

- ✓ NDT & Inspection
- ✓ Hydrostatic testing
- ✓ Weld qualification
- ✓ Concrete testing
- ✓ Mechanical testing
- ✓ Metallurgical services
- ✓ Chemical analysis & PMI
- ✓ Pressure plant inspection

Weld qualification test report

Report number LW21-1306-1 WPWQ

Customer Asme Welding Pty Ltd

Address 14 Industrial Drive Sunshine VIC Australia 3020

Requested by Kenny Nguyen

Purchase Order PO-1782

Test activity dates 17/07/2021

Description Welder qualification testing

Identification DOW-034

WPS No. FP-035

Weld No. F35-L

Welders name Not Provided

Welders ID AP-052

Material shape Pipe to pipe

Butt weld - single V Joint type

Thickness T1: 6.02mm T2: 6.02mm

Diameter (NB/OD) Pipe 1: 100mm Pipe 2: 100mm

Weld process **GTAW**

Weld position 6G

Material Grade ASTM A106/A106M-18 Grade B

Heat number Not advised by the client

Weld consumable ER70S-6

Test results Refer to the following summary and details on the following pages.



Macro test



Accredited for compliance with ISO/IEC 17025 - Testing Accreditation No. 15840

Refer to the following pages for details of test conducted and Signatories.

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Complied

LMATS Pty Ltd ABN: 41 107 100 925 www.lmats.com.au

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Macro test

Accredited branch LMATS Melbourne Laboratory

Job address 14 Industrial Drive Sunshine VIC Australia 3020

Test specification AS 3992:2020 - Clause 6.1.5 (WPWQ qualification), AS/NZS 2885.2:2020

Test method AS/NZS 2205.5.1:2019 (ISO 17639:2003)

Specimen location Location as per specification Standard

Preparation Cold cutting followed by stage grinding to P#1000 coated abrasives

Etchant & process 10% Nital swabbing

Weld geometry Refer to the photographs (0.5mm graduation on scale, if available) on the following pages.

Approved tester Nandkishore Chavan

Specimen 1 Magnification x 5 approximately (refer to the photograph) Test date 17/07/2021

Weld passes 5

Discontinuities Nil

Comments Nil

Test results The test results comply with the specification requirements.





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Image 1 of 1 - Macro Specimen 1



Normative notes:

- 1. All test and inspection items will be discarded after 6 weeks, unless retrieved by the clients representative
- 2. Samples, identification of samples and all job specific details were supplied by the client.
- 3. Any stated nominal pipe sizes and nominal thickness of the material were provided by the client.
- 4. Where applicable, the Measurement Uncertainty (MU) applies to the test results as per LMATS procedure. MU can be obtained by contacting one of the LMATS ISO 17025 accredited laboratory.
- 5. If this report does not specify acceptance criteria, then the test or inspection results should be referred to a competent authority for further action.
- 6. This report shall not be reproduced except in full without approval of the issuing laboratory to ensure that parts of a report are not taken out of context. The client or their representatives shall not edit this report.
- 7. LMATS or its professional indemnity insurance provider do not indemnify the contents within this report or the conformity of a tested product unless the invoice for the reported work is paid in full within the agreed credit terms. Reports will be revoked if the invoice for the completed work is not paid in full.

Abbreviations used in this report

A - No discontinuities detected BT - Burn (melt) Through

C - Comply

C - Comply CP - Crater Pipe

DNC - Does Not Comply

EC - Elongated Cavity (hollow bead)

GP - Gas Pore

HiLo - Linear misalignment

IC - Copper Inclusion

IL - Linear Inclusion (slag line)

IN - Inclusion

IO - Oxide Inclusion (wagon tracks)

IT - Tungsten Inclusion

KC - Crater crack

KL - Longitudinal crack

KT - Transverse crack

LP - Incomplete root Penetration

LR - lack of Root fusion (missed edge)

LS - lack of Side fusion

NRRD - No Recordable Reflections Detected

NUSID - No unacceptable Surface Indications Detected

p.d. - Processing / film Defects

PG - Localized Porosity

PL - Linear Porosity PU - Uniform Porosity SED - Excessive Dressing (underflushing)

SGI - Incompletely filled Groove

SGS - Shrinkage Groove

SMG - Grinding Mark

SMH - Hammer Mark

SMT - Tool Mark (chipping mark)

SRC - Root Concavity (Suck back)

SSP - Spatter

SUC(e) - Undercut External

SUC(i) - Undercut Internal SXP - Excessive Penetration

WH - Worm Hole