

Prepared for: Serge Vienneau Branch: Moncton

Sample Description: Weld Coupons - 5052 Welder ID Number: 5302

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

### Test Results

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

#### Test Findings

Coupons passed bend test for all positions.

#### Recommendations

No recommendations needed.

Test Performed By:   
Scott Gira

Test Date: Jun/25/2018



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Revision: 0

Welders Name: Serge Vienneau  
 WPS Used: A-MBE-1  
 Base Metal: 5052-H32

Identification Number: 5302  
 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>5052-H32</u>	<u>5052-H32</u>
Filler Metal Spec	<u>AWS 510</u>	<u>AWS 510</u>
Filler Metal Class	<u>ER 5356</u>	<u>ER 5356</u>
Filler Metal	<u>Aluminium</u>	<u>Aluminium</u>
Consumable Insert		
Filler Type	<u>Wire</u>	<u>Wire</u>
Position / Progression	<u>Flat (1A) / UH</u>	<u>Flat (1A) / UH</u>
Inert Gas Used	<u>99.99 % Ar</u>	<u>99.99 % Ar</u>
Voltage	<u>22.5</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 Lutes  
 Location: NEET - Moncton NB

Signature: [Signature]

Results of Bend Test

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

Visual Examination of Complete Weld: Pass  
 Type of Test: Bend Root or Face: Root  
 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: Jun/25/2018  
 Name: [Signature]

Organization: National Energy Equipment  
 Signature: [Signature]

Welders Name: Serge Vienleau  
 WPS Used: H-MBH-1  
 Base Metal: 5052-H32

Identification Number: 5302  
 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>5052-H32</u>	<u>5052-H32</u>
Filler Metal Spec	<u>AWS-510</u>	<u>AWS-510</u>
Filler Metal Class	<u>ER 5356</u>	<u>ER-5356</u>
Filler Metal	<u>Aluminium</u>	<u>Aluminium</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>24</u>	<u>21-24</u>
Amperage	<u>Auto</u>	<u>205-220</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 Lytes  
 Location: NERI - Manchester NB

Signature: [Signature]

Results of Bend Test

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

Visual Examination of Complete Weld: Pass  
 Type of Test: Bend Root or 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: Jan/25/2018  
 Name: [Signature]

Organization: National Energy Equipment  
 Signature: [Signature]

Welders Name: Serge Vienneau  
 WPS Used: A-MBK-1  
 Base Metal: 5052-H32

Identification Number: 5302  
 Test Coupon: 3G  
 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>5052-H32</u>	<u>5052-H32</u>
Filler Metal Spec	<u>AWS 510</u>	<u>AWS 510</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) / UH</u>	<u>Vertical (3G) / UH</u>
Inert Gas Used	<u>99.99 % Ar</u>	<u>99.99 % Ar</u>
Voltage	<u>22.5</u>	<u>21-24</u>
Amperage	<u>Auto</u>	<u>185-205</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  
 Code: ASME IX Result: Pass

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

Mechanical Test Performed by: Scott Geira  
 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: Jun/25/2018  
 Name: Chris Lewis

Organization: National Energy Equipment  
 Signature: [Signature]

Form Number: NEE-FRM-019

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Revision: 0

Welders Name: Serge Vienneau  
 WPS Used: A-MBO-1  
 Base Metal: 5052-H32

Identification Number: 5302  
 Test Coupon: 49  
 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>5052-H32</u>	<u>5052-H32</u>
Filler Metal Spec	<u>AWS-510</u>	<u>AWS-510</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>24</u>	<u>21-24</u>
Amperage	<u>Auto</u>	<u>200-280</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-Monahan 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: Jun/25/2018  
 Name: Chris Leuth

Organization: National Energy Equipment  
 Signature: [Signature]