

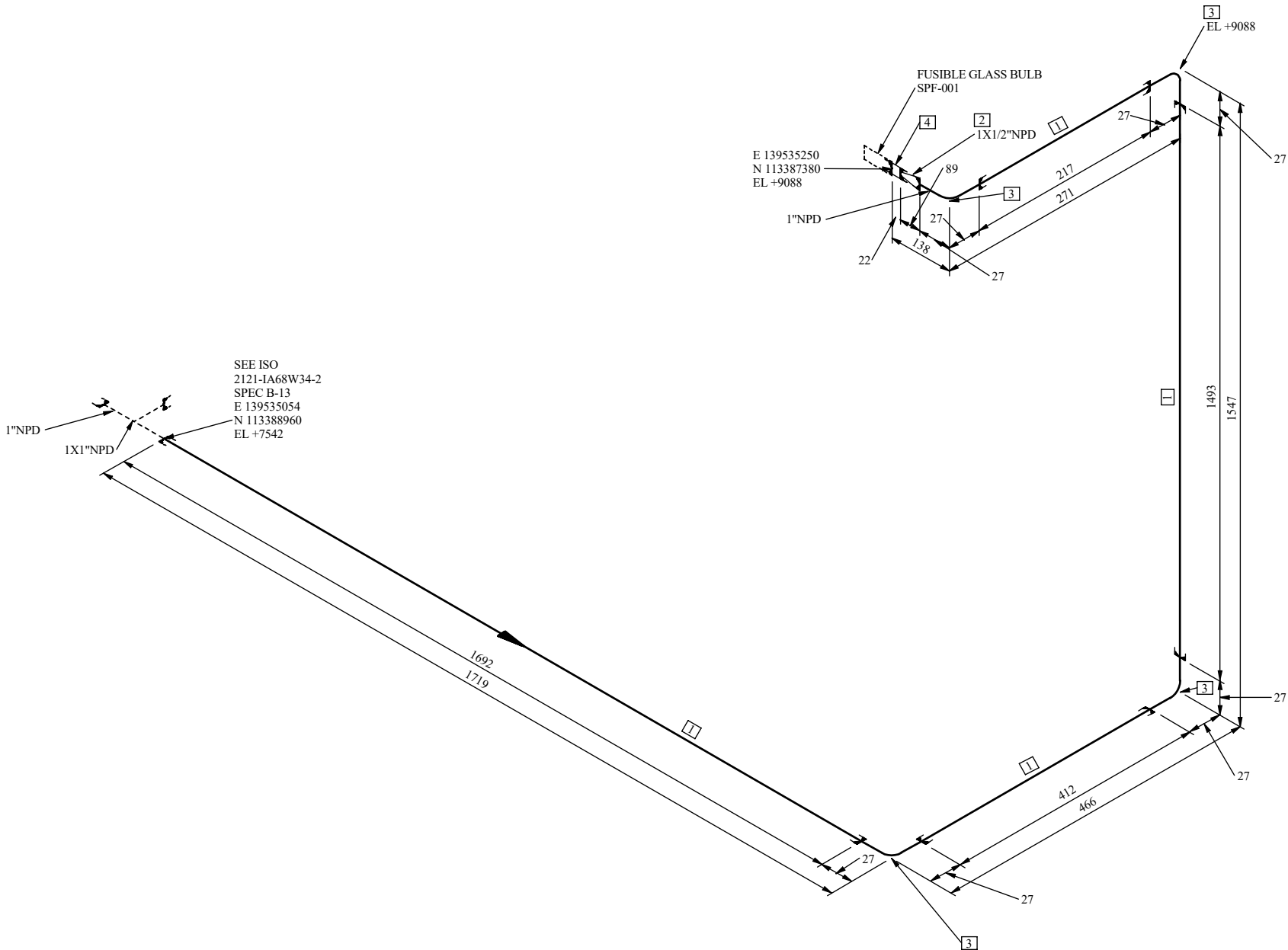
THIS DOCUMENT BELONGS TO REPSOL. IT CAN NOT BE COPIED, REPRODUCED AND/OR USED WITHOUT  
PREVIOUS AUTHORIZATION OF REPSOL. COMPUTERIZED DRAWING (HANDWRITING STRICTLY FORBIDDEN).

EXTR. DATE: 14-12-2023 08:45:50

STREAM NO.:200

REV. CAUSE ID: 23


23







BILL OF MATERIAL

| PT NO    | COMPONENT DESCRIPTION                                                                                           | N.S. (IN) | ITEM CODE | QTY   | HOLD STATUS |
|----------|-----------------------------------------------------------------------------------------------------------------|-----------|-----------|-------|-------------|
| PIPE     |                                                                                                                 |           |           |       |             |
| 1        | PIPE - A53-B GALV MTE SMLS T01AC11W02 S-XS <PIPG010C11XS> (N/A).                                                | 1         | I145594   | 3.9 M |             |
| FITTINGS |                                                                                                                 |           |           |       |             |
| 2        | CONCENTRIC SWAGE MSS SP-95 - A105 GALV MTE MTE SMLS SCH1-XS SCH2-XS R21FQC02WW01 <CSWG010DR12161016> (L-CSW28). | 1X1/2     | I4198150  | 1     |             |
| 3        | 90 ELBOW ASME B16.11 3000# A105 GALV FTE FTE - R31FNC022203 NREQD <90TG300KBK1> (L-8907).                       | 1         | I214920   | 4     |             |
| 4        | COUPLING ASME B16.11 3000# A105 GALV FTE FTE - R01FNC022201 NREQD <FCPG300KBK1/2> (L-8910).                     | 1/2       | I214895   | 1     |             |

REMARKS FOR MECHANICAL SUBCONTRACTOR:

- 1) LINES 1.1/2" AND SMALLER SHALL BE SUPPORTED IN FIELD IF NOT OTHERWISE INDICATED.  
2) ALL DIMENSION AND PROPER CONFIGURATION FOR LINES NPS 1.1/2" AND SMALLER SHALL BE CHECKED IN FIELD BEFORE CONSTRUCTION.  
3) FOR THE COMPONENTS MARKED AS FIELD WELDED WITH THIS SYMBOL , ONE WELD FOR ADJUSTMENT OF IN LINE COMPONENT MUST BE LEFT  
4) FOR EXTRA PIPE LENGTH REFER TO 4274-LZ-PC-00000603.  
5) GUSSETING TO BE IMPLEMENTED BY MECHANICAL SUBCONTRACTOR AS PER 45-L-45-000-2-00-80004 / 4274-XH-SG-00000002.  
6) CROSSING BETWEEN WELDS ON PIPELINE SHALL NOT BE ADMITTED.  
7) IN CASE OF DISCREPANCIES BETWEEN DATA SHOWN ON ISO AND IN LINE LIST (AS APPLICABLE, DATA SHOWN IN LINE LIST GOVERN.  
8) ACTUAL CUT LENGTH OF PIPE AND FIELD WELDS SHALL BE DEFINED BY MECHANICAL SUBCONTRACTOR (REF.TO 4274-LZ-PC-00000603).  
9) WHERE EARTHING BONDING IS REQUIRED, MECHANICAL SUBCONTRACTOR TO PERFORM IT BASED ON DOC. 45-P-000-7-06-00902/ 4274 -NN-DW-00000002 AND ASSEMBLY NO FEA005 AND FE019.

**SUPPORTS LEGEND:**  DENOTES PARTS LIST NO  PIPE SUPPORT  A=RESTING SUPPORT G=GUIDE F=AXIAL STOP B=ANCHOR M=SPRING S=TEFLON PAD WHERE  WITHOUT NUMBERING IS INDICATED, THIS MEANS THAT THERE IS A REST DIRECTLY ON STEEL STRUCTURE.

|      |                      |           |          |          |            |              | STRESS CALC. N°                                  |
|------|----------------------|-----------|----------|----------|------------|--------------|--------------------------------------------------|
| 01   | ISSUED FOR REFERENCE | 15-DEC-23 | M.YADAV  | P.VAZE   | G.PAGANONI |              | P & ID<br>19-A-19-000-1-01-00001 sheet 124       |
| 00   | ISSUED FOR REFERENCE | 19-MAY-23 | U.CHAVAN | P.VAZE   | G.PAGANONI |              | LINE LIST N°<br>19-L-19-000-2-00-80602           |
| REV. | DESCRIPTION          | DATE      | DRW. BY  | CHECK BY | APPR. BY   | APPR. CLIENT | PIPE LAYOUT N°<br>19-L-19-000-2-00-86196 sheet 3 |

ISSUED FOR  
REFERENCE

Signature for construction is shown  
on Iso list of relevant CWA

TITLE  
**ISOMETRIC DRAWING  
LINE**  
1"-IA-68W34-B-13

|                             |                                                                                                                                                                                                                                                                                                                                                             |                                                                       |  |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|--|
| PIPE MATERIAL               | <b>NOTES:</b> 1. FOR TECHNICAL DETAILS SEE LINE LIST.<br>2. FOR VENT, DRAIN OR INSTRUMENT CONNECTION DETAILS SEE 45-L-45-000-2-00-80102.<br>3. WELDING ACCORDING TO 45-L-45-000-2-00-80021.<br>4. PAINTING ACCORDING TO 45-A-45-000-1-00-20160.<br>5. CODE SHOWN IN BOM BETWEEN "<" & ">" DENOTES REPSOL UNICODE. "~N/A~" MEANS UNICODE IS "NOT AVAILABLE". |                                                                       |  |
| CS, Galvanized              |                                                                                                                                                                                                                                                                                                                                                             |                                                                       |  |
| HEAT TREATMENT (PWHIT)      |                                                                                                                                                                                                                                                                                                                                                             |                                                                       |  |
| -                           |                                                                                                                                                                                                                                                                                                                                                             |                                                                       |  |
| PAINTING SCHEME (3)         | 4                                                                                                                                                                                                                                                                                                                                                           | CONTRACTOR:                                                           |  |
| PIPING CLASS                | B-13                                                                                                                                                                                                                                                                                                                                                        | CONTRACTOR DRAWING NUMBER:                                            |  |
| WELDING CLASS (4)           | -                                                                                                                                                                                                                                                                                                                                                           | PROJECT:                                                              |  |
| PED CATEGORY                | Art 4.3                                                                                                                                                                                                                                                                                                                                                     | 4274-XH-DL-2121IA68W34-3                                              |  |
| INSULATION CODE / THK. (mm) | N 0                                                                                                                                                                                                                                                                                                                                                         | ANNEX 19 SPEC. L DRAWING NUMBER 19-000-2-02-00001 sheet 2121IA68W34-3 |  |
|                             |                                                                                                                                                                                                                                                                                                                                                             | REV. 01                                                               |  |



LOW LINEAL DENSITY POLYETHYLENE (PEL)  
AND POLYPROPYLENE (PP) PLANTS  
FOR PROJECT - ALBA PROJECT

CLIENT / COMPLEX  
REPSOL POLYMEROS/  
SINES INDUSTRIAL COMPLEX