



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) | | | | | | |



Tecnimont S.p.A.

REPSOL POLIMEROS
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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

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 Tecnimont / R
Piping Supervisor
Cristi Sandu C. Sandu
21.10.2024

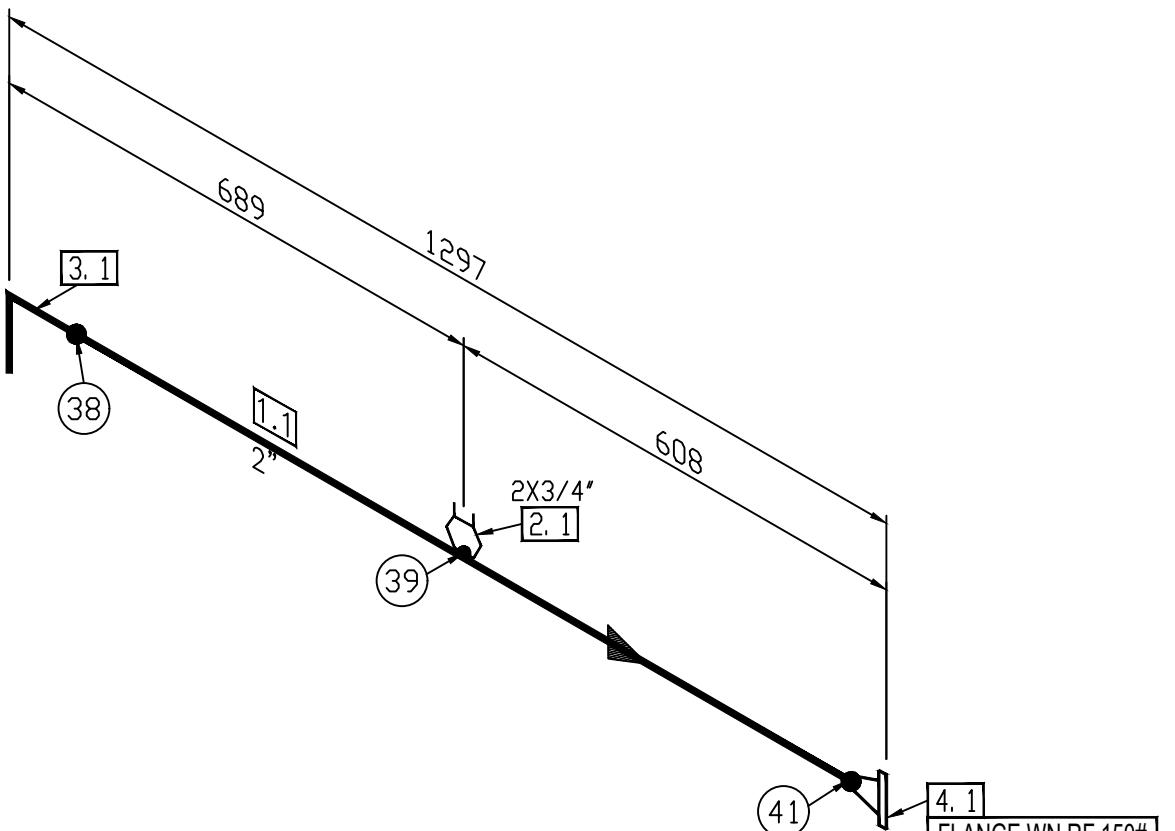
| LEGEND OF CHECK RESULT | <input checked="" type="checkbox"/> Checked & NOT Accepted | <input checked="" type="checkbox"/> Checked & Accepted | N.A. | Not Applicable | Y / N | Punch List Produced |
|------------------------|---------------------------------------------------------------|-----------------------------------------------------------|---------------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

| | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|-------------|
| Tecnimont | <h3 style="text-align: center;">Punch List</h3> <h2 style="text-align: center;">PUNCH LIST</h2> | IDENTIFICATION CODE | | | |
| | | <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33.33%;">SHEET 1 / 1</td><td style="width: 33.33%;">DOC.CLASS 1</td><td style="width: 33.33%;">ISSUE 01</td></tr> </table> | SHEET 1 / 1 | DOC.CLASS 1 | ISSUE 01 |
| SHEET 1 / 1 | DOC.CLASS 1 | ISSUE 01 | | | |
| MECWIDE <small>Engineering Solutions</small> | ISO ID: 2121-IA91F62-2 | | | | |

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; border-collapse: collapse;"> <tr><th>Rev.</th><th>Date</th><th>DRW</th><th>Check 1</th><th>Check 2</th><th>Marking Color:</th><th>GREEN</th></tr> <tr><td></td><td></td><td></td><td></td><td></td><td>Weld Class:</td><td>6C4-M</td></tr> <tr><td>0</td><td>01/03/2024</td><td>AOM</td><td>MCM</td><td>PCO</td><td>Paint System:</td><td>NA</td></tr> </table> <p>Construction Code: ASME B31.3 % RT - YES % UT - NO Hydro: NO ID Cleaning: YES Piece Mark</p> <p>Acc Criteria: ASME B31.3 % PT - YES % FE - NO PWHT: NO OD Cleaning: YES</p> <p>Metal Tag: YES % MT - NO % PMI - YES BHN% - NO Tolerances: ASME B31.3</p> </div> | Rev. | Date | DRW | Check 1 | Check 2 | Marking Color: | GREEN | | | | | | Weld Class: | 6C4-M | 0 | 01/03/2024 | AOM | MCM | PCO | Paint System: | NA | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr><th colspan="6">BILL OF MATERIAL</th></tr> </thead> <tbody> <tr><th colspan="6">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> <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> <tr><th colspan="6">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> <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> <tr><th colspan="6">WELD FITTINGS</th></tr> <tr> <th>ITEM</th><th>QT</th><th>DIAMÉTRE</th><th>SCH/mm</th><th>DESCRIPTION / MATÉRIEL</th><th>ITEM CODE</th></tr> <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> <tr><th colspan="6">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> <tr> <td>2.1</td><td>1</td><td>2" x 3/4"</td><td>3000#</td><td>REDUCING SOCKOLET MSS-SP-97 3000# A182-F304/304L DUAL GR BE SWE</td><td>I2258338</td></tr> </tbody> </table> <div style="text-align: right; margin-top: 10px;"> P2308S 00467  2121-IA91F62-2-SP09-00467 </div> <div style="text-align: right; margin-top: 10px;">  boccard Alliance for success Boccard Portugal, Lda. </div> <div style="text-align: center; margin-top: 10px;"> <p>Sergio Morales  Date: 18-10-24</p> </div> <div style="text-align: right; margin-top: 10px;"> <p>Ref. Drawing: 2121-IA91F62-2 Job #: P2308S Spool #: 00467 Project: REPSOL PROJETO ALBA NERVION</p> </div> | BILL OF MATERIAL | | | | | | 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/mm | 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 3000# A182-F304/304L DUAL GR BE SWE | I2258338 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------|------------|-----------------------------------------------------------------|----------------------------------------------------------------------|----------------|-------|--|--|--|--|--|-------------|-------|---|------------|-----|-----|-----|---------------|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--|--|--|--|--|------|--|--|--|--|--|------|----------|----------|--------|------------------------|-----------|-----|-------|----|-------|--------------------------------------------|----------|---------|--|--|--|--|--|------|----|----------|----------|--------|------------------------|-----|---|----|------|-------|----------------------------------------------------------------------|---------------|--|--|--|--|--|------|----|----------|--------|------------------------|-----------|-----|---|----|-------|-----------------------------------------------------|----------|----------|--|--|--|--|--|------|----|----------|------------|------------------------|-----------|-----|---|-----------|-------|-----------------------------------------------------------------|----------|
| Rev. | Date | DRW | Check 1 | Check 2 | Marking Color: | GREEN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | Weld Class: | 6C4-M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 01/03/2024 | AOM | MCM | PCO | Paint System: | NA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BILL OF MATERIAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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/mm | 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 3000# A182-F304/304L DUAL GR BE SWE | I2258338 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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 00467 | 2121-IA91F62-2-SP09-00467 | | 2121-IA91F62-2 | | 00 | | |
| 1.1 | 1,154 | 2.0000 S10S | 0.0000 NA | PIPE, SEAMLESS, A312-TP304L | S-23594 0357 | 3,93 | 4,54 |
| 40391 | | | | | | | |
| 4.1 | 1 | 2.0000 S10S | 0.0000 NA | WN FLG, RAISED FACE, 150#, A182-F304L | DA182 0117 | 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 | | | | | | | |

On behalf of Tecnimont / R
 Piping Supervisor
 Cristi Sandu
 18.10.2024 

Number of Items : 4

Total Weight : 7,90

| Signature | QA | Client |
|-----------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| |  | Sergio Morales Date: 18-10-24  |
| Date | 2024-10-02 09:58:10 | |

| | | | |
|-------------------------------------------------------------------------------------|-------------------|----------------------|------------------|
| CTA Group | Kg 1138 | Mt 305,57 | Pz No.: 49 |
| This document is reproduced by a computerized system and is conform to the original | Heat No.: S-23594 | Cta's job: OC0000319 | Date: 29/02/2024 |
| Customer : TECNIMONT SPA AFC | P.O. No.: PO: | | Item: I3364302 |

12

7500118753 N.PRO: 4274 - PP+PE SINES (PORTUGAL) EPC

**SURAJ** LIMITED(AN ISO 9001 : 2015 COMPANY)
(AN ISO 14001 : 2015 COMPANY)

(AN ISO 45001 : 2018 COMPANY)

(AN PED 2014/68/EU APPROVED COMPANY)

WORKS :Survey No. 779/A, Thol, Kadi - Sanand Highway,
Tal.-Kadi, Dist. Mehsana, Gujarat (India)
Tel. : (02764) 274216 / 27417 Fax : (02764) 274419
Email : quality@surajgroup.com
Visit us at www.surajgroup.com**F / QA / 24****REV. NO. 10**

REGD. OFFICE :
'Suraj House',
Opp. Usmanpura Garden, Ashram Road,
Ahmedabad - 380 014, Gujarat (INDIA)
Tel. : 0091-79-2754 0720 / 2754 0721
Fax : 0091-79-2754 0722
Email : suraj@surajgroup.com

INSPECTION CERTIFICATE**In Accordance with EN 10204/3.1**

| | | |
|----------------------------------------------------------------------------------------------------|--------------------------------|-------------------------|
| Customer: Commerciale Tubi Acciaio S.P.A. | T.C No : 680 | Date: 26.03.2022 |
| Product : Austenitic S.S Seamless Cold Finish,Solution Annealed,Pickled & Passivated Pipes. | P.O.No : OS-0000175 | Date: 14.10.2021 |
| | W.O.No : 2122/OEP400035 | Date: 16.10.2021 |

| Sr. No | Specification | Grade | Heat No. | Dimensions | | Quantity | | | Hydro Test Pressure (Psi) |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|----------|------------|-----|------------|-----|-------------|---------------------------|
| | | | | NPS | SCH | Length Mtr | Pcs | Total Meter | |
| 27 | ASTM A-312 Ed.2019 SA-312 of ASME Sec.II Part "A" Ed.2019 ASME B36.19, EN 10216-5 TC1 NACE MR 0175/ISO 15156, NACE MR 0103 | TP 304/304L 1.4301/ 1.4307 | S-23594 | 2 | 10S | RL | 171 | 1075.220 | 1400 |

Chemical Analysis %

| Heat No. | Required | C | Mn | P | S | Si | Cr | Ni | Mo | N | Ti |
|----------|---------------|-------|------|-------|-------|------|-------|-------|----|-------|----|
| | Min | -- | -- | -- | -- | -- | 18.00 | 8.00 | -- | -- | -- |
| | Max | 0.030 | 2.00 | 0.040 | 0.015 | 1.00 | 19.50 | 10.00 | -- | 0.100 | -- |
| S-23594 | Heat Analysis | 0.025 | 1.72 | 0.038 | 0.008 | 0.41 | 18.20 | 8.08 | -- | 0.079 | -- |

Mechanical Test

| Heat No. | Required | | | Gauge Width | Flattening Test | Hardness Test | Impact Test | | | IGC Test | | | | |
|----------|----------------------|----------------|-----------|-------------|-----------------|---------------|-------------|---------------------|-----|------------------------------------------------|--|--|--|--|
| | Tensile strength Mpa | Yield strength | | | | | Max-90 HRB | 100 Joule Min.(AVG) | N/A | ASTM A-262 Practice"E" & ISO 3651-2 Method "A" | | | | |
| | | Rp0.2% Mpa | Rp1 % Mpa | | | | | | | Satisfactory | | | | |
| MAX | 690 | -- | -- | -- | | | | | | | | | | |
| MIN | 515 | 205 | 230 | 40 | | | | | | | | | | |
| S-23594 | 624.31 | 316.22 | 322.57 | 55.21 | 25.40 | Satisfactory | 76-78 | | | | | | | |
| | 623.05 | 315.91 | 320.42 | 54.89 | | | 73-75 | | | | | | | |

Heat Treatment : Solution annealing conducted at 1045-1060°C temperature and rapid water quenching after final cold process.

Marking on pipes: **SURAJ LTD SPECIFICATION GRADE SIZE**CFD EN 10216-5 TC1 **EN GRADE SL NO. _____ HEAT NO. _____ P O NO. _____****Remarks:**

- * 100% Hydro test done at required pressure for 10 second holding time found satisfactory without any leakage.
- * 100% Visual, Dimensions(OD/THK/LENGTH) & Product Marking checked-satisfy the requirement of specification.
- * 100% Positive Material Identification (PMI) done by SL & conforming to grade as per specification.
- * Intergranular Corrosion Test (IGC) Conducted as per ASTM A262 Pr"E" & ISO 3651-2 method-A-No crack observed on bend portion at 20X.
- * Pickling and Passivation Conducted as per ASTM A-380.
- * "Approved acc.to AD 2000-MERKBLATT W0 and certified acc.to PED (2014/68/EU) by certification body for pressure equipment of TUV NORD SYSTEMS (NOTIFIED BODY,REG NO.;0045)"
- * Tensile test piece taken from the same lot as certified and tested in longitudinal direction.
- * Melting process:EIF+AOD & Material is free of mercury & radioactive contamination.

Prepared by

COMMERCIALE TUBI ACCIAIO S.P.A.**QUALITY CONTROL DEPARTMENT**

For, Suraj Limited.
C.I.Nayak
Dept,Head Quality

Page no. 01 of 12

We hereby certify that the material described herein are in accordance with the specification and results comply with the requirements of the purchase order.

APPLUS OBO TCM
28 03 24

Viraj Profiles Private Limited (Forgings Div.)

 Survey No. 140/1 & G-75, MIDC Tarapur Ind. Area, Distt.- Palghar, Maharashtra - 401506, India
 E: vflqc@viraj.com | W: www.viraj.com

(A02) INSPECTION CERTIFICATE & MILL TEST REPORT - EN 10204 3.1

| | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------|-------------------------------------------|
| (A06) CUSTOMER : M/S CUNADO SA (ESQUINA CALLE MEXICO) 28806 ALCALA DE HENARES (MADRID) CALLE CAMINO DEL OLIVAR, 2 SPAIN | Manufacturer's Symbol (A04) | (A03) MTR NO. | 100017332/ 13 Rev.1 |
| | | INVOICE NUMBER | |
| | | (Z02) DATE | 12.09.2023 |
| | | MATERIAL SPEC | ASTM A182/A182M-21 / ASME SA182/SA182M-21 |
| | | (B02) GRADE | F304/304L |
| | | DIMENSIONAL SPEC | ASME B16.5-2020 |

(B01) STAINLESS STEEL FORGED FLANGES
(B04) DELIVERY CONDITION : HOT FORGED AND FULLY MACHINED

ISO 9001:2015-TUV NORD REG.No-04100031210/05 EXPIRY DATE: 22.07.2024 & APPROVED ACCORDING TO AD 2000 MERKBLATT W0 & CERTIFIED ACCORDING TO PRESSURE EQUIPMENT DIRECTIVE(PED) 2014/68/EU,CERTIFYING BODY-TUV NORD SYSTEMS (NOTIFIED BODY REGISTRATION No. 0045)

| | | | | | |
|------------------------------------------------------|--|------------------------------|----------------------------|-------------------------------------|---------------------|
| (A07) ORDER NO: PC0159958 - PROJECT 4274 ALBA | | (A08) Sales Order No. | 100017332/160 | ITEM NO & COMMUNITY CODE | 6 / I2260686 |
| (B09-B11) ITEM DESCRIPTION | | | (B08) QUANTITY(PCS) | (B07) HEAT NUMBER | |
| 2" WNRF S10S 150# | | | 12 | DA182 | |
| (C71-C92) CHEMICAL ANALYSIS | | | | | |

| ELEMENT | %C | %Mn | %Si | %S | %P | %Cr | %Ni | %Mo | %N | | | | | |
|---------|-------|------|------|-------|-------|-------|-------|-----|--------|--|--|--|--|--|
| MIN | | | | | | 18.00 | 8.00 | - | | | | | | |
| MAX | 0.030 | 2.00 | 1.00 | 0.030 | 0.045 | 20.00 | 11.00 | - | 0.1100 | | | | | |
| HEAT | 0.016 | 1.58 | 0.42 | 0.024 | 0.036 | 18.18 | 8.06 | - | 0.0780 | | | | | |

MECHANICAL PROPERTIES

| Test Specification ASTM - A370 | | | | | | | | | | | | |
|-----------------------------------------------|------------------------|----------------------|---------------------------|------------------------------|-------------------|------------------------------------|--------|----------------------------------------------------|-----|-----|-----|-----|
| (C01) Sample location : Mid thickness-forging | | (C03) Test Temp : RT | (C02) Test Direction : Tr | (C10) Specimen Shape - Round | ASTM E10 | | | | | | | |
| Test Values | (C12) Tensile Strength | (C11) Yield Strength | | (C13) Elongation% | Reduction of Area | (C32) Hardness (Hardness ≤ 22 HRC) | | (C40) Charpy V-Notch 10x10x55mm (Values in Joules) | | | | |
| | | Rp=0.2% | Rp = 1% | | | | | (C42) Single values (C43) | | | | |
| Req. | Mpa | Mpa | Mpa | Lo=4D | % | BHN-1 | BHN -2 | AVG. | 1 | 2 | 3 | AVG |
| T | 515 MIN | 205 MIN | 324.18 | 57.80 | 70.40 | 158 | 157 | 158 | 174 | 182 | 162 | 173 |

Other applicable Specifications :: NACE MR 0175 / ISO 15156-2015 & NACE MR 0103-2015

Remark: Materials is suitable for min. design temperature TS min = -50°C for 304/304L as permitted by ASME B31.3:2018 without verification

Melting Process : Induction furnace/Aragon Oxygen Decarburisation (AOD-IRS), Concast

Heat Treatment : Solution Annealed at 1080°C and water Quenched

Dimension : Conform with the specification (100% inspected)

Surface Inspection : Satisfactory Roughness Value Ra 3.2 To 6.3 μm

Inter Granular Corrosion Test : Passed IGC Test in Accordance With ASTM A262 Practice E

PMI Test : No objection (100% tested with mobile spectro)

Liquid Penetrant Test : No Objection Tested as per Astm E165

ULTRASONIC TEST : No Objection Tested as per ASTM E-388 & ASME V

Radioactivity Test : We here by certify that all the material is free from radioactive contamination

Mercury Contamination : Free from Mercury Contamination

We certify that the above material has been inspected and tested and complies with the order/contract and is of Indian origin

Prime4 OBO Technimont


VIJAY KUMAR PILLAI (GM, QAD)



MATERIAL TEST CERTIFICATE

EN10204 3.1

MANUFACTURER: Yingkou Guangming Pipeline Industry Co.,Ltd

MATERIAL: ASTM A403 WP304/304L

DIMENSION: ASME B16.9

WORK NO: GMPPFCP2312363

DATE: April.10th,2024

PAGE NO: 20/29

CUSTOMER: Chero Piping S.p.A.

DIMENSION: ASME B16.9

DATE: April.10th,2024

CHEMICAL COMPOSITION%

| NO. | POS .No. | CHERO CODE | COMMESA COMMESA | PRODUCT & SIZE | QUANTITY | MFG NO. (HEAT NO.) | CHEMICAL COMPOSITION% | | | | | | |
|-----|----------|-----------------------|----------------------|-------------------------------------------------------------------------|----------|--------------------|-----------------------|-------|------|-------|-------|------|-------|
| | | | | | | | MIN | C | Si | Mn | P | S | |
| PCS | MAX | 0.030 | 1.00 | 2.00 | 0.045 | 0.030 | 8.00 | 18.00 | - | - | - | - | |
| 74 | 310 | C90LRB1XB 001.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 | 0.015 | 0.39 | 1.34 | 0.036 | 0.009 | 8.02 | 18.08 |
| 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 | 18.43 |
| 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 | 18.36 |
| 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 | 18.41 |

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 | MAX | | |
| 74 | 310 | C90LRB1XB 001.ZZW | OC/2023/90 3/1040 | NY230506AT08 | 299 | 611 | 51 | - | GOOD | GOOD | GOOD | OK | OK |
| 75 | 320 | C90LRB1XB 000N.ZZW | OC/2023/90 3/1060 | JSG2310019 | 256 | 665 | 54 | - | GOOD | GOOD | GOOD | OK | OK |
| 76 | 330 | C90LRB1XB 000P.ZZW | OC/2023/90 3/1080 | JSG2312020 | 279 | 680 | 66 | - | GOOD | GOOD | GOOD | OK | OK |
| 77 | 340 | C90LRB1XB 000R.ZZW | OC/2023/90 3/1090 | JSG2312024 | 273 | 674 | 62 | Yuan Yuan | GOOD | GOOD | GOOD | OK | 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.

CHIEF OF INSPECTION DEPARTMENT

Prime 4 030 TCN

2024.4.7





Zhongnan 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 EN1090

Jiangyin Zhongnan Heavy Industries Co.,Ltd.
产品品质证明书 Quality Certificate EN10204-3.1

户(Purchaser): (印度)TECNIMONT S.P.A

质量证明书编号(Certificate No.): 2023-03-225-7

订单号:PO 7500110919

该证明上述产品符合上述标准规定及合同要求。

卷之三

We hereby certify that the products described above have been manufactured, inspected and tested

אנו נאשנין:

300

TS2732E11-2024
制造許可證號(Manufacture License of Special Equipment):

卷之三

| | | |
|------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|------------------------------------|
| 检验员(Inspector):  华洋公司 | 质保工程师(QA Engineer):  陈晓印 | 签发日期(Date of issue): 2023.05.29 |
|------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|------------------------------------|

地址: 311008 淄博市高新技术产业开发区金晶山路78号
邮编: 311008
电话: 0533-7881111
传真: 0533-7881112
E-mail: jiangyin@zjtu.edu.cn

电话(Tel): 0510-86996009
传真(Fax): 0510-86996035

卷之四



Contract : P2300

Drawing : 2121-IA91F62-2

Welding and QC Report Per Spool

Job : P2300S

Material : Stainless Steel 304, 316, 317

Client : NERVION

Revision : 00

Spool : 00467

Spec : 6C4-M

Project : ALBA

Piece Mark : 2121-IA91F62-2-SP09-00467

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 |
|----------|------|------|------|------------|----------|------------|------------|-----------|------------|----------|--------|-------------|--------|------------|--------|------------|--------|------------|--------|--------------|------|-----------|-----|----------|-------|---------|------|-----------|
| 0038 | BW | 2 | S10S | MW.26_BW | BC | 20-08-2024 | 4712055 | BC | 20-08-2024 | 4712055 | | | 001012 | 27-09-2024 | | | 001013 | 30-09-2024 | | | | | | | | | | |
| 0039 | SOL | 0,75 | S10S | MW.26_SBR | BC | 16-08-2024 | 4712055 | BC | 16-08-2024 | 4712055 | | | 001012 | 27-09-2024 | 000191 | 27-09-2024 | 001013 | 30-09-2024 | | | | | | | | | | |
| 0041 | BW | 2 | S10S | MW.26_BW | BC | 20-08-2024 | 4712055 | BC | 20-08-2024 | 4712055 | | | 001012 | 27-09-2024 | | | 001013 | 30-09-2024 | | | | | | | | | | |

On behalf of Tecnimont / R
Piping Supervisor
Cristi Sandu
18.10.2024

Notes:

| | |
|---------------------|----------------------------------|
| Boccard Portugal QC | Client |
| | Sergio Morales Date: 18-10-24 |
| 02-10-2024 09:58:10 | |



Shop QC Inspection Report

P2308-001046

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

Job number: P2308S
 Spool N°: 00467
 Piece Mark: 2121-IA91F62-2-SP09-00467

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

Control Date: 27-09-2024

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 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Spool Barcode label printed | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Spool is identified with the metal tag | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Spool stencil required (hard stamp low stress) | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Joint preparation & cleanliness / spool dimensions checked | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Level, plumb, Two holes, flanges and internal alignment, Squareness | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Material checked (type of material, rate, heat numbers, filler material, etc.) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Welders list match with actual welder stencil / Id. on pipe | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| PWHT- Spool identified as per Procedure / Instruction for PWHT | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| HT (Hardness Test)- Welds identified as per Procedure / Instruction | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| MT - Welds identified as per Procedure / Instruction | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| PT - Welds identified as per Procedure / Instruction | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| PMI - Welds identified as per Procedure / Instruction | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| FE (Ferrite test) - Welds identified as per Procedure / Instruction | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| RT - Welds identified as per Procedure / Instruction | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| UT - Welds identified as per Procedure / Instruction | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Spool identified (by marker) as per Procedure / Instruction (Job number, sheet number and Paint type if required) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Hydro - Spool identified as per Procedure / Instruction | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Cleanliness - Cleaned inside free of slag, scale, sand, weld spatter, cutting chips, etc. and blow out by compressed air | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments:

| | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Performed by: GOIS, REINALDO (N2 VT) Date: 27-09-2024 Signature  | QA/QC Inspection: RAIMUNDO, MARIANA Date: 02-10-2024 09:58:10 Signature  | Customer Inspection: Sergio Morales Date: 18-10-24  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|

On behalf of Tecnimont / R
 Piping Supervisor
 Cristi Sandu
 18.10.2024 

Visual Examination Report (Welds)

P2308-001012

Contract : P2308

Job number: P2308S

Material: Stainless Steel 304, 316, 317

Client : NERVION

Spool Nº: 00467

Procedure & Instructions: 4274-LZ-VF-W31010370QAC04 - Rev: 1

Project : ALBA

Piece Mark: 2121-IA91F62-2-SP09-00467

Testing Date: 27-09-2024

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. | | | | | | | |
| 0038 | 2.0000 S10S BW-Buttweld Straight (MW.26_BW) | BC | 26 | X | | | Direct | |
| 0039 | 0.7500 S10S SOL-Sockolet to Header Weld (MW.26_SBR) | BC | 26 | X | | | Direct | |
| 0041 | 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 |
| Unibmly Porosity | UP | Slag | S | Undercut | UC | Crack | CR | W Surface |

Test Performed by: GOIS, REINALDO (N2 VT)

QA/QC Inspection: RAIMUNDO, MARIANA

Customer Inspection:

Date: 27-09-2024

Date: 02-10-2024 09:58:10

Sergio Morales

Signature



Signature



Date: 18-10-24


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



Liquid Penetrant Examination Report

P2308-000191

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

Job number: P2308S

Material: Stainless Steel 304, 316, 317

Spool N°: 00467

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

Piece Mark: 2121-IA91F62-2-SP09-00467

Testing Date: 27-09-2024

| 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 | No Indication | Remarks |
|-----------------|---------------------------------------------------|--------|------------|------------------|---------|-----------|----------|-------------|--------------|--------------------------|---------|
| | | | | Penetrant | Cleaner | Developer | Lighting | | | | |
| 0039 | 0.7500 S10S SOL-Socket 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: 27-09-2024

Date: 27-09-2024

Sergio Morales

Signature



Signature



Date: 18-10-24



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



Positive Material Identification Report (PMI)

P2308-001013

Client : NERVION

Contract : P2308 / Project : ALBA

Remarks: The results refer to the controlled items

Job number: P2308S

Spool N°: 00467

Piece Mark: 2121-IA91F62-2-SP09-00467

Material: Stainless Steel 304, 316, 317

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

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

Equipment Deviation : + - 5%

Testing Date: 30-09-2024

| Weld / Item No | Description | Reading Number | Chemical Elements | | | | | | | | | | Accepted | Rejected | Comments |
|----------------|---------------------------------------------------------------|----------------|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|----|-------------------------------------|--------------------------|--------------------------|
| | | | %Ti | %Mo | %Cu | %Ni | %Fe | %Mn | %Cr | %Nb | %Al | %V | | | |
| 0038 | 2.0000 S10S BW-Buttweld Straight (MW.26_BW) | 175 | 0 | 0 | 0 | 9 | 69 | 1 | 19 | 0 | 0 | 0 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 0039 | 0.7500 S10S SOL-Sockolet to Header Weld (MW.26_SBR) | 176 | 0 | 0 | 0 | 9 | 68 | 1 | 19 | 0 | 0 | 0 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 0041 | 2.0000 S10S BW-Buttweld Straight (MW.26_BW) | 177 | 0 | 0 | 0 | 8 | 69 | 1 | 19 | 0 | 0 | 0 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1.1 | 2.0000 S10S PIPE, SEAMLESS, A312-TP304L (S-23594) | 172 | 0 | 0 | 0 | 7 | 71 | 1 | 17 | 0 | 0 | 0 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2.1 | 2.0000 NA 0.7500 NA SOCKOLET, 3000#, A182-F304L (N220606AV04) | 173 | 0 | 0 | 0 | 7 | 71 | 1 | 18 | 0 | 0 | 0 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.1 | 2.0000 S10S 90 LR ELL, SEAMLESS, A403-WP304L (NY230506AT08) | 174 | 0 | 0 | 0 | 7 | 71 | 1 | 17 | 0 | 0 | 0 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.1 | 2.0000 S10S WN FLG, RAISED FACE, 150#, A182-F304L (DA182) | 171 | 0 | 0 | 0 | 8 | 70 | 1 | 17 | 0 | 0 | 0 | <input checked="" type="checkbox"/> | <input 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:

Date: 30-09-2024

Date: 02-10-2024 09:58:10

Date: Sergio Morales

Signature



Signature



Signature Date: 18-10-24



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

Certificate of PMI Reading

XL3t-32735

| | |
|------------|------------------|
| Reading No | 175 |
| Mode | ALLOY |
| Time | 2024-09-30 14:43 |
| Duration | 11.04 |
| Sequence | Final |
| Alloy1 | 304SS : 0.05 |
| Alloy2 | No Match : *2.11 |
| Flags | |
| SAMPLE | |
| HEAT | |
| LOT | |
| BATCH | |
| MISC | |
| NOTE | |

| | % | ± | Error |
|----|--------|---|--------|
| Sb | < LOD | : | 0.040 |
| Sn | < LOD | : | 0.050 |
| Pd | < LOD | : | 0.037 |
| Ag | < LOD | : | 0.168 |
| Al | < LOD | : | 80.000 |
| Mo | 0.048 | ± | 0.008 |
| Nb | < LOD | : | 0.008 |
| Zr | < LOD | : | 0.003 |
| Bi | < LOD | : | 0.015 |
| Pb | < LOD | : | 0.012 |
| Se | < LOD | : | 0.011 |
| W | < LOD | : | 0.100 |
| Zn | < LOD | : | 0.031 |
| Cu | < LOD | : | 0.147 |
| Ni | 9.007 | ± | 0.290 |
| Co | < LOD | : | 0.472 |
| Fe | 69.462 | ± | 0.433 |
| Mn | 1.761 | ± | 0.198 |
| Cr | 19.023 | ± | 0.253 |
| V | < LOD | : | 0.121 |
| Ti | < LOD | : | 0.127 |

Sergio Morales

Date: 18-10-24



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 | 176 |
| Mode | ALLOY |
| Time | 2024-09-30 14:44 |
| Duration | 12.80 |
| Sequence | Final |
| Alloy1 | 304SS : 0.48 |
| Alloy2 | No Match : *2.16 |
| Flags | |
| SAMPLE | |
| HEAT | |
| LOT | |
| BATCH | |
| MISC | |
| NOTE | |

| | % | ± | Error |
|----|--------|---|--------|
| Sb | < LOD | : | 0.044 |
| Sn | < LOD | : | 0.052 |
| Pd | < LOD | : | 0.042 |
| Ag | < LOD | : | 0.163 |
| Al | < LOD | : | 80.000 |
| Mo | 0.050 | ± | 0.008 |
| Nb | < LOD | : | 0.008 |
| Zr | < LOD | : | 0.004 |
| Bi | < LOD | : | 0.011 |
| Pb | < LOD | : | 0.002 |
| Se | < LOD | : | 0.008 |
| W | < LOD | : | 0.096 |
| Zn | < LOD | : | 0.028 |
| Cu | < LOD | : | 0.158 |
| Ni | 9.370 | ± | 0.307 |
| Co | < LOD | : | 0.488 |
| Fe | 68.876 | ± | 0.455 |
| Mn | 1.944 | ± | 0.210 |
| Cr | 19.279 | ± | 0.266 |
| V | < LOD | : | 0.129 |
| Ti | < LOD | : | 0.157 |

Sergio Morales

Date: 18-10-24



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

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Constância, Portugal 2250-999

Certificate of PMI Reading

XL3t-32735

| | |
|------------|------------------|
| Reading No | 177 |
| Mode | ALLOY |
| Time | 2024-09-30 14:44 |
| Duration | 11.01 |
| Sequence | Final |
| Alloy1 | 304SS : 0.04 |
| Alloy2 | No Match : *2.10 |
| Flags | |
| SAMPLE | |
| HEAT | |
| LOT | |
| BATCH | |
| MISC | |
| NOTE | |

| | % | ± | Error |
|----|--------|---|--------|
| Sb | < LOD | : | 0.039 |
| Sn | < LOD | : | 0.045 |
| Pd | < LOD | : | 0.033 |
| Ag | < LOD | : | 0.131 |
| Al | < LOD | : | 80.000 |
| Mo | 0.126 | ± | 0.011 |
| Nb | < LOD | : | 0.008 |
| Zr | < LOD | : | 0.003 |
| Bi | < LOD | : | 0.018 |
| Pb | < LOD | : | 0.008 |
| Se | < LOD | : | 0.007 |
| W | < LOD | : | 0.077 |
| Zn | < LOD | : | 0.030 |
| Cu | 0.198 | ± | 0.077 |
| Ni | 8.611 | ± | 0.278 |
| Co | < LOD | : | 0.461 |
| Fe | 69.515 | ± | 0.423 |
| Mn | 1.567 | ± | 0.191 |
| Cr | 19.424 | ± | 0.250 |
| V | < LOD | : | 0.124 |
| Ti | < LOD | : | 0.133 |

Sergio Morales

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On behalf of Tecnimont / R
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18.10.2024 C. Sandu

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Certificate of PMI Reading

XL3t-32735

| | |
|------------|------------------|
| Reading No | 172 |
| Mode | ALLOY |
| Time | 2024-09-30 14:42 |
| Duration | 10.81 |
| Sequence | Final |
| Alloy1 | 301SS : 1.63 |
| Alloy2 | 304SS : 2.06 |
| Flags | |
| SAMPLE | |
| HEAT | |
| LOT | |
| BATCH | |
| MISC | |
| NOTE | |

| | % | ± | Error |
|----|--------|---|--------|
| Sb | < LOD | : | 0.035 |
| Sn | < LOD | : | 0.049 |
| Pd | < LOD | : | 0.037 |
| Ag | < LOD | : | 0.151 |
| Al | < LOD | : | 80.000 |
| Mo | 0.084 | ± | 0.010 |
| Nb | < LOD | : | 0.007 |
| Zr | < LOD | : | 0.003 |
| Bi | < LOD | : | 0.008 |
| Pb | < LOD | : | 0.018 |
| Se | < LOD | : | 0.011 |
| W | < LOD | : | 0.089 |
| Zn | < LOD | : | 0.037 |
| Cu | 0.212 | ± | 0.078 |
| Ni | 7.968 | ± | 0.277 |
| Co | < LOD | : | 0.469 |
| Fe | 71.894 | ± | 0.427 |
| Mn | 1.425 | ± | 0.190 |
| Cr | 17.783 | ± | 0.244 |
| V | < LOD | : | 0.127 |
| Ti | < LOD | : | 0.120 |

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On behalf of Tecnimont / R
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Certificate of PMI Reading

XL3t-32735

| | |
|------------|------------------|
| Reading No | 173 |
| Mode | ALLOY |
| Time | 2024-09-30 14:43 |
| Duration | 12.02 |
| Sequence | Final |
| Alloy1 | 304SS : 1.76 |
| Alloy2 | No Match : *2.02 |
| Flags | |
| SAMPLE | |
| HEAT | |
| LOT | |
| BATCH | |
| MISC | |
| NOTE | |

| | % | ± | Error |
|----|--------|---|--------|
| Sb | < LOD | : | 0.046 |
| Sn | < LOD | : | 0.055 |
| Pd | < LOD | : | 0.043 |
| Ag | < LOD | : | 0.161 |
| Al | < LOD | : | 80.000 |
| Mo | 0.048 | ± | 0.009 |
| Nb | < LOD | : | 0.008 |
| Zr | < LOD | : | 0.004 |
| Bi | < LOD | : | 0.017 |
| Pb | < LOD | : | 0.016 |
| Se | < LOD | : | 0.009 |
| W | < LOD | : | 0.107 |
| Zn | < LOD | : | 0.028 |
| Cu | < LOD | : | 0.161 |
| Ni | 7.734 | ± | 0.294 |
| Co | < LOD | : | 0.501 |
| Fe | 71.590 | ± | 0.461 |
| Mn | 1.559 | ± | 0.207 |
| Cr | 18.317 | ± | 0.266 |
| V | 0.195 | ± | 0.075 |
| Ti | < LOD | : | 0.148 |

Sergio Morales

Date: 18-10-24



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

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Constância, Portugal 2250-999

Certificate of PMI Reading

XL3t-32735

| | |
|------------|------------------|
| Reading No | 174 |
| Mode | ALLOY |
| Time | 2024-09-30 14:43 |
| Duration | 11.04 |
| Sequence | Final |
| Alloy1 | 321SS : 1.02 |
| Alloy2 | No Match : 1.67 |
| Flags | |
| SAMPLE | |
| HEAT | |
| LOT | |
| BATCH | |
| MISC | |
| NOTE | |

| | % | ± | Error |
|----|--------|---|--------|
| Sb | < LOD | : | 0.049 |
| Sn | < LOD | : | 0.056 |
| Pd | < LOD | : | 0.043 |
| Ag | < LOD | : | 0.183 |
| Al | < LOD | : | 80.000 |
| Mo | 0.029 | ± | 0.008 |
| Nb | < LOD | : | 0.006 |
| Zr | < LOD | : | 0.005 |
| Bi | < LOD | : | 0.014 |
| Pb | < LOD | : | 0.019 |
| Se | < LOD | : | 0.008 |
| W | < LOD | : | 0.121 |
| Zn | < LOD | : | 0.034 |
| Cu | < LOD | : | 0.163 |
| Ni | 7.989 | ± | 0.316 |
| Co | < LOD | : | 0.534 |
| Fe | 71.745 | ± | 0.491 |
| Mn | 1.388 | ± | 0.215 |
| Cr | 17.811 | ± | 0.280 |
| V | 0.218 | ± | 0.083 |
| Ti | < LOD | : | 0.193 |

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On behalf of Tecnimont / R
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Certificate of PMI Reading

XL3t-32735

| | |
|------------|------------------|
| Reading No | 171 |
| Mode | ALLOY |
| Time | 2024-09-30 14:42 |
| Duration | 11.26 |
| Sequence | Final |
| Alloy1 | 304SS : 1.03 |
| Alloy2 | No Match : 1.90 |
| Flags | |
| SAMPLE | |
| HEAT | |
| LOT | |
| BATCH | |
| MISC | |
| NOTE | |

| | % | ± | Error |
|----|--------|---|--------|
| Sb | < LOD | : | 0.041 |
| Sn | < LOD | : | 0.049 |
| Pd | < LOD | : | 0.037 |
| Ag | < LOD | : | 0.178 |
| Al | < LOD | : | 80.000 |
| Mo | 0.573 | ± | 0.024 |
| Nb | < LOD | : | 0.009 |
| Zr | < LOD | : | 0.003 |
| Bi | < LOD | : | 0.009 |
| Pb | < LOD | : | 0.024 |
| Se | < LOD | : | 0.008 |
| W | < LOD | : | 0.090 |
| Zn | < LOD | : | 0.034 |
| Cu | 0.483 | ± | 0.091 |
| Ni | 8.025 | ± | 0.278 |
| Co | < LOD | : | 0.470 |
| Fe | 70.450 | ± | 0.427 |
| Mn | 1.765 | ± | 0.196 |
| Cr | 17.981 | ± | 0.247 |
| V | < LOD | : | 0.130 |
| Ti | < LOD | : | 0.149 |

Sergio Morales

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