

SKÝRSLA

ÞYKKTARMÆLING OG SEGULSVIÐSSKÖNNUM Á OLÍUGEYMI 3 Í VESTMANNAEYJUM

ULTRASONIC THICKNESS & MAGNETIC FLUX LEAKAGE MEASUREMENT



UTM SKÝRSLA NR: TM-MFL-244066-GEYMIR-3-T2025-OKT-2024

OKTÓBER 2024

FASTANÚMER: T2025

MÆLINGAR FRAMKVÆMDAR , STAÐUR: VESTMANNAEYJAR

EIGANDANÚMER: 3

Framkvæmd mælinga

Þykktarmælingu og segulsviðsskönnun framkvæmdi Gísli A. Guðmundsson, Andre Sandö hjá HD ehf í Kópavogi. Upplýsingar varðandi aðstæður, notkun geyma o.fl. veitti Gunnar Kr. Sigmundsson hjá Ólíudreifingu ehf.

Framkvæmd þykktarmælinga, segulsviðskönnunar og sjónskoðunar á geyminum fóru fram í október mánuði 2024. Geymirinn er standandi stálgeymir og var botn hans mældur ásamt neðsta umfari.

Þykktarmælingar

Varðandi staðsetningu mælistaða og niðurstöður þykktarmælinga á geyminum er hér vísað á meðfylgjandi teikningar (1 stk.). Allar gólfplötur eru mældar á svipaðan hátt þ.e.a.s. miðast er við að hafa mælinguna í miðri plötu, aðeins var tekin einn punktur í plötu. Teknir voru fleiri punktar í kverkplötum þar sem aðeins var hægt að skanna handvirkt. (ekki kortlagt sérstaklega)

Segulsviðsmælingar

Gólfskanninn er kvarðaður á 6mm plötu, 8, 10, 14 og 18mm göt eru boruð í plötuna þar til 3mm efnisþykkt er eftir. Hugbúnaðurinn er stilltur þar til götin gefa rautt/appelsínugult merki á skjá. Gólfskannanum er rennt yfir alla fleti sem hann kemst yfir. Svelgir, rör eða ójafn botn geta gert gólfskannanum ókleift til mælingar.

Sjónskoðun

Farið er um allan geyminn með sterkt ljós og því haldið rétt við yfirborðið svo pyttir og misfellur sjáist betur. Kverksuða geymis er skoðuð sérstaklega vel ásamt öðrum suðum innanvert í geymi. Þá eru svelgir einnig skoðaðir mjög vel ásamt þeim stöðum þar sem gólfskanni kemst ekki.

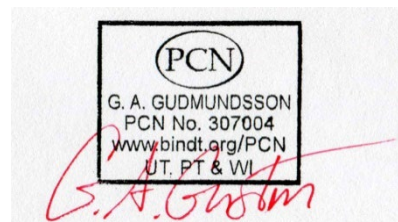
Niðurstöður

Gólf geymis er málað að innan og hluti af neðsta umfarinu. Geymir er í góðu ásigkomulagi að innanverðu, Neðsta umfar lítur vel út

Sjá teikningar og ljósmyndir. Eigandi geymis var látin vita. Sjá meðf. niðurstöður mælingar. Öll uppgefin mál á teikningum eru í mm.

Akureyri, 01 nóvember 2024

Virðingarfyllst.



Gísli Arnar Guðmundsson

STAÐFESTING ÞYKKTARMÆLINGAR OG SKÖNNUNAR

SKÝRSLA NR.: TM-MFL-244066-GEYMIR-3-T2025-OKT-2024
DAGS. FRAMKV.: 15 október 2024
DAGS. SKÝRSLU: 01 nóvember 2024
EIGANDI GEYMIS: Olíudreifing ehf
REKSTRARAÐILI: Olíudreifing ehf
STAÐUR Vestmannaeyjar
HVAÐ MÆLT: Geymir 3
FASTANÚMER: T2025
EIGENDANÚMER: 3
SMÍÐAÁR: 1970
MÆLIBÚNAÐUR: MFE MK IV Tank Floor Scanner. Serial No.MK4-0016-A-TFS
Olympus 45MG. 5 Mhz Serial nr: 130177407, skoðað og vottað þann 07.09.2023
Stilliklossar (Calibration blocks): 3mm, 6mm 9mm 12mm og 18mm.
Meðf. er vottorð mælibúnaðar (Statement of Calibration).

FRAMKV. MÆLINGA: Gísli Arnar Guðmundsson, Andre Sandö.

SKÍRTEINI (CERTIFICATE): Ultrasonic Inspection – Level II
PCN 307004. E021S6242877
01/04/2022 - 31/03/2027
Ultrasonic Inspection – Level II
PCN 347274. E022S62428731
01/12/2022 - 30/11/2027

Hér staðfestist að framkvæmdar hafa verið þykktarmælingar á ofangreindum geymi, í eigu Olíudreifingar ehf, að ósk rekstraraðila.

Niðurstöður mælinga eru skráðar á meðfylgjandi blaðsíðu (teikning) og eru öll mál í mm. Alls eru þar skráðar 70 niðurstöður.

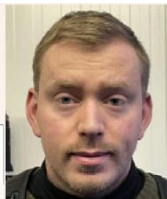
Þykktarmælir og nemar tengdir búnaðinum voru sannreyndir og prófaðir með mælingum á stilliklossum fyrir, á meðan og að loknum mælingum.

Skoðað/dags./af: 28/10/2024

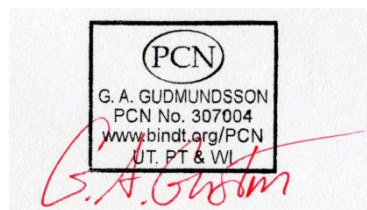
PCN NUMBER:
347274

ISSUE DATE:
08/02/2023

Andre Sandö

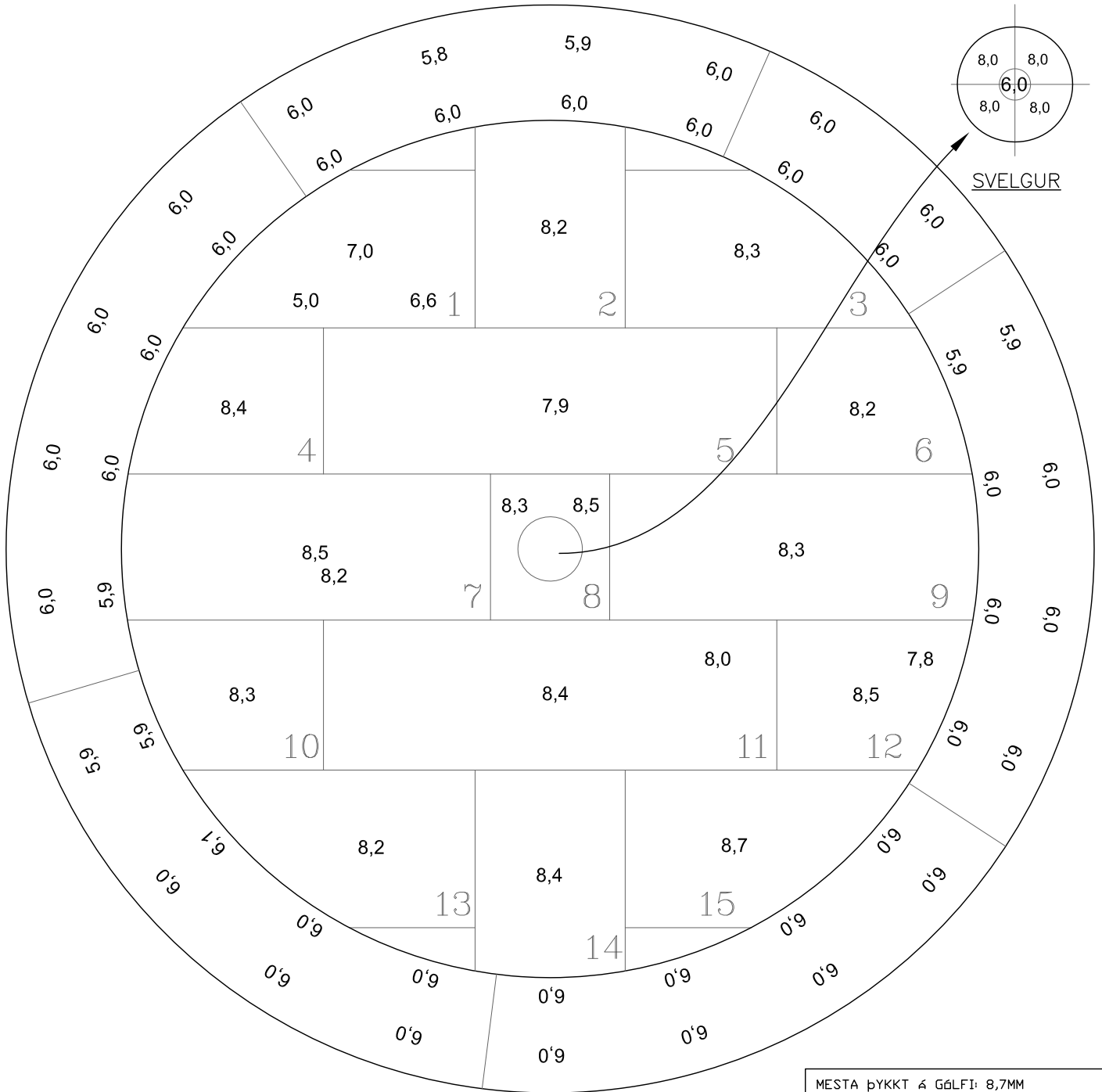


Samþykkt/dags./af: 01/11/2024



ÞYKKTARMÆLING & SKÖNNUN

GEYMIR - NEDSTA UMFAR & GÓLF



MESTA ÞYKKT Á GÓLFI: 8,7MM
MINNSTA ÞYKKT Á GÓLFI: 5,0MM
MESTA ÞYKKT Á FYRSTA UMFARI: 6,1MM
MINNSTA ÞYKKT Á FYRSTA UMFARI: 5,8MM
MESTA ÞYKKT Á SVELG/BRUNN: 8,0MM
MINNSTA ÞYKKT Á SVELG/BRUNN: 6,0MM

TEIKNING NR. 1 AF 1 TEIKNINGU

HD	ÞYKKTARMÆLINGAR (UTM)
	REKSTRARAÐILI: OLÍUDREIFING EHF
	TILVÍSUN OKKAR: 244066
	MÆLINGAR FRAMKV: 15 OKT 2024
	STAÐUR: VESTMANNAEYJAR
	HLUTUR MÆLDUR: OLÍUGEYMIR 3
	FASTANÚMER: T2025

TEIKNING ER EKKI Í MÆLIKVARÐA

Myndir frá geymi 3



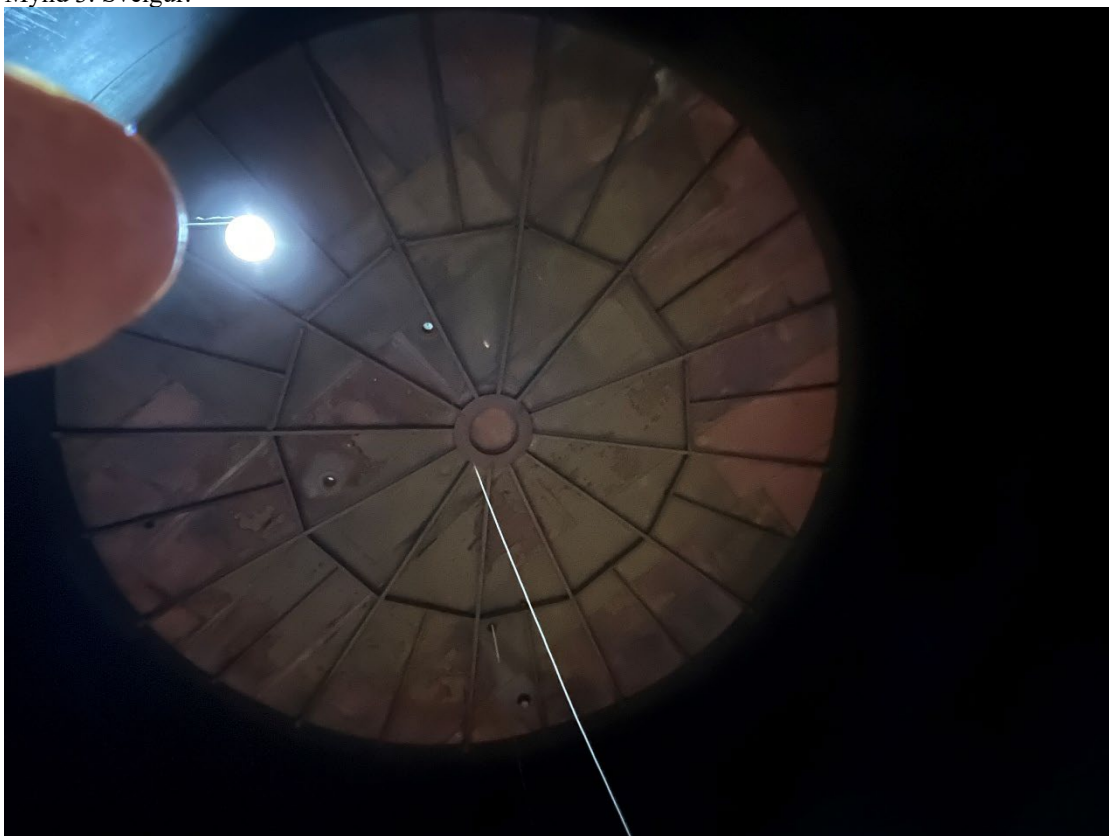
Mynd 1. Skönnun geymis.



Mynd 2. Geymir er í afar góðu ástandi.



Mynd 3. Svelgur.



Mynd 4. Þak geymis.



Mynd 5. Kverk innvert í geymi lítur vel út.



Mynd 6. Kverk geymis utanvert lítur vel út.



Mynd 7.



Mynd 8.



**ENTERPRISES
INCORPORATED**

[[[Service Company Logo Here]]]

MFE Scan Survey Report



SKÝRSLA NR: TM-MFL-244066-GEYMIR-3-T2025-OKT-2024

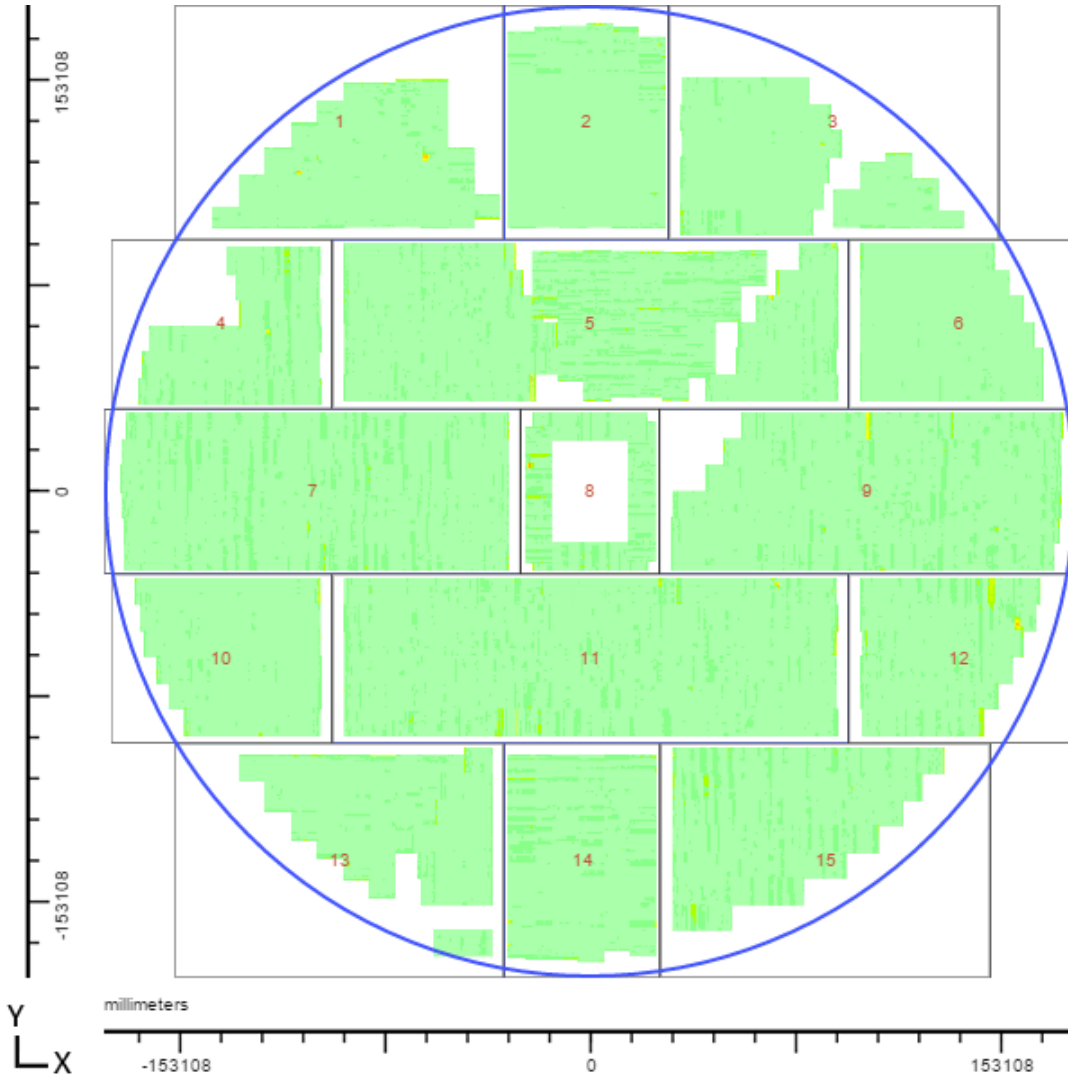
Umsjónaraðili: Olíudreifing
Unnið af: Gísli Arnar Guðmundsson
Fyrirtæki: HD ehf

Dags.skoðanna: 15 Október 2024
Dags.skýrslu: 1 Nóvember 2024
Umbeðið af: Gunnar Kr Sigmundsson





Tank Overview





Track Coverage Overview

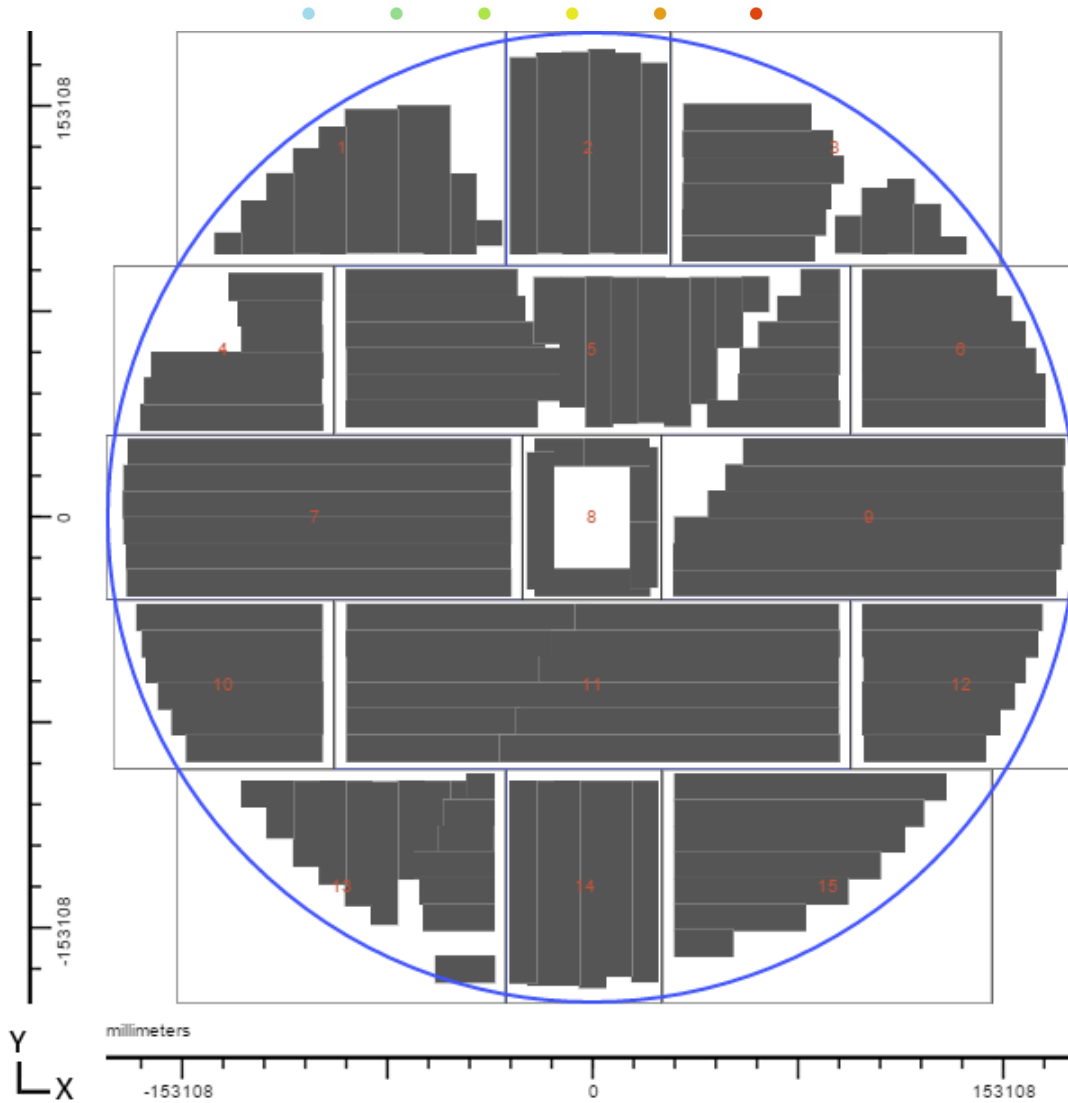




Plate Number 1



Max Signal: 60%

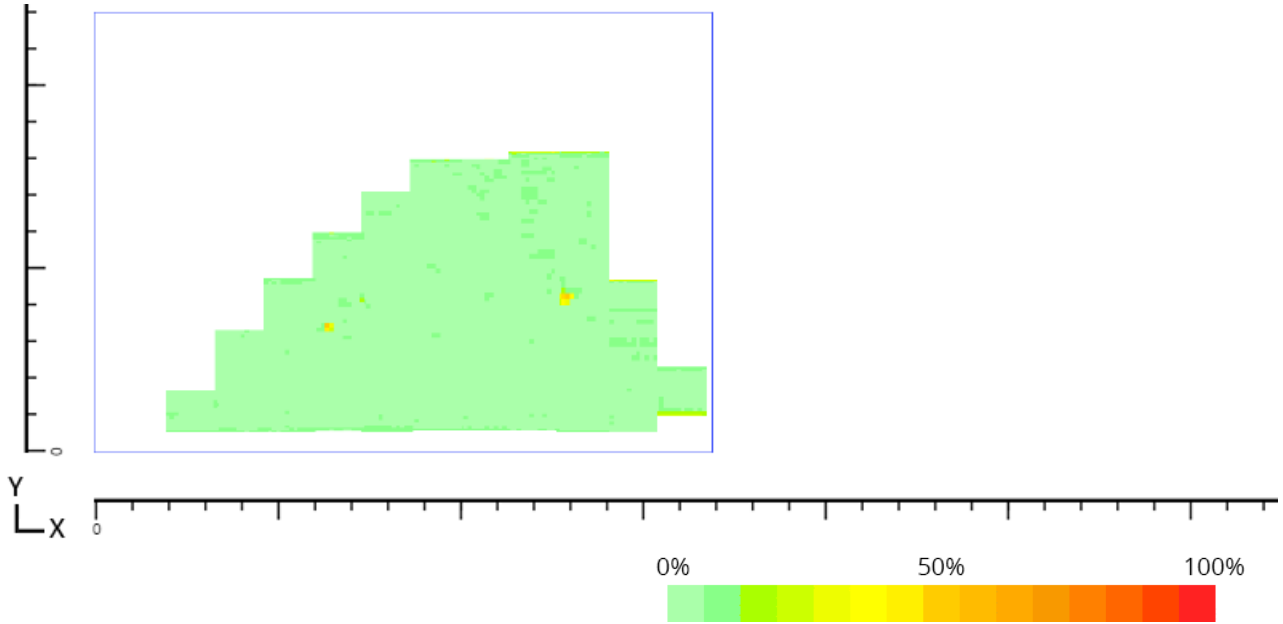
Length (X):
380.01cm

Width (Y): 270cm

Thickness: 9,52
mm

Selected Signal Range: 5 – 200 mV

Recorded Measurements



Scanned Track Outlines

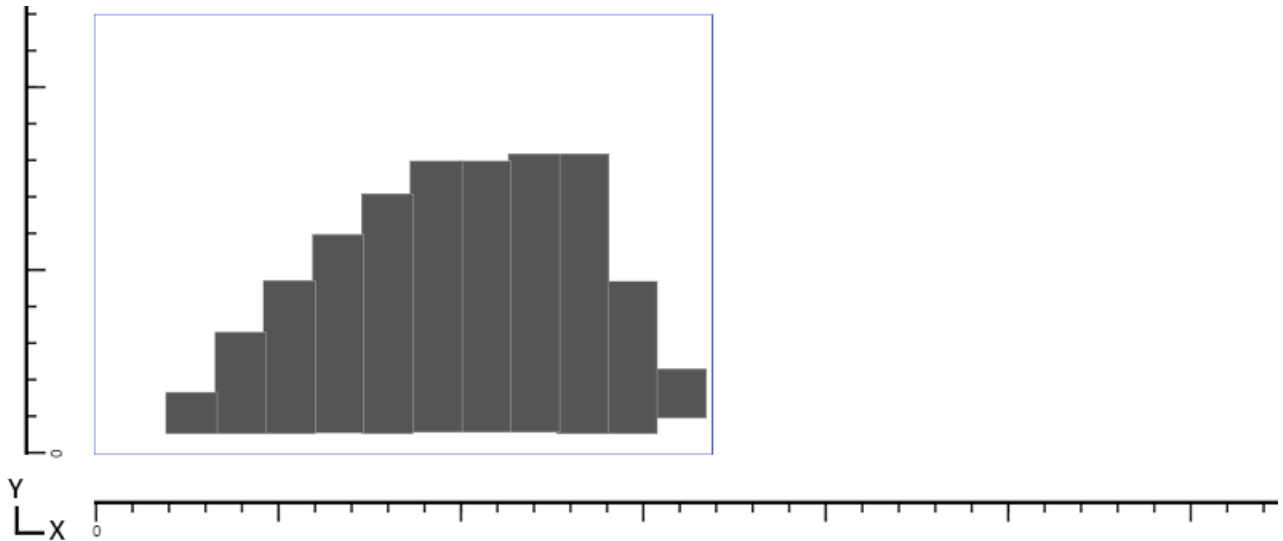




Plate Number 2



Max Signal: 33.3%

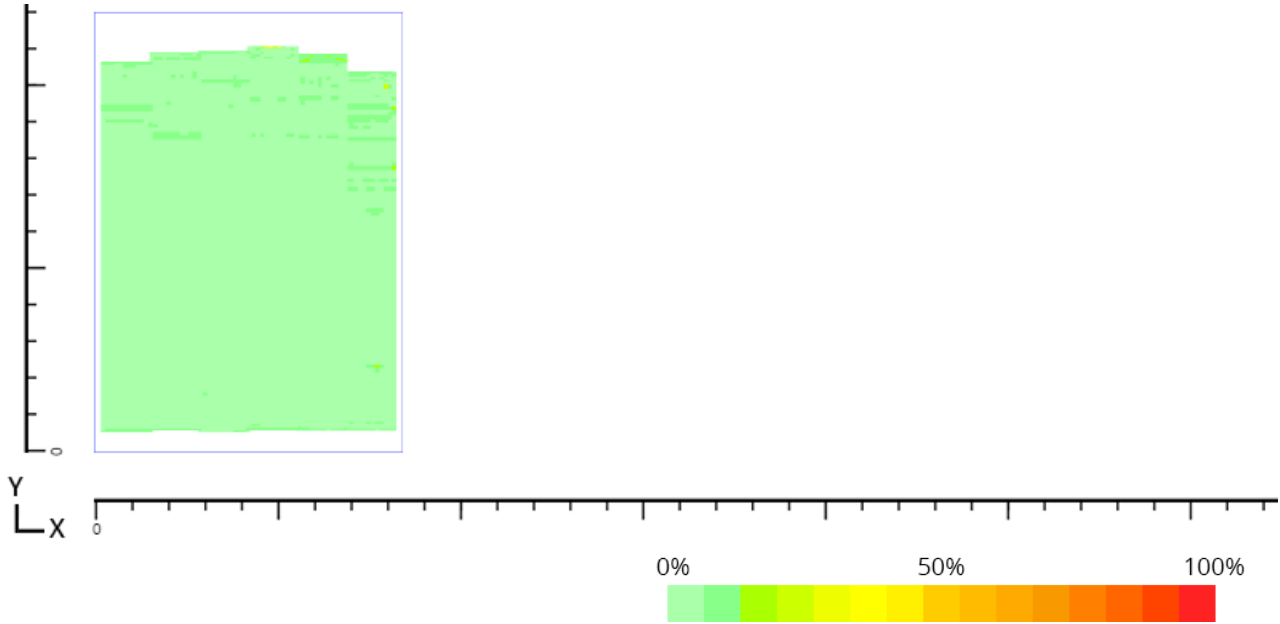
Length (X):
189.99cm

Width (Y): 270cm

**Thickness: 9,52
mm**

Selected Signal Range: 5 – 200 mV

Recorded Measurements



Scanned Track Outlines

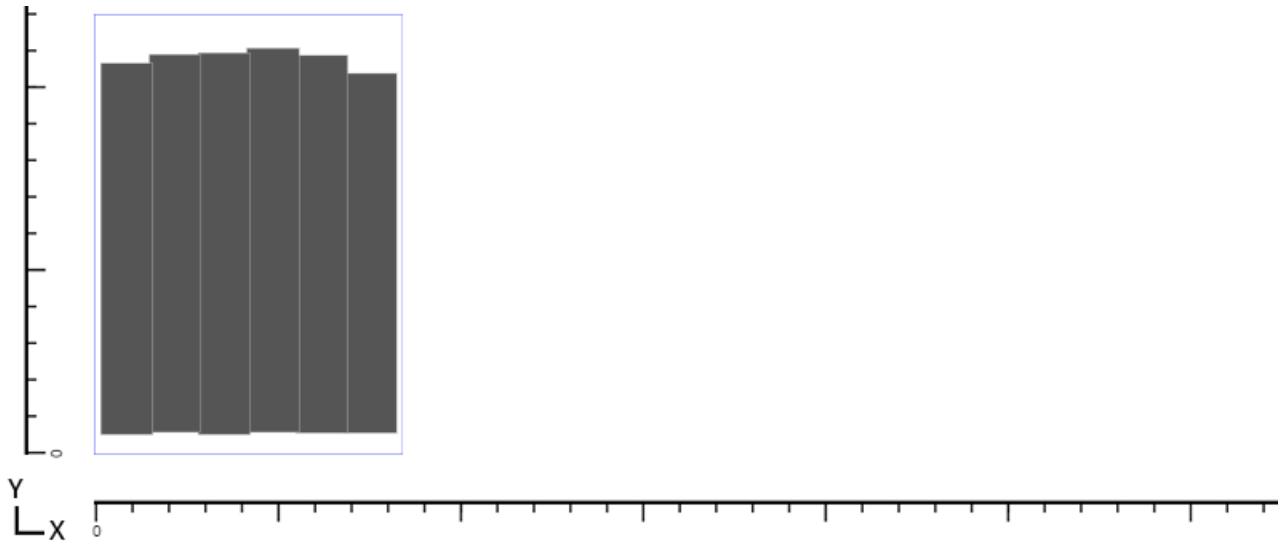




Plate Number 3



Max Signal: 26.7%

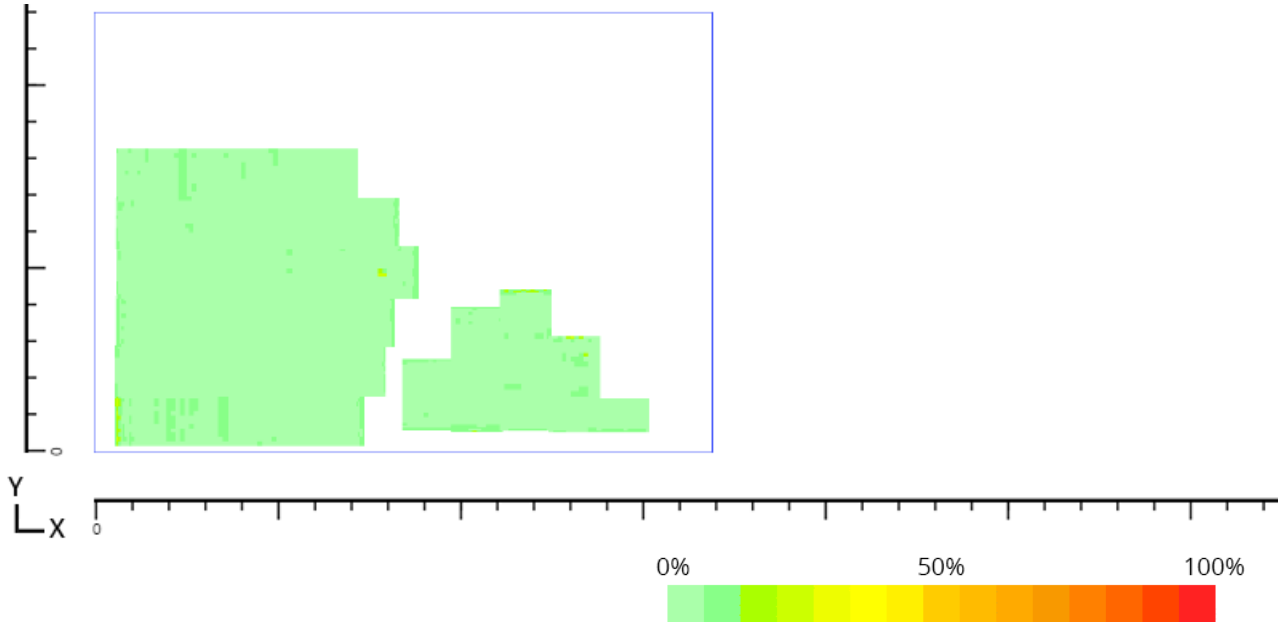
**Length (X):
380.01cm**

Width (Y): 270cm

**Thickness: 9,52
mm**

Selected Signal Range: 5 – 200 mV

Recorded Measurements



Scanned Track Outlines

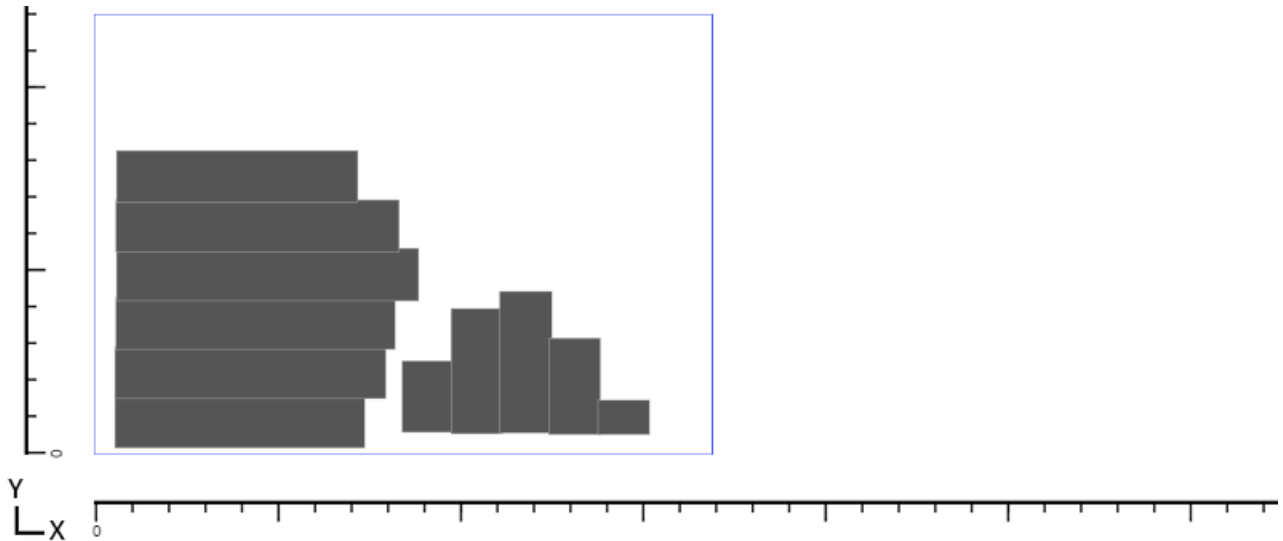




Plate Number 4



Max Signal: 33.3%

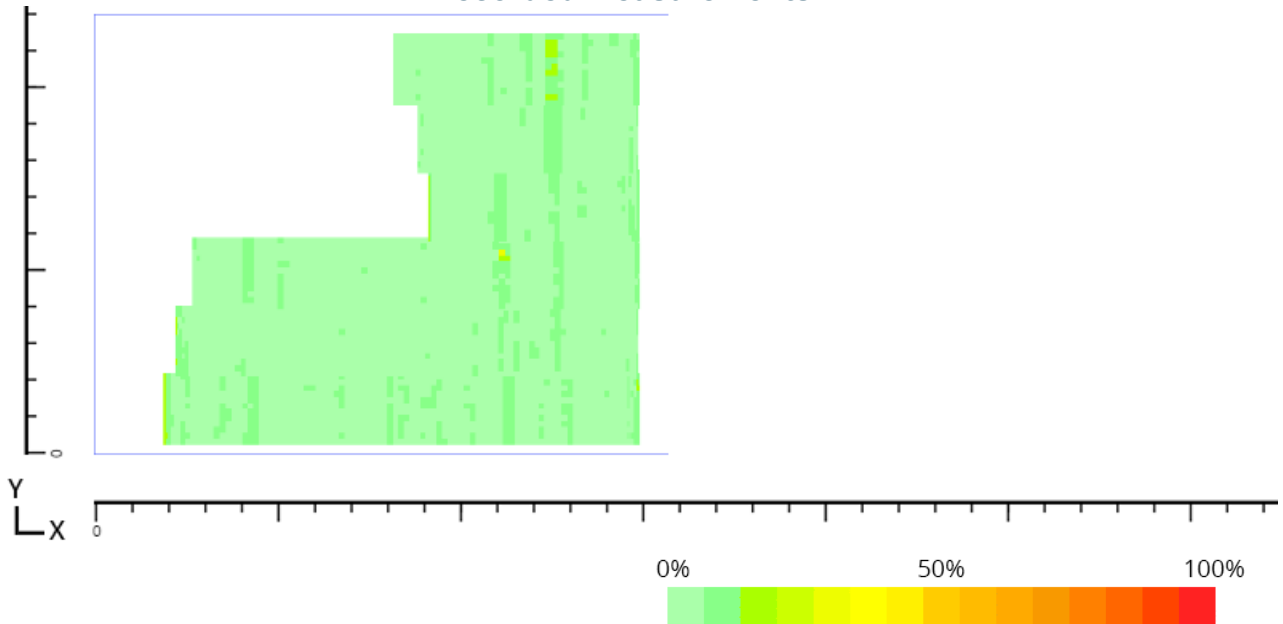
Length (X):
254.99cm

Width (Y): 195cm

**Thickness: 9,52
mm**

Selected Signal Range: 5 – 200 mV

Recorded Measurements



Scanned Track Outlines

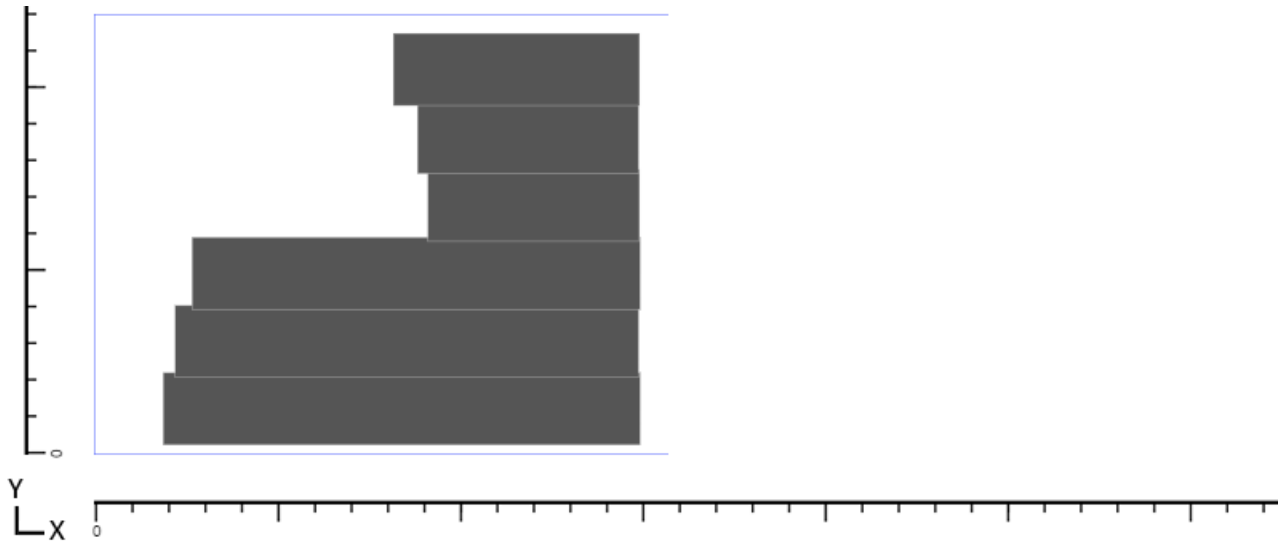




Plate Number 5



Max Signal: 60%

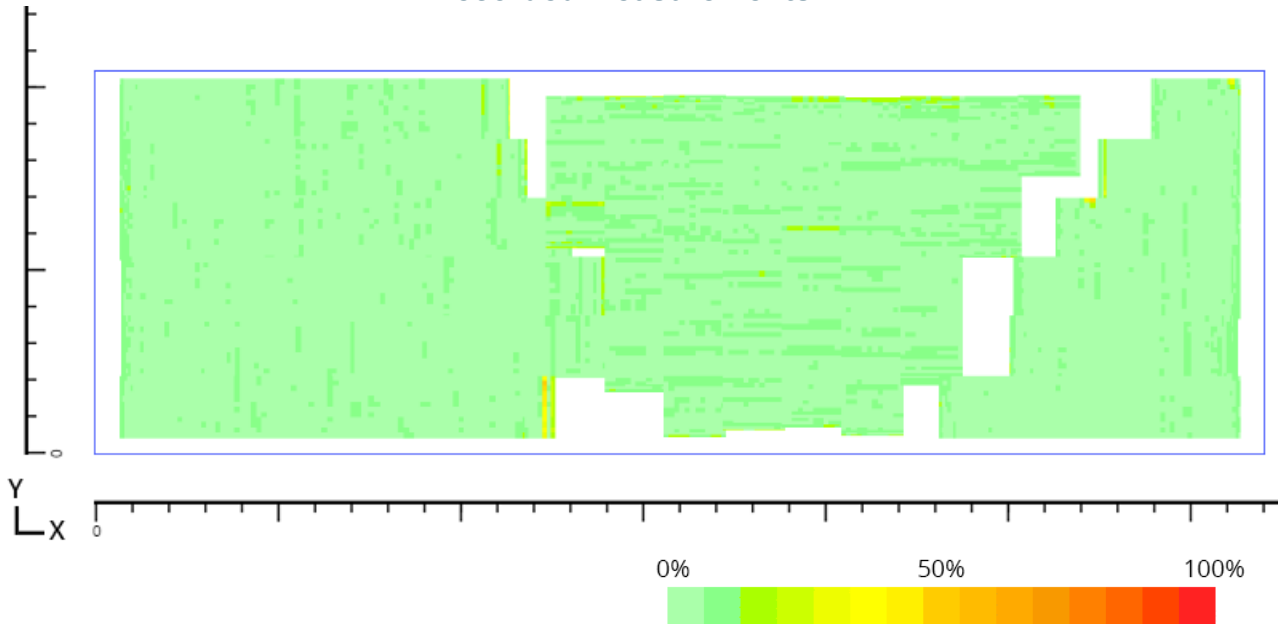
Length (X): 595cm

Width (Y): 195cm

**Thickness: 9,52
mm**

Selected Signal Range: 5 – 200 mV

Recorded Measurements



Scanned Track Outlines

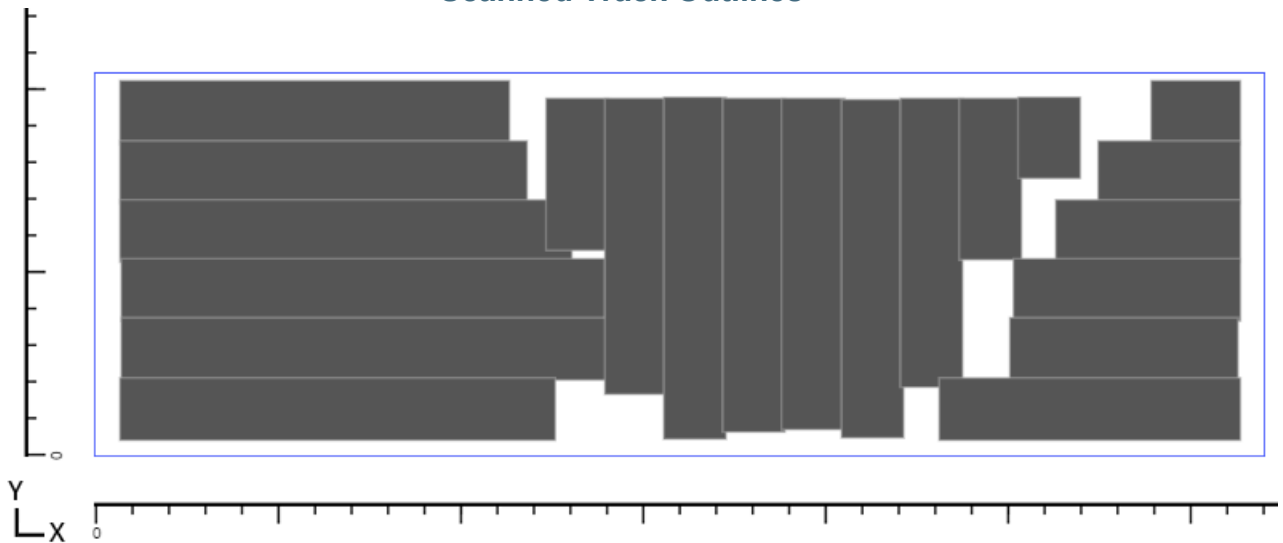




Plate Number 6



Max Signal: 20%

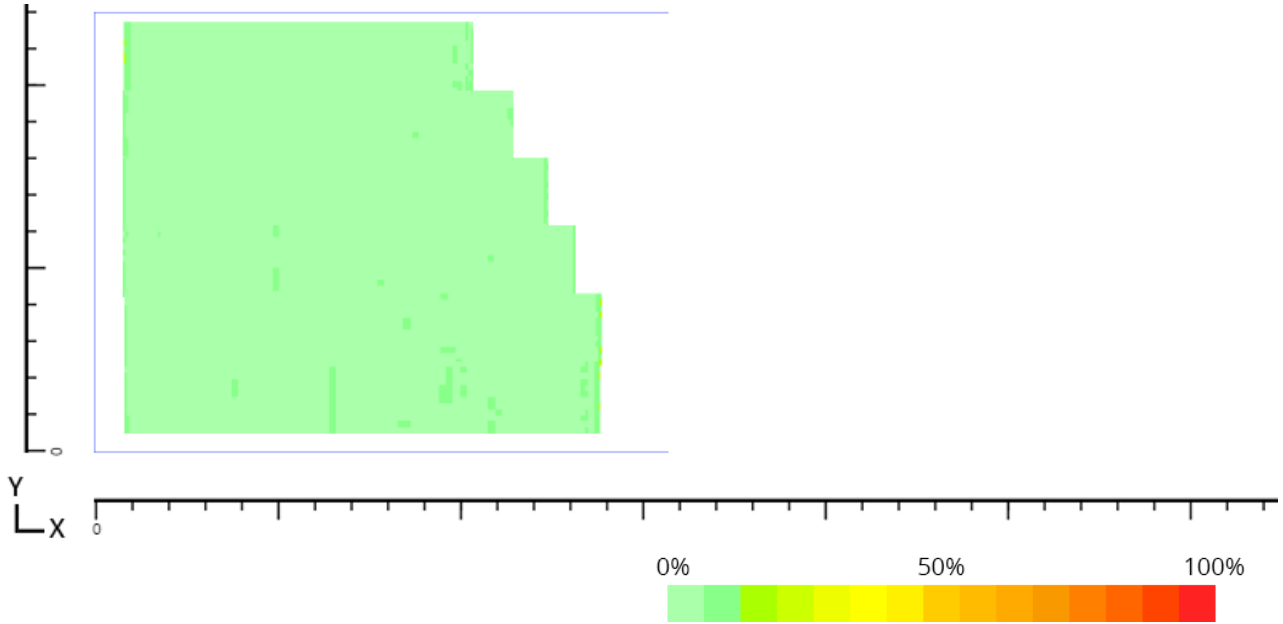
Length (X):
254.99cm

Width (Y): 195cm

**Thickness: 9,52
mm**

Selected Signal Range: 5 – 200 mV

Recorded Measurements



Scanned Track Outlines

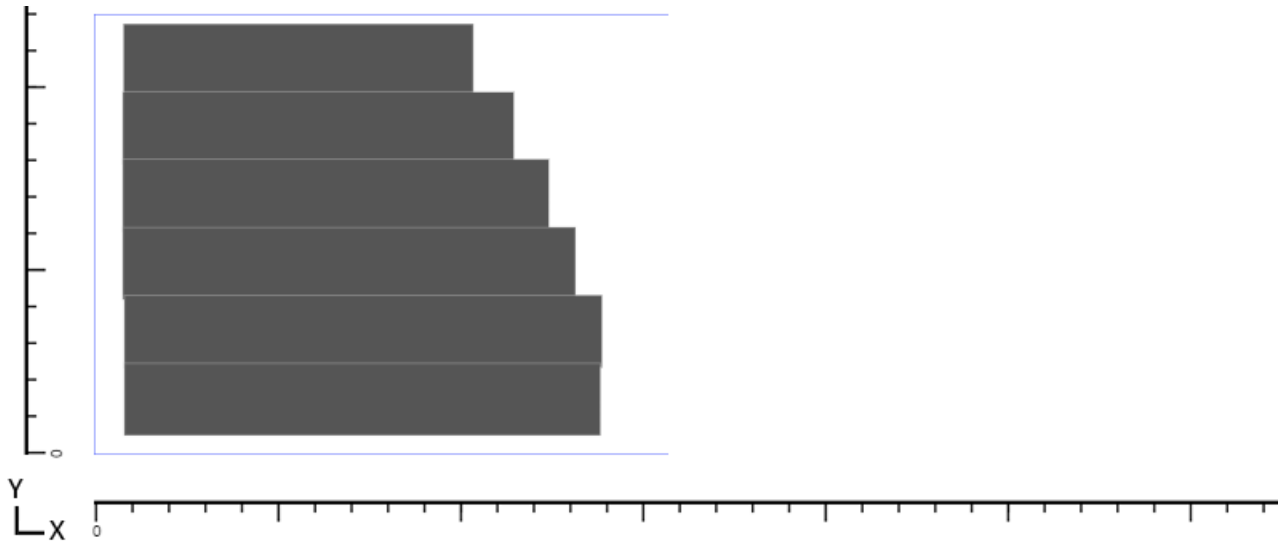




Plate Number 7



Max Signal: 26.7%

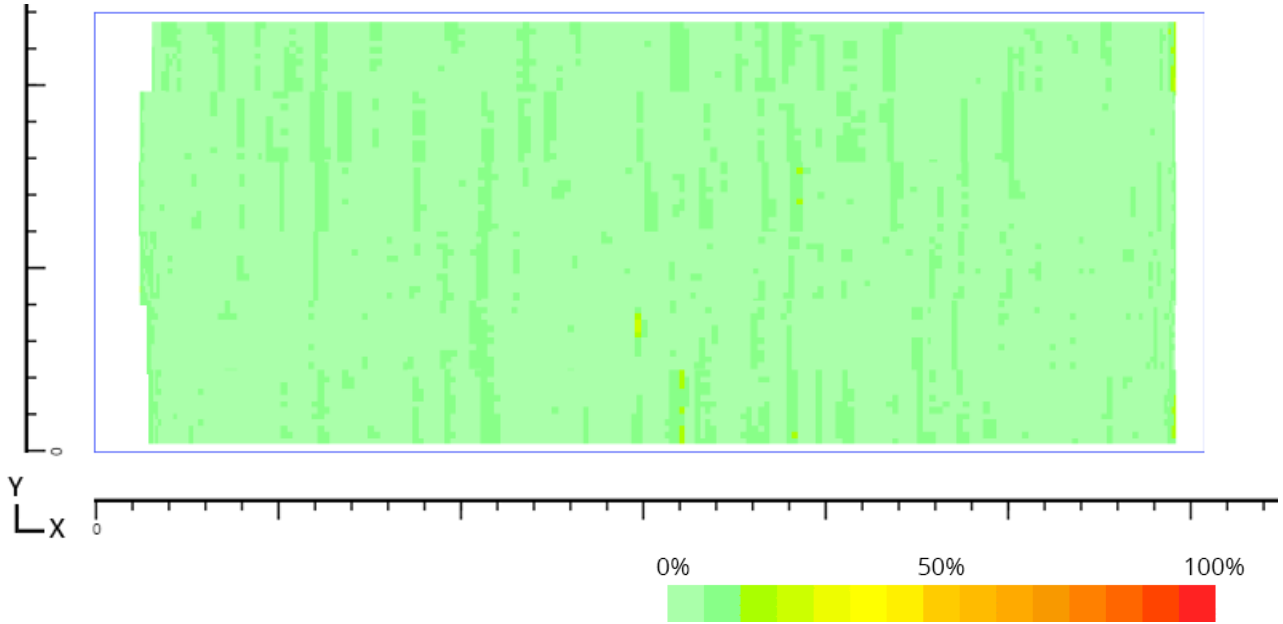
Length (X):
480.01cm

Width (Y):
189.99cm

Thickness: 9,52
mm

Selected Signal Range: 5 – 200 mV

Recorded Measurements



Scanned Track Outlines

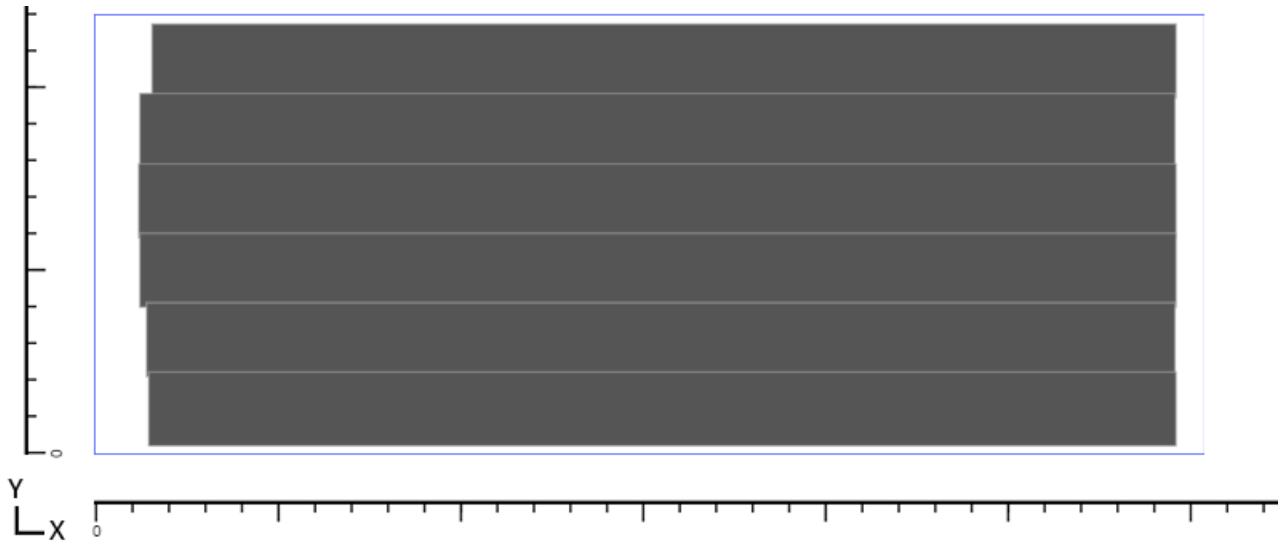




Plate Number 8



Max Signal: 73.3%

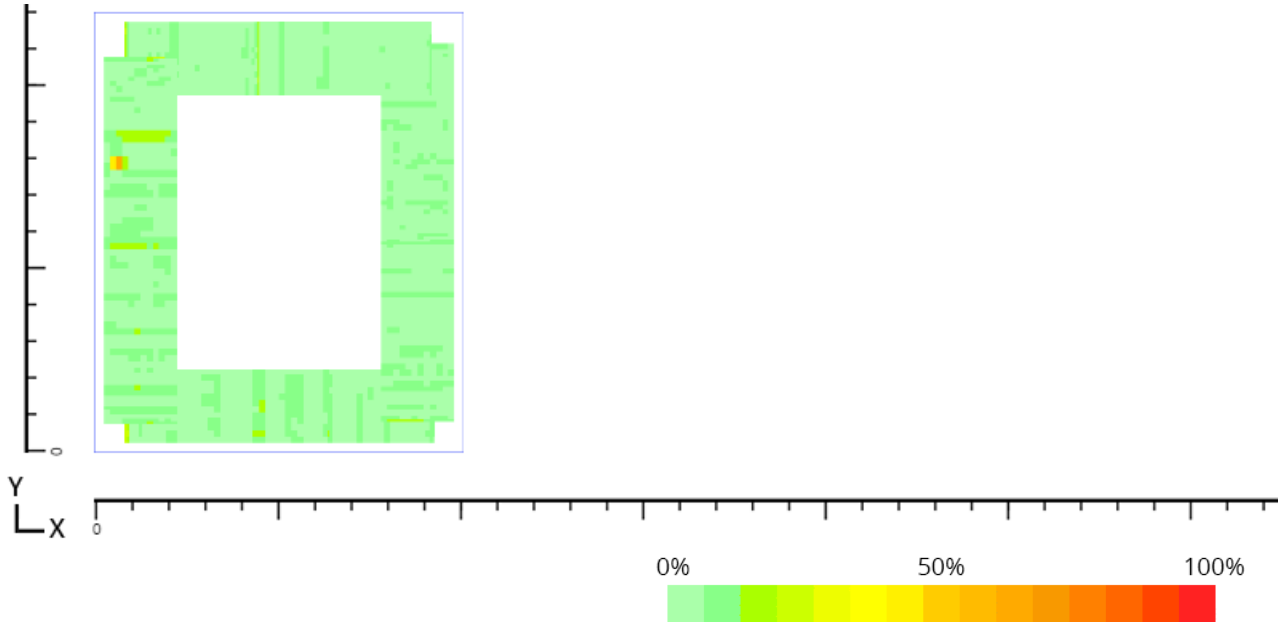
Length (X):
159.99cm

Width (Y):
189.99cm

Thickness: 9,52
mm

Selected Signal Range: 5 – 200 mV

Recorded Measurements



Scanned Track Outlines

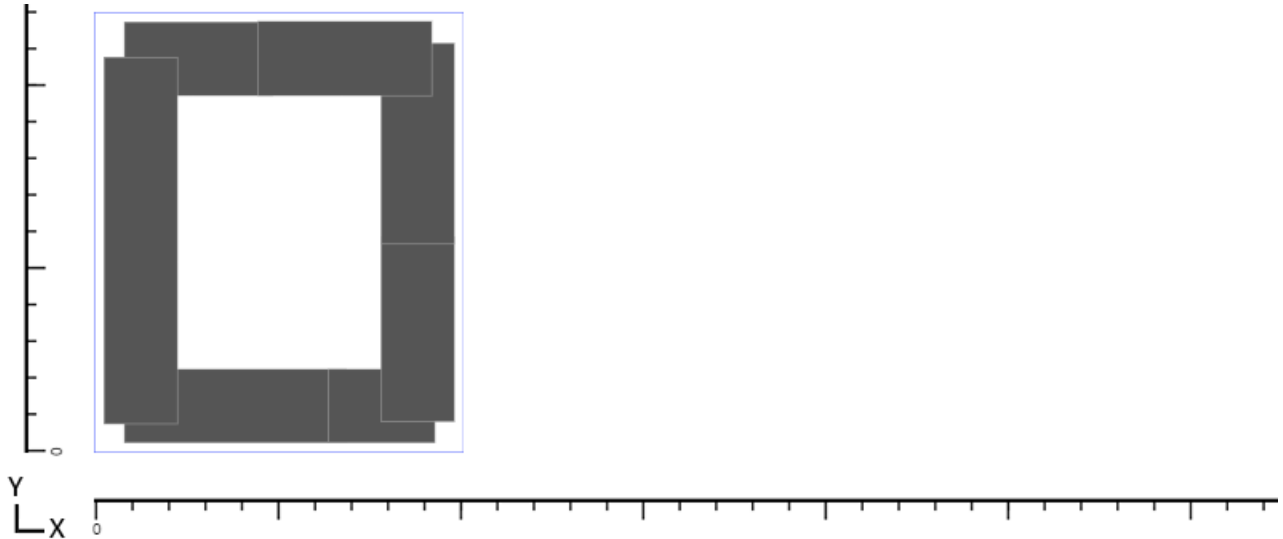




Plate Number 9



Max Signal: 40%

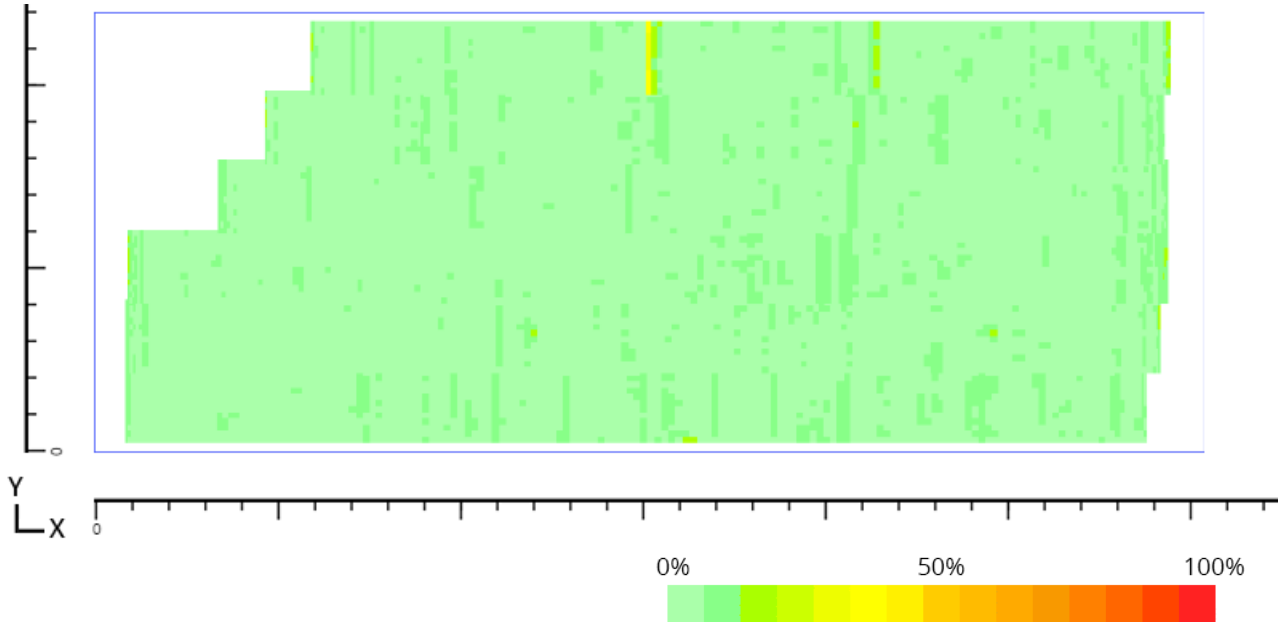
Length (X):
480.01cm

Width (Y):
189.99cm

Thickness: 9,52
mm

Selected Signal Range: 5 – 200 mV

Recorded Measurements



Scanned Track Outlines

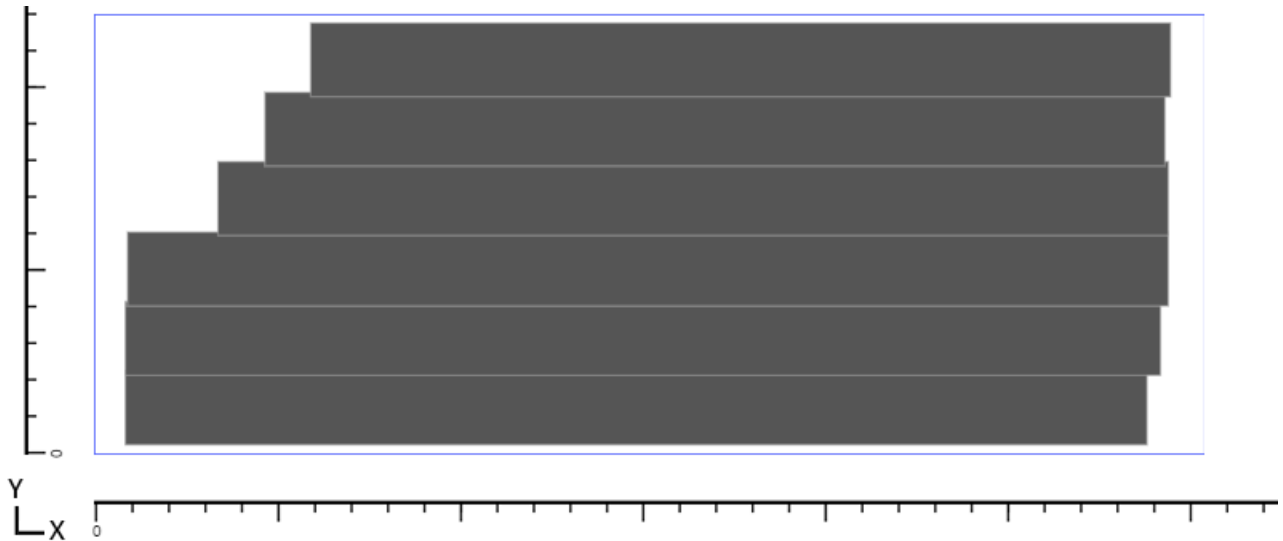




Plate Number 10



Max Signal: 33.3%

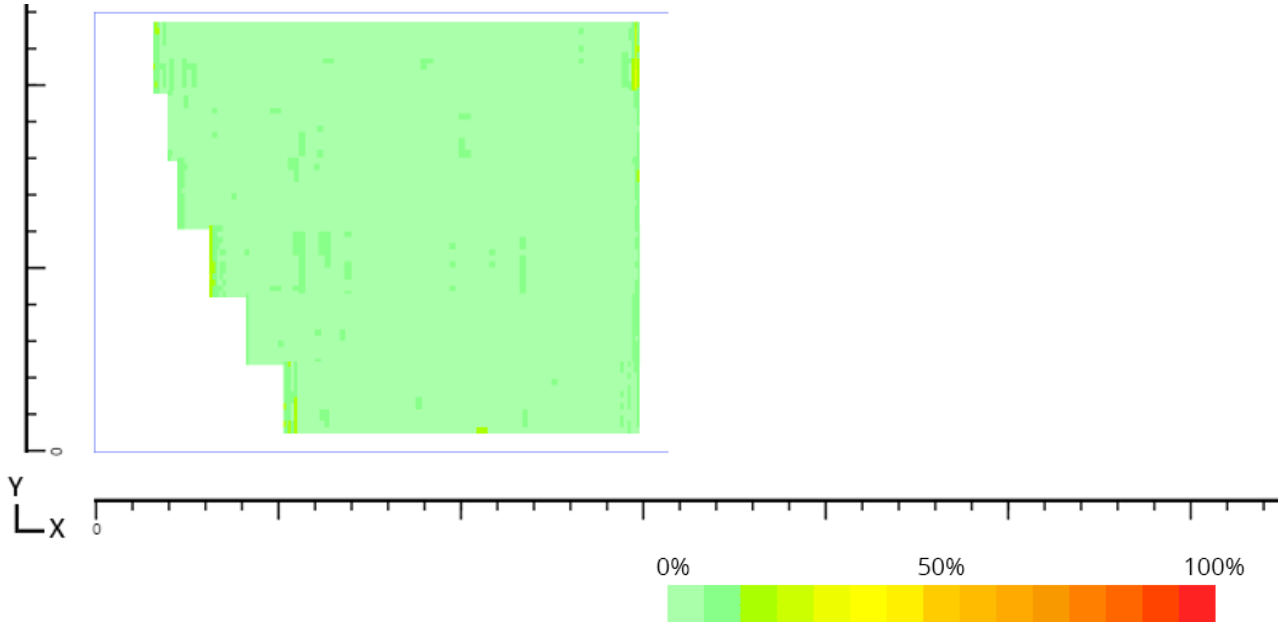
**Length (X):
254.99cm**

Width (Y): 195cm

**Thickness: 9,52
mm**

Selected Signal Range: 5 – 200 mV

Recorded Measurements



Scanned Track Outlines

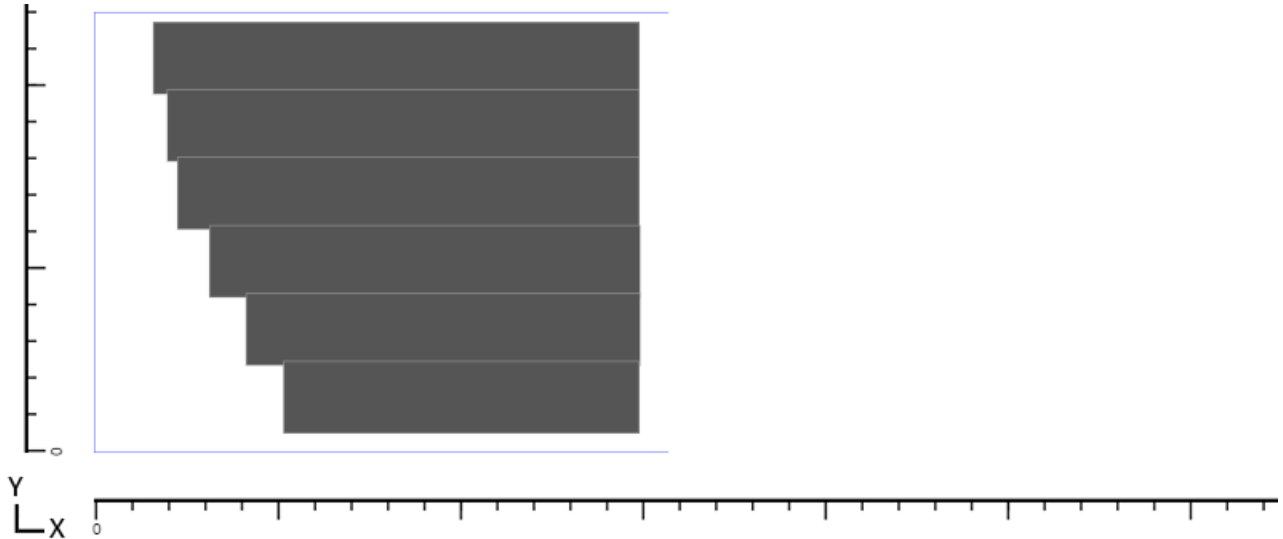




Plate Number 11



Max Signal: 66.7%

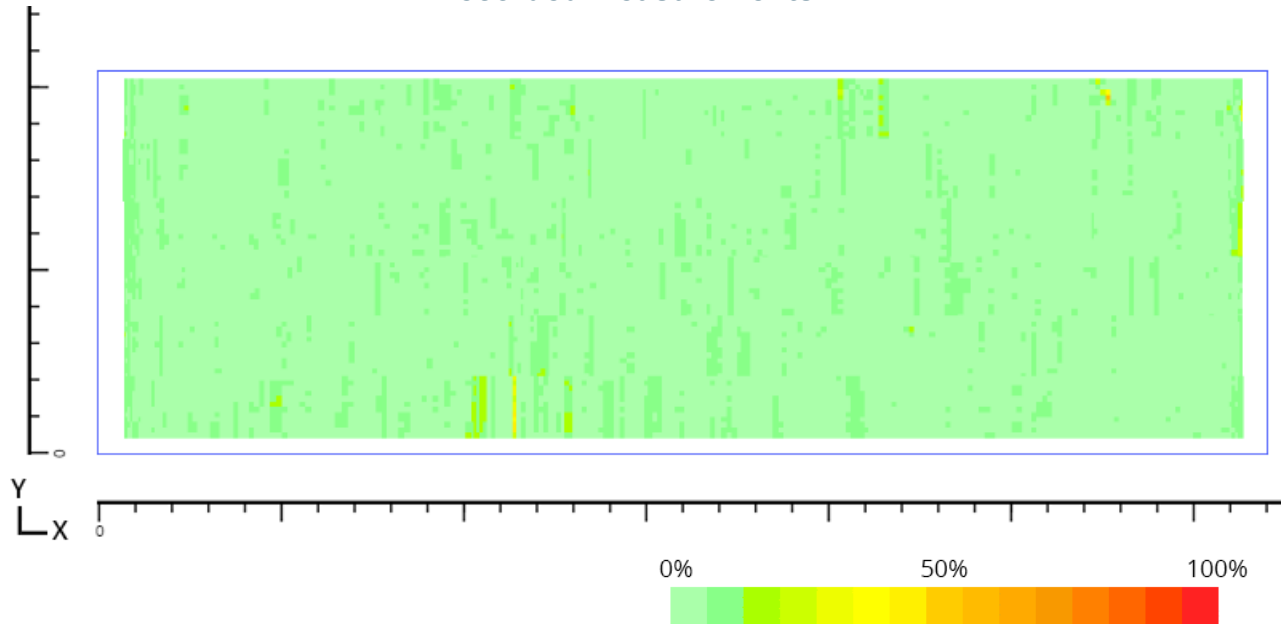
Length (X): 595cm

Width (Y): 195cm

**Thickness: 9,52
mm**

Selected Signal Range: 5 – 200 mV

Recorded Measurements



Scanned Track Outlines

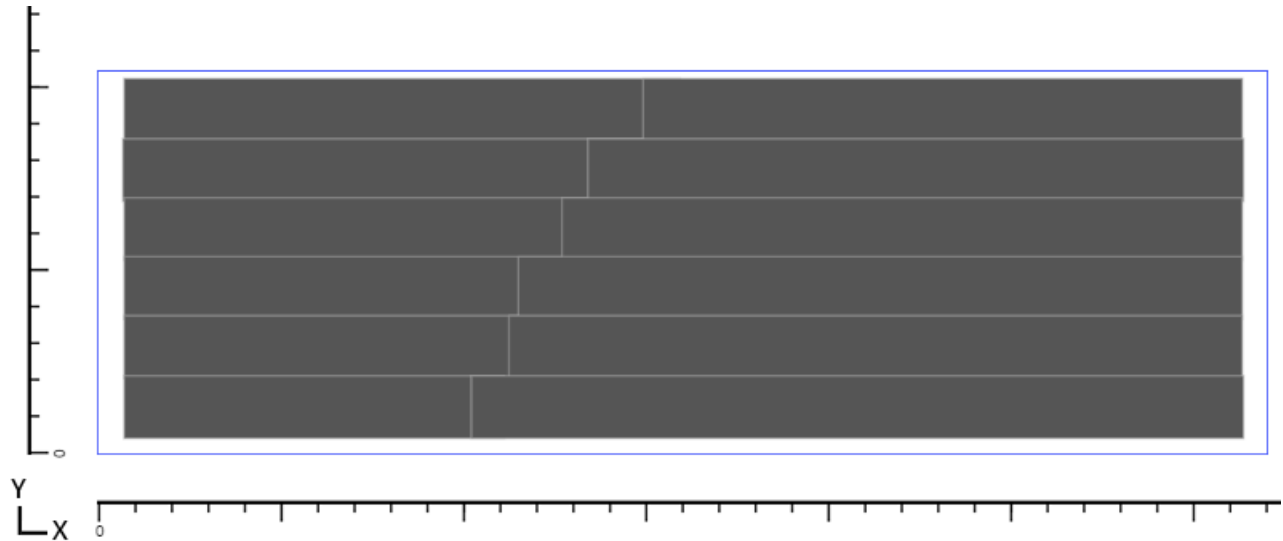




Plate Number 12



Max Signal: 73.3%

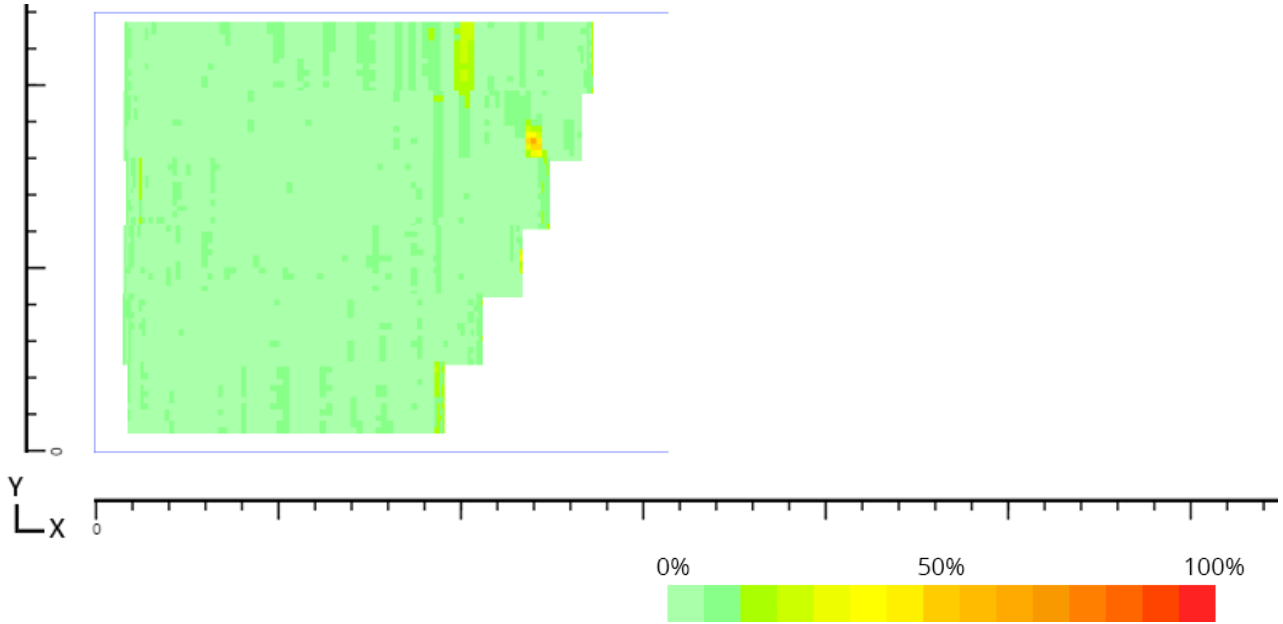
**Length (X):
254.99cm**

Width (Y): 195cm

**Thickness: 9,52
mm**

Selected Signal Range: 5 – 200 mV

Recorded Measurements



Scanned Track Outlines

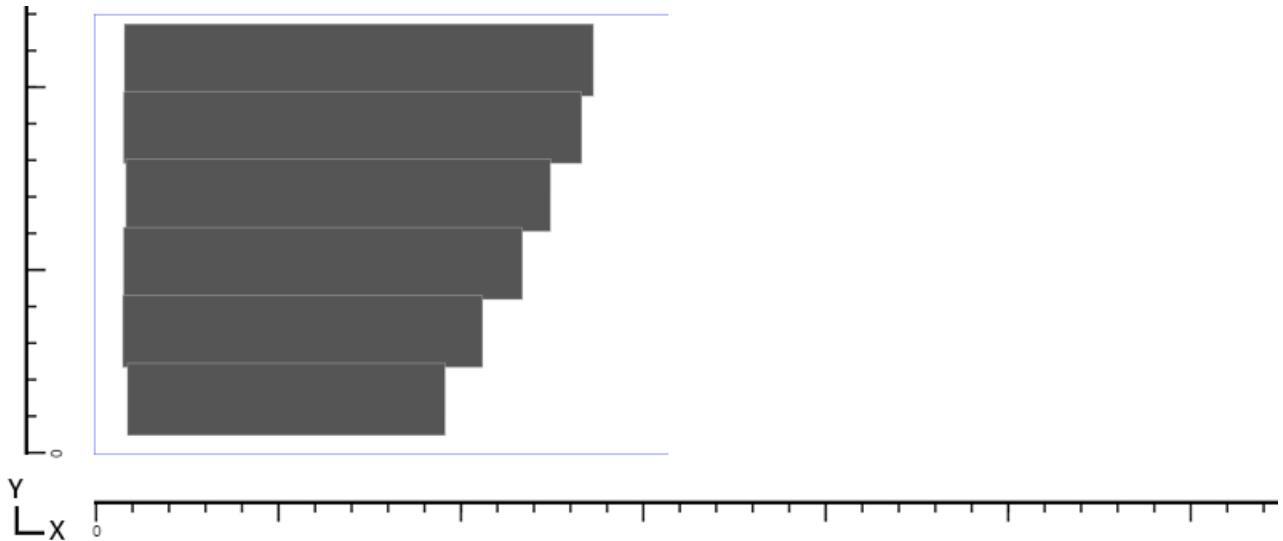




Plate Number 13



Max Signal: 26.7%

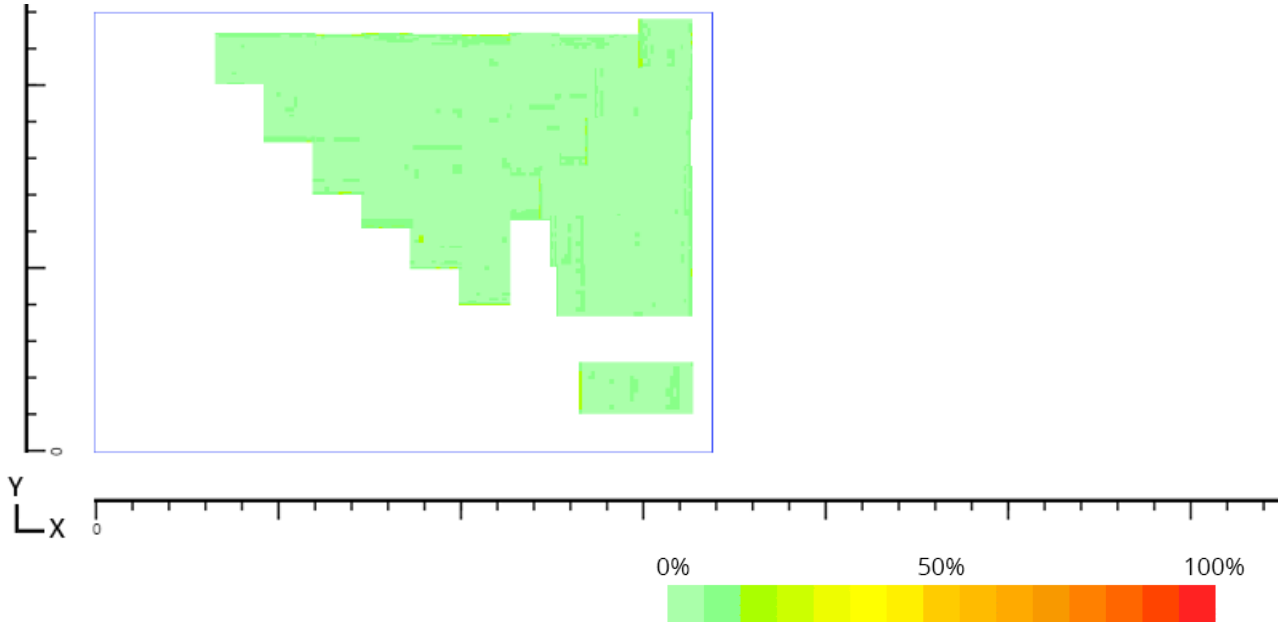
**Length (X):
380.01cm**

Width (Y): 270cm

**Thickness: 9,52
mm**

Selected Signal Range: 5 – 200 mV

Recorded Measurements



Scanned Track Outlines

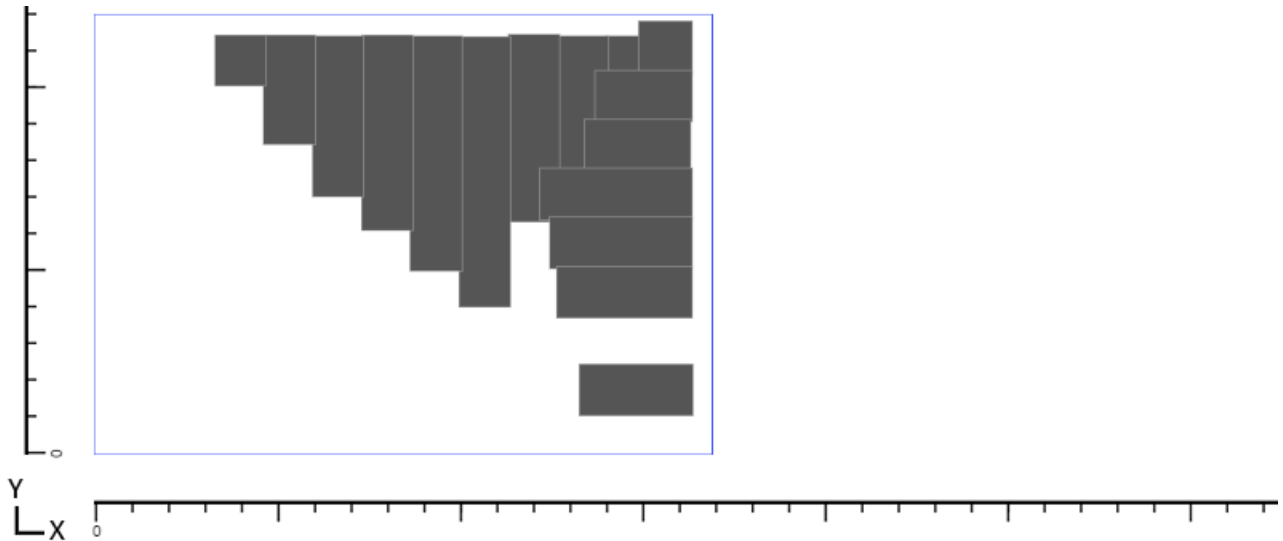




Plate Number 14



Max Signal: 40%

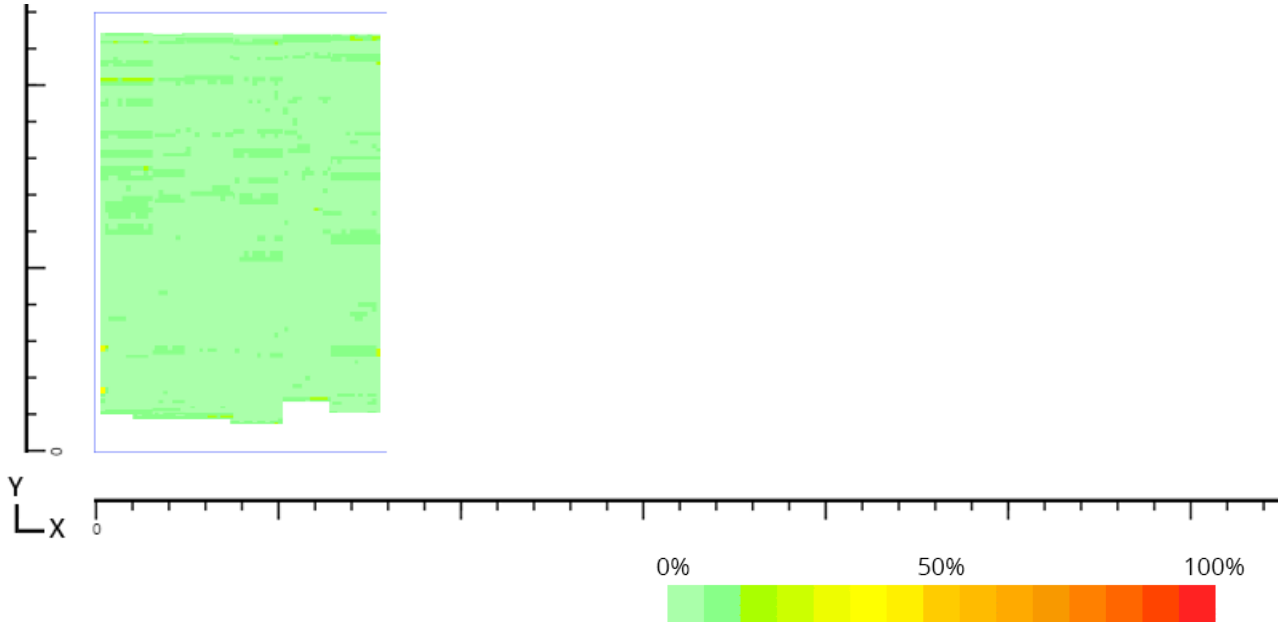
Length (X):
180.01cm

Width (Y): 270cm

**Thickness: 9,52
mm**

Selected Signal Range: 5 – 200 mV

Recorded Measurements



Scanned Track Outlines

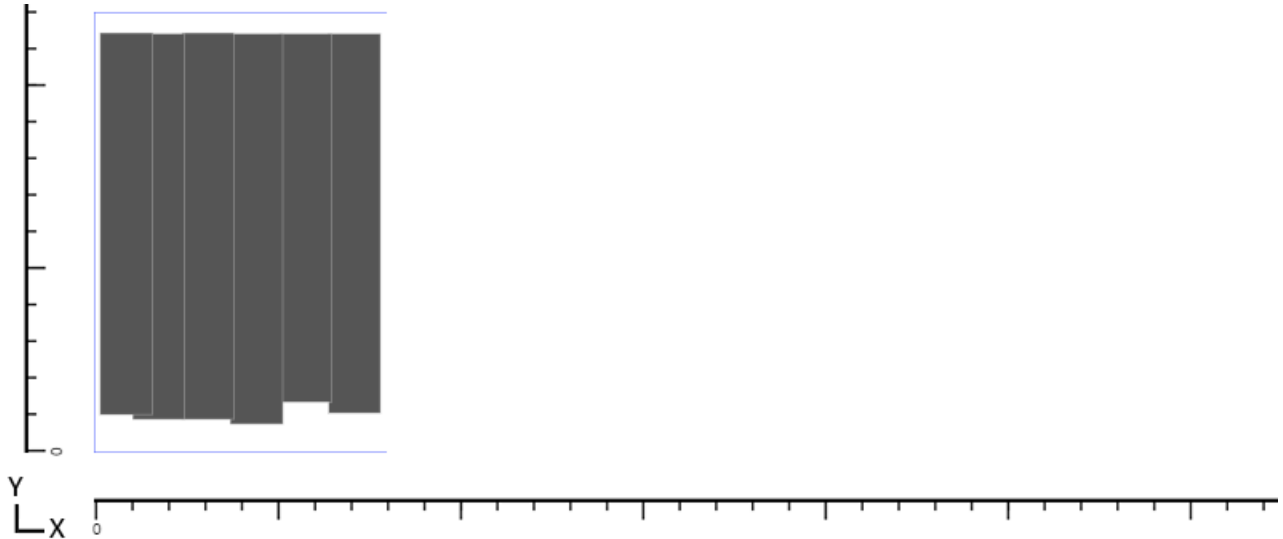




Plate Number 15



Max Signal: 46.7%

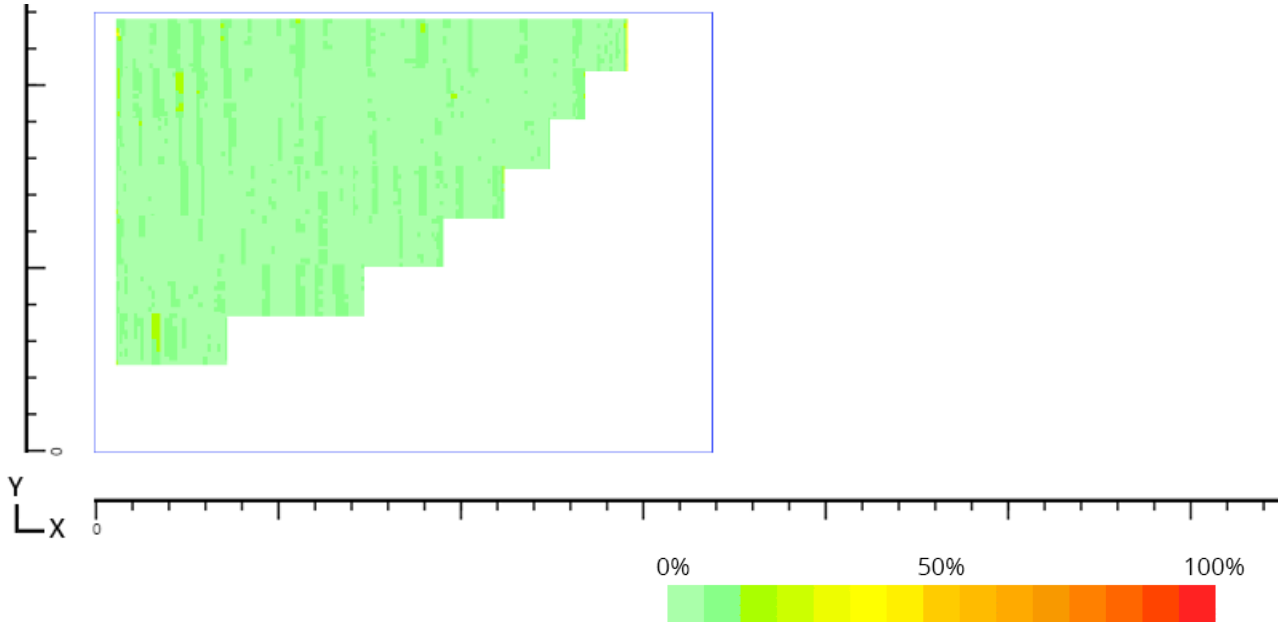
**Length (X):
380.01cm**

Width (Y): 270cm

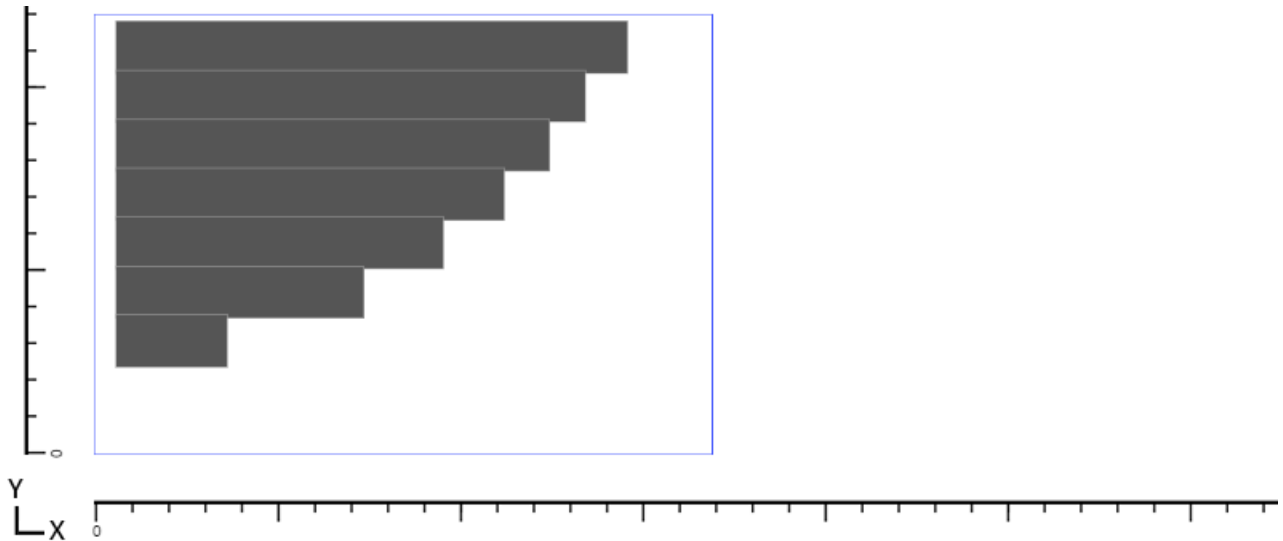
**Thickness: 9,52
mm**

Selected Signal Range: 5 – 200 mV

Recorded Measurements



Scanned Track Outlines





PART 1 - HOLDER'S DETAILS

PCN NUMBER:
347274



ISSUE DATE:
08/02/2023

ISSUE NUMBER:
1

NAME & ADDRESS:
Andre Sando
Hamarstigur 37
600 Akureyri
600
Iceland

RECORD OF PCN CERTIFICATION

Further information on the scope of certification available may be obtained from The Certification Services Department, British Institute of NDT, Midsummer House, Riverside Way, Bedford Road, Northampton NN1 5NX, United Kingdom.
E-mail: pcn@bindt.org
Tel: +44 01604 438300 Fax: +44 01604 438301

Valid only when signed on behalf of BINDT and incorporating stamp below:



This document may be withdrawn or revoked in part or in total at any time.

NORMAL SIGNATURE: *Andre Sando*

This part may be used by the employer to signify that the certificate holder is authorised to carry out NDT on behalf of the employing company.

COMPANY STAMP	SIGNATURE & NAME OF PERSON AUTHORISING	DATE
<p>PRESSURE EQUIPMENT (SAFETY) REGULATIONS (PESR)</p> <p>The Pressure Equipment (Safety) Regulations 2016 implemented Directive 2014/68/EU on pressure equipment and assemblies. The British Institute of Non-Destructive Testing is a Recognised Third-Party Organisation accredited by UKAS, under Pressure Equipment (Safety) Regulations 2016; Guidance (GB) which implement the provisions of Directive 2014/68/EU concerning pressure equipment. The scope of the appointment is for the approval of personnel to carry out Non-Destructive tests on permanent joints for pressure equipment in categories III and IV in accordance with section 22 of Schedule 2 to the Regulations. All PCN certification valid for the welding and pre & in-service inspection sectors satisfies the Pressure Equipment (Safety) Regulations 2016: Guidance (GB).</p>		

FOR NOTIFICATION OF PERMANENT CHANGE OF HOLDER'S ADDRESS PLEASE REFER TO FORM PSL 18 AVAILABLE TO DOWNLOAD AT BINDT.ORG/CERTIFICATION

PART 2 - CERTIFICATION HELD (All certificates comply with EN ISO:9712 unless otherwise started) **D= Distinction** (80% or above average)

CERTIFICATE NUMBER	ISSUE	LEVEL	SECTOR	METHOD	SCOPE OF CERTIFICATE (see over for key to codes)	ISSUES DATE	EXPIRY
E022S62428731	1	2	6	24	Butt Welds in Plate, NDT Instruction Writing, Plate	01/12/2022	30/11/2027

PCN Record of Certification issue 1 dated 08/02/2023

Verification of current certification status is strongly encouraged and is available at www.bindt.org/PCN or by post, telephone, fax or e-mail quoting the unique PCN Number or full name shown in Part 1

Licensed to andre.sando@icloud.com



EU CERTIFICATE OF APPROVAL OF NDT PERSONNEL In accordance with the requirements of the Pressure Equipment Directive 2014/68/EU

TO WHOM IT MAY CONCERN:

LRQA Certification and Assurance Services Limited, a Recognised Third-party Organisation as described in the European Pressure Equipment Directive 2014/68/EU, Article 20, has approved the following NDT personnel to carry out the specified non-destructive tests of permanent joints for pressure equipment in categories III and IV (2014/68/EU, Annex I, section 3.1.3 refers)

The approval is granted in accordance with the LRQA-CASL PD CEN / TR 15589 Route B Certification Scheme.

Recognised Certification Body: BINDT/PCN

Certification Body Address: Midsummer House Riverside Way Bedford Road Northampton, NN1 5NX
(Accredited to ISO/IEC 17024:2012 to provide certification of persons against EN ISO 9712:2012)

Signed for and on behalf of LRQA-CASL

PCN Number 347274

NAME OF APPROVED PERSON	PCN NUMBER	METHOD	SECTOR	LEVEL	CERTIFICATE NUMBER	ISSUES DATE	EXPIRY
Andre Sando	347274	Ultrasonic Testing	Weldments	2	E022S62428731	01/12/2022	30/11/2027

PCN Record of Certification issue 1 dated 08/02/2023

Verification of current certification status is strongly encouraged and is available at www.bindt.org/PCN or by post, telephone, fax or e-mail quoting the unique PCN Number or full name shown in Part 1

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Baugh & Weedon NDE Ltd.
 11-16 Burcott Business Park,
 Burcott Road, Hereford, HR4 9JQ.
 Tel: +44 (0)1432 267671
 Email: sales@bw-nde.com
 Web: www.bw-nde.com



Calibration Certificate No.	PS7923-1
------------------------------------	----------

Customer	Acceptance	Pass
Gisli Gudmundsson	Date of Calibration	07.09.23
Customer Purchase Order No.	Date of Expiry	07.09.24
N/A	Adjustment	No

Item	Description of Customer Equipment Under Test	Serial No. & Reference No.
1	Olympus 45MG Ultrasonic Thickness Gauge	8440313
1a	Olympus D7910 5MHz Ultrasonic Thickness Probe	1394385
Remarks	The readings obtained by the equipment under test, are within tolerance, of those given by the traceable test equipment.	

Conclusion & Specification	
It is hereby certified that the whole of the equipment specified has been calibrated and conforms to an accuracy of +/- 0.1mm.	
The calibration has been completed by using; equipment traceable to National Standards (NPL), the general principles of BS EN ISO 16809:2019 and our latest work instruction and procedure documents.	
In accordance with ISO 9001:2015 - The quality management system applies to; the service, repair, and calibration of non-destructive test equipment. (Certificate No. AVQ5007104 which expires on 31 st May 2025)	
Test Conditions	Temperature (20 +/- 2 °C) & Humidity (50 +/- 20%)

Reference Test Equipment Used	Serial No.	Certificate No.
B&W Thickness Test Block 200mm	B18	51156 - UKAS
B&W Thickness Test Block 50-75mm	B29	51157 - UKAS
B&W Thickness Test Block 1.5-20mm	B202	51159 - UKAS
The above equipment is traceable to NPL and was calibrated by a UKAS accredited Calibration Laboratory.		
Test Equipment Uncertainty	The uncertainties are based on a probability of a 95% level of confidence.	
Measurement Uncertainty	B18 +/-0.014, B29 +/- 0.014, B202 +/- 0.021	

Calibrated By	P. Stimson Calibration Manager	Approved Signatory	
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Baugh & Weedon NDE Ltd.
 11-16 Burcott Business Park,
 Burcott Road, Hereford, HR4 9JQ.
 Tel: +44 (0)1432 267671
 Email: sales@bw-nde.com
 Web: www.bw-nde.com



Calibration Certificate No.	PS7923-1
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Customer Requirements
None supplied.

Results

Note	Any acceptances indicated as 'OOS' are outside of specification.
	Any acceptances indicated as 'OOCR' are outside of customer requirements.

Work Instruction No.	CAL-WI032 Issue 1	Procedure	CAL-WI014 Issue 1
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Test Block	Nominal Thickness (mm)	Ref. Test Equipment	Customer Equipment	
		Actual Thickness (mm)	Measured Thickness (mm)	Acceptance
B202	1.5	1.5	1.46	Pass
B202	2.5	2.5	2.45	Pass
B202	5	5.0	4.99	Pass
B202	10	10.0	9.98	Pass
B202	15	15.0	14.96	Pass
B202	20	20.0	19.94	Pass
B29	50	50.0	49.96	Pass
B29	75	75.0	74.92	Pass
B18	100	100.0	99.97	Pass
B18	200	200.0	199.97	Pass

Calibrated By	P. Stimson Calibration Manager	Approved Signatory	
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Starfsleyfi til þykktarmælinga á skipum

Starfsleyfið er veitt samkvæmt heimild í lögum um Samgöngustofu, stjórnarsýslustofnun samgöngumála, nr. 119/2012 og Skipalögum nr. 66/2021

Nafn:	Heimili:	Sveitarfélag:	Kt.:
HD ehf.	Vesturvör 36	200 Kópavogi	431298-2799
- Gísli Arnar Guðmundsson	Sómatúni 18	600 Akureyri	251172-4639

Með starfsleyfi þessu er ofanrituðum veitt heimild til að annast þykktarmælingar á skipum og bátum, skýrslugerð og innfærslu í skipaskrá vegna þeirra.

Um framkvæmd þykktarmælingar, skýrslugerðar og innfærslu í skipaskrá skal hafa samráð við starfsmenn Samgöngustofu. Fylgja skal ákvæðum í lögum, reglugerðum og verklagsreglum um þykktarmælingar, sjá VIN – 2142 *Þykktarmæling á skipum sem smíðuð eru úr stáli og áli.*

Gildi starfsleyfis er m.a. bundið því skilyrði að HD ehf. og starfsmenn fyrirtækisins sé samþykkt af viðurkenndu flokkunarfélagi til að framkvæma þykktarmælingar á flokkuðum skipum.

Starfsleyfið gildir til: **4. nóvember 2027**

Fella má starfsleyfið úr gildi ef ekki er farið í einu og öllu eftir settum reglum og leiðbeiningum þar um.

F.h. Samgöngustofu

Reykjavík
Staður

4.11.2022
Dagsetning


Undirskrift og stimpill