

Comparing Old Cone and New Cone on PP3

February 10, 2025

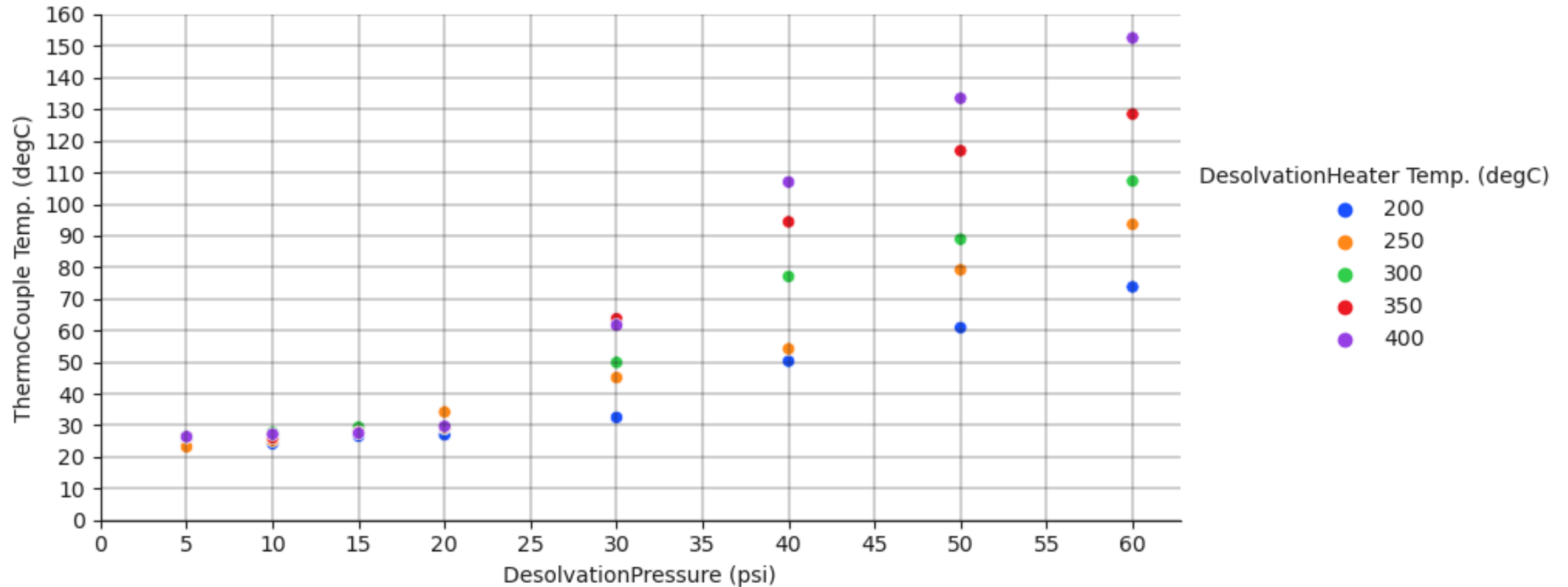
Thermocouple Measurements

- All thermocouple measurements were done with the thermocouple tip hovering over orifice nose
- Foreline pressure was given 15-20 minutes to stabilize in between any desolvation pressure change

Thermocouple Temp. vs. Des. Pressure

Old Cone

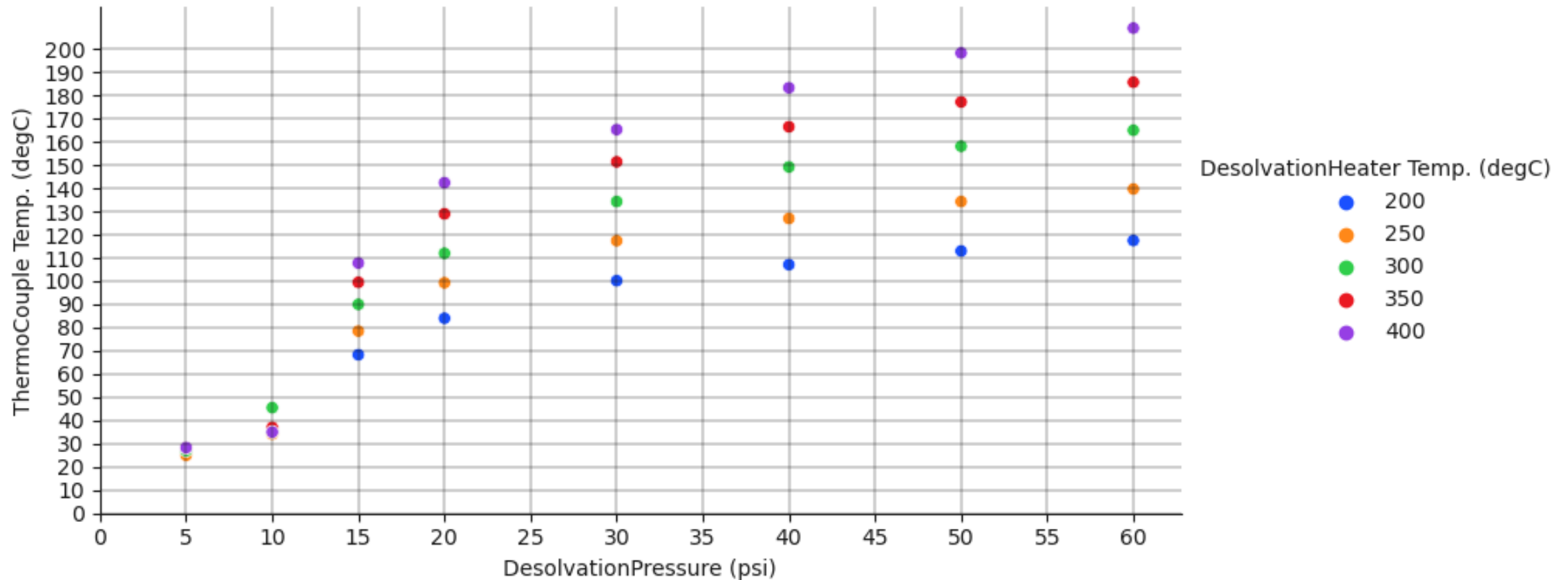
Thermocouple Measurements, PP3, Old Cone, Feb. 04, 2025



Thermocouple Temp. vs. Des. Pressure

New Cone

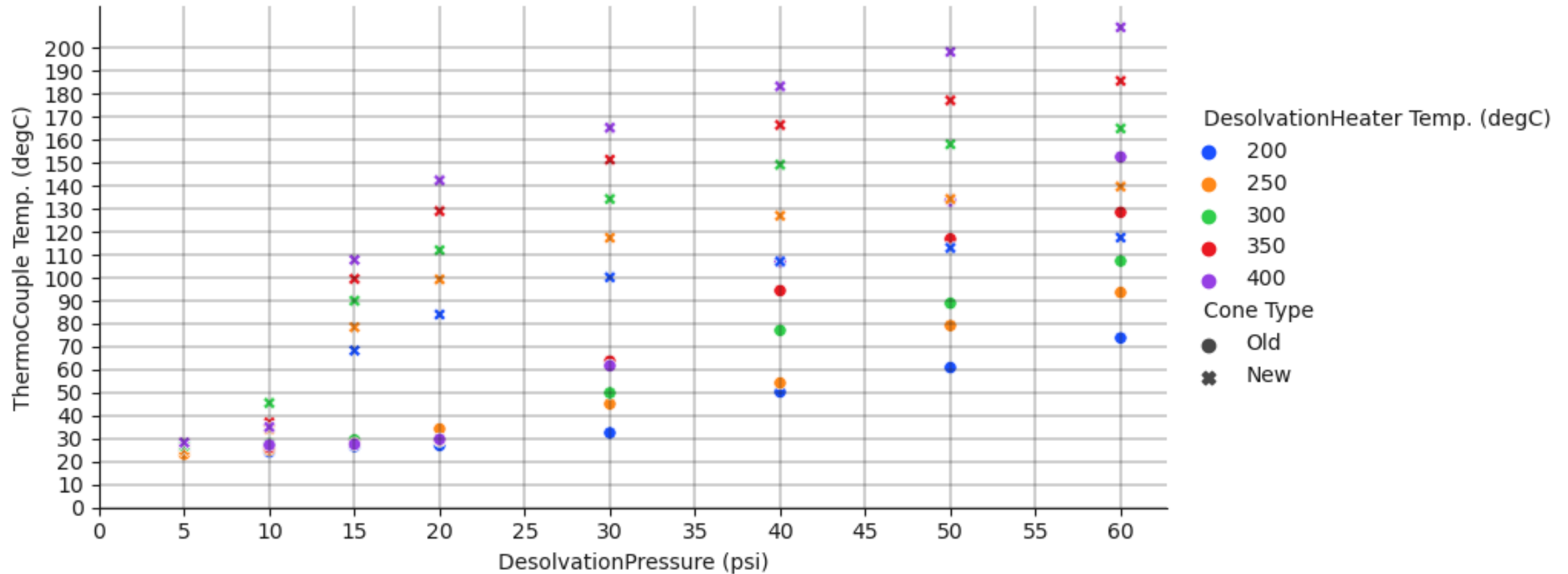
Thermocouple Measurements, PP3, New Cone, Feb. 07, 2025



Thermocouple Temp. vs. Des. Pressure

Both Cones

Thermocouple Measurements, PP3, Both Cones, Feb. 07, 2025



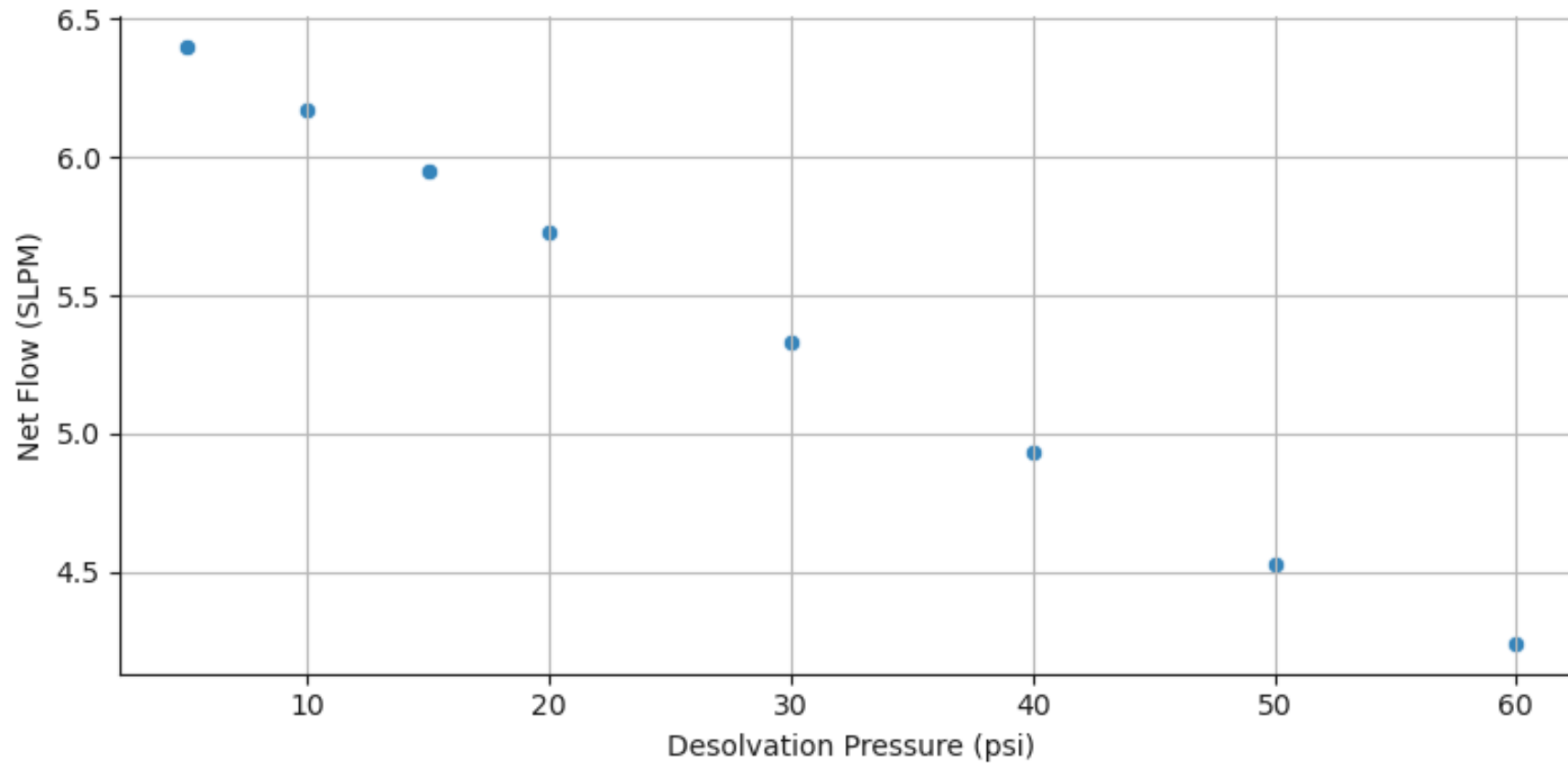
Flow Measurements

- Foreline Stabilized at 50c
- Used KPP9
- Exhaust ON
- Ceramic Tube touching cone surface
- Positive flow in direction of exhaust flow

Net Flow vs. Des. Pressure

Old Cone

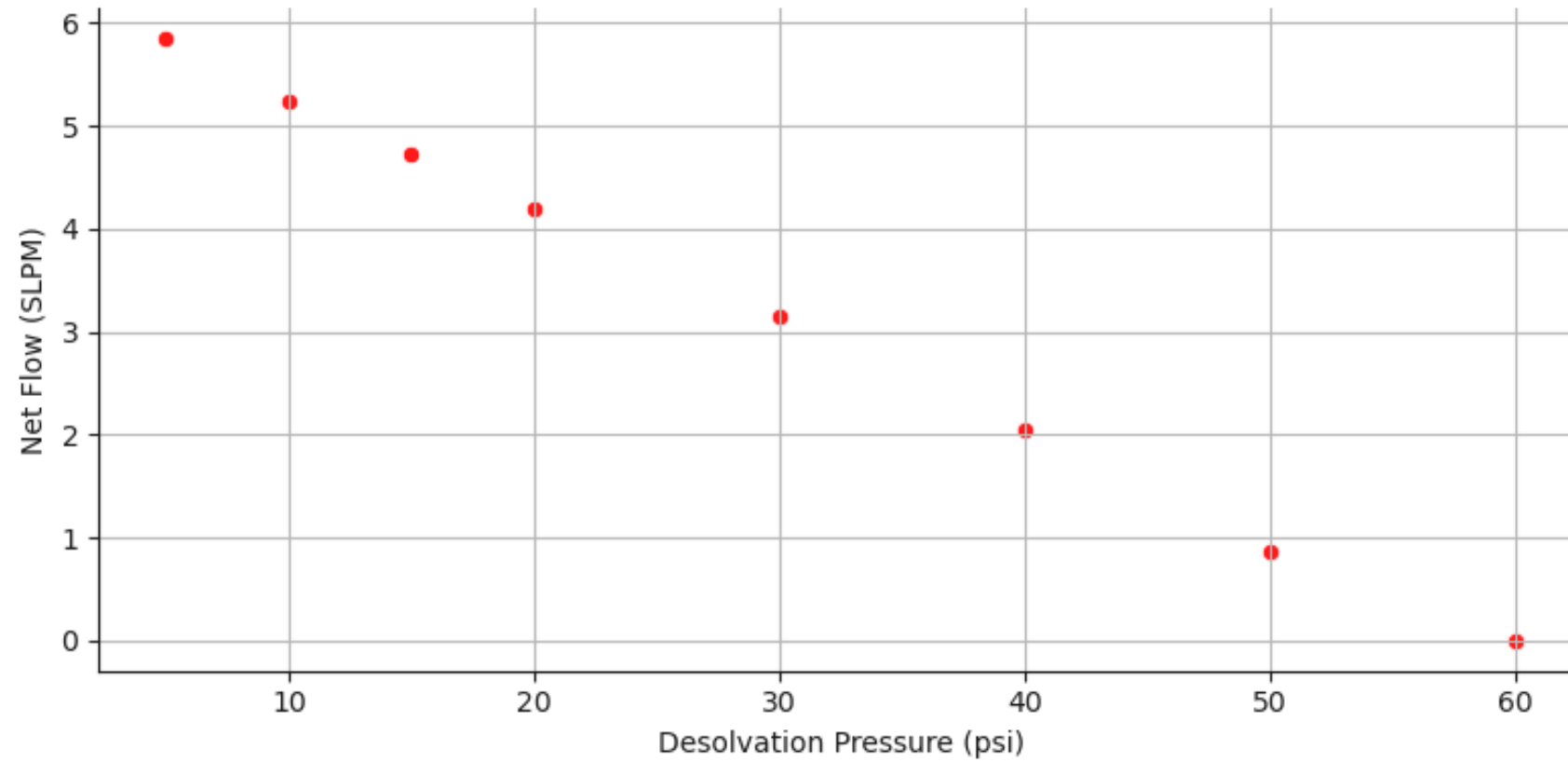
Flow Measurements, PP3, Old Cone, KPP9, Feb. 04, 2025



Net Flow vs. Des. Pressure

New Cone

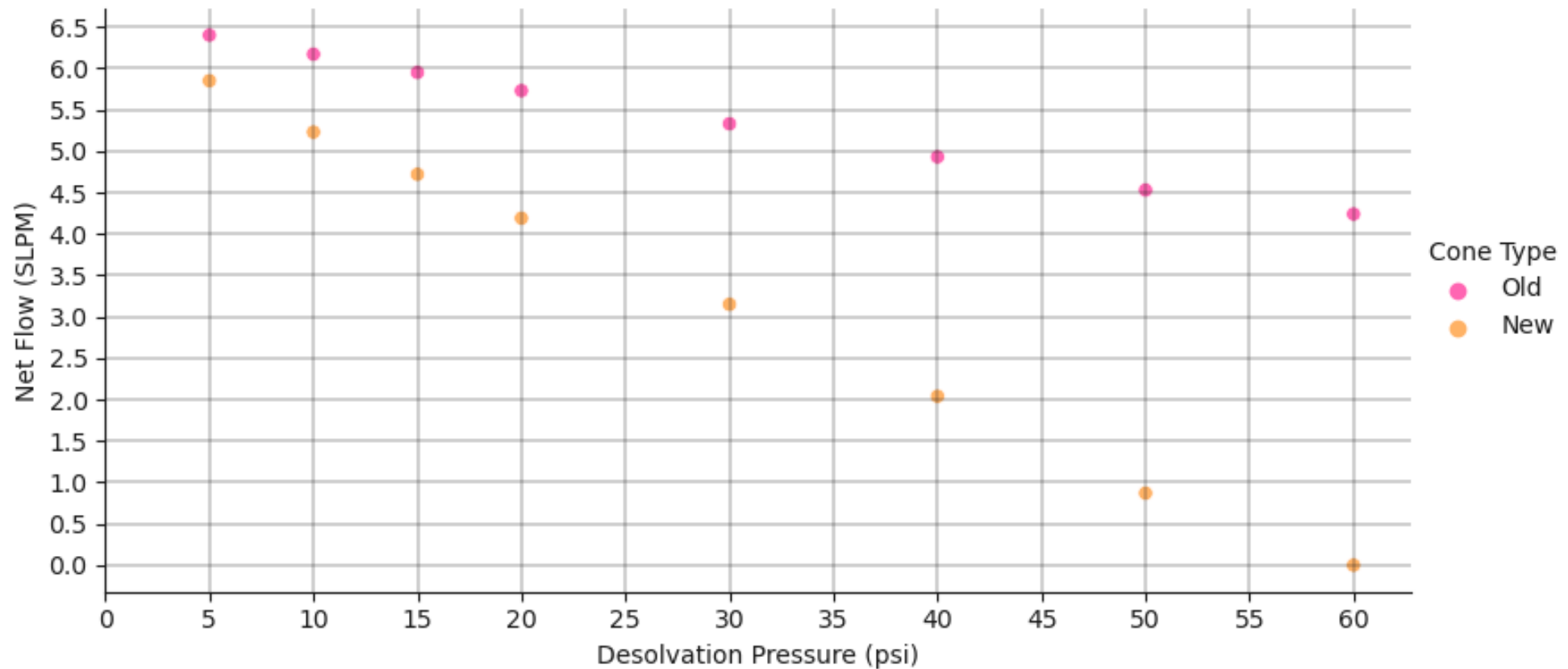
Flow Measurements, PP3, New Cone, KPP9, Feb. 05, 2025



Net Flow vs. Des. Pressure

Both Cones

Flow Measurements, PP3, Both Cones, KPP9, Feb. 05, 2025



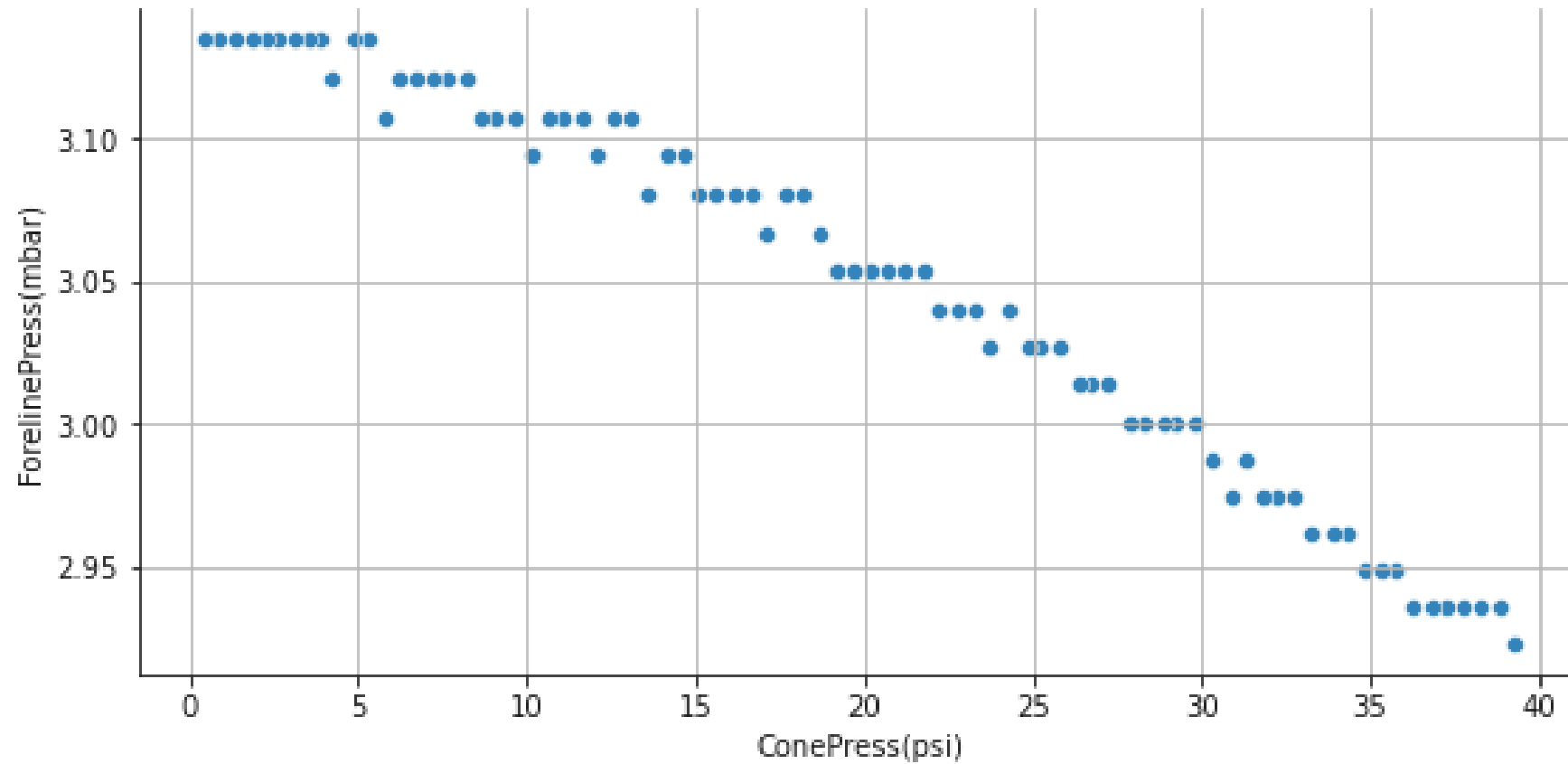
Script Run

- Foreline stabilized at 350c and 40psi before script was run

Script Run

Old Cone

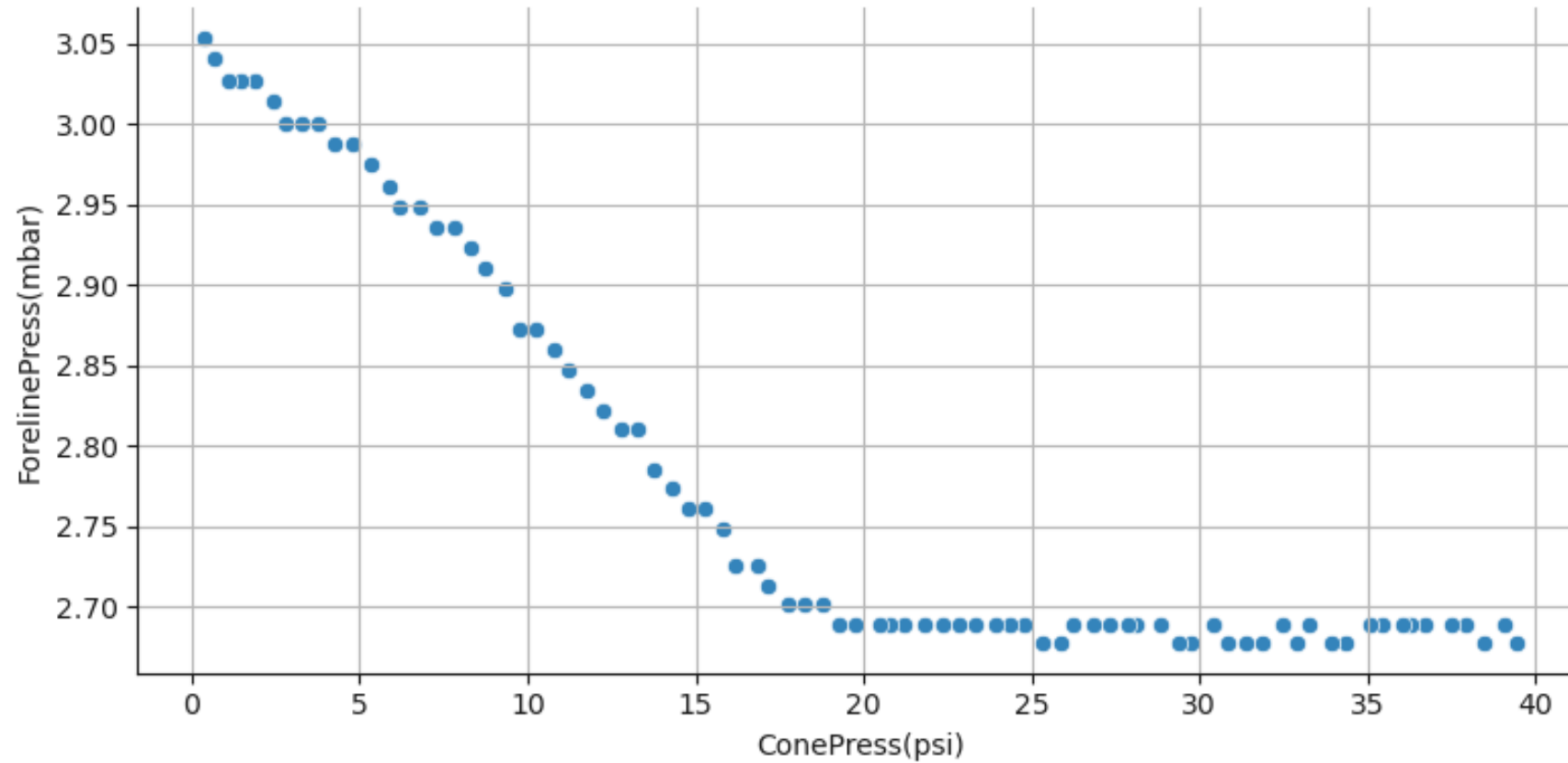
ConePressVSForelinePressure Script - Old Cone - 1/27/25



Script Run

New Cone

Test Cone Flow Script, PP3, New Cone, Feb. 04, 2025



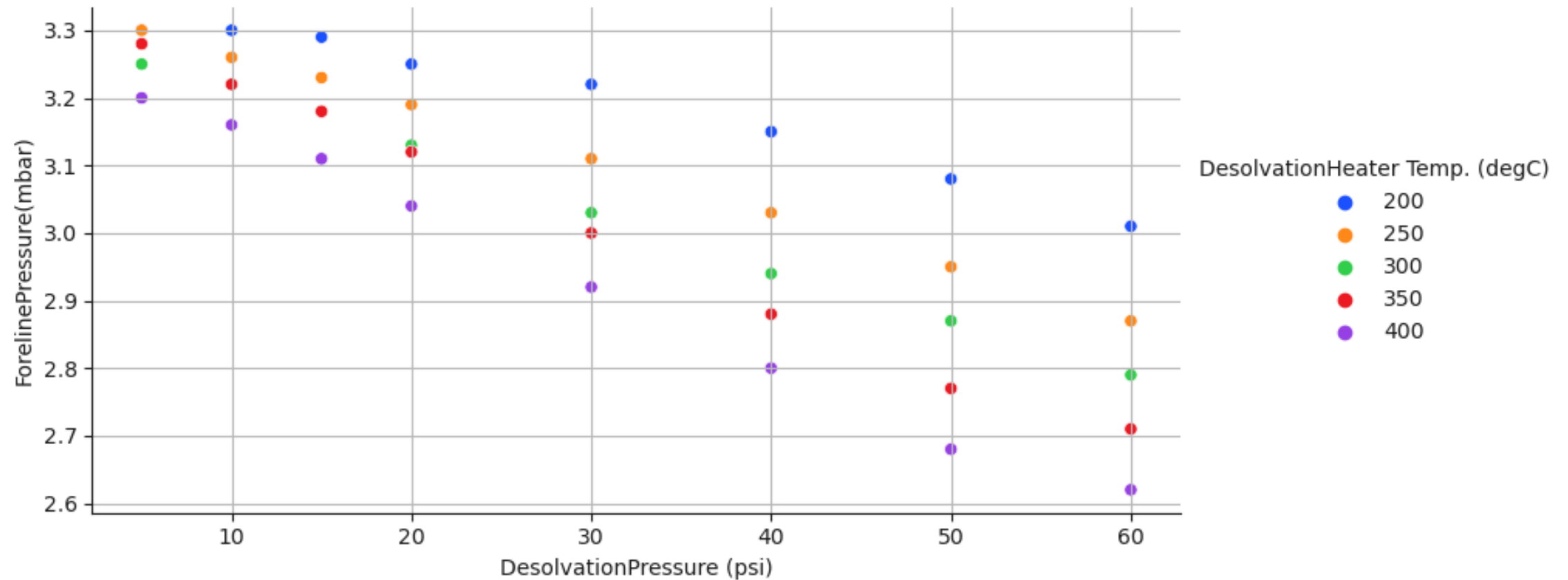
Foreline Pressure (extra plot)

- Plotted foreline pressure vs. desolvation pressure runs consistent with what we saw on the script

Foreline Pressure vs. Des. Pressure

Old Cone

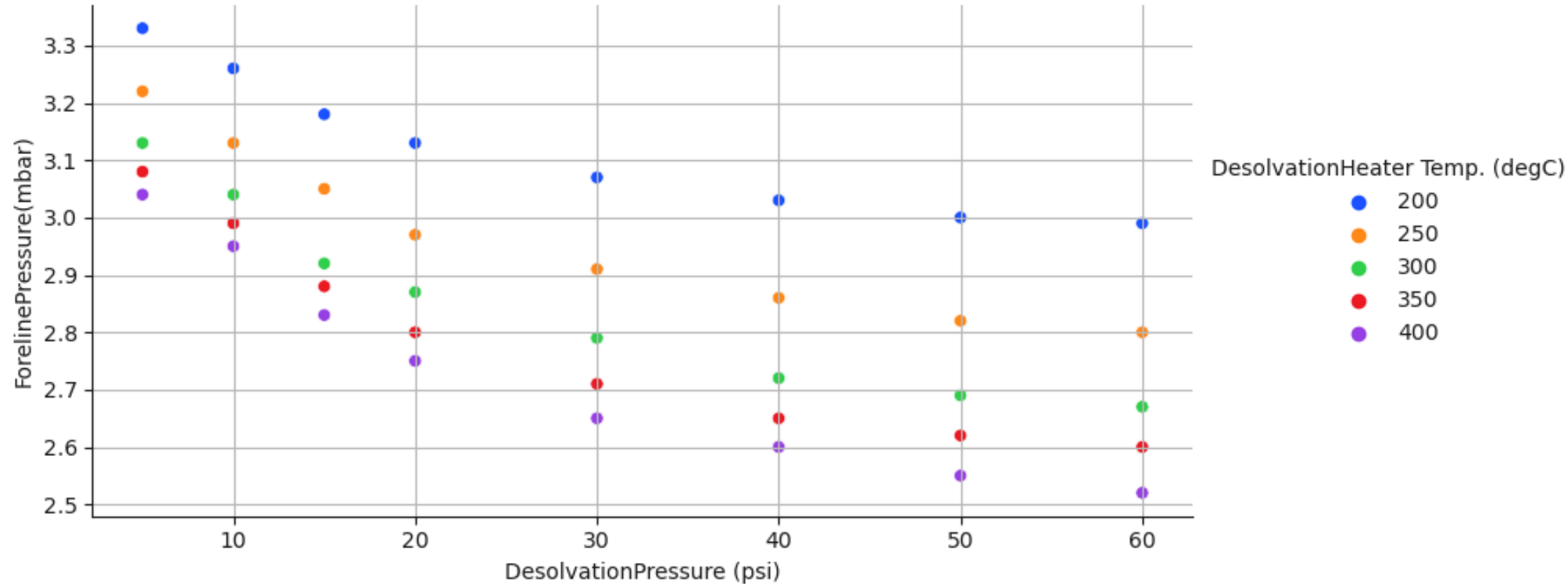
Foreline Pressure ReadBack, PP3, Old Cone, Feb. 04, 2025



Foreline Pressure vs. Des. Pressure

New Cone

Foreline Pressure ReadBack, PP3, New Cone, Feb. 07, 2025



Foreline Pressure vs. Des. Pressure

Both Cones

