

# Waters Corporation - Test Record

Part Number: 186015080Product: Acquity QSM PLUSOperator: 246025Start Time: 05/22/2018, 16:09:Serial Number: E18QSP485AEnd Time: 05/22/2018, 20:11:Test System: TE82943-16Order: N/ATest Software: 1.7Location: Flextronics, SG

TMD: TMD010478

Firmware: 1.71.381 (Feb 14 2018 10:01:23)

| Name                                              | LSL   | Measurement | USL   | Unit    | Outcome |
|---------------------------------------------------|-------|-------------|-------|---------|---------|
| Test Electrical Safety                            |       |             |       |         | PASS    |
| Test Loader Download                              |       |             |       |         | PASS    |
| Test Reboot Firmware                              |       |             |       |         | PASS    |
| Test Firmware Version                             |       |             |       |         | PASS    |
| Test Instrument Type                              |       |             |       |         | PASS    |
| Test Serial Number                                |       |             |       |         | PASS    |
| Test Alarms at Bootup                             |       |             |       |         | PASS    |
| Test Gradient Start Input SHORT                   |       |             |       |         | PASS    |
| Test Gradient Start Input OPEN                    |       |             |       |         | PASS    |
| Test Stop Flow Input SHORT                        |       |             |       |         | PASS    |
| Test Stop Flow Input OPEN                         |       |             |       |         | PASS    |
| Test Leak Detect Connected                        |       |             |       |         | PASS    |
| Test Leak Detect Disconnected                     |       |             |       |         | PASS    |
| Test Leak Detect Leak                             |       |             |       |         | PASS    |
| Test Alarms Recheck                               |       |             |       |         | PASS    |
| Test Seal Wash Pump Prime/Flow                    | 2     | 3.3         | 5     | ml/min  | PASS    |
| Test Input D Prime with MeOH                      | 10    | 27.7        | 85    | PSI     | PASS    |
| Test Input C Prime with MeOH                      | 10    | 27.5        | 85    | PSI     | PASS    |
| Test Input B Prime with MeOH                      | 10    | 26.5        | 85    | PSI     | PASS    |
| Test Input A Prime with MeOH                      | 10    | 25.1        | 85    | PSI     | PASS    |
| Test Degasser Pressure                            | 0     | 0.74        | 1.547 | PSI     | PASS    |
| Test Dynamic Leak - Accumulator Leak Rate         | 5     | 45          | 149.9 | nL/min  | PASS    |
| Test Dynamic Leak - Accumulator Percent of Stroke | 1     | 25          | 30    | %       | PASS    |
| Test Dynamic Leak - Accumulator Compressed Volume | 1     | 14          | 50    | uL      | PASS    |
| Test Dynamic Leak - Accum. Maximum Pressure       | 14000 | 14022       | 15000 | psi     | PASS    |
| Test Dynamic Leak - Primary Leak Rate             | 5     | 34          | 149.9 | nL/min  | PASS    |
| Test Dynamic Leak - Primary Percent of Stroke     | 1     | 23          | 50    | %       | PASS    |
| Test Dynamic Leak - Primary Compressed Volume     | 1     | 13          | 50    | uL      | PASS    |
| Test Dynamic Leak - Primary Maximum Pressure      | 12000 | 12019       | 13000 | psi     | PASS    |
| Test Flow Rate Accuracy 2.0ml/min                 | 1.98  | 2.011       | 2.02  | ml/min  | PASS    |
| Test Pressure Ripple at 2 ml/min                  | 0     | 4           | 15    | PSI     | PASS    |
| Test Flow Rate Accuracy 0.5ml/min                 | 0.495 | 0.504       | 0.505 | ml/min  | PASS    |
| Test Static Leak Decay Vent Valve to Filter/Mixer | 1     | 27          | 250   | PSI/min | PASS    |
| Test High Pressure                                | 9000  | 11753       | 14000 | PSI     | PASS    |
| Test Compositional Accuracy - AC90%AU             | 89.5  | 89.91       | 90.5  | %       | PASS    |
| Test Compositional Accuracy - BD90%AU             | 89.5  | 89.92       | 90.5  | %       | PASS    |
| Test Compositional Accuracy - BD10%AU             | 9.5   | 10.18       | 10.5  | %       | PASS    |
| Test Compositional Accuracy - AC10%AU             | 9.5   | 10.13       | 10.5  | %       | PASS    |
| Test Serial Number Re-verification                |       |             |       |         | PASS    |
| Test Fans                                         |       |             |       |         | PASS    |
| Test LEDs                                         |       |             |       |         | PASS    |

# Acquity QSM PLUS Final Test Overall Result - PASS

|         |       |
|---------|-------|
| Signed: | Date: |
|---------|-------|

END OF DATA