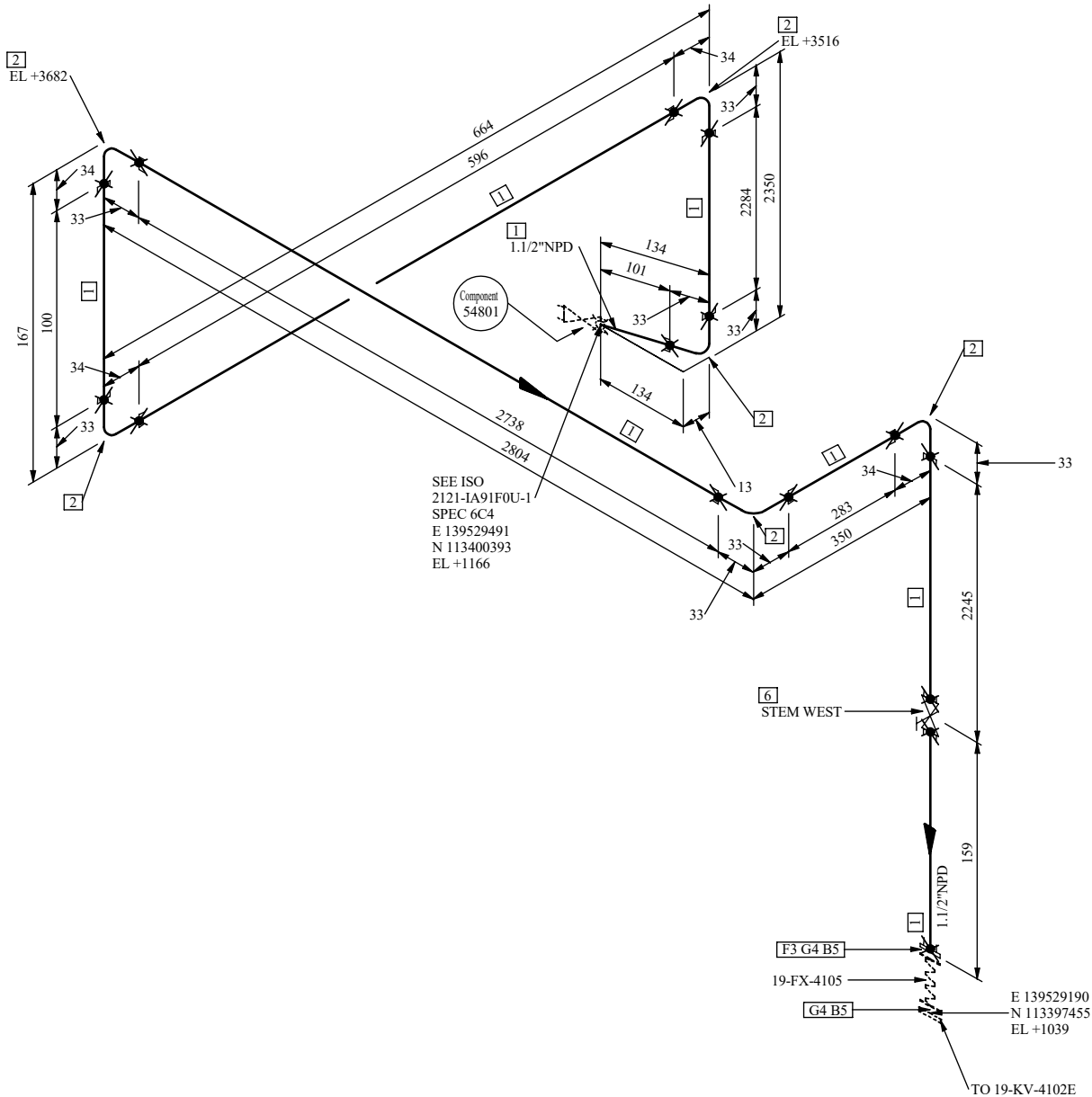
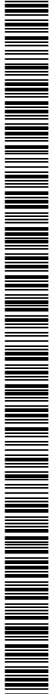


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PREVIOUS AUTHORIZATION OF REPSOL. COMPUTERIZED DRAWING (HANDWRITING STRICTLY FORBIDDEN).

EXTR. DATE: 07-11-2023 12:00:46

STREAM NO.:3250

REV. CAUSE ID:



SEE ISO  
2121-1A91F0U-1  
SPEC 6C4  
E 139529491  
N 113400393  
EL +1166

6  
STEM WEST

F3 G4 B5

19-FX-4105

G4 B5


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N 113397455  
EL +1039





TO 19-KV-4102E

BILL OF MATERIAL

PT NO	COMPONENT DESCRIPTION	N.S. (IN)	ITEM CODE	QTY	HOLD STATUS
PIPE					
1	PIPE - A312-TP304/304L DUAL GR PE SMLS T01AL2CZ02 S-40S <PIPB04DA211/240S> (L-PIP111)	1.1/2	I2257941	8.4 M	
FITTINGS					
2	90 ELBOW ASME B16.11 3000# A182-F304/304L DUAL GR SWE SWE - R31FNL2A1103 NREQD <90FB450LBK11/2> (L-90F05)	1.1/2	I2258119	6	
FLANGES					
3	SW FLANGE ASME B16.5 150# A182-F304/304L DUAL GR RFFE SWE 125 - 250 AARH F02CDL2AB105 S-40S <SWFB450R1511/240S> (L-SWF30)	1.1/2	I2260364	1	
GASKETS					
4	SPIRAL WOUND GASKET ASME B16.20 150# RFTBE 304/GRAFOIL SS 304 SS 304 ASME B16.5 G03GDP1IS04 <N/A> (N/A)	1.1/2	I1654484	2	
BOLTS					
5	STUD BOLTS&NUTS ASME B18.31.2/ B18.2.2 A193-B8M CL2/A194-8MA INCH SIZE I01OB1601 <SB2R58G1/223/4> - 2 NUTS PER BOLT - 70 mm Length	1/2	I63801421	8	
VALVES / IN-LINE ITEMS					
6	GATE VALVE API 602 800# A182-F316/316L DUAL GR SWE SWE 12-316&HF API 602 A193-B8M CL2/8MA BB-OS&Y SOW API 602 HW V01GIL1M114N NREQD <G611_2L-AL021> (L-AL021)	1.1/2	I3404189	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° -
							P & ID 19-A-19-000-1-01-00001 sheet 106
							LINE LIST N° 19-L-19-000-2-00-80602
00	ISSUED FOR REFERENCE	10-NOV-23	M.YADAV	P.VAZE	G.PAGANONI		PIPE LAYOUT N° 19-L-19-000-2-00-86197 sheet 1
REV.	DESCRIPTION	DATE	DRW. BY	CHECK BY	APPR. BY	APPR. CLIENT	

ISSUED FOR  
REFERENCE

Signature for construction is shown  
on Iso list of relevant CWA

ISOMETRIC DRAWING  
LINE

1-1/2"-IA-91F0U-6C4

PIPE MATERIAL		NOTES: 1. FOR TECHNICAL DETAILS SEE LINE LIST. 2. FOR VENT, DRAIN OR INSTRUMENT CONNECTION DETAILS SEE 45-L-45-000-2-00-80102. 3. WELDING ACCORDING TO 45-L-45-000-2-00-80021. 4. PAINTING ACCORDING TO 45-A-45-000-1-00-20160. 5. CODE SHOWN IN BOM BETWEEN "<" & ">" DENOTES REPSOL UNICODE. "~N/A~" MEANS UNICODE IS "NOT AVAILABLE".							
304, dual grade									
HEAT TREATMENT (PWHIT) N									
PAINTING SCHEME (3) NR		CONTRACTOR:		CONTRACTOR DRAWING NUMBER:		PROJECT:			
PIPING CLASS 6C4				4274-XH-DL-2121IA91F0U-2		4001008			
WELDING CLASS (4) M		<div>LOW LINEAL DENSITY POLYETHYLENE (PEL) AND POLYPROPYLENE (PP) PLANTS FOR PROJECT - ALBA PROJECT</div> <div> CLIENT / COMPLEX REPSOL POLYMEROS/ SINES INDUSTRIAL COMPLEX</div>							
PED CATEGORY Art 4.3									
INSULATION CODE / THK. (mm) N 0		ANNEX 19		SPEC. L		DRAWING NUMBER 19-000-2-02-00001 sheet 2121IA91F0U-2		REV. 00	