



Date: APR/02/2018

Prepared for: Loren Rutherford Branch: Moncton

Sample Description: Weld Test Coupons Welder ID Number: 5301

Standard/Specification: ASME IX: QW-160 Guided Bend Test

Test Results

Sample ID	Visual Examination of Weld	Location	Bend Test	Comments
1G	X	Face	PASS	
2G	X		PASS	
3G	X		PASS	
4G	X		PASS	
1G	X	Root	PASS	
2G	X		PASS	
3G	X		PASS	
4G	X		PASS	

Test Findings

All positions passed bend test.

Recommendations

No recommendations needed.

Test Performed By: 
Scott Gira

Test Date: APR/02/2018

Welders Name: Loren Rutherford
 WPS Used: A-MBF-2
 Base Metal: 6061 T6

Identification Number: 5301
 Test Coupon: 1A
 Thickness: 1/4"

	Actual Values	Range Values
Welding process	<u>GMAW</u>	<u>GMAW</u>
Type of Welder	<u>Semi Auto</u>	<u>Semi Auto</u>
Plate or Pipe	<u>Plate</u>	<u>Plate</u>
Base Metal	<u>6061 T6</u>	<u>6061 T6</u>
Filler Metal Spec	<u>AWS 5.10</u>	<u>AWS 5.10</u>
Filler Metal Class	<u>ER 5356</u>	<u>ER 5356</u>
Filler Metal	<u>Aluminum</u>	<u>Aluminum</u>
Consumable Insert		
Filler Type	<u>Wire</u>	<u>Wire</u>
Position / Progression	<u>Flat 1G/VA</u>	<u>Flat 1G/VA</u>
Inert Gas Used	<u>99.99 % Ar</u>	<u>99.99 % Ar</u>
Voltage	<u>24</u>	<u>22-25</u>
Amperage	<u>auto</u>	<u>230-260</u>
Transfer Mode	<u>Spray Arc</u>	<u>Spray Arc</u>
Welder Polarity	<u>DCRP</u>	<u>DCRP</u>
Cleaning Type	<u>Wire Brush</u>	<u>Wire Brush</u>

Welder and Welding Supervisor are responsible for the test coupons being prepared and welded in accordance with requirements of Section IX of the ASME Code.

Welding Supervisor: Derek Luter
 Location: NEE1 - Moncton NB

Signature: 

Results of Bend Test

Visual Examination of Complete Weld: Pass
 Type of Test: Bend Root or Face: Face
 Code: ASME IX Result: Pass


Visual Examination of Complete Weld: Pass
 Type of Test: Bend Root or Face: Face
 Code: ASME IX Result: Pass

Mechanical Test Performed by: Scott Gira
 Location: NEE, Winnipeg

Signature: 

We certify that the statement in the record is correct and that the test coupons were tested in accordance with the requirements of Section IX of ASME Code.

Date: April, 2/2018
 Name: Chas Lewis

Organization: National Energy Equipment
 Signature: 

Welders Name: Loren Rutherford Ford
 WPS Used: A-MBH-2
 Base Metal: 6061 T6

Identification Number: 5301
 Test Coupon: 2A
 Thickness: 1/4"

	Actual Values	Range Values
Welding process	<u>GMAW</u>	<u>GMAW</u>
Type of Welder	<u>Semi Auto</u>	<u>Semi Auto</u>
Plate or Pipe	<u>Plate</u>	<u>Plate</u>
Base Metal	<u>6061 T6</u>	<u>6061 T6</u>
Filler Metal Spec	<u>AWS 5.10</u>	<u>AWS 5.10</u>
Filler Metal Class	<u>ER 5356</u>	<u>ER 5356</u>
Filler Metal	<u>Aluminum</u>	<u>Aluminum</u>
Consumable Insert		
Filler Type	<u>Wire</u>	<u>Wire</u>
Position / Progression	<u>Horizontal 2G/UH</u>	<u>Horizontal 2G/UH</u>
Inert Gas Used	<u>99.99 % Ar</u>	<u>99.99 % Ar</u>
Voltage	<u>23</u>	<u>22 - 25</u>
Amperage	<u>auto</u>	<u>215 - 230</u>
Transfer Mode	<u>Spray Arc</u>	<u>Spray Arc</u>
Welder Polarity	<u>DCRP</u>	<u>DCRP</u>
Cleaning Type	<u>Wire Brush</u>	<u>Wire Brush</u>

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Welding Supervisor: Derek Ludes
 Location: NEEL - Moncton NB

Signature: [Signature]

Results of Bend Test

Visual Examination of Complete Weld: Pass
 Type of Test: Bend Root or Face: Face
 Code: ASME IX Result: PASS

Visual Examination of Complete Weld: Pass
 Type of Test: Bend Root or Face: Face
 Code: ASME IX Result: PASS

Mechanical Test Performed by: Scott Gira
 Location: NEE, Winnipeg

Signature: [Signature]

We certify that the statement in the record is correct and that the test coupons were tested in accordance with the requirements of Section IX of ASME Code.

Date: April, 2/2018
 Name: [Signature]

Organization: National Energy Equipment
 Signature: [Signature]

Welders Name: Loren Rutherford
 WPS Used: A-MBU-2
 Base Metal: 6061 T6

Identification Number: 5301
 Test Coupon: 3A
 Thickness: 1/4"

	Actual Values	Range Values
Welding process	<u>GMAW</u>	<u>GMAW</u>
Type of Welder	<u>Semi Auto</u>	<u>Semi Auto</u>
Plate or Pipe	<u>Plate</u>	<u>Plate</u>
Base Metal	<u>6061 T6</u>	<u>6061 T6</u>
Filler Metal Spec	<u>AWS 5.10</u>	<u>AWS 5.10</u>
Filler Metal Class	<u>ER 5356</u>	<u>ER 5356</u>
Filler Metal	<u>Aluminum</u>	<u>Aluminum</u>
Consumable Insert		
Filler Type	<u>Wire</u>	<u>Wire</u>
Position / Progression	<u>Vertical 3G/1H</u>	<u>Vertical 3G/1H</u>
Inert Gas Used	<u>99.99 % Ar</u>	<u>99.99 % Ar</u>
Voltage	<u>22</u>	<u>22-25</u>
Amperage	<u>auto</u>	<u>190-210</u>
Transfer Mode	<u>Spray Arc</u>	<u>Spray Arc</u>
Welder Polarity	<u>DCRP</u>	<u>DCRP</u>
Cleaning Type	<u>Wire Brush</u>	<u>Wire Brush</u>

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Welding Supervisor: Derek Luttes
 Location: NEEI - Moncton NB

Signature: [Signature]

Results of Bend Test

Visual Examination of Complete Weld: Pass
 Type of Test: Bend Root or Face: Face
 Code: ASME IX Result: Pass

Visual Examination of Complete Weld: Pass
 Type of Test: Bend Root or Face: Face
 Code: ASME IX Result: Pass

Mechanical Test Performed by: Scott Gica
 Location: NEE, Winnipeg

Signature: [Signature]

We certify that the statement in the record is correct and that the test coupons were tested in accordance with the requirements of Section IX of ASME Code.

Date: April 2/2018
 Name: Chris [Signature]

Organization: National Energy Equipment
 Signature: [Signature]

Welders Name: Loren Rutherford
 WPS Used: A-MBO-2
 Base Metal: 6061

Identification Number: 5301
 Test Coupon: 4A
 Thickness: 1/4"

	Actual Values	Range Values
Welding process	<u>GMAW</u>	<u>GMAW</u>
Type of Welder	<u>Semi Auto</u>	<u>Semi Auto</u>
Plate or Pipe	<u>Plate</u>	<u>Plate</u>
Base Metal	<u>6061</u>	<u>6061</u>
Filler Metal Spec	<u>AWS 5.10</u>	<u>AWS 5.10</u>
Filler Metal Class	<u>ER 5356</u>	<u>ER 5356</u>
Filler Metal	<u>Aluminum</u>	<u>Aluminum</u>
Consumable Insert		
Filler Type	<u>Wire</u>	<u>Wire</u>
Position / Progression	<u>Overhead 4G/UH</u>	<u>Overhead 4G/UH</u>
Inert Gas Used	<u>99.99 % Ar</u>	<u>99.99 % Ar</u>
Voltage	<u>23</u>	<u>22-25</u>
Amperage	<u>auto</u>	<u>215-225</u>
Transfer Mode	<u>Spray Arc</u>	<u>Spray Arc</u>
Welder Polarity	<u>DCRP</u>	<u>DCRP</u>
Cleaning Type	<u>Wire Brush</u>	<u>Wire Brush</u>

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Welding Supervisor: Derek Lutes
 Location: NEE - Moncton NB

Signature: [Signature]

Results of Bend Test

Visual Examination of Complete Weld: Pass
 Type of Test: Bend Root or Face: Face
 Code: ASME IX Result: Pass

Visual Examination of Complete Weld: Pass
 Type of Test: Bend Root or Face: Face
 Code: ASME IX Result: Pass

Mechanical Test Performed by: Scott Gira
 Location: NEE, Winnipeg

Signature: [Signature]

We certify that the statement in the record is correct and that the test coupons were tested in accordance with the requirements of Section IX of ASME Code.

Date: April 2/2018
 Name: Chris Gull

Organization: National Energy Equipment
 Signature: [Signature]