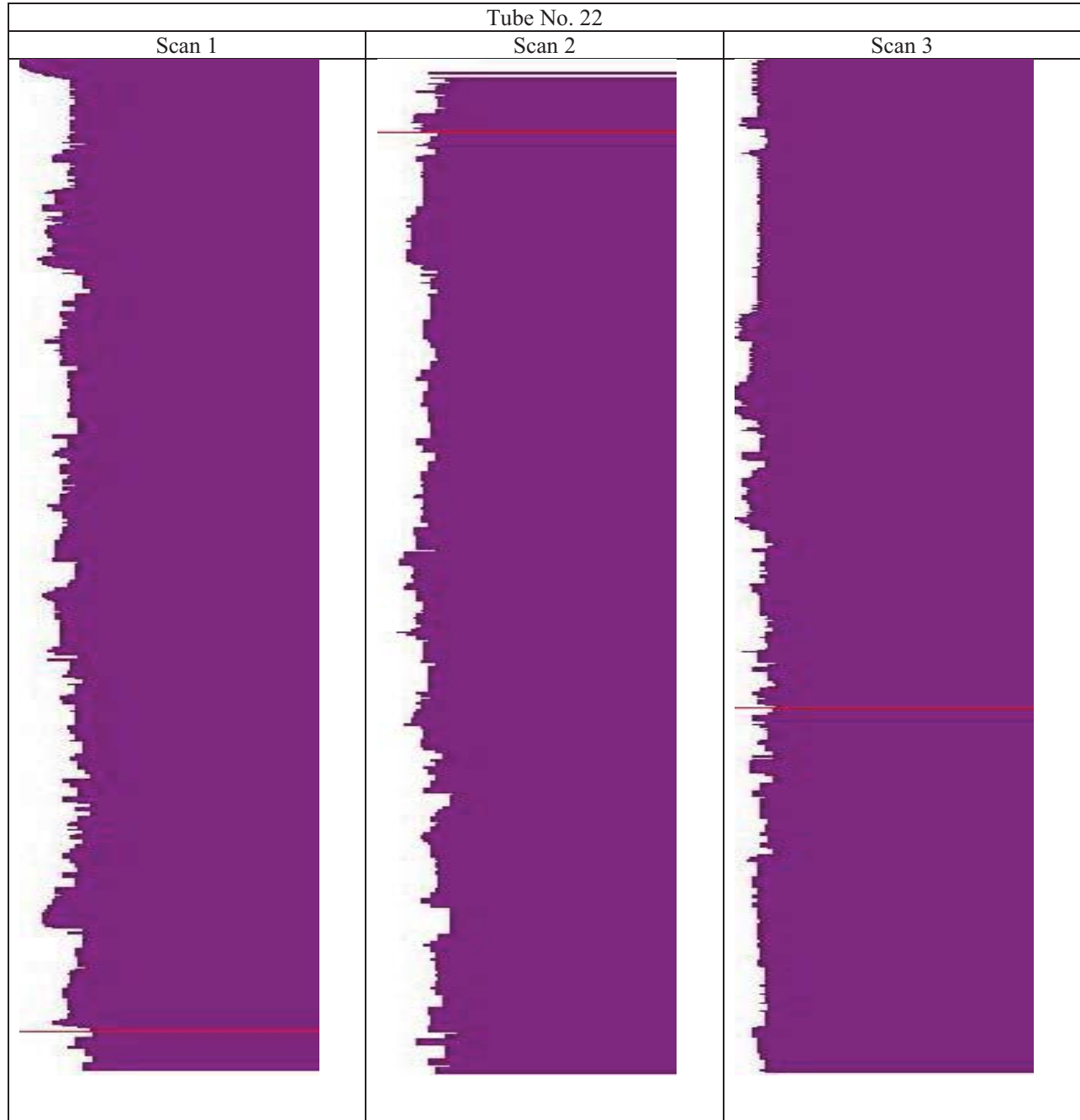
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 36 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 37 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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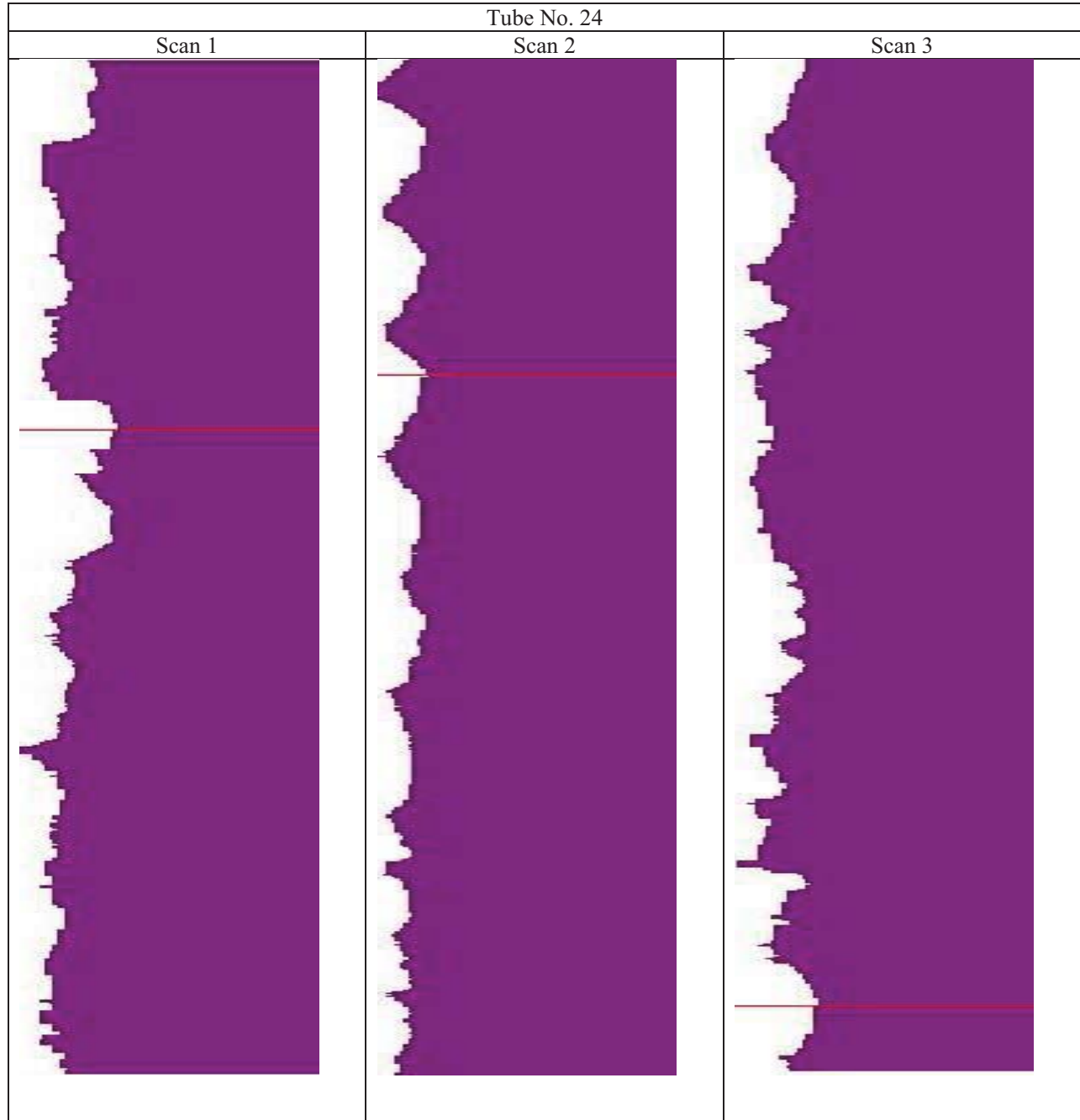
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 38 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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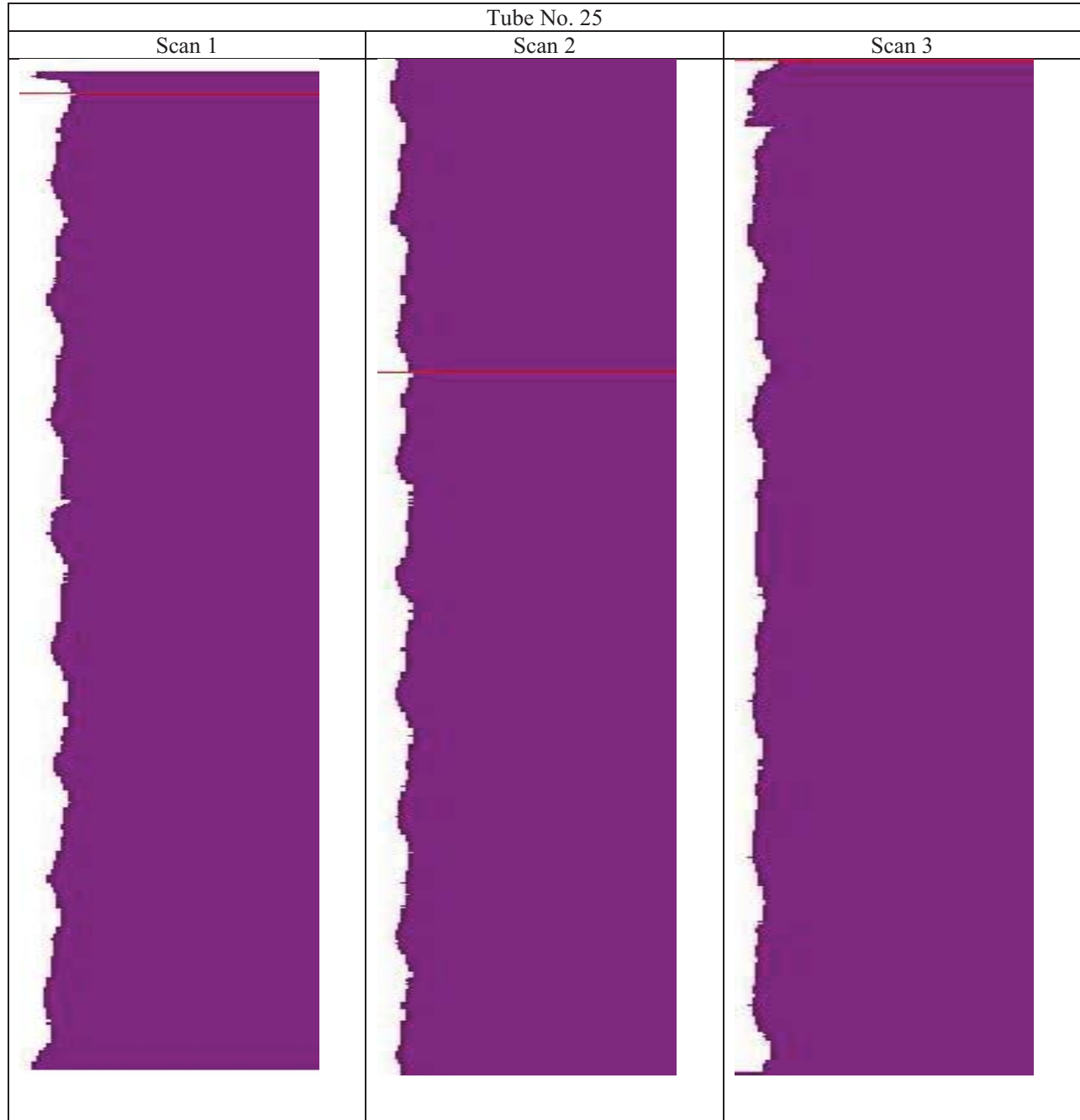
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 39 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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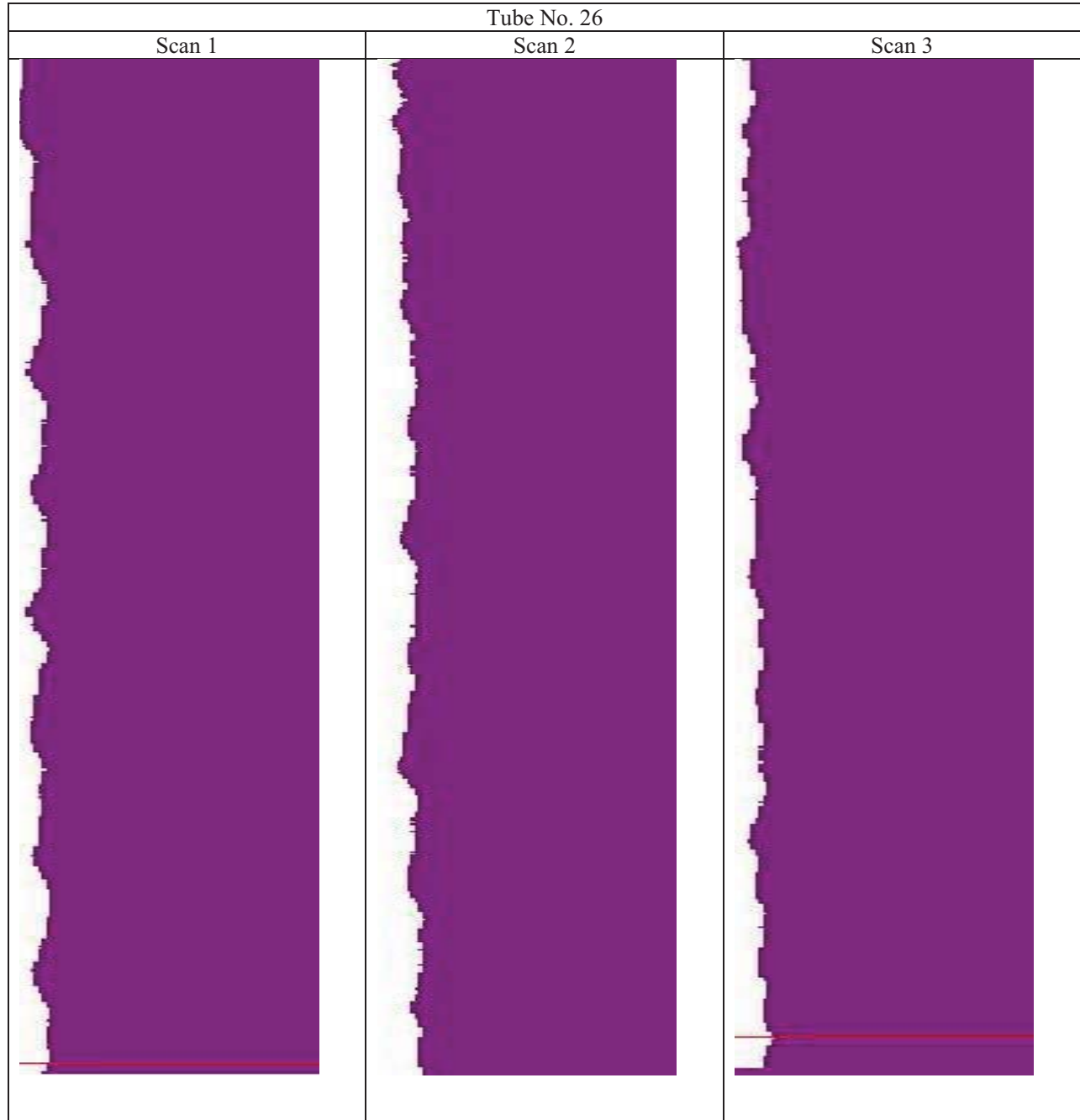
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 40 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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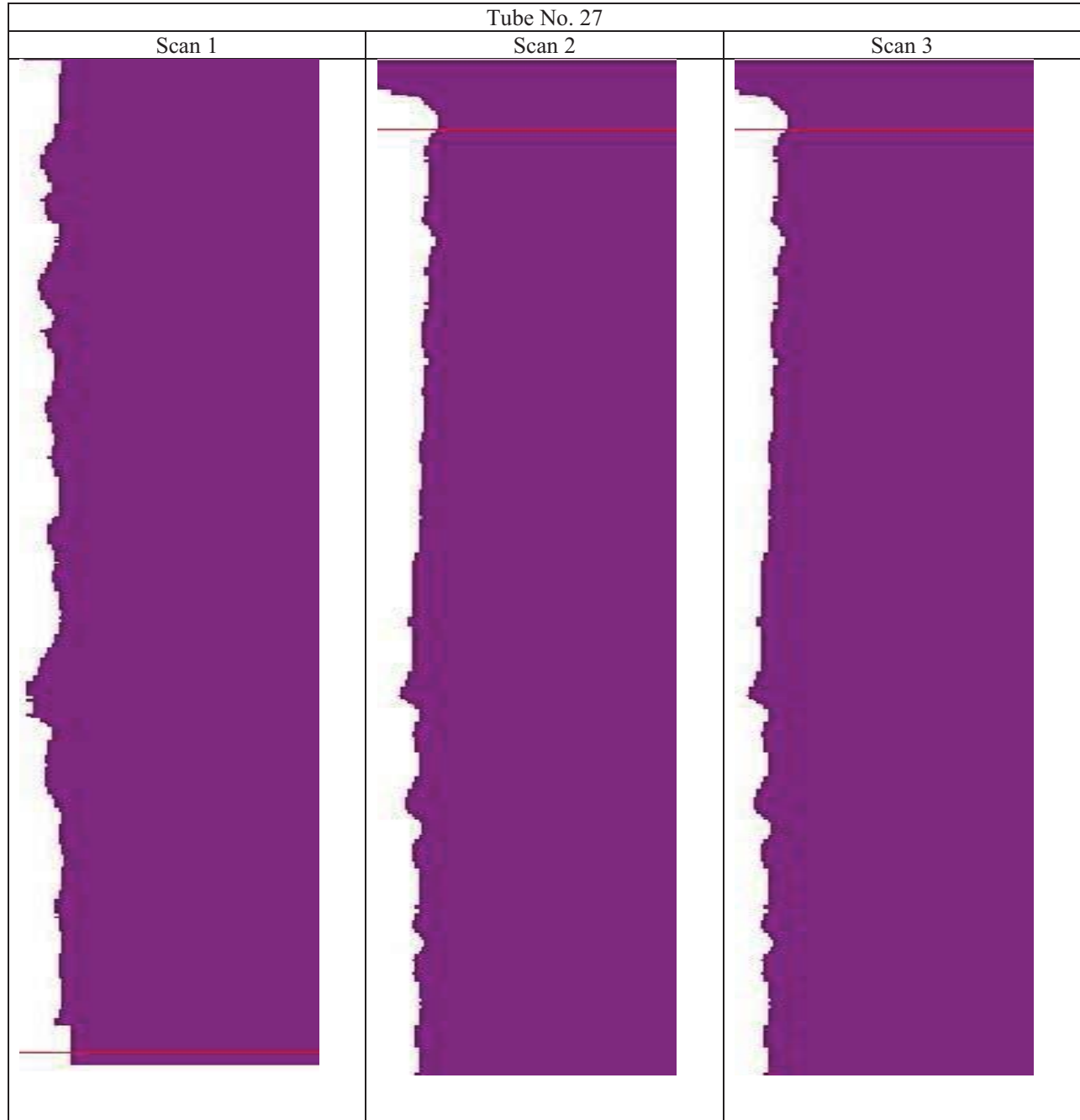
**TECHINCO**

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 41 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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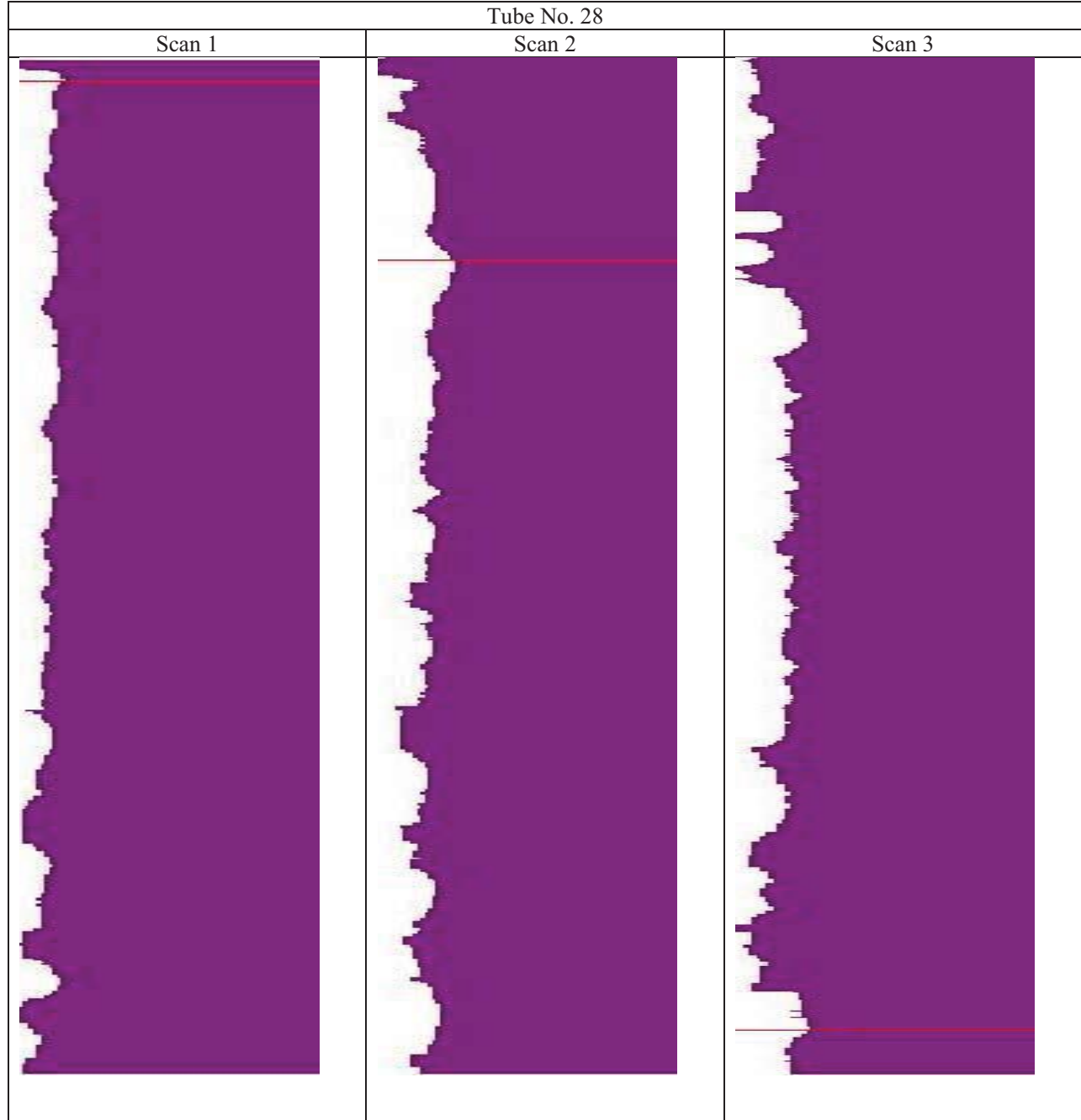
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 42 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** Marun Petrochemical Co.  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** Mahshahr/Marun Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 43 of 242



<b>Inspector(s):</b> M.Nikfar Level:II Date:21-12-1391	<b>Reported By :</b> A.Shahi Level:II Date:21-12-1391	<b>Client :</b>  <b>Date:</b>
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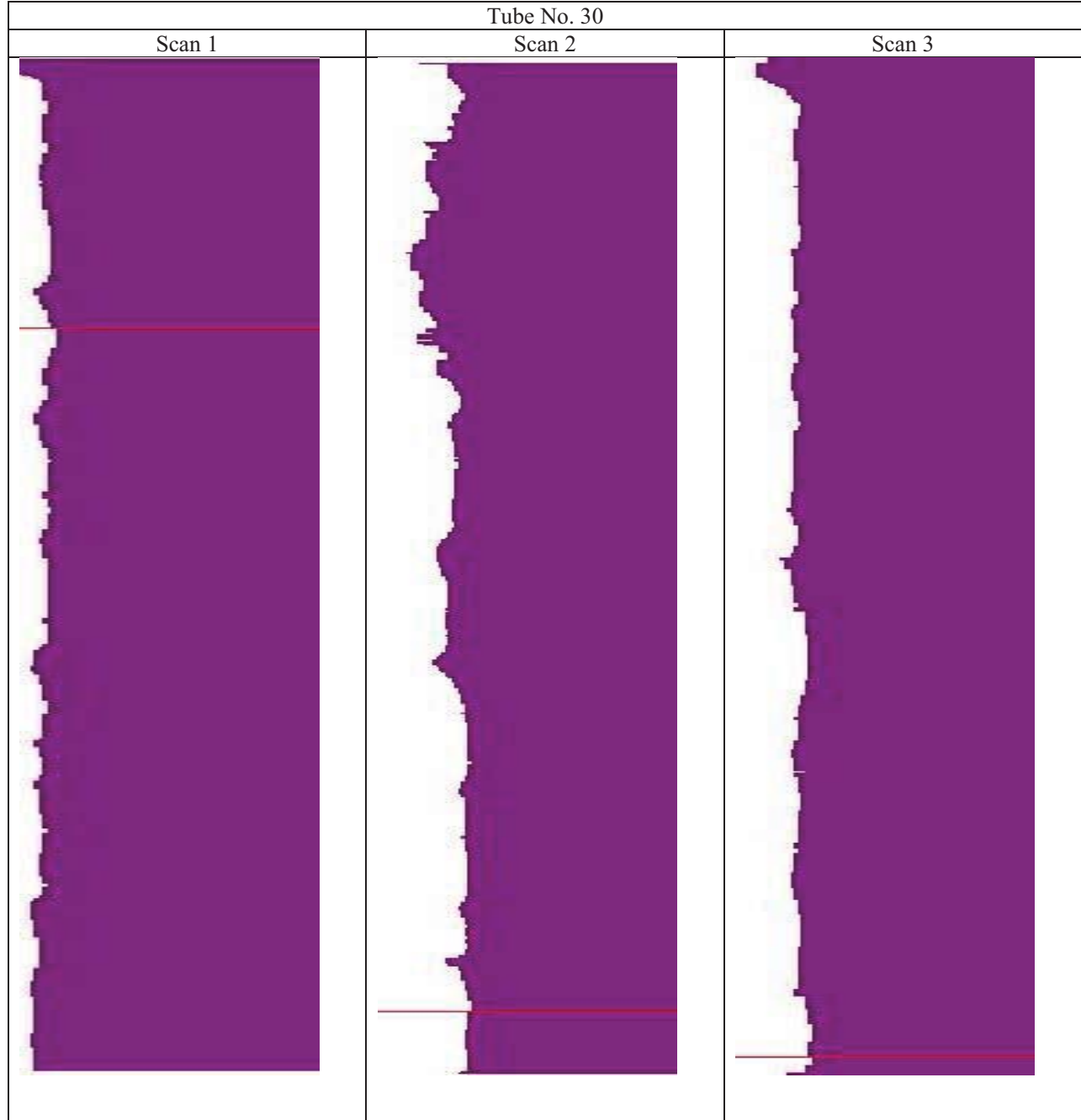
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 44 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 45 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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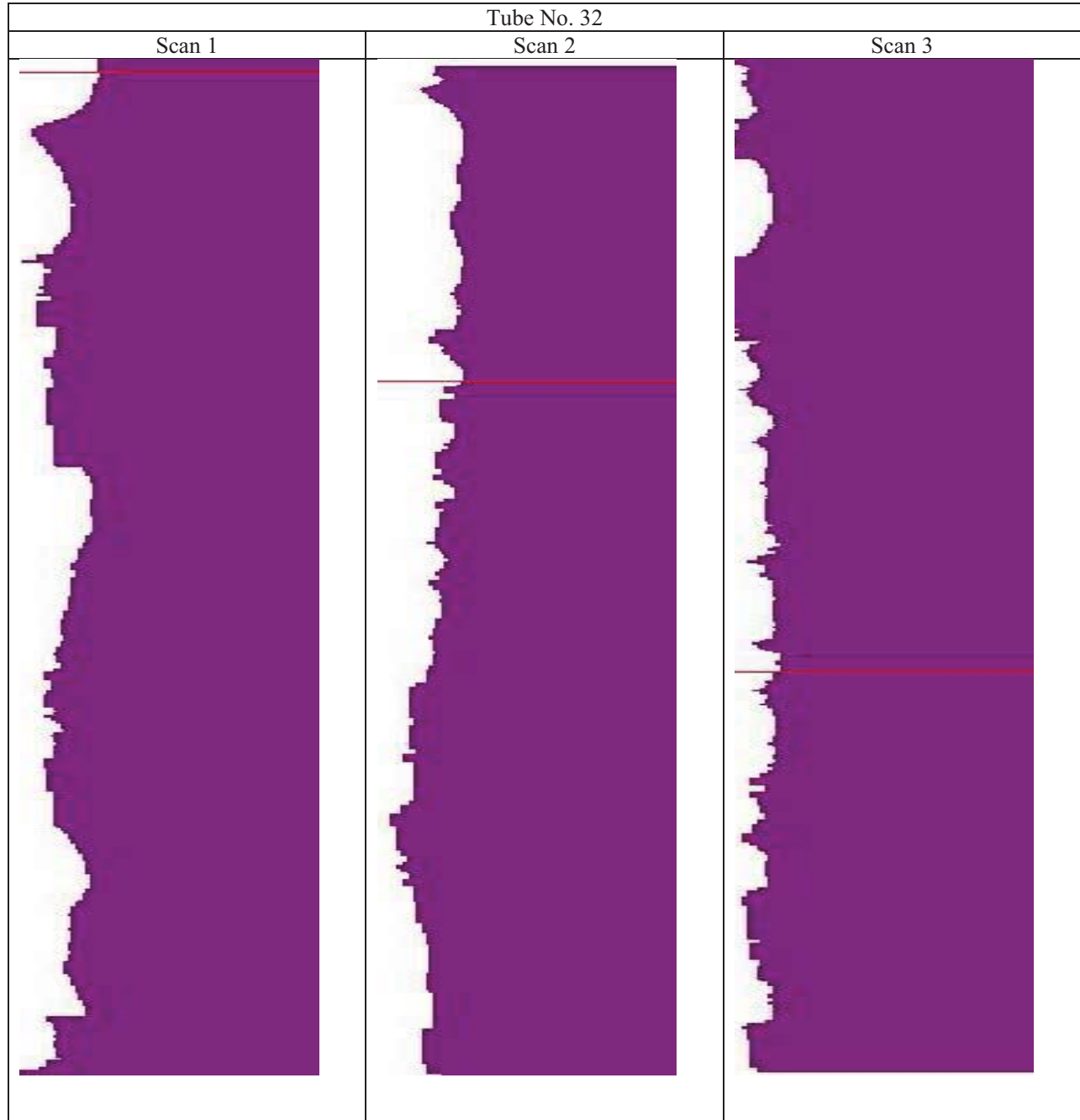
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 46 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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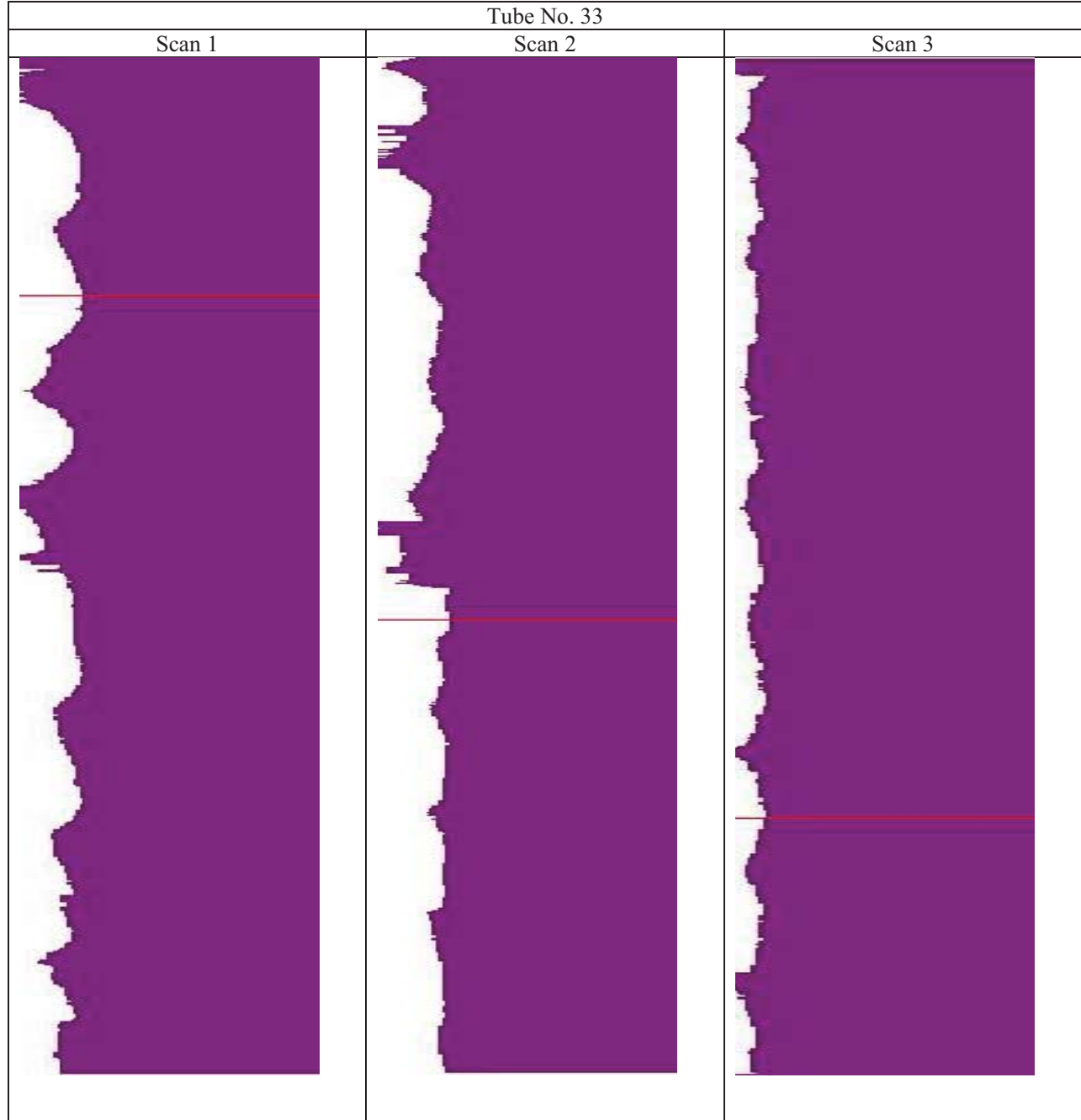
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 47 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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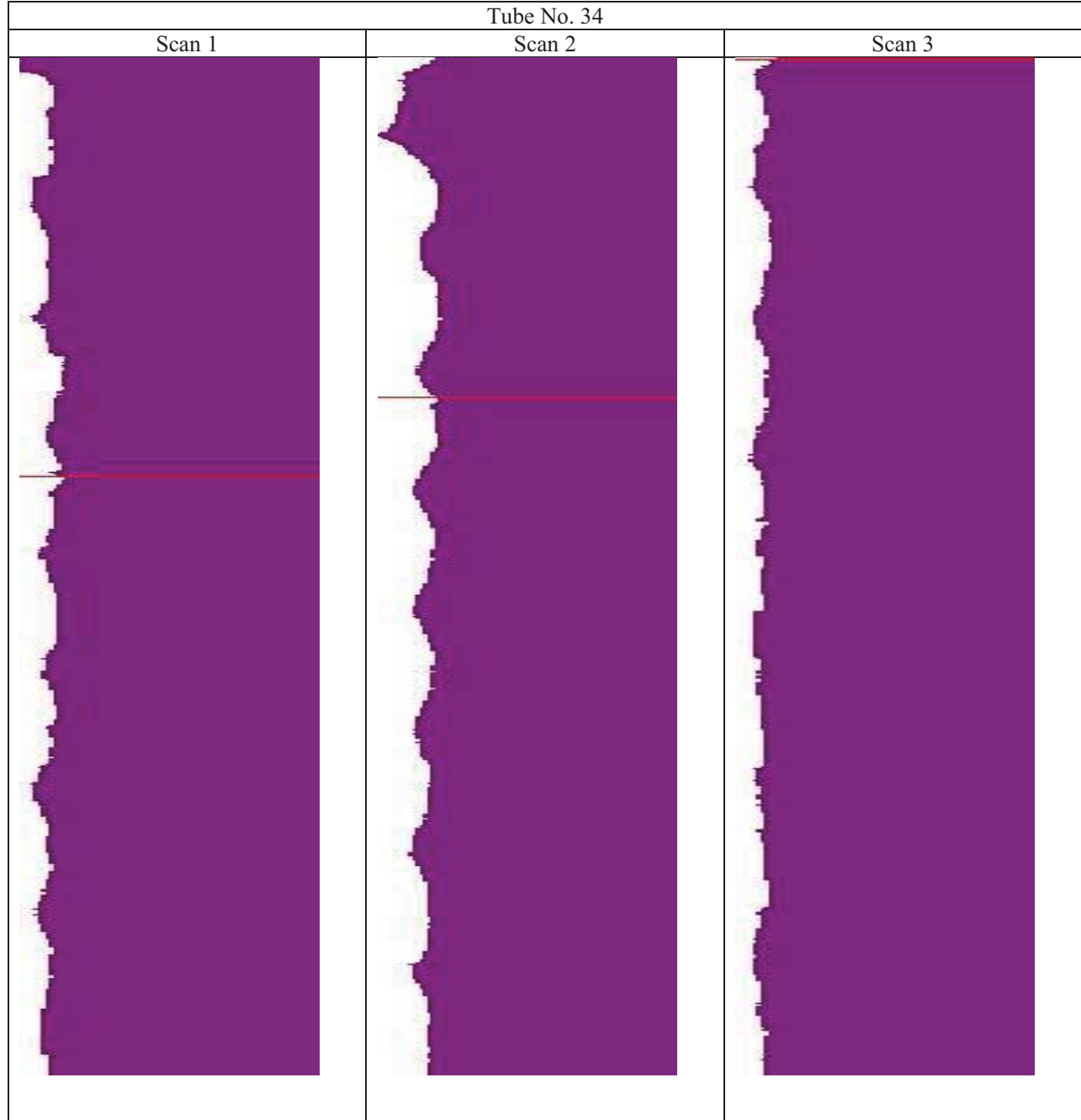
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 48 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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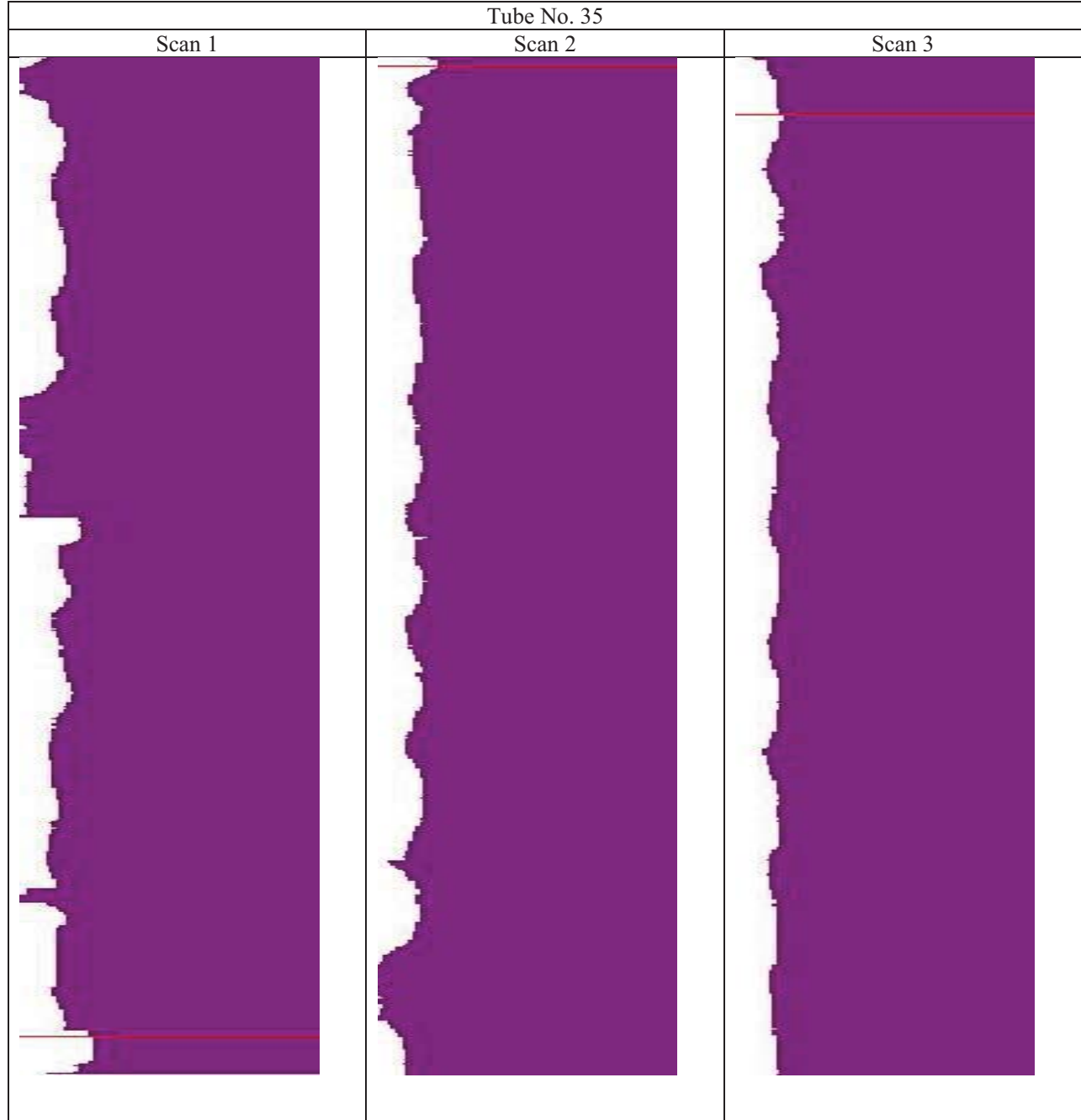
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 49 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 50 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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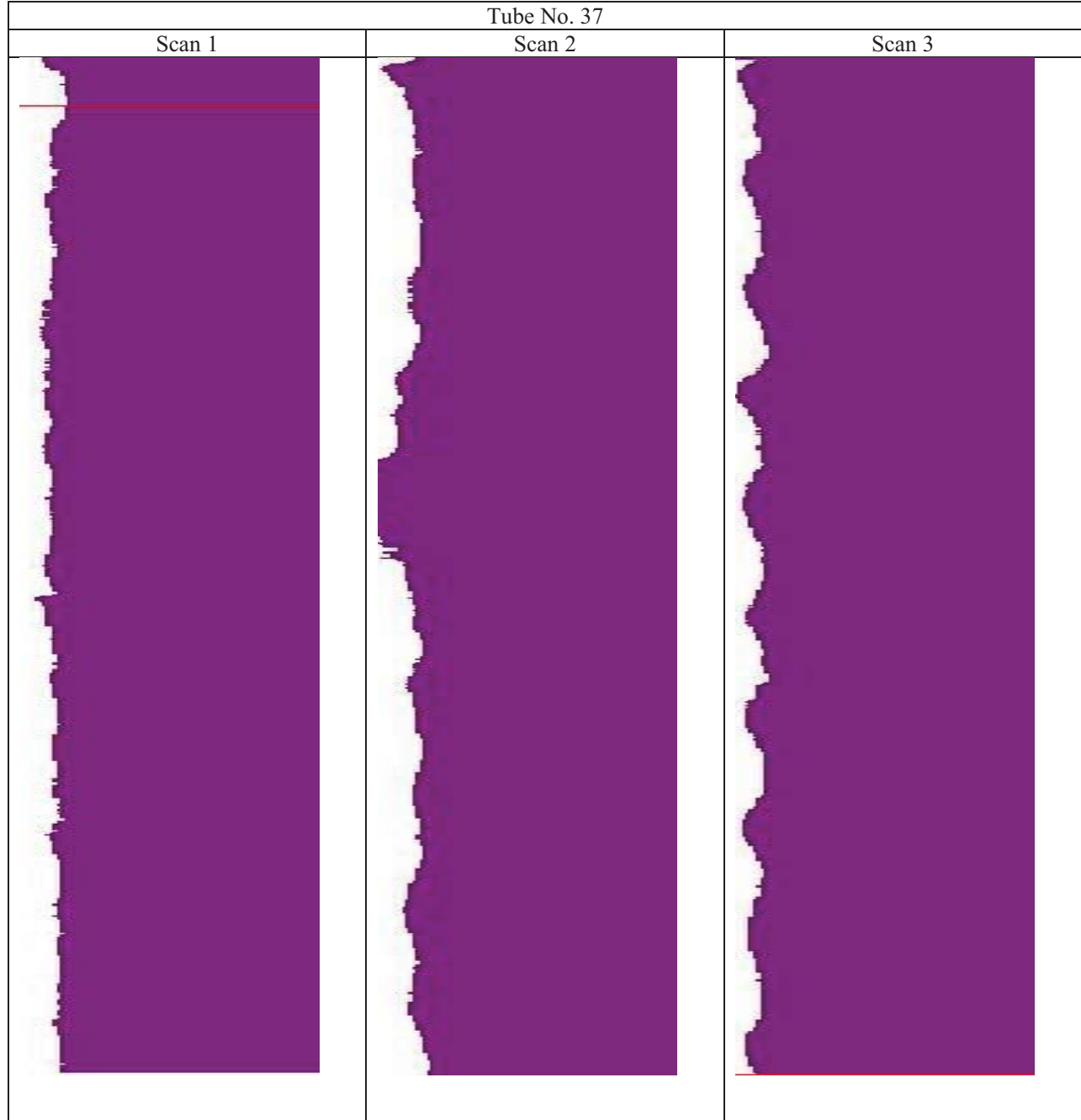
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 51 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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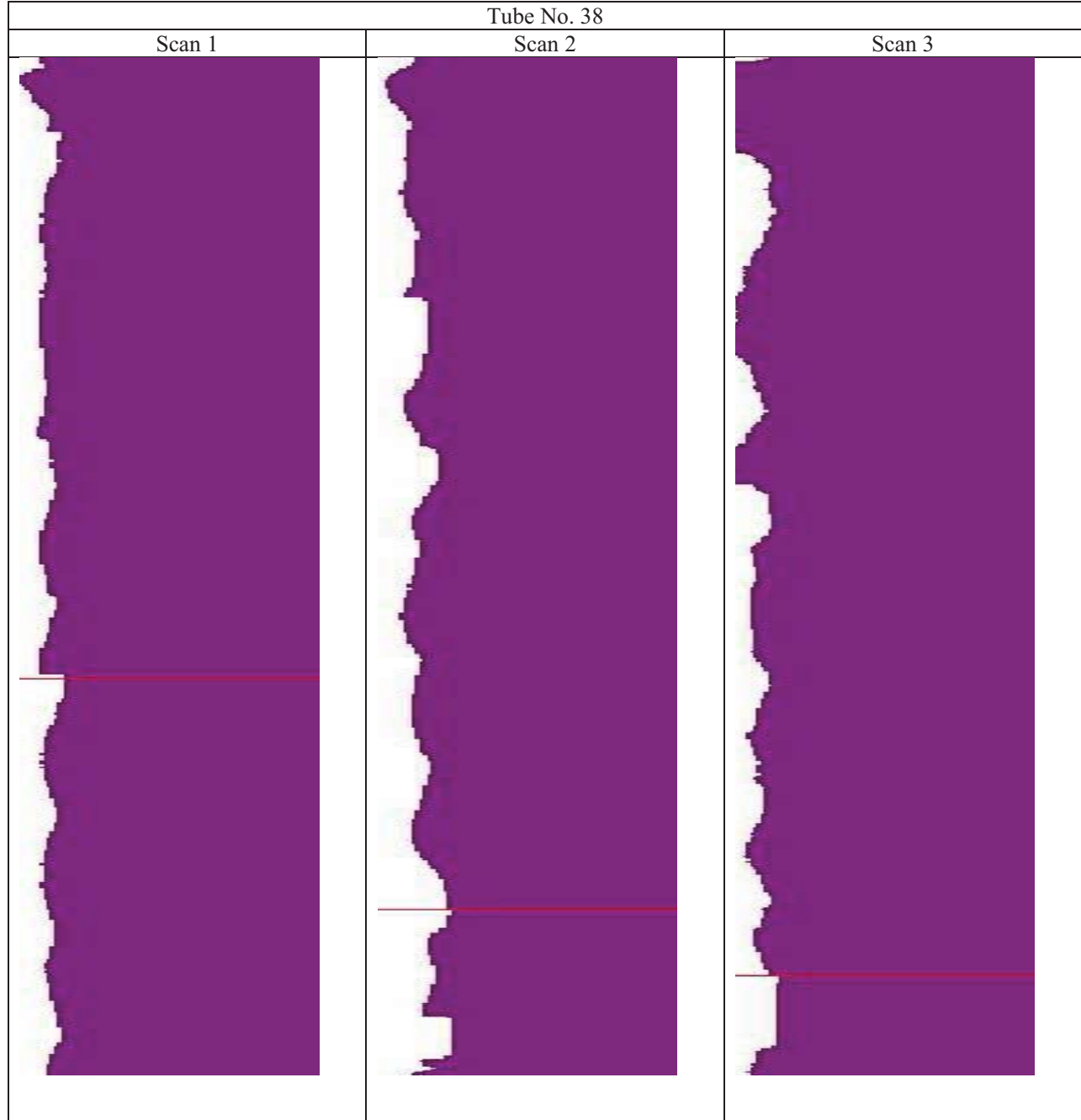


TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

<b>Client:</b> [REDACTED]	<b>Request No:</b> 700-10-7680
<b>Project:</b> Boiler Tubes Testing	<b>Report No:</b> CM-RS-MPC-001
<b>Plant/Shop:</b> [REDACTED] Petrochemical Co.	<b>Exam Date:</b> 1391-12-05 to 07
<b>Item Name:</b> Boiler A	<b>Page No.:</b> 52 of 242



<b>Inspector(s):</b> [REDACTED] Level:II Date:21-12-1391	<b>Reported By :</b> [REDACTED] Level:II Date:21-12-1391	<b>Client :</b> [REDACTED] Date:
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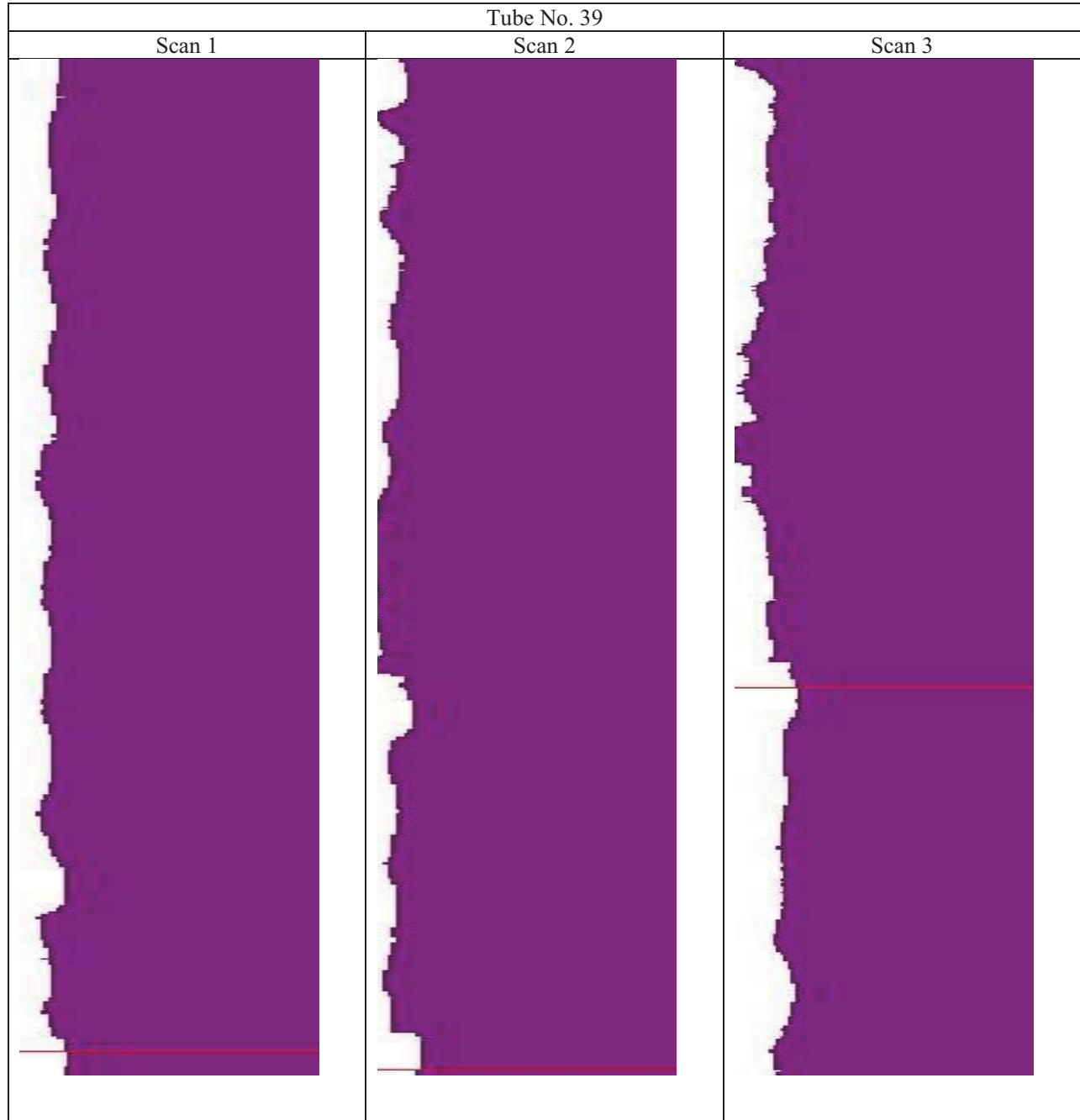
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 53 of 242



<b>Inspector(s):</b> [REDACTED] Level:II Date:21-12-1391	<b>Reported By :</b> [REDACTED] Level:II Date:21-12-1391	<b>Client :</b> [REDACTED] Date:
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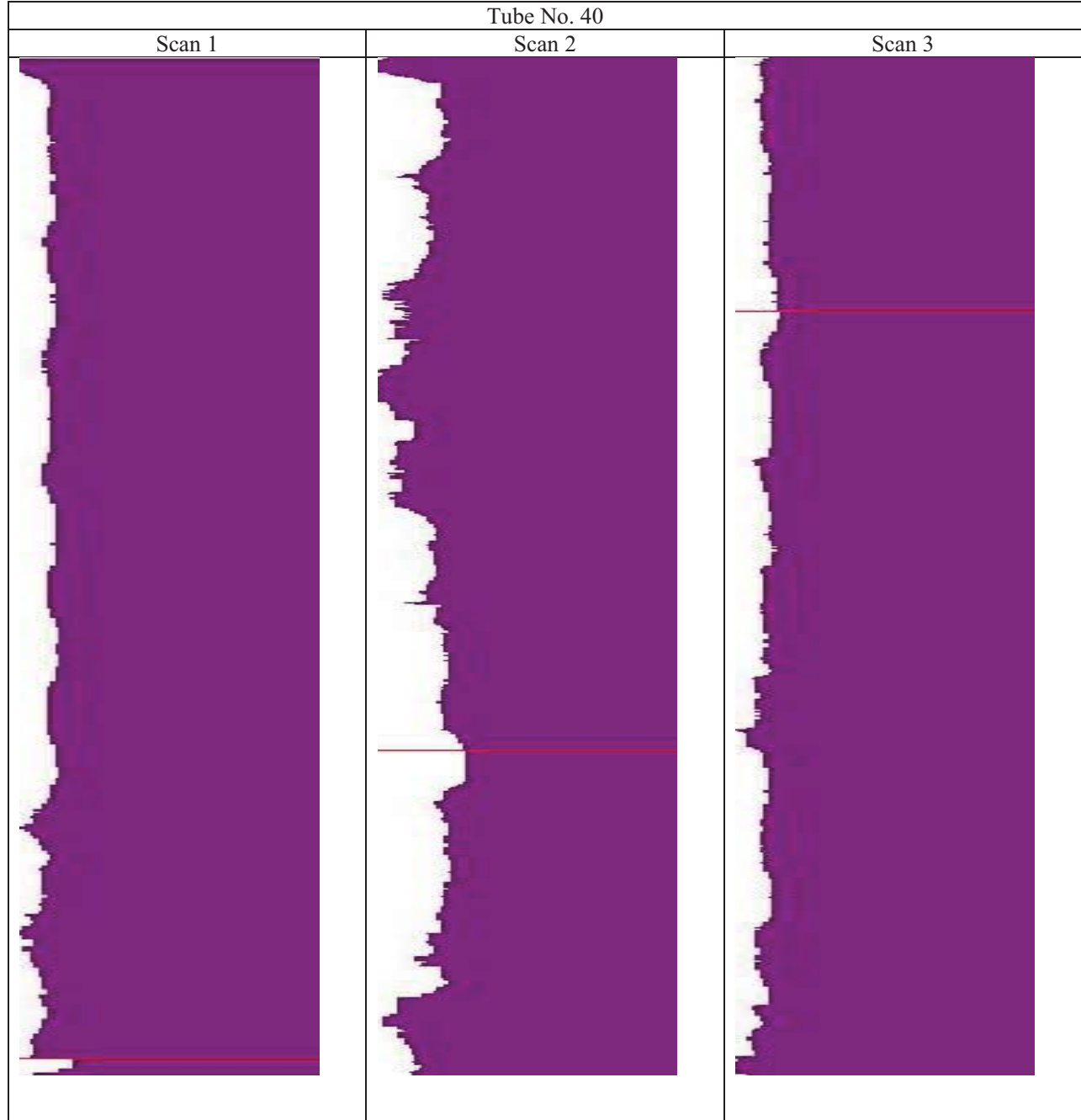
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 54 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 55 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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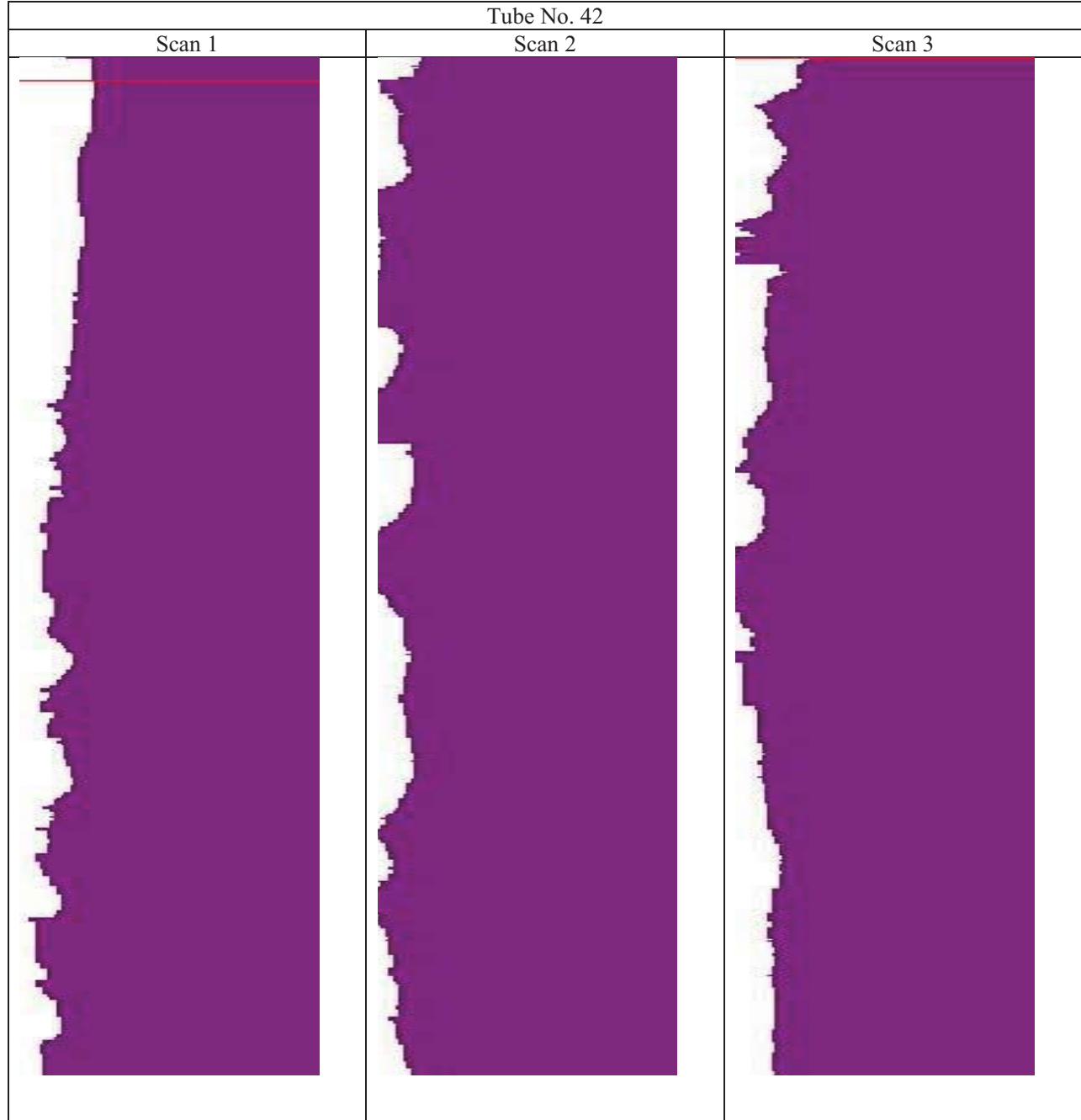
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 56 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 57 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 58 of 242



<b>Inspector(s):</b> [REDACTED] Level:II Date:21-12-1391	<b>Reported By :</b> [REDACTED] Level:II Date:21-12-1391	<b>Client :</b> [REDACTED] Date:
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 59 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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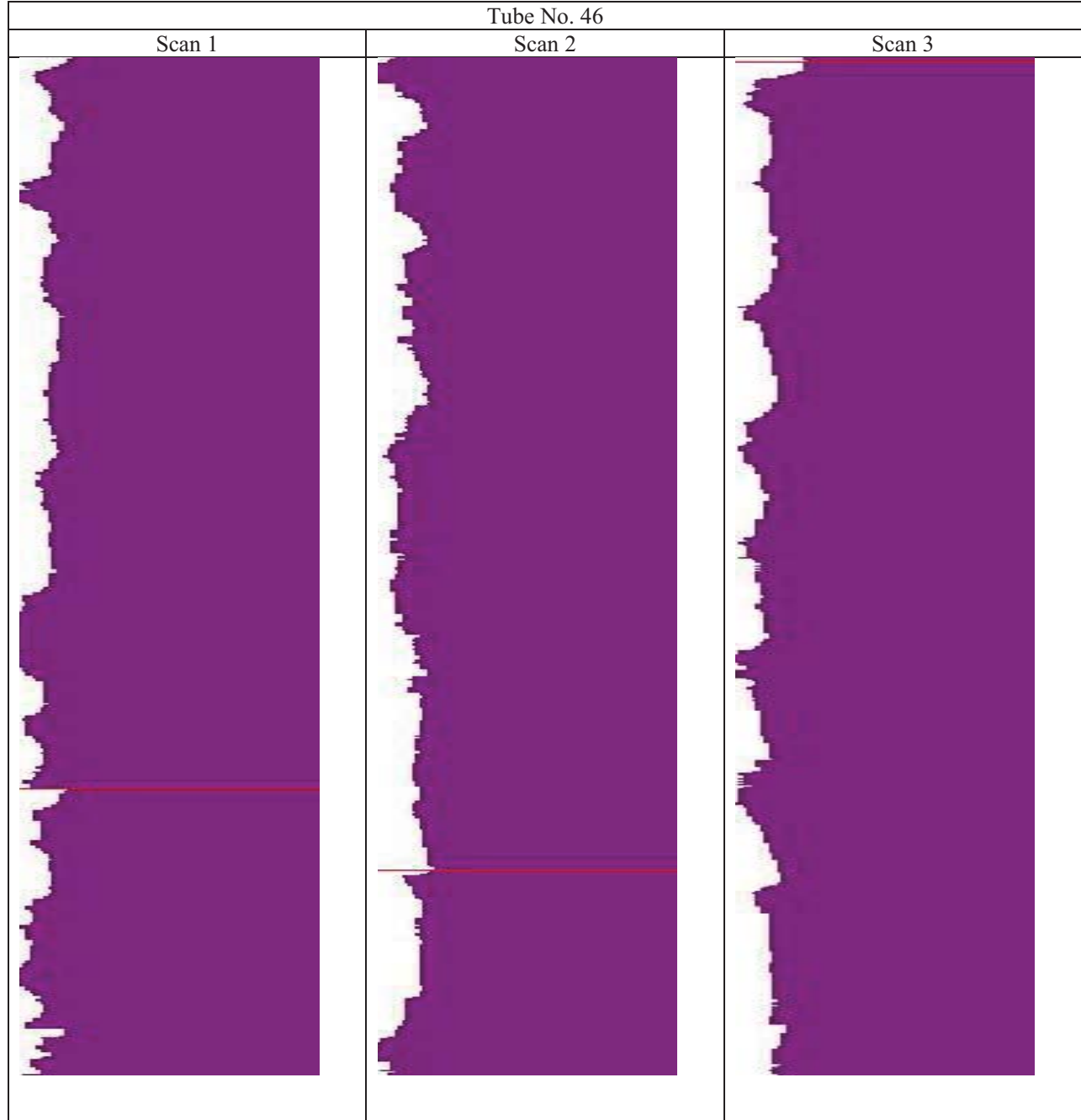
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 60 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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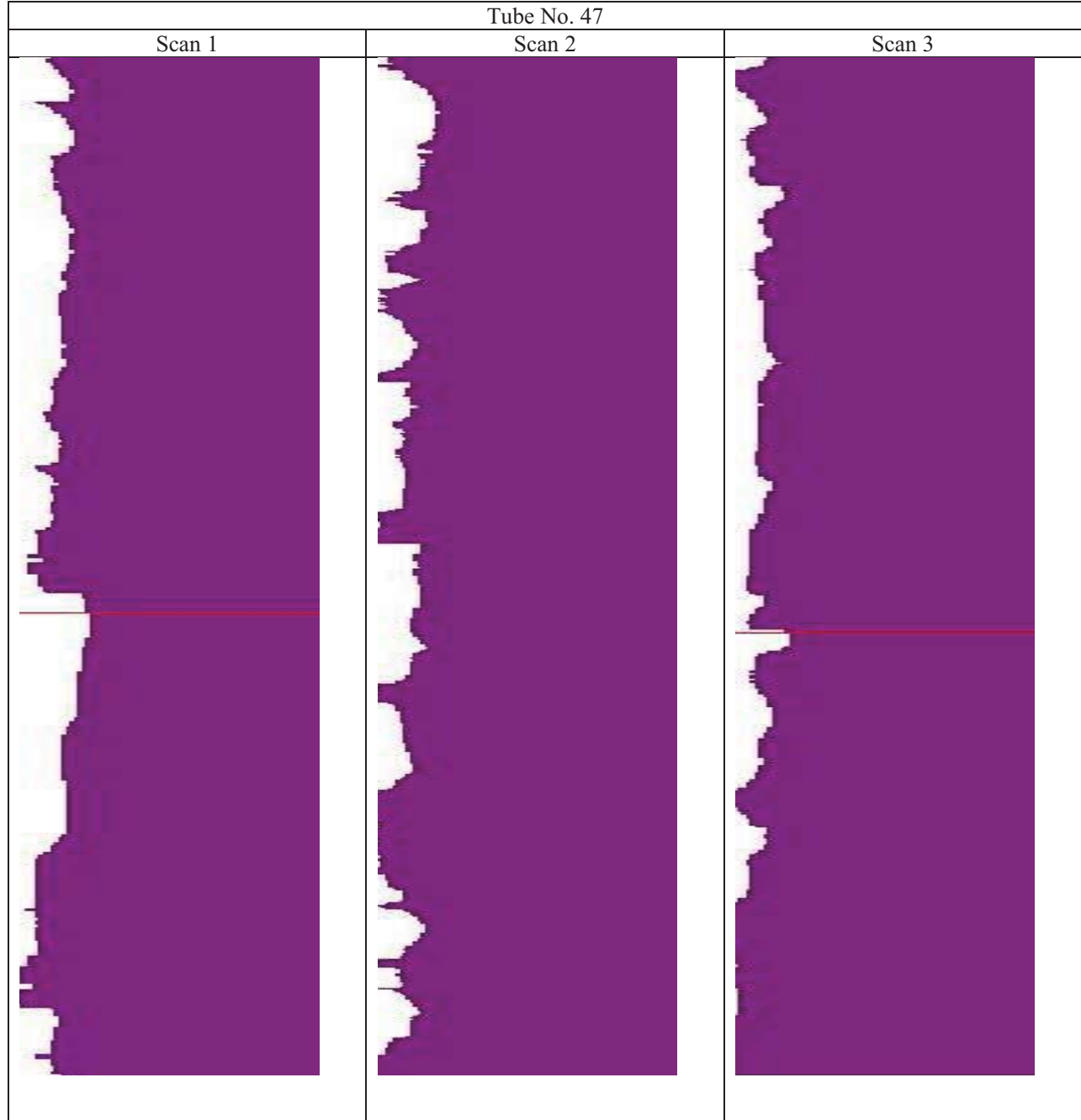
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 61 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 62 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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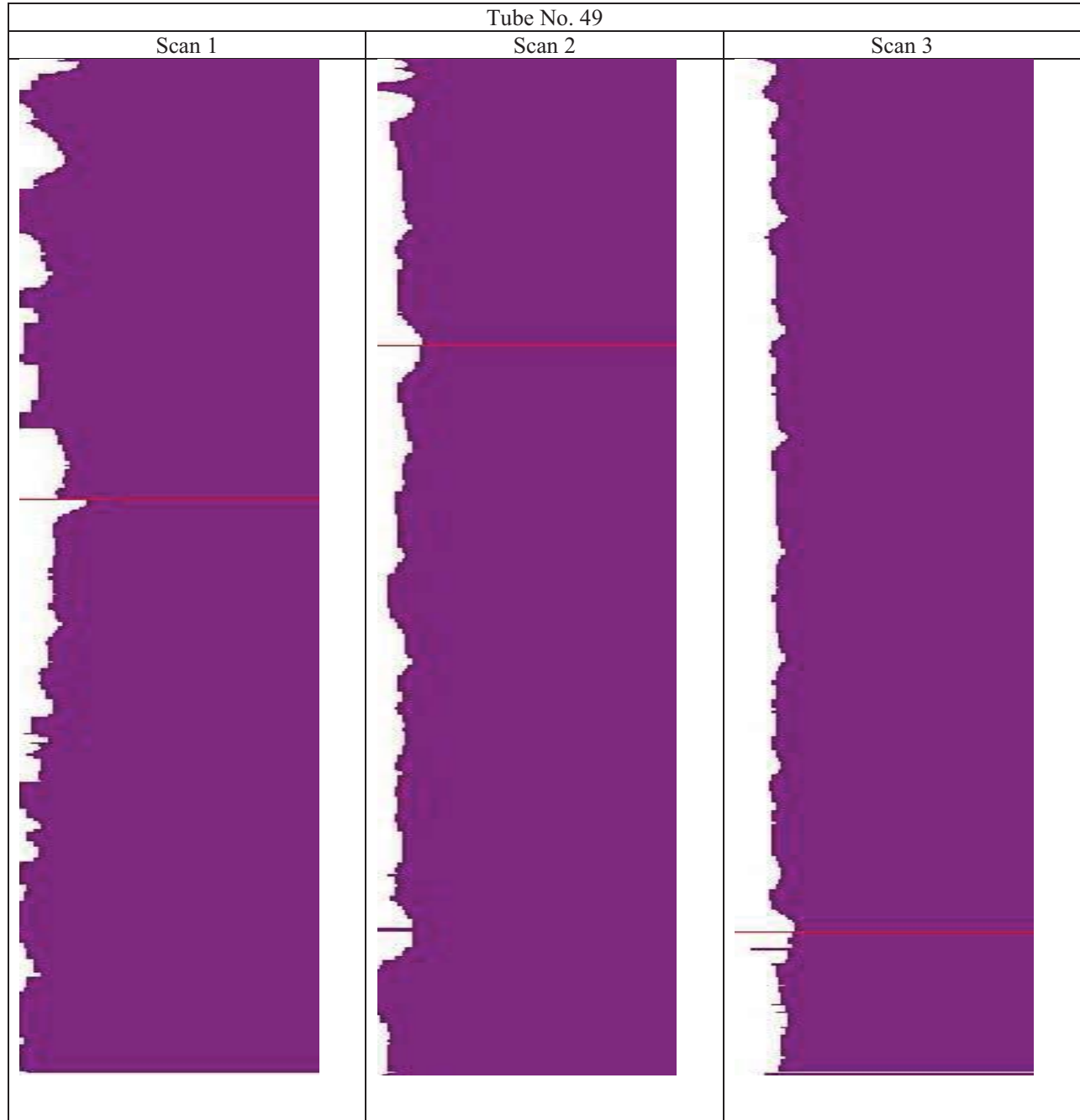
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 63 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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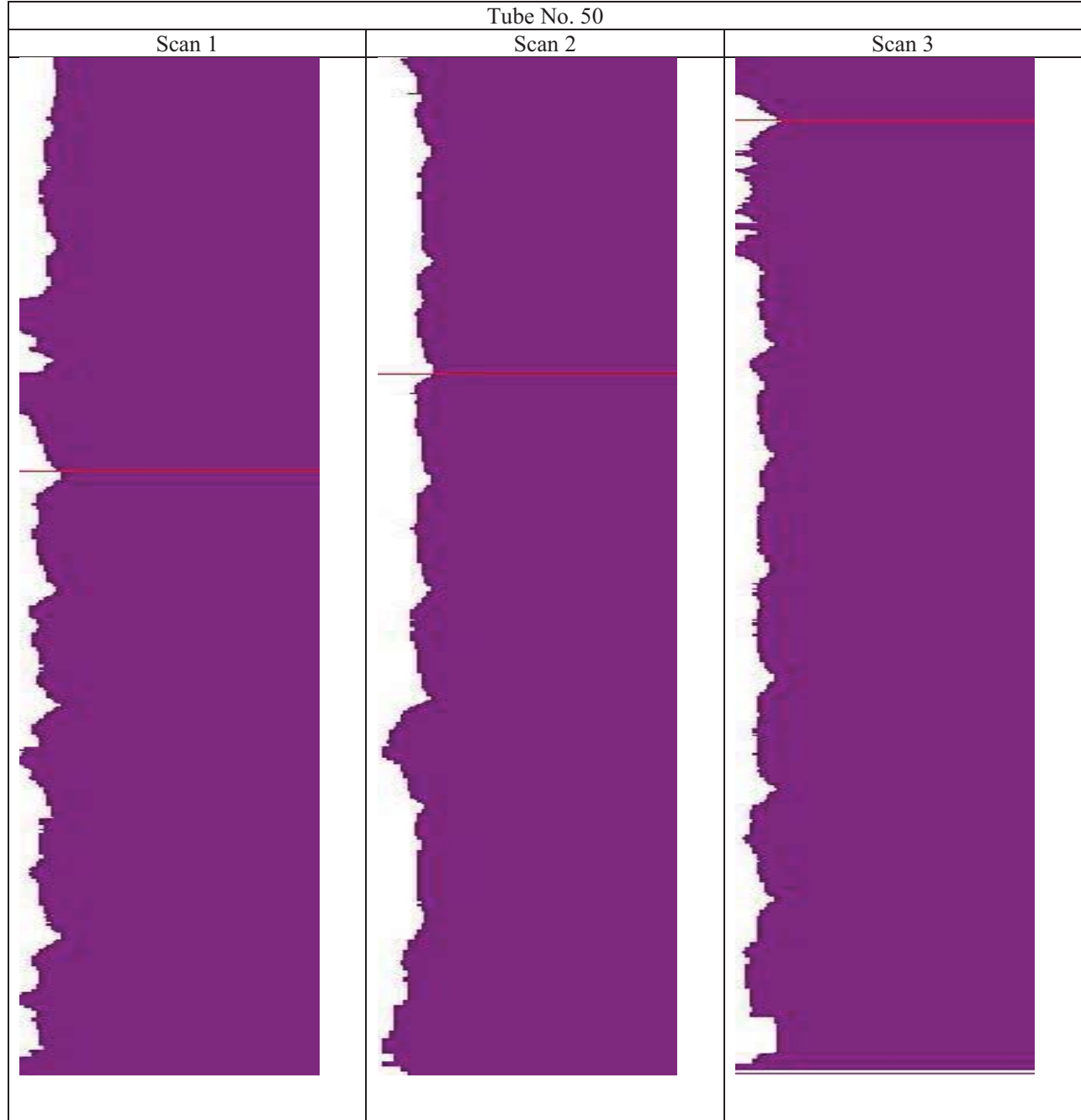
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 64 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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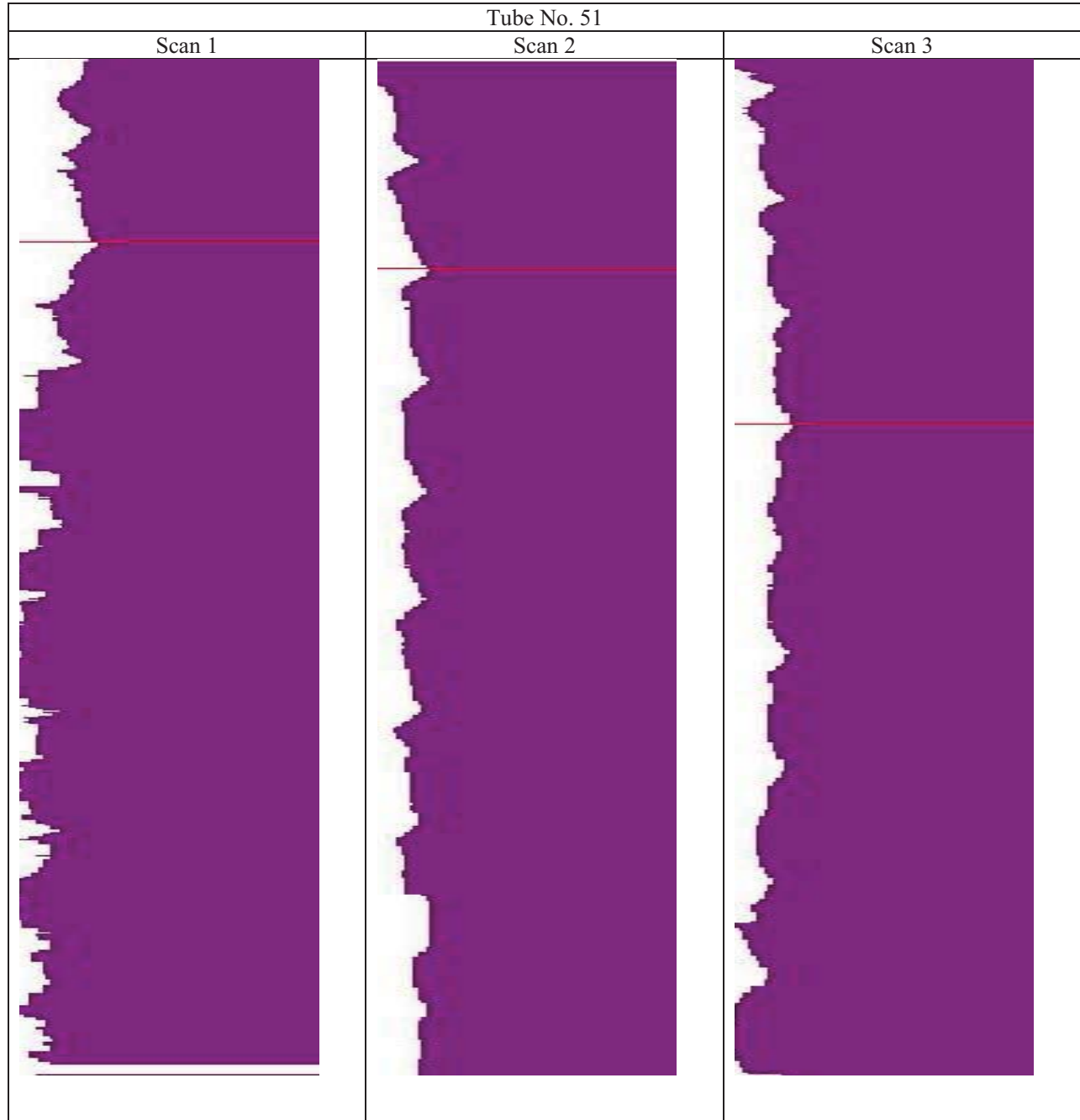
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 65 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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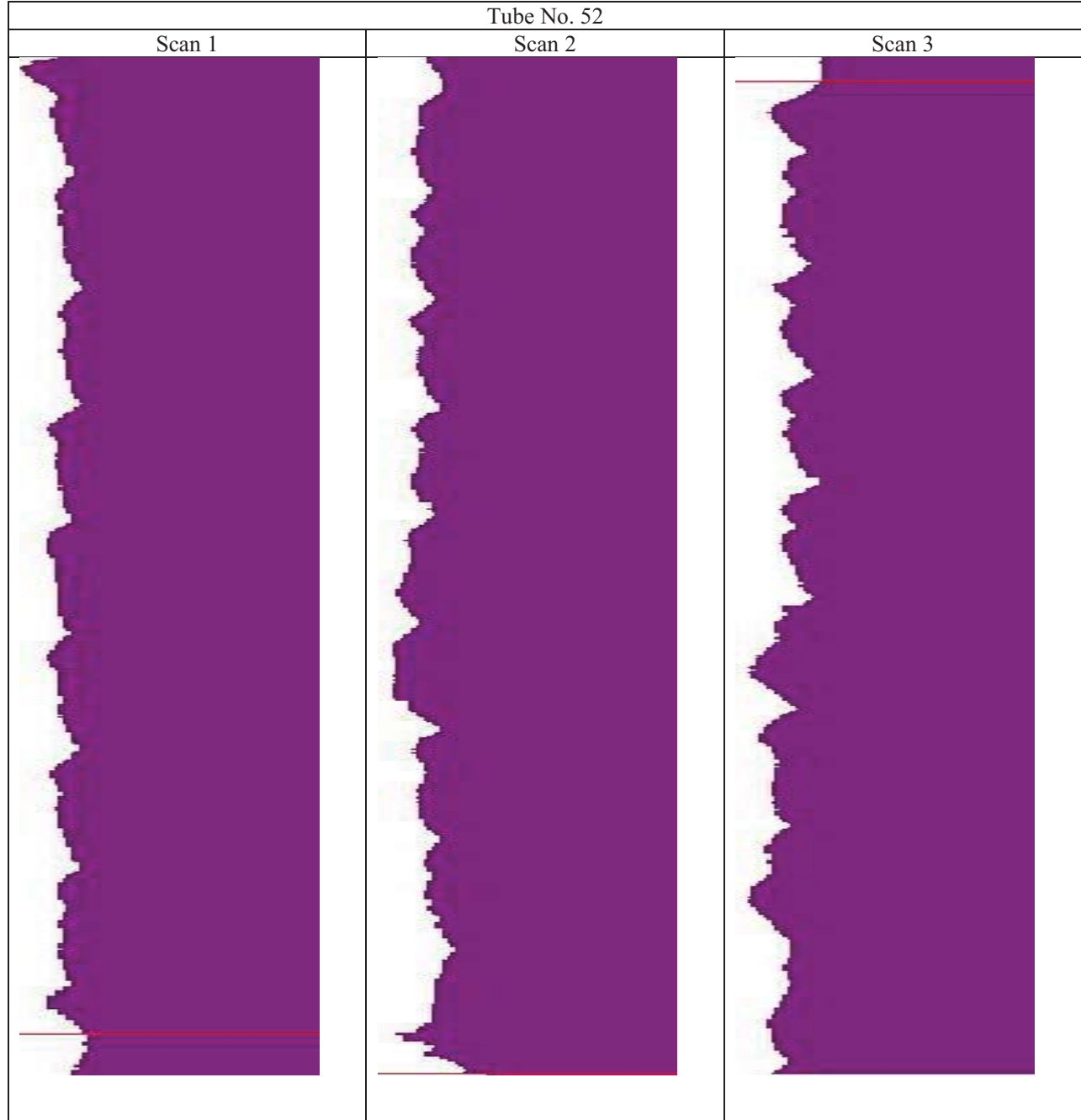
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 66 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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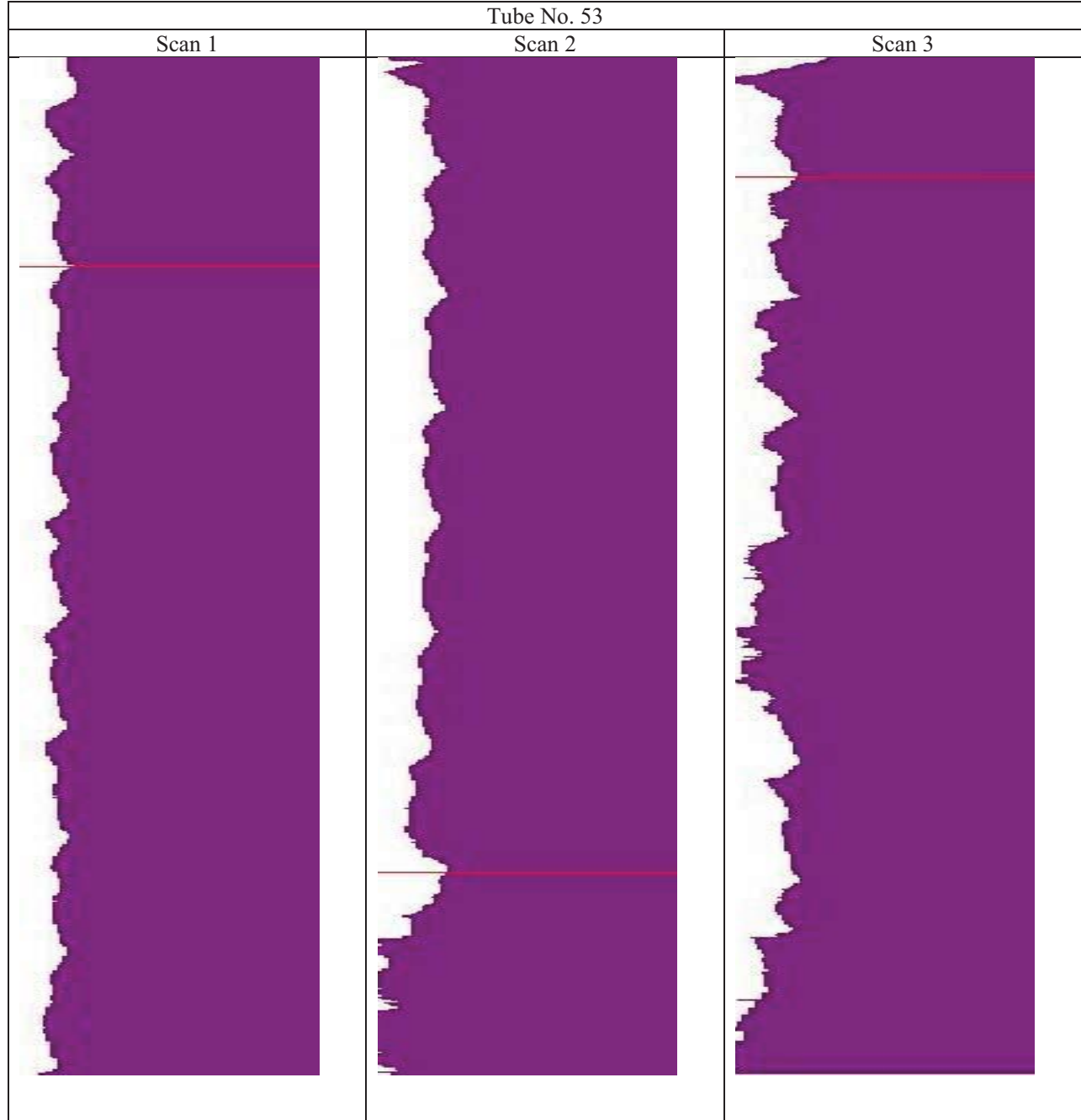
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 67 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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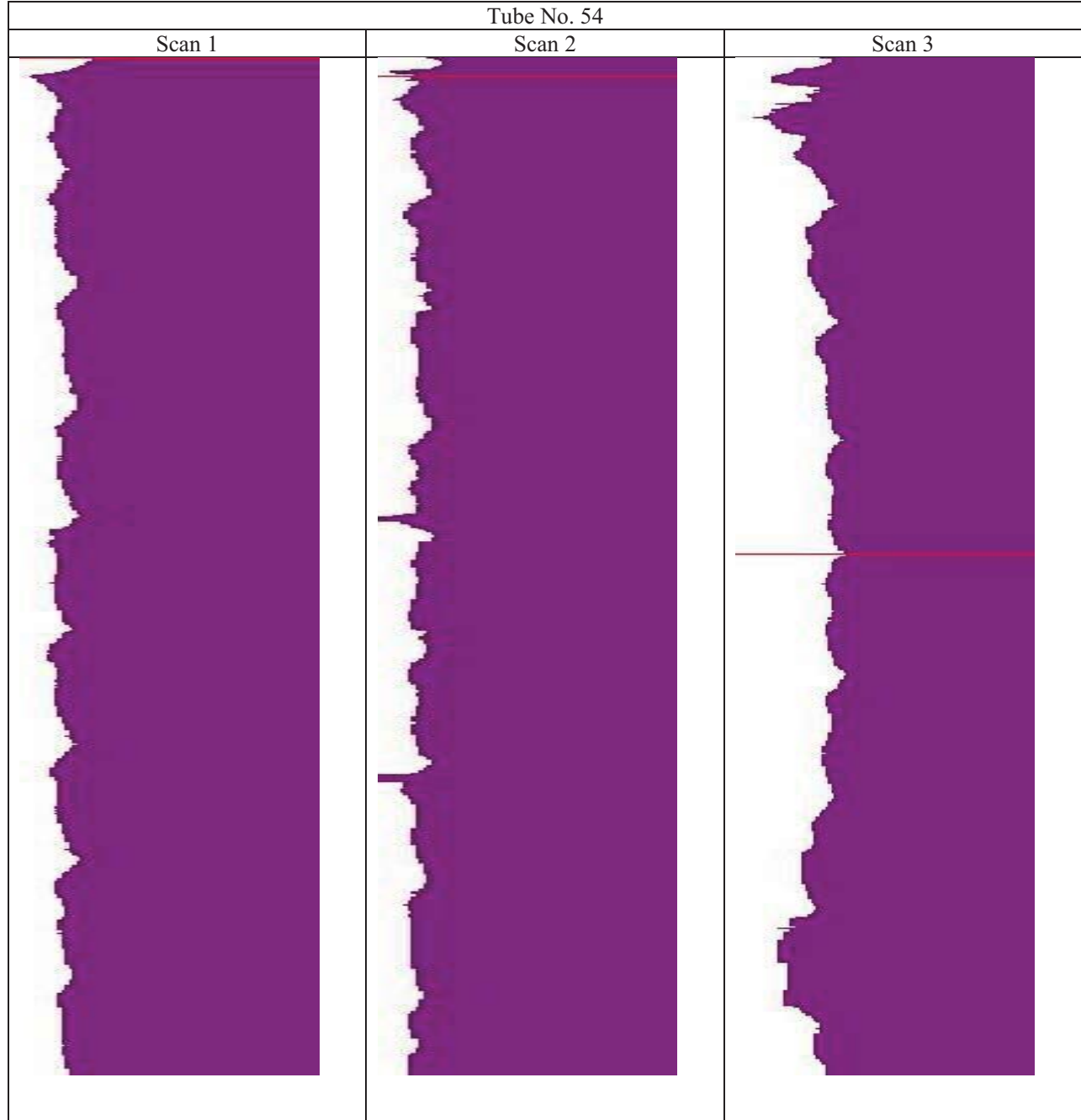
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 68 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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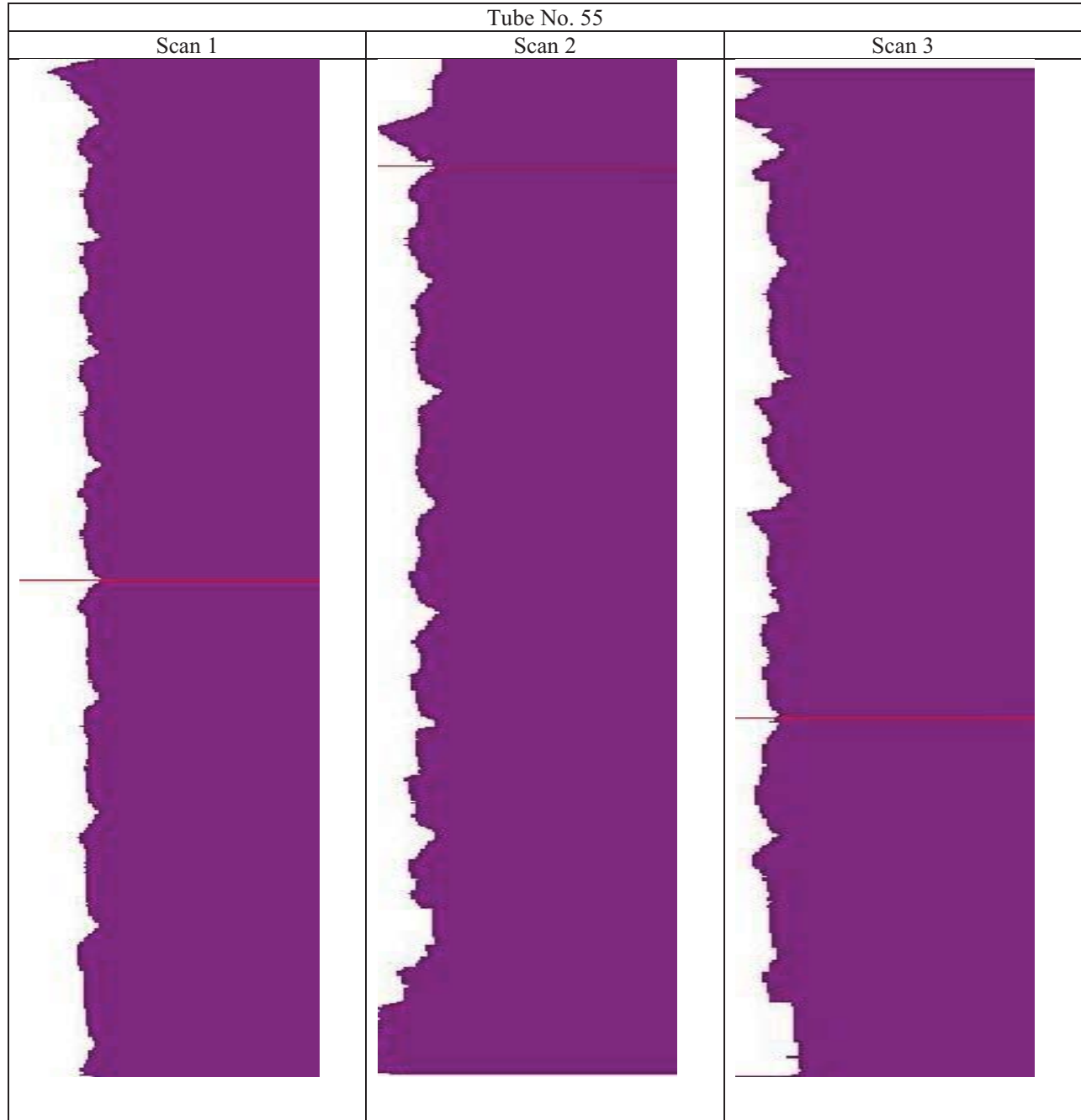
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 69 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 70 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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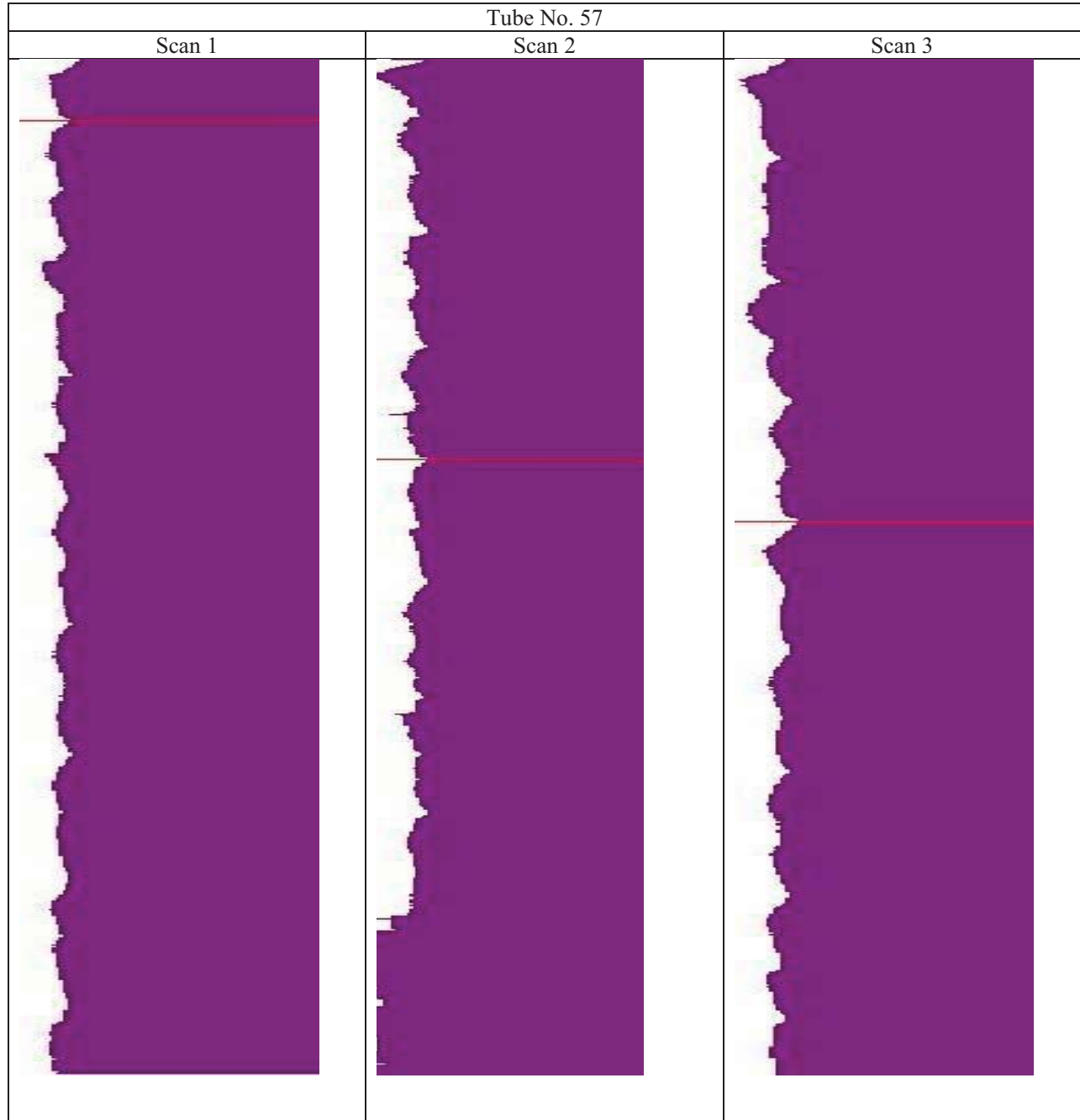
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 71 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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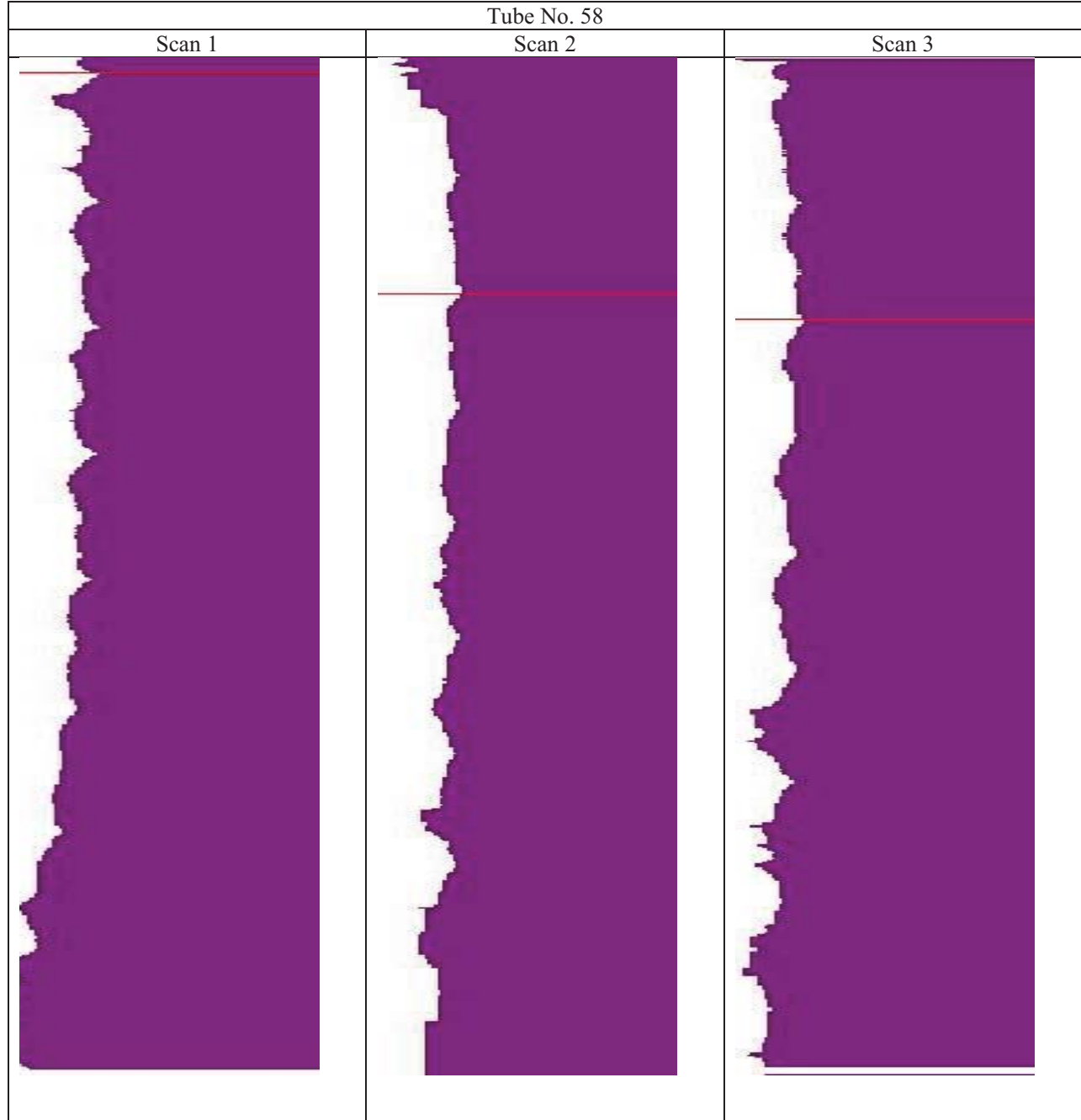
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 72 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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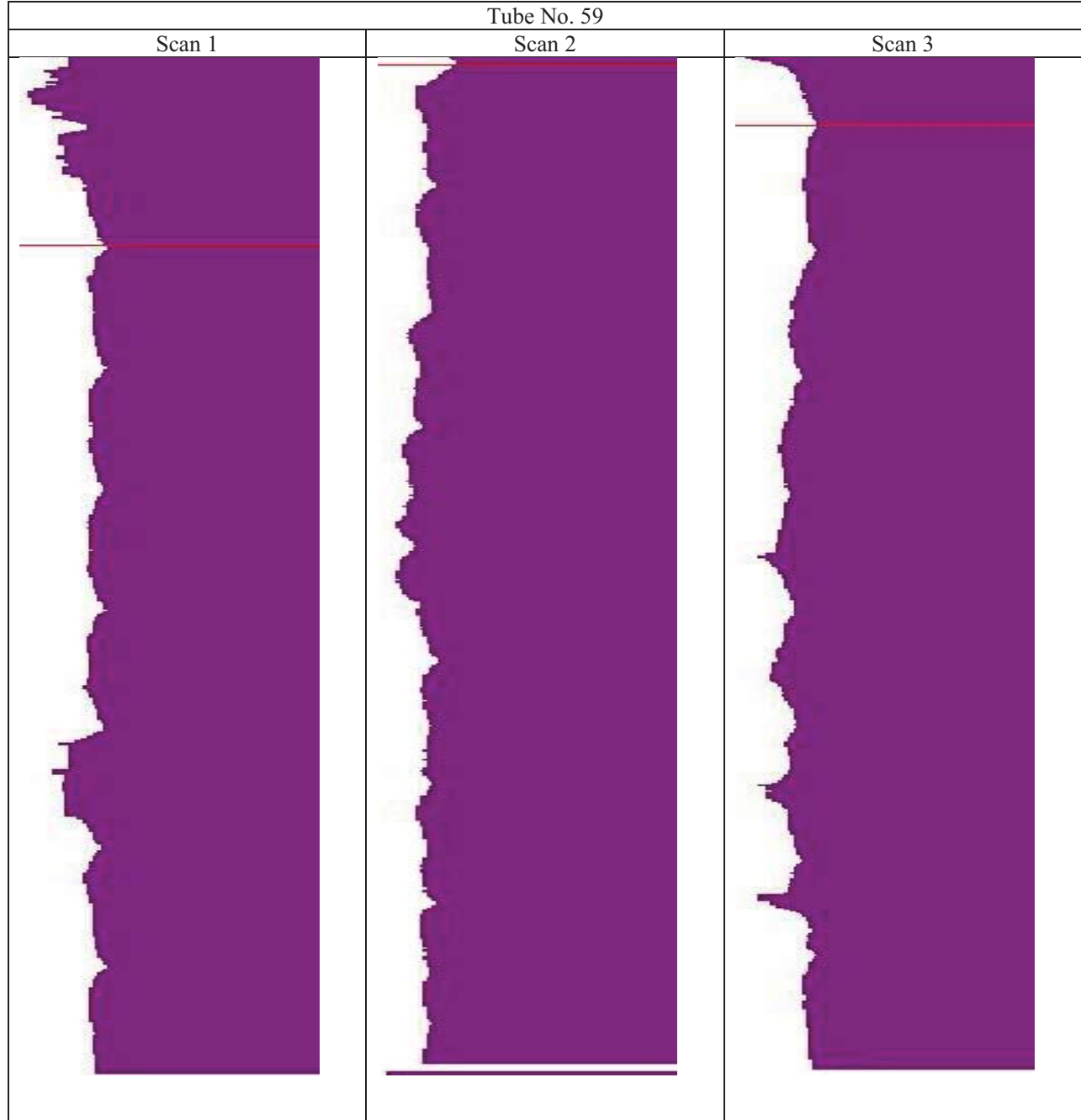
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 73 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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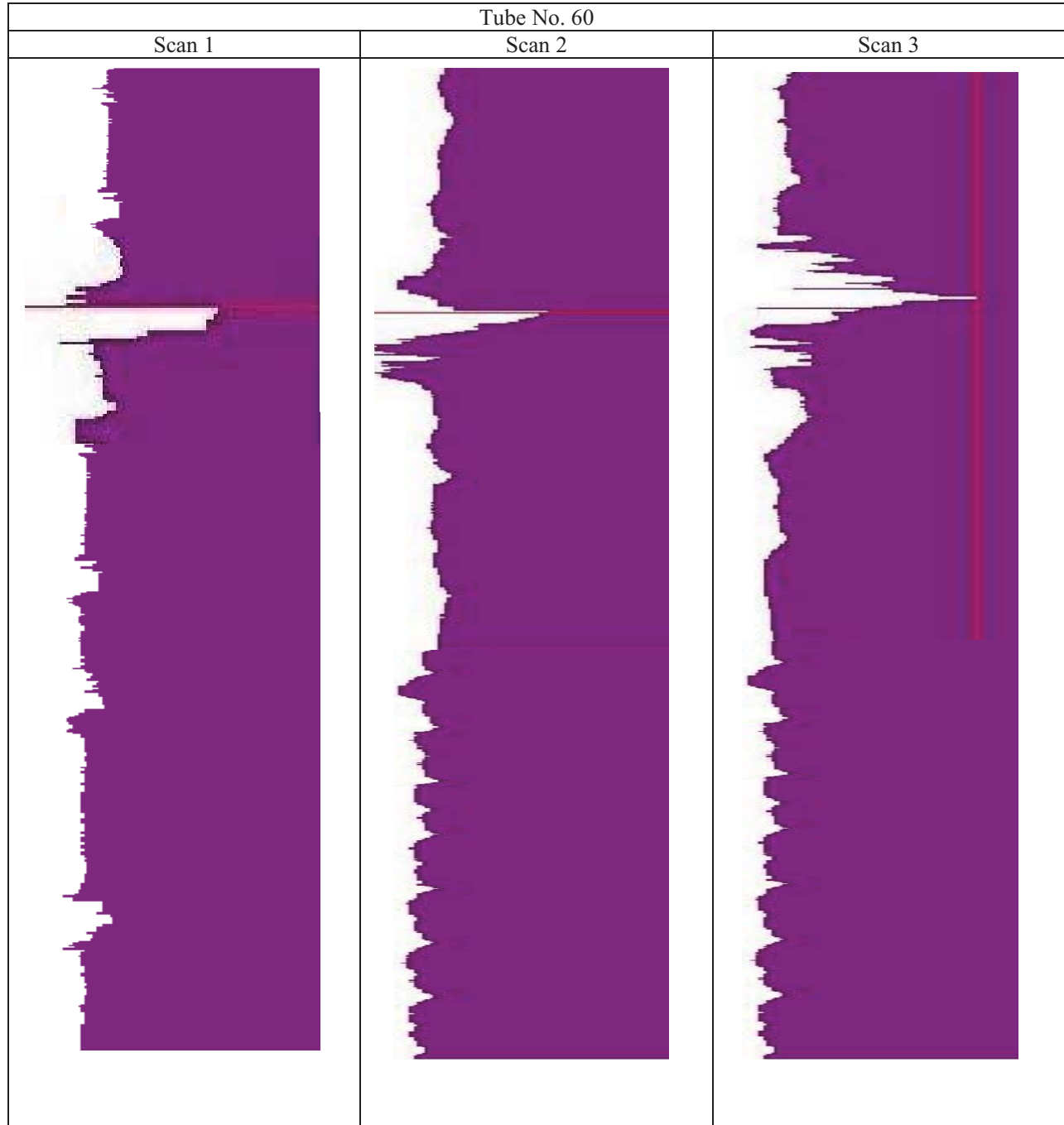
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 74 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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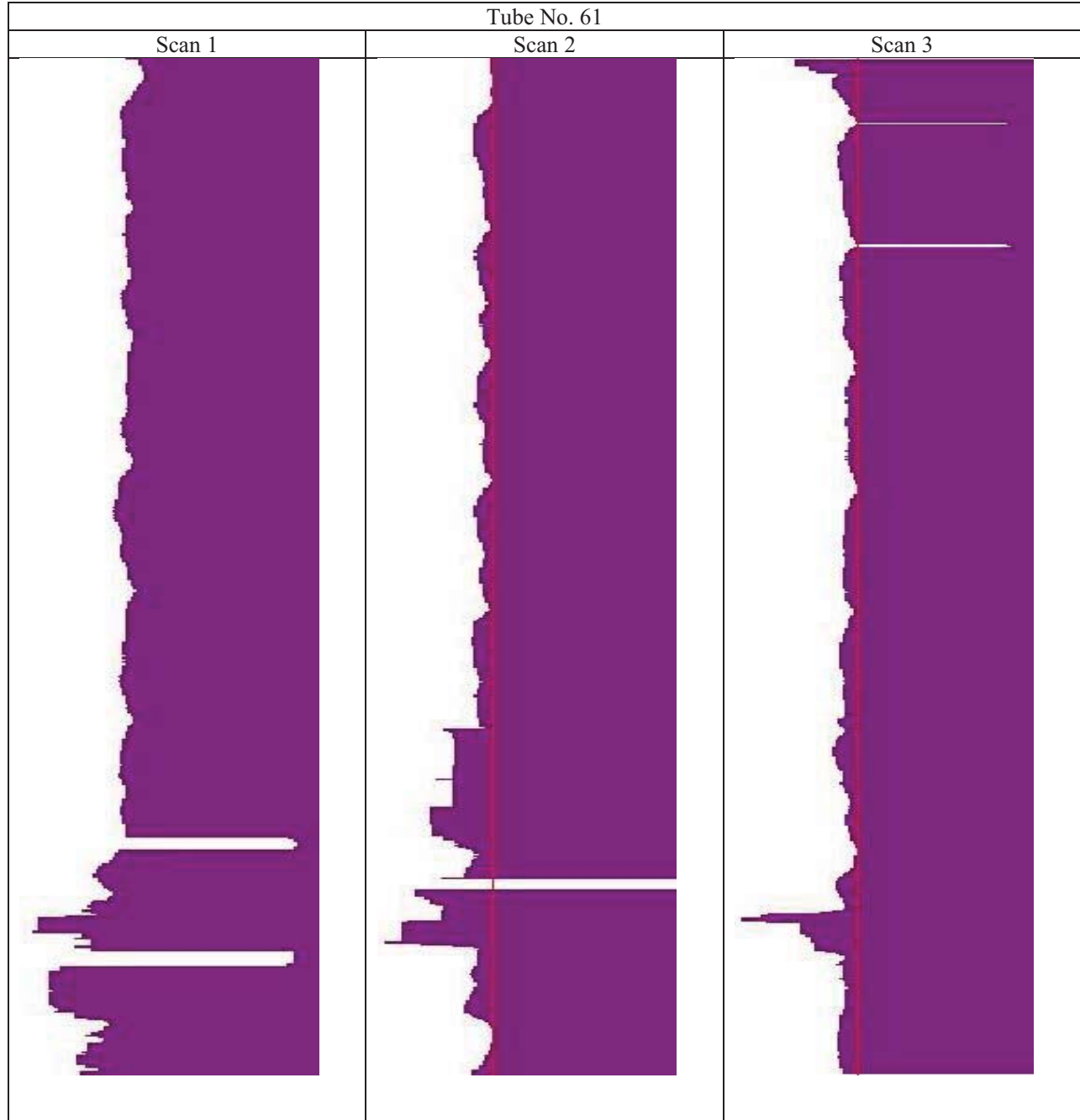


TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

<b>Client:</b> [REDACTED]	<b>Request No:</b> 700-10-7680
<b>Project:</b> Boiler Tubes Testing	<b>Report No:</b> CM-RS-MPC-001
<b>Plant/Shop:</b> [REDACTED] Petrochemical Co.	<b>Exam Date:</b> 1391-12-05 to 07
<b>Item Name:</b> Boiler A	<b>Page No.:</b> 75 of 242



<b>Inspector(s):</b> [REDACTED] Level:II Date:21-12-1391	<b>Reported By :</b> [REDACTED] Level:II Date:21-12-1391	<b>Client :</b> [REDACTED] Date:
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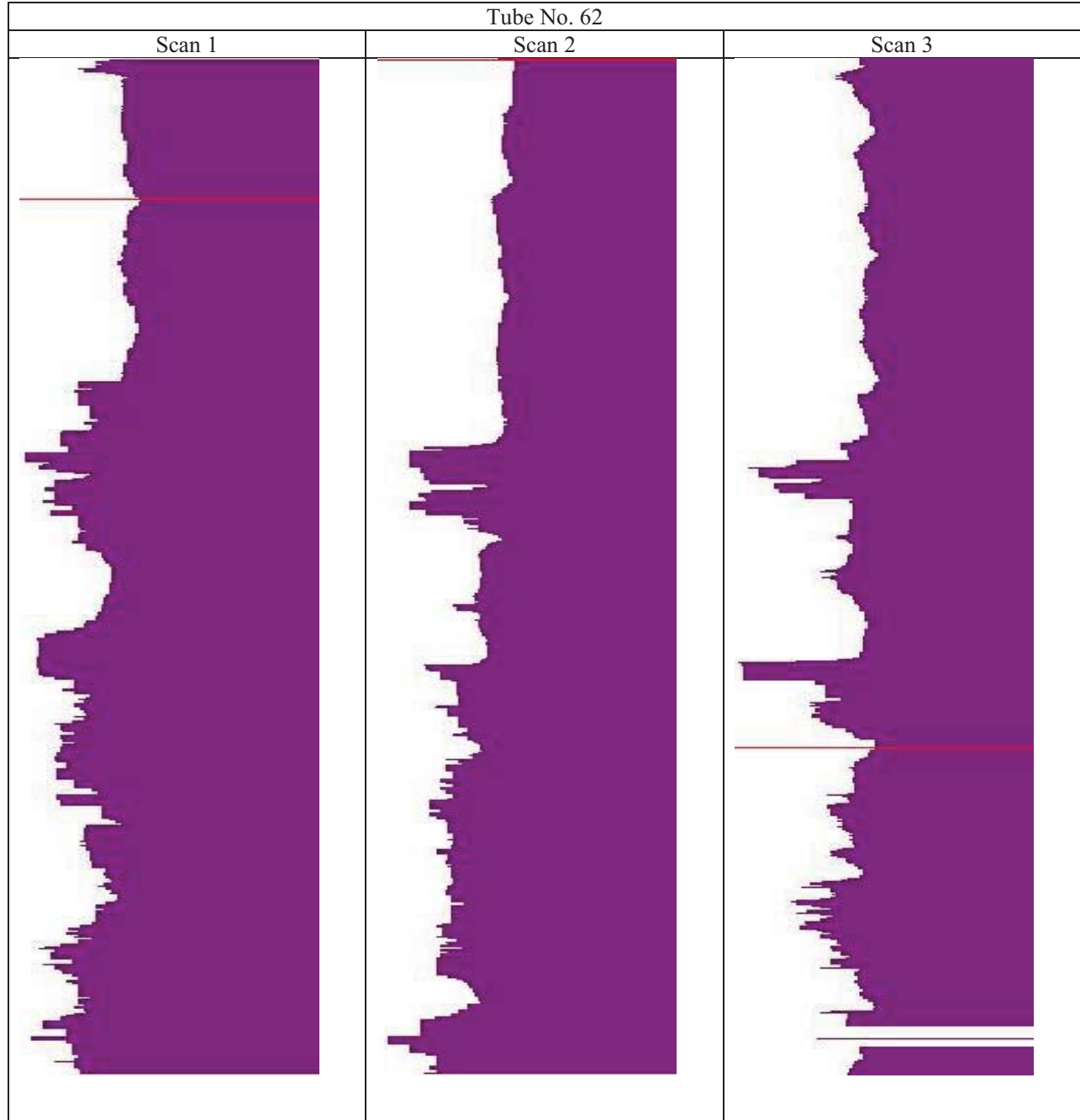
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 76 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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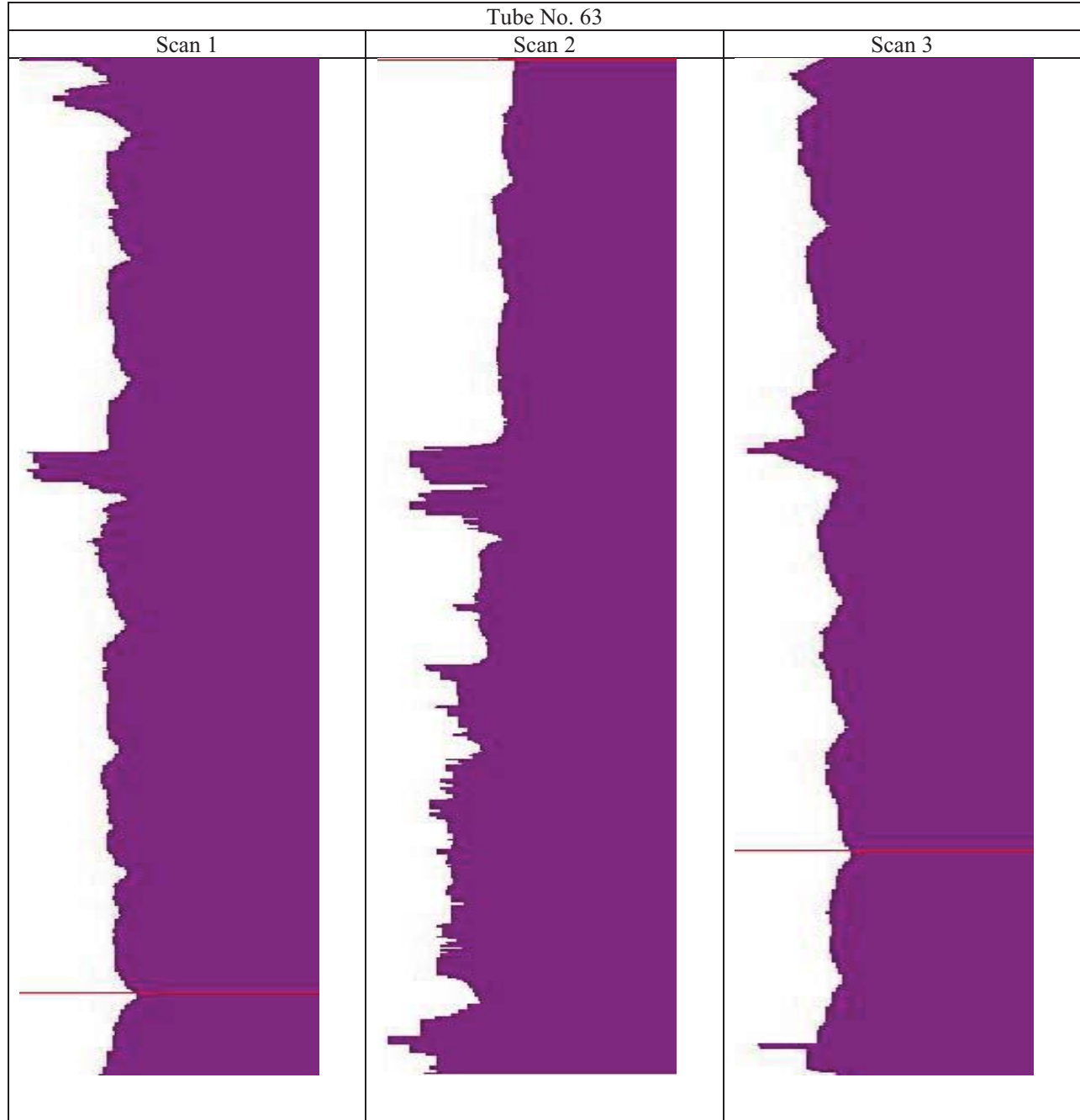


TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

<b>Client:</b> [REDACTED]	<b>Request No:</b> 700-10-7680
<b>Project:</b> Boiler Tubes Testing	<b>Report No:</b> CM-RS-MPC-001
<b>Plant/Shop:</b> [REDACTED] Petrochemical Co.	<b>Exam Date:</b> 1391-12-05 to 07
<b>Item Name:</b> Boiler A	<b>Page No.:</b> 77 of 242



<b>Inspector(s):</b> [REDACTED] Level:II Date:21-12-1391	<b>Reported By :</b> [REDACTED] Level:II Date:21-12-1391	<b>Client :</b> [REDACTED] Date:
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 78 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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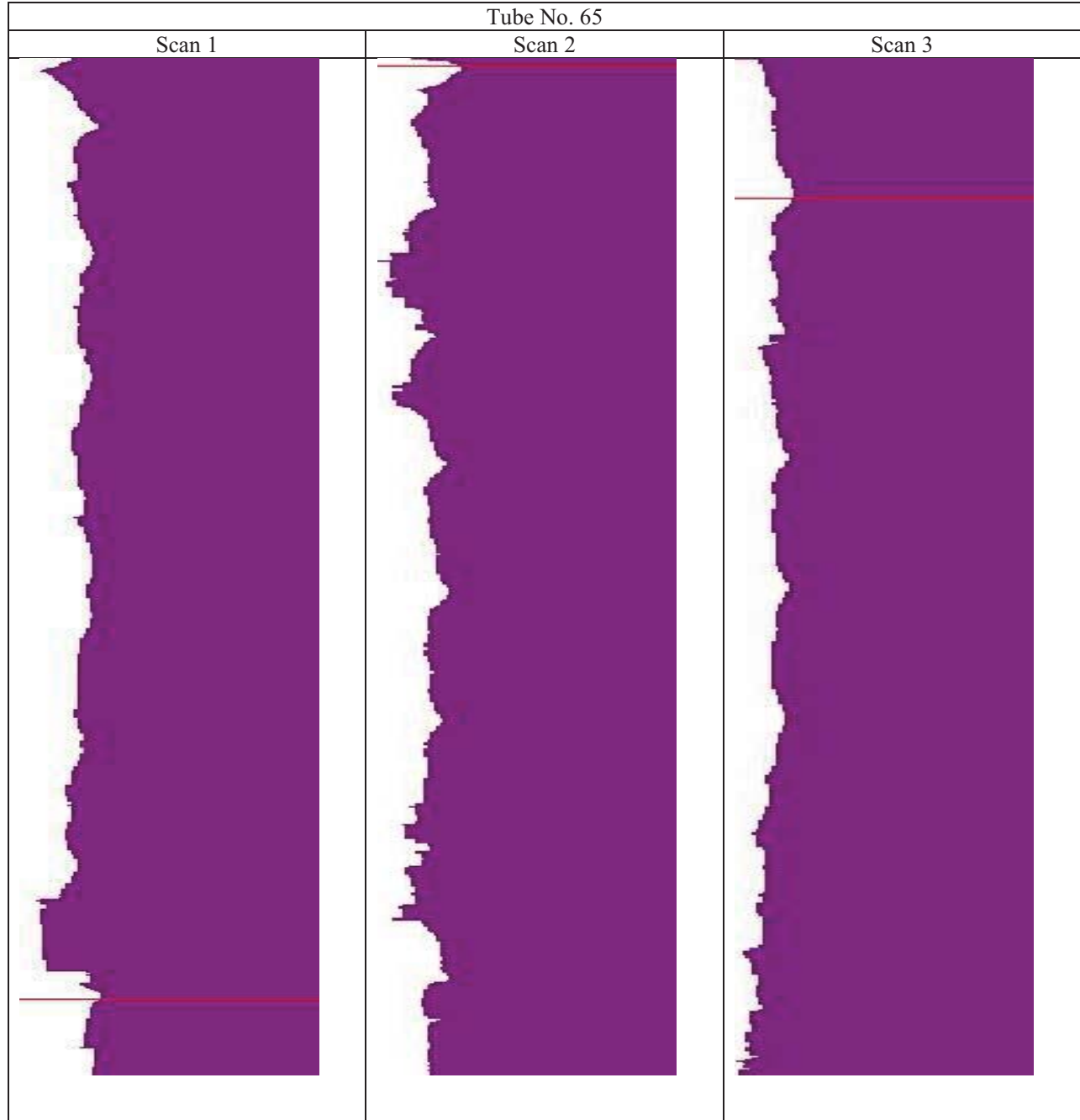


TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

<b>Client:</b> [REDACTED]	<b>Request No:</b> 700-10-7680
<b>Project:</b> Boiler Tubes Testing	<b>Report No:</b> CM-RS-MPC-001
<b>Plant/Shop:</b> [REDACTED] Petrochemical Co.	<b>Exam Date:</b> 1391-12-05 to 07
<b>Item Name:</b> Boiler A	<b>Page No.:</b> 79 of 242



<b>Inspector(s):</b> [REDACTED] Level:II Date:21-12-1391	<b>Reported By :</b> [REDACTED] Level:II Date:21-12-1391	<b>Client :</b> [REDACTED] Date:
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 80 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 81 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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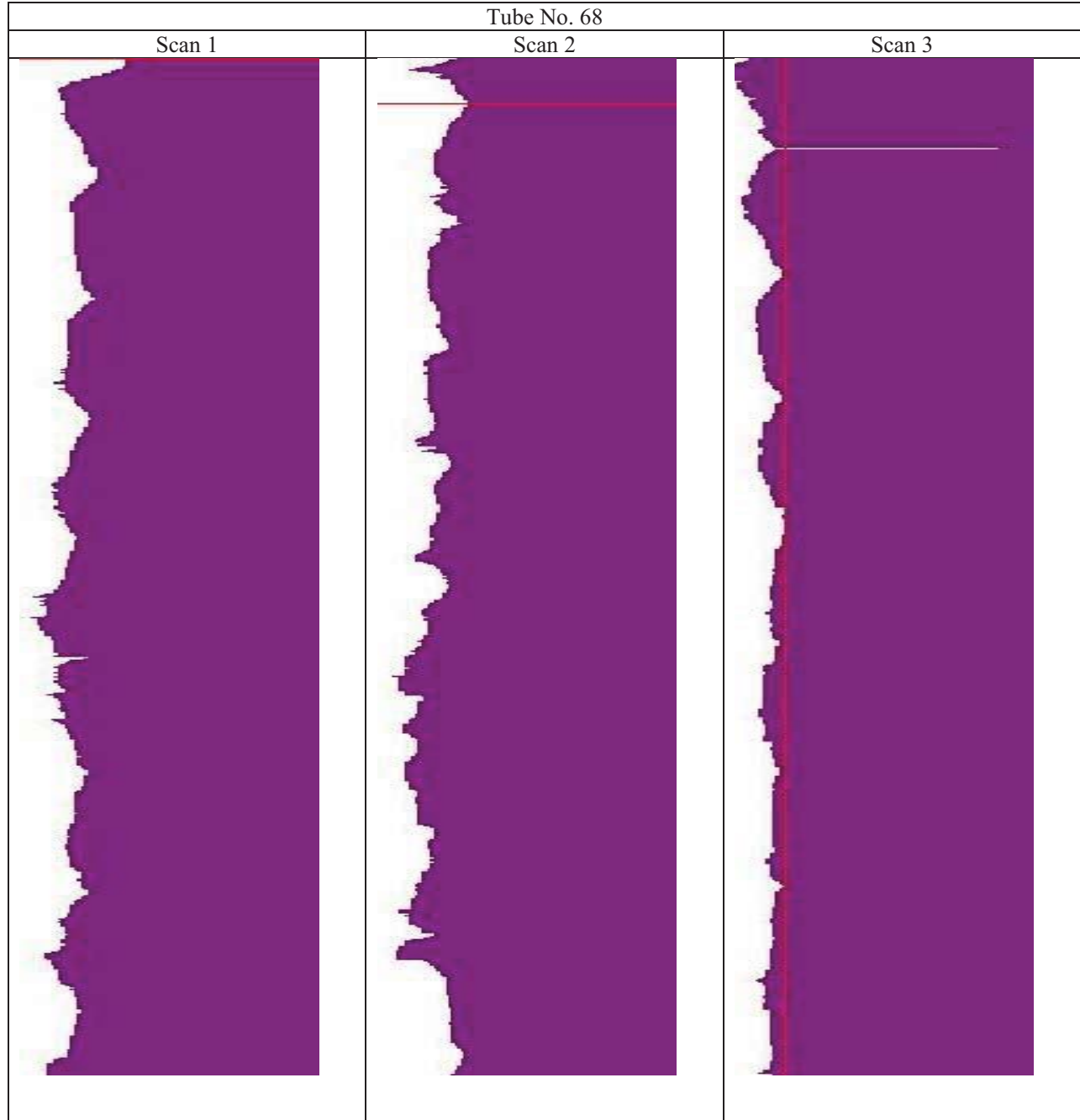
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 82 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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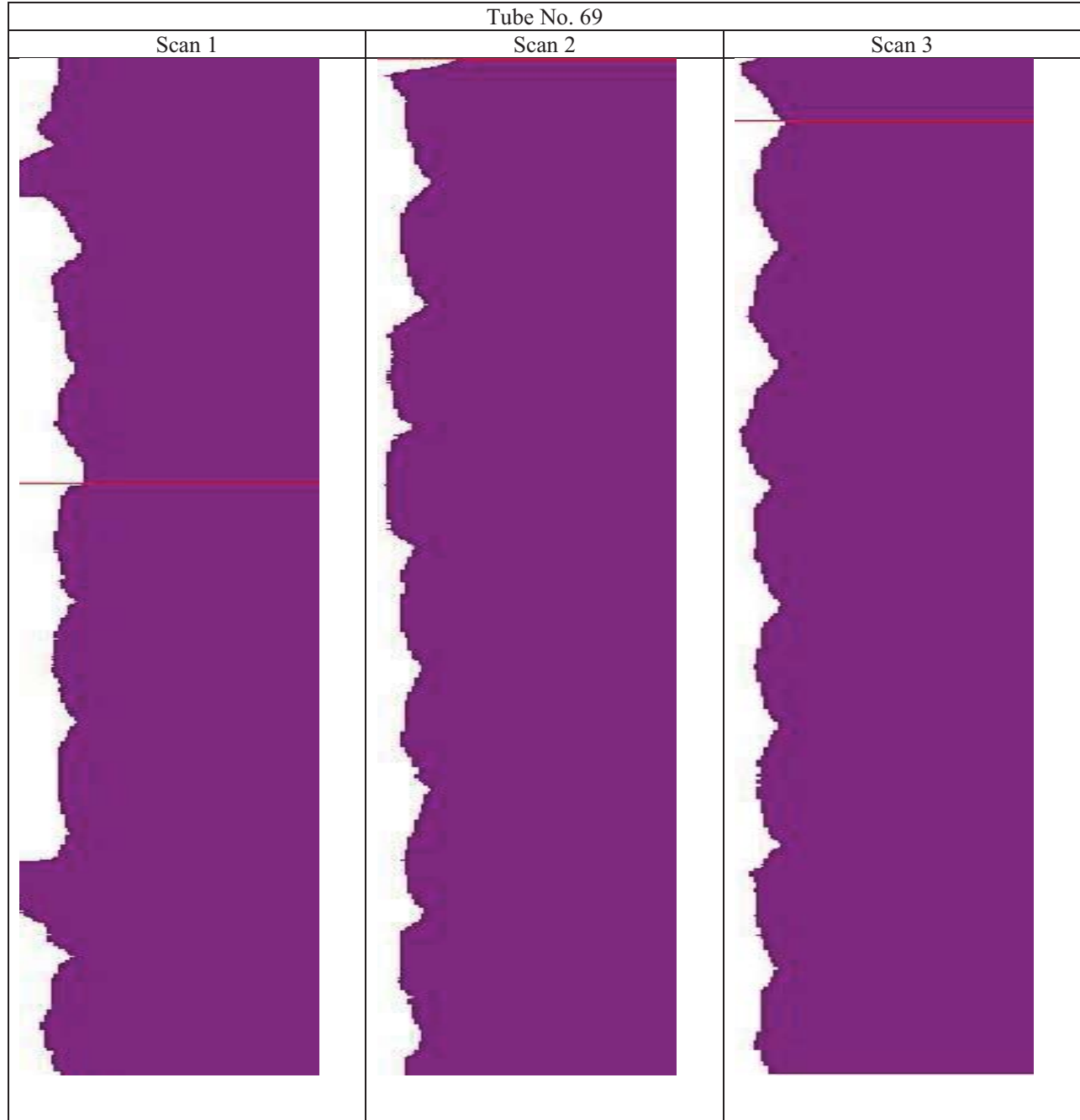
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 83 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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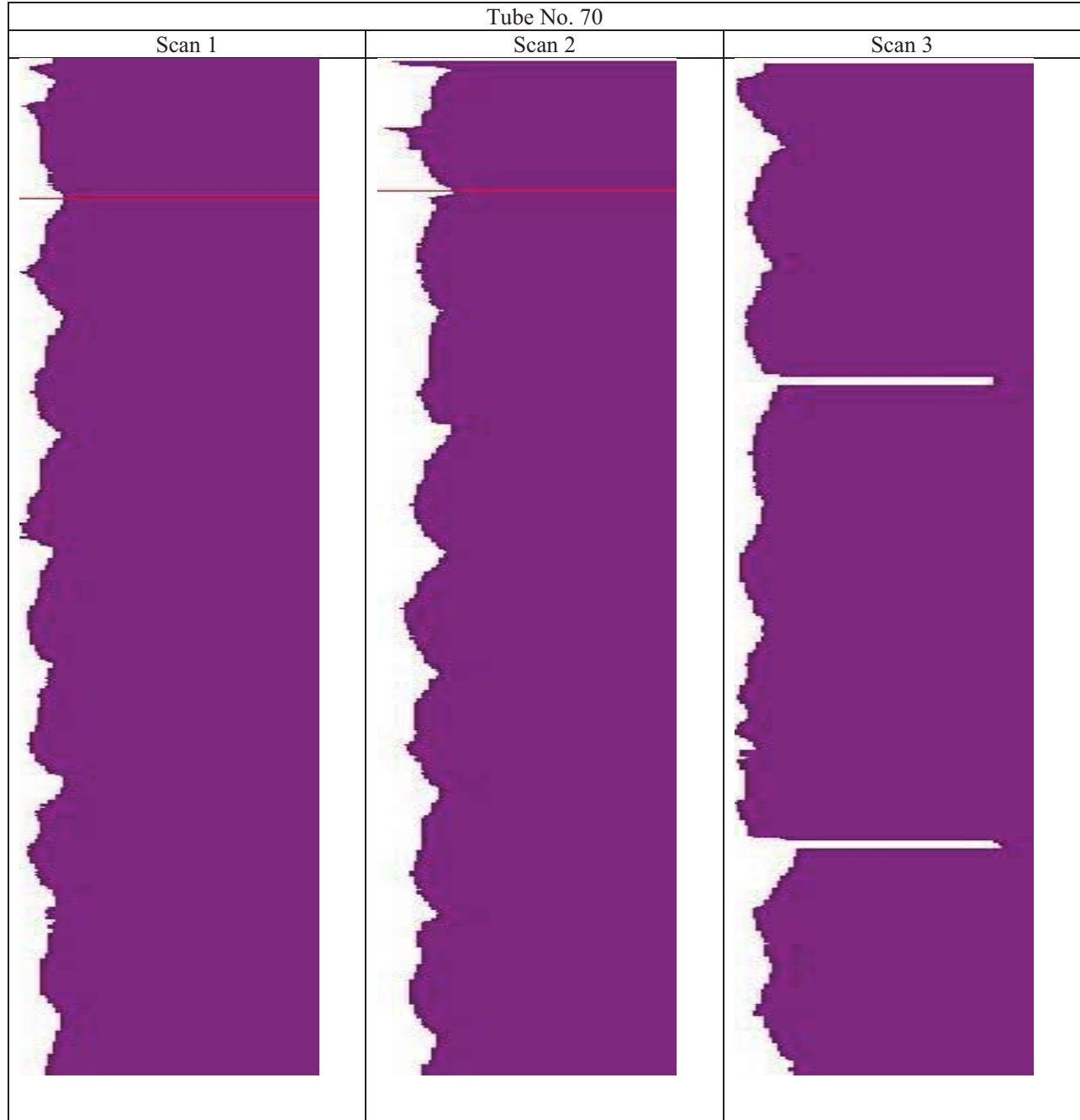
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 84 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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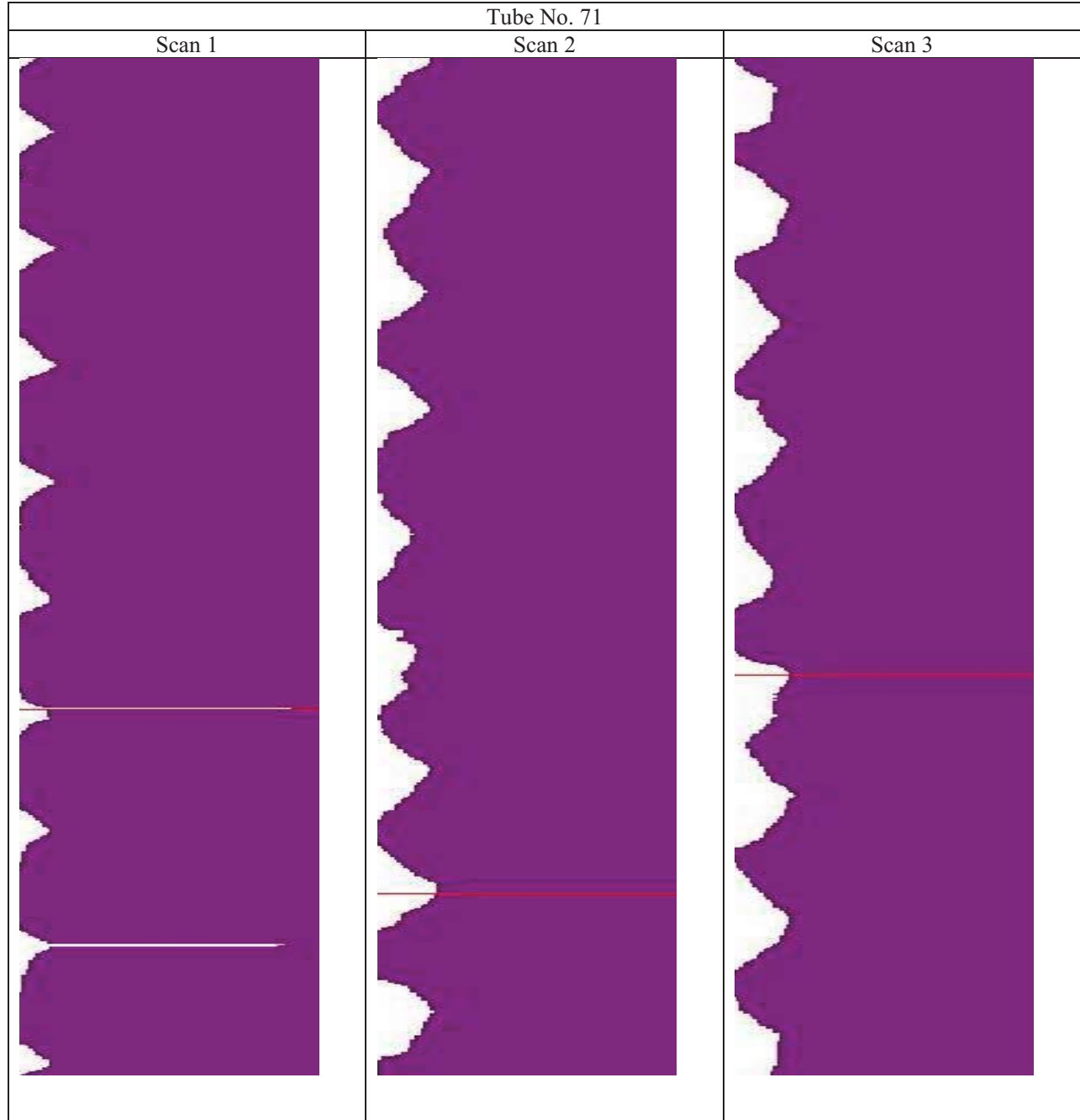
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 85 of 242



<b>Inspector(s):</b> [REDACTED] Level:II Date:21-12-1391	<b>Reported By :</b> [REDACTED] Level:II Date:21-12-1391	<b>Client :</b> [REDACTED] Date:
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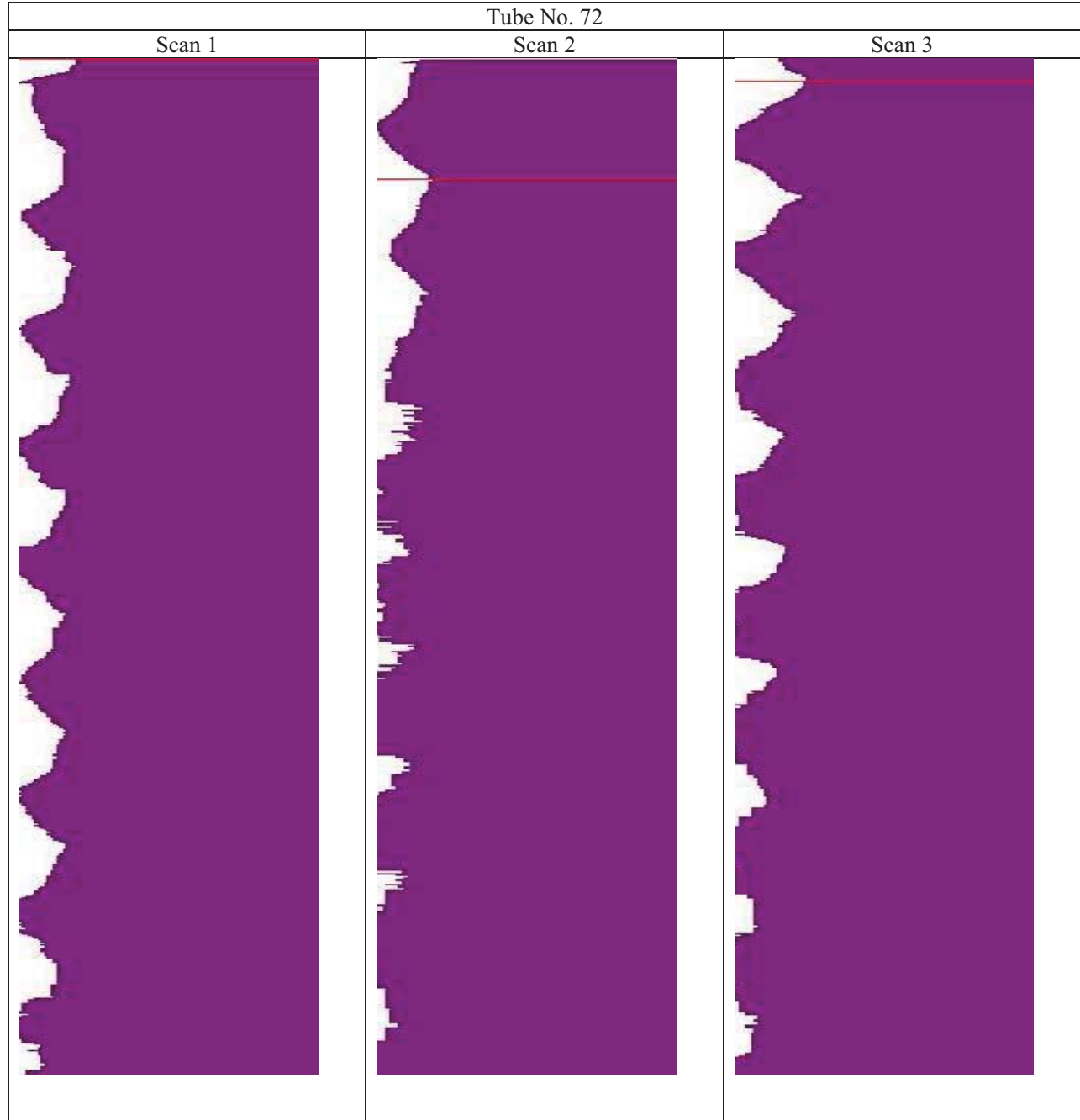
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 86 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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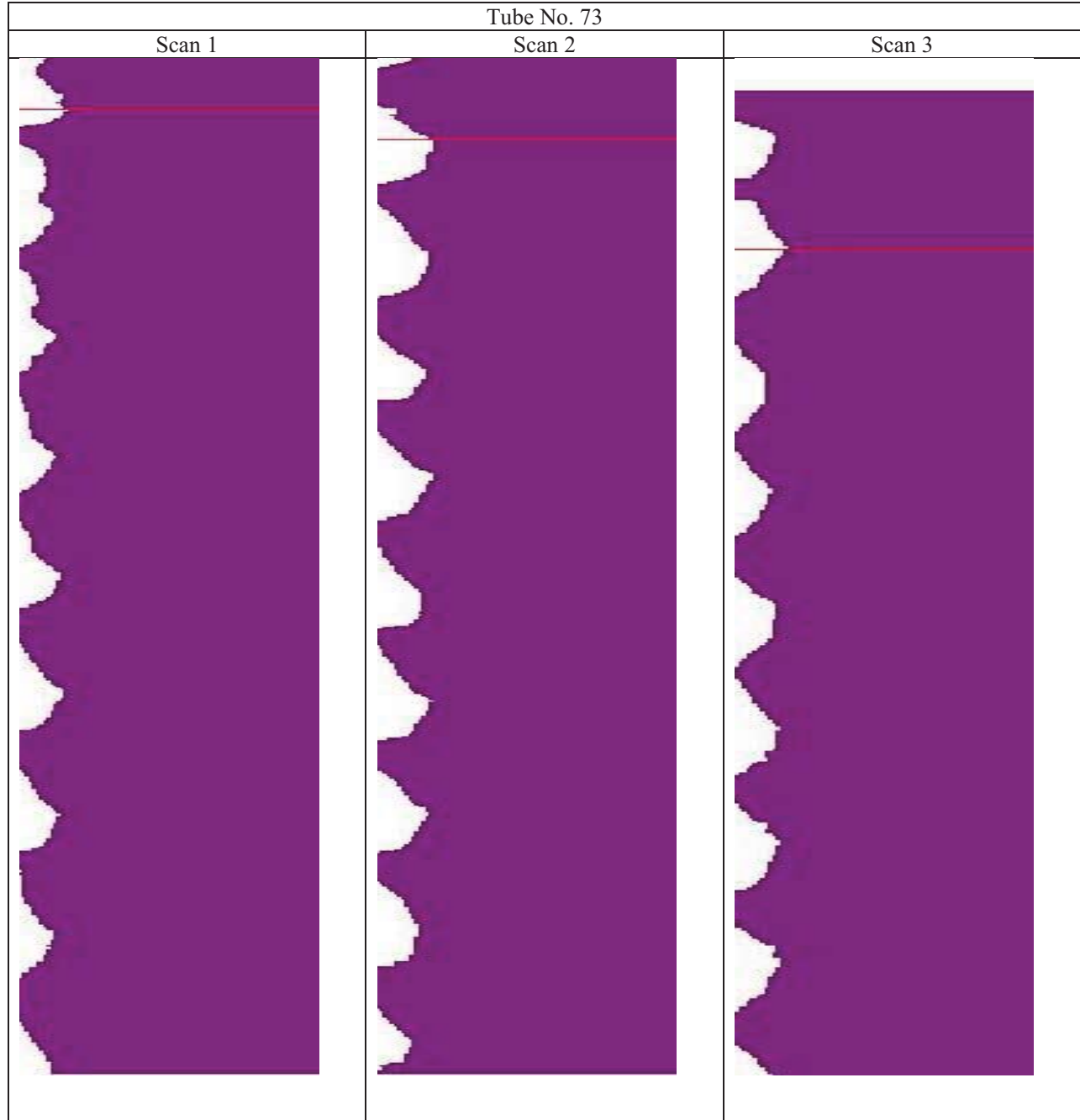
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 87 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:II</b> <b>Date:21-12-1391</b>	<b>Reported By :</b> [REDACTED] <b>Level:II</b> <b>Date:21-12-1391</b>	<b>Client :</b> [REDACTED] <b>Date:</b>
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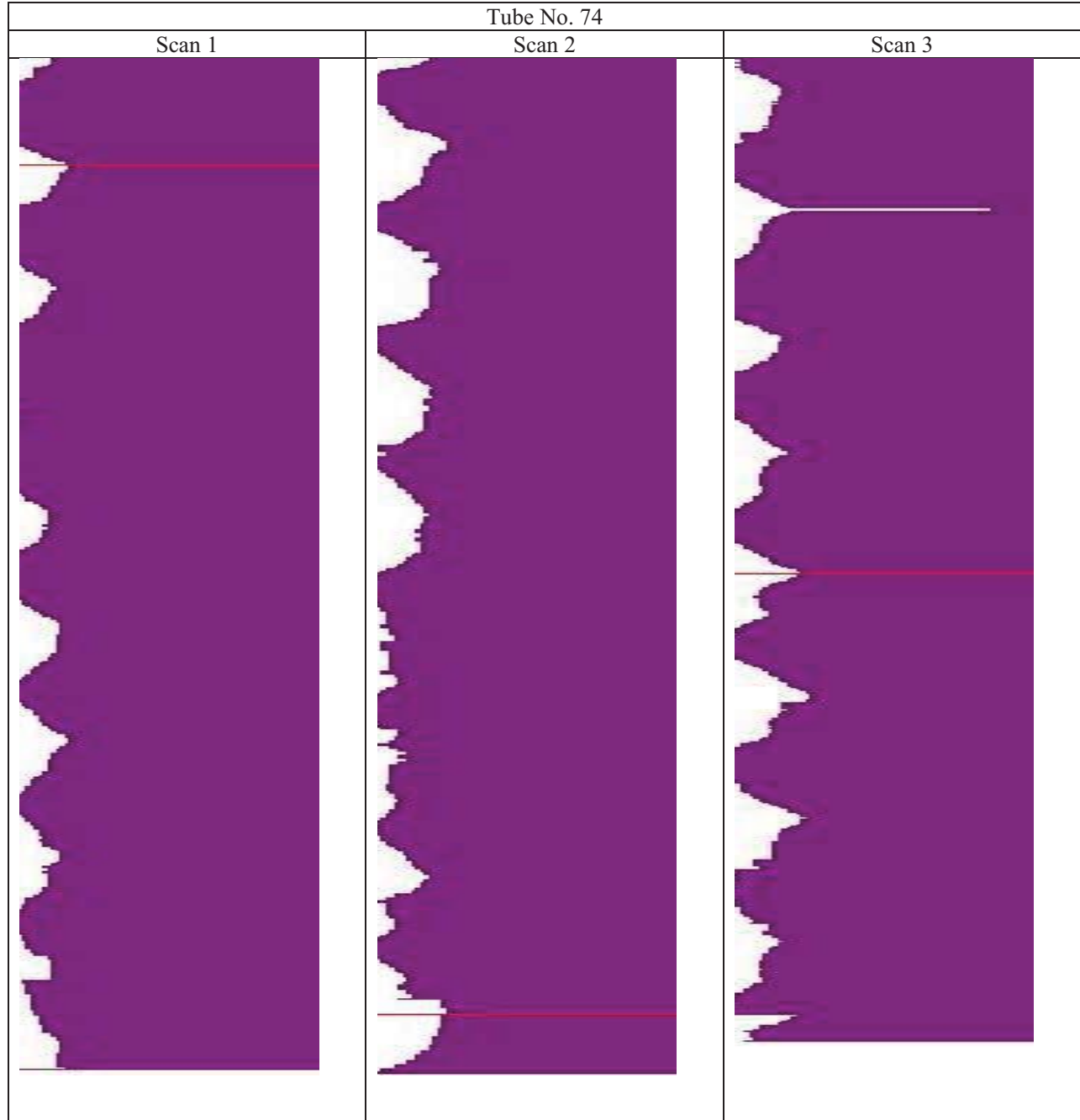
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 88 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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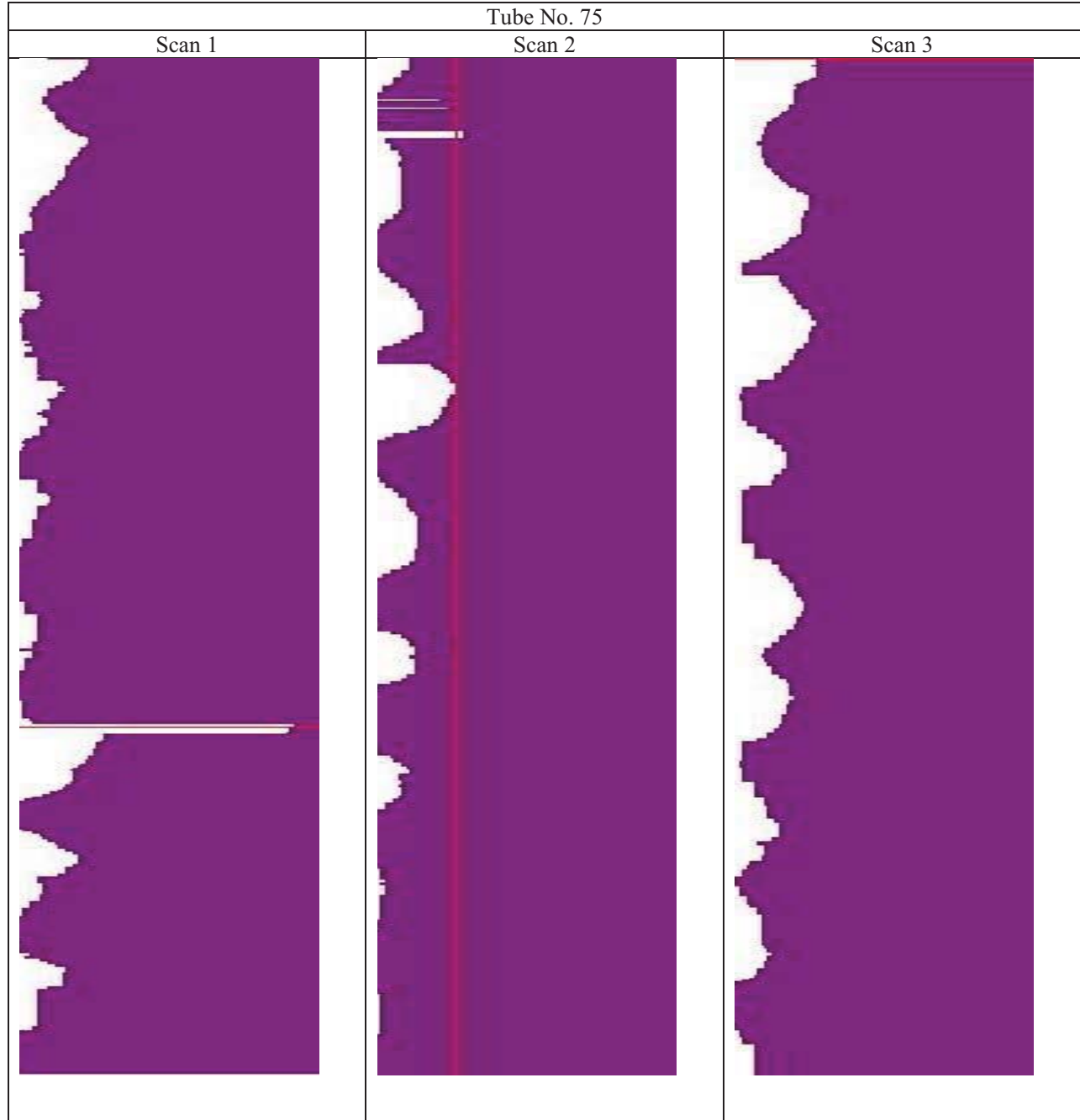
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 89 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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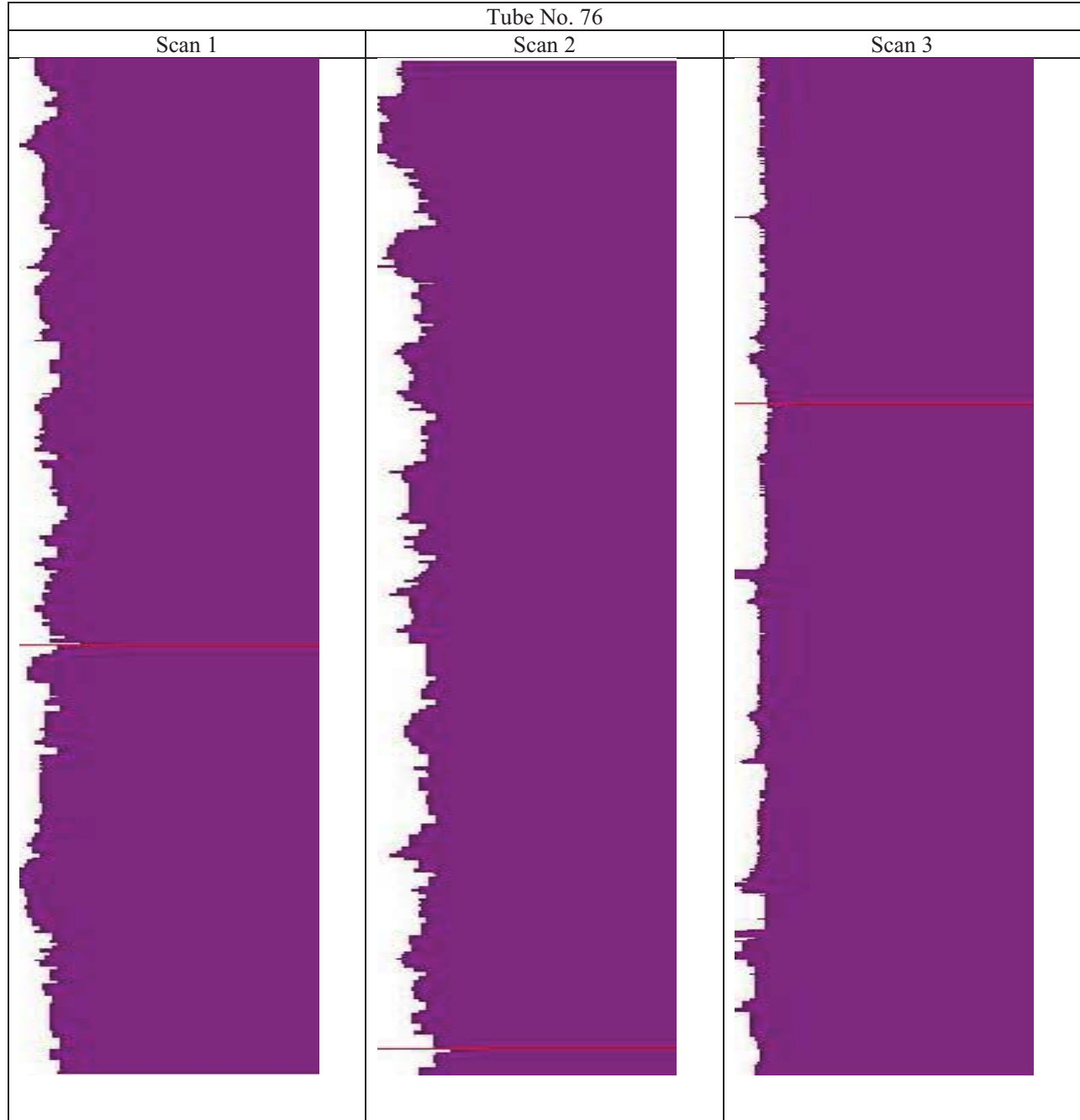
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 90 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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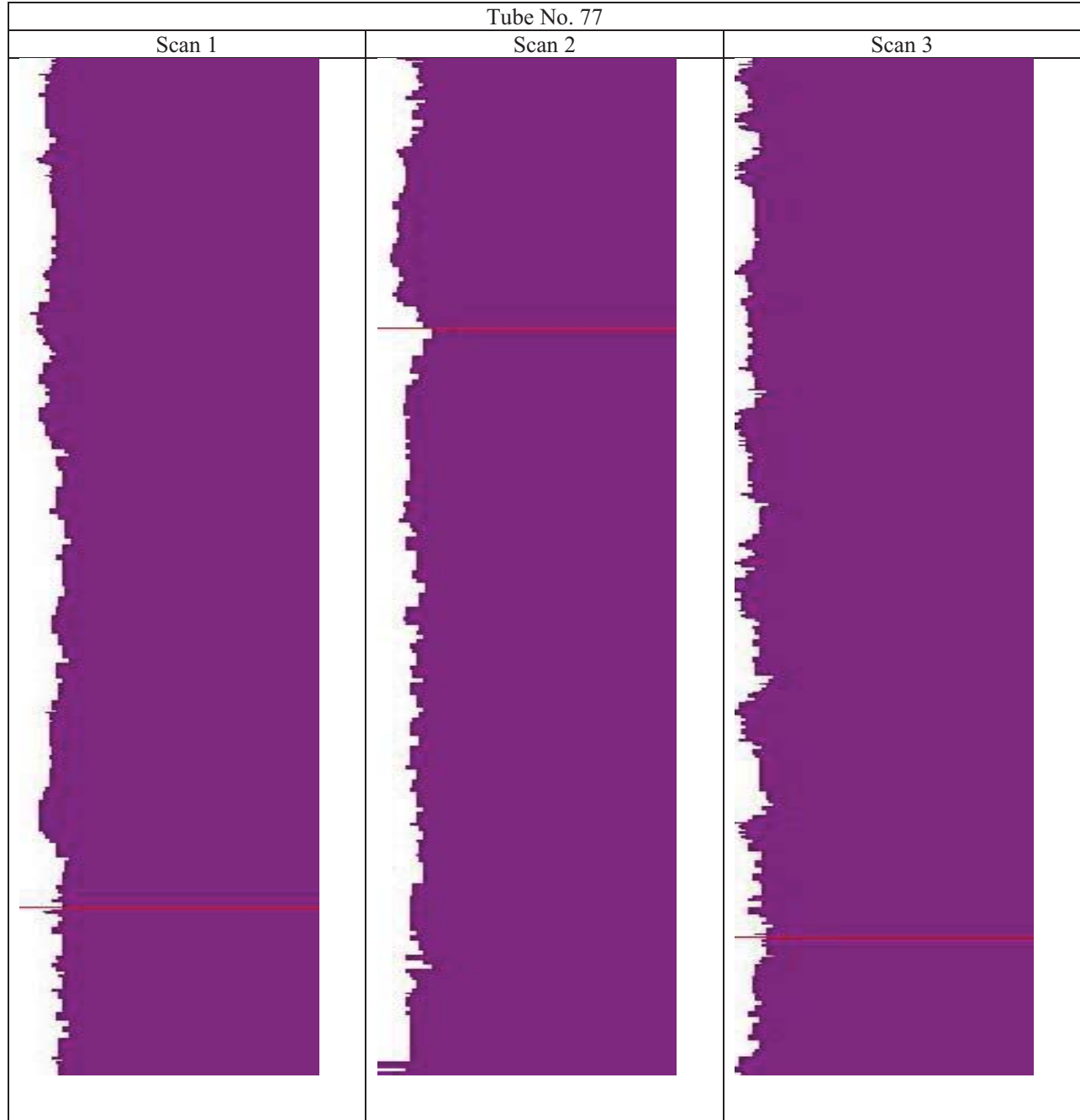
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 91 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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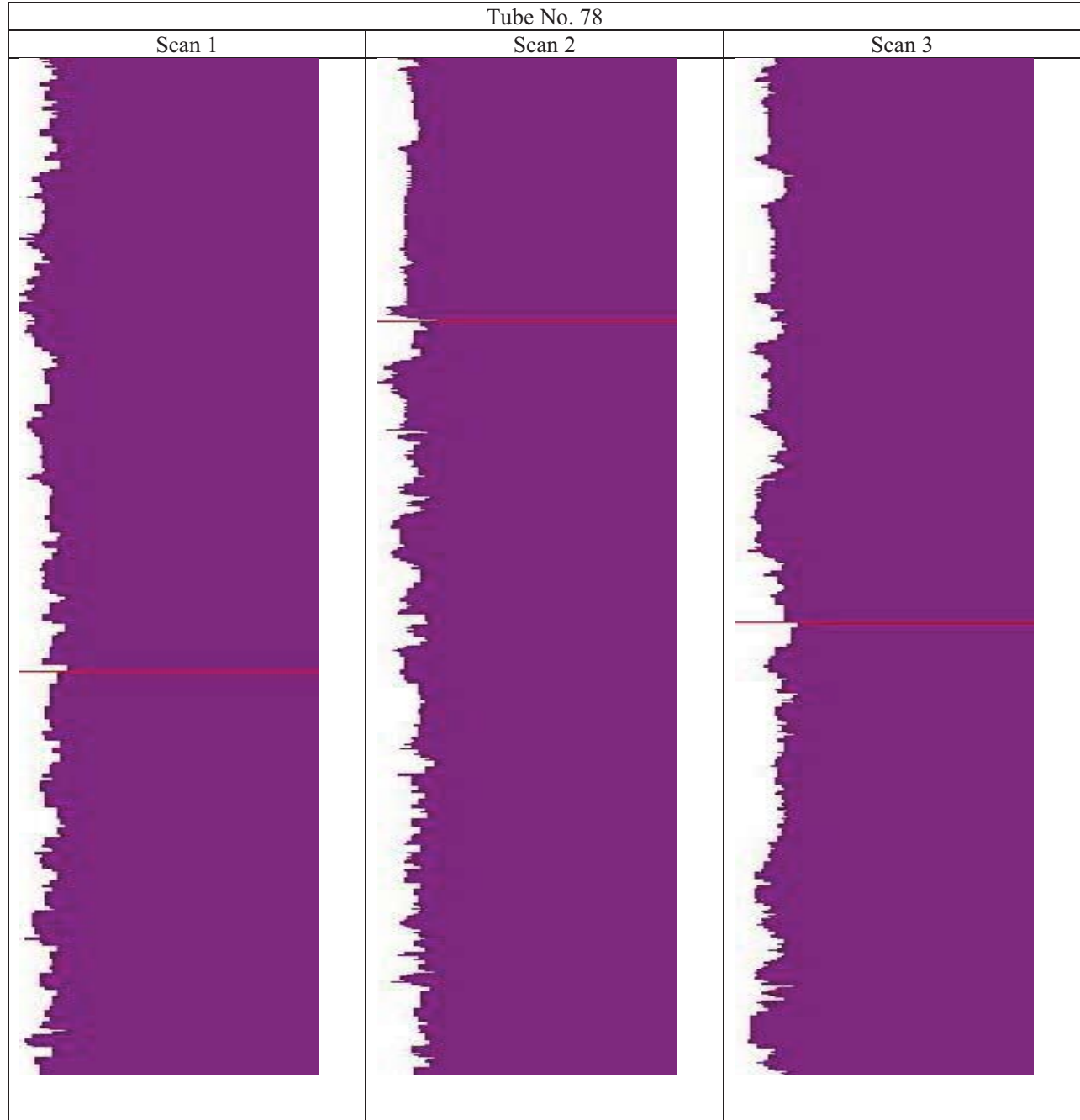
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 92 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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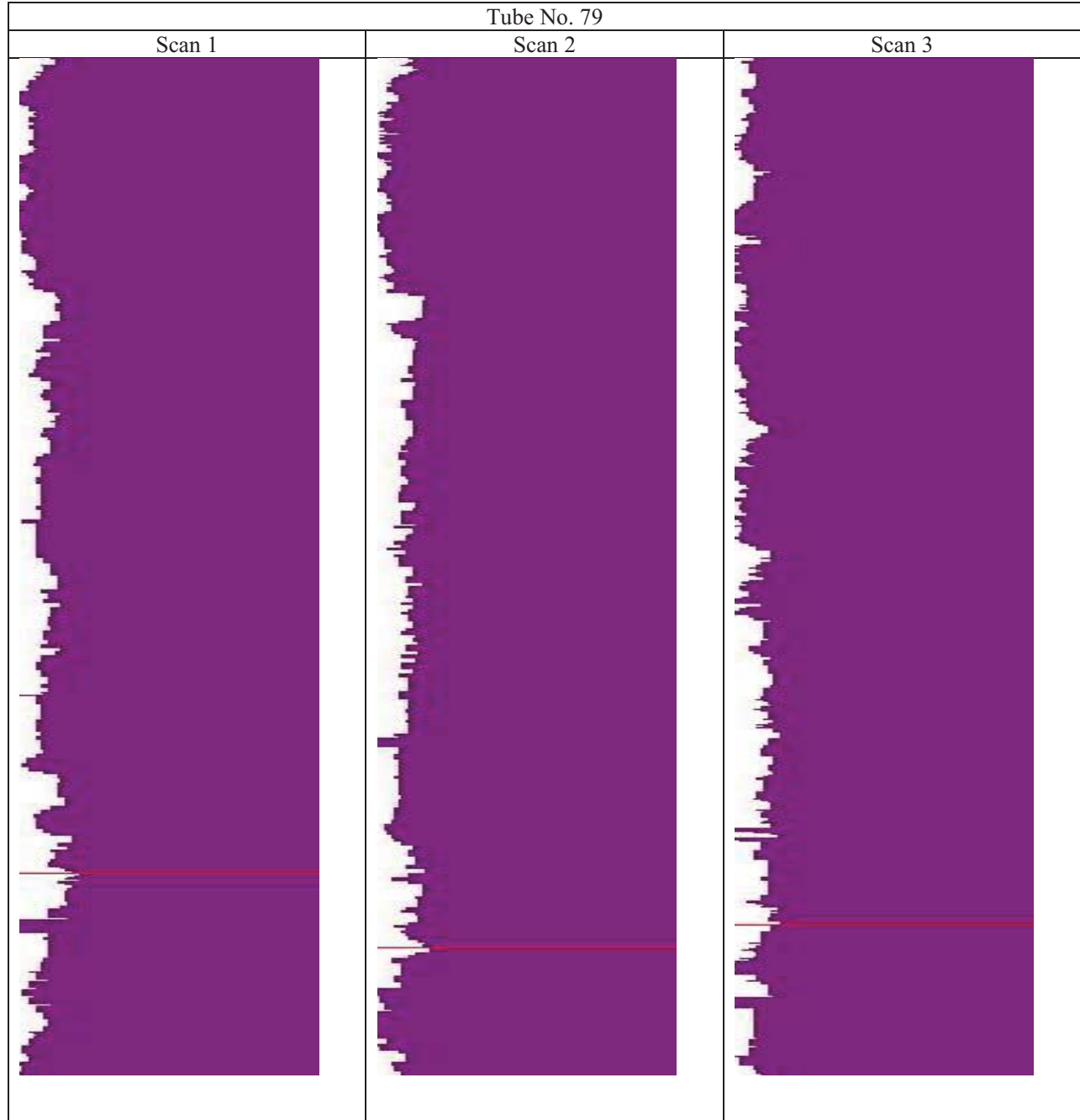


TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

<b>Client:</b> [REDACTED]	<b>Request No:</b> 700-10-7680
<b>Project:</b> Boiler Tubes Testing	<b>Report No:</b> CM-RS-MPC-001
<b>Plant/Shop:</b> [REDACTED] Petrochemical Co.	<b>Exam Date:</b> 1391-12-05 to 07
<b>Item Name:</b> Boiler A	<b>Page No.:</b> 93 of 242



<b>Inspector(s):</b> [REDACTED]	<b>Reported By :</b> [REDACTED]	<b>Client :</b> [REDACTED]
<b>Level:II</b>	<b>Level:II</b>	
<b>Date:21-12-1391</b>	<b>Date:21-12-1391</b>	<b>Date:</b>



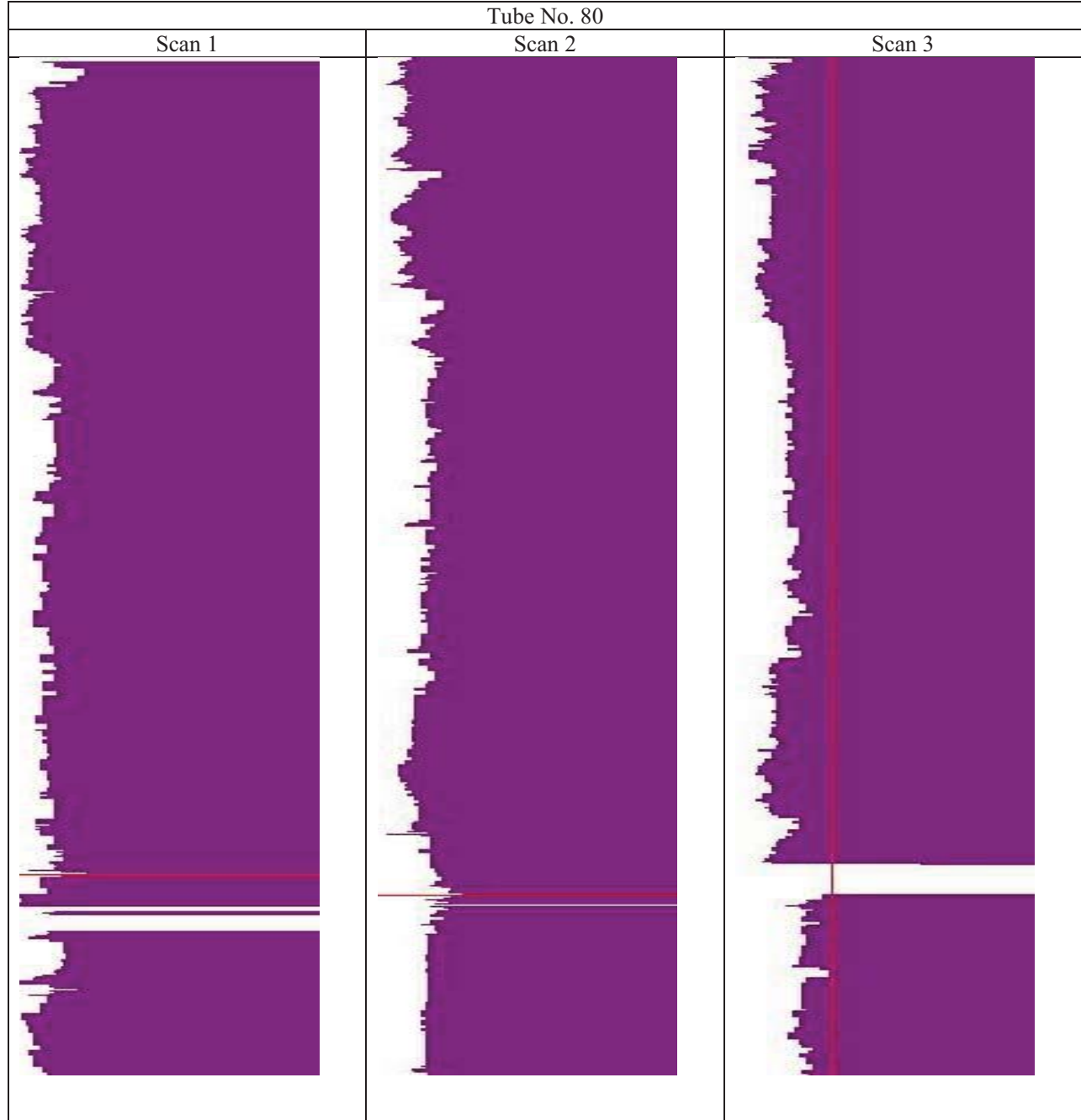
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 94 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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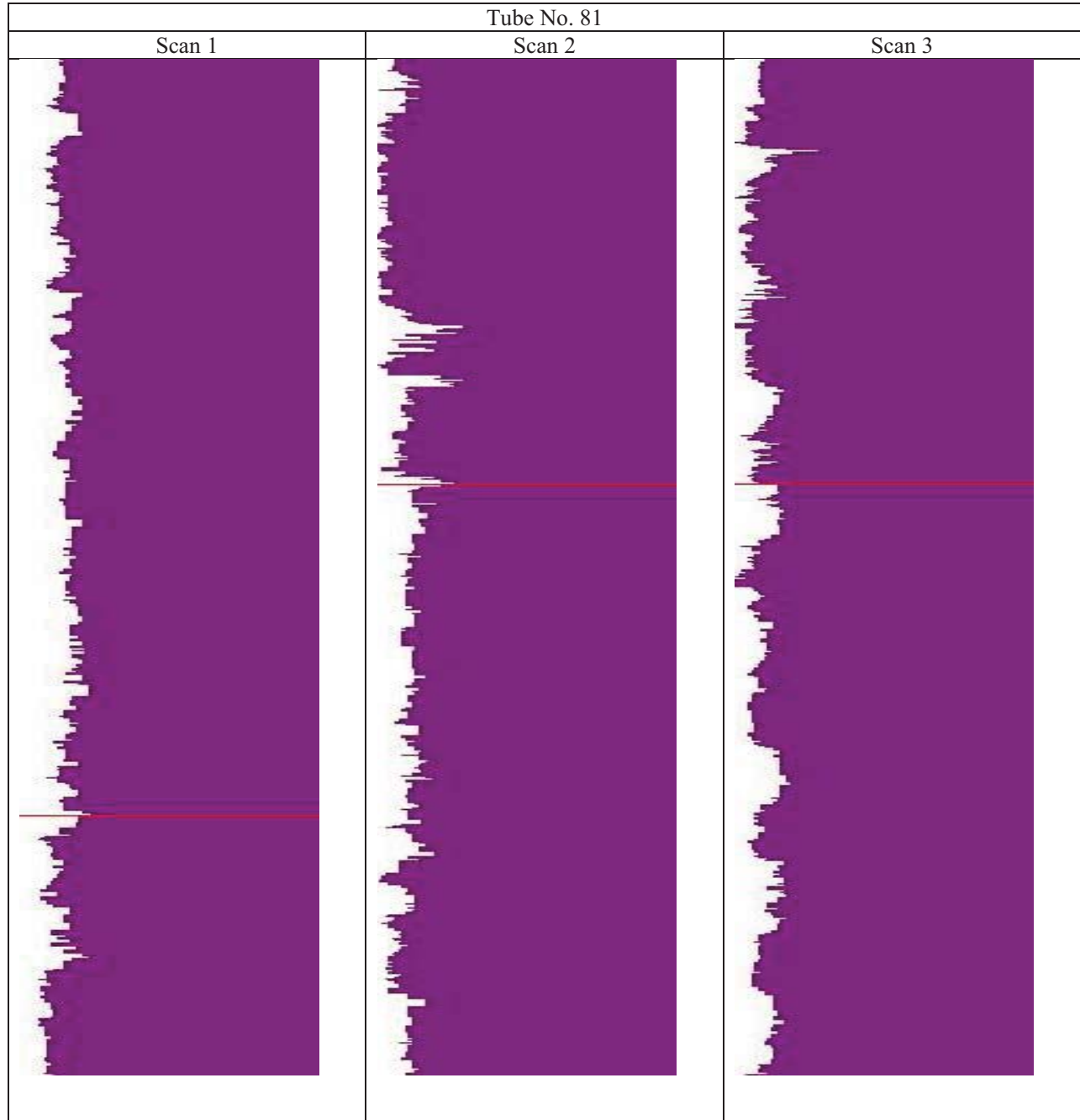
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 95 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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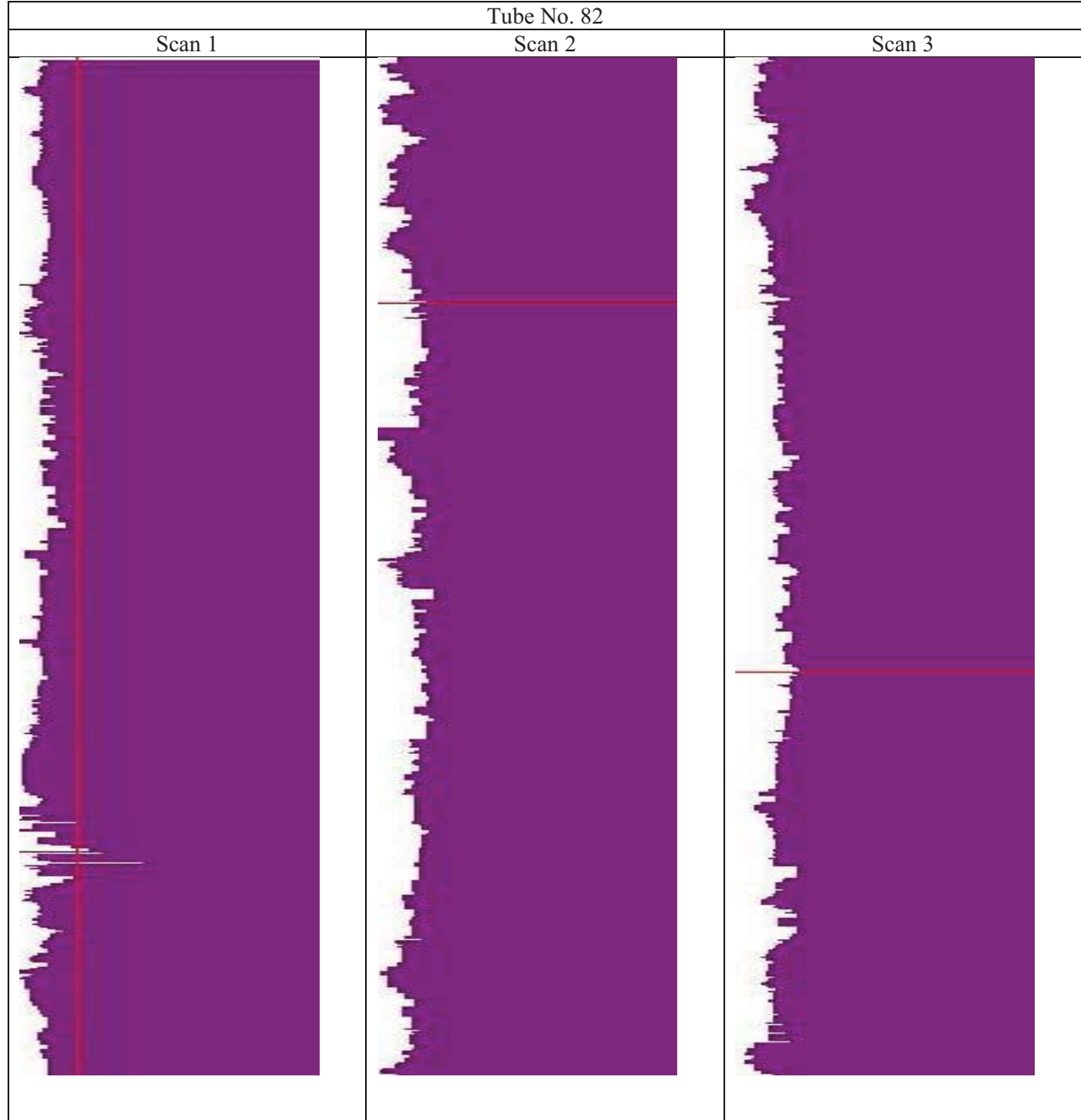
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 96 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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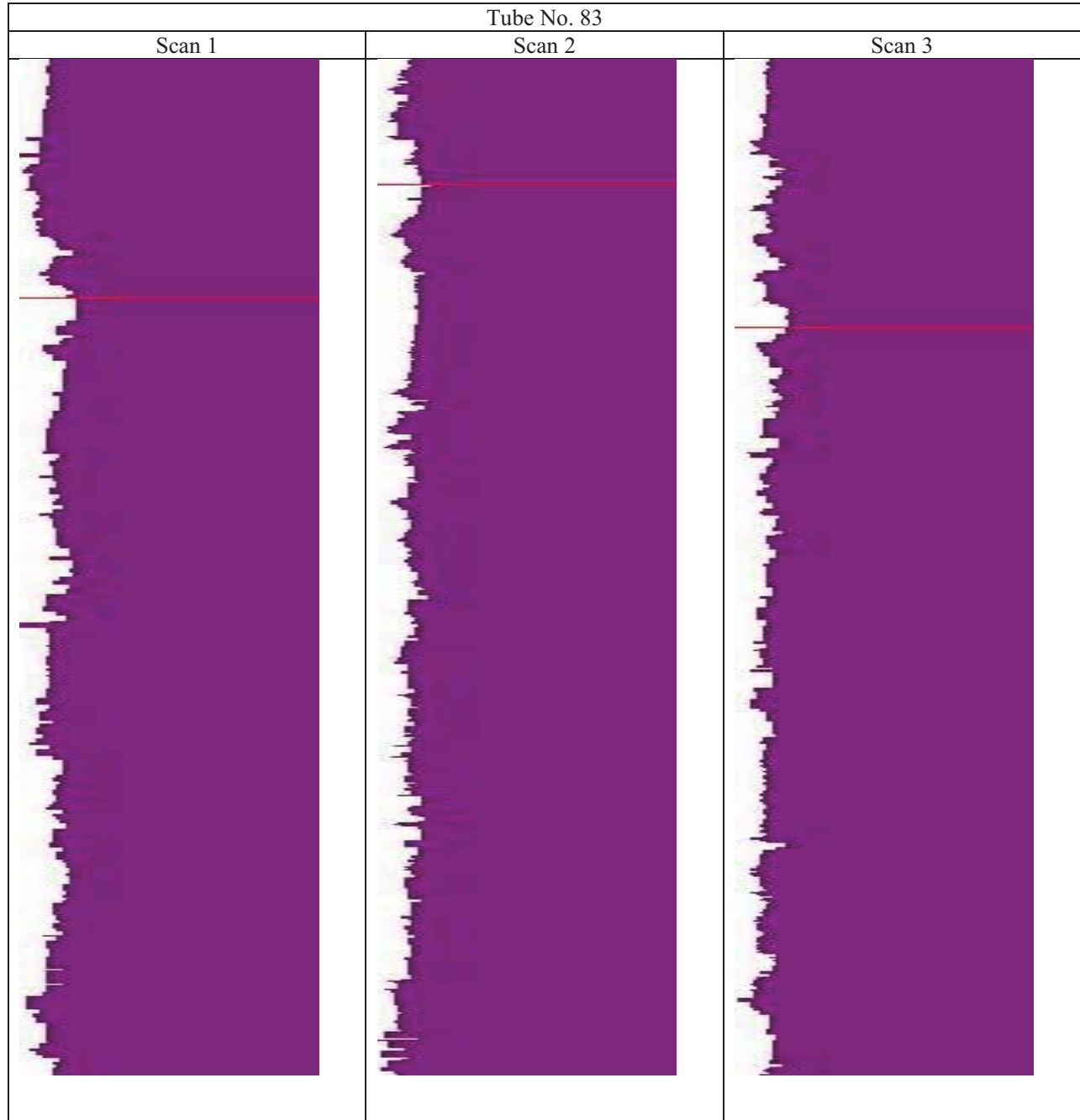
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 97 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 98 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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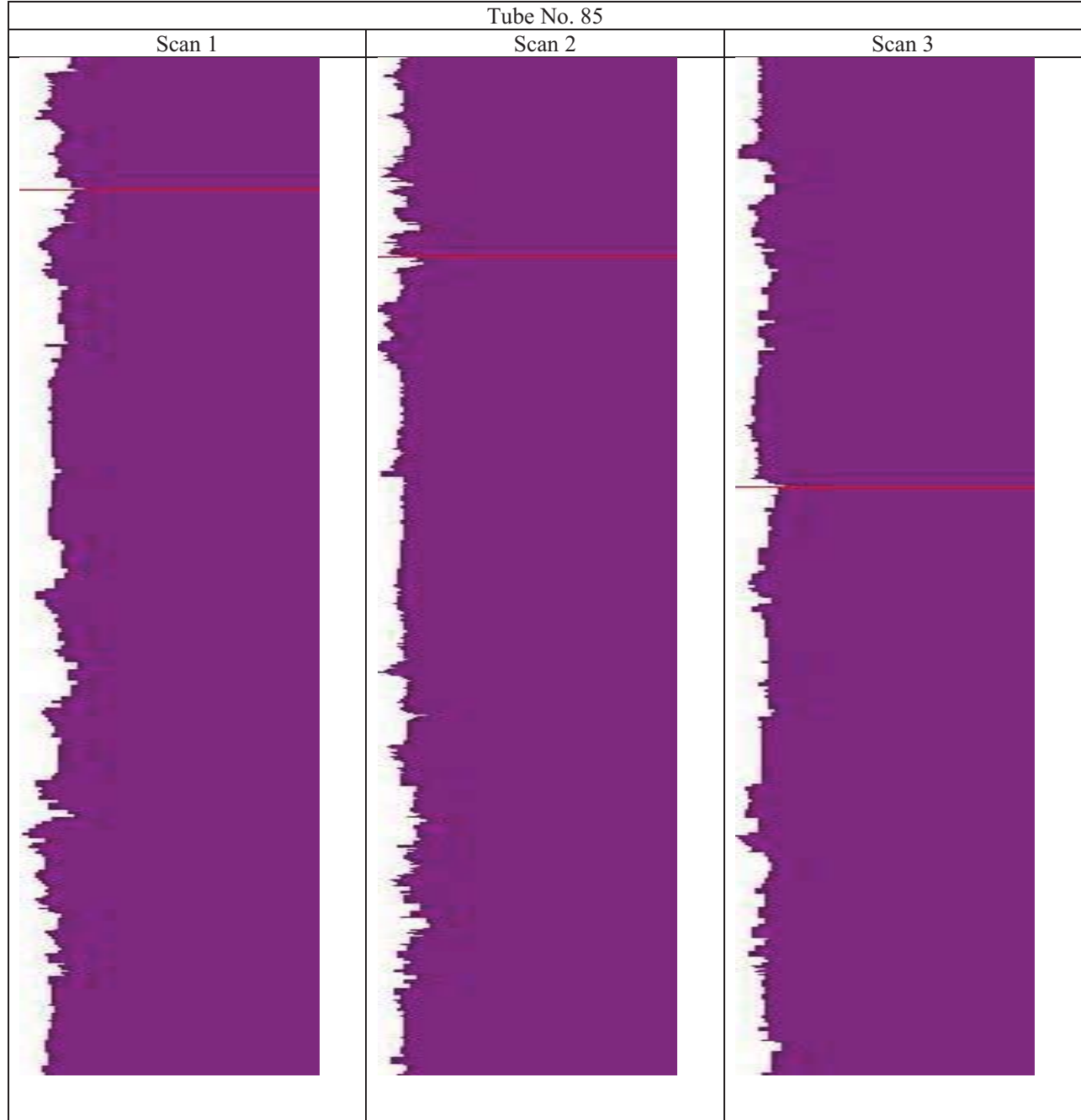
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 99 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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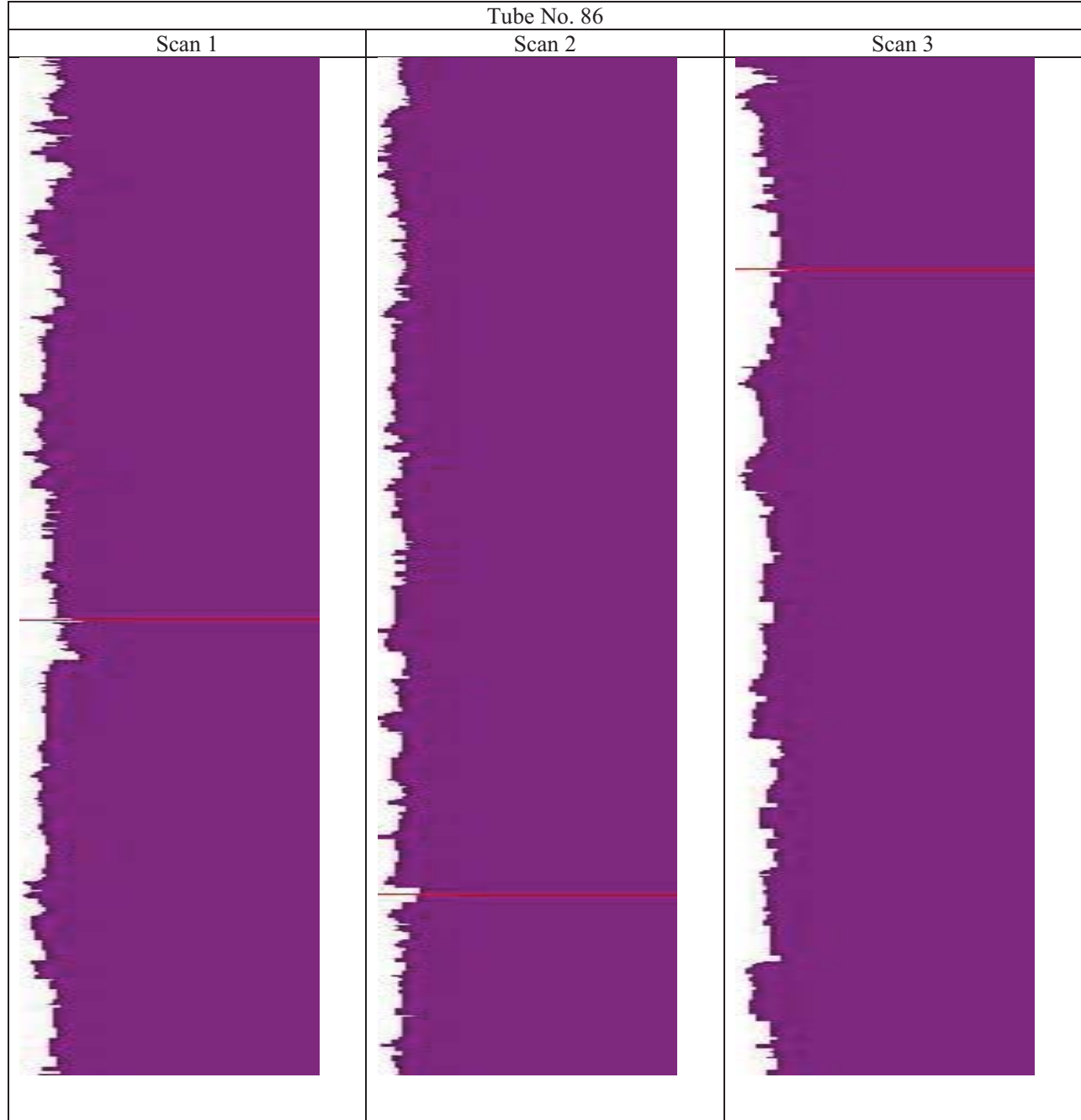
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
**Project:** Boiler Tubes Testing  
**Plant/Shop:** [REDACTED] Petrochemical Co.  
**Item Name:** Boiler A

**Request No:** 700-10-7680  
**Report No:** CM-RS-MPC-001  
**Exam Date:** 1391-12-05 to 07  
**Page No.:** 100 of 242



<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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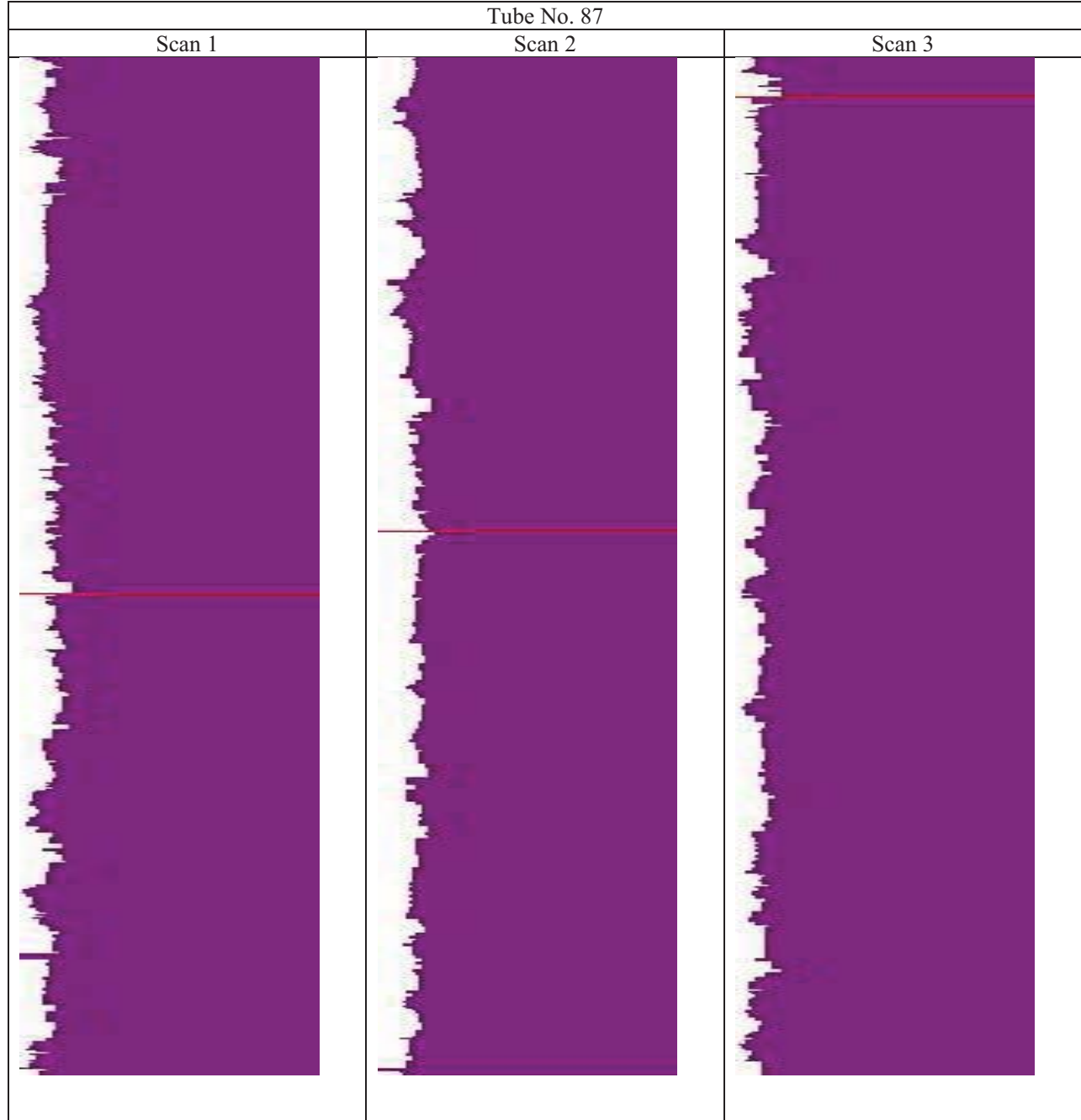
TECHINCO

# Corrosion Mapping Report

CN-GEN-RS-001.00

**Client:** [REDACTED]  
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<b>Inspector(s):</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Reported By :</b> [REDACTED] <b>Level:</b> II <b>Date:</b> 21-12-1391	<b>Client :</b> [REDACTED] <b>Date:</b>
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