



WELDER PERFORMANCE QUALIFICATION RECORD (WPQ)

(See QW301, Section IX ASME BOILER AND PRESURE VESSEL CODE)

WPQ certificate N°: WPQ-CERI-0029

Company Name: CERI
Welder's Name: AMANAA NACEUR
Welders's ID no: CW24

(X) Test Coupon () Production Weld

Date Welded: 06/04/2022

Identification of WPS followed: WPS-P02/1

Specification of base metals (s): ASTM A106 Gr B Thickness: 18,26 mm (SCH160)

Testing Conditions and Qualification Limits

Welding Variables	Actual Values	Range Qualified
Welding Process(es)	SMAW	SMAW
Type (i.e: manual, semi-auto)used	Manual	Manual
Backing (With /Without)	With Backing	With Backing
() Plate (X) Pipe (enter diameter, if pipe)	Pipe 6"	Plate & Pipe 2 ^{7/8} OD to unlimited
Base metal P Number to Pnumber	P.N°.1	P.N°1 through P.N°.15F, P.N°.34 and P.N°41 through P.N°49
Filler metal or electrode specification(s) (SFA) (info only)	A5.1	
Filler metal or electrode classification(s) (info only)	E7018-1	
Filler metal F-Number(s)	4	1,2,3 and 4
Consumable insert (GTAW or PAW)	NONE	NONE
Filler Type (solid/metal or flux cored powder) (GTAW or PAW)	Solid	Solid & cored Metal
Weld deposit thickness for each welding process	GTAW : N.A SMAW:15,26 mm,	GTAW : N.A SMAW: Maximum to be welded
Position qualified (2G, 3G, 6G, 3F, etc)	6G	All position Groove & All Fillet welds
Vertical progression (uphill / downhill)	UP-HILL	UP-HILL
Inert gas backing (GTAW, PAW, GMAW)	NA	NA
Transfer mode (Spray/globular or pulse to short circuit-GMAW)	N/A	N/A
GTAW Current type / polarity (AC, DCEP, DCEN)	DCEP	DCEP

RESULTS

Visual Examination of Completed Weld (QW-302.4) Acceptable

- ()Bend Test () Transverse root and face{QW-462.3(A)} ()Longitudinal root and face{QW-462.3(B)} ()Side (QW 462.2)
() Pipe bend specimen, corrosion-resistance overlay {QW-462.5(C)}; () Plate bend specimen, Corrosion resistance overlay {QW-462.5(d)}
() Pipe specimen , Macro test for Fusion {QW-462.5(b)} () Plate specimen , Macro test for Fusion {QW-462.5(c)}

Type	Result	Type	Result

Alternative radiography examination results (QW-191)

Accepted Report N°: W-0111X-CERI-025

Date: 07/04/2022

Fillet Weld - Fracture test (QW-181.2)

Length and percent of defects

()fillet weld in plate {QW-462.4(b)}

()fillet weld in pipe {QW-462.4(c)}

Macro Examination (QW-184)

Fillet Size (mm)

mm Concavity/Convexity (mm)

Other tests:

Film or specimen evaluated by: Mohammed BOUBEKEUR

Company: WELDTTEST

Mechanical tests conducted by: NA

Welding supervised by: Mohammed BOUBEKEUR

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 Code.

Date: 09/04/2022

Certified By:

WELDING INSPECTOR

Mohammed BOUBEKEUR ASNT- SNT TC-1A

Witnessed By:

PIUL WELDING INSPECTOR

K.V. SARMA

GBERBI Abdelhakim
CONTROLEUR CERTIFIE
NIV2 / RTT 2.9
802-026685

WELDER PERFORMANCE QUALIFICATION [WPQ]

ASME Boiler and Pressure Vessel Code, Section IX, See QW -301



WPQ Report N° : CE ICS-00239-0010/2021

Welder name : Naceur ALMANAI		Identification N° : 08881612		Welder N° : W 08	
Welded On : 27/12/2021		Company : PCC			
TEST DESCRIPTION					
WPS N° : 01		Revision : 00		Date : 27/12/2022	
Type of test material : Pipe 2"		Thickness : 5.54 mm		Type of test: Groove Weld	
Specification	SA-Material	SA 106 Gr B	To Specification	SA-Material	SA 106 Gr B
TESTING CONDITIONS AND QUALIFICATION RANGE					
Welding variables (QW-350)			Actual Welded		Qualified Range
Welding process			GTAW//SMAW		GTAW//SMAW
Type of weld			Butt weld		Butt & Fillet Weld
Backing			Without //with		With & Without //With
Base material (QW-403):P- S Number To P- S Number			Pn°1		P n°1 to P n°15F, P n°34, P n°41 to P n°49
Material Thickness			5.54 mm		
Pipe Diametre			2 in.		Diameter ≥ 1 in. All
Filer metal (QW-404)			ER70S-3 // E7018 A5.18// A5.5 6 // 4		All Fn°6//Fn°1,2,3,4 With Backing
Consumable insert (GTAW or PAW)			Solid		Solid & metal cored
Filer type (solid/metal or flux cored/powder GTAW/PAW)					
Deposit thickness for each process :					
Process 1:	GTAW	3 Layers minimum	Yes	X	No
Process 2:	SMAW	3 Layers minimum	Yes	X	No
Position (QW-405)			6G		3
Groove					All
Plate and pipe > 24 inches					All
Plate and pipe ≤ 24 inches					All
Fillet weld					Uphill
Vertical progression (uphill or downhill)			Uphill		With & without
Gaz (QW-408)			Without		
For GTAW, PAW and GMAW gas backing					
Type of fuel gas for OFW					
Electrical Data (QW-409)			DC		DC
Current type (AC or DC)			EN/EP		EN/EP
Polarity (EN or EP)					
Transfert mode (spray/globular or pulse to short circuit GMAW)					
BEND TEST					
Type and figure Number				Results	
NA				NA	
OTHER TEST					
Visual examination of completed weld (QW-302.4) results : Satisfactory				Report N°:RP_ CVT_0239_015/21	
Alternative radiographic examination results (QW-191) : Satisfactory				Report N°: RP_ CRT_0239_026/21	
Film or specimens evaluated by: MAHER BEN HMIDA					
FILLET WELD TEST					
Fillet weld – Fracture Test results :		NA		Length and % of defects:	
Macro examination (QW-184) results :		NA		Convexity	
Fillet weld size :		NA		Concavity	
Welding of test supervised by :		Khaled FATNASSI		Leg length	
				Mechanical testing by :	
				NA	
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.					
Date of test		27/12/2021			
Expiration date		26/06/2022			
Confirmation of the validity by employer, the contractor and the examiner body every 6 months.					
INSPECTOR		Khaled FATNASSI		TECHNICAL MANAGER	
Khaled FATNASSI		Expert Soudage		MAHER BEN HMIDA	
27/12/2021		Certifié CSWIP 3.1 level 2		28/12/2021	
		Cert N° : 110594			

SMART CONTROL

SIEGE : 04 Rue Abdenebi Abderahmen –Menzah 1-1004 TUNISIE; Tél : (+216) 71 767 171 Fax : (+216) 70 201 164
 AGENCE : Rue de l'environnement route de Gabes Km 03-3069 SFAX ; Tél : (+216) 71 767 171 Fax : (+216) 70 201 164
 MF : 1307783B/A/M/000 Email : contact@smartcontrol.tn Site Web : www.smartcontrol.tn

شركة
سونتراف



sonatrach

AIN TSILA DEVELOPMENT PROJECT

Petrofac



WELDER ID CARD

Name Naceur AMANAA

Stamp No.: :CW24

Cert. No. :WPQ-CERI-0029



GHERBI Abdelhakim
CONTROLEUR CERTIFIE
NIV2-RT/19
802-025085



CERI QC

STAMP NO.	CW24
PROCESS QUALIFIED	SMAW
BASE METAL RANGE QUALIFIED	P1 to P 15F , P41 to P49
Filler Metal	ELECTRODE
	FN°: All F N°6 & FN°:1,2,3,4
PIPE DIA RANGE	GTAW: N,A SMAW: 2"7/8 OD and over
WELD THICK RANGE -	GTAW Up to NA SMAW Maximum to be welded
POSITION	All
BACKING	GTAW: NA SMAW :With
DATE OF TEST	06/04/2022

الاسم: ناصر بن يوكا دى

رقم جواز السفر أو البطاقة: C597/30

الجنسية: يونس

الوظيفة: منى لمحاسب

السكن: عرارة

صالحة حتى 28/2/2021

قسم المراقبة الإلكترونية

م

أ/5/2021

2021/6/1(8-45010-2-1-035)



الشركة الليبية للحديد والصلب

تصريح دخول

رقم البطاقة: 824



الجهة التابع لها شركة جه اندري

	AIN TSILA DEVELOPMENT PROJECT	Petrofac  
WELDER ID CARD		
Name	Naceur AMANAA	
Stamp No.:	:CW24	
Cert. No.	:WPQ-CERI-029B	
	:WPQ-CERI-036	
CERI QC		

STAMP NO.		CW24
PROCESS QUALIFIED		GTAW & SMAW
BASE METAL RANGE QUALIFIED		P No : P1 to P 15F,P34,P41 to P49
Filler Metal	ELECTRODE	F No : All F no 6 & F no 1,2,3,4,5 With Backing
PIPE DIA RANGE		1" OD and over.
WELD THICK RANGE -		GTAW : Up to 8 mm SMAW : Maximum to be welded (FN*1,2,3,4) SMAW : Up 9,74 (for N*5)
POSITION		All positions Groove & All Fillet welds
BACKING		GTAW: without Backing SMAW : With Backing
DATE OF TEST		06/04/2022 & 06/06/2022



WELDER PERFORMANCE QUALIFICATION RECORD (WPQ)

(See QW301, Section IX ASME BOILER AND PRESURE VESSEL CODE)

WPQ certificate N°: WPQ-CERI-0036

Company Name **CERI**
Welder's Name **NACER AMANAA**
Welders's ID no: **CW24**

(X) Test Coupon () Production Weld

Date Welded: 06/06/2022

Identification of WPS followed: WPS-P04/2

Specification of base metals (s) ASTM A312 TP 316L TO A106 GR B Thickness: 8,74

Testing Conditions and Qualification Limits

Welding Variables	Actual Values	Range Qualified
Welding Pprocess(es)	GTAW //SMAW	GTAW & SMAW
Type (i.e: manual, semi-auto)used	Manual	Manual
Backing (With /Without)	Without // With Backing	with or Without // With Backing
() Plate (X) Pipe (enter diameter, if pipe)	Pipe 2"	Plate & Pipe 1"OD to unlimited
Base metal P Number to Pnumber	P.N°.8 To PN°1	P.N°1 through P.N°.15F, P.N°.34 and P.N°41 through P.N°49
Filler metal or electrode specification(s) (SFA) (info only)	A5.9// A5.4	
Filler metal or electrode classification(s) (info only)	ER309LMo //E309LMo-17	
Filler metal F-Number(s)	6//5	All F No 6 // F no 1,5 with backing
Consumable insert (GTAW or PAW)	NONE	NONE
Filler Type (solid/metal or flux cored powder) (GTAW or PAW)	Solid	Solid & cored Metal
Weld deposit thickness for each welding process	GTAW : 4 mm SMAW:4,74 mm,	GTAW : Up to 8 mm SMAW: Up to 9.48 mm,
Position qualified (2G, 3G, 6G, 3F, etc)	6G	All position Groove & All Fillet welds
Vertical progression (uphill / downhill)	UP-HILL	UP-HILL
Inert gas backing (GTAW, PAW, GMAW)	With gas backing	With gas backing
Transfer mode (Spray/globular or pulse to short circuit-GMAW)	N/A	N/A
GTAW Current type / polarity (AC, DCEP, DCEN)	DCEN // DCEP	DCEN // DCEP

RESULTS

Visual Examination of Completed Weld (QW-302.4) Acceptable

() Bend Test () Transverse root and face {QW-462.3(A)} () Longitudinal root and face {QW-462.3(B)} () Side (QW 462.2)
() Pipe bend specimen, corrosion-resistance overlay {QW-462.3(C)}; () Plate bend specimen, Corrosion resistance 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

Alternative radiography examination results (QW-191)

Accepted Report N°: W-0111X-CERI-034 Date: 09/06/2022

Fillet Weld - Fracture test
(QW-181.2)

Length and percent
of defects

() fillet weld in plate {QW-462.4(b)}

() fillet weld in pipe {QW-462.4(c)}

Macro examination
(QW-184)

Fillet Size
(mm)

Concavity/
Convexity (mm)

Other tests:

Film or specimen evaluated by:

Med Amine

Company:

WeldTEST

Mechanical tests conducted by

Welding supervised by:

Khaled Fatnassi

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 Code.

Date:

Certified By:

CERI WELDING INSPECTOR

Khaled FATNASSI

Witnessed By:

PIUL WELDING INSPECTOR

Boumay ALA212





الجمهورية الفلسطينية
وزارة الشباب والرياضة والادماج المهني
الإدارة الجهوية للتكوين المهني والتشغيل بصفافس

شهادة إثبات الكفاءة المهنية

الرقم 21 - 0158 - 61

بعد الاطلاع على قانون عدد 15 لسنة 2005 المؤرخ في 16 فيفري 2005 والمتعلق بتنظيم قطاع الحرف،
وبعد الاطلاع على الامر عدد 3078 لسنة 2005 المؤرخ في 29 نوفمبر 2005 ويتعلق بضبط قائمة أنشطة الحرف الصغرى والصناعات التقليدية التي تستوجب ممارستها توفر الكفاءة المهنية،
وبعد الاطلاع على الامر 439 لسنة 2009 المؤرخ في 16 فيفري 2009 والمتعلق بتنقيح الامر عدد 3078 لسنة 2005 المؤرخ في 29 نوفمبر 2005 المتعلق بضبط قائمة أنشطة الحرف الصغرى والصناعات التقليدية وتحديد الأنشطة التي تستوجب ممارستها توفر الكفاءة المهنية،
وبعد الاطلاع على قرار وزيرى التجارة والصناعات التقليدية والتربية والتكوين المؤرخ في 27 فيفري 2007 المتعلق بضبط شروط وإجراءات تنظيم الاختبار المهني لإثبات الكفاءة المهنية في قطاع الحرف،
وبعد الاطلاع على محضر الاختبار بتاريخ 20-02-2021....

تسند شهادة إثبات الكفاءة المهنية في النشاط الحر في

ناصر امانع

الى السيد(ة)

ب صفافس 16-03-1992

المولود(ة) في

08881612

صاحب (ة) بطاقة التعريف الوطنية / بطاقة الإقامة بالنسبة للأجانب رقم

: اللحام بمختلف أنواعه

اختصاص

حرر بصفافس في 26-02-2021...

عن وزير(ة) الشباب والرياضة والادماج المهني

المدين الجهوي للتكوين المهني والتشغيل بصفافس

السيد(ة) سلوى بو صر صار

44



GAMA

STEG

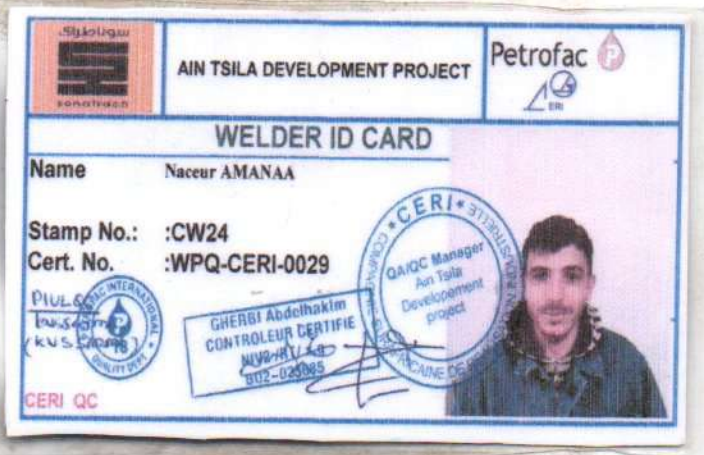
MHPS SC

450 MW RADES COMBINED-CYCLE POWER PLANT PROJECT

Name : NACEUR OUMANAA
Company : CER1-3386
Profession : WELDER
Blood Type :
ID/CIN-Pass : 08881612
Start Date : 10/02/2020
Expiry Date : 17.03.2020



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If found please contact +216 248 98 324



EMERGENCY CONTACT

HSSE MANAGER : 0661993795
Liaison Manager : 0661974303
DOCTOR : 0655548929
OLS : 0659371490
HSSE Emergency : 0661873755
Camp Responsible : 0661563633

0011082229 169.06645

STAMP NO.	CW24
PROCESS QUALIFIED	SMAW
BASE METAL RANGE QUALIFIED	P1 to P 15F, P41 to P49
Filler Metal	ELECTRODE
	FN°: All FN°6 & FN°:1,2,3,4
PIPE DIA RANGE	GTAW: N/A SMAW: 2"7/8 OD and over
WELD THICK RANGE -	GTAW Up to NA SMAW Maximum to be welded
POSITION	All
BACKING	GTAW: NA SMAW :With
DATE OF TEST	06/04/2022

Welder's name / Nom soudeur: NACEUR MANAI				NIC N° / CIN N°: 08881612		Identification N°: W 710	
Ident. of WPS followed / DMOS N°: GTAW-6GBW-01				Rev. 0		☒ Test coupon / Coupon d'essai ☐ Production weld /	
Spec. of base metal(s) A106 GrB Désignation Métal de base				Thickness: 5.54 mm Épaisseur			
Testing conditions and qualification limits / Conditions du test et limites de la qualification							
Welding Variables / Variables de soudage (QW-350)				Actual Values / Valeurs de qualification		Range qualified / Domaine qualifié	
Welding process(es) / Procédé de soudage				GTAW		GTAW	
Type (ie: manual, semi-auto) used / (Manuel, semi-auto) utilisé				MANUAL		MANUAL	
Backing (metal, weld metal, double-welded, etc.) Support à l'envers (Matériau, métal d'apport, soudure des deux cotés, etc.)				without		With /without	
Plate / Tôle		☒ Pipe / tube (enter diameter if pipe or tube)		2"		OD 1" to over	
Base metal / Métal de base (P or S-number to P- or S-Number)				P 1		P1-15F, P34 and P41-P49 including unassigned metals of similar chemical composition to these metals	
Process 1	Filler metal or electrode specification(s) (SFA) (info only) Spécification métal d'apport ou électrode (SFA)			5.18		/	
Process 2	Filler metal or electrode specification(s) (SFA) (info only) Spécification métal d'apport ou électrode (SFA)			NA		NA	
Process 1	Filler metal or electrode classification(s) (info only) Classification métal d'apport ou électrode			ER70S-6		/	
Process 2	Filler metal or electrode classification(s) (info only) Classification métal d'apport ou électrode			NA		NA	
Process 1	Filler metal F-Number(s) F N° métal apport			F6		All F-N° 6	
Process 2	Filler metal F-Number(s) F N° métal apport			NA		NA	
Consumable insert (GTAW or PAW) Insertion consommable (GTAW ou PAW)				/		/	
Filler type (solid/metal or flux cored/powder) (GTAW or PAW) Type produit d'apport (solide/métal ou fourrage poudre (GTAW ou PAW)				Solid		Solid and metal cored	
Deposit thickness for each process / Épaisseur déposée pour chaque procédé							
Process 1: Procédé1	3 layers minimum 3 passes minimum	Yes ☐ oui	No ☒ non	5.54 mm		≤ 11.8 mm	
Process 2: Procédé2	3 layers minimum 3 passes minimum	Yes ☐ oui	No ☐ non	NA		NA	
Position qualified / Position qualifiée (2G, 6G, 3F, etc.)				6G		All	
Vertical progression (uphill or downhill) / Progression verticale (montante ou descendante)				Uphill		Uphill	
Inert gas backing (GTAW, PAW, GMAW) /Gaz inerte à l'envers				without		With /without	
Transfer mode (spray/globular or pulsed to short circuit-GMAW) Mode de transfert (pulvérisation, globulaire ou pulsé / court - circuit)				NA		NA	
GTAW current type/polarity (AC, DCEP, DCEN) / Polarité / type de courant				DCEN		DCEN	

RESULTS / Résultats			
Visual Examination of Completed Weld (QW-302.4) Examen visuel de la soudure achevée		ACCEPTABLE	VT : 142/18 Date: 25/02/2018
Alternative radiographic examination results (QW-191) Résultat d'examen radiographique de substitution		ACCEPTABLE	RT : 018/090 Date: 25/02/2018
☐ Bend test Test de pliage ☐ Transverse root and face (QW 462.3(a)) Transversal Racine et face		☐ Longitudinal root and face (QW-462.3(b)) Longitudinale racine et face	☐ Side (QW-462.2) Côté
☐ Pipe bend specimen, corrosion-resistant overlay (QW462.5(c)) Éprouvette pliage pour tube, sur-couche de résistance à la corrosion		☐ Plate bend specimen corrosion-resistant overlay (QW-462.5 (d)) Éprouvette pliage tôle, sur-couche de résistance à la corrosion	
☐ Macro test for fusion (QW-462.5 (b)) Macro test pour fusion		☐ Macro test for fusion (QW-462.5 (e)) Macro test pour fusion	
Type / type	Result / résultat	Type / type	Result / résultat
/	/	/	/
N Fillet weld — fracture test (QW-180) : NA Soudure d'angle - test de rupture		Length and percent of defects: / Longueur et pourcentage du défaut	
Macro examination (QW-184) : NA Examen Macro		Fillet size : / Dimension de la soudure d'angle	Concavity/convexity : / Concavité / convexité
Other tests: Autres tests NA			
Film or specimens evaluated by / Epreuve ou film évalué par :		Company / Société: BECA	
Mechanical tests conducted by / Essai mécanique conduit par:		Laboratory test N° / N° Laboratoire :	
Welding supervised by / Soudure supervisée par :			
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 code Edition 2015 Nous certifions que les déclarations de cet enregistrement sont correctes et que les éprouvettes d'essai sont préparées, soudées et testées en conformité avec les exigences de la section IX du code ASME			
SOCOMENIN REPRESENTATIVE Représentant : BADRI Abdelhalim Date / Signature : 01/03/2018		REVIEWED AND APPROVED Représentant : HBAIEB Mohamed Date / Signature : 01/03/2018 CUSTOMER REPRESENTATIVE Représentant : ROSARIO FICHERA Date / Signature : 01/03/2018	



WELDER PERFORMANCE QUALIFICATIONS (WPQ)

QUALIFICATION DE SOUDEUR

Welder's name / Nom soudeur: NACEUR MANAI		NIC N° / CIN N°: 08881612		Identification N° : W 710	
Ident. of WPS followed / DMOS N° : GTAW-6GBW-01		Rev. 0		☒ Test coupon / Coupon d'essai	
Spec. of base metal(s) A106 GrB Désignation Métal de base				Thickness: 5.54 mm Epaisseur	
Testing conditions and qualification limits / Conditions du test et limites de la qualification					
Welding Variables / Variables de soudage (QW-350)		Actual Values / Valeurs de qualification		Range qualified / Domaine qualifié	
Welding process(es) / Procédé de soudage		GTAW		GTAW	
Type (ie: manual, semi-auto) used / (Manuel, semi-auto) utilisé		MANUAL		MANUAL	
Backing (metal, weld metal, double-welded, etc.) Support à l'envers (Matériau, métal d'apport, soudure des deux cotés, etc.)		without		With / without	
☐ Plate / Tôle		☒ Pipe / tube (enter diameter if pipe or tube)		2"	
Base metal / Métal de base (P or S-number to P- or S-Number)		P 1		P1-15F, P34 and P41-P49 including unassigned metals of similar chemical composition to these metals	
Process 1	Filler metal or electrode specification(s) (SFA) (info only) Spécification métal d'apport ou électrode (SFA)	5.18		/	
Process 2	Filler metal or electrode specification(s) (SFA) (info only) Spécification métal d'apport ou électrode (SFA)	NA		NA	
Process 1	Filler metal or electrode classification(s) (info only) Classification métal d'apport ou électrode	ER70S-6		/	
Process 2	Filler metal or electrode classification(s) (info only) Classification métal d'apport ou électrode	NA		NA	
Process 1	Filler metal F-Number(s) F N° métal apport	F6		All F-N°6	
Process 2	Filler metal F-Number(s) F N° métal apport	NA		NA	
Consumable insert (GTAW or PAW) Insertion consommable (GTAW ou PAW)		/		/	
Filler type (solid/metal or flux cored/powder) (GTAW or PAW) Type produit d'apport (solide/métal ou fourrage poudre (GTAW ou PAW)		Solid		Solid and metal cored	
Deposit thickness for each process / Épaisseur déposée pour chaque procédé					
Process 1:	3 layers minimum	Yes ☐	No ☒	5.54 mm	≤ 11.08 mm
Process 2:	3 layers minimum	Yes ☐	No ☐	NA	NA
Position qualified / Position qualifiée (2G, 6G, 3F, etc.)		6G		All	
Vertical progression (uphill or downhill) / Progression verticale (montante ou descendante)		Uphill		Uphill	
Inert gas backing (GTAW, PAW, CMAW) / Gaz inerte à l'envers		without		With / without	
Transfer mode (spray/globular or pulsed to short circuit-GMAW) Mode de transfert (pulvérisation, globulaire ou pulsé / court-circuit)		NA		NA	
GTAW current type/polarity (AC, DCEP, DCEN) / Polarité / type de courant		DCEN		DCEN	
RESULTS / Résultats					
Visual Examination of Completed Weld (QW-302.4) Examen visuel de la soudure achevée		ACCEPTABLE		VT : 142/18	Date: 25/02/2018
Alternative radiographic examination results (QW-191) Résultat d'examen radiographique de substitution		ACCEPTABLE		RT : 018/090	Date: 25/02/2018
☐ Bend test Test de pliage	☐ Transverse root and face (QW 462.3(a)) Transversal Racine et face	☐ Longitudinal root and face (QW-462.3(b)) Longitudinale racine et face	☐ Side (QW-462.2) Côté		
☐ Pipe bend specimen, corrosion-resistant overlay (QW-462.5(c)) Éprouvette pliage pour tube, sur-couche de résistance à la corrosion	☐ Plate bend specimen corrosion-resistant overlay (QW-462.5(d)) Éprouvette pliage tôle, sur-couche de résistance à la corrosion	☐ Macro test for fusion (QW-462.5 (e)) Macro test pour fusion			
Type / type	Result / résultat	Type / type	Result / résultat	Type / type	Result / résultat
1	1	1	1	1	1
NFIlet weld — fracture test (QW-180) : NA Soudure d'angle - test de rupture		Length and percent of defects : / Longueur et pourcentage du défaut			
Macro examination (QW-184) : NA Examen Macro		Fillet size : / Dimension de la soudure d'angle		Concavity/convexity : / Concavité / convexité	
Other tests: Autres tests NA					
Film or specimens evaluated by / Eprouvette ou film évalué par :				Company / Société: BECA	
Mechanical tests conducted by / Essai mécanique conduit par :				Laboratory test N° / N° Laboratoire :	
Welding supervised by / Soudure supervisée par :					
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 Code Edition 2015 Nous certifions que les déclarations de cet enregistrement sont correctes et que les éprouvettes d'essai sont préparées, soudées et testées en conformité avec les exigences de la section IX du Code ASME					
SOCOMENIN REPRESENTATIVE Représentant : BADRI Abdelhalim Date / Signature : 01/03/2018		REVIEWED AND APPROVED Représentant : H. B. Mohamed Elmaghrabi Date / Signature : 01/03/2018		THIRD PARTY INSPECTION Représentant : Date / Signature : 01/03/2018	

WELDER PERFORMANCE QUALIFICATION [WPQ]

ASME Boiler and Pressure Vessel Code, Section IX, See QW-301



WPQ Report N° : CE ICS 0052 030/2019

Welder name : Naser Ommanaa

Identification N° : 08881612

Welder N° : W 38

Welded On : 12/01/2020

Company : INA

TEST DESCRIPTION

WPS N° : TU 07/14

Revision : 00

Date : 25/03/2015

✓ Test coupon

Production weld

Type of test material : Pipe

Thickness : 5.54 mm

Type of test: Groove Weld

Specification SA-Material AISI4130H

To Specification

SA-Material

A106 GrB

TESTING CONDITIONS AND QUALIFICATION RANGE

Welding variables (QW-350)

Welding process

Type of weld

Backing

Actual Welded

GTAW/SMAW

Butt weld

Without

Qualified Range

GTAW/SMAW

Butt & Fillet weld

With & Without

Base material (QW-403): P-S Number To P-S Number

Pn°1

Pn°1 to Pn°15F, Pn°34, Pn°41 to Pn°49

Material Thickness

Groove

Fillet

5,54 mm

Pipe Diametre

Groove

Fillet

2 inch

1 inch ≤ Diameter

All

Filer metal (QW-404)

Specification (SFA) [only of information]

Class (AWS) [only of information]

F-Number

Consumable insert (GTAW or PAW)

Filer type (solid/metal or flux cored/powder GTAW/PAW)

ER70S-3 / E7018

A5.18/A5.5

6 / 4

Fn° 1,2,3,4 With Backing & All Fn°6

Solid

Solid & metal cored

Deposit thickness for each process :

Process 1: GTAW 3 Layers minimum X Yes No

2 mm

T ≤ 4 mm

Process 2: SMAW 3 Layers minimum Yes No

3,54 mm

T ≤ 7.08 mm

Position (QW-405)

Groove

Plate and pipe > 24 inches

Plate and pipe ≤ 24 inches

Fillet weld

Vertical progression (uphill or downhill)

Uphill

All

All

All

Uphill

Gaz (QW-408)

For GTAW, PAW and GMAW gas backing

Type of fuel gas for OFW

Without

With & Without

Electrical Data (QW-409)

Current type (AC or DC)

Polarity (EN or EP)

Transfert mode (spray/globular or pulse to short circuit GMAW)

DC

EN/EP

DC

EN/EP

BEND TEST

Type and figure Number

NA

NA

Results

NA

NA

OTHER TEST

Visual examination of completed weld (QW-302.4) results : Satisfactory

Alternative radiographic examination results (QW-191) : Satisfactory

Film or specimens evaluated by: MHAMDI Naoufel

FILLET WELD TEST

Fillet weld – Fracture Test results :

NA

Length and % of defects:

Macro examination (QW-184) results :

NA

Convexity

Concavity

Fillet weld size :

NA

Leg length

Welding of test supervised by :

BENHMIDA Maher

Mechanical testing by :

NA

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.

Date of test 12/01/2020

Expiration date 11/07/2020

Confirmation of the validity by employer, the contractor and the examiner body every 6 months.

INSPECTOR

Naoufel MHAMDI

12/01/2019

TECHNICAL MANAGER

MAHER BEN HMIDA

13/01/2020

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Branch Office : Street of the Environment, Road of Gabes Km 03-Sfax

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WELDER PERFORMANCE QUALIFICATION [WPQ]

ASME Boiler and Pressure Vessel Code, Section IX, See QW-301



WPQ Report N° : 072/2015

Welder name : AMANEA NACEUR

Identification N° : 08881612

Welder N° : W90

Welded On : 18/12/2015

Company: Centre de formation Technique de Soudage Industriel « TSI »

TEST DESCRIPTION

WPS N° : ---- Revision N° : ---- Date : ☒ Test coupon Production weld

Type of test material : Pipe Thickness : 11,13 mm Type of test: Groove Weld

Specification SA-Material A106 GrB To Specification SA-Material A106 GrB

TESTING CONDITIONS AND QUALIFICATION RANGE

Welding variables (QW-350)	Actual Welded	Qualified Range
Welding process	GTAW/SMAW	GTAW/SMAW
Type of weld	Butt weld	Butt & Fillet Weld
Backing	Without	With & Without
Base material (QW-403): P- S Number To P- S Number	Pn°1	P n°1 to P n°15F, P n°34, P n°41 to P n°49
Material Thickness	11,13 mm	
Pipe Diametre	4 inch	Diametre $\geq 2\frac{7}{8}$ inch
Filler metal (QW-404)	ER70S-6/E7018 A5.18/A5.1 6/4 Argon Solid/metal	Fn° 1,2,3,4 With Backing & All Fn° 6 Argon Solid/metal

Deposit thickness for each process :

Process 1:	GTAW	3 Layers minimum	Yes	☒ No	4 mm	T $\leq$ 8 mm
Process 2:		3 Layers minimum	Yes	No	7,13 mm	T $\leq$ 14,26 mm

Position (QW-405)	Groove Plate and pipe > 24 inches Plate and pipe $\leq$ 24 inches Fillet weld Vertical progression (uphill or downhill)	6G	All All All Uphill
Gaz (QW-408)	For GTAW, PAW and GMAW gas backing Type of fuel gas for OFW	With (Argon)	With (Argon)
Electrical Data (QW-409)	Current type (AC or DC) Polarity (EN or EP) Transfer mode (spray/globular or pulse to short circuit GMAW)	DC EN/EP	DC EN/EP

BEND TEST

Type and figure Number	Results
NA	NA
NA	NA

OTHER TEST

Visual examination of completed weld (QW-302.4) results : Satisfactory

Alternative radiographic examination results (QW-191) : Satisfactory Film or specimens evaluated by: BEN HMIDA MAHER

FILLET WELD TEST

Fillet weld – Fracture Test results :	Length and % of Defects:
Macro examination (QW-184) results :	Convexity Concavity
Fillet weld size :	Leg length
Welding of test supervised by : BEN HMIDA MAHER	Mechanical testing by : Report N°:

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.

Date of test 18/12/2015

Expiration date 17/06/2016

Confirmation of the validity by employer, the contractor and the examiner body every 6 months.

INSPECTOR

M'HAMDI NAOUFEL

25/12/2015

TECHNICAL MANAGER

BEN HMIDA MAHER

25/12/2015

Adresse: 07 Rue El Moulazem El Bjeoui, El Manzah V, Ariana

MF: 1307783B/A/M/000 RC: 826140482013

Tél: 71 231 735 // Fax: 71 231 745

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WELDER PERFORMANCE QUALIFICATIONS (WPQ)

QUALIFICATION DE SOUDEUR

Welder's name / Nom soudeur: NACEUR MANAL		WIC N° / CIN N°: 08381612		Identification N°: W 710	
Ident. of WPS followed / DMOS N°: GTAW-6GBW06 Rev. 0		☒ Test coupon / Coupon d'essai		☐ Production weld /	
Spec. of base metal(s) / Désignation Métal de base: A312 TP316L		Thickness / Épaisseur: 3.91 mm			
Testing conditions and qualification limits / Conditions de test et limites de la qualification					
Welding Variables / Variables de soudage (QW-350)		Actual Values / Valeurs de qualification		Range qualified / Domaine qualifié	
Welding process(es) / Procédé de soudage		GTAW		GTAW	
Type (ie: manual, semi-auto) used / (Manuel, semi-auto) utilisé		MANUAL		MANUAL	
Backing (metal, weld metal, double-welded, etc.) / Support à l'envers (Matériau, métal d'apport, soudure des deux côtés, etc.)		without		With /without	
Plate / Tôle		☒ Pipe / tube (enter diameter if pipe or tube)		2"	
Base metal / Métal de base (P or S-number to P- or S-Number)		P 8		P1-15F, P34 and P41-P49 including unassigned metals of similar chemical composition to these metals	
Process 1 / Procédé 1		Filler metal or electrode specification(s) (SFA) (info only) / Spécification métal d'apport ou électrode (SFA) (info only)		5.9	
Process 2 / Procédé 2		Filler metal or electrode specification(s) (SFA) (info only) / Spécification métal d'apport ou électrode (SFA) (info only)		NA	
Process 1 / Procédé 1		Filler metal or electrode classification(s) (info only) / Classification métal d'apport ou électrode		ER316L	
Process 2 / Procédé 2		Filler metal F-Number(s) / F N° métal apport		NA	
Consumable insert (GTAW or PAW) Insertion consommable (GTAW ou PAW)		/		/	
Filler type (solid/metal or flux cored/powder) (GTAW or PAW) / Type produit d'apport (solide/métal ou fourrage poudre (GTAW ou PAW)		Solid		Solid and metal cored	
Deposit thickness for each process / Épaisseur déposée pour chaque procédé					
Process 1 / Procédé 1		3 layers minimum / 3 passes minimum		Yes ☐ No ☒	
Process 2 / Procédé 2		3 layers minimum / 3 passes minimum		Yes ☐ No ☐	
Position qualified / Position qualifiée (2G, 6G, 3F, etc.)		6G		All over	
Vertical progression (uphill or downhill) / Progression verticale (montante ou descendante)		Uphill		Uphill	
Inert gas backing (GTAW, PAW, GMAW) / Gaz inerte à l'envers		with		With	
Transfer mode (spray/globular or pulsed to short circuit-GMAW) / Mode de transfert (pulvérisation, globulaire ou pulsé / court - circuit)		NA		NA	
GTAW current type/polarity (AC, DCEP, DCEN) / Polarité / type de courant		DCEN		DCEN	
RESULTS / Résultats					
Visual Examination of Completed Weld (QW-302.4) / Examen visuel de la soudure achevée		ACCEPTABLE		VT : 353/18	
Alternative radiographic examination results (QW-191) / Résultat d'examen radiographique de substitution		ACCEPTABLE		RT : 018287	
☐ Band test / Test de pliage		☐ Transverse root and face (QW 462.3(a)) / Transversal Racine et face		☐ Longitudinal root and face (QW-462.3(b)) / Longitudinale racine et face	
☐ Pipe bend specimen, corrosion-resistant overlay (QW462.5(c)) / Éprouvette pliage pour tube, sur-couche de résistance à la corrosion		☐ Plate bend specimen corrosion-resistant overlay (QW-462.5(d)) / Éprouvette pliage tôle, sur-couche de résistance à la corrosion		☐ Side (QW-462.2) / Côté	
☐ Macro test for fusion (QW-462.5 (b)) / Macro test pour fusion		☐ Macro test for fusion (QW-462.5 (a)) / Macro test pour fusion			
Type / type		Result / résultat		Type / type	
Result / résultat		Type / type		Result / résultat	
Fillet weld — fracture test (QW-184) / Soudure d'angle - test de rupture		Yes ☐ No ☐		Length and percent of defects: / Longueur et pourcentage du défaut	
Macro examination (QW-184): NA / Examen Macro		Fillet size: / Dimension de la soudure d'angle		Concavity/convexity: / Concavité / convexité	
Other tests: Autres tests NA					
Film or specimens evaluated by / Epreuve ou film évalué par:				Company / Société: BECA	
Mechanical tests conducted by / Essai mécanique conduit par:				Laboratory test N° / N° Laboratoire:	
Welding supervised by / Soudure supervisée par:					
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 Code Edition 2017 / Nous certifions que les déclarations de cet enregistrement sont correctes et que les éprouvettes d'essai ont été préparées, soudées et testées en conformité avec les exigences de la section IX du Code ASME 2017					
SOCOMENIN REPRESENTATIVE / Représentant : BADRI Abdelhalim		REVIEWED AND APPROVED / Représentant : HBALEB Mohamed Taha		THIRD PARTY INSPECTION / Représentant :	
Date / Signature : 17/12/2018		Date / Signature : 17/12/2018		Date / Signature : 17/12/2018	

Sfax Le : 15 octobre 2019: صفاقس في

ATTESTATION DE TRAVAIL

Nous soussignés, Société de Constructions Métalliques,
Navales et Industrielles « SOCOMENIN » sise Avenue Med
Hédi Khefacha 3000 Sfax attestons par la présente que Mr :
MANIE NACER né le 16/03/1992 travaille au sein de notre
société en qualité de SOUDEUR (Contractuel).

LA DIRECTION DES RESSOURCES

HUMAINES

MAHRSI SAMI

Vu-e- pour Copie Certifiée Conforme
Fait par l'Agent Qualité
Montant Reçu N° 3882
Mahars le 28 OCT. 2019
N° de l'Enr 3882
Signature de l'Agent
Le Président de la Commune
Pour le Président de la Commune
et par délégation



Mahfoudhi Sameh



 Mitsubishi Hitachi Power Systems  	REQUEST FOR INSPECTION (RFI) (DEMANDE D'INSPECTION)	الشركة التونسية للكهرباء والغاز  Société Tunisienne de l'Electricité et du Gaz
	From / De : GAMA Project / Projet: RADES-C 450 MW CCPP PROJECT	

Notification Reference : RFI-GAMA-PSI-0189

☒ Notification — ☐ Confirmation — ☐ Delayed

1. **Fournisseur principal - Sous-traitant / Main Supplier - Subcontractor:**

- Nom de la personne à contacter / Name of the Contact Person: Özkan Sökmen
- Contact : E-mail : Ozkan.Sokmen@gama.com.tr / Tel. :

2. **Equipement - Description de l'essai / Equipment / Test description:**

Equipement – Articles / Equipment/Item:	Welders qualification / Qualification des soudeurs
N° de Série de l'équipement (si applicable) / Equipment/Item Serial No (if applicable):	Not applicable / Non applicable
Description de l'inspection ou du l'essai / Inspection or Test description:	Witness welders qualification / Assistance à la qualification des soudeurs
ITP ou Plan de référence qualité / ITP or Quality Plan reference:	Not applicable / Non applicable
Document de référence - Plan N° / Reference Project Document/ Dwg. No:	Procedure qualification record. Welding procedure specification for 3G position
Quantité Commandé / Quantity ordered:	07
Quantité à inspecter / Quantity offered for Inspection:	07

3. **Localisation de l'inspection (Si elle est différente à celle du Fournisseur ou du sous-traitant) / Location of inspection (if different than the Main Supplier/Subcontractor)**

- Nom de l'entreprise / Company name : STEG
- Adresse / Address: RADES-C 450 MW CCPP PROJECT
- Contact : E-mail : achrafmekki.psi@gnet.tn / Tel.: 29041722

4. **Date et heure de l'inspection / Date of inspection:** 27/06/2019 – 9h:00

5. **Durée de l'essai / Test Duration:** 1 day

6. **Résultats De l'inspection / Result of Inspection**

☒ Acceptable
☐ Non Acceptable / Not Acceptable
☐ Acceptable avec commentaires / Acceptable with Comments

Commentaries / Comments:

One welder has been qualified. See attached certificate

Nous notons que l'essai / l'inspection ci-dessus doit avoir lieu à la date, au lieu et à l'heure indiqués. L'acceptation de GAMA sera valable aussi longtemps que la soumission de la documentation requise par le sous-traitant après le test / l'inspection. We notify that the above test/inspection is scheduled to take place on the date, place and time indicated. GAMA's acceptance shall be valid as long as Subcontractor's submission of required documentation after test/inspection.

PSI Signature Date: 28/06/2019	GAMA Signature Date: 09/07/19	Consortium Signature Date: 09/07/19	Employer Signature Date: 10/07/19
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FORM

WELDER PERFORMANCE QUALIFICATION CERTIFICATE

PCI-FR-43/05

Review date:
24/05/2018

PSI

Welder's name OMMANAA NACER

NIC or passport no.: 08881612

Identification no.: W19

Test Description

Identification of WPS followed: WPS-02-PQR-15

Rev.: 0

Certificate no.: WPQA 032/20

Specification and type / grade or UNS number of base metal(s) SA 106 Gr B

☒ Test coupon☐ Production weld

Thickness (mm): 5.54 mm

Date welded: 17/07/2020

Testing Variables and Qualification Limits

Welding Variables (QW-350)		Actual Values	Range Qualified
Welding process(es)		GTAW	GTAW
Type (manual, semi automatic) used		Manual	Manual
Backing (with / without)		Without	With & without backing
☐ Plate ☒ Pipe (enter diameter if pipe or tube)		2"	O.D. 1" and over For fillet weld, all size & diameter
Base metal P-Number to P-Number		P-No. 1 To P-No. 1	P-No. 1 - 15F, P-No. 34, and P-No. 41 - 49 including unassigned metals of similar chemical composition to these metals
Process 1: GTAW	Filler metal or electrode specification(s) (SFA)	SFA 5.18	/
Process 2: /	Filler metal or electrode specification(s) (SFA)	/	/
Process 1: GTAW	Filler metal or electrode classification(s)	ER70S-R	/
Process 2: /	Filler metal or electrode classification(s)	/	/
Process 1: GTAW	Filler metal F-Number(s)	F-No 8	All F-No 6
Process 2: SMAW	Filler metal F-Number(s)	/	/
Consumable insert (GTAW or PAW)		/	/
Filler metal product form (QW 404.23) (GTAW / PAW)		/	/
Deposit thickness for each process			
Process 1: GTAW	3 layers minimum ☒ Yes ☐ No	5.54 mm	max. 11.08 mm For fillet weld all thicknesses
Process 2: /	3 layers minimum ☐ Yes ☐ No	/	/
Position(s)		5G	Plate and pipe over 24" : F, V, O Pipe ≤ 24" : F, V, O Fillet weld: ALL
Vertical progression (uphill or downhill)		Uphill	Uphill
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)		DCEN	DCEN

Results

Visual examination of completed weld (QW-302.4) Acceptable		Report no.: VTA 005/20			
Alternative volumetric examination results (QW-191): Acceptable		☒ RT ☐ UT Report no.: RT 006			
☐ Transverse face and root bends [QW462.3(a)]	☐ Longitudinal bends [QW462.3(b)]	☐ Side bends [QW-462.2]			
☐ Pipe bend specimen, corrosion-resistant overlay [QW-462.5(c)]	☐ Plate bend specimen, corrosion-resistant 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
/	/	/	/	/	/
Fillet weld - fracture test (QW-181.2): /		Length and percent of defects: /			
☐ Fillet welds in plate [QW462.4(b)]		☐ Fillet welds in pipe [QW462.4(c)]			
Macro examination (QW-184): /		Fillet size (mm): /		Concavity / Convexity (mm): /	
Other tests: /		Welding supervised by: Nadeur GHRAB			
Film or specimens evaluated by: Kais WALHA		Company: BECA			
Mechanical tests conducted by: /		Laboratory test n°: /			

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 ASME BOILER AND PRESSURE VESSEL CODE, edition 2019.

Date of test 17/07/2020 Expiration date 16/01/2021

BECA welding inspector

BECA welding department

Client

Name: Nadeur GHRAB

Date: 17/07/2020

Signature

Name: Akram DRIRA

Date: 17/07/2020

Signature

Name: Ben Ammar Nadeur

Date: 24/07/2020

Signature

WELDER PERFORMANCE QUALIFICATION [WPQ]

ASME Boiler and Pressure Vessel Code, Section IX, See QW-301



NPQ Report N° : CE_ICS_0101_007/2020

Welder name : Naceur AMANAI

Welded On : February 04, 2020

Identification N° : 08881612

Company : CERI

Welder name

Welder N° : W CERI-138

NPS N° : WPS 014A-GPS-CERI-GTAW

Revision : 00 Date : February 04, 2020

✓ Test coupon

Production weld

Type of test material : Pipe 1"

Thickness : 3.38 mm

Type of test: Groove Weld

Specification SA-Material SA 312 TP 316 L

To Specification

SA-Material

SA 312 TP 316 L

TESTING CONDITIONS AND QUALIFICATION RANGE

Welding variables (QW-350)

Welding process

Type of weld

Backing

Actual Welded

GTAW

Butt weld

Without

Qualified Range

GTAW

Butt & Fillet Weld

With & Without

Base material (QW-403): P-S Number To P-S Number

Pn 8

P n°1 to P n°15F, P n°34, P n°41 to P n°49

Material Thickness Groove

Fillet

3.38 mm

Pipe Diametre Groove

Fillet

1 inches

Diametre ≥ 1 inch

All

Filler metal Specification (SFA) [only of information]

ER316L

Class (AWS) [only of information]

A5.9

F-Number

Fn° 6

All Fn° 6

Consumable insert (GTAW or PAW)

Solid

Solid & metal cored

Filer type (solid/metal or flux cored/powder GTAW/PAW)

Deposit thickness for each process :

Process 1: GTAW 3 Layers minimum

Yes

X

No

3.38 mm

T ≤ 6.76 mm

Process 2: 3 Layers minimum

Yes

No

NA

NA

Position Groove

6G

Plate and pipe > 24 inches

All

Plate and pipe ≤ 24 inches

All

Fillet weld

All

Vertical progression (uphill or downhill)

Uphill

Uphill

For GTAW, PAW and GMAW gas backing

With

With

Type of fuel gas for OFW

Electrical Current type (AC or DC)

DC

DC

Data Polarity (EN or EP)

EN

EN

Transfer mode (spray/globular or pulse to short circuit GMAW)

BEND TEST

Type and figure Number

NA

Results

NA

NA

NA

OTHER TEST

Visual examination of completed weld (QW-302.4) results : Satisfactory

Report N°: RP_CVT_0101_007/20

Alternative radiographic examination results (QW-191) : Satisfactory

Report N°: RP_CRT_0101_126/20

Film or specimens evaluated by: MAHER BEN HMIDA

FILLET WELD TEST

Fillet weld - Fracture Test results :

NA

Length and % of defects:

Macro examination (QW-184) results :

NA

Convexity

Concavity

Fillet weld size :

NA

Leg length

Welding of test supervised by :

Khaled FATNASSI

Mechanical testing by :

NA

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.

Date of test 04/02/2020

Expiration date 03/08/2020

Confirmation of the validity by employer, the contractor and the examiner body every 6 months.

INSPECTOR

Khaled FATNASSI

February 10, 2020

Khaled FATNASSI
Expert Soudage
Certifié CSWIP 3.1 Level 2
Cert N° : 110894



TECHNICAL MANAGER

MAHER BEN HMIDA

February 10, 2020

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WELDER PERFORMANCE QUALIFICATIONS (WPQ)

QUALIFICATION DE SOUDEUR

Welder's name / Nom soudeur: NACEUR MANAI		NIC N° / CIN N°: 08881612	Identification N°: W 710
Ident. of WPS followed / DMOS N°: GTAW-6GBW-01		Rev. 0	☒ Test coupon / Coupon d'essai ☐ Production weld /
Spec. of base metal(s) A106 GrB Désignation Métal de base		Thickness: 5.54 mm Epaisseur	
Testing conditions and qualification limits / Conditions du test et limites de la qualification			
Welding Variables / Variables de soudage (QW-350)		Actual Values / Valeurs de qualification	Range qualified / Domaine qualifié
Welding process(es) / Procédé de soudage		GTAW	GTAW
Type (ie: manual, semi-auto) used / (Manuel, semi-auto) utilisé		MANUAL	MANUAL
Backing (metal, weld metal, double-welded, etc.) Support à l'envers (Matériau, métal d'apport, soudure des deux cotés, etc.)		without	With /without
☐ Plate / Tôle ☒ Pipe / tube (enter diameter if pipe or tube)		2"	OD 1" to over
Base metal / Métal de base (P or S-number to P- or S-Number)		P 1	P1-15F, P34 and P41-P49 including unassigned metals of similar chemical composition to these metals
Process 1 Process 1	Filler metal or electrode specification(s) (SFA) (info only) Spécification métal d'apport ou électrode (SFA)	5.18	/
Process 2 Process 2	Filler metal or electrode specification(s) (SFA) (info only) Spécification métal d'apport ou électrode (SFA)	NA	NA
Process 1 Process 1	Filler metal or electrode classification(s) (info only) Classification métal d'apport ou électrode	ER70S-6	/
Process 2 Process 2	Filler metal or electrode classification(s) (info only) Classification métal d'apport ou électrode	NA	NA
Process 1 Process 1	Filler metal F-Number(s) F N° métal apport	F6	All F-N°6
Process 2 Process 2	Filler metal F-Number(s) F N° métal apport	NA	NA
Consumable insert (GTAW or PAW) Insertion consommable (GTAW ou PAW)		/	/
Filler type (solid/metal or flux cored/powder) (GTAW or PAW) Type produit d'apport (solide/métal ou fourrage poudre (GTAW ou PAW)		Solid	Solid and metal cored
Deposit thickness for each process / Épaisseur déposée pour chaque procédé			
Process 1: Procédé 1	3 layers minimum 3 passes minimum	Yes ☐ No ☒	5.54 mm ≤ 11.08 mm
Process 2: Procédé 2	3 layers minimum 3 passes minimum	Yes ☐ No ☐	NA
Position qualified / Position qualifiée (2G, 6G, 3F, etc.)		6G	All
Vertical progression (uphill or downhill) / Progression verticale (montante ou descendante)		Uphill	Uphill
Inert gas backing (GTAW, PAW, CMAW) / Gaz inerte à l'envers		without	With /without
Transfer mode (spray/globular or pulsed to short circuit-GMAW) Mode de transfert (pulvérisation, globulaire ou pulsé / court - circuit)		NA	NA
GTAW current type/polarity (AC, DCEP, DCEN) / Polarité / type de courant		DCEN	DCEN

RESULTS / Résultats

Visual Examination of Completed Weld (QW-302.4) Examen visuel de la soudure achevée		ACCEPTABLE	VT : 142/18	Date: 25/02/2018
Alternative radiographic examination results (QW-191) Résultat d'examen radiographique de substitution		ACCEPTABLE	RT : 018/090	Date: 25/02/2018
☐ Bend test Test de pliage	☐ Transverse root and face (QW-462.3(a)) Transversal Racine et face	☐ Longitudinal root and face (QW-462.3(b)) Longitudinale racine et face	☐ Side (QW-462.2) Côté	
☐ Pipe bend specimen, corrosion-resistant overlay (QW-462.5(c)) Éprouvette pliage pour tube, sur-couche de résistance à la corrosion	☐ Macro test for fusion (QW-462.5 (b)) Macro test pour fusion	☐ Plate bend specimen corrosion-resistant overlay (QW-462.5 (d)) Éprouvette pliage tôle, sur-couche de résistance à la corrosion	☐ Macro test for fusion (QW-462.5 (e)) Macro test pour fusion	
Type / type	Result / résultat	Type / type	Result / résultat	
N Fillet weld — fracture test (QW-180) : NA Soudure d'angle - test de rupture		Length and percent of defects: / Longueur et pourcentage du défaut		
Macro examination (QW-184) : NA Examen Macro		Fillet size : / Dimension de la soudure d'angle		
Other tests: Autres tests NA		Concavity/convexity : / Concavité / convexité		
Film or specimens evaluated by / Éprouvette ou film évalué par :		Company / Société: BECA		
Mechanical tests conducted by / Essai mécanique conduit par :		Laboratory test N° / N° Laboratoire :		
Welding supervised by / Soudure supervisée par :				
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 code Edition 2015 Nous certifions que les déclarations de cet enregistrement sont correctes et que les éprouvettes d'essai sont préparées, soudées et testées en conformité avec les exigences de la section IX de l'ASME 2015				
SOCOMENIN REPRESENTATIVE Représentant : BADRI Abdelhalim Date / Signature : 01/03/2018		REVIEWED AND APPROVED Représentant : HAZEL Mohamed Taha Date / Signature : 01/03/2018		THIRD PARTY INSPECTION Représentant : Date / Signature : 01/03/2018

WELDER PERFORMANCE QUALIFICATION [WPQ]

ASME Boiler and Pressure Vessel Code, Section IX, See QW -301



WPQ Report N° : CE_IC5-00239-0010/2021

Welder name : Naceur ALMANAI		Identification N° : 08881612		Welder N° : W 08	
Welded On : 27/12/2021		Company : PCC			
TEST DESCRIPTION					
WPS N° : 01		Revision : 00		Date : 27/12/2022	
Type of test material : Pipe 2"		Thickness : 5.54 mm		✓ Test coupon	
Specification		SA-Material		SA 106 Gr B	
To Specification		SA-Material		SA 106 Gr B	
TESTING CONDITIONS AND QUALIFICATION RANGE					
Welding variables (QW-350)		Actual Welded		Qualified Range	
Welding process		GTAW//SMAW		GTAW//SMAW	
Type of weld		Butt weld		Butt & Fillet Weld	
Backing		Without //with		With & Without //With	
Base material (QW-403):P- S Number To P- S Number		Pn°1		P n°1 to P n°15F, P n°34, P n°41 to P n°49	
Material Thickness		5.54 mm			
Pipe Diametre		2 in.		Diameter ≥ 1 in.	
				All	
Filer metal (QW-404)		ER70S-3 // E7018			
Specification (SFA) [only of information]		A5.18// A5.5			
Class (AWS) [only of information]		6 // 4		All Fn°6//Fn°1,2,3,4 With Backing	
F-Number		Solid		Solid & metal cored	
Consumable insert (GTAW or PAW)					
Filer type (solid/metal or flux cored/powder GTAW/PAW)					
Deposit thickness for each process :					
Process 1: GTAW		3 Layers minimum		Yes X No	
Process 2: SMAW		3 Layers minimum		Yes X No	
Position (QW-405)		6G		3	
Groove				All	
Plate and pipe > 24 inches				All	
Plate and pipe ≤ 24 inches				All	
Fillet weld				Uphill	
Vertical progression (uphill or downhill)		Uphill		Uphill	
Gaz (QW-408)		Without		With & without	
For GTAW, PAW and GMAW gas backing					
Type of fuel gas for OFW					
Electrical Data (QW-409)		DC		DC	
Current type (AC or DC)		EN/EP		EN/EP	
Polarity (EN or EP)					
Transfert mode (spray/globular or pulse to short circuit GMAW)					
BEND TEST					
Type and figure Number				Results	
NA				NA	
OTHER TEST					
Visual examination of completed weld (QW-302.4) results : Satisfactory				Report N°:RP_CVT_0239_015/21	
Alternative radiographic examination results (QW-191) : Satisfactory				Report N°: RP_CRT_0239_026/21	
Film or specimens evaluated by: MAHER BEN HMIDA					
FILLET WELD TEST					
Fillet weld – Fracture Test results :		NA		Length and % of defects:	
Macro examination (QW-184) results :		NA		Convexity	
Fillet weld size :		NA		Concavity	
Welding of test supervised by :		Khaled FATNASSI		Leg length	
				Mechanical testing by :	
				NA	
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.					
Date of test		27/12/2021			
Expiration date		26/06/2022			
Confirmation of the validity by employer, the contractor and the examiner body every 6 months.					
INSPECTOR		Khaled FATNASSI		TECHNICAL MANAGER	
Khaled FATNASSI		Expert Soudage		MAHER BEN HMIDA	
27/12/2021		Certifié CSWIP 3.1 level 2		28/12/2021	
		Cert N° : 110594			

SMART CONTROL

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