



Tecnimont S.p.A.

REPSOL POLIMEROS
SA

4274_CONST

ALBA PROJECT-PP AND PEL PLANTS



MOD-ITP-XL_220		RELEASE OF SPOOLS FROM WORKSHOP	Report n° IP-WSR-P-310-000404_RFI5388_MOD-ITP-XL_220
Rev.1			RFI Nr.: Date :
Unit	-		
Plant Area	-		
Isometric Number			
Inspection Package Number	IP-WSR-P-310-000404_RFI5388 - IP Spool Release From Workshop		

Sheet 01/01

The Present Inspection Package contains the following Elements:

7112-DMW64001-1-SP01-03094;7112-DMW64001-1-SP02-03093;2211-PCW70B06-1-SP03-01103;2211-DMW91Q01-3-SP09-03092;2121-IA91F63-7-SP16-00497;2121-IA91F63-7-SP15-00496;2121-IA91F63-7-SP14-00495;2121-IA91F63-2-SP08-00484;2121-IA91F62-6-SP14-00504;2121-IA91F62-6-SP15-00476;2121-IA91F62-5-S
P12-00475;2121-IA91F62-5-SP11-00474;2121-IA91F62-5-SP10-00473;2121-IA91F62-4-SP03-00472;2121-IA91F62-4-SP02-00471;2121-IA91F62-4-SP01-00470;2121-IA91F62-2-SP09-00467;2121-IA91F62-1-SP13-00931;1211-PCW89017-1-SP03-00359;1211-PCW89017-1-SP02-00358;1211-PCW89017-1-SP01-00357;1211-PCW89012-2-SP03-01102;1211-PCW89012-2-SP02-01101;1211-PCW89009-1-SP01-00356;1211-LO89008-1-SP02-00343;1211-LO89008-1-SP01-00342;1211-DMW64001-2-SP03-03091;1127-LS50009-6-SP11-00807;1127-LS50009-6-SP10-00806;1126-LO32008-1-SP03-00841;1115-DMW64003-2-SP04-03090;1115-DMW64003-1-SP02-03071;1115-DMW63001-1-SP03-03076

Spool No.	Ready for destination to: P: Painting (1) W: Wrapping F: Field	NDE Class	Check List					
			Visual Inspect	Traceability OK (2)	Pending NDE / PMI (Yes/No/NA)	PWHT / HARDNESS (Yes/No/NA)	Inside Cleaning (3) (Yes/No/NA)	Spool Identified (Yes/No/NA)

On behalf of Tecnímont / R
Piping Supervisor
Cristi Sandu *C. Sandu*
21.10.2024

LEGEND OF CHECK RESULT	<input checked="" type="checkbox"/> Checked & NOT Accepted	<input type="checkbox"/> Checked & Accepted	N.A.	Not Applicable	<input type="checkbox"/> Y / N	Punch List Produced
SUBCONTRACTOR	Date [DD-MMM-YYYY]	Name	Signature 			
CONTRACTOR	21-10-2024	Sergio Morales Collantes				
COMPANY						
(Free)						



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NOTES (*): 4274-XH-PQ-00000001

- 1) Painting cycle to be indicated.
- 2) Refer to: **4274-LZ-PC-00000214** (COMPANY 4001008GEN-PC-214) "Management of Site Metallic Welding Activities" and **4274-LZ-PC-00000215** (COMPANY 4001008GEN-PC-215) "Procedure for Traceability of Piping Material"
- 3) Refer to: **4274-XH-SG-00000003** (COMPANY 45-L-45-000-2-00-80005) "Specification for Piping Fabrication & Erection Amendment to EC-L-51.01 and EC-L-51.02" and **4274-XH-PQ-00000001** (COMPANY 45-L-45-000-2-00-80081) "Inspection and Test Plan for Steel Piping Works"

On behalf of Tecnímont / R
Piping Supervisor
Cristi Sandu C. Sandu
21.10.2024

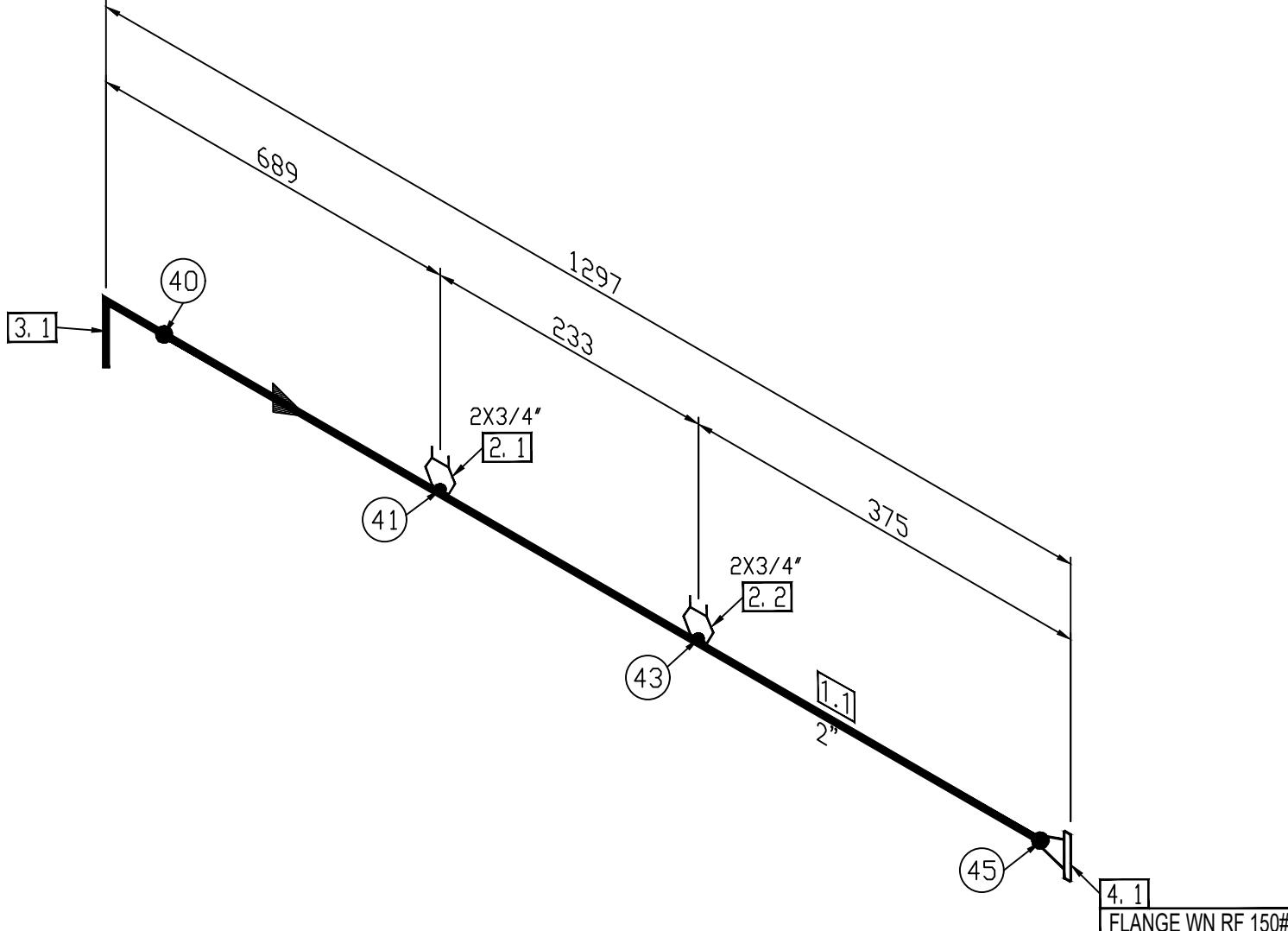
LEGEND OF CHECK RESULT	<input checked="" type="checkbox"/> Checked & NOT Accepted	<input checked="" type="checkbox"/> Checked & Accepted	N.A.	Not Applicable	Y / N	Punch List Produced
			Date [DD-MMM-YYYY]	Name		Signature
SUBCONTRACTOR			21-10-2024	Sergio Morales Collantes		
CONTRACTOR						
COMPANY						
(Free)						

 Tecnimont	<p style="text-align: center;">Punch List</p> <p style="text-align: center;">PUNCH LIST</p>	<p style="text-align: center;">IDENTIFICATION CODE</p>			
		<table border="1" style="width: 100%; text-align: center;"> <tr> <td>SHEET 1 / 1</td> <td>DOC.CLASS 1</td> <td>ISSUE 01</td> </tr> </table>	SHEET 1 / 1	DOC.CLASS 1	ISSUE 01
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 MECWIDE <small>Engineering Consultancy</small>	<p>ISO ID: 2121-IA91F63-2</p>				

NOTES AND REMARKS

On behalf of Tecnimont / R
Piping Supervisor
Cristi Sandu
18.10.2024 *C. Sandu*

	DATE (dd-Mmm-YYYY)	NAME	SIGNATURE
SUBCONTRACTOR			
CONTRACTOR			
COMPANY			
(Free)			

<div style="text-align: center; padding: 10px;">   <p>On behalf of Tecnimont / R Piping Supervisor Cristi Sandu 18.10.2024 <i>C. Sandu</i></p> <table border="1" style="margin-top: 10px; width: 100%;"> <tr><td>Rev.</td><td>Date</td><td>DRW</td><td>Check 1</td><td>Check 2</td><td>Marking Color: GREEN</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td>Weld Class: 6C4-M</td></tr> <tr><td>00</td><td>01/03/2024</td><td>AOM</td><td>MCM</td><td>PCO</td><td>Paint System: NA</td></tr> <tr><td colspan="5">Construction Code: ASME B31.3 % RT - YES % UT - NO Hydro: NO</td><td>ID Cleaning: YES</td></tr> <tr><td colspan="5">Acc Criteria: ASME B31.3 % PT - YES % FE - NO PWHT: NO</td><td>OD Cleaning: YES</td></tr> <tr><td colspan="5">Metal Tag: YES % MT - NO % PMI - YES BHN% - NO</td><td>Tolerances: ASME B31.3</td></tr> </table> </div>	Rev.	Date	DRW	Check 1	Check 2	Marking Color: GREEN						Weld Class: 6C4-M	00	01/03/2024	AOM	MCM	PCO	Paint System: NA	Construction Code: ASME B31.3 % RT - YES % UT - NO Hydro: NO					ID Cleaning: YES	Acc Criteria: ASME B31.3 % PT - YES % FE - NO PWHT: NO					OD Cleaning: YES	Metal Tag: YES % MT - NO % PMI - YES BHN% - NO					Tolerances: ASME B31.3	<div style="padding: 10px;"> <p style="text-align: center;">BILL OF MATERIAL</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr><th colspan="6" style="text-align: center;">PIPE</th></tr> <tr><th>ITEM</th><th>LONGUEUR</th><th>DIAMÉTRE</th><th>SCH/mm</th><th>DESCRIPTION / MATÉRIEL</th><th>ITEM CODE</th></tr> </thead> <tbody> <tr><td>1.1</td><td>1,154</td><td>2"</td><td>S-10S</td><td>PIPE - A312-TP304/304L DUAL GR SMLS, BExBE</td><td>I3364302</td></tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr><th colspan="6" style="text-align: center;">FLANGES</th></tr> <tr><th>ITEM</th><th>QT</th><th>DIAMÉTRE</th><th>PRESSION</th><th>SCH/mm</th><th>DESCRIPTION / MATÉRIEL</th></tr> </thead> <tbody> <tr><td>4.1</td><td>1</td><td>2"</td><td>150#</td><td>S-10S</td><td>WN FLANGE ASME B16.5 150# A182-F304/304L DUAL GR RF BE 125 -250 AARH</td></tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr><th colspan="6" style="text-align: center;">WELD FITTINGS</th></tr> <tr><th>ITEM</th><th>QT</th><th>DIAMÉTRE</th><th>SCH/PRESS.</th><th>DESCRIPTION / MATÉRIEL</th><th>ITEM CODE</th></tr> </thead> <tbody> <tr><td>3.1</td><td>1</td><td>2"</td><td>S-10S</td><td>90 LR ELBOW ASME B16.9 A403-WP304/304L DG BE SMLS</td><td>I2259133</td></tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr><th colspan="6" style="text-align: center;">FORGINGS</th></tr> <tr><th>ITEM</th><th>QT</th><th>DIAMÉTRE</th><th>SCH/PRESS.</th><th>DESCRIPTION / MATÉRIEL</th><th>ITEM CODE</th></tr> </thead> <tbody> <tr><td>2.1</td><td>1</td><td>2" x 3/4"</td><td>3000#</td><td>REDUCING SOCKOLET MSS-SP-97 A182-F304/304L DUAL GR BE SWE</td><td>I2258338</td></tr> <tr><td>2.2</td><td>1</td><td>2" x 3/4"</td><td>3000#</td><td>REDUCING SOCKOLET MSS-SP-97 A182-F304/304L DUAL GR BE SWE</td><td>I2258338</td></tr> </tbody> </table> <div style="text-align: right; margin-top: 10px;"> P2308S 00484  2121-IA91F63-2-SP08-00484 </div> <div style="text-align: center; margin-top: 10px;"> Weld Map Sticker </div> <div style="text-align: right; margin-top: 10px;">  boccard Alliance for success Boccard Portugal, Lda. </div> </div>	PIPE						ITEM	LONGUEUR	DIAMÉTRE	SCH/mm	DESCRIPTION / MATÉRIEL	ITEM CODE	1.1	1,154	2"	S-10S	PIPE - A312-TP304/304L DUAL GR SMLS, BExBE	I3364302	FLANGES						ITEM	QT	DIAMÉTRE	PRESSION	SCH/mm	DESCRIPTION / MATÉRIEL	4.1	1	2"	150#	S-10S	WN FLANGE ASME B16.5 150# A182-F304/304L DUAL GR RF BE 125 -250 AARH	WELD FITTINGS						ITEM	QT	DIAMÉTRE	SCH/PRESS.	DESCRIPTION / MATÉRIEL	ITEM CODE	3.1	1	2"	S-10S	90 LR ELBOW ASME B16.9 A403-WP304/304L DG BE SMLS	I2259133	FORGINGS						ITEM	QT	DIAMÉTRE	SCH/PRESS.	DESCRIPTION / MATÉRIEL	ITEM CODE	2.1	1	2" x 3/4"	3000#	REDUCING SOCKOLET MSS-SP-97 A182-F304/304L DUAL GR BE SWE	I2258338	2.2	1	2" x 3/4"	3000#	REDUCING SOCKOLET MSS-SP-97 A182-F304/304L DUAL GR BE SWE	I2258338
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Spool Material List

Contract : P2308

Client NERVION

Job : P2308S

Project ALBA

Job	Spool	Piece Mark	Drawing	Rev			
Item No Tag No ID No	Qty	Size1 Sch1	Size2 Sch2	Description	Heat No MTR No Folder No	Unit Weight Kgs	Weight Kgs
P2308S	00484	2121-IA91F63-2-SP08-00484		2121-IA91F63-2		00	
1.1	1,154	2.0000 S10S	0.0000 NA	PIPE, SEAMLESS, A312-TP304L	NY231216AS15 0391	3,93	4,54
40391							
4.1	1	2.0000 S10S	0.0000 NA	WN FLG, RAISED FACE, 150#, A182-F304L	CH-18449 0393	2,72	2,72
37867							
3.1	1	2.0000 S10S	0.0000 NA	90 LR ELL, SEAMLESS, A403-WP304L	NY230506AT08 0462	0,49	0,49
42965							
2.1	1	2.0000 NA	0.7500 NA	SOCKOLET, 3000#, A182-F304L	N220606AV04 0297	0,15	0,15
88696							
2.2	1	2.0000 NA	0.7500 NA	SOCKOLET, 3000#, A182-F304L	N220606AV04 0297	0,15	0,15
88696							

On behalf of Tecnimont / R
Piping Supervisor
Cristi Sandu
18.10.2024 *C. Sandu*

Number of Items : **5** Total Weight : **8,05**

Signature	QA	Client
	Date	Date
	 QA / QC	Sergio Morales  Date: 15-10-24

 Stainless Steel Experience				 DNV GL GROUP		CERTIFICATO DI COLLAUDO WORK TEST CERTIFICATE		Delivery Note		CLIENTE: PANTALONE S.R.L. CUSTOMER VIA DON PRIMO MAZZOLARI, 21 - Z.I. SELVAIEZZI 66100 CHIETI (CHIETI SCALO) CH									
TECNICA TRE s.r.l. 36061 BASSANO DEL GR. -VI- Via delle Viole, 16 - Tel. +39 0424 Fax Sede legale: Via delle Viole, 16 36061 BASSANO DEL GR. -VI- Partita Iva 02523320246 - R.I. VI-1996-149				EN 10204/3.1 DIN 50049/3.1 NR. BD24016251 DEL 11/06/24		NR. BD24016251 DEL 11/06/24		RIF. DDT BD24016251											

ANALISI CHIMICA - CHEMICAL COMPOSITION

COLATA	QTA'	CODICE	DESCRIZIONE	MATERIALE	C%	Si%	Mn%	S%	P%	Ni%	Cr%	Mo%	Al%	Cu%	Ti%	N%
HEAT NO.	Q.TY	CODE	DESCRIPTION	MATERIAL	C%	Si%	Mn%	S%	P%	Ni%	Cr%	Mo%	Al%	Cu%	Ti%	N%
			Ns. Ordine Cliente Nr. OC24017381 del 11/06/24													
			Vs. Ordine Cliente Nr. 2024-BOF-0001035 del 11/06/24													
NY231216AS1 5	134,40	946#200010304	TUBO SMLS ASTM/ASME A/SA312/A999 2" (60.3) SCH10S (2.77) AISI 304/304L	TP304/304L-1.4301/1.4307	0,022	0,4	1,37	0,001	0,035	8,03	18,34					0,076
NY231216AS1 5	106,40	946#200010304	TUBO SMLS ASTM/ASME A/SA312/A999 2" (60.3) SCH10S (2.77) AISI 304/304L	TP304/304L-1.4301/1.4307	0,022	0,4	1,37	0,001	0,035	8,03	18,34					0,076

Note - Notes

Firma
Signature

I dati dell'analisi chimica e delle prove meccaniche corrispondono fedelmente al certificato inviato dal fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove. I certificati sono conservati nel nostro archivio.
 The chemical analysis and mechanical properties fully comply with the certificate issued by the manufacturer of the basic material and/or by the laboratory carrying out test. The certificates are kept in our archives.

 TECNICATRE Stainless Steel Experience TECNICA TRE s.r.l. 36061 BASSANO DEL GR. -VI- Via delle Viole, 16 - Tel. +39 0424 Fax: Sede legale: Via delle Viole, 16 36061 BASSANO DEL GR. -VI- Partita Iva 02523320246 - R.I. VI-1996-149	CERTIFICATO DI COLLAUDO WORK TEST CERTIFICATE EN 10204/3.1 DIN 50049/3.1 NR. BD24016251 DEL 11/06/24	Delivery Note NR. BD24016251 DEL 11/06/24	CLIENTE: PANTALONE S.R.L. CUSTOMER VIA DON PRIMO MAZZOLARI, 21 - Z.I. SELVAIEZZI 66100 CHIETI (CHIETI SCALO) CH
			RIF. DDT BD24016251

CARATTERISTICHE MECCANICHE - MECHANICAL TEST

COLATA Heat no.	SNERVAMENTO yield point - N/mm ²	ROTTURA tensile - N/mm ²	ALLUNGAMENTO elongation - %	CONTRAZIONE red of area - %	DUREZZA hardness - %
NY231216AS15	320,0	545,0	44,5	0,0	0,0
NY231216AS15	320,0	545,0	44,5	0,0	0,0

Note - Notes

Firma
Signature

I dati dell'analisi chimica e delle prove meccaniche corrispondono fedelmente al certificato inviato dal fabbricante del materiale base e/o dal laboratorio che ha effettuato le prove. I certificati sono conservati nel nostro archivio.
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CHANDAN STEEL LIMITED
(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)

ISO 9001:2015 CERTIFICATE No. 04100011022

ADM. OFFICE: 504, SUGHISAGAR, N. S. PATKAR MARG,
MUMBAI 400 007, INDIA
Tel: 91-22-66150600, Fax: 91-22-66150633/34
Website: www.chandansteel.net
Email: rcv@chandansteel.net
L/c. No. :
L/c. Date:

WORKS: Plot No. 35, G. I. D. C., Umbergaon
Dist. Vadodara, Gujarat - 396 171, INDIA
Tel.: 91-260-256 2066/4267/1166, Fax: 91-260-256 2287
E-mail: export@chandansteel.net

INSPECTION CERTIFICATE 3.1
ACCORDING TO EN 10204

RACCORDUBI SPA
VIALE DE GASPERI, 194
20010 MARCALLO CON CASONE
(MILANO) - ITALIA

Test Certificate No. : EXP/22-23/01571 - 32
Date of Issue : 18.03.2023
P. O. No. : 00000350 Dt. 02-12-2022
Invoice No. & Date : EXP/22-23/01571 Date- 18.03.2023

ITEM DESCRIPTION
STAINLESS STEEL FORGED & FULLY MACHINED FLANGES

Po Sr No.	Heat No.	Pcs	Box No.	Wt.Kgs	Grade	Item	Process Route
9	CH-18449	158	5 & 7	409.41	ASTM/ASME A/SA182 F304/304L	2" WNRF150 LBS 10S	
-	-	-	-	-	-	-	Electric Induction Melting, A.O.D. Refining, Continuous Casting & Hot Forging
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	

CHEMICAL COMPOSITION (Weight %)

Po Sr No.	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Ti	N	OTHERS
9	0.023	0.52	1.74	0.036	0.005	18.23	-	8.07	-	-	0.077	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

MECHANICAL PROPERTIES

Po Sr No.	0.2% Yield Strength N/mm ² (Rp0.2)	Tensile Strength N/mm ² (R _m)	Elongation %	Reduction of Area %	Hardness (H. B. W.)
9	261	566	57	74	162-166
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

Remarks:

- The material is solution annealed at minimum 1050 °C and water quenched.
- Visual and Dimensions inspection OK.
- PMI Test 100%- Satisfactory.
- No welding was performed on this material.
- Material is free from mercury and radio-active contamination and is found within the limits of the background radiation.
- Inter-Granular Corrosion Test (ASTM A262- 17 (Pt.B))- Satisfactory.
- The material conforms to ASTM A 182 - 22, ASME SECTION II PART A SA 182 - 21 & Dimension confirms to ASME B16.5-20 Specification.
- The material hardness conforms to NACE MR0175/ISO 15156-3:2015 & NACE MR0103-2015.
- Surface roughness quality checked by comparator & found 125 - 250 AARH
- Visual , Dimension and PMI performed by CSL.
- Mechanical Testing perfomed by CSL.

We hereby certify that, the material described herein,
and supplied are in compliance with the requirements of the order.



V.Y. Narayanan
V.Y.NARAYANAN
WORKS INSPECTOR

Customer: TECNIMONT S.p.A.
Description: W.N. 2" S.150 RF SCH.10/S
I2260686

Order: 7500118979 - 26.01.24 - Item n.: 184 - Project: 4274 - PP+PE Sines (Portugal) EPC - Our ref.: OCVEIT202400000475

Protocol: CTCERC202400003069 * CERTIFIED TRUE COPY

* Issued 14-03-2024



Heat num. or Pcs. marking: CH-18449 - Qty:22,00

Protocol: CTCERC202400003069 * CERTIFIED TRUE COPY

* Issued 14-03-2024

MATERIAL TEST CERTIFICATE

EN10204 3.1

MANUFACTURER: Yingkou Guangming Pipeline Industry Co.,Ltd

MATERIAL: ASTM A403 WP304/304L

P.O NO: 1179/2023/OF

DIMENSION: ASME B16.9

WORK NO: GMPPFCP2312363

CUSTOMER: Chero Piping S.p.A.

DATE: April.10th,2024

PAGE NO: 20/29

NO.	POS .No.	CHERO CODE	COMMESA COMMESA	PRODUCT & SIZE	QUANTITY	MFG NO. (HEAT NO.)	CHEMICAL COMPOSITION%					
							MIN	C	Si	Mn	P	S
74	310	C90LRB1XB 0001.ZZW	OC/2023/90 3/1040	SIZE: 2 - SCHED.S-10S 90 LR ELBOW A403- WP304/304L DG BE SMLS ASME B16.9	58	NY230506AT08	0.030	1.00	2.00	0.045	0.030	8.00
75	320	C90LRB1XB 000N.ZZW	OC/2023/90 3/1060	SIZE: 3 - SCHED.S-10S 90 LR ELBOW A403- WP304/304L DG BE SMLS ASME B16.9	16	JSG2310019	0.027	0.54	1.22	0.026	0.015	8.11
76	330	C90LRB1XB 000P.ZZW	OC/2023/90 3/1080	SIZE: 4 - SCHED.S-10S 90 LR ELBOW A403- WP304/304L DG BE SMLS ASME B16.9	4	JSG2312020	0.028	0.44	1.23	0.027	0.010	8.28
77	340	C90LRB1XB 000R.ZZW	OC/2023/90 3/1090	SIZE: 6 - SCHED.S-10S 90 LR ELBOW A403- WP304/304L DG BE SMLS ASME B16.9	2	JSG2312024	0.027	0.47	1.24	0.028	0.013	8.26
PHYSICAL TEST												
NO.	POS .No.	CHERO CODE	COMMESA COMMESA	CHARGE NO	STANDARD	YIELD STRENGTH MPA(N/mm ²)	TENSILE STRENGTH MPA(N/mm ²)	ELONGATION %	HARDNESS HB	VISUAL INSPECTION	DIMENSION INSPECTION	PMI TESTING
					MIN	170	485	28	-			
74	310	C90LRB1XB 0001.ZZW	OC/2023/90 3/1040	NY230506AT08	299	611	51	-	GOOD	GOOD	GOOD	OK
75	320	C90LRB1XB 000N.ZZW	OC/2023/90 3/1060	JSG2310019	256	665	54	-	GOOD	GOOD	GOOD	OK
76	330	C90LRB1XB 000P.ZZW	OC/2023/90 3/1080	JSG2312020	279	680	66	-	GOOD	GOOD	GOOD	OK
77	340	C90LRB1XB 000R.ZZW	OC/2023/90 3/1090	JSG2312024	273	674	62	Yuan Yuan	GOOD	GOOD	GOOD	OK

NOTE:

1. HEAT TREATMENT: SOLUTION ANNEALED TEMPERATURE 1050°C X 0.5HR, COOLING IN WATER.

WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED HEREIN HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE SPECIFICATIONS CONCERNED AND ALSO WITH THE PURCHASER'S REQUIREMENTS AND THAT THE TEST RESULTS SHOWN HEREIN ARE CORRECT AND WE CONFIRM THAT P.M.I HAS BEEN DONE.

2024.4.7

CHIEF OF INSPECTION DEPARTMENT

Prime 4 030 TCN





Zongnan Heavy Industries

江阴中南重工有限公司

Jiangyin Zhongnan Heavy Industries Co.,Ltd.

产品品质证明书 Quality Certificate EN10204-3.1

用户(Purchaser): (印度)TECNIMONT S.P.A

订单号:PO 7500110919

质量证明书编号 (Certificate No.): 2023-03-225-71

表号: ZNHI/W400-34-1
修订号: 0

材质(Material): ASTM A182-2021 F304/304L DUL GR											化学成分 Chemical Composition (%)											机械性能 Mechanical Properties							
生产批号 Batch No.	品名 Designation	规格型号 Dimension	单位 Unit	数量 Qty	炉号 Heat No.	C	Si	Mn	P	Cr	Ni	T	Mo	V	Cu	Nb	Al	N	CE	屈服强度 R _{0.2} R _u (Mpa)	抗拉强度 R _u (Mpa)	断面收缩率 A%	延伸率 Z%	冲击试验(J) Impact Test Report 0°C (10*10*55mm)	硬度 HBW	PO item No.	备注 Remark		
2023-03-225-306	SOCKOLET SWE	SIZE:1.2 SIZE:2.0:0.5 2"0.5"**3000LB	件	5	N220606AV04	0.023	0.35	1.30	0.002	0.029	18.19	8.08							0.047	61.5	309	54.5	77	-	-	172/165/174	306	Ident Code: 2258337	
2023-03-225-307	SOCKOLET SWE	SIZE:1.2 SIZE:2.0:0.75 2"0.75"**3000LB	件	5	N220606AV04	0.023	0.35	1.30	0.002	0.029	18.19	8.08							0.047	61.5	309	54.5	77	-	-	172/165/174	307	Ident Code: 2258338	
2023-03-225-308	SOCKOLET SWE	SIZE:1.3 SIZE:2.0:0.75 3"0.75"**3000LB	件	10	N220606AV04	0.023	0.35	1.30	0.002	0.029	18.19	8.08							0.047	61.5	309	54.5	77	-	-	172/165/174	308	Ident Code: 2258415	
2023-03-225-309	SOCKOLET SWE	SIZE:1.3 SIZE:2.1 3"1"**3000LB	件	5	N220606AV04	0.023	0.35	1.30	0.002	0.029	18.19	8.08							0.047	61.5	309	54.5	77	-	-	172/165/174	309	Ident Code: 2258416	
2023-03-225-310	SOCKOLET SWE	SIZE:1.4 SIZE:2.0:0.75 4"0.75"**3000LB	件	5	N220606AV04	0.023	0.35	1.30	0.002	0.029	18.19	8.08							0.047	61.5	309	54.5	77	-	-	172/165/174	310	Ident Code: 2258477	
2023-03-225-311	SOCKOLET SWE	SIZE:1.6 SIZE:2.0:0.75 6"0.75"**3000LB	件	5	N220606AV04	0.023	0.35	1.30	0.002	0.029	18.19	8.08							0.047	61.5	309	54.5	77	-	-	172/165/174	311	Ident Code: 2258518	
其他检测结果(Other examination and test)																												其他(others):	
尺寸检查 Dimension Inspection	外观检查 Visual Inspection	硬度 Hardness (H13W≤201)	无损检测(NDT) MT	磁粉 MT	着色 PT	超声波 UT	X射线 RT	晶间腐蚀 Intergranular Corrosion Test																				交货状态 Delivery condition	
合格 OK	合格 OK	合格 OK	-	合格 OK	-	-	-	合格 OK	-	PMI OK	-	PMI OK	-	固溶 Solution Annealing															

兹证明上述产品制造、检验和试验，符合上述标准规定及合同要求。
We hereby certify that the products described above have manufactured, inspected and tested in accordance with the specified standards and the contract requirements.

特种设备制造许可证号(Manufacture License of Special Equipment): TS2732E11-2024

地址:江阴市高新技术产业开发区山阳西路8号
Add: 788 Jinshan Rd,High and New Technology Industrial Development,JiangYin City, JiangSu P.R.China电话(Tel): 0510-8696009
传真(Fax): 0510-8696035



Contract : P2300

Drawing : 2121-IA91F63-2

Welding and QC Report Per Spool

Job : P2300S

Material : Stainless Steel 304, 316, 317

Client : NERVION

Revision : 00

Spool : 00484

Spec : 6C4-M

Project : ALBA

Piece Mark : 2121-IA91F63-2-SP08-00484

Weld data

Welding

Control

Weld No.	Type	Dia	Sch	Weld Proc.	1st Pass	1st MTR	Final Pass	Final MTR	Dim	Date DIM	Visual	Date Visual	PT	Date PT	MT	Date MT	PMI	Date PMI	Ferite	Date Ferrite	PWHT	Date PWHT	BHN	Date BHN	Ultra	Date UT	Xray	Date Xray
0040	BW	2	S10S	MW.26_BW	BC	16-09-2024	4712055	BC	16-09-2024	4712055			001043	02-10-2024			001081	07-10-2024										
0041	SOL	0,75	S10S	MW.26_SBR	BC	16-09-2024	4712055	BC	16-09-2024	4712055			001043	02-10-2024	000196	02-10-2024	001081	07-10-2024										
0043	SOL	0,75	S10S	MW.26_SBR	BC	16-09-2024	4712055	BC	16-09-2024	4712055			001043	02-10-2024	000196	02-10-2024	001081	07-10-2024										
0045	BW	2	S10S	MW.26_BW	BC	16-09-2024	4712055	BC	16-09-2024	4712055			001043	02-10-2024			001081	07-10-2024										

On behalf of Tecnimont / R
Piping Supervisor
Cristi Sandu
18.10.2024 C. Sandu

Notes:

Boccard Portugal QC	Client
	Sergio Morales Date: 15-10-24
08-10-2024 14:35:29	



Shop QC Inspection Report

P2308-001073

Client : NERVION
 Contract : P2308 / Project : ALBA
 Material: Stainless Steel 304, 316, 317

Job number: P2308S
 Spool N°: 00484
 Piece Mark: 2121-IA91F63-2-SP08-00484

Procedure / Instruction reference: 20.2 IT 011 MF 324 - Rev: A

Control Date: 02-10-2024

Remarks: The results refer to the controlled items

Actions / Tasks List	Required		Done/ Identified
	Yes	No	
Welder / weld list labels printed and pasted on the spool sheet	X	<input type="checkbox"/>	X
Spool Barcode label printed	X	<input type="checkbox"/>	X
Spool is identified with the metal tag	X	<input type="checkbox"/>	X
Spool stencil required (hard stamp low stress)	<input type="checkbox"/>	X	<input type="checkbox"/>
Joint preparation & cleanliness / spool dimensions checked	X	<input type="checkbox"/>	X
Level, plumb, Two holes, flanges and internal alignment, Squareness	X	<input type="checkbox"/>	X
Material checked (type of material, rate, heat numbers, filler material, etc.)	X	<input type="checkbox"/>	X
Welders list match with actual welder stencil / Id. on pipe	X	<input type="checkbox"/>	X
PWHT- Spool identified as per Procedure / Instruction for PWHT	<input type="checkbox"/>	X	<input type="checkbox"/>
HT (Hardness Test)- Welds identified as per Procedure / Instruction	<input type="checkbox"/>	X	<input type="checkbox"/>
MT - Welds identified as per Procedure / Instruction	<input type="checkbox"/>	X	<input type="checkbox"/>
PT - Welds identified as per Procedure / Instruction	X	<input type="checkbox"/>	X
PMI - Welds identified as per Procedure / Instruction	X	<input type="checkbox"/>	X
FE (Ferrite test) - Welds identified as per Procedure / Instruction	<input type="checkbox"/>	X	<input type="checkbox"/>
RT - Welds identified as per Procedure / Instruction	<input type="checkbox"/>	X	<input type="checkbox"/>
UT - Welds identified as per Procedure / Instruction	<input type="checkbox"/>	X	<input type="checkbox"/>
Spool identified (by marker) as per Procedure / Instruction (Job number, sheet number and Paint type if required)	X	<input type="checkbox"/>	X
Hydro - Spool identified as per Procedure / Instruction	<input type="checkbox"/>	X	<input type="checkbox"/>
Cleanliness - Cleaned inside free of slag, scale, sand, weld spatter, cutting chips, etc. and blow out by compressed air	X	<input type="checkbox"/>	X

Comments:

Performed by: GOIS, REINALDO (N2 VT) Date: 02-10-2024 Signature 	QA/QC Inspection: RAIMUNDO, MARIANA Date: 08-10-2024 14:35:29 Signature 	Customer Inspection: Sergio Morales Date: 15-10-24 
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On behalf of Tecnimont / R
 Piping Supervisor
 Cristi Sandu
 18.10.2024 

Visual Examination Report (Welds)

P2308-001043

Contract : P2308

Job number: P2308S

Material: Stainless Steel 304, 316, 317

Client : NERVION

Spool Nº: 00484

Procedure & Instructions: 4274-LZ-VF31010370QAC04 - Rev: 1

Project : ALBA

Piece Mark: 2121-IA91F63-2-SP08-00484

Testing Date: 02-10-2024

Remarks: The results refer to the controlled items

Unacceptable indications for welding

ACCEPTANCE CRITERIA : ASME B31.3

Weld reinforcement greater than specified in project procedure

The illumination of the surface must be at least 500 lux. However, a value of 1000lux is recommended

Any linear indications greater than specified in project procedure, surface porosity with rounded indications having a dimension greater than specified project procedure

Indications of lack of fusion open to the surface / Cracks located on external surfaces

Surface finish that could interfere with other testing required

Incomplete penetration of welds / Indications of undercut on surfaces which are greater than specified in project procedure

Misalignment greater than specified in applicable code or poor fit up of weld joints

Identification			Welder	Temp. (°F/°C)	Accepted	Rejected	Defect	Technique Used	Comments
Weld No.	Weld Desc.								
0040	2.0000 S10S BW-Buttweld Straight (MW.26_BW)		BC	26	X			Direct	
0041	0.7500 S10S SOL-Sockolet to Header Weld (MW.26_SBR)		BC	26	X			Direct	
0043	0.7500 S10S SOL-Sockolet to Header Weld (MW.26_SBR)		BC	26	X			Direct	
0045	2.0000 S10S BW-Buttweld Straight (MW.26_BW)		BC	26	X			Direct	

Sketch / Photo:

Defects									
Clustered Porosity	CP	Porosity	P	Cap	C	Lack of Cleanup	LC	Hollow in Cap	W
Unibmly Porosity	UP	Slag	S	Undercut	UC	Crack	CR	Surface	SU
Test Performed by:	GOIS, REINALDO (N2 VT)				QA/QC Inspection:	RAIMUNDO, MARIANA			
Date:	02-10-2024				Date:	08-10-2024 14:35:29			
Signature				Signature					Customer Inspection: Sergio Morales Date: 15-10-24
									

On behalf of Tecnimont / R
Piping Supervisor
Cristi Sandu
18.10.2024 *C. Sandu*



Liquid Penetrant Examination Report

P2308-000196

Client : NERVION
 Contract : P2308 / Project : ALBA
 Remarks: The results refer to the controlled items

Job number: P2308S

Spool N°: 00484

Piece Mark: 2121-IA91F63-2-SP08-00484

Material: Stainless Steel 304, 316, 317

Procedure / Instruction reference: 4274-LZ-VD-FW31010370QAC03

Testing Date: 02-10-2024

Steps	Penetrant	Cleaner	Developer	Lighting Equipment
Brand	Mr Chemie (MR68-NF)	Mr Chemie (MR85)	Mr Chemie (MR70)	Artificial > 500 lux
Type	II	C	e	-
Batch/Serial Number	*080323 (03/2026)	*150124 (01/2027)	*300124 (01/2027)	-

Weld / Item No.	Identification Description	Welder	Tem (°F/°C)	Dwell Time (min)				Examin Time	Accepted yes	Indication	Remarks
				Penetrant	Cleaner	Developer	Lighting				
0041	0.7500 S10S SOL-Sockolet to Header Weld (MW.26_SBR)	BC	22	20 m	-	10 m	-	-	X	<input type="checkbox"/>	
0043	0.7500 S10S SOL-Sockolet to Header Weld (MW.26_SBR)	BC	22	20 m	-	10 m	-	-	X	<input type="checkbox"/>	

Sketch / Photo:

Defects

Clustered Porosity	CP	Cap	C	Undercut	UC	Surface	SU	Crack	CR
Porosity	P	Slag	S	Lack of Cleanup	LC	Crater Crack	CC		

Test Performed by: REINALDO (N2 VT), GOIS

QA/QC Inspection: RAIMUNDO, MARIANA

Customer Inspection:

Date: 02-10-2024

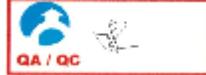
Date: 02-10-2024

Sergio Morales

Signature



Signature



Date: 15-10-24



On behalf of Tecnimont / R
 Piping Supervisor
 Cristi Sandu
 18.10.2024 C. Sandu



Positive Material Identification Report (PMI)

P2308-001081

Client : NERVION
 Contract : P2308 / Project : ALBA

Remarks: The results refer to the controlled items

Job number: P2308S

Spool N°: 00484

Piece Mark: 2121-IA91F63-2-SP08-00484

Material: Stainless Steel 304, 316, 317

Procedure / Instruction reference: 4274-LZ-VF-FW31010370QAC11 - Rev: 1

PMI Equipment : Niton XL3t800 Serial N° 32735 (FP01)

Equipment Deviation : + - 5%

Testing Date: 07-10-2024

Weld / Item No	Description	Reading Number	Chemical Elements										Accepted	Rejected	Comments
			%Ti	%Mo	%Cu	%Ni	%Fe	%Mn	%Cr	%Nb	%Al	%V			
0040	2.0000 S10S BW-Buttweld Straight (MW.26_BW)	256	0	0	0	9	69	1	19	0	0	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
0041	0.7500 S10S SOL-Sockolet to Header Weld (MW.26_SBR)	257	0	0	0	9	69	1	19	0	0	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
0043	0.7500 S10S SOL-Sockolet to Header Weld (MW.26_SBR)	258	0	0	0	9	68	2	19	0	0	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
0045	2.0000 S10S BW-Buttweld Straight (MW.26_BW)	259	0	0	0	8	70	1	18	0	0	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.1	2.0000 S10S PIPE, SEAMLESS, A312-TP304L (NY231216AS15)	252	0	0	0	7	71	1	17	0	0	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.1	2.0000 NA 0.7500 NA SOCKOLET, 3000#, A182-F304L (N220606AV04)	254	1	0	0	9	69	1	16	0	0	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.2	2.0000 NA 0.7500 NA SOCKOLET, 3000#, A182-F304L (N220606AV04)	253	0	0	0	7	71	1	18	0	0	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.1	2.0000 S10S 90 LR ELL, SEAMLESS, A403-WP304L (NY230506AT08)	255	0	0	0	7	71	1	18	0	0	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.1	2.0000 S10S WN FLG, RAISED FACE, 150#, A182-F304L (CH-18449)	251	0	0	0	8	70	1	18	0	0	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

On behalf of Tecnimont / R
 Piping Supervisor
 Cristi Sandu
 18.10.2024 C. Sandu

Test Performed by: GONCALVES(QA), J. (N2 PT/RT) QA/QC Inspection: RAIMUNDO, MARIANA

Customer Inspection:

Sergio Morales

Date: 07-10-2024

Date: 08-10-2024 14:35:29

Date:

Signature



Signature



Signature

Date: 15-10-24



Boccard Portugal, Lda
Zona Industrial de Montalvo, Lote 3
Constância, Portugal 2250-999

Certificate of PMI Reading

XL3t-32735

Reading No	256
Mode	ALLOY
Time	2024-10-07 11:30
Duration	9.25
Sequence	Final
Alloy1	304SS : 0.50
Alloy2	No Match : 1.74
Flags	
SAMPLE	
HEAT	
LOT	
BATCH	
MISC	
NOTE	

	%	±	Error
Sb	< LOD	:	0.047
Sn	< LOD	:	0.049
Pd	< LOD	:	0.042
Ag	< LOD	:	0.163
Al	< LOD	:	80.000
Mo	0.032	±	0.008
Nb	< LOD	:	0.009
Zr	< LOD	:	0.004
Bi	< LOD	:	0.010
Pb	< LOD	:	0.019
Se	< LOD	:	0.009
W	< LOD	:	0.102
Zn	< LOD	:	0.037
Cu	< LOD	:	0.154
Ni	9.270	±	0.324
Co	< LOD	:	0.515
Fe	69.614	±	0.481
Mn	1.588	±	0.217
Cr	19.097	±	0.281
V	< LOD	:	0.141
Ti	< LOD	:	0.174

Sergio Morales

Date: 15-10-24



On behalf of Tecnimont / R
Piping Supervisor
Cristi Sandu
18.10.2024 C. Sandu

Boccard Portugal, Lda
Zona Industrial de Montalvo, Lote 3
Constância, Portugal 2250-999

Certificate of PMI Reading

XL3t-32735

Reading No	257
Mode	ALLOY
Time	2024-10-07 11:30
Duration	8.66
Sequence	Final
Alloy1	304SS : 0.00
Alloy2	No Match : *2.10
Flags	
SAMPLE	
HEAT	
LOT	
BATCH	
MISC	
NOTE	

	%	±	Error
Sb	< LOD	:	0.042
Sn	< LOD	:	0.056
Pd	< LOD	:	0.041
Ag	< LOD	:	0.162
Al	< LOD	:	80.000
Mo	0.039	±	0.008
Nb	< LOD	:	0.009
Zr	< LOD	:	0.006
Bi	< LOD	:	0.014
Pb	< LOD	:	0.021
Se	< LOD	:	0.013
W	< LOD	:	0.106
Zn	< LOD	:	0.039
Cu	< LOD	:	0.156
Ni	9.339	±	0.329
Co	< LOD	:	0.525
Fe	69.151	±	0.488
Mn	1.762	±	0.223
Cr	19.304	±	0.286
V	< LOD	:	0.142
Ti	< LOD	:	0.153

Sergio Morales

Date: 15-10-24



On behalf of Tecnimont / R
Piping Supervisor
Cristi Sandu
18.10.2024 C. Sandu

Boccard Portugal, Lda
Zona Industrial de Montalvo, Lote 3
Constância, Portugal 2250-999

Certificate of PMI Reading

XL3t-32735

Reading No	258
Mode	ALLOY
Time	2024-10-07 11:30
Duration	9.42
Sequence	Final
Alloy1	304SS : 1.08
Alloy2	No Match : *2.40
Flags	
SAMPLE	
HEAT	
LOT	
BATCH	
MISC	
NOTE	

	%	±	Error
Sb	< LOD	:	0.044
Sn	< LOD	:	0.051
Pd	< LOD	:	0.039
Ag	< LOD	:	0.142
Al	< LOD	:	80.000
Mo	0.045	±	0.008
Nb	0.013	±	0.005
Zr	< LOD	:	0.002
Bi	< LOD	:	0.013
Pb	< LOD	:	0.011
Se	< LOD	:	0.006
W	< LOD	:	0.088
Zn	< LOD	:	0.034
Cu	< LOD	:	0.169
Ni	9.566	±	0.319
Co	< LOD	:	0.505
Fe	68.472	±	0.467
Mn	2.026	±	0.218
Cr	19.432	±	0.275
V	< LOD	:	0.123
Ti	< LOD	:	0.146

Sergio Morales

Date: 15-10-24



On behalf of Tecnimont / R
Piping Supervisor
Cristi Sandu
18.10.2024 C. Sandu

Boccard Portugal, Lda
Zona Industrial de Montalvo, Lote 3
Constância, Portugal 2250-999

Certificate of PMI Reading

XL3t-32735

Reading No	259
Mode	ALLOY
Time	2024-10-07 11:31
Duration	10.53
Sequence	Final
Alloy1	304SS : 0.84
Alloy2	No Match : 1.64
Flags	
SAMPLE	
HEAT	
LOT	
BATCH	
MISC	
NOTE	

	%	±	Error
Sb	< LOD	:	0.042
Sn	< LOD	:	0.052
Pd	< LOD	:	0.040
Ag	< LOD	:	0.178
Al	< LOD	:	80.000
Mo	0.085	±	0.011
Nb	0.010	±	0.005
Zr	< LOD	:	0.004
Bi	< LOD	:	0.015
Pb	< LOD	:	0.014
Se	< LOD	:	0.008
W	< LOD	:	0.111
Zn	< LOD	:	0.030
Cu	< LOD	:	0.161
Ni	8.531	±	0.306
Co	< LOD	:	0.506
Fe	70.007	±	0.466
Mn	1.819	±	0.213
Cr	18.728	±	0.271
V	< LOD	:	0.137
Ti	< LOD	:	0.172

Sergio Morales

Date: 15-10-24



On behalf of Tecnimont / R
Piping Supervisor
Cristi Sandu
18.10.2024 C. Sandu

Boccard Portugal, Lda
Zona Industrial de Montalvo, Lote 3
Constância, Portugal 2250-999

Certificate of PMI Reading

XL3t-32735

Reading No	252
Mode	ALLOY
Time	2024-10-07 11:29
Duration	9.69
Sequence	Final
Alloy1	301SS : 1.67
Alloy2	321SS : 1.72
Flags	
SAMPLE	
HEAT	
LOT	
BATCH	
MISC	
NOTE	

	%	±	Error
Sb	< LOD	:	0.049
Sn	< LOD	:	0.056
Pd	< LOD	:	0.045
Ag	< LOD	:	0.158
Al	< LOD	:	80.000
Mo	< LOD	:	0.013
Nb	< LOD	:	0.006
Zr	< LOD	:	0.005
Bi	< LOD	:	0.018
Pb	< LOD	:	0.021
Se	< LOD	:	0.007
W	< LOD	:	0.104
Zn	< LOD	:	0.039
Cu	< LOD	:	0.161
Ni	7.981	±	0.326
Co	< LOD	:	0.554
Fe	71.673	±	0.508
Mn	1.576	±	0.226
Cr	17.888	±	0.290
V	< LOD	:	0.155
Ti	< LOD	:	0.191

Sergio Morales

Date: 15-10-24



On behalf of Tecnicont / R
Piping Supervisor
Cristi Sandu
18.10.2024 C. Sandu

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Certificate of PMI Reading

XL3t-32735

Reading No	254
Mode	ALLOY
Time	2024-10-07 11:30
Duration	8.35
Sequence	Final
Alloy1	321SS : *3.23
Alloy2	No Match : *4.44
Flags	
SAMPLE	
HEAT	
LOT	
BATCH	
MISC	
NOTE	

	%	±	Error
Sb	< LOD	:	0.110
Sn	< LOD	:	0.105
Pd	< LOD	:	0.117
Ag	< LOD	:	0.198
Al	< LOD	:	80.000
Mo	0.085	±	0.018
Nb	0.023	±	0.012
Zr	< LOD	:	0.018
Bi	< LOD	:	0.021
Pb	< LOD	:	0.030
Se	< LOD	:	0.020
W	< LOD	:	0.226
Zn	0.159	±	0.059
Cu	0.284	±	0.127
Ni	9.125	±	0.435
Co	1.196	±	0.348
Fe	69.341	±	0.664
Mn	1.683	±	0.278
Cr	16.511	±	0.360
V	< LOD	:	0.220
Ti	1.393	±	0.224

Sergio Morales

Date: 15-10-24



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Piping Supervisor
Cristi Sandu
18.10.2024 C. Sandu

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Certificate of PMI Reading

XL3t-32735

Reading No	253
Mode	ALLOY
Time	2024-10-07 11:29
Duration	9.77
Sequence	Final
Alloy1	321SS : 2.22
Alloy2	No Match : 2.76
Flags	
SAMPLE	
HEAT	
LOT	
BATCH	
MISC	
NOTE	

	%	±	Error
Sb	< LOD	:	0.043
Sn	< LOD	:	0.055
Pd	< LOD	:	0.042
Ag	< LOD	:	0.176
Al	< LOD	:	80.000
Mo	0.045	±	0.009
Nb	< LOD	:	0.009
Zr	< LOD	:	0.005
Bi	< LOD	:	0.002
Pb	< LOD	:	0.003
Se	< LOD	:	0.008
W	< LOD	:	0.111
Zn	< LOD	:	0.042
Cu	< LOD	:	0.172
Ni	7.815	±	0.317
Co	0.629	±	0.274
Fe	71.149	±	0.500
Mn	1.412	±	0.219
Cr	18.339	±	0.287
V	< LOD	:	0.157
Ti	< LOD	:	0.196

Sergio Morales

Date: 15-10-24



On behalf of Tecnimont / R
Piping Supervisor
Cristi Sandu
18.10.2024 *C. Sandu*

Boccard Portugal, Lda
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Certificate of PMI Reading

XL3t-32735

Reading No	255
Mode	ALLOY
Time	2024-10-07 11:30
Duration	9.45
Sequence	Final
Alloy1	304SS : 1.23
Alloy2	No Match : 1.99
Flags	
SAMPLE	
HEAT	
LOT	
BATCH	
MISC	
NOTE	

	%	±	Error
Sb	< LOD	:	0.039
Sn	< LOD	:	0.053
Pd	< LOD	:	0.039
Ag	< LOD	:	0.211
Al	< LOD	:	80.000
Mo	< LOD	:	0.010
Nb	< LOD	:	0.005
Zr	< LOD	:	0.007
Bi	< LOD	:	0.013
Pb	< LOD	:	0.003
Se	< LOD	:	0.012
W	< LOD	:	0.105
Zn	< LOD	:	0.032
Cu	< LOD	:	0.150
Ni	7.988	±	0.311
Co	< LOD	:	0.530
Fe	71.601	±	0.481
Mn	1.448	±	0.213
Cr	18.000	±	0.276
V	0.208	±	0.080
Ti	< LOD	:	0.171

Sergio Morales

Date: 15-10-24



On behalf of Tecnimont / R
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Cristi Sandu
18.10.2024 C. Sandu

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Certificate of PMI Reading

XL3t-32735

Reading No	251
Mode	ALLOY
Time	2024-10-07 11:29
Duration	10.54
Sequence	Final
Alloy1	304SS : 0.03
Alloy2	No Match : *2.10
Flags	
SAMPLE	
HEAT	
LOT	
BATCH	
MISC	
NOTE	

	%	±	Error
Sb	< LOD	:	0.037
Sn	< LOD	:	0.052
Pd	< LOD	:	0.039
Ag	< LOD	:	0.125
Al	< LOD	:	80.000
Mo	0.318	±	0.018
Nb	0.018	±	0.005
Zr	< LOD	:	0.004
Bi	< LOD	:	0.013
Pb	< LOD	:	0.011
Se	< LOD	:	0.008
W	< LOD	:	0.096
Zn	< LOD	:	0.035
Cu	0.429	±	0.091
Ni	8.051	±	0.286
Co	< LOD	:	0.479
Fe	70.696	±	0.441
Mn	1.804	±	0.203
Cr	18.305	±	0.255
V	< LOD	:	0.127
Ti	< LOD	:	0.144

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Date: 15-10-24



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