



PT No	1	SIZE DIM.	DESCRIPTION DESCRIPCIÓN		
1	3314 MM	300	PIPE, CS, ERW, PLAIN, GROOVED ENDS C/W 6mm RUBBER LINED GROOVED AS PER VICTAULIC 25.03		
			A53 Gr.B STD, ERW		
2	200 MM	300	100MM NIPPLE, GROOVED END AS PER 25.03 + BW END, ASTM A53 GR B. RUBBERLINED 6MM		
3	1	300X300	LATERAL, 45 DEG, EQUAL, VICTAULIC NO. 30 GROOVED TO VICTAULIC 25.01, 6MM RUBBER DUCTILE		
L			IRON, A536		
4	1	300X250	REDUCER, CONC, VICTAULIC NO. 50 GROOVED TO VICTAULIC 25.01, 6MM RUBBER DUCTILE IRON, A536		
5	1	300X80	TEE, RED, VICTAULIC NO. 25 GROOVED TO VICTAULIC 25.01, 6MM RUBBER DUCTILE IRON, A536		
6	1	300	45 DEG 3D BEND, VICTAULIC NO. 110-3D, GROOVED TO VICTAULIC 25.01, 6MM RUBBER DUCTILE IRON,		
			A536		
7	1	300	90 DEG 3D BEND TRIMMED, CARBON STEEL, BW, ASTM A53 GR B. RUBBERLINED 6MM		
8	2	300	FLANGE, CL150, VICTAULIC NO 45F, CUT GROOVE ENDS, RUBBER 6MM, 3MM FACE DUCTILE IRON, ASTN		
			A536		
9					
10	1	80	FLANGE, CL150, VICTAULIC NO 45F, CUT GROOVE ENDS, RUBBER 6MM, 3MM FACE DUCTILE IRON, ASTN		
-	<u> </u>	00	A536		
11	2	300	CLAMPED SLOPED MEDIUM PIPE SHOE - 3 DEGREE SLOPE		
12		300	SINGLE TRUNNION		
13		300	COUPLING, FLEXIBLE, STYLE 77 FLEX COUPLING DUCTILE IRON, A536		
14		300	COUPLING, RIGID, STYLE 07 ZERO-FLEX RIDGID COUPLING DUCTILE IRON, A536		
15	1	250	COUPLING, FLEXIBLE, STYLE 77 FLEX COUPLING DUCTILE IRON, A536		
16	1	80	COUPLING, FLEXIBLE, STYLE 77 FLEX COUPLING DUCTILE IRON, A536		
17	2	300	GASKET, 1.5MM RING or FULL FACE TO SUIT FLANGES GARLOCK 3000		
18	1	250	GASKET, 1.5MM RING or FULL FACE TO SUIT FLANGES GARLOCK 3000		
19	2	80	GASKET, 1.5MM RING or FULL FACE TO SUIT FLANGES GARLOCK 3000		
20	36	22	BOLT, HEX HD BOLTS c/w HEX HEAD NUT A193 Gr.B7, A194 Gr.2H - 127 mm Length		
21	72	22	WASHER, ROUND, FLAT, STEEL, GALV, for 0.875in bolt		
22	8	16	BOLT, HEX HD BOLTS c/w HEX HEAD NUT A193 Gr.B7, A194 Gr.2H - 101.6 mm Length		
23	16	16	WASHER, ROUND, FLAT, STEEL, GALV, for 0.625in bolt		
24	1	300	KNIFE GATE VALVE, CLARKSON KGA, FLANGE TYPE (KG01)		
25	1	80	KNIFE GATE VALVE, CLARKSON KGA, FLANGE TYPE (KG01)		
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BILL OF MATERIALS / LISTA DE MATERIALES

FOR PROJECT PIPING STANDARDS, REFER TO DRAWING ECFN-AUS-PI-6000-STD-01001 ALL ISOMETRICS ARE DRAWN TO VICTAULIC STANDARD GROOVE SPECIFICATIONS 25.01.

ALL DIMENSIONS INDICATED ARE TO THE FACE OF STEEL. GAPS WHERE VICTAULIC COUPLINGS WILL BE ADDED RESPEC DIMENSIONS FOR MAXIMUM SEPARATION ALLOWANCE.

FOR RUBBERLINING MANUFACTURING PURPOSE

STRAIGHT PIPE SPOOLS AND CUSTOM FITTINGS ARE TO BE FABRICATED TO VICTAULIC STANDARD GROOVE DIMENSIONS FOR RUBBER LINING 25.03.

FOR PIPE-TO-FITTING JOINT, FITTINGS ARE TO BE SUPPLIED AS PER VICTAULIC STANDARD GROOVE SPECIFICATIONS 25.01 (3 MM RUBBER TO BE ADDED). FOR FITTING-TO-FITTING JOINT, 12 INCH AND LESS, FITTINGS ARE TO BE SUPPLIED AS PER

VICTAULIC STANDARD GROOVE SPECIFICATIONS 25.01 (1.6 TO 3 MM RUBBER TO BE ADDED). FOR FITTING-TO-FITTING JOINT, 14 INCH AND LARGER, FITTINGS ARE TO BE SUPPLIED AS PER VICTAULIC STANDARD GROOVE SPECIFICATIONS 25.03.

L				
	LINE NUMBER NÚMERO DE LINEA	6210-300-SPR-L03-0114		SPEC ESP.
	TITLE / TITULO			

FRUTA DEL NORTE PROJECT

PIPING ISOMETRIC

P&ID NUMBER 6210-PID-00001 L03 NÚMERO P&ID SUB-PROJECT / ENGINEERING CONSTRUCTION /

TAMA

NO **A3** 

REV. 2

SUB-PROYECTO: INGENIERIA Y CONSTRUCCIÓN ALL DIMENSIONS IN MM / TODAS LAS DIMENSIONES EN MM

DRAWING No

PROYECTO FRUTA DEL NORTE ISOMÉTRICOS DE TUBERÍAS ECFN-AUS-PI-6210-ISO-01013

M.ROCHE ESIGN/DISEÑO 2 RE-ISSUED FOR FABRICATION MR PD 18-10-11

Montréal, Québec, Canada 18-04-02 T +1 514 866 1221 W www.ausenco.com 18-04-05 CLIENTE

Ausenco

SHT

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DESIGN TEMP (°C) / TEMPERATURA DE DISEÑO DESIGN PRESS (kPag) / PRESIÓN DE DISEÑO 18-04-02 DESIGN CODE & CLASS / CÓDIGO Y CLASE DE DISEÑO INSULAȚION (TYPE/THK) / AISLACIÓN (TIPO/ESPESOR) RE-ISSUED FOR FABRICATION MR PD 18-09-07 RAWN/DIBUJADO M.ROCHE ISSUED FOR FABRICATION MR PD18-07-06 TRACING / TRAZADO ISSUED FOR TENDER MR PD 18-05-08 HECKED/VERIFICADO A.CHARLEB NDE ISSUED FOR PROJECT REVIEW MR 18-04-05 PDac TEST TYPE / PRUEBA TIPO ISSUED FOR INTERNAL REVIEW MR PD 18-04-05 ENGINEER/INGENIERO P.DUMONT 18-04-05 TEST PRESS (kPag) / PRUEBA DE PRESIÓN REV DESCRIPTION / DESCRIPCION BY / DE ENG DATE/FECHA

MINING SERVICES INC.

AURELIAN ECUADOR S.A.