

## Micro Motion Calculation Summary

Date:	06.16.21					
Company:	TRANSPETROL					
Project Name:	BQ12_16062021_TRANSPETROL_PS5_BUCANY					
Service:						
Sensor Model #:	CMF400M446N2FZE3ZZICCV16WG					
Sensor Tag(s):						
Transmitter Model #:	2700R12AFFEZDZPK					
Transmitter Tag(s):						
Wetted Material:	316L stainless steel					
Fluid:	CRUDE OIL					
Fluid State:	Liquid					
Mass Flow Accuracy at Operating Flow (+/- % of Rate):	0,05000					
Density Accuracy at all Rates (+/- %):	0,20000 kg/m3					
Pressure Drop at Operating Flow:	1,02177 bar					
Sensor Minimum Pressure at operating conditions:	bar-g					
Velocity at Operating Flow:	13,65475 m/sec					
	Min	Operating*	Max	Design	Units	
Flow Rate:	40000,000	350000,000	400000,000	400000,000	kg/hr	
Pressure:	10,000	60,000	62,000	65,000	bar-g	
Process Fluid Temperature:	-10,000	20,000	30,000	35,000	C	
Ambient Temperature:	-25,000	20,000	35,000	40,000	C	
Density:	810,000	850,000	890,000		kg/m3	
Viscosity:		20,000			cP	
Gas only	Base Reference Temperature:	C			Density:	
	Base Reference Pressure:	kPa-a				
	Base Reference Density:	kg/m3				
Process Connection:	DN150 PN100 EN 1092-1 F316/F316L Weld neck flange Form B2					
Process Connection Pressure Rating:	99,974 bar-g					
@ Temperature:	35,000 C					
Flow Rate	kg/hr	Mass Flow Accuracy +/- % of Rate	Pressure Drop*	bar	Velocity* m/sec	Re
400000,000		0,050	1,310		15,605	48432,407
350000,000		0,050	1,022		13,655	42378,356
328000,000		0,050	0,907		12,796	39714,574
292000,000		0,050	0,733		11,392	35355,657
256000,000		0,050	0,578		9,987	30996,740
220000,000		0,050	0,441		8,583	26637,824
184000,000		0,050	0,323		7,178	22278,907
148000,000		0,050	0,221		5,774	17919,991
112000,000		0,050	0,137		4,370	13561,074
76000,000		0,054	0,070		2,965	9202,157
40000,000		0,102	0,023		1,561	4843,241
*All pressure drop and velocity results are based on the process conditions (except flow rate) that are entered in the Operating column. Estimated pressure drop values represent ANSI B16.5 CL150 flanges in matching nominal line size. Actual pressure drop may vary depending on actual operating conditions and selected process connection.						
Notes:						
Prepared by:	Version: 3.0 (Build223A)		Project ID:	001-20210615-1375258		
Instrument Toolkit			Application:	PS5 Bucany		