

SKÝRSLA

ÞYKKTARMÆLING Á OLÍUGEYMI 14 Á AKUREYRI

ULTRASONIC THICKNESS MEASUREMENT



JANÚAR 2024

FASTANÚMER: T1105

UTM SKÝRSLA NR: TM-240106-T1105-26-JAN-23

MÆLINGAR FRAMKVÆMDAR, STAÐUR: AKUREYRI

EIGANDANÚMER: 603.14.00



Framkvæmd mælinga

Þykktarmælingu framkvæmdi Gísli A. Guðmundsson og Andre Sandö hjá HD ehf í Kópavogi. Upplýsingar varðandi aðstæður, notkun geyma o.fl. veitti Guðjón stöðvarstjóri hjá Olíudreifingu ehf.

Framkvæmd þykktarmælingar og sjónskoðunar á geyminum fóru fram í janúar mánuði 2024. Geymirinn er liggjand stálgeymir og var belgur hans mældur ásamt endalokum.

Þykktarmælingar

Varðandi staðsetningu mælistaða og niðurstöður þykktarmælinga á geyminum er hér vísað á meðfylgjandi teikningar (1 stk.). Allar plötur eru mældar á svipaðan hátt þ.e.a.s. miðast er við að hafa mælingar við enda plötu, teknir voru 14 punktar í plötu. Mælt var c.a. frá miðju belgs hvoru megin og undir. (sjá teikn)

Sjónskoðun

Farið er um allan geyminn með sterkt ljós ef birta er ekki nægileg og því haldið rétt við yfirborðið svo pyttir og misfellur sjáist betur. Samsúður geymis er skoðaðar sérstaklega vel ásamt öðrum suðum utanvert á geymi.

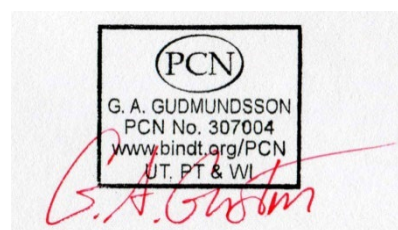
Niðurstöður

Geymir lítur vel út að utan. Ekki gafst tækifæri á að skoða geymirinn innanvert. Geymir eru málaður

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

Akureyri, 29 janúar 2024

Virðingarfyllst.



Gísli Arnar Guðmundsson



STAÐFESTING ÞYKKTARMÆLINGA

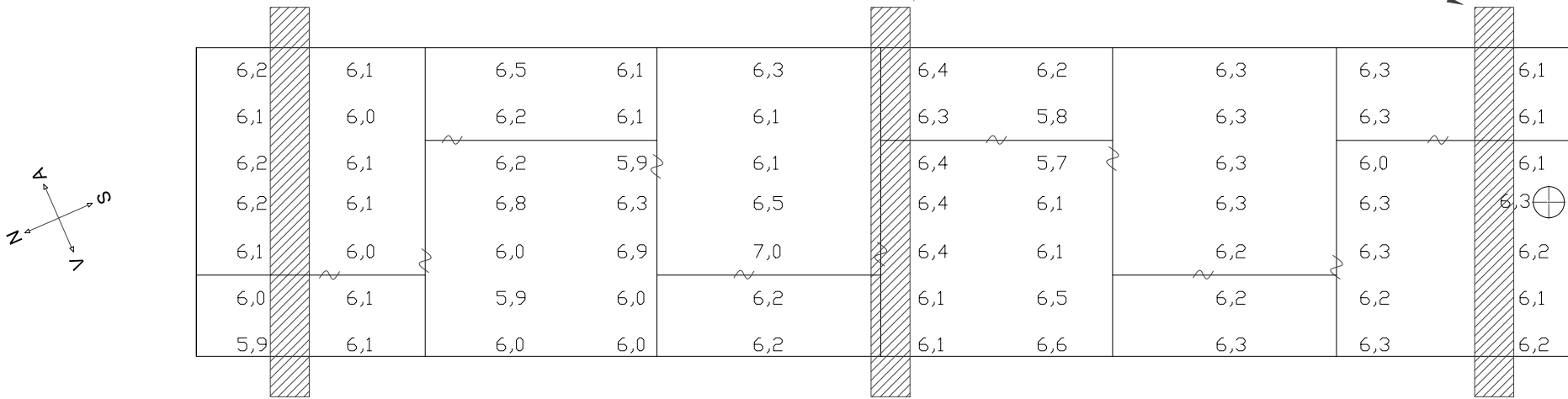
SKÝRSLA/REPORT NO:	TM-240106-T1105-26-JAN-23
DAGS.PRÓF./DATE OF TEST:	26/01/2024
DAGS SKÝRSLU/Date Report:	29/01/2024
EIGANDI/CLIENT:	Olíudreifing
HLUTUR/STRUCTURE:	Olíugeymir T1105-14
STAÐS./LOCATION OF TEST:	Akureyri. Krossanes
TÆKI/EQUIPMENT:	Þykktarmælir, Gel, Málband/ <i>UT meter Gel, Meas.tape.</i>
TÆKNIM./TECHNICIAN:	Gisli A. Gudmundsson & Andre Sando
SKÍRTEINI/CERTIFICATION:	<p><u>Ultrasound Inspection – Level II</u> PCN: E012S3320978. 01/04/2022 - 31/03/2027 Course held at LAVENDER. Penistone, West Yorkshire. UK</p> <p><u>Magnetic Particle Inspection – Level II</u> PCN: V019S22121689. 19/09/2019 – 18/09/2024 Course held at TALON. Aberdeen. Scotland</p> <p><u>Dye Penetrant Inspection – Level II</u> PCN: F013S5523747. 19/09/2019 – 20/11/2023 Course held at TALON. Blackpool UK</p> <p><u>Weld Inspector – Level II</u> PCN: E016S3228258. 05/02/2016 - 04/02/2021 Course held at LAVENDER. Penistone. UK</p> <p><u>Vibration Analyser – CAT II</u> PCN: SCM94300 28/02/2017 - 27/02/2022 Course held at RMS RELIABILITY. Colchester.</p> <p><u>Airborne Ultrasound – Level I</u> SNT-TC-1A (2006) 05/10/2015 Course held at SDT Ultrasound Solutions. Brussel. Belgium.</p> <p><u>Magnetic Flux Leakage</u> API 653 ANNEX G & SNT TC – 1A. 12/08/2017 Course held at MFE Enterprises, Inc. Texas. USA</p>

Surname

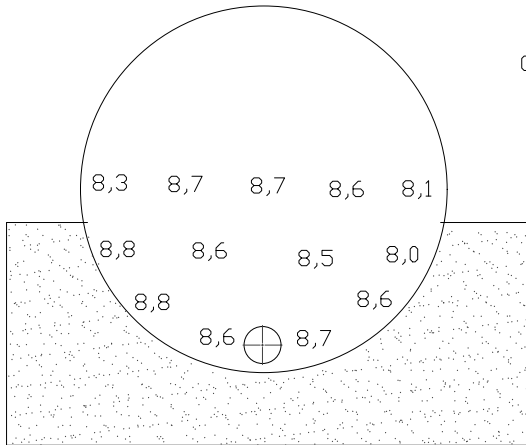
PCN Number

CERT. VERIFIC: <https://www.bindt.org/Certification/pcn-certificate-verification/>

Sökkull

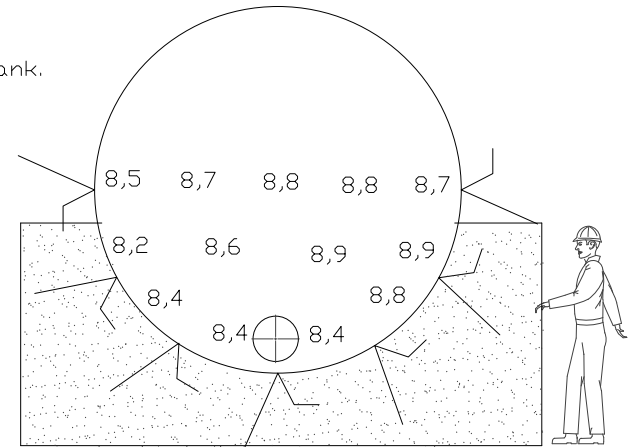


Geymir mældur að utan neðanvert og upp að miðjum belg. Séð neðan á tank.



ÞYKKTARMÆLINGAR (UTM)
 REKSTRARADILI: OLÍUDREIFING
 TILVÍSUN OKKAR: 240106
 MÆLINGAR FRAMKV. 26-01-2024
 STAÐUR: AKUREYRI
 HLUTUR MÆLDUR: LIGGJANDI OLÍUGEYMRIR
 FASTANÚMER: T1105

TEIKNING ER EKKI Í MÆLIKVARÐA



Myndir frá geymi 14



Mynd 1. Geymir lítur afar vel út.



Mynd 2. Söðull geymis.



Mynd 3. Söðull geymis.



Mynd 4. Tæring frá fyrri tíð, undir söðli líklegast.

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	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 31st 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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LAVENDER

INTERNATIONAL NDT TRAINING SCHOOL

UNIT 7, PENISTONE STATION, SHEFFIELD, S36 6HP, UK



INVESTORS
IN PEOPLE

Gold

Tel: (44) (0) 1226 765769 Fax: (44) (0) 1226 760707 E-mail: nicola@lavender-ndt.com

FOR VERIFICATION, PLEASE CONTACT THE ABOVE



Certificate of Training

GISLI ARNAR GUÐMUNDSSON

This is to certify that _____
NDT EHF

of _____

has successfully completed a course of training in:
ULTRASONIC INSPECTION – WELDS – LEVEL 2

To the syllabus outlined in the document: _____
PCN GEN ISS 14 2017

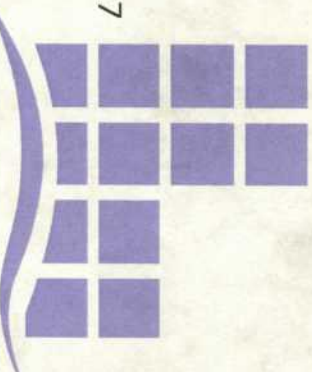
Date: 9-10.02.2017 _____
Hours: 8

TUTOR: J P TREWEEK

B SCOTT
ADMINISTRATION ASSISTANT
67057 dated 10 MARCH 2017

For Lavender International NDT Consultancy Services Ltd. No. _____

This course is accredited by the British Institute of NDT
QD 258 ISSUE 2 19.05.2016 TRAINING WAS CONDUCTED AT LAVENDER UK WHICH IS A BINDT APPROVED TRAINING ORGANISATION





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 stated) **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

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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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**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