WELDER LIST & WELDER QUALIFICATION RESULT

CLIENT : **PT. CITRA PALU MINERALS (CPM)**
PROJECT NAME : **POBOYA 2000 TPD EXPANSION PROJECT**
LOCATION : **PALU, SULAWESI**
CONSULTANT : **PT. COMO ENGINEERS (PT. CE)**
VENDOR : **PT. HANAZONO ENGINEERING INDONESIA**
DOCUMENT NO. : **E2502-000-PRC-006**

FOR APPROVAL

☐AP	APPROVED
☐AN	APPROVED AS NOTED
☐RE	NOT APPROVED (Re-Submit)
☐RV	REVIEWED
☐RN	REVIEWED WITH NOTES
☐NR	NOT BE RETURNED
RETURN DATE	

CPM PT Citra Palu Minerals

REV	DATE ISSUED	ISSUE PURPOSE	PREPARE	CHECKED	APPROVED	AUTHORIZED
A	March 02, 2026	Issue For Approval	Benridho	Rusnandi	Murasato	

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WELDER'S LIST (Poboyo 2000 TPD Expansion Project)

Issued No. : WI/CPM/26/01 | Issued Date : March 02, 2026 | Rev No. 0

Effective Period : November 11, 2025 ~ November 10, 2028

No.	Welder I.D No.	Welder Name	Process	Test of T (mm)	Test Position	Position Qualified *1 & *4	Weld TH'K Range Inch	Weld TH'K Range mm	Material P. No	Filler metal F. No.	DIA Range (≤ 24" OD)	Backing	Consumable Inserts	AC/DC (EN or EP)	Mode * 2	Up Down	Gas Backing	Certified	Certificate No	Expired Date	Remark
1	**YD-1138**	YODI	GTAW+ SMAW	8,75	6G	All & Uphill	0.34	8,74	1	6	OD ≥ 1"	With/Without	Without	DCEN	-	Up	Ar.99 / 99%	Disnaker	HEI/WPQR/QC/1138/ 26/01	November 10. 2028	
						All & Uphill	Unlimited			6 & 4	OD > 1"	With	-	DCEP	-	Up	Weld Metal				
			SMAW	12	3G	F/H/V	0 - 24 mm		1	4	Grove:F.V : OD > 24" F: 2 7/8" < OD < 24" Fillet: F.H.V	With/Without	Without	DCEP	-	Up	Weld Metal		HEI/WPQR/QC/1138/ 26/04	November 10. 2028	
2	**SR-0904**	SAHRUL	GTAW+ SMAW	8,75	6G	All & Uphill	0.34	8,74	1	6	OD ≥ 1"	With/Without	Without	DCEN	-	Up	Ar.99 / 99%	Disnaker	HEI/WPQR/QC/0904/ 26/02	November 10. 2028	
						All & Uphill	Unlimited			6 & 4	OD > 1"	With	-	DCEP	-	Up	Weld Metal				
			SMAW	12	3G	F/H/V	0 - 24 mm		1	4	Grove:F.V : OD > 24" F: 2 7/8" < OD < 24" Fillet: F.H.V	With/Without	Without	DCEP	-	Up	Weld Metal		HEI/WPQR/QC/0904/ 26/05	November 10. 2028	
3	**RH-1402**	ROHIMI	GTAW+ SMAW	8,75	6G	All & Uphill	0.34	8,74	1	6	OD ≥ 1"	With/Without	Without	DCEN	-	Up	Ar.99 / 99%	Disnaker	HEI/WPQR/QC/1402/ 26/03	November 10. 2028	
						All & Uphill	Unlimited			6 & 4	OD > 1"	With	-	DCEP	-	Up	Weld Metal				
			SMAW	12	3G	F/H/V	0 - 24 mm		1	4	Grove:F.V : OD > 24" F: 2 7/8" < OD < 24" Fillet: F.H.V	With/Without	Without	DCEP	-	Up	Weld Metal		HEI/WPQR/QC/1402/ 26/06	November 10. 2028	
4	**MM-0410**	MAHMUDI	GTAW+ SMAW	8,75	6G	All & Uphill	0.34	8,74	1	6	OD ≥ 1"	With/Without	Without	DCEN	-	Up	Ar.99 / 99%	Disnaker	HEI/WPQR/QC/0410/ 26/07	December 24. 2028	
						All & Uphill	Unlimited			6 & 4	OD > 1"	With	-	DCEP	-	Up	Weld Metal				
5	**SP-2506**	SUPARLAN	SMAW	12	3G	F/H/V	0 - 24 mm		1	4	Grove:F.V : OD > 24" F: 2 7/8" < OD < 24" Fillet: F.H.V	With/Without	Without	DCEP	-	Up	Weld Metal	Disnaker	HEI/WPQR/QC/2506/ 26/08	December 30. 2028	

REMARKS

* 1. F = Flat, H = Horizontal, V = Vertical, O = Overhead
* 2. S = Spray, G = Globular, P = Pulsating
* 3. Direct visual Control/No Automatic Joint Tracking/ Single pass or Multiple passes
* 4. Plate and Pipe (Over 24" OD)
* 5. Overlay

Prepared by :

Variesty Husein
QC Inspector
March 02,2026
Date

Approved by :

Rusnandi
QA/QC Manager
March 02,2026
Date

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WELDER PERFORMANCE QUALIFICATIONS RECORD

Welder's name: YODI | Identification no.: YD-1138 | Certificate no.: HEI/WPQR/QC/1138/26/01

Test Description

Identification of WPS followed: 006/HEI/WPS/MIGAS/20 | ■ Test coupon ☐ Production weld | Date welded: November 11, 2025

Specification and / grade or UNS Number of base metal(s): SA 106 GR B | 8,74 mm

Testing Conditions and Qualification Limits

Welding Variables (QW-350)	Actual Values		Range Qualified	
Welding process (es)	GTAW	SMAW	GTAW	SMAW
Type (i.e.;manual,semi-automatic) used	Manual	Manual	Manual	Manual
Backing (with/without)	Without	With	With/Without	With
☐ Plate ■ Pipe (enter diameter if pipe or tube)	Pipe NPS 2" (60.3mm)		OD ≥ 1"	OD ≥ 1"
Base metal P-Number to P-Number	1 to 1	1 to 1	1~15F,34,41~49	1~15F,34,41~49
Filler metal or electrode specification(s) (SFA) (info only)	5.18	5.1		
Filler metal or electrode classification(s) (info only)	ER 70S-G	E 7018-1H4R		
Filler metal F-Number(s)	6	4	6	4,3,2,1 with backing
Consumable insert (GTAW or PAW)	Without	-	Without	-
Filler Metal Product Form (QW-404.23) (GTAW or PAW)	Solid	-	Solid	-
Deposit thickness for each process				
Process 1 : GTAW 3 layers minimum ☐ yes ■ No	2,5 mm		5 mm	
Process 2 : SMAW 3 layers minimum ■ yes ☐ No	6,24 mm		12,48 mm	
Position(s)	6 G	6 G	in accordance QW-461.9 (All Position)	
Vertical progression (uphill or downhill)	Uphill	Uphill	Uphill	Uphill
Type of fuel gas (OFW)	Argon 99,99%	-	Argon 99,99%	-
Use of backing gas (GTAW, PAW, GMAW)	Without	-	With/Without	-
Transfer mode (spray, globular, or pulse to short circuit-GMAW)	-	-	-	-
GTAW current type and polarity (AC, DCEP, DCEN)	DCEN	-	DCEN	-

RESULTS

Visual Examination of Completed Weld (QW-302.4): **Satisfactory**

☐ Transverse face and root bends [QW-462.3(a)] ☐ Longitudinal bends [QW-462.3(b)] ☐ Side bends (QW-462.2)

☐ Pipe bend specimen, corrosion-resistant weld metal overlay [QW-462.5(c)]

☐ Plate bend specimen, corrosion-resistance weld metal overlay [QW-462.5(d)]

☐ Pipe specimen, macro test for fusion [QW-462.5(b)] ☐ Plate specimen, macro test for fusion [QW-462.5(e)]

Type	Result	Type	Result	Type	Result
		Blank			

Alternative Volumetric examination results (QW-191): **Accepted** RT ■ or UT ☐ (check one)

Fillet weld - fracture test (QW-181.2): - Length and percent of defects: -

☐ Fillet welds in plate [QW-462.4(b)] ☐ Fillet welds in pipe [QW-462.4(c)]

Macro examination (QW-184): - Fillet size (in.): - x - Concavity/convexity (in.): -

Other tests: -

(Film) or specimens evaluated by: Didid Sugandi (RT Level II) Company: PT. TITIAN L.A (Report No. 001/TLA/RT-HEI/XI/2025)

Mechanical tests conducted by: - Laboratory test no.: -

Welding supervised by: Variesy Husein

We certify that the statements in this record are correct and that the test coupons were prepared, welded, and tested in accordance with the requirements of Section IX of the ASME BOILER AND PRESSURE VESSEL CODE.

Organization: PT. Hanazono Engineering Indonesia — Certified By

Prepared By: BENRIOHO BRH Date: March 02, 2026

Inspected By: VARIESY Date: March 02, 2026

Approved By: Date: March 03 2026

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WELDER PERFORMANCE QUALIFICATIONS RECORD

Welder's name **SAHRUL** Identification no. **SR-0904** Certificate no. **HEI/WPQR/QC/0904/26/02**

Test Description

Identification of WPS followed 006/HEI/WPS/MIGAS/20 ■ Test coupon ☐ Production weld Date welded November 11, 2025

Specification and / grade or UNS Number of base metal(s) SA 106 GR B 8,74 mm

Testing Conditions and Qualification Limits

Welding Variables (QW-350)	Actual Values		Range Qualified	
Welding process (es)	GTAW	SMAW	GTAW	SMAW
Type (i.e.;manual,semi-automatic) used	Manual	Manual	Manual	Manual
Backing (with/without)	Without	With	With/Without	With
☐ Plate ■ Pipe (enter diameter if pipe or tube)	Pipe NPS 2" (60.3mm)		OD ≥ 1"	OD ≥ 1"
Base metal P-Number to P-Number	1 to 1	1 to 1	1~15F,34,41~49	1~15F,34,41~49
Filler metal or electrode specification(s) (SFA) (info only)	5.18	5.1		
Filler metal or electrode classification(s) (info only)	ER 70S-G	E 7018-1H4R		
Filler metal F-Number(s)	6	4	6	4,3,2,1 with backing
Consumable insert (GTAW or PAW)	Without	-	Without	-
Filler Metal Product Form (QW-404.23) (GTAW or PAW)	Solid	-	Solid	-
Deposit thickness for each process				
Process 1 : GTAW 3 layers minimum ☐ yes ■ No	2,5 mm		5 mm	
Process 2 : SMAW 3 layers minimum ■ yes ☐ No	6,24 mm		12,48 mm	
Position(s)	6 G	6 G	in accordance QW-461.9 (All Position)	
Vertical progression (uphill or downhill)	Uphill	Uphill	Uphill	Uphill
Type of fuel gas (OFW)	Argon 99,99%	-	Argon 99,99%	-
Use of backing gas (GTAW, PAW, GMAW)	Without	-	With/Without	-
Transfer mode (spray, globular, or pulse to short circuit-GMAW)	-	-	-	-
GTAW *current type and polarity* (AC, DCEP, DCEN)	DCEN	-	DCEN	-

RESULTS

Visual Examination of Completed Weld (QW-302.4) **Satisfactory**

☐ Transverse face and root bends [QW-462.3(a)] ☐ Longitudinal bends [QW-462.3(b)] ☐ Side bends (QW-462.2)

☐ Pipe bend specimen, corrosion-resistant weld metal overlay [QW-462.5(c)]

☐ Plate bend specimen, corrosion-resistance weld metal overlay [QW-462.5(d)]

☐ Pipe specimen, macro test for fusion [QW-462.5(b)] ☐ Plate specimen, macro test for fusion [QW-462.5(e)]

Type	Result	Type	Result	Type	Result
			Blank		

Alternative Volumetric examination results (QW-191) **Accepted** RT ■ or UT ☐ (check one)

Fillet weld - fracture test (QW-181.2) - Length and percent of defects -

☐ Fillet welds in plate [QW-462.4(b)] ☐ Fillet welds in pipe [QW-462.4(c)]

Macro *examination* (QW-184) - *Fillet size (in.)* - x - *Concavity/convexity (in.)* -

Other tests -

(Film) or specimens evaluated by Didid Sugandi (RT Level II) Company PT. TITIAN L.A (Report No. 001/TLA/RT-HEI/XI/2025)

Mechanical tests conducted by - Laboratory test no. -

Welding supervised by Variesy Husein

We certify that the statements in this record are correct and that the test coupons were prepared, welded, and tested in accordance with the requirements of Section IX of the ASME BOILER AND PRESSURE VESSEL CODE.

Organization **PT. Hanazono Engineering Indonesia** Certified By

Prepared By : BENRIDHO Date : March 02,2026

Inspected By : VARIESY Date : March 02,2026

Approved By : Date : March 02, 2026

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WELDER PERFORMANCE QUALIFICATIONS RECORD

Welder's name **ROHIMI** Identification no. **RH-1402** Certificate no. **HEI/WPQR/QC/1402/26/03**

Test Description

Identification of WPS followed 006/HEI/WPS/MIGAS/20 ■ Test coupon ☐ Production weld Date welded November 11, 2025

Specification and / grade or UNS Number of base metal(s) SA 106 GR B 8,74 mm

Testing Conditions and Qualification Limits

Welding Variables (QW-350)	Actual Values		Range Qualified	
Welding process (es)	GTAW	SMAW	GTAW	SMAW
Type (i.e.;manual,semi-automatic) used	Manual	Manual	Manual	Manual
Backing (with/without)	Without	With	With/Without	With
☐ Plate ■ Pipe (enter diameter if pipe or tube)	Pipe NPS 2" (60.3mm)		OD ≥ 1"	OD ≥ 1"
Base metal P-Number to P-Number	1 to 1	1 to 1	1~15F,34,41~49	1~15F,34,41~49
Filler metal or electrode specification(s) (SFA) (info only)	5.18	5.1		
Filler metal or electrode classification(s) (info only)	ER 70S-G	E 7018-1H4R		
Filler metal F-Number(s)	6	4	6	4,3,2,1 with backing
Consumable insert (GTAW or PAW)	Without	-	Without	-
Filler Metal Product Form (QW-404.23) (GTAW or PAW)	Solid	-	Solid	-
Deposit thickness for each process	2,5 mm		5 mm	
Process 1 : GTAW 3 layers minimum ☐ yes ■ No	6,24 mm		12,48 mm	
Process 2 : SMAW 3 layers minimum ■ yes ☐ No			in accordance QW-461.9 (All Position)	
Position(s)	6 G	6 G		
Vertical progression (uphill or downhill)	Uphill	Uphill	Uphill	Uphill
Type of fuel gas (OFW)	Argon 99,99%	-	Argon 99,99%	-
Use of backing gas (GTAW, PAW, GMAW)	Without	-	With/Without	-
Transfer mode (spray, globular, or pulse to short circuit-GMAW)	-	-	-	-
GTAW current type and polarity (AC, DCEP, DCEN)	DCEN	-	DCEN	-

RESULTS

Visual Examination of Completed Weld (QW-302.4) **Satisfactory**

☐ Transverse face and root bends [QW-462.3(a)] ☐ Longitudinal bends [QW-462.3(b)] ☐ Side bends (QW-462.2)

☐ Pipe bend specimen, corrosion-resistant weld metal overlay [QW-462.5(c)]

☐ Plate bend specimen, corrosion-resistance weld metal overlay [QW-462.5(d)]

☐ Pipe specimen, macro test for fusion [QW-462.5(b)] ☐ Plate specimen, macro test for fusion [QW-462.5(e)]

Type	Result	Type	Result	Type	Result
		Blank			

Alternative Volumetric examination results (QW-191) **Accepted** RT ■ or UT ☐ (check one)

Fillet weld - fracture test (QW-181.2) - Length and percent of defects -

☐ Fillet welds in plate [QW-462.4(b)] ☐ Fillet welds in pipe [QW-462.4(c)]

Macro examination (QW-184) - *Fillet size (in.)* - x - *Concavity/convexity (in.)* -

Other tests -

(Film) or specimens evaluated by Didid Sugandi (RT Level II) Company PT. TITIAN L.A (Report No. 001/TLA/RT-HEI/XI/2025)

Mechanical tests conducted by - Laboratory test no. -

Welding supervised by VARIESY HUSEIN

We certify that the statements in this record are correct and that the test coupons were prepared, welded, and tested in accordance with the requirements of Section IX of the ASME BOILER AND PRESSURE VESSEL CODE.

Organization **PT. Hanazono Engineering Indonesia** Certified By

Prepared By : BENRIDHO Date : March 02, 2026

Inspected By : VARIESY Date : March 02, 2026

Approved By : Date : March 02, 2026

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WELDER PERFORMANCE QUALIFICATIONS RECORD

Welder's name: YODI | Identification no.: YD-1138 | Certificate no.: HEI/WPQR/QC/1138/26/04

Test Description

Identification of WPS followed: 008/HEI/WPS/MIGAS/21 | ■ Test coupon ☐ Production weld | Date welded: November 11, 2025

Specification and / grade or UNS Number of base metal(s): SA-36 | Thickness: 12 mm

Testing Conditions and Qualification Limits

Welding Variables (QW-350)	Actual Values	Range Qualified
Welding process (es)	SMAW	SMAW
Type (i.e.;manual,semi-automatic) used	Manual	Manual
Backing (with/without)	Without	With/without
■ Plate ☐ Pipe (enter diameter if pipe or tube)	t: 12 mm	t: 24 mm
Base metal P-Number to P-Number	1 to 1	1~15F,34,41~49
Filler metal or electrode specification(s) (SFA) (info only)	5.1	
Filler metal or electrode classification(s) (info only)	E 7018-1H4R	
Filler metal F-Number(s)	4	4,3,2,1 with backing
Consumable insert (GTAW or PAW)	-	-
Filler Metal Product Form (QW-404.23) (GTAW or PAW)	-	-
Deposit thickness for each process		
Process 1 : SMAW 3 layers minimum ■ yes ☐ No	t: 12 mm	t: 24 mm
Process 2 : - 3 layers minimum ☐ yes ☐ No	-	-
Position(s)	3G / Uphill	Grove:F.V : OD > 24" F: 2 7/8" ≤ OD ≤ 24" Fillet: F.H.V
Vertical progression (uphill or downhill)	-	-
Type of fuel gas (OFW)	-	-
Use of backing gas (GTAW, PAW, GMAW)	-	-
Transfer mode (spray, globular, or pulse to short circuit-GMAW)	-	-
GTAW current type and polarity (AC, DCEP, DCEN)	-	-

RESULTS

Visual Examination of Completed Weld (QW-302.4): **Satisfactory**

☐ Transverse face and root bends [QW-462.3(a)] ☐ Longitudinal bends [QW-462.3(b)] ☐ Side bends (QW-462.2)

☐ Pipe bend specimen, corrosion-resistant weld metal overlay [QW-462.5(c)]

☐ Plate bend specimen, corrosion-resistance weld metal overlay [QW-462.5(d)]

☐ Pipe specimen, macro test for fusion [QW-462.5(b)] ☐ Plate specimen, macro test for fusion [QW-462.5(e)]

Type	Result	Type	Result	Type	Result
		Blank			

Alternative Volumetric examination results (QW-191): **Accepted** RT ■ or UT ☐ (check one)

Fillet weld - fracture test (QW-181.2): - Length and percent of defects: -

☐ Fillet welds in plate [QW-462.4(b)] ☐ Fillet welds in pipe [QW-462.4(c)]

Macro examination (QW-184): - Fillet size (in.): - x - Concavity/convexity (in.): -

Other tests: -

(Film) or specimens evaluated by: Didid Sugandi (RT Level II) Company: PT. TITIAN L.A (Report No. 002/TLA/RT-HEI/XI/2025)

Mechanical tests conducted by: - Laboratory test no.: -

Welding supervised by: Variesy Husein

We certify that the statements in this record are correct and that the test coupons were prepared, welded, and tested in accordance with the requirements of Section IX of the ASME BOILER AND PRESSURE VESSEL CODE.

Organization: **PT. Hanazono Engineering Indonesia**

Certified By

Prepared By : BENRIDHO Date : March 02, 2026

Inspected By : VARIESY Date : March 02, 2026

Approved By : Date : March 02, 2026

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WELDER PERFORMANCE QUALIFICATIONS RECORD

Welder's name: **SAHRUL** Identification no.: **SR-0904** Certificate no.: **HEI/WPQR/QC/0904/26/05**

Test Description

Identification of WPS followed: 008/HEI/WPS/MIGAS/21 ■ Test coupon ☐ Production weld Date welded: November 11, 2025

Specification and / grade or UNS Number of base metal(s): SA-36 Thickness: 12 mm

Testing Conditions and Qualification Limits

Welding Variables (QW-350)	Actual Values	Range Qualified
Welding process (es)	SMAW	SMAW
Type (i.e.;manual,semi-automatic) used	Manual	Manual
Backing (with/without)	Without	With/without
■ Plate ☐ Pipe (enter diameter if pipe or tube)	t: 12 mm	t: 24 mm
Base metal P-Number to P-Number	1 to 1	1~15F,34,41~49
Filler metal or electrode specification(s) (SFA) (info only)	5.1	
Filler metal or electrode classification(s) (info only)	E 7018-1H4R	
Filler metal F-Number(s)	4	4,3,2,1 with backing
Consumable insert (GTAW or PAW)	-	-
Filler Metal Product Form (QW-404.23) (GTAW or PAW)	-	-
Deposit thickness for each process		
Process 1 : SMAW 3 layers minimum ■ yes ☐ No	t: 12 mm	t: 24 mm
Process 2 : - 3 layers minimum ☐ yes ☐ No	-	-
Position(s)	3G / Uphill	Grove:F.V : OD > 24" F: 2 7/8" ≤ OD ≤ 24" Fillet: F.H.V
Vertical progression (uphill or downhill)	-	-
Type of fuel gas (OFW)	-	-
Use of backing gas (GTAW, PAW, GMAW)	-	-
Transfer mode (spray, globular, or pulse to short circuit-GMAW)	-	-
GTAW current type and polarity (AC, DCEP, DCEN)	-	-

RESULTS

Visual Examination of Completed Weld (QW-302.4): **Satisfactory**

☐ Transverse face and root bends [QW-462.3(a)] ☐ Longitudinal bends [QW-462.3(b)] ☐ Side bends (QW-462.2)

☐ Pipe bend specimen, corrosion-resistant weld metal overlay [QW-462.5(c)]

☐ Plate bend specimen, corrosion-resistance weld metal overlay [QW-462.5(d)]

☐ Pipe specimen, macro test for fusion [QW-462.5(b)] ☐ Plate specimen, macro test for fusion [QW-462.5(e)]

Type	Result	Type	Result	Type	Result
		Blank			

Alternative Volumetric examination results (QW-191): **Accepted** RT ■ or UT ☐ (check one)

Fillet weld - fracture test (QW-181.2): - Length and percent of defects: -

☐ Fillet welds in plate [QW-462.4(b)] ☐ Fillet welds in pipe [QW-462.4(c)]

Macro examination (QW-184): - Fillet size (in.): - x - Concavity/convexity (in.): -

Other tests: -

(Film) or specimens evaluated by: Didid Sugandi (RT Level II) Company: PT. TITIAN L.A (Report No. 002/TLA/RT-HEI/XI/2025)

Mechanical tests conducted by: - Laboratory test no.: -

Welding supervised by: Variesy Husein

We certify that the statements in this record are correct and that the test coupons were prepared, welded, and tested in accordance with the requirements of Section IX of the ASME BOILER AND PRESSURE VESSEL CODE.

Organization: **PT. Hanazono Engineering Indonesia** Certified By

Prepared By: BENRIDHO BAN Date: March 02, 2026

Inspected By: VARIESY Date: March 02, 2026

Approved By: Date: March 02, 2026

PT. HANAZONO Engineering Indonesia
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WELDER PERFORMANCE QUALIFICATIONS RECORD

Welder's name: **ROHIMI** Identification no.: **RH-1402** Certificate no.: **HEI/WPQR/QC/1402/26/06**

Test Description

Identification of WPS followed: 008/HEI/WPS/MIGAS/21 ■ Test coupon ☐ Production weld Date welded: November 11, 2025

Specification and / grade or UNS Number of base metal(s): SA-36 Thickness: 12 mm

Testing Conditions and Qualification Limits

Welding Variables (QW-350)	Actual Values	Range Qualified
Welding process (es)	SMAW	SMAW
Type (i.e.;manual,semi-automatic) used	Manual	Manual
Backing (with/without)	Without	With/without
■ Plate ☐ Pipe (enter diameter if pipe or tube)	t: 12 mm	t: 24 mm
Base metal P-Number to P-Number	1 to 1	1~15F,34,41~49
Filler metal or electrode specification(s) (SFA) (info only)	5.1	
Filler metal or electrode classification(s) (info only)	E 7018-1H4R	
Filler metal F-Number(s)	4	4,3,2,1 with backing
Consumable insert (GTAW or PAW)	-	-
Filler Metal Product Form (QW-404.23) (GTAW or PAW)	-	-
Deposit thickness for each process		
Process 1 : SMAW 3 layers minimum ■ yes ☐ No	t: 12 mm	t: 24 mm
Process 2 : - 3 layers minimum ☐ yes ☐ No	-	-
Position(s)	3G / Uphill	Grove:F.V : OD > 24" F: 2 7/8" ≤ OD ≤ 24" Fillet: F.H.V
Vertical progression (uphill or downhill)	-	-
Type of fuel gas (OFW)	-	-
Use of backing gas (GTAW, PAW, GMAW)	-	-
Transfer mode (spray, globular, or pulse to short circuit-GMAW)	-	-
GTAW current type and polarity (AC, DCEP, DCEN)	-	-

RESULTS

Visual Examination of Completed Weld (QW-302.4) **Satisfactory**

☐ Transverse face and root bends [QW-462.3(a)] ☐ Longitudinal bends [QW-462.3(b)] ☐ Side bends (QW-462.2)

☐ Pipe bend specimen, corrosion-resistant weld metal overlay [QW-462.5(c)]

☐ Plate bend specimen, corrosion-resistance weld metal overlay [QW-462.5(d)]

☐ Pipe specimen, macro test for fusion [QW-462.5(b)] ☐ Plate specimen, macro test for fusion [QW-462.5(e)]

Type	Result	Type	Result	Type	Result
		Blank			

Alternative Volumetric examination results (QW-191) **Accepted** RT ■ or UT ☐ (check one)

Fillet weld - fracture test (QW-181.2) - Length and percent of defects -

☐ Fillet welds in plate [QW-462.4(b)] ☐ Fillet welds in pipe [QW-462.4(c)]

Macro examination (QW-184) - Fillet size (in.) - x - Concavity/convexity (in.) -

Other tests -

(Film) or specimens evaluated by Didid Sugandi (RT Level II) Company PT. TITIAN L.A (Report No. 002/TLA/RT-HEI/XI/2025)

Mechanical tests conducted by - Laboratory test no. -

Welding supervised by Variesy Husein

We certify that the statements in this record are correct and that the test coupons were prepared, welded, and tested in accordance with the requirements of Section IX of the ASME BOILER AND PRESSURE VESSEL CODE.

Organization: **PT. Hanazono Engineering Indonesia** Certified By

Prepared By : BENRIDHO Date : March 02, 2026

Inspected By : VARIESY Date : March 03 2026

Approved By : Date : March 03 2026

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WELDER PERFORMANCE QUALIFICATIONS RECORD

Welder's name **MAHMUDI** Identification no. **MM-0410** Certificate no. **HEI/WPQR/QC/0410/26/07**

Test Description

Identification of WPS followed 006/HEI/WPS/MIGAS/20 ■ Test coupon ☐ Production weld Date welded December 24, 2025

Specification and / grade or UNS Number of base metal(s) SA 106 GR B 8,74 mm

Testing Conditions and Qualification Limits

Welding Variables (QW-350)	Actual Values		Range Qualified	
Welding process (es)	GTAW	SMAW	GTAW	SMAW
Type (i.e.;manual,semi-automatic) used	Manual	Manual	Manual	Manual
Backing (with/without)	Without	With	With/Without	With
☐ Plate ■ Pipe (enter diameter if pipe or tube)	Pipe NPS 2" (60.3mm)		OD ≥ 1"	OD ≥ 1"
Base metal P-Number to P-Number	1 to 1	1 to 1	1~15F,34,41~49	1~15F,34,41~49
Filler metal or electrode specification(s) (SFA) (info only)	5.18	5.1		
Filler metal or electrode classification(s) (info only)	ER 70S-G	E 7018-1H4R		
Filler metal F-Number(s)	6	4	6	4,3,2,1 with backing
Consumable insert (GTAW or PAW)	Without	-	Without	-
Filler Metal Product Form (QW-404.23) (GTAW or PAW)	Solid	-	Solid	-
Deposit thickness for each process				
Process 1 : GTAW 3 layers minimum ☐ yes ■ No	2,5 mm		5 mm	
Process 2 : SMAW 3 layers minimum ■ yes ☐ No	6,24 mm		12,48 mm	
Position(s)	6 G	6 G	in accordance QW-461.9 (All Position)	
Vertical progression (uphill or downhill)	Uphill	Uphill	Uphill	Uphill
Type of fuel gas (OFW)	Argon 99,99%	-	Argon 99,99%	-
Use of backing gas (GTAW, PAW, GMAW)	Without	-	With/Without	-
Transfer mode (spray, globular, or pulse to short circuit-GMAW)	-	-	-	-
GTAW *current type and polarity* (AC, DCEP, DCEN)	DCEN	-	DCEN	-

RESULTS

Visual Examination of Completed Weld (QW-302.4) **Satisfactory**

☐ Transverse face and root bends [QW-462.3(a)] ☐ Longitudinal bends [QW-462.3(b)] ☐ Side bends (QW-462.2)

☐ Pipe bend specimen, corrosion-resistant weld metal overlay [QW-462.5(c)]

☐ Plate bend specimen, corrosion-resistance weld metal overlay [QW-462.5(d)]

☐ Pipe specimen, macro test for fusion [QW-462.5(b)] ☐ Plate specimen, macro test for fusion [QW-462.5(e)]

Type	Result	Type	Result	Type	Result
			Blank		

Alternative Volumetric examination results (QW-191) **Accepted** RT ■ or UT ☐ (check one)

Fillet weld - fracture test (QW-181.2) - Length and percent of defects -

☐ Fillet welds in plate [QW-462.4(b)] ☐ Fillet welds in pipe [QW-462.4(c)]

Macro examination (QW-184) - *Fillet size (in.)* - x - *Concavity/convexity (in.)* -

Other tests -

(Film) or specimens evaluated by Rahmat Saputra (RT Level II) Company PT. TITIAN L.A (Report No. 003/TLA/RT-HEI/XI/2025)

Mechanical tests conducted by - Laboratory test no. -

Welding supervised by Variesy Husein

We certify that the statements in this record are correct and that the test coupons were prepared, welded, and tested in accordance with the requirements of Section IX of the ASME BOILER AND PRESSURE VESSEL CODE.

Organization **PT. Hanazono Engineering Indonesia** Certified By

Prepared By : BENRIDHO Date : March 02, 2026

Inspected By : VARIESY Date : March 02, 2026

Approved By : Date : March 02, 2026

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WELDER PERFORMANCE QUALIFICATIONS RECORD

Welder's name: YODI | Identification no.: YD-1138 | Certificate no.: HEI/WPQR/QC/1138/26/04

Test Description

Identification of WPS followed: 008/HEI/WPS/MIGAS/21 | ■ Test coupon ☐ Production weld | Date welded: November 11, 2025

Specification and / grade or UNS Number of base metal(s): SA-36 | Thickness: 12 mm

Testing Conditions and Qualification Limits

Welding Variables (QW-350)	Actual Values	Range Qualified
Welding process (es)	SMAW	SMAW
Type (i.e.;manual,semi-automatic) used	Manual	Manual
Backing (with/without)	Without	With/without
■ Plate ☐ Pipe (enter diameter if pipe or tube)	t: 12 mm	t: 24 mm
Base metal P-Number to P-Number	1 to 1	1~15F,34,41~49
Filler metal or electrode specification(s) (SFA) (info only)	5.1	
Filler metal or electrode classification(s) (info only)	E 7018-1H4R	
Filler metal F-Number(s)	4	4,3,2,1 with backing
Consumable insert (GTAW or PAW)	-	-
Filler Metal Product Form (QW-404.23) (GTAW or PAW)	-	-
Deposit thickness for each process		
Process 1 : SMAW 3 layers minimum ■ yes ☐ No	t: 12 mm	t: 24 mm
Process 2 : - 3 layers minimum ☐ yes ☐ No	-	-
Position(s)	3G / Uphill	Grove:F.V : OD > 24" F: 2 7/8" ≤ OD ≤ 24" Fillet: F.H.V
Vertical progression (uphill or downhill)	-	-
Type of fuel gas (OFW)	-	-
Use of backing gas (GTAW, PAW, GMAW)	-	-
Transfer mode (spray, globular, or pulse to short circuit-GMAW)	-	-
GTAW current type and polarity (AC, DCEP, DCEN)	-	-

RESULTS

Visual Examination of Completed Weld (QW-302.4): **Satisfactory**

☐ Transverse face and root bends [QW-462.3(a)] ☐ Longitudinal bends [QW-462.3(b)] ☐ Side bends (QW-462.2)

☐ Pipe bend specimen, corrosion-resistant weld metal overlay [QW-462.5(c)]

☐ Plate bend specimen, corrosion-resistance weld metal overlay [QW-462.5(d)]

☐ Pipe specimen, macro test for fusion [QW-462.5(b)] ☐ Plate specimen, macro test for fusion [QW-462.5(e)]

Type	Result	Type	Result	Type	Result
		Blank			

Alternative Volumetric examination results (QW-191): **Accepted** RT ■ or UT ☐ (check one)

Fillet weld - fracture test (QW-181.2): - | Length and percent of defects: -

☐ Fillet welds in plate [QW-462.4(b)] ☐ Fillet welds in pipe [QW-462.4(c)]

Macro examination (QW-184): - | Fillet size (in.): - x - | Concavity/convexity (in.): -

Other tests: -

(Film) or specimens evaluated by: Didid Sugandi (RT Level II) | Company: PT. TITIAN L.A (Report No. 002/TLA/RT-HEI/XI/2025)

Mechanical tests conducted by: - | Laboratory test no.: -

Welding supervised by: Variesy Husein

We certify that the statements in this record are correct and that the test coupons were prepared, welded, and tested in accordance with the requirements of Section IX of the ASME BOILER AND PRESSURE VESSEL CODE.

Organization: **PT. Hanazono Engineering Indonesia**

Certified By

Prepared By : HENRIDHO | Date : March 02, 2026

Inspected By : VARIESY | Date : March 02. 2026

Approved By : | Date : March 02. 2026

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WELDER PERFORMANCE QUALIFICATIONS RECORD

Welder's name **SUPARLAN** Identification no. **SP-2506** Certificate no. **HEI/WPQR/QC/2506/26/08**

Test Description

Identification of WPS followed 008/HEI/WPS/MIGAS/21 ■ Test coupon ☐ Production weld Date welded November 11, 2025

Specification and / grade or UNS Number of base metal(s) SA-36 Thickness 12 mm

Testing Conditions and Qualification Limits

Welding Variables (QW-350)	Actual Values	Range Qualified
Welding process (es)	SMAW	SMAW
Type (i.e.;manual,semi-automatic) used	Manual	Manual
Backing (with/without)	Without	With/without
■ Plate ☐ Pipe (enter diameter if pipe or tube)	t: 12 mm	t: 24 mm
Base metal P-Number to P-Number	1 to 1	1~15F,34,41~49
Filler metal or electrode specification(s) (SFA) (info only)	5.1	
Filler metal or electrode classification(s) (info only)	E 7018-1H4R	
Filler metal F-Number(s)	4	4,3,2,1 with backing
Consumable insert (GTAW or PAW)	-	-
Filler Metal Product Form (QW-404.23) (GTAW or PAW)	-	-
Deposit thickness for each process		
Process 1 : SMAW 3 layers minimum ■ yes ☐ No	t: 12 mm	t: 24 mm
Process 2 : - 3 layers minimum ☐ yes ☐ No	-	-
Position(s)	3G / Uphill	Grove:F.V : OD > 24" F: 2 7/8" ≤ OD ≤ 24" Fillet: F.H.V
Vertical progression (uphill or downhill)	-	-
Type of fuel gas (OFW)	-	-
Use of backing gas (GTAW, PAW, GMAW)	-	-
Transfer mode (spray, globular, or pulse to short circuit-GMAW)	-	-
GTAW current type and polarity (AC, DCEP, DCEN)	-	-

RESULTS

Visual Examination of Completed Weld (QW-302.4) **Satisfactory**

☐ Transverse face and root bends [QW-462.3(a)] ☐ Longitudinal bends [QW-462.3(b)] ☐ Side bends (QW-462.2)

☐ Pipe bend specimen, corrosion-resistant weld metal overlay [QW-462.5(c)]

☐ Plate bend specimen, corrosion-resistance weld metal overlay [QW-462.5(d)]

☐ Pipe specimen, macro test for fusion [QW-462.5(b)] ☐ Plate specimen, macro test for fusion [QW-462.5(e)]

Type	Result	Type	Result	Type	Result
		Blank			

Alternative Volumetric examination results (QW-191) **Accepted** RT ■ or UT ☐ (check one)

Fillet weld - fracture test (QW-181.2) - Length and percent of defects -

☐ Fillet welds in plate [QW-462.4(b)] ☐ Fillet welds in pipe [QW-462.4(c)]

Macro examination (QW-184) - Fillet size (in.) - x - Concavity/convexity (in.) -

Other tests -

(Film) or specimens evaluated by Eko Sujadmono (RT Level II) Company PT. TITIAN L.A (Report No. 004/TLA/RT-HEI/XI/2025)

Mechanical tests conducted by - Laboratory test no. -

Welding supervised by Variesy Husein

We certify that the statements in this record are correct and that the test coupons were prepared, welded, and tested in accordance with the requirements of Section IX of the ASME BOILER AND PRESSURE VESSEL CODE.

Organization **PT. Hanazono Engineering Indonesia** Certified By

Prepared By : BENRIDHO Date : March 02, 2026

Inspected By : VARIESY Date : March 02, 2026

Approved By : Date : March 02, 2026