

DIP Multiphase Flow Meter

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What DIP can measure

Main



Gas flow rate



Oil flow rate



Water flow rate

Additional



Flow velocity



GVF



Watercut



Density



Liquid viscosity
(developing)



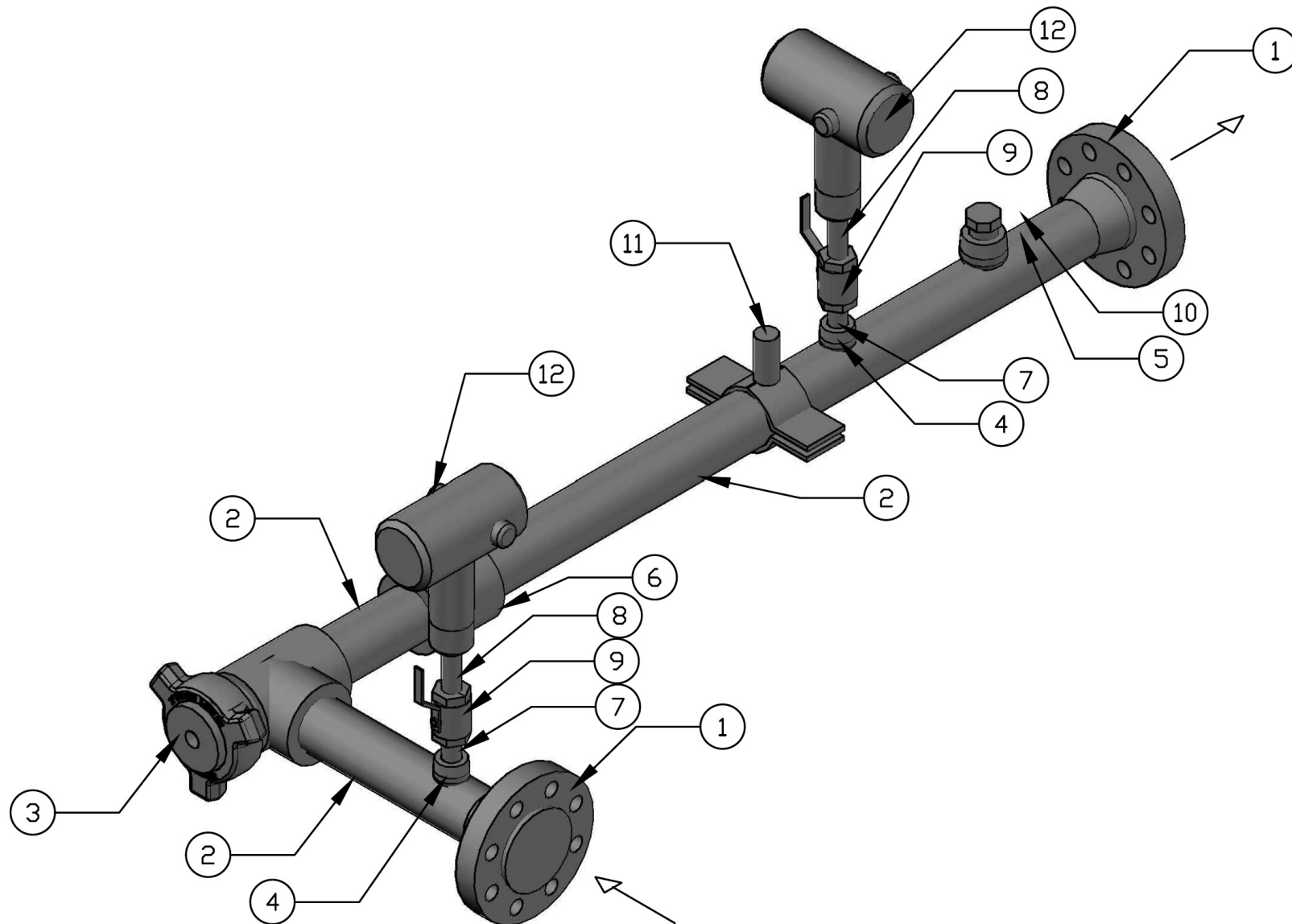
Sand rate
(developing)

DIP Flow
Computer

DIP Flow
Sensor Spools



DIP Flow Sensor Spool



Method of measurement

Sampling
Analysis Data



Measurement of pipeline
vibration



Measurement of
temperature



Enter the initial
densities and gas
composition



Measurement of
pressure and dP

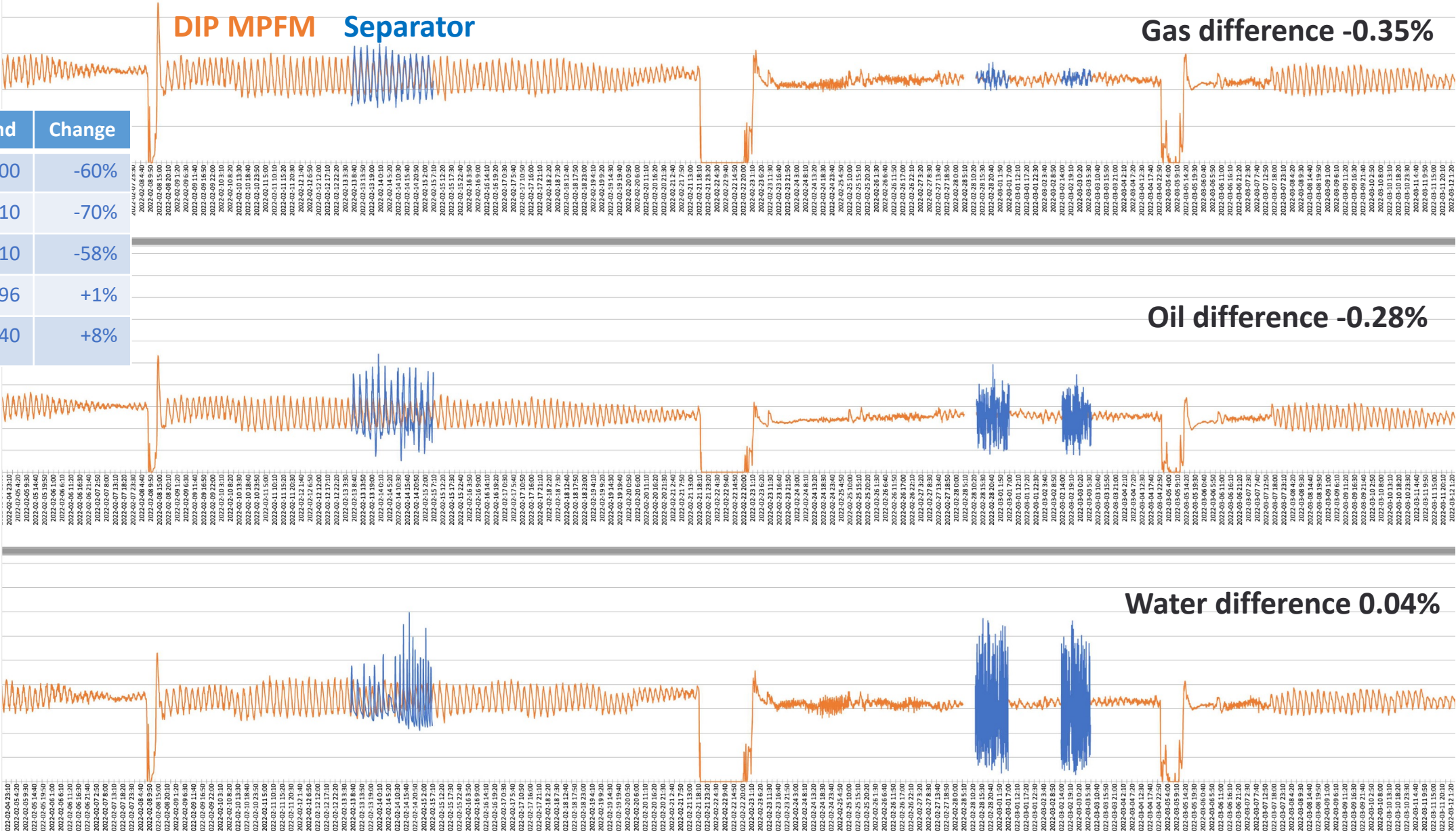


Measured
values

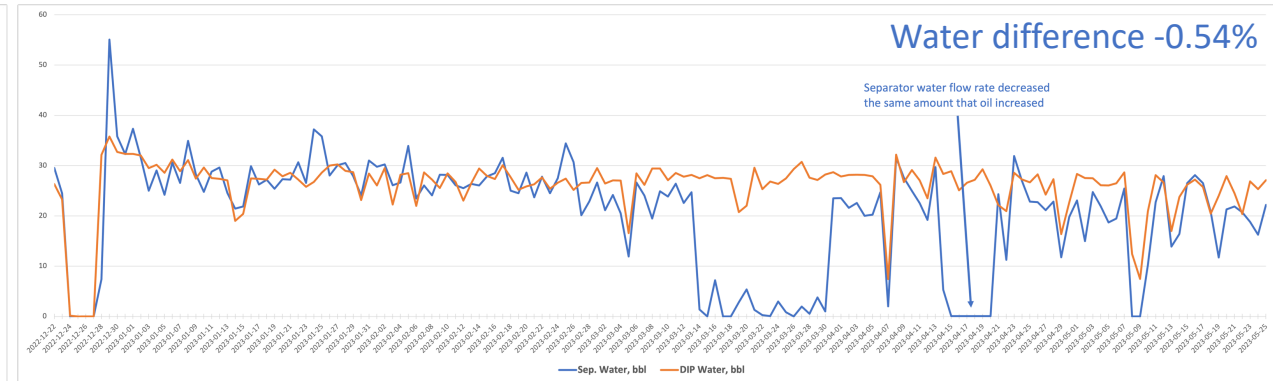
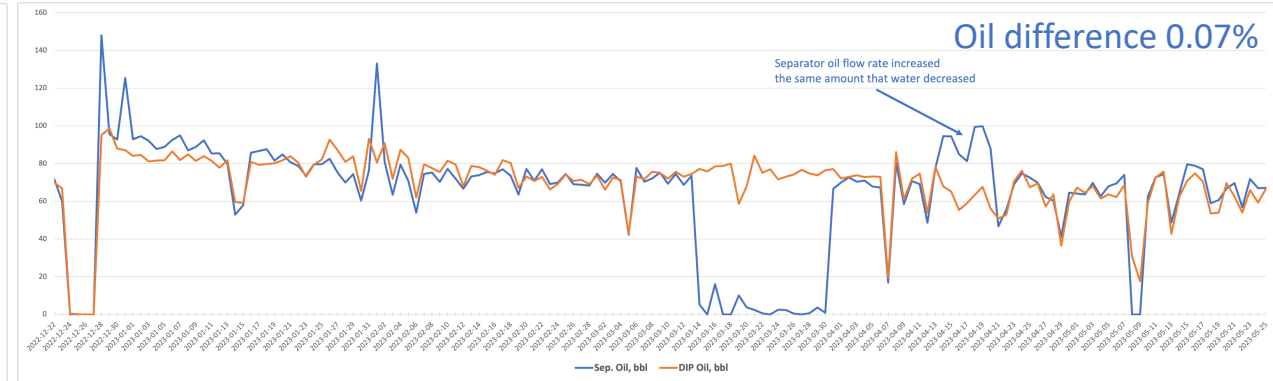
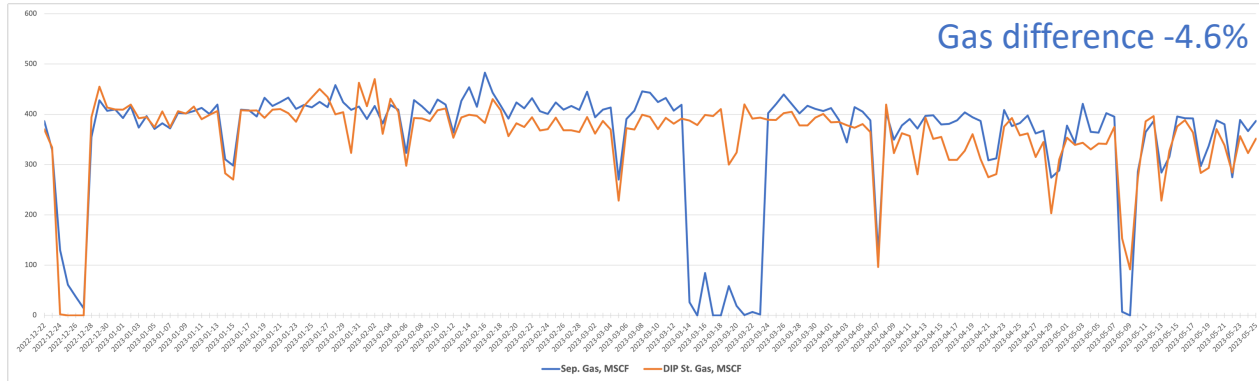


Flow rates comparison during 4 months well test (part)

	Start	End	Change
Gas, MSCF/day	2000	800	-60%
Oil, bbl/day	1050	310	-70%
Water, bbl/day	500	210	-58%
GVF, %	95	96	+1%
Watercut, %	32	40	+8%



Daily flow rates comparison during 155 days test



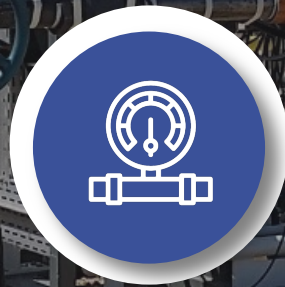
Change in flow rates during the test

	From	To	Change
Gas, MSCF/day	470	350	-25%
Oil, bbl/day	100	67	-33%
Water, bbl/day	35	27	-23%
Liquid, bbl/day	135	94	-30%

Limitations

Flow velocity at
least 1.5 m/s

Can require in-situ
calibration



Gauge pressure
more than 10 psi