TEST REPORT

Accepted for Use

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RENDERED TO

AREVA NP Inc.
4100 International Plaza
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AREVA	AREVA NP Inc.
	58-9224197-000

PRODUCTS EVALUATED: PCI-Promatec SF-60-IR Inhibition Resistant Silicone Elastomer, Quantum Silicones QSil 5558MC Silicone Elastomer and Dow Corning® Sylgard® 170 Silicone Elastomer

EVALUATION PROPERTY: Pressure Resistance (Pressure Test 5)

Report of Testing pressure resistance capabilities for compliance with the applicable requirements of AREVA NP Inc. Test Plan, Document No. 51-9201447-002

1 Table of Contents

2 Introduction

Intertek Testing Services NA (Intertek) has conducted testing for AREVA NP Inc., on the pressure resistance capabilities of PCI-Promatec SF-60-IR Inhibition Resistant Silicone Elastomer (SF-60-IR), Quantum Silicones QSil 5558MC Silicone Elastomer (QSil 5558MC) and Dow Corning® Sylgard® 170 Silicone Elastomer (DC-170) through a 12" thick concrete deck for compliance with the applicable requirements of and in accordance with AREVA NP Inc. Document No. 51-9201447-002, *Detailed Test Plan for Conducting MOX Pressure Test 5*. This evaluation took place on July 29, 2013.

This project was undertaken to evaluate pressure resistance capability of an 8" thick silicone elastomer seal when installed around various cables at air pressure increments above atmospheric pressure.

3 Test Samples

3.1. SAMPLE SELECTION

The sealant materials were not independently selected for testing; they were supplied by AREVA NP Inc., and were received in several shipments between June 13 and July 19, 2013. The samples were received with Certificates of Conformance and are considered traceable. Basic information on sealant material(s) is presented in the table below.

Sealant Material	Lot /Batch#	Expiration Date
SF-60-IR	130501	6/30/2014
QSil 5558MC	130606	6/14/2014
DC-170	063B01	6/30/2014

Information regarding receiving dates and origin can be found in Appendix F: Quality Documents. All samples were received in good condition at the Evaluation Center.

3.2. SAMPLE AND ASSEMBLY DESCRIPTION

The test deck was used to simulate a confinement zone or HVAC boundary in which the penetration seal assemblies may be installed. The test deck was not considered an integral part of the penetration seal assembly being tested and therefore did not intended to replicate MOX-specific plant conditions and was not considered integral in bounding the performance of the penetration seal assemblies (e.g., concrete blend, compressive strength, rebar size and spacing). The test deck consisted of normal weight reinforced concrete.

Openings cast into the test deck simulated certain features consistent with MOX penetrations (e.g., painted or coated interior finishes, beveled edges, etc.) as defined by detailed Test Plan drawings contained in Appendix D.

The test deck and base seal used for Pressure Test 5 was repurposed from Pressure Test 1 with modifications (refer to Intertek Report No. 100982213SAT-001A,B,C; AREVA document

58-9222833-000 for Pressure Test 1). The installation and documentation of penetration seal assemblies contained within the test slab was performed by AREVA under AREVA's Quality Assurance Program [Reference 12.6 in the test plan found in Appendix D].

Note: The test plan (51-9201447-002) states to re-use the test slab from Pressure Test 2. However, the seal/slab from Pressure Test 2 was unavailable for re-use in Pressure Test 5 because the epoxy coating in Pressure Test 2 resulted in seal failure. The slab from Pressure Test 1 was used in Pressure Test 5 with the approval of the AREVA Test Engineer.

Subsequent to conducting Pressure Test 5, the test plan was revised (51-9201447-003) to reflect the use of the test slab and seal from Pressure Test 1. The use of the slab from Pressure Test 1, as opposed to the slab from Pressure Test 2 as stated in revision 002 of the test plan, was the only exception to the test plan in place at the time Pressure Test 5 was conducted. Both revisions of the test plan are included in Appendix D of this report for documentation purposes.

For the purpose of Pressure Test 5, holes were drilled in the existing silicone elastomer seal for the penetration of the cables being tested; after the cables were installed the holes were patched using the specified silicone elastomer seal material in accordance with Document 01-9198306 (latest revision), *"Installation Instruction Manual for MOX Penetration Seal Test Program"* [Reference 12.1 of the Test Plan].

The opening sealed and tested in Pressure Test 5 was a 48" x 34" blockout containing multiple penetrating cables of various jacket types. All sides of the opening were unlined, bare concrete (i.e., no liners, coatings or sleeve materials). For a detailed description of the penetrating commodies and the seals, refer to the Test Plan in Appendix D.

4 Testing and Evaluation Methods

The Test Plan in Appendix D presents the test methods, acceptance criteria and test report documentation requirements for penetration seal Pressure Test 5. Additionally, this detailed Test Plan defines the roles and responsibilities of MOX Services, AREVA, the selected testing laboratory, and any other subcontracted entity engaged in support of pressure testing efforts.

This detailed Test Plan also describes the procurement plan for materials associated with penetration seal pressure test 5 and identifies the entities responsible for procuring the various components of the test assemblies based on the quality level assigned to each component.

The Test Plan also establishes minimum quality requirements for the penetration seal materials used in the test assemblies and links quality requirements in the AREVA Quality Assurance (QA) program to customer/project quality requirements.

4.1. TEST APPARATUS

In the absence of any consensus codes or standards related to the pressure testing of penetration seal assemblies, the MOX Penetration Seal Program has developed a standardized method for conducting pressure testing of MOX penetration seal designs. In support of this

effort, Intertek assisted in the design and construction of a pressure test apparatus to be use in the conduct of MOX penetration seal pressure tests.

The pressure chamber apparatus consists of two hemispherical 72” diameter steel pressure vessels, calibrated equipment and a data acquisition system. The apparatus accurately maintains the desired air pressure, using one of two sensitive, manually adjustable pressure regulators; a high (0-15 psi) and a low (0-2 psi) range. The sealed collection chamber feeds any leakage air back to the test device, where it is channeled through one of two calibrated flow meters, once again, a high (0-200 L/min) and a low (0-20 L/min) range. A calibrated electronic pressure transducer (0-5 psi) measures the differential pressure between the two chambers and the data acquisition software determines the net pressure drop across the test seal and the leakage through the seal. The chambers are interchangeable and the direction can be reversed very quickly so both can serve as the pressure or the collection chamber.

The primary components described above include the following devices:

Pressure Chamber	2-piece hemispherical 72” diameter steel vessel 3 connection ports per piece 16 flange attachment points per piece Flange attachment via 3/8” diameter holes @ 22-1/2° spacing

Pressure Cart Stainless steel rolling cart with control equipment and associated Data Acquisition System

Regulator (low)	Control Air, Inc., Amherst, NH Type 700 0-2 psi
Regulator (high)	Control Air, Inc., Amherst, NH Type 700 0-15 psi


0 - 2 PSI
2013/06/27

Mass Flow Meter Omega Engineering, Inc., Stamford, CT
Model No. FMA-872A-V-NIST
Serial No. 4270050001001
0-20 lpm

Mass Flow Meter Omega Engineering, Inc., Stamford, CT
Model No. FMA-875A-V-NIST
Serial No. 4270050003001
0-200 lpm

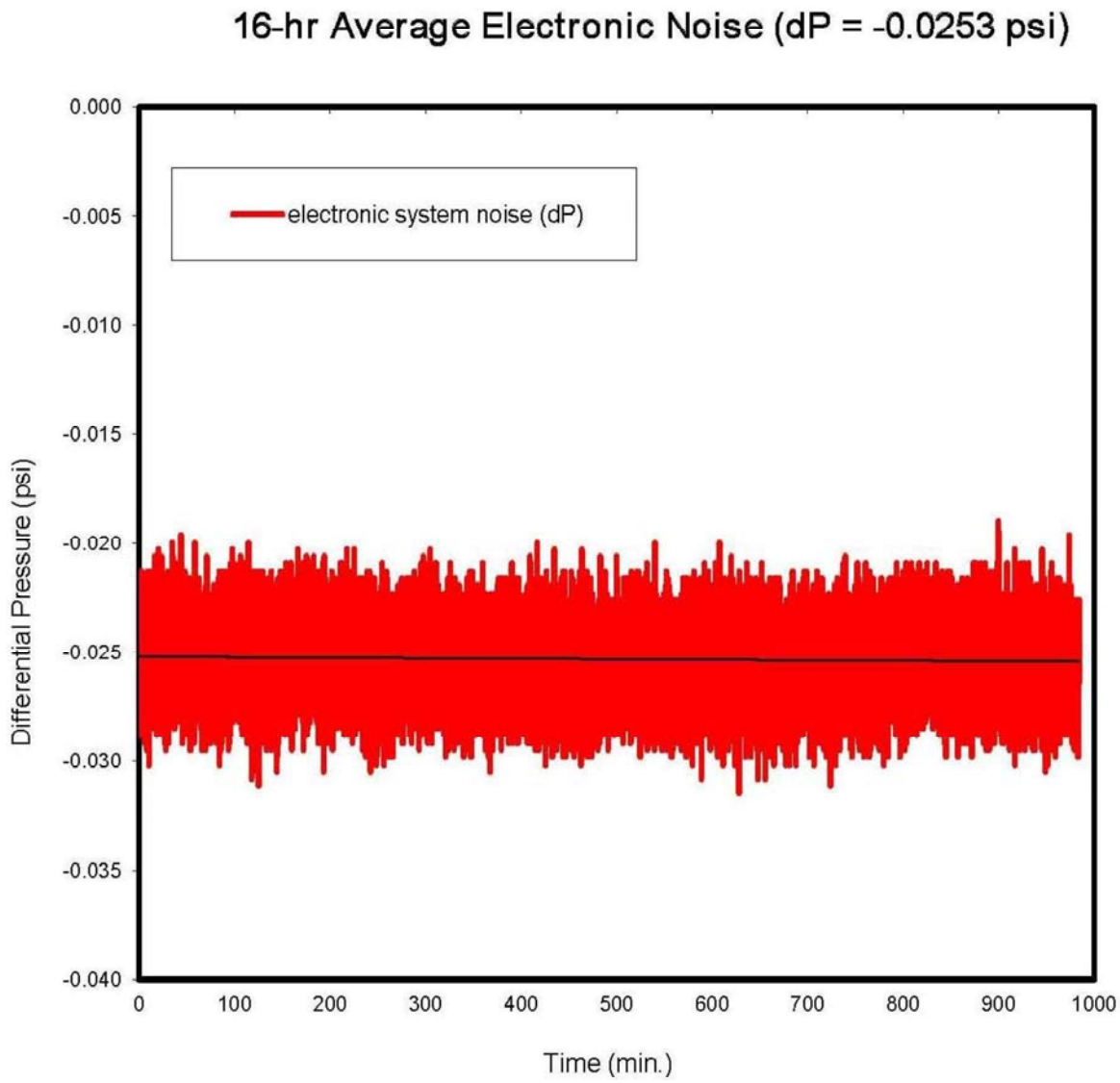
Pressure Transducer	Omegadyne Inc., Sunbury, OH Model No. PX409-005 DWUV Serial No. 406707 Pressure Range: 0-5 psi Input 0-100mVdc

Power Supply	Omega Engineering, Inc., Stamford, CT Model No. PSS-10 +10V @ 400 mA Input 115 VAC 50/60 Hz
Multifunction DAQ	National Instruments, Model No. NI USB-6210 16 Input, 16-bit, 250 kS/s, Multifunction I/O

Dedicated CPU

HP Compaq Pro-6300 Microtower
Serial No. MXL3090LN6
OS Windows 7 Pro

Additionally, during initial system start-up testing and verification, it was discovered that the data acquisition system (DAQ) was so sensitive that “signal noise” resulted in data fluctuations for reported differential pressure even when the system was at equilibrium (i.e., both high side and low side pressure chambers were at atmospheric conditions). After collecting data for 16 hours overnight, the average fluctuation was -0.025 psi.



Since the initial pressure stage prescribed by the AREVA NP Test Plan is 1.0 inches of water (0.0361 psi) and the average data fluctuation due to “signal noise” was almost 70% of this value (-0.025 psi), it was decided that an inclined-plane manometer would be used to ensure that the Stage 1 differential pressure was applied at precisely 1.0 inches of water.

For subsequent pressure stages (i.e., Stages 2-5), the Test Plan required pressure was applied and maintained using the DAQ reported differential pressure without consideration for any "signal noise". Since the "signal noise" always reported some level of negative pressure at the beginning of the test, this method assured that the tests were conducted with additional margin, as the actual differential pressure that the test specimen was subjected to was equal to the DAQ reported differential pressure plus the additional pressure needed to overcome the negative "signal noise" reported at the beginning of the test when both pressure chambers were at atmospheric conditions.

4.2 TEST STANDARD

AREVA NP Inc. Document No. 51-9201447-002

Pressure rated penetration seals at the MOX facility are required to remain "sufficiently leak-tight" at various pressure levels in order to support the functional goals of the various pressure rating requirements (i.e., confinement, suppression system clean agent concentration, fire induced pressure loads or HVAC pressure boundary loads). The term "sufficiently leak-tight" indicated that the penetration seal meets the predetermined acceptance criteria for the pressure level(s) being tested.

The acceptance criteria that constitutes "sufficiently leak-tight" varies based on the pressure requirement and the operating mode of the plant. For most pressure conditions and operating modes, "sufficiently leak-tight" means that the penetration seal assembly must remain in place but is allowed to leak (i.e., the penetration seal cannot become dislodged from the opening or otherwise catastrophically fail such that a substantial leakage path is created).

Per MOX Services Calculation "Confinement Boundary Air Leakage Criteria" [Reference 12.3], penetration seals that function as confinement zone 3b boundary components must maintain a leakage rate less than 0.01 cfm/sq. ft. of penetration area when tested at a pressure that bounds C3b to non-C3b zone pressures during normal operating conditions.

The table below identifies the differential pressure levels (stages) for conducting pressures tests, as well as, the acceptance criteria in order to be considered "sufficiently leak-tight".

Differential Pressure Test Levels

Test Stage	Differential Pressure (inch w.g.)	Required Hold Time (minutes)	Acceptance Criteria	Basis for the Selected Differential Pressure
1	1.0	30	Leakage $\leq$ 0.01 cfm/sq. ft. of penetration area	Testing at this differential pressure bounds the 0.51 inches w.g. pressure for C3b to C2 areas during normal operation [Test Plan Reference 12.10]
2	5.0	30	Seal Remains In Place	Testing at this differential pressure bounds the 4.0 inches w.g. pressure anticipated as a result of clean agent suppression system discharge [Test Plan Reference 12.8].

Test Stage	Differential Pressure (inch w.g.)	Required Hold Time (minutes)	Acceptance Criteria	Basis for the Selected Differential Pressure
3	10.0	30	Seal Remains In Place	Testing at this differential pressure bounds the 7.0 inches w.g. pressure used as the screening pressure cutoff for fire induced pressures [Test Plan References 12.8 and 12.9] and some of the HVAC pressure boundaries [Test Plan Reference 12.10].
4	20.0	30	Seal Remains In Place	Testing at this differential pressure bounds all of the calculated fire induced pressures [Test Plan Reference 12.9] and many of the HVAC pressure boundaries [Test Plan Reference 12.10].
5	40.0	30	Seal Remains In Place	Testing at this differential pressure bounds all of the HVAC pressure boundaries [Test Plan Reference 12.10].

The test assembly shall be attached to the pressure test apparatus and subjected to air pressure tests at the select pressure levels identified in Table 9-1, beginning with the Stage 1 pressure of 1.0 inches w.g. Once this pressure has been obtained, the pressure shall be maintained for the hold time specified in Table above. The maximum leakage rate observed during the hold time shall be recorded. If the leakage rate exceeds the acceptance criteria during Stage 1 testing, the time of failure shall be noted and the test shall be continued, since leakage alone does not constitute failure after Stage 1.

Once the designated hold time has been achieved, the pressure shall be increased to the next pressure level identified in Table 9-1 (Stage 2, then Stage 3, then Stage 4 and finally Stage 5) and held for the designated hold time. The maximum leakage rate observed during each hold time shall be recorded.

Following completion of Stage 5 pressure testing, the test may continue at the discretion of the AREVA test engineer and the testing laboratory manager in charge. Subsequent pressures, hold times and maximum leakage rates shall be recorded as directed by the AREVA test engineer.

If at any pressure level (or test stage) the penetration seal becomes dislodged from the opening or otherwise catastrophically fails, the pressure test shall be terminated and the time to failure and pressure at which the failure occurred shall be recorded.

5 Testing and Evaluation Results

5.1. RESULTS AND OBSERVATIONS

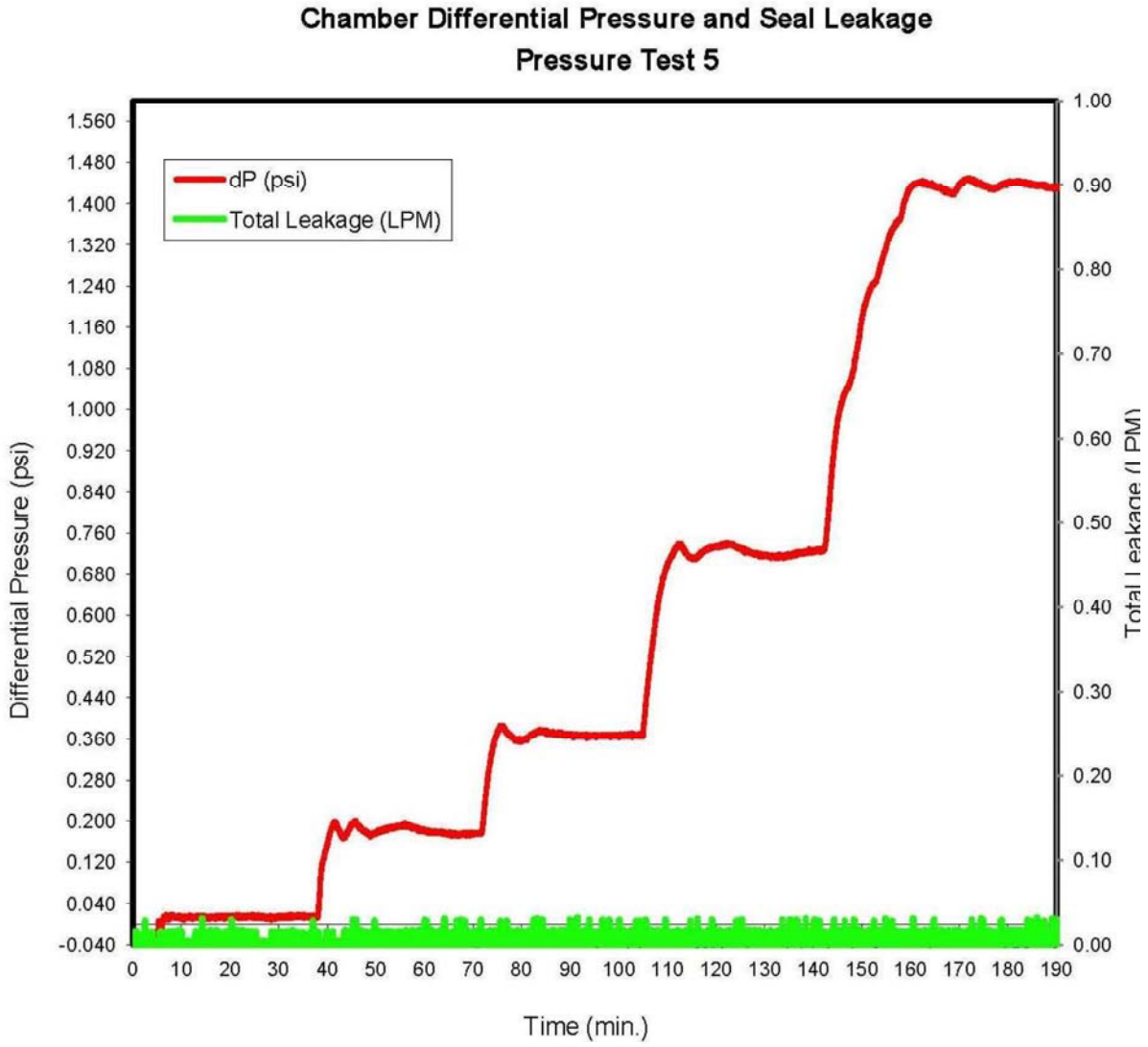
The test deck was mounted horizontally between two 72” diameter hemispherical pressure vessels. The deck was fixed to the pressure chamber using (16) 5/16” x 2-1/2” long sleeve anchors (Red Head) through 16 pre-drilled holes. Silicone II caulk (GE) was used to create a pressure tight seal between the pressure chamber and the test deck.

The test was initiated at 11:05 a.m. on July 29, 2013. Scott Groesbeck and Phil Horsmon, representing AREVA NP Inc., were present to witness the test. The ambient temperature at the start of the test was 90°F, with a relative humidity of 88%.

The test procedure followed that presented in Section 9.0 of the Test Plan. The graph and table on the following page(s) provides a summary of results and observations for the five pressure stages, any observed leakage, and the maximum leakage rate. Additionally, the raw data for Pressure Test 5 is contained in Appendix B of this test report. The official start and stop times for each pressure stage were timed using a traceable, calibrated stopwatch. The approximate start and stop times for each pressure stage are recorded below. These start and stop times can be correlated to the data in Appendix B using the heading “Time (min)”.

Pressure Test 5 Start and Stop Times

Stage	Start Time	Stop Time
1	7	37
2	41	71
3	75	105
4	112	142
5	162	192


Chamber Differential Pressure and Seal Leakage
Pressure Test 5
dP (psi)
Total Leakage (LPM)
Differential Pressure (psi)
Total Leakage (LPM)
Time (min.)
1.560
1.480
1.400
1.320
1.240
1.160
1.080
1.000
0.920
0.840
0.760
0.680
0.600
0.520
0.440
0.360
0.280
0.200
0.120
0.040
-0.040
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190

Test Results and Observations

Test Stage	Differential Pressure inch w.g. (psi)	Required Hold Time (minutes)	Acceptance Criteria	PASS/ FAIL	Max Leakage (Total LPM)	Max Leakage (Total cfm)
1	1.0 (0.036)	30	Leakage ≤ 0.01 cfm/sq. ft. of penetration area	PASS[1]	0.00	0.00
2	5.0 (0.181)	30	Seal Remains In Place	PASS	0.00	0.00
3	10.0 (0.361)	30	Seal Remains In Place	PASS	0.00	0.00
4	20.0 (0.722)	30	Seal Remains In Place	PASS	0.00	0.00
5	40.0 (1.44)	30	Seal Remains In Place	PASS	0.00	0.00

[1] Based on the table above and the allowable leakage for Pressure Test 5 per the Test Plan, the test specimen was allowed to have up to 0.113 cfm of leakage at Stage 1. There was zero actual leakage.

5.2. POST TEST EXAMINATION

Because the test assembly was intended to undergo seismic pressure testing the following day (Seismic Test 2), the pressure chamber was not removed and no post test examination was performed. It can be safely assumed that because there was zero leakage in this test that there was no degradation of the seal material.

Refer to the test report for MOX Seismic Pressure Test 2 for additional information (Intertek Test Report 101276459SAT-003 or AREVA NP, Inc. document number 58-9224227-000).

6 Conclusion

Intertek Testing Services NA (Intertek) has conducted testing for AREVA NP Inc., on the pressure resistance capabilities of PCI-Promatec SF-60-IR Inhibition Resistant Silicone Elastomer (SF-60-IR), Quantum Silicones QSil 5558MC Silicone Elastomer (QSil 5558MC) and Dow Corning® Sylgard® 170 Silicone Elastomer (DC-170) through a 12" thick concrete deck for compliance with the applicable requirements of and in accordance with AREVA NP Inc. Document No. 51-9201447-002, *Detailed Test Plan for Conducting MOX Pressure Test 5.* This evaluation took place on July 29, 2013.

The seals in Pressure Test 5 met the acceptance criteria as defined in the Test Plan.

This project was undertaken to evaluate pressure resistance capability of an 8" thick silicone elastomer seal when installed around various cables at air pressure increments above atmospheric pressure.

The conclusions of this test report may not be used as part of the requirements for Intertek product certification. Authority to Mark must be issued for a product to become certified.

INTERTEK TESTING SERVICES NA

Reported by: [redacted]
Mike Dey
Staff Engineer

Reviewed by: [redacted]
J
Project Engineer, Fire Resistance

Reviewed by: [redacted]

Michael A. Brown
Quality Supervisor

APPENDIX A
Assembly Drawings

AREVA

Document No.: 51-9201447-002

Detailed Test Plan for Conducting MOX Pressure Test 5

APPENDIX A: TEST DECK/TEST SLAB DRAWINGS

The test deck (test slab) for Pressure Test 5 is depicted on page A-2.

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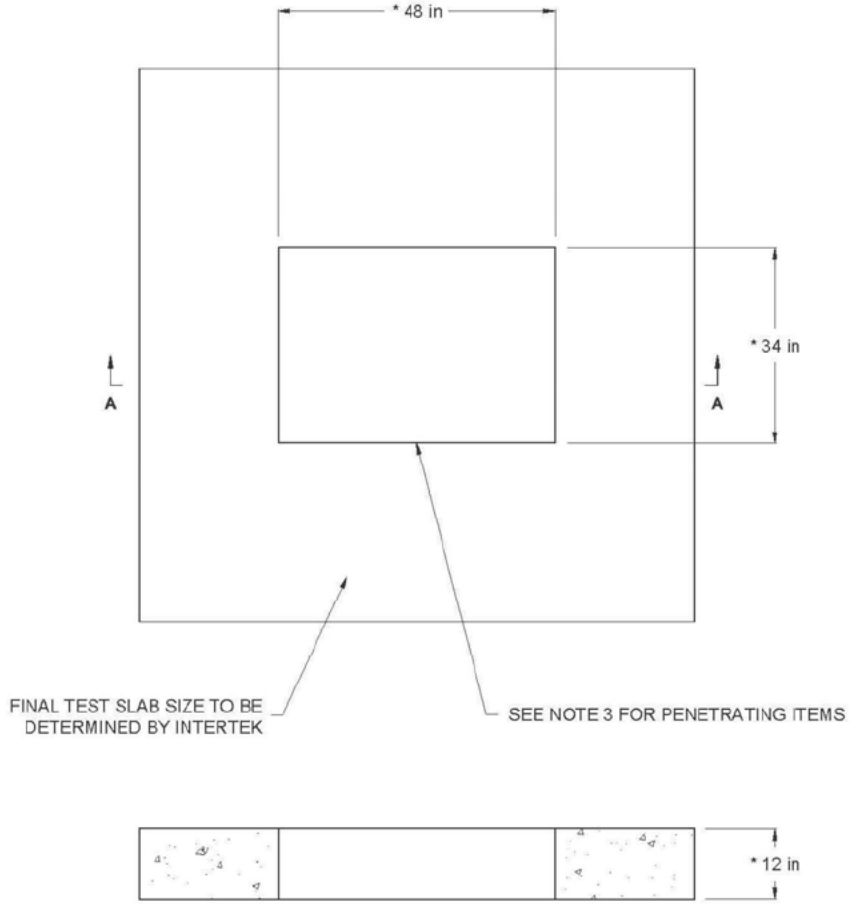
Detailed Test Plan for Conducting MOX Pressure Test 5

Pressure Test P5 Test Deck



SECTION A-A

NOTES:

1. TOLERANCE ON ALL SLAB DIMENSIONS IS +/- 1/4"
2. * INDICATES DIMENSIONS TO BE VERIFIED BY AREVA QC (OR APPROVED DESIGNEE).
3. SEE APPENDIX B FOR PENETRATING ITEMS AND PENETRATION SEAL DESIGN.

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Detailed Test Plan for Conducting MOX Pressure Test 5

APPENDIX B: TEST PENETRATION DRAWINGS

This appendix contains drawings for Test Penetrants C1 thru C9. These drawings identify penetrating cable locations within the test penetration, as well as, the penetration seal design. Table B1 of this appendix provides the cable types to be used in each location.

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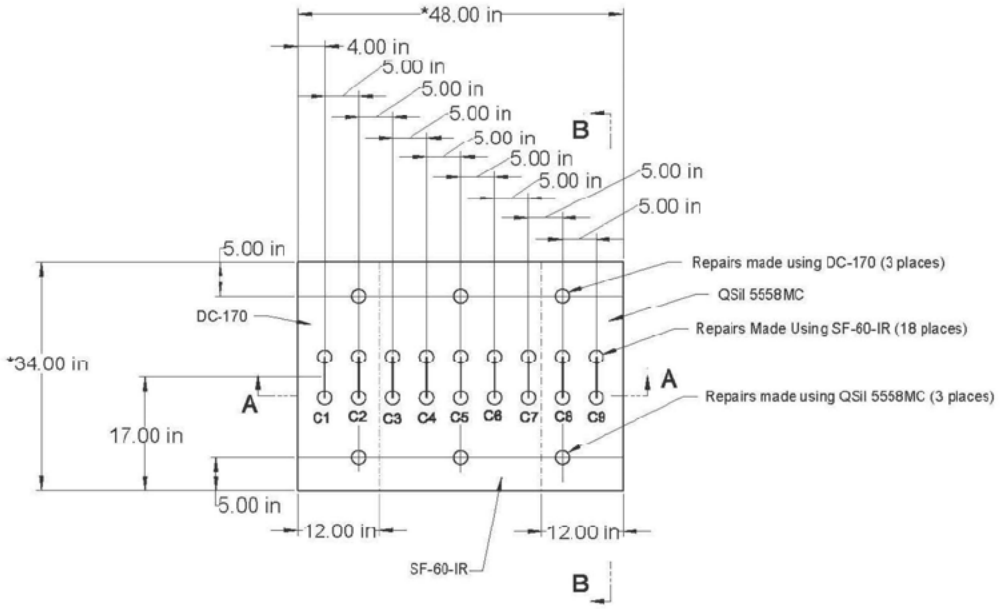
Detailed Test Plan for Conducting MOX Pressure Test 5

Pressure Test P5



Cable descriptions are provided in Table B-1.

Section Views are on Pages B-3, and B-4.

NOTES:

1. TOLERANCE ON ALL SLAB DIMENSIONS IS +/- 1/4"
2. * INDICATES DIMENSIONS TO BE VERIFIED BY AREVA QC.
3. CABLE INSTALLATION AND REPAIR HOLES ARE DEPICTED AS 2" DIAMETER DRILL/CORE BORE, HOWEVER, ACTUAL SIZE AND METHOD OF HOLE CREATION WILL BE DETERMINED AT THE TIME OF INSTALLATION.

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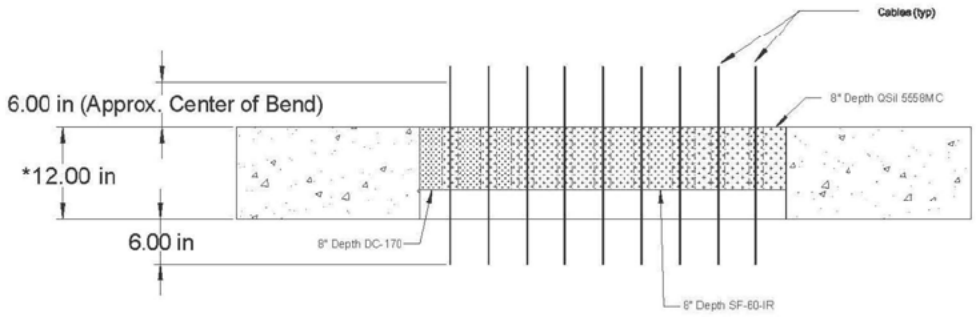
Document No.: 51-9201447-002

Detailed Test Plan for Conducting MOX Pressure Test 5

Pressure Test P5



Section A-A

NOTES:

1. TOLERANCE ON ALL SLAB DIMENSIONS IS +/- 1/4"
2. * INDICATES DIMENSIONS TO BE VERIFIED BY AREVA QC
3. REPAIR HOLES FILLED WITH ELASTOMER MATERIAL AS INDICATED ON PAGE B-2.

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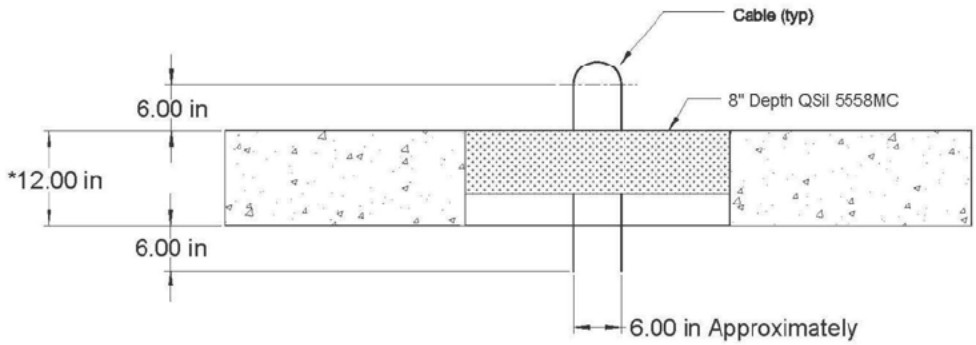
Pressure Test P5



Section B-B

NOTES:

1. TOLERANCE ON ALL SLAB DIMENSIONS IS +/- 1/4"
2. * INDICATES DIMENSIONS TO BE VERIFIED BY AREVA QC

APPENDIX B
Test Data

Areva NP Inc. Project No. G101276459SAT-001A July 29, 2013

Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
0	-0.02	0.0026	0.0011	0.0038
0.0333	-0.0213	0.0026	0	0.0026
0.0667	-0.0203	0	0.0011	0.0011
0.1	-0.0196	0	0.0011	0.0011
0.1333	-0.0236	0	0.0011	0.0011
0.1667	-0.0226	0.0158	0	0.0158
0.2	-0.0226	0.0026	0.0011	0.0038
0.2333	-0.0246	0	0	0
0.2667	-0.0213	0.0026	0.0025	0.0051
0.3	-0.0203	0.0158	0.0011	0.0169
0.3333	-0.0216	0	0	0
0.3667	-0.0236	0	0	0
0.4	-0.019	0	0.0011	0.0011
0.4333	-0.0223	0.0026	0	0.0026
0.4667	-0.0216	0	0.0011	0.0011
0.5	-0.0219	0	0.0011	0.0011
0.5333	-0.0206	0.0026	0.0011	0.0038
0.5667	-0.0229	0.0026	0.0011	0.0038
0.6	-0.019	0	0.0011	0.0011
0.6333	-0.0193	0.0026	0.0011	0.0038
0.6667	-0.019	0.0158	0.0011	0.0169
0.7	-0.0186	0.0026	0.0011	0.0038
0.7333	-0.0209	0.0026	0.0011	0.0038
0.7667	-0.0223	0	0	0
0.8	-0.0232	0.0158	0	0.0158
0.8333	-0.0216	0	0.0011	0.0011
0.8667	-0.0206	0	0	0
0.9	-0.019	0	0	0
0.9333	-0.018	0.0026	0	0.0026
0.9667	-0.0223	0	0	0
1	-0.02	0.0026	0.0011	0.0038
1.0333	-0.02	0	0	0
1.0667	-0.0209	0.0026	0	0.0026
1.1	-0.0242	0	0	0
1.1333	-0.0223	0.0026	0	0.0026
1.1667	-0.0223	0	0.0025	0.0025
1.2	-0.0232	0	0	0
1.2333	-0.0239	0	0	0
1.2667	-0.0209	0	0	0
1.3	-0.0213	0	0	0
1.3333	-0.0196	0	0	0
1.3667	-0.02	0.0026	0.0011	0.0038
1.4	-0.0193	0.0026	0	0.0026

Areva NP Inc. Project No. G101276459SAT-001A July 29, 2013

Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
1.4333	-0.0206	0	0	0
1.4667	-0.0226	0.0026	0.0011	0.0038
1.5	-0.0236	0	0	0
1.5333	-0.0226	0.0026	0.0025	0.0051
1.5667	-0.0213	0.0026	0.0011	0.0038
1.6	-0.0216	0.0026	0.0011	0.0038
1.6333	-0.0206	0.0026	0	0.0026
1.6667	-0.0206	0.0026	0.0025	0.0051
1.7	-0.0216	0	0	0
1.7333	-0.0203	0	0	0
1.7667	-0.0213	0	0.0011	0.0011
1.8	-0.0223	0	0	0
1.8333	-0.0206	0	0.0011	0.0011
1.8667	-0.0229	0.0026	0.0011	0.0038
1.9	-0.0236	0	0	0
1.9333	-0.02	0.0026	0.0011	0.0038
1.9667	-0.0219	0	0	0
2	-0.0206	0.0026	0.0025	0.0051
2.0333	-0.0196	0	0.0011	0.0011
2.0667	-0.018	0	0.0011	0.0011
2.1	-0.0206	0.0026	0.0025	0.0051
2.1333	-0.0193	0	0.0011	0.0011
2.1667	-0.0232	0	0.0011	0.0011
2.2	-0.0183	0	0	0
2.2333	-0.0193	0.0026	0	0.0026
2.2667	-0.0213	0	0.0025	0.0025
2.3	-0.0236	0.0026	0.0011	0.0038
2.3333	-0.0213	0.0158	0	0.0158
2.3667	-0.0232	0.0026	0.0011	0.0038
2.4	-0.0216	0.0026	0.0025	0.0051
2.4333	-0.0196	0	0	0
2.4667	-0.0203	0	0	0
2.5	-0.019	0.0026	0.0011	0.0038
2.5333	-0.0203	0.0289	0	0.0289
2.5667	-0.0223	0	0.0011	0.0011
2.6	-0.0196	0	0	0
2.6333	-0.0216	0.0026	0	0.0026
2.6667	-0.0206	0.0026	0.0025	0.0051
2.7	-0.0219	0	0	0
2.7333	-0.0226	0	0	0
2.7667	-0.0226	0.0026	0.0011	0.0038
2.8	-0.0223	0.0026	0	0.0026
2.8333	-0.0219	0	0.0011	0.0011

Areva NP Inc. Project No. G101276459SAT-001A July 29, 2013

Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
2.8667	-0.02	0	0	0
2.9	-0.02	0.0026	0.0011	0.0038
2.9333	-0.0209	0	0	0
2.9667	-0.0219	0	0	0
3	-0.0206	0	0	0
3.0333	-0.0183	0	0	0
3.0667	-0.0193	0	0.0011	0.0011
3.1	-0.0246	0	0.0011	0.0011
3.1333	-0.0206	0	0	0
3.1667	-0.0186	0	0	0
3.2	-0.0229	0.0026	0	0.0026
3.2333	-0.0223	0	0.0011	0.0011
3.2667	-0.0206	0.0026	0.0011	0.0038
3.3	-0.0213	0.0026	0	0.0026
3.3333	-0.0239	0.0026	0.0011	0.0038
3.3667	-0.02	0.0026	0	0.0026
3.4	-0.0229	0.0026	0.0011	0.0038
3.4333	-0.0223	0	0.0011	0.0011
3.4667	-0.0213	0.0026	0	0.0026
3.5	-0.018	0	0	0
3.5333	-0.0229	0	0.0011	0.0011
3.5667	-0.02	0.0026	0.0011	0.0038
3.6	-0.0213	0	0.0011	0.0011
3.6333	-0.0186	0.0026	0.0011	0.0038
3.6667	-0.0203	0	0	0
3.7	-0.0213	0	0.0038	0.0038
3.7333	-0.0206	0.0026	0	0.0026
3.7667	-0.0206	0.0158	0	0.0158
3.8	-0.0196	0.0026	0.0011	0.0038
3.8333	-0.0209	0.0026	0	0.0026
3.8667	-0.0226	0.0026	0	0.0026
3.9	-0.0239	0	0.0011	0.0011
3.9333	-0.0223	0.0026	0	0.0026
3.9667	-0.02	0	0.0011	0.0011
4	-0.0206	0	0	0
4.0333	-0.0223	0.0158	0	0.0158
4.0667	-0.0219	0	0.0011	0.0011
4.1	-0.0209	0	0	0
4.1333	-0.0232	0.0026	0	0.0026
4.1667	-0.0216	0.0026	0.0011	0.0038
4.2	-0.0216	0.0026	0.0011	0.0038
4.2333	-0.0203	0	0	0
4.2667	-0.0236	0.0026	0.0011	0.0038

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
4.3	-0.0232	0	0	0
4.3333	-0.0219	0	0	0
4.3667	-0.0229	0	0.0011	0.0011
4.4	-0.019	0	0	0
4.4333	-0.02	0	0.0011	0.0011
4.4667	-0.0209	0	0	0
4.5	-0.0229	0.0026	0	0.0026
4.5333	-0.0203	0	0	0
4.5667	-0.0209	0.0026	0	0.0026
4.6	-0.0232	0.0026	0.0025	0.0051
4.6333	-0.0186	0.0026	0.0025	0.0051
4.6667	-0.0229	0	0.0011	0.0011
4.7	-0.0173	0	0	0
4.7333	-0.0203	0	0.0025	0.0025
4.7667	-0.0213	0	0	0
4.8	-0.02	0.0026	0.0011	0.0038
4.8333	-0.0232	0.0026	0	0.0026
4.8667	-0.018	0.0026	0	0.0026
4.9	-0.0216	0	0.0025	0.0025
4.9333	-0.0206	0	0	0
4.9667	-0.019	0.0026	0.0011	0.0038
5	-0.0246	0	0.0011	0.0011
5.0333	-0.019	0	0.0011	0.0011
5.0667	-0.0196	0.0026	0.0011	0.0038
5.1	-0.0213	0	0.0011	0.0011
5.1333	-0.0206	0	0.0011	0.0011
5.1667	-0.014	0	0	0
5.2	-0.0048	0.0026	0.0011	0.0038
5.2333	0.0054	0.0026	0.0011	0.0038
5.2667	0.0064	0.0026	0.0011	0.0038
5.3	0.007	0	0.0011	0.0011
5.3333	0.0074	0	0	0
5.3667	0.0021	0	0	0
5.4	-0.0012	0.0026	0	0.0026
5.4333	-0.0081	0	0	0
5.4667	-0.0084	0.0026	0	0.0026
5.5	-0.0051	0	0	0
5.5333	-0.0081	0.0158	0	0.0158
5.5667	-0.0078	0	0.0025	0.0025
5.6	-0.0094	0.0026	0.0011	0.0038
5.6333	-0.0084	0.0026	0	0.0026
5.6667	-0.0068	0.0026	0.0011	0.0038
5.7	-0.0078	0.0158	0.0011	0.0169

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
5.7333	-0.0074	0	0	0
5.7667	-0.0084	0	0	0
5.8	-0.0081	0	0.0011	0.0011
5.8333	-0.0084	0	0.0011	0.0011
5.8667	-0.0055	0	0.0011	0.0011
5.9	-0.0018	0.0026	0.0011	0.0038
5.9333	-0.0042	0.0026	0.0011	0.0038
5.9667	-0.0002	0.0026	0	0.0026
6	0.0021	0	0	0
6.0333	0.0011	0.0158	0	0.0158
6.0667	0.0024	0.0026	0.0011	0.0038
6.1	0.0037	0	0.0011	0.0011
6.1333	0.0064	0.0026	0.0025	0.0051
6.1667	0.0037	0	0.0011	0.0011
6.2	0.007	0	0.0011	0.0011
6.2333	0.01	0	0	0
6.2667	0.012	0	0	0
6.3	0.0133	0.0026	0	0.0026
6.3333	0.0126	0	0	0
6.3667	0.0139	0	0	0
6.4	0.0153	0.0026	0.0011	0.0038
6.4333	0.0146	0	0	0
6.4667	0.0166	0	0	0
6.5	0.0133	0.0026	0.0025	0.0051
6.5333	0.0097	0.0158	0	0.0158
6.5667	0.0159	0	0	0
6.6	0.0139	0.0158	0	0.0158
6.6333	0.0143	0.0158	0	0.0158
6.6667	0.0169	0	0.0011	0.0011
6.7	0.0136	0	0	0
6.7333	0.0166	0.0026	0.0025	0.0051
6.7667	0.0143	0.0026	0	0.0026
6.8	0.0186	0.0026	0.0011	0.0038
6.8333	0.0169	0.0026	0.0011	0.0038
6.8667	0.0146	0	0	0
6.9	0.0146	0	0.0011	0.0011
6.9333	0.0149	0	0	0
6.9667	0.0169	0	0	0
7	0.0179	0	0.0011	0.0011
7.0333	0.0146	0	0.0011	0.0011
7.0667	0.0116	0	0	0
7.1	0.0159	0	0.0011	0.0011
7.1333	0.0136	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
7.1667	0.0139	0.0026	0	0.0026
7.2	0.0126	0.0026	0	0.0026
7.2333	0.011	0	0	0
7.2667	0.0133	0	0	0
7.3	0.0103	0.0026	0.0025	0.0051
7.3333	0.0139	0.0026	0	0.0026
7.3667	0.013	0	0	0
7.4	0.0093	0.0158	0.0011	0.0169
7.4333	0.0116	0.0026	0	0.0026
7.4667	0.011	0	0.0011	0.0011
7.5	0.0136	0.0026	0.0011	0.0038
7.5333	0.0113	0	0	0
7.5667	0.012	0	0.0011	0.0011
7.6	0.0139	0	0.0011	0.0011
7.6333	0.0149	0	0	0
7.6667	0.0133	0	0	0
7.7	0.0169	0	0.0011	0.0011
7.7333	0.0143	0.0158	0	0.0158
7.7667	0.0143	0	0	0
7.8	0.0133	0	0	0
7.8333	0.0186	0	0.0011	0.0011
7.8667	0.0176	0	0.0011	0.0011
7.9	0.0176	0.0026	0	0.0026
7.9333	0.0189	0.0026	0	0.0026
7.9667	0.0153	0.0026	0	0.0026
8	0.0166	0.0026	0.0025	0.0051
8.0333	0.0156	0	0.0011	0.0011
8.0667	0.0163	0	0	0
8.1	0.0169	0.0026	0.0011	0.0038
8.1333	0.0133	0.0158	0	0.0158
8.1667	0.0176	0	0	0
8.2	0.0153	0	0.0011	0.0011
8.2333	0.0149	0.0158	0.0011	0.0169
8.2667	0.0186	0.0026	0.0011	0.0038
8.3	0.0179	0.0026	0	0.0026
8.3333	0.0166	0	0	0
8.3667	0.0169	0.0026	0.0011	0.0038
8.4	0.0163	0.0026	0	0.0026
8.4333	0.0159	0	0	0
8.4667	0.0146	0	0	0
8.5	0.013	0.0026	0.0038	0.0064
8.5333	0.0153	0.0026	0.0011	0.0038
8.5667	0.0153	0	0.0011	0.0011

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
8.6	0.0156	0.0026	0	0.0026
8.6333	0.0156	0.0026	0	0.0026
8.6667	0.0156	0.0026	0	0.0026
8.7	0.0133	0	0	0
8.7333	0.012	0.0158	0	0.0158
8.7667	0.0143	0.0026	0	0.0026
8.8	0.0166	0.0026	0.0011	0.0038
8.8333	0.0153	0.0026	0	0.0026
8.8667	0.0139	0	0.0011	0.0011
8.9	0.0116	0.0026	0.0011	0.0038
8.9333	0.0116	0	0.0011	0.0011
8.9667	0.0139	0.0026	0.0011	0.0038
9	0.0116	0	0.0011	0.0011
9.0333	0.012	0.0158	0.0011	0.0169
9.0667	0.0126	0.0026	0.0011	0.0038
9.1	0.0126	0	0.0011	0.0011
9.1333	0.0143	0	0	0
9.1667	0.0136	0.0026	0.0025	0.0051
9.2	0.0143	0.0026	0.0011	0.0038
9.2333	0.0143	0.0026	0	0.0026
9.2667	0.0139	0	0.0011	0.0011
9.3	0.0136	0.0026	0	0.0026
9.3333	0.0159	0	0.0011	0.0011
9.3667	0.0149	0.0026	0.0011	0.0038
9.4	0.0139	0.0026	0	0.0026
9.4333	0.0159	0.0026	0	0.0026
9.4667	0.0169	0.0026	0.0011	0.0038
9.5	0.0156	0	0	0
9.5333	0.0133	0.0158	0.0025	0.0182
9.5667	0.0149	0	0	0
9.6	0.0166	0.0026	0	0.0026
9.6333	0.0139	0.0026	0.0011	0.0038
9.6667	0.0169	0	0.0011	0.0011
9.7	0.013	0	0	0
9.7333	0.0126	0.0026	0.0011	0.0038
9.7667	0.0163	0.0026	0.0011	0.0038
9.8	0.0153	0.0158	0.0025	0.0182
9.8333	0.0153	0.0026	0	0.0026
9.8667	0.0107	0	0	0
9.9	0.0103	0	0.0011	0.0011
9.9333	0.011	0.0026	0.0011	0.0038
9.9667	0.0156	0.0026	0	0.0026
10	0.0143	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
10.0333	0.011	0	0.0011	0.0011
10.0667	0.0146	0.0026	0.0011	0.0038
10.1	0.0143	0.0158	0	0.0158
10.1333	0.0153	0	0.0011	0.0011
10.1667	0.0143	0	0.0025	0.0025
10.2	0.0136	0	0	0
10.2333	0.0126	0	0	0
10.2667	0.011	0	0	0
10.3	0.0139	0	0	0
10.3333	0.0103	0.0026	0	0.0026
10.3667	0.0113	0.0026	0.0011	0.0038
10.4	0.0139	0.0026	0	0.0026
10.4333	0.0084	0	0	0
10.4667	0.0139	0	0.0011	0.0011
10.5	0.0116	0	0	0
10.5333	0.0123	0	0	0
10.5667	0.0113	0	0	0
10.6	0.012	0	0	0
10.6333	0.0143	0.0026	0	0.0026
10.6667	0.0146	0	0	0
10.7	0.0166	0	0	0
10.7333	0.0166	0.0026	0	0.0026
10.7667	0.0146	0.0026	0.0011	0.0038
10.8	0.0153	0	0.0011	0.0011
10.8333	0.013	0.0026	0	0.0026
10.8667	0.0156	0	0.0011	0.0011
10.9	0.0153	0	0	0
10.9333	0.0153	0.0026	0.0011	0.0038
10.9667	0.0133	0	0.0011	0.0011
11	0.012	0.0026	0	0.0026
11.0333	0.0156	0.0026	0	0.0026
11.0667	0.0149	0.0026	0.0011	0.0038
11.1	0.0123	0.0026	0.0011	0.0038
11.1333	0.0136	0	0	0
11.1667	0.0143	0.0026	0	0.0026
11.2	0.0146	0	0	0
11.2333	0.013	0.0026	0.0011	0.0038
11.2667	0.0146	0	0	0
11.3	0.0143	0.0026	0.0025	0.0051
11.3333	0.0133	0	0	0
11.3667	0.0143	0.0026	0.0011	0.0038
11.4	0.0166	0.0026	0	0.0026
11.4333	0.0143	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
11.4667	0.0133	0.0026	0.0011	0.0038
11.5	0.013	0.0026	0.0011	0.0038
11.5333	0.0139	0	0	0
11.5667	0.0153	0	0	0
11.6	0.0139	0.0026	0	0.0026
11.6333	0.0153	0	0.0011	0.0011
11.6667	0.0139	0.0026	0	0.0026
11.7	0.0153	0	0.0011	0.0011
11.7333	0.0179	0	0	0
11.7667	0.0139	0	0	0
11.8	0.0133	0	0.0011	0.0011
11.8333	0.0172	0	0.0011	0.0011
11.8667	0.0139	0.0026	0.0011	0.0038
11.9	0.0143	0	0	0
11.9333	0.0133	0	0	0
11.9667	0.0133	0	0.0011	0.0011
12	0.0149	0.0026	0.0011	0.0038
12.0333	0.0163	0	0	0
12.0667	0.0156	0	0.0011	0.0011
12.1	0.0146	0	0	0
12.1333	0.0116	0	0.0011	0.0011
12.1667	0.0107	0.0026	0	0.0026
12.2	0.013	0.0026	0.0011	0.0038
12.2333	0.012	0.0026	0	0.0026
12.2667	0.0126	0	0	0
12.3	0.0146	0	0.0011	0.0011
12.3333	0.0166	0	0.0011	0.0011
12.3667	0.0156	0	0.0011	0.0011
12.4	0.0143	0.0026	0.0011	0.0038
12.4333	0.0133	0	0.0011	0.0011
12.4667	0.0156	0	0.0011	0.0011
12.5	0.0163	0	0.0011	0.0011
12.5333	0.0153	0	0	0
12.5667	0.0136	0	0	0
12.6	0.0136	0.0026	0.0011	0.0038
12.6333	0.0153	0	0.0011	0.0011
12.6667	0.0133	0	0	0
12.7	0.0163	0	0.0011	0.0011
12.7333	0.0156	0	0	0
12.7667	0.0136	0	0.0011	0.0011
12.8	0.0133	0.0026	0	0.0026
12.8333	0.0133	0	0.0011	0.0011
12.8667	0.0146	0.0158	0.0011	0.0169

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
12.9	0.0166	0	0	0
12.9333	0.013	0.0158	0.0011	0.0169
12.9667	0.0156	0.0026	0	0.0026
13	0.0153	0	0.0011	0.0011
13.0333	0.0149	0.0026	0.0011	0.0038
13.0667	0.0159	0	0.0011	0.0011
13.1	0.0143	0.0026	0	0.0026
13.1333	0.0126	0.0158	0	0.0158
13.1667	0.0153	0	0.0025	0.0025
13.2	0.0153	0.0026	0	0.0026
13.2333	0.0153	0	0.0011	0.0011
13.2667	0.0172	0.0026	0.0011	0.0038
13.3	0.0153	0	0	0
13.3333	0.0146	0.0026	0.0011	0.0038
13.3667	0.0163	0.0026	0.0011	0.0038
13.4	0.0146	0	0.0011	0.0011
13.4333	0.0133	0.0026	0.0011	0.0038
13.4667	0.0169	0	0	0
13.5	0.0166	0	0.0011	0.0011
13.5333	0.0153	0	0	0
13.5667	0.0156	0.0026	0	0.0026
13.6	0.0133	0.0026	0.0011	0.0038
13.6333	0.0169	0.0026	0.0011	0.0038
13.6667	0.0163	0	0.0011	0.0011
13.7	0.0159	0.0026	0	0.0026
13.7333	0.0166	0.0026	0	0.0026
13.7667	0.0133	0.0026	0	0.0026
13.8	0.0146	0.0026	0	0.0026
13.8333	0.0139	0.0026	0.0011	0.0038
13.8667	0.0169	0	0	0
13.9	0.0116	0	0	0
13.9333	0.0156	0	0.0011	0.0011
13.9667	0.013	0.0026	0.0011	0.0038
14	0.0133	0.0158	0.0011	0.0169
14.0333	0.0149	0	0	0
14.0667	0.0172	0	0.0011	0.0011
14.1	0.0143	0.0158	0	0.0158
14.1333	0.0133	0	0.0011	0.0011
14.1667	0.0139	0.0026	0	0.0026
14.2	0.0146	0.0026	0.0025	0.0051
14.2333	0.0153	0.0289	0.0025	0.0314
14.2667	0.0139	0	0	0
14.3	0.0126	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
14.3333	0.0149	0.0158	0	0.0158
14.3667	0.0136	0.0026	0	0.0026
14.4	0.0139	0	0	0
14.4333	0.0163	0	0.0011	0.0011
14.4667	0.0156	0	0.0011	0.0011
14.5	0.0156	0	0	0
14.5333	0.0156	0	0.0025	0.0025
14.5667	0.0182	0	0	0
14.6	0.0156	0.0026	0.0011	0.0038
14.6333	0.0153	0.0026	0	0.0026
14.6667	0.0149	0	0	0
14.7	0.0163	0.0026	0	0.0026
14.7333	0.0146	0	0.0011	0.0011
14.7667	0.0156	0.0026	0.0011	0.0038
14.8	0.0139	0.0026	0.0011	0.0038
14.8333	0.0143	0.0026	0	0.0026
14.8667	0.0149	0	0	0
14.9	0.0153	0.0026	0.0011	0.0038
14.9333	0.0163	0	0	0
14.9667	0.013	0.0026	0	0.0026
15	0.0113	0.0026	0	0.0026
15.0333	0.0166	0.0026	0.0011	0.0038
15.0667	0.0143	0	0.0011	0.0011
15.1	0.012	0.0026	0.0011	0.0038
15.1333	0.0123	0	0	0
15.1667	0.0146	0.0026	0.0011	0.0038
15.2	0.0156	0.0158	0	0.0158
15.2333	0.0153	0	0	0
15.2667	0.0133	0.0026	0	0.0026
15.3	0.0156	0	0.0011	0.0011
15.3333	0.0136	0	0.0011	0.0011
15.3667	0.0126	0	0	0
15.4	0.0146	0.0026	0.0011	0.0038
15.4333	0.0153	0	0	0
15.4667	0.0143	0	0	0
15.5	0.0149	0.0026	0.0011	0.0038
15.5333	0.0153	0	0.0011	0.0011
15.5667	0.013	0.0158	0	0.0158
15.6	0.0153	0	0.0011	0.0011
15.6333	0.0103	0.0026	0	0.0026
15.6667	0.0139	0.0026	0	0.0026
15.7	0.0149	0	0	0
15.7333	0.0143	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
15.7667	0.013	0.0026	0.0011	0.0038
15.8	0.0153	0	0	0
15.8333	0.0136	0	0	0
15.8667	0.0123	0.0158	0.0025	0.0182
15.9	0.0159	0.0026	0	0.0026
15.9333	0.0146	0	0.0011	0.0011
15.9667	0.0136	0	0	0
16	0.0139	0.0026	0.0011	0.0038
16.0333	0.0146	0.0026	0	0.0026
16.0667	0.0136	0	0	0
16.1	0.0143	0.0026	0	0.0026
16.1333	0.012	0.0026	0	0.0026
16.1667	0.0166	0	0	0
16.2	0.0159	0.0026	0.0011	0.0038
16.2333	0.013	0.0158	0	0.0158
16.2667	0.0159	0	0.0011	0.0011
16.3	0.0146	0	0.0025	0.0025
16.3333	0.0163	0	0	0
16.3667	0.013	0	0	0
16.4	0.0153	0	0	0
16.4333	0.0146	0	0.0011	0.0011
16.4667	0.0153	0.0026	0	0.0026
16.5	0.0146	0	0	0
16.5333	0.012	0	0	0
16.5667	0.0146	0.0158	0	0.0158
16.6	0.0153	0	0.0011	0.0011
16.6333	0.0126	0.0026	0.0011	0.0038
16.6667	0.0123	0	0.0011	0.0011
16.7	0.0139	0.0026	0	0.0026
16.7333	0.0136	0	0	0
16.7667	0.0153	0.0026	0	0.0026
16.8	0.0133	0	0	0
16.8333	0.0126	0.0026	0	0.0026
16.8667	0.0139	0	0.0011	0.0011
16.9	0.0123	0.0026	0.0011	0.0038
16.9333	0.0163	0.0026	0	0.0026
16.9667	0.0133	0.0158	0	0.0158
17	0.0126	0	0.0011	0.0011
17.0333	0.0113	0.0026	0.0011	0.0038
17.0667	0.0156	0.0026	0	0.0026
17.1	0.0136	0	0.0011	0.0011
17.1333	0.0153	0.0026	0.0011	0.0038
17.1667	0.0172	0	0.0025	0.0025

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
17.2	0.0139	0.0026	0.0011	0.0038
17.2333	0.0149	0.0158	0.0025	0.0182
17.2667	0.0146	0	0	0
17.3	0.0116	0	0.0011	0.0011
17.3333	0.0149	0	0.0011	0.0011
17.3667	0.0143	0	0	0
17.4	0.0149	0.0026	0.0011	0.0038
17.4333	0.0136	0.0026	0.0011	0.0038
17.4667	0.0136	0	0.0011	0.0011
17.5	0.0133	0.0158	0	0.0158
17.5333	0.0146	0.0158	0	0.0158
17.5667	0.0169	0	0	0
17.6	0.0159	0.0158	0.0011	0.0169
17.6333	0.0146	0	0.0011	0.0011
17.6667	0.0146	0.0026	0.0011	0.0038
17.7	0.0159	0	0.0011	0.0011
17.7333	0.0116	0.0026	0	0.0026
17.7667	0.0166	0.0158	0	0.0158
17.8	0.0172	0.0026	0	0.0026
17.8333	0.0156	0	0	0
17.8667	0.0126	0.0026	0	0.0026
17.9	0.0133	0	0	0
17.9333	0.0146	0	0.0025	0.0025
17.9667	0.013	0	0.0011	0.0011
18	0.0156	0	0	0
18.0333	0.0136	0.0026	0	0.0026
18.0667	0.0159	0.0026	0.0011	0.0038
18.1	0.0123	0.0026	0.0025	0.0051
18.1333	0.0139	0	0.0011	0.0011
18.1667	0.0153	0.0026	0.0025	0.0051
18.2	0.0139	0.0026	0	0.0026
18.2333	0.0143	0	0	0
18.2667	0.0176	0	0	0
18.3	0.0149	0	0.0011	0.0011
18.3333	0.0123	0.0026	0	0.0026
18.3667	0.013	0.0026	0	0.0026
18.4	0.0159	0	0	0
18.4333	0.0156	0.0026	0	0.0026
18.4667	0.013	0	0.0011	0.0011
18.5	0.013	0	0.0011	0.0011
18.5333	0.0153	0	0.0011	0.0011
18.5667	0.0166	0.0026	0	0.0026
18.6	0.0156	0.0026	0.0011	0.0038

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
18.6333	0.0146	0.0026	0	0.0026
18.6667	0.013	0	0	0
18.7	0.0123	0.0026	0.0011	0.0038
18.7333	0.0133	0	0.0011	0.0011
18.7667	0.0143	0.0026	0.0011	0.0038
18.8	0.0136	0	0	0
18.8333	0.0166	0.0026	0	0.0026
18.8667	0.011	0	0.0011	0.0011
18.9	0.0143	0.0026	0.0011	0.0038
18.9333	0.0159	0	0	0
18.9667	0.0172	0.0026	0.0011	0.0038
19	0.0166	0.0026	0.0011	0.0038
19.0333	0.012	0	0	0
19.0667	0.0136	0.0158	0.0011	0.0169
19.1	0.0169	0.0026	0	0.0026
19.1333	0.013	0.0026	0	0.0026
19.1667	0.0123	0.0026	0.0011	0.0038
19.2	0.0136	0.0158	0.0011	0.0169
19.2333	0.0133	0.0026	0.0011	0.0038
19.2667	0.0139	0	0.0011	0.0011
19.3	0.0146	0	0	0
19.3333	0.0139	0	0	0
19.3667	0.0126	0.0158	0	0.0158
19.4	0.0153	0	0.0011	0.0011
19.4333	0.0136	0.0026	0.0011	0.0038
19.4667	0.0169	0.0026	0.0011	0.0038
19.5	0.0149	0.0026	0	0.0026
19.5333	0.0149	0	0.0011	0.0011
19.5667	0.0153	0	0	0
19.6	0.0146	0.0158	0	0.0158
19.6333	0.0133	0	0.0011	0.0011
19.6667	0.0156	0	0.0025	0.0025
19.7	0.0156	0.0026	0.0025	0.0051
19.7333	0.0156	0.0026	0	0.0026
19.7667	0.0163	0	0.0011	0.0011
19.8	0.0156	0.0026	0	0.0026
19.8333	0.0146	0.0026	0.0011	0.0038
19.8667	0.0153	0	0	0
19.9	0.0176	0	0.0011	0.0011
19.9333	0.0156	0.0026	0.0011	0.0038
19.9667	0.0159	0.0026	0.0011	0.0038
20	0.0156	0	0.0011	0.0011
20.0333	0.0143	0.0026	0.0011	0.0038

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
20.0667	0.0149	0	0.0025	0.0025
20.1	0.0163	0	0.0011	0.0011
20.1333	0.013	0	0.0011	0.0011
20.1667	0.0163	0	0	0
20.2	0.0166	0	0.0011	0.0011
20.2333	0.0143	0	0	0
20.2667	0.0126	0	0.0011	0.0011
20.3	0.0156	0.0289	0.0011	0.0301
20.3333	0.0159	0.0026	0.0011	0.0038
20.3667	0.0172	0.0026	0.0011	0.0038
20.4	0.0136	0.0158	0.0011	0.0169
20.4333	0.0156	0.0026	0.0011	0.0038
20.4667	0.0139	0.0158	0	0.0158
20.5	0.0146	0	0	0
20.5333	0.0153	0.0026	0.0011	0.0038
20.5667	0.0139	0	0	0
20.6	0.0133	0	0.0011	0.0011
20.6333	0.0149	0	0	0
20.6667	0.0156	0	0.0011	0.0011
20.7	0.0176	0	0	0
20.7333	0.0182	0	0	0
20.7667	0.0176	0	0.0011	0.0011
20.8	0.0146	0.0026	0	0.0026
20.8333	0.0133	0	0.0011	0.0011
20.8667	0.0136	0	0	0
20.9	0.0159	0.0026	0	0.0026
20.9333	0.0166	0	0.0025	0.0025
20.9667	0.0133	0.0026	0.0038	0.0064
21	0.0166	0.0158	0	0.0158
21.0333	0.0159	0	0	0
21.0667	0.0139	0	0.0011	0.0011
21.1	0.0166	0.0026	0.0011	0.0038
21.1333	0.0159	0	0.0011	0.0011
21.1667	0.0136	0.0026	0	0.0026
21.2	0.0163	0	0	0
21.2333	0.0143	0.0026	0	0.0026
21.2667	0.0182	0.0026	0	0.0026
21.3	0.0159	0	0	0
21.3333	0.0136	0.0026	0	0.0026
21.3667	0.0153	0.0158	0.0025	0.0182
21.4	0.0159	0	0.0011	0.0011
21.4333	0.0172	0.0026	0.0011	0.0038
21.4667	0.0139	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
21.5	0.0159	0	0.0011	0.0011
21.5333	0.0176	0	0	0
21.5667	0.0163	0.0026	0.0011	0.0038
21.6	0.0139	0.0158	0.0011	0.0169
21.6333	0.0116	0	0	0
21.6667	0.0156	0	0.0011	0.0011
21.7	0.0146	0.0026	0	0.0026
21.7333	0.0123	0	0	0
21.7667	0.0143	0.0026	0	0.0026
21.8	0.0153	0.0026	0	0.0026
21.8333	0.0179	0	0.0011	0.0011
21.8667	0.0136	0	0	0
21.9	0.0176	0.0026	0	0.0026
21.9333	0.0139	0	0.0025	0.0025
21.9667	0.0169	0.0026	0.0011	0.0038
22	0.0159	0.0026	0.0011	0.0038
22.0333	0.0143	0	0.0025	0.0025
22.0667	0.0156	0.0026	0	0.0026
22.1	0.0163	0	0	0
22.1333	0.0176	0	0.0011	0.0011
22.1667	0.0166	0.0026	0.0025	0.0051
22.2	0.0146	0	0.0011	0.0011
22.2333	0.0146	0	0	0
22.2667	0.0153	0	0.0011	0.0011
22.3	0.0139	0	0.0025	0.0025
22.3333	0.0133	0	0.0011	0.0011
22.3667	0.0163	0.0026	0.0011	0.0038
22.4	0.0153	0	0.0011	0.0011
22.4333	0.0153	0	0	0
22.4667	0.0143	0.0158	0.0025	0.0182
22.5	0.0146	0.0158	0	0.0158
22.5333	0.0133	0	0	0
22.5667	0.0123	0.0026	0	0.0026
22.6	0.0166	0	0	0
22.6333	0.0166	0	0	0
22.6667	0.0136	0	0.0011	0.0011
22.7	0.0153	0.0026	0	0.0026
22.7333	0.0156	0	0.0011	0.0011
22.7667	0.0143	0.0026	0.0011	0.0038
22.8	0.0146	0	0	0
22.8333	0.0149	0	0	0
22.8667	0.0159	0.0026	0.0011	0.0038
22.9	0.0156	0	0.0011	0.0011

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
22.9333	0.0169	0.0026	0.0011	0.0038
22.9667	0.0166	0.0026	0.0025	0.0051
23	0.0139	0	0	0
23.0333	0.0153	0.0026	0.0025	0.0051
23.0667	0.0146	0	0.0011	0.0011
23.1	0.0153	0.0026	0.0011	0.0038
23.1333	0.0149	0.0158	0	0.0158
23.1667	0.0139	0.0026	0	0.0026
23.2	0.012	0.0158	0	0.0158
23.2333	0.0176	0.0026	0	0.0026
23.2667	0.0176	0.0158	0	0.0158
23.3	0.0146	0.0026	0.0011	0.0038
23.3333	0.0143	0.0026	0	0.0026
23.3667	0.0172	0.0026	0	0.0026
23.4	0.0163	0.0026	0.0011	0.0038
23.4333	0.0139	0	0.0011	0.0011
23.4667	0.0146	0	0	0
23.5	0.0166	0.0026	0.0011	0.0038
23.5333	0.0179	0	0.0011	0.0011
23.5667	0.0172	0.0158	0.0011	0.0169
23.6	0.0169	0.0026	0.0011	0.0038
23.6333	0.0176	0.0026	0.0025	0.0051
23.6667	0.0163	0.0026	0.0011	0.0038
23.7	0.0166	0	0.0011	0.0011
23.7333	0.0166	0	0	0
23.7667	0.0176	0.0158	0	0.0158
23.8	0.0159	0.0026	0	0.0026
23.8333	0.0163	0.0026	0	0.0026
23.8667	0.0156	0.0026	0	0.0026
23.9	0.0176	0	0	0
23.9333	0.0133	0.0026	0.0011	0.0038
23.9667	0.0166	0.0026	0	0.0026
24	0.0179	0.0026	0	0.0026
24.0333	0.0176	0.0026	0	0.0026
24.0667	0.0166	0.0026	0.0011	0.0038
24.1	0.0176	0	0.0025	0.0025
24.1333	0.0159	0.0158	0	0.0158
24.1667	0.0139	0	0.0011	0.0011
24.2	0.0146	0	0.0011	0.0011
24.2333	0.0182	0	0	0
24.2667	0.0153	0.0026	0	0.0026
24.3	0.0156	0.0026	0	0.0026
24.3333	0.0159	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
24.3667	0.0153	0.0026	0.0025	0.0051
24.4	0.0136	0	0	0
24.4333	0.0149	0.0026	0	0.0026
24.4667	0.0153	0.0158	0.0011	0.0169
24.5	0.0186	0.0026	0.0025	0.0051
24.5333	0.0153	0	0	0
24.5667	0.0176	0.0026	0	0.0026
24.6	0.0163	0	0.0011	0.0011
24.6333	0.0176	0	0	0
24.6667	0.0156	0	0.0025	0.0025
24.7	0.0169	0.0026	0.0011	0.0038
24.7333	0.0126	0.0158	0	0.0158
24.7667	0.0139	0.0026	0.0011	0.0038
24.8	0.0166	0	0.0011	0.0011
24.8333	0.0186	0.0026	0.0011	0.0038
24.8667	0.0172	0	0.0011	0.0011
24.9	0.0156	0	0.0025	0.0025
24.9333	0.0146	0.0026	0	0.0026
24.9667	0.0149	0	0	0
25	0.0179	0	0.0011	0.0011
25.0333	0.0153	0	0	0
25.0667	0.0163	0.0026	0	0.0026
25.1	0.0169	0.0026	0.0011	0.0038
25.1333	0.0182	0.0026	0.0011	0.0038
25.1667	0.0166	0	0.0011	0.0011
25.2	0.013	0	0	0
25.2333	0.0146	0.0158	0.0011	0.0169
25.2667	0.0159	0	0	0
25.3	0.0169	0.0026	0.0011	0.0038
25.3333	0.0176	0.0158	0	0.0158
25.3667	0.0143	0.0026	0.0025	0.0051
25.4	0.0153	0	0.0011	0.0011
25.4333	0.0136	0	0	0
25.4667	0.0123	0.0026	0.0011	0.0038
25.5	0.0163	0.0026	0	0.0026
25.5333	0.0149	0.0026	0	0.0026
25.5667	0.0169	0	0	0
25.6	0.0163	0	0.0011	0.0011
25.6333	0.0139	0.0026	0.0011	0.0038
25.6667	0.0159	0.0026	0.0011	0.0038
25.7	0.0153	0	0.0011	0.0011
25.7333	0.013	0	0.0011	0.0011
25.7667	0.0133	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
25.8	0.0166	0.0026	0.0011	0.0038
25.8333	0.0182	0	0	0
25.8667	0.0139	0	0.0025	0.0025
25.9	0.0159	0.0026	0	0.0026
25.9333	0.0159	0.0026	0.0011	0.0038
25.9667	0.0126	0	0	0
26	0.0176	0	0	0
26.0333	0.0159	0.0026	0	0.0026
26.0667	0.0179	0.0026	0.0011	0.0038
26.1	0.0146	0.0026	0	0.0026
26.1333	0.0179	0.0026	0.0011	0.0038
26.1667	0.0163	0.0026	0	0.0026
26.2	0.0139	0.0026	0	0.0026
26.2333	0.0163	0	0.0011	0.0011
26.2667	0.0139	0	0	0
26.3	0.0146	0	0.0011	0.0011
26.3333	0.0143	0.0026	0	0.0026
26.3667	0.0166	0.0026	0.0025	0.0051
26.4	0.0133	0	0.0011	0.0011
26.4333	0.0176	0.0026	0	0.0026
26.4667	0.0136	0	0.0011	0.0011
26.5	0.0176	0.0026	0.0025	0.0051
26.5333	0.0166	0	0	0
26.5667	0.0176	0.0026	0	0.0026
26.6	0.0136	0	0	0
26.6333	0.0159	0	0.0011	0.0011
26.6667	0.0139	0	0	0
26.7	0.0176	0.0026	0	0.0026
26.7333	0.0146	0.0026	0.0011	0.0038
26.7667	0.0149	0	0	0
26.8	0.0153	0	0.0011	0.0011
26.8333	0.0139	0.0026	0.0011	0.0038
26.8667	0.0116	0	0	0
26.9	0.0146	0.0026	0	0.0026
26.9333	0.0153	0.0026	0.0011	0.0038
26.9667	0.0149	0	0.0011	0.0011
27	0.0133	0	0.0011	0.0011
27.0333	0.0139	0.0026	0	0.0026
27.0667	0.0163	0.0026	0	0.0026
27.1	0.0133	0.0026	0.0025	0.0051
27.1333	0.0153	0	0.0011	0.0011
27.1667	0.0153	0	0	0
27.2	0.011	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
27.2333	0.0163	0	0.0011	0.0011
27.2667	0.0139	0	0	0
27.3	0.0143	0	0	0
27.3333	0.0133	0.0026	0.0011	0.0038
27.3667	0.0159	0.0026	0	0.0026
27.4	0.0133	0.0026	0	0.0026
27.4333	0.0149	0	0.0011	0.0011
27.4667	0.0156	0	0	0
27.5	0.0139	0.0026	0	0.0026
27.5333	0.0126	0.0026	0.0011	0.0038
27.5667	0.0153	0	0.0011	0.0011
27.6	0.0123	0	0	0
27.6333	0.0143	0	0	0
27.6667	0.0143	0.0026	0.0011	0.0038
27.7	0.012	0.0026	0.0011	0.0038
27.7333	0.0139	0	0.0011	0.0011
27.7667	0.0149	0.0026	0.0011	0.0038
27.8	0.0139	0	0.0011	0.0011
27.8333	0.0156	0.0026	0	0.0026
27.8667	0.011	0	0.0038	0.0038
27.9	0.0139	0.0026	0	0.0026
27.9333	0.0136	0	0.0011	0.0011
27.9667	0.0143	0.0026	0.0011	0.0038
28	0.0133	0.0026	0	0.0026
28.0333	0.0113	0	0.0011	0.0011
28.0667	0.013	0.0026	0.0011	0.0038
28.1	0.011	0.0026	0	0.0026
28.1333	0.0156	0	0.0011	0.0011
28.1667	0.0133	0	0.0011	0.0011
28.2	0.0159	0	0	0
28.2333	0.0163	0.0026	0.0011	0.0038
28.2667	0.0136	0	0	0
28.3	0.0159	0.0026	0	0.0026
28.3333	0.0172	0	0.0025	0.0025
28.3667	0.0116	0.0026	0.0011	0.0038
28.4	0.0136	0	0.0011	0.0011
28.4333	0.0087	0.0026	0	0.0026
28.4667	0.0153	0	0	0
28.5	0.012	0	0	0
28.5333	0.0143	0	0	0
28.5667	0.0123	0.0158	0.0011	0.0169
28.6	0.0133	0.0026	0.0011	0.0038
28.6333	0.0149	0.0026	0.0011	0.0038

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
28.6667	0.0139	0	0.0011	0.0011
28.7	0.0126	0.0158	0	0.0158
28.7333	0.0143	0.0026	0	0.0026
28.7667	0.0149	0	0	0
28.8	0.0153	0.0026	0	0.0026
28.8333	0.0116	0.0158	0	0.0158
28.8667	0.0143	0.0026	0.0011	0.0038
28.9	0.0156	0	0	0
28.9333	0.0139	0	0.0011	0.0011
28.9667	0.012	0.0026	0.0025	0.0051
29	0.011	0	0.0011	0.0011
29.0333	0.011	0	0	0
29.0667	0.0136	0	0.0011	0.0011
29.1	0.0136	0.0026	0.0011	0.0038
29.1333	0.0116	0	0.0011	0.0011
29.1667	0.0139	0	0.0011	0.0011
29.2	0.0107	0.0158	0.0011	0.0169
29.2333	0.0103	0	0.0011	0.0011
29.2667	0.0103	0	0	0
29.3	0.011	0.0026	0.0011	0.0038
29.3333	0.0153	0	0.0011	0.0011
29.3667	0.0103	0.0026	0	0.0026
29.4	0.0136	0	0	0
29.4333	0.0136	0.0026	0.0011	0.0038
29.4667	0.013	0	0	0
29.5	0.0143	0.0026	0	0.0026
29.5333	0.0123	0.0026	0.0011	0.0038
29.5667	0.0149	0	0.0011	0.0011
29.6	0.0146	0	0	0
29.6333	0.0166	0.0026	0	0.0026
29.6667	0.0156	0.0026	0	0.0026
29.7	0.012	0.0026	0.0011	0.0038
29.7333	0.0153	0.0026	0.0011	0.0038
29.7667	0.0172	0	0.0011	0.0011
29.8	0.0146	0	0	0
29.8333	0.0163	0.0026	0	0.0026
29.8667	0.0153	0	0.0011	0.0011
29.9	0.0153	0.0026	0.0011	0.0038
29.9333	0.0153	0.0026	0.0011	0.0038
29.9667	0.0153	0	0.0011	0.0011
30	0.0133	0.0158	0	0.0158
30.0333	0.0172	0	0	0
30.0667	0.0139	0	0.0011	0.0011

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
30.1	0.0136	0	0.0011	0.0011
30.1333	0.0146	0.0026	0	0.0026
30.1667	0.0146	0	0.0011	0.0011
30.2	0.0163	0.0026	0	0.0026
30.2333	0.0146	0	0	0
30.2667	0.013	0	0	0
30.3	0.0143	0.0158	0.0011	0.0169
30.3333	0.0126	0	0.0025	0.0025
30.3667	0.0156	0	0	0
30.4	0.0139	0	0.0011	0.0011
30.4333	0.0136	0	0	0
30.4667	0.0156	0	0.0011	0.0011
30.5	0.0136	0	0.0011	0.0011
30.5333	0.0143	0	0	0
30.5667	0.0153	0.0026	0.0011	0.0038
30.6	0.0146	0.0026	0	0.0026
30.6333	0.0149	0	0.0011	0.0011
30.6667	0.0136	0.0026	0.0011	0.0038
30.7	0.0172	0	0	0
30.7333	0.0153	0	0.0011	0.0011
30.7667	0.0149	0.0026	0.0011	0.0038
30.8	0.013	0.0026	0	0.0026
30.8333	0.0146	0	0	0
30.8667	0.0159	0	0.0011	0.0011
30.9	0.0133	0.0026	0	0.0026
30.9333	0.0163	0	0	0
30.9667	0.012	0	0	0
31	0.0139	0	0	0
31.0333	0.0153	0	0.0025	0.0025
31.0667	0.0156	0.0026	0.0011	0.0038
31.1	0.0166	0.0026	0	0.0026
31.1333	0.013	0.0026	0	0.0026
31.1667	0.0169	0	0.0011	0.0011
31.2	0.013	0	0.0011	0.0011
31.2333	0.0143	0	0	0
31.2667	0.0153	0	0.0011	0.0011
31.3	0.0156	0.0158	0	0.0158
31.3333	0.0163	0	0.0025	0.0025
31.3667	0.0139	0	0.0011	0.0011
31.4	0.0166	0	0	0
31.4333	0.0169	0.0158	0.0011	0.0169
31.4667	0.0159	0	0	0
31.5	0.0156	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
31.5333	0.0182	0.0026	0	0.0026
31.5667	0.0156	0	0.0025	0.0025
31.6	0.0143	0.0026	0	0.0026
31.6333	0.0123	0.0026	0.0011	0.0038
31.6667	0.0139	0	0	0
31.7	0.012	0	0.0011	0.0011
31.7333	0.0133	0.0026	0.0025	0.0051
31.7667	0.0143	0.0026	0	0.0026
31.8	0.0143	0.0026	0	0.0026
31.8333	0.0166	0	0.0011	0.0011
31.8667	0.0153	0	0	0
31.9	0.0176	0	0	0
31.9333	0.0143	0.0158	0.0011	0.0169
31.9667	0.0156	0.0026	0.0011	0.0038
32	0.0143	0	0	0
32.0333	0.0159	0.0026	0	0.0026
32.0667	0.0139	0	0.0011	0.0011
32.1	0.0143	0	0	0
32.1333	0.0159	0	0.0011	0.0011
32.1667	0.0139	0.0026	0	0.0026
32.2	0.0126	0.0158	0	0.0158
32.2333	0.0153	0.0026	0	0.0026
32.2667	0.0143	0	0	0
32.3	0.0146	0.0026	0.0011	0.0038
32.3333	0.0146	0	0	0
32.3667	0.0192	0.0026	0	0.0026
32.4	0.0133	0.0158	0	0.0158
32.4333	0.0169	0.0026	0.0011	0.0038
32.4667	0.0153	0	0	0
32.5	0.0172	0.0026	0	0.0026
32.5333	0.0166	0	0.0011	0.0011
32.5667	0.0166	0.0026	0.0025	0.0051
32.6	0.0179	0	0	0
32.6333	0.0153	0.0026	0.0011	0.0038
32.6667	0.0149	0.0026	0.0011	0.0038
32.7	0.0169	0.0158	0	0.0158
32.7333	0.013	0	0.0011	0.0011
32.7667	0.0182	0.0158	0.0025	0.0182
32.8	0.0143	0	0.0011	0.0011
32.8333	0.0136	0.0026	0	0.0026
32.8667	0.0143	0	0.0011	0.0011
32.9	0.0146	0	0	0
32.9333	0.0159	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
32.9667	0.0163	0.0026	0	0.0026
33	0.0182	0.0026	0.0011	0.0038
33.0333	0.0163	0	0.0011	0.0011
33.0667	0.0153	0	0.0025	0.0025
33.1	0.0166	0	0.0011	0.0011
33.1333	0.0146	0.0026	0.0011	0.0038
33.1667	0.0146	0	0	0
33.2	0.0163	0.0158	0.0011	0.0169
33.2333	0.0163	0	0.0011	0.0011
33.2667	0.0159	0.0158	0	0.0158
33.3	0.0159	0	0.0011	0.0011
33.3333	0.0159	0.0026	0.0011	0.0038
33.3667	0.0176	0.0026	0.0011	0.0038
33.4	0.0149	0.0026	0	0.0026
33.4333	0.0136	0.0026	0.0011	0.0038
33.4667	0.0146	0	0	0
33.5	0.0172	0.0158	0	0.0158
33.5333	0.0176	0	0.0025	0.0025
33.5667	0.0159	0.0026	0	0.0026
33.6	0.0146	0.0026	0.0011	0.0038
33.6333	0.0182	0.0158	0	0.0158
33.6667	0.0166	0	0	0
33.7	0.0159	0	0.0011	0.0011
33.7333	0.0146	0.0026	0.0025	0.0051
33.7667	0.0143	0	0	0
33.8	0.0146	0.0026	0	0.0026
33.8333	0.0153	0.0026	0	0.0026
33.8667	0.0189	0	0	0
33.9	0.0149	0.0026	0.0011	0.0038
33.9333	0.0153	0.0026	0	0.0026
33.9667	0.0169	0.0026	0	0.0026
34	0.0149	0	0	0
34.0333	0.0133	0	0.0011	0.0011
34.0667	0.0169	0	0.0011	0.0011
34.1	0.0182	0.0026	0.0011	0.0038
34.1333	0.0169	0.0026	0	0.0026
34.1667	0.0136	0.0026	0.0011	0.0038
34.2	0.0179	0.0026	0.0011	0.0038
34.2333	0.0146	0.0026	0.0011	0.0038
34.2667	0.0189	0	0	0
34.3	0.0163	0	0	0
34.3333	0.0153	0.0026	0	0.0026
34.3667	0.0143	0	0.0011	0.0011

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
34.4	0.0143	0.0158	0	0.0158
34.4333	0.0139	0.0026	0.0011	0.0038
34.4667	0.0153	0.0026	0.0011	0.0038
34.5	0.0153	0	0.0011	0.0011
34.5333	0.0153	0	0	0
34.5667	0.0163	0.0026	0.0025	0.0051
34.6	0.0166	0	0.0011	0.0011
34.6333	0.0153	0.0026	0	0.0026
34.6667	0.0156	0	0	0
34.7	0.0146	0	0.0011	0.0011
34.7333	0.0143	0	0	0
34.7667	0.0159	0.0026	0	0.0026
34.8	0.0172	0.0026	0.0025	0.0051
34.8333	0.0146	0.0026	0	0.0026
34.8667	0.0143	0.0026	0	0.0026
34.9	0.0169	0	0	0
34.9333	0.0139	0	0	0
34.9667	0.0136	0	0.0011	0.0011
35	0.0163	0.0026	0	0.0026
35.0333	0.0172	0.0158	0	0.0158
35.0667	0.013	0	0.0025	0.0025
35.1	0.0169	0.0026	0.0011	0.0038
35.1333	0.0179	0	0.0011	0.0011
35.1667	0.013	0	0.0011	0.0011
35.2	0.0186	0.0026	0.0011	0.0038
35.2333	0.0169	0	0.0011	0.0011
35.2667	0.0153	0	0.0011	0.0011
35.3	0.0169	0.0026	0	0.0026
35.3333	0.0139	0.0026	0.0011	0.0038
35.3667	0.0149	0	0	0
35.4	0.0172	0	0.0011	0.0011
35.4333	0.0133	0	0.0025	0.0025
35.4667	0.0166	0	0	0
35.5	0.0153	0.0026	0	0.0026
35.5333	0.0166	0.0026	0.0011	0.0038
35.5667	0.0136	0	0	0
35.6	0.0153	0	0.0011	0.0011
35.6333	0.0163	0	0.0011	0.0011
35.6667	0.0153	0	0.0011	0.0011
35.7	0.0176	0.0026	0	0.0026
35.7333	0.0153	0.0026	0	0.0026
35.7667	0.0149	0	0.0011	0.0011
35.8	0.0166	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
35.8333	0.0166	0.0026	0.0011	0.0038
35.8667	0.0176	0.0026	0	0.0026
35.9	0.0146	0.0026	0	0.0026
35.9333	0.0172	0	0.0011	0.0011
35.9667	0.0139	0.0026	0	0.0026
36	0.0172	0.0026	0	0.0026
36.0333	0.0166	0.0026	0	0.0026
36.0667	0.0179	0.0026	0	0.0026
36.1	0.0156	0	0	0
36.1333	0.0172	0.0026	0.0011	0.0038
36.1667	0.013	0	0.0011	0.0011
36.2	0.0163	0.0026	0	0.0026
36.2333	0.0163	0.0026	0	0.0026
36.2667	0.0146	0	0	0
36.3	0.013	0.0026	0.0025	0.0051
36.3333	0.0143	0	0	0
36.3667	0.0143	0	0	0
36.4	0.0156	0	0	0
36.4333	0.0153	0	0	0
36.4667	0.0146	0.0026	0	0.0026
36.5	0.0136	0	0	0
36.5333	0.0166	0.0158	0	0.0158
36.5667	0.0136	0.0026	0.0025	0.0051
36.6	0.0139	0.0026	0.0011	0.0038
36.6333	0.0149	0.0158	0	0.0158
36.6667	0.0143	0.0026	0	0.0026
36.7	0.0143	0	0.0011	0.0011
36.7333	0.0136	0	0.0011	0.0011
36.7667	0.0139	0	0	0
36.8	0.0169	0	0	0
36.8333	0.0159	0.0026	0	0.0026
36.8667	0.0139	0	0.0025	0.0025
36.9	0.0116	0	0.0011	0.0011
36.9333	0.0163	0.0026	0.0011	0.0038
36.9667	0.0176	0.0026	0	0.0026
37	0.0166	0.0289	0	0.0289
37.0333	0.0176	0.0026	0	0.0026
37.0667	0.0156	0.0026	0	0.0026
37.1	0.0166	0	0	0
37.1333	0.013	0	0	0
37.1667	0.0179	0	0	0
37.2	0.0143	0	0.0025	0.0025
37.2333	0.0107	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
37.2667	0.0153	0.0026	0.0011	0.0038
37.3	0.0156	0	0.0011	0.0011
37.3333	0.0166	0.0026	0	0.0026
37.3667	0.0172	0	0.0025	0.0025
37.4	0.0156	0	0.0011	0.0011
37.4333	0.0143	0.0026	0.0011	0.0038
37.4667	0.0146	0.0026	0.0011	0.0038
37.5	0.0156	0	0	0
37.5333	0.0139	0	0	0
37.5667	0.0133	0.0026	0	0.0026
37.6	0.0143	0	0.0011	0.0011
37.6333	0.0139	0.0026	0	0.0026
37.6667	0.012	0.0026	0	0.0026
37.7	0.0163	0.0026	0	0.0026
37.7333	0.0169	0.0026	0.0011	0.0038
37.7667	0.0126	0.0026	0	0.0026
37.8	0.0133	0.0026	0	0.0026
37.8333	0.0133	0.0158	0.0011	0.0169
37.8667	0.0133	0.0026	0	0.0026
37.9	0.0163	0.0158	0	0.0158
37.9333	0.0133	0.0026	0.0011	0.0038
37.9667	0.0133	0	0	0
38	0.0159	0.0026	0.0011	0.0038
38.0333	0.0139	0	0.0011	0.0011
38.0667	0.0159	0.0158	0	0.0158
38.1	0.0153	0.0026	0	0.0026
38.1333	0.0179	0.0026	0.0011	0.0038
38.1667	0.0209	0	0	0
38.2	0.0248	0.0158	0	0.0158
38.2333	0.0314	0	0	0
38.2667	0.0363	0	0.0011	0.0011
38.3	0.0399	0	0.0011	0.0011
38.3333	0.0439	0.0026	0.0011	0.0038
38.3667	0.0528	0.0026	0	0.0026
38.4	0.0561	0	0.0011	0.0011
38.4333	0.0623	0	0.0011	0.0011
38.4667	0.0653	0.0026	0	0.0026
38.5	0.0689	0.0026	0	0.0026
38.5333	0.0775	0	0.0011	0.0011
38.5667	0.0834	0	0	0
38.6	0.0864	0	0.0011	0.0011
38.6333	0.0893	0	0	0
38.6667	0.0956	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
38.7	0.0989	0	0	0
38.7333	0.1002	0	0.0011	0.0011
38.7667	0.1078	0.0026	0.0011	0.0038
38.8	0.1084	0.0026	0.0011	0.0038
38.8333	0.1114	0.0026	0	0.0026
38.8667	0.1124	0	0	0
38.9	0.115	0.0026	0.0011	0.0038
38.9333	0.113	0.0026	0.0011	0.0038
38.9667	0.1189	0.0026	0	0.0026
39	0.1176	0	0.0011	0.0011
39.0333	0.1206	0	0.0011	0.0011
39.0667	0.1209	0.0026	0.0011	0.0038
39.1	0.1209	0	0.0011	0.0011
39.1333	0.1203	0	0.0011	0.0011
39.1667	0.1255	0.0026	0.0011	0.0038
39.2	0.1262	0.0026	0	0.0026
39.2333	0.1259	0	0	0
39.2667	0.1265	0	0	0
39.3	0.1298	0	0	0
39.3333	0.1265	0.0026	0.0011	0.0038
39.3667	0.1285	0.0026	0	0.0026
39.4	0.1324	0	0	0
39.4333	0.1324	0.0026	0.0011	0.0038
39.4667	0.1318	0	0.0011	0.0011
39.5	0.138	0	0.0011	0.0011
39.5333	0.137	0	0.0011	0.0011
39.5667	0.138	0	0.0011	0.0011
39.6	0.142	0	0	0
39.6333	0.1423	0	0	0
39.6667	0.1407	0.0026	0	0.0026
39.7	0.1433	0	0	0
39.7333	0.1443	0.0026	0.0011	0.0038
39.7667	0.1466	0	0	0
39.8	0.1472	0.0158	0.0011	0.0169
39.8333	0.1479	0.0026	0.0011	0.0038
39.8667	0.1496	0.0026	0	0.0026
39.9	0.1548	0.0026	0	0.0026
39.9333	0.1505	0	0	0
39.9667	0.1548	0	0	0
40	0.1548	0.0026	0	0.0026
40.0333	0.1588	0	0.0011	0.0011
40.0667	0.1561	0	0	0
40.1	0.1575	0	0.0011	0.0011

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
40.1333	0.1621	0.0026	0.0011	0.0038
40.1667	0.1607	0.0158	0	0.0158
40.2	0.1627	0.0026	0	0.0026
40.2333	0.1667	0.0026	0	0.0026
40.2667	0.165	0.0026	0	0.0026
40.3	0.1686	0.0026	0.0011	0.0038
40.3333	0.1693	0.0026	0.0011	0.0038
40.3667	0.17	0.0026	0.0025	0.0051
40.4	0.1726	0	0	0
40.4333	0.1746	0	0.0011	0.0011
40.4667	0.1719	0	0	0
40.5	0.1756	0	0	0
40.5333	0.1772	0.0026	0	0.0026
40.5667	0.1782	0	0.0011	0.0011
40.6	0.1775	0	0	0
40.6333	0.1795	0.0026	0	0.0026
40.6667	0.1811	0	0	0
40.7	0.1828	0.0026	0.0025	0.0051
40.7333	0.1825	0	0	0
40.7667	0.1835	0	0.0011	0.0011
40.8	0.1867	0	0.0011	0.0011
40.8333	0.1838	0	0	0
40.8667	0.1884	0	0.0011	0.0011
40.9	0.1877	0.0026	0.0011	0.0038
40.9333	0.1894	0	0	0
40.9667	0.1874	0	0	0
41	0.1897	0	0.0011	0.0011
41.0333	0.1894	0.0026	0.0011	0.0038
41.0667	0.194	0.0158	0	0.0158
41.1	0.1933	0.0026	0	0.0026
41.1333	0.1933	0.0158	0.0011	0.0169
41.1667	0.1946	0.0158	0	0.0158
41.2	0.1956	0.0026	0.0011	0.0038
41.2333	0.1966	0.0026	0.0011	0.0038
41.2667	0.196	0.0026	0.0011	0.0038
41.3	0.1963	0	0	0
41.3333	0.1956	0	0.0011	0.0011
41.3667	0.1989	0.0026	0.0011	0.0038
41.4	0.1969	0	0.0011	0.0011
41.4333	0.1986	0	0.0011	0.0011
41.4667	0.1956	0	0.0011	0.0011
41.5	0.1986	0	0	0
41.5333	0.1986	0	0.0011	0.0011

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
41.5667	0.1973	0	0.0025	0.0025
41.6	0.1976	0.0026	0.0011	0.0038
41.6333	0.1979	0.0026	0.0025	0.0051
41.6667	0.1986	0.0026	0.0011	0.0038
41.7	0.1993	0	0.0011	0.0011
41.7333	0.1986	0.0026	0.0011	0.0038
41.7667	0.1969	0	0.0011	0.0011
41.8	0.195	0.0026	0.0025	0.0051
41.8333	0.1946	0.0026	0.0025	0.0051
41.8667	0.1937	0	0.0011	0.0011
41.9	0.1943	0	0	0
41.9333	0.191	0	0.0011	0.0011
41.9667	0.1914	0	0	0
42	0.19	0	0	0
42.0333	0.1923	0.0026	0	0.0026
42.0667	0.1907	0	0.0011	0.0011
42.1	0.1907	0	0	0
42.1333	0.1864	0.0026	0	0.0026
42.1667	0.1894	0	0.0011	0.0011
42.2	0.1877	0	0.0025	0.0025
42.2333	0.1841	0.0026	0	0.0026
42.2667	0.1864	0	0.0025	0.0025
42.3	0.1854	0	0	0
42.3333	0.1838	0.0026	0.0011	0.0038
42.3667	0.1825	0	0.0011	0.0011
42.4	0.1818	0.0026	0.0011	0.0038
42.4333	0.1828	0	0.0011	0.0011
42.4667	0.1828	0	0.0011	0.0011
42.5	0.1792	0	0.0011	0.0011
42.5333	0.1785	0.0026	0	0.0026
42.5667	0.1775	0	0.0011	0.0011
42.6	0.1811	0.0026	0	0.0026
42.6333	0.1802	0	0	0
42.6667	0.1765	0	0.0025	0.0025
42.7	0.1769	0.0026	0	0.0026
42.7333	0.1775	0.0026	0.0011	0.0038
42.7667	0.1779	0	0	0
42.8	0.1742	0.0026	0	0.0026
42.8333	0.1736	0	0	0
42.8667	0.1719	0	0.0011	0.0011
42.9	0.1729	0	0	0
42.9333	0.1756	0.0026	0	0.0026
42.9667	0.1723	0.0026	0.0025	0.0051

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
43	0.1713	0.0026	0.0011	0.0038
43.0333	0.1713	0	0.0011	0.0011
43.0667	0.1706	0.0026	0	0.0026
43.1	0.1732	0	0	0
43.1333	0.1726	0	0	0
43.1667	0.168	0.0026	0.0011	0.0038
43.2	0.17	0	0	0
43.2333	0.1723	0	0.0011	0.0011
43.2667	0.17	0	0.0025	0.0025
43.3	0.1719	0.0026	0	0.0026
43.3333	0.1693	0	0.0011	0.0011
43.3667	0.1716	0	0	0
43.4	0.1663	0	0	0
43.4333	0.1673	0.0026	0.0025	0.0051
43.4667	0.167	0	0	0
43.5	0.1706	0.0158	0.0011	0.0169
43.5333	0.168	0	0	0
43.5667	0.169	0.0026	0	0.0026
43.6	0.1709	0.0158	0	0.0158
43.6333	0.1696	0.0158	0.0025	0.0182
43.6667	0.1686	0	0.0011	0.0011
43.7	0.1703	0.0026	0	0.0026
43.7333	0.1746	0	0.0011	0.0011
43.7667	0.1729	0.0026	0.0025	0.0051
43.8	0.1726	0	0.0011	0.0011
43.8333	0.1742	0.0026	0.0011	0.0038
43.8667	0.1756	0	0.0011	0.0011
43.9	0.1769	0.0026	0	0.0026
43.9333	0.1765	0	0	0
43.9667	0.1756	0	0	0
44	0.1739	0	0.0011	0.0011
44.0333	0.1769	0.0026	0.0025	0.0051
44.0667	0.1811	0	0	0
44.1	0.1788	0	0	0
44.1333	0.1759	0.0026	0.0011	0.0038
44.1667	0.1772	0	0	0
44.2	0.1808	0.0158	0	0.0158
44.2333	0.1798	0.0026	0.0011	0.0038
44.2667	0.1811	0	0	0
44.3	0.1825	0	0	0
44.3333	0.1811	0.0026	0	0.0026
44.3667	0.1844	0.0026	0.0011	0.0038
44.4	0.1835	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
44.4333	0.1838	0.0026	0	0.0026
44.4667	0.1848	0.0026	0.0011	0.0038
44.5	0.1874	0.0026	0	0.0026
44.5333	0.1864	0.0158	0.0011	0.0169
44.5667	0.1841	0.0026	0.0011	0.0038
44.6	0.1881	0	0.0011	0.0011
44.6333	0.1894	0	0.0011	0.0011
44.6667	0.1867	0.0026	0	0.0026
44.7	0.1854	0	0	0
44.7333	0.1923	0	0	0
44.7667	0.1904	0	0.0011	0.0011
44.8	0.189	0.0026	0	0.0026
44.8333	0.1923	0	0	0
44.8667	0.1927	0	0	0
44.9	0.194	0	0	0
44.9333	0.191	0	0.0011	0.0011
44.9667	0.1956	0.0158	0	0.0158
45	0.194	0	0.0011	0.0011
45.0333	0.1946	0.0026	0	0.0026
45.0667	0.1943	0.0026	0	0.0026
45.1	0.1966	0.0026	0.0011	0.0038
45.1333	0.195	0	0.0011	0.0011
45.1667	0.1966	0	0	0
45.2	0.195	0.0026	0	0.0026
45.2333	0.1956	0.0289	0.0011	0.0301
45.2667	0.1943	0.0026	0	0.0026
45.3	0.1969	0	0	0
45.3333	0.1969	0	0.0011	0.0011
45.3667	0.1969	0.0026	0	0.0026
45.4	0.1979	0.0026	0.0011	0.0038
45.4333	0.1973	0.0158	0.0011	0.0169
45.4667	0.1946	0	0	0
45.5	0.1963	0.0289	0.0011	0.0301
45.5333	0.1946	0.0026	0.0011	0.0038
45.5667	0.1989	0	0	0
45.6	0.1983	0	0.0011	0.0011
45.6333	0.1976	0	0	0
45.6667	0.196	0.0026	0.0011	0.0038
45.7	0.1969	0	0	0
45.7333	0.1969	0.0026	0.0025	0.0051
45.7667	0.2009	0	0.0011	0.0011
45.8	0.1953	0.0158	0	0.0158
45.8333	0.1976	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
45.8667	0.1969	0	0	0
45.9	0.2002	0.0026	0.0011	0.0038
45.9333	0.1993	0.0289	0.0011	0.0301
45.9667	0.1969	0.0026	0	0.0026
46	0.1956	0	0.0011	0.0011
46.0333	0.1963	0	0.0025	0.0025
46.0667	0.1956	0.0026	0	0.0026
46.1	0.194	0	0.0011	0.0011
46.1333	0.1956	0	0.0011	0.0011
46.1667	0.1923	0.0026	0.0011	0.0038
46.2	0.1927	0	0.0011	0.0011
46.2333	0.1917	0	0	0
46.2667	0.194	0	0.0025	0.0025
46.3	0.1933	0	0.0011	0.0011
46.3333	0.1907	0	0	0
46.3667	0.1917	0.0026	0	0.0026
46.4	0.1907	0	0	0
46.4333	0.192	0.0026	0.0011	0.0038
46.4667	0.1894	0.0026	0.0011	0.0038
46.5	0.193	0.0026	0.0025	0.0051
46.5333	0.193	0	0.0011	0.0011
46.5667	0.19	0.0026	0	0.0026
46.6	0.1867	0.0026	0.0011	0.0038
46.6333	0.1897	0.0158	0.0011	0.0169
46.6667	0.1887	0.0026	0.0011	0.0038
46.7	0.1854	0.0026	0.0011	0.0038
46.7333	0.1864	0	0	0
46.7667	0.1884	0	0	0
46.8	0.1871	0.0026	0.0011	0.0038
46.8333	0.1864	0	0	0
46.8667	0.1871	0	0.0011	0.0011
46.9	0.1874	0.0026	0	0.0026
46.9333	0.1867	0	0	0
46.9667	0.1864	0.0158	0.0025	0.0182
47	0.1887	0.0026	0.0011	0.0038
47.0333	0.1881	0	0.0011	0.0011
47.0667	0.1864	0.0026	0	0.0026
47.1	0.1861	0	0.0011	0.0011
47.1333	0.1854	0.0026	0.0011	0.0038
47.1667	0.1835	0	0.0011	0.0011
47.2	0.1854	0	0	0
47.2333	0.1811	0.0026	0.0011	0.0038
47.2667	0.1835	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
47.3	0.1821	0	0	0
47.3333	0.1841	0	0	0
47.3667	0.1825	0	0.0011	0.0011
47.4	0.1811	0.0026	0	0.0026
47.4333	0.1818	0	0	0
47.4667	0.1828	0.0158	0	0.0158
47.5	0.1811	0	0.0011	0.0011
47.5333	0.1825	0	0.0011	0.0011
47.5667	0.1828	0.0158	0	0.0158
47.6	0.1798	0.0026	0.0011	0.0038
47.6333	0.1802	0.0026	0	0.0026
47.6667	0.1841	0	0	0
47.7	0.1821	0	0.0011	0.0011
47.7333	0.1788	0	0	0
47.7667	0.1785	0.0026	0.0011	0.0038
47.8	0.1788	0	0.0011	0.0011
47.8333	0.1802	0.0026	0	0.0026
47.8667	0.1825	0	0.0011	0.0011
47.9	0.1815	0	0	0
47.9333	0.1805	0	0	0
47.9667	0.1795	0.0158	0.0011	0.0169
48	0.1772	0.0158	0	0.0158
48.0333	0.1782	0	0	0
48.0667	0.1769	0	0	0
48.1	0.1798	0	0	0
48.1333	0.1811	0	0	0
48.1667	0.1775	0	0	0
48.2	0.1765	0.0026	0	0.0026
48.2333	0.1756	0.0026	0.0011	0.0038
48.2667	0.1772	0.0026	0	0.0026
48.3	0.1782	0	0	0
48.3333	0.1762	0	0	0
48.3667	0.1785	0	0	0
48.4	0.1759	0.0026	0	0.0026
48.4333	0.1782	0	0	0
48.4667	0.1749	0	0.0011	0.0011
48.5	0.1736	0.0026	0.0011	0.0038
48.5333	0.1726	0	0	0
48.5667	0.1749	0.0026	0	0.0026
48.6	0.1729	0.0026	0.0011	0.0038
48.6333	0.1752	0	0.0011	0.0011
48.6667	0.1759	0.0026	0	0.0026
48.7	0.1759	0	0.0011	0.0011

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
48.7333	0.1746	0.0026	0	0.0026
48.7667	0.1759	0.0026	0.0011	0.0038
48.8	0.1759	0.0158	0	0.0158
48.8333	0.1739	0.0026	0.0011	0.0038
48.8667	0.1769	0.0026	0.0011	0.0038
48.9	0.1706	0	0	0
48.9333	0.17	0.0026	0.0011	0.0038
48.9667	0.1706	0.0026	0	0.0026
49	0.1749	0	0.0011	0.0011
49.0333	0.1742	0.0026	0.0011	0.0038
49.0667	0.1726	0.0026	0	0.0026
49.1	0.1716	0.0158	0.0011	0.0169
49.1333	0.1723	0	0.0011	0.0011
49.1667	0.1746	0.0026	0.0011	0.0038
49.2	0.1749	0	0.0011	0.0011
49.2333	0.1736	0.0158	0.0011	0.0169
49.2667	0.1752	0	0	0
49.3	0.1736	0.0026	0.0011	0.0038
49.3333	0.1756	0.0026	0.0011	0.0038
49.3667	0.1742	0	0	0
49.4	0.1739	0	0	0
49.4333	0.1739	0.0158	0	0.0158
49.4667	0.1765	0	0.0011	0.0011
49.5	0.1739	0	0.0011	0.0011
49.5333	0.1746	0.0026	0.0011	0.0038
49.5667	0.1765	0.0026	0	0.0026
49.6	0.1788	0.0026	0	0.0026
49.6333	0.1746	0.0026	0	0.0026
49.6667	0.1756	0.0026	0	0.0026
49.7	0.1788	0.0289	0	0.0289
49.7333	0.1746	0	0	0
49.7667	0.1779	0	0	0
49.8	0.1792	0	0	0
49.8333	0.1769	0	0	0
49.8667	0.1769	0.0158	0.0011	0.0169
49.9	0.1759	0.0026	0	0.0026
49.9333	0.1788	0	0	0
49.9667	0.1788	0.0026	0.0025	0.0051
50	0.1779	0.0026	0.0011	0.0038
50.0333	0.1775	0.0158	0	0.0158
50.0667	0.1769	0.0026	0	0.0026
50.1	0.1792	0	0.0011	0.0011
50.1333	0.1802	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
50.1667	0.1785	0.0026	0.0011	0.0038
50.2	0.1795	0	0.0025	0.0025
50.2333	0.1811	0	0.0025	0.0025
50.2667	0.1798	0.0026	0	0.0026
50.3	0.1775	0.0026	0	0.0026
50.3333	0.1805	0	0.0025	0.0025
50.3667	0.1785	0.0158	0	0.0158
50.4	0.1815	0.0158	0.0025	0.0182
50.4333	0.1792	0.0026	0.0011	0.0038
50.4667	0.1838	0.0026	0.0011	0.0038
50.5	0.1802	0	0.0011	0.0011
50.5333	0.1792	0.0026	0	0.0026
50.5667	0.1805	0	0	0
50.6	0.1821	0.0026	0	0.0026
50.6333	0.1802	0	0	0
50.6667	0.1811	0.0026	0	0.0026
50.7	0.1825	0.0026	0.0011	0.0038
50.7333	0.1798	0.0026	0.0011	0.0038
50.7667	0.1785	0.0026	0	0.0026
50.8	0.1798	0	0.0011	0.0011
50.8333	0.1795	0	0	0
50.8667	0.1825	0	0.0011	0.0011
50.9	0.1785	0.0026	0	0.0026
50.9333	0.1802	0	0	0
50.9667	0.1828	0.0026	0.0011	0.0038
51	0.1835	0	0	0
51.0333	0.1798	0	0	0
51.0667	0.1818	0	0.0025	0.0025
51.1	0.1811	0	0	0
51.1333	0.1831	0.0026	0	0.0026
51.1667	0.1838	0.0026	0	0.0026
51.2	0.1815	0	0	0
51.2333	0.1811	0	0	0
51.2667	0.1848	0.0158	0.0011	0.0169
51.3	0.1821	0	0.0011	0.0011
51.3333	0.1848	0	0.0011	0.0011
51.3667	0.1821	0	0	0
51.4	0.1828	0	0.0011	0.0011
51.4333	0.1818	0	0.0011	0.0011
51.4667	0.1798	0.0026	0.0011	0.0038
51.5	0.1844	0.0158	0	0.0158
51.5333	0.1815	0.0158	0	0.0158
51.5667	0.1844	0.0026	0.0025	0.0051

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
51.6	0.1821	0	0	0
51.6333	0.1815	0.0026	0.0011	0.0038
51.6667	0.1835	0	0	0
51.7	0.1838	0	0.0011	0.0011
51.7333	0.1841	0.0158	0	0.0158
51.7667	0.1841	0	0	0
51.8	0.1874	0.0026	0.0025	0.0051
51.8333	0.1828	0	0.0011	0.0011
51.8667	0.1844	0.0158	0	0.0158
51.9	0.1831	0.0026	0.0011	0.0038
51.9333	0.1858	0	0	0
51.9667	0.1838	0.0158	0.0011	0.0169
52	0.1831	0	0.0011	0.0011
52.0333	0.1854	0.0026	0.0011	0.0038
52.0667	0.1861	0.0158	0	0.0158
52.1	0.1858	0.0026	0.0011	0.0038
52.1333	0.1844	0	0	0
52.1667	0.1864	0.0026	0	0.0026
52.2	0.1818	0.0026	0.0011	0.0038
52.2333	0.1841	0	0.0011	0.0011
52.2667	0.1851	0.0026	0.0011	0.0038
52.3	0.1844	0.0026	0.0025	0.0051
52.3333	0.1858	0.0158	0.0011	0.0169
52.3667	0.1828	0	0	0
52.4	0.1861	0.0026	0.0025	0.0051
52.4333	0.189	0	0.0011	0.0011
52.4667	0.1838	0	0.0011	0.0011
52.5	0.1858	0	0	0
52.5333	0.189	0	0.0025	0.0025
52.5667	0.1877	0	0.0011	0.0011
52.6	0.1874	0.0158	0.0011	0.0169
52.6333	0.1858	0	0	0
52.6667	0.1864	0.0026	0	0.0026
52.7	0.189	0	0	0
52.7333	0.1874	0.0026	0.0025	0.0051
52.7667	0.1894	0.0026	0	0.0026
52.8	0.1881	0	0	0
52.8333	0.1871	0	0.0011	0.0011
52.8667	0.1854	0	0.0011	0.0011
52.9	0.1871	0	0.0011	0.0011
52.9333	0.1858	0	0.0011	0.0011
52.9667	0.1871	0	0	0
53	0.1851	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
53.0333	0.189	0	0.0011	0.0011
53.0667	0.1897	0	0	0
53.1	0.1884	0	0.0011	0.0011
53.1333	0.19	0	0	0
53.1667	0.1877	0	0.0025	0.0025
53.2	0.1874	0.0158	0.0011	0.0169
53.2333	0.1867	0.0026	0	0.0026
53.2667	0.189	0.0026	0	0.0026
53.3	0.1887	0.0026	0	0.0026
53.3333	0.1867	0	0.0011	0.0011
53.3667	0.1887	0.0026	0	0.0026
53.4	0.1897	0.0026	0.0011	0.0038
53.4333	0.1867	0	0.0011	0.0011
53.4667	0.1894	0.0026	0.0011	0.0038
53.5	0.1877	0	0.0011	0.0011
53.5333	0.1874	0	0.0011	0.0011
53.5667	0.1874	0	0.0011	0.0011
53.6	0.1907	0	0.0011	0.0011
53.6333	0.1884	0	0.0025	0.0025
53.6667	0.1894	0	0	0
53.7	0.1864	0.0026	0.0011	0.0038
53.7333	0.1874	0.0158	0	0.0158
53.7667	0.1904	0	0.0025	0.0025
53.8	0.1887	0.0026	0	0.0026
53.8333	0.1877	0.0026	0.0025	0.0051
53.8667	0.189	0	0	0
53.9	0.1894	0	0.0011	0.0011
53.9333	0.1877	0.0026	0	0.0026
53.9667	0.1871	0	0	0
54	0.1914	0	0	0
54.0333	0.1914	0.0158	0	0.0158
54.0667	0.19	0	0.0011	0.0011
54.1	0.1871	0.0026	0.0025	0.0051
54.1333	0.189	0.0026	0.0011	0.0038
54.1667	0.1897	0.0026	0.0025	0.0051
54.2	0.1897	0	0.0011	0.0011
54.2333	0.1887	0.0026	0	0.0026
54.2667	0.1887	0	0.0011	0.0011
54.3	0.1867	0	0	0
54.3333	0.189	0.0026	0.0025	0.0051
54.3667	0.192	0	0.0011	0.0011
54.4	0.19	0.0026	0	0.0026
54.4333	0.1894	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
54.4667	0.1927	0.0026	0	0.0026
54.5	0.19	0.0026	0	0.0026
54.5333	0.191	0.0026	0.0011	0.0038
54.5667	0.1917	0	0	0
54.6	0.1904	0.0026	0.0011	0.0038
54.6333	0.1904	0	0.0025	0.0025
54.6667	0.1917	0.0026	0.0025	0.0051
54.7	0.1884	0.0158	0.0011	0.0169
54.7333	0.1923	0.0026	0.0011	0.0038
54.7667	0.1884	0	0.0011	0.0011
54.8	0.19	0.0158	0	0.0158
54.8333	0.19	0.0026	0	0.0026
54.8667	0.189	0.0026	0	0.0026
54.9	0.1904	0.0026	0	0.0026
54.9333	0.19	0.0026	0.0011	0.0038
54.9667	0.1887	0.0026	0	0.0026
55	0.1917	0.0026	0.0025	0.0051
55.0333	0.191	0	0.0011	0.0011
55.0667	0.1914	0	0.0011	0.0011
55.1	0.1914	0.0026	0.0011	0.0038
55.1333	0.1917	0.0026	0	0.0026
55.1667	0.1917	0.0026	0	0.0026
55.2	0.1923	0	0.0011	0.0011
55.2333	0.193	0	0.0025	0.0025
55.2667	0.191	0.0026	0.0011	0.0038
55.3	0.19	0	0.0011	0.0011
55.3333	0.1904	0.0158	0.0011	0.0169
55.3667	0.1914	0.0026	0	0.0026
55.4	0.1917	0	0.0011	0.0011
55.4333	0.192	0	0.0011	0.0011
55.4667	0.1904	0	0	0
55.5	0.1927	0	0.0011	0.0011
55.5333	0.19	0	0	0
55.5667	0.1927	0.0026	0	0.0026
55.6	0.1904	0	0	0
55.6333	0.1923	0.0026	0	0.0026
55.6667	0.191	0.0026	0	0.0026
55.7	0.192	0.0026	0.0011	0.0038
55.7333	0.1904	0.0158	0.0011	0.0169
55.7667	0.189	0	0.0025	0.0025
55.8	0.195	0.0026	0.0011	0.0038
55.8333	0.1923	0.0026	0.0038	0.0064
55.8667	0.1943	0	0.0011	0.0011

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
55.9	0.1897	0.0026	0.0025	0.0051
55.9333	0.1966	0.0026	0.0011	0.0038
55.9667	0.191	0	0.0011	0.0011
56	0.1923	0.0026	0.0025	0.0051
56.0333	0.1937	0	0	0
56.0667	0.1956	0.0026	0	0.0026
56.1	0.1927	0.0158	0.0011	0.0169
56.1333	0.1927	0.0158	0.0025	0.0182
56.1667	0.195	0	0	0
56.2	0.1943	0.0158	0.0011	0.0169
56.2333	0.1943	0.0026	0	0.0026
56.2667	0.1927	0	0.0011	0.0011
56.3	0.1923	0.0026	0.0011	0.0038
56.3333	0.1927	0.0026	0	0.0026
56.3667	0.1933	0.0026	0.0011	0.0038
56.4	0.1887	0	0.0011	0.0011
56.4333	0.1917	0	0	0
56.4667	0.1914	0	0.0011	0.0011
56.5	0.1923	0	0	0
56.5333	0.1897	0	0.0011	0.0011
56.5667	0.193	0	0.0025	0.0025
56.6	0.1917	0	0.0011	0.0011
56.6333	0.1914	0.0158	0	0.0158
56.6667	0.191	0	0.0025	0.0025
56.7	0.1897	0.0158	0	0.0158
56.7333	0.1897	0	0.0025	0.0025
56.7667	0.1917	0.0026	0	0.0026
56.8	0.1917	0.0026	0.0025	0.0051
56.8333	0.1907	0.0026	0.0011	0.0038
56.8667	0.193	0.0026	0.0011	0.0038
56.9	0.189	0	0	0
56.9333	0.19	0	0.0038	0.0038
56.9667	0.1884	0	0.0011	0.0011
57	0.19	0.0158	0.0011	0.0169
57.0333	0.1917	0.0158	0.0011	0.0169
57.0667	0.191	0.0026	0.0025	0.0051
57.1	0.1874	0	0	0
57.1333	0.1894	0.0026	0.0025	0.0051
57.1667	0.1884	0.0026	0.0011	0.0038
57.2	0.1894	0.0026	0.0011	0.0038
57.2333	0.1881	0.0026	0	0.0026
57.2667	0.1917	0.0158	0.0011	0.0169
57.3	0.1897	0	0.0025	0.0025

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
57.3333	0.1881	0	0.0025	0.0025
57.3667	0.1867	0.0158	0	0.0158
57.4	0.1887	0	0.0025	0.0025
57.4333	0.1884	0.0158	0	0.0158
57.4667	0.1858	0.0158	0.0025	0.0182
57.5	0.1867	0	0.0011	0.0011
57.5333	0.1877	0	0.0011	0.0011
57.5667	0.1848	0.0026	0.0011	0.0038
57.6	0.1884	0	0.0011	0.0011
57.6333	0.1884	0	0.0011	0.0011
57.6667	0.1881	0.0026	0.0011	0.0038
57.7	0.1877	0.0026	0	0.0026
57.7333	0.1881	0.0026	0.0011	0.0038
57.7667	0.1881	0	0	0
57.8	0.1887	0	0	0
57.8333	0.1907	0.0026	0.0011	0.0038
57.8667	0.1854	0.0026	0.0011	0.0038
57.9	0.1881	0.0026	0	0.0026
57.9333	0.19	0.0026	0.0011	0.0038
57.9667	0.19	0.0026	0.0011	0.0038
58	0.1848	0	0.0011	0.0011
58.0333	0.1884	0	0	0
58.0667	0.1871	0.0026	0.0011	0.0038
58.1	0.1894	0	0	0
58.1333	0.1867	0.0026	0.0011	0.0038
58.1667	0.1858	0	0.0011	0.0011
58.2	0.1874	0.0026	0	0.0026
58.2333	0.1887	0.0158	0.0011	0.0169
58.2667	0.1871	0	0	0
58.3	0.1854	0.0026	0	0.0026
58.3333	0.1867	0.0026	0	0.0026
58.3667	0.1874	0.0158	0	0.0158
58.4	0.189	0	0.0011	0.0011
58.4333	0.1854	0	0.0011	0.0011
58.4667	0.1844	0.0026	0	0.0026
58.5	0.1864	0.0158	0	0.0158
58.5333	0.1858	0.0026	0.0038	0.0064
58.5667	0.1854	0.0026	0	0.0026
58.6	0.1844	0	0.0025	0.0025
58.6333	0.1851	0	0.0011	0.0011
58.6667	0.1874	0	0	0
58.7	0.1818	0.0026	0	0.0026
58.7333	0.1828	0.0158	0.0025	0.0182

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
58.7667	0.1828	0	0	0
58.8	0.1874	0	0	0
58.8333	0.1871	0	0	0
58.8667	0.1854	0	0.0025	0.0025
58.9	0.1811	0.0158	0	0.0158
58.9333	0.1835	0.0026	0	0.0026
58.9667	0.1838	0.0026	0	0.0026
59	0.1851	0	0.0011	0.0011
59.0333	0.1838	0.0158	0.0011	0.0169
59.0667	0.1831	0.0158	0.0025	0.0182
59.1	0.1864	0.0026	0.0025	0.0051
59.1333	0.1825	0	0.0011	0.0011
59.1667	0.1861	0	0.0011	0.0011
59.2	0.1838	0.0158	0	0.0158
59.2333	0.1838	0.0158	0.0011	0.0169
59.2667	0.1825	0.0026	0.0025	0.0051
59.3	0.1844	0.0158	0.0011	0.0169
59.3333	0.1848	0.0026	0	0.0026
59.3667	0.1821	0.0026	0.0011	0.0038
59.4	0.1835	0.0026	0.0011	0.0038
59.4333	0.1828	0.0026	0	0.0026
59.4667	0.1841	0.0158	0.0011	0.0169
59.5	0.1825	0.0026	0.0011	0.0038
59.5333	0.1851	0	0	0
59.5667	0.1811	0	0.0025	0.0025
59.6	0.1848	0	0	0
59.6333	0.1815	0.0026	0.0011	0.0038
59.6667	0.1821	0.0026	0	0.0026
59.7	0.1805	0.0158	0.0011	0.0169
59.7333	0.1841	0	0.0011	0.0011
59.7667	0.1841	0	0	0
59.8	0.1854	0	0.0011	0.0011
59.8333	0.1805	0.0026	0	0.0026
59.8667	0.1858	0	0	0
59.9	0.1818	0	0.0025	0.0025
59.9333	0.1818	0	0.0011	0.0011
59.9667	0.1841	0	0	0
60	0.1828	0	0	0
60.0333	0.1808	0.0026	0	0.0026
60.0667	0.1828	0.0289	0.0011	0.0301
60.1	0.1825	0.0158	0	0.0158
60.1333	0.1811	0	0.0011	0.0011
60.1667	0.1808	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
60.2	0.1805	0.0026	0.0011	0.0038
60.2333	0.1805	0.0158	0	0.0158
60.2667	0.1818	0	0.0025	0.0025
60.3	0.1815	0.0158	0	0.0158
60.3333	0.1818	0	0.0011	0.0011
60.3667	0.1795	0	0	0
60.4	0.1805	0	0	0
60.4333	0.1798	0.0026	0.0011	0.0038
60.4667	0.1815	0.0158	0	0.0158
60.5	0.1782	0.0289	0	0.0289
60.5333	0.1821	0	0.0011	0.0011
60.5667	0.1811	0	0.0011	0.0011
60.6	0.1841	0.0026	0.0011	0.0038
60.6333	0.1825	0.0158	0	0.0158
60.6667	0.1775	0.0026	0	0.0026
60.7	0.1811	0	0.0025	0.0025
60.7333	0.1798	0	0	0
60.7667	0.1802	0	0	0
60.8	0.1831	0	0.0011	0.0011
60.8333	0.1785	0	0	0
60.8667	0.1772	0	0	0
60.9	0.1792	0.0158	0.0011	0.0169
60.9333	0.1815	0.0158	0	0.0158
60.9667	0.1811	0.0026	0.0038	0.0064
61	0.1811	0	0.0011	0.0011
61.0333	0.1792	0.0026	0	0.0026
61.0667	0.1769	0.0026	0	0.0026
61.1	0.1815	0.0026	0.0011	0.0038
61.1333	0.1802	0.0158	0	0.0158
61.1667	0.1779	0	0.0011	0.0011
61.2	0.1808	0.0158	0	0.0158
61.2333	0.1805	0	0	0
61.2667	0.1798	0.0026	0.0011	0.0038
61.3	0.1815	0.0158	0.0011	0.0169
61.3333	0.1798	0.0026	0.0011	0.0038
61.3667	0.1785	0.0158	0	0.0158
61.4	0.1798	0	0.0011	0.0011
61.4333	0.1815	0	0	0
61.4667	0.1782	0.0026	0.0011	0.0038
61.5	0.1798	0.0158	0.0025	0.0182
61.5333	0.1811	0.0026	0	0.0026
61.5667	0.1798	0	0.0011	0.0011
61.6	0.1788	0	0.0011	0.0011

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
61.6333	0.1795	0.0026	0.0011	0.0038
61.6667	0.1805	0.0026	0.0011	0.0038
61.7	0.1785	0	0.0011	0.0011
61.7333	0.1802	0.0026	0	0.0026
61.7667	0.1779	0.0026	0	0.0026
61.8	0.1795	0	0	0
61.8333	0.1788	0.0026	0.0011	0.0038
61.8667	0.1798	0.0026	0	0.0026
61.9	0.1785	0.0026	0	0.0026
61.9333	0.1762	0.0158	0.0011	0.0169
61.9667	0.1785	0	0.0011	0.0011
62	0.1779	0	0	0
62.0333	0.1798	0.0026	0	0.0026
62.0667	0.1815	0	0.0011	0.0011
62.1	0.1782	0	0	0
62.1333	0.1795	0.0026	0	0.0026
62.1667	0.1802	0.0026	0	0.0026
62.2	0.1785	0	0	0
62.2333	0.1795	0	0.0011	0.0011
62.2667	0.1805	0	0	0
62.3	0.1785	0	0.0011	0.0011
62.3333	0.1782	0	0.0011	0.0011
62.3667	0.1798	0.0158	0	0.0158
62.4	0.1795	0.0026	0.0011	0.0038
62.4333	0.1772	0.0026	0.0011	0.0038
62.4667	0.1762	0	0.0011	0.0011
62.5	0.1765	0	0	0
62.5333	0.1805	0.0026	0.0025	0.0051
62.5667	0.1775	0.0026	0.0011	0.0038
62.6	0.1772	0.0026	0.0011	0.0038
62.6333	0.1808	0	0.0025	0.0025
62.6667	0.1788	0.0158	0	0.0158
62.7	0.1775	0	0	0
62.7333	0.1798	0.0026	0	0.0026
62.7667	0.1772	0.0026	0	0.0026
62.8	0.1779	0.0158	0.0011	0.0169
62.8333	0.1795	0.0026	0.0011	0.0038
62.8667	0.1792	0.0026	0.0011	0.0038
62.9	0.1795	0.0158	0	0.0158
62.9333	0.1782	0.0158	0	0.0158
62.9667	0.1795	0.0158	0	0.0158
63	0.1762	0.0026	0.0011	0.0038
63.0333	0.1792	0.0026	0.0025	0.0051

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
63.0667	0.1779	0.0026	0.0011	0.0038
63.1	0.1779	0.0026	0	0.0026
63.1333	0.1795	0.0158	0	0.0158
63.1667	0.1811	0	0	0
63.2	0.1785	0	0	0
63.2333	0.1788	0.0158	0.0011	0.0169
63.2667	0.1788	0.0158	0.0025	0.0182
63.3	0.1788	0.0026	0	0.0026
63.3333	0.1792	0.0158	0.0011	0.0169
63.3667	0.1765	0	0.0011	0.0011
63.4	0.1775	0.0026	0	0.0026
63.4333	0.1788	0	0	0
63.4667	0.1792	0	0	0
63.5	0.1795	0.0158	0	0.0158
63.5333	0.1775	0.0026	0	0.0026
63.5667	0.1779	0	0.0011	0.0011
63.6	0.1808	0	0.0011	0.0011
63.6333	0.1756	0.0158	0.0011	0.0169
63.6667	0.1779	0.0026	0.0011	0.0038
63.7	0.1798	0.0026	0.0011	0.0038
63.7333	0.1746	0.0026	0	0.0026
63.7667	0.1792	0.0026	0.0011	0.0038
63.8	0.1788	0.0026	0	0.0026
63.8333	0.1772	0.0026	0.0011	0.0038
63.8667	0.1756	0.0026	0.0011	0.0038
63.9	0.1759	0	0	0
63.9333	0.1762	0.0158	0.0025	0.0182
63.9667	0.1752	0.0026	0	0.0026
64	0.1765	0.0026	0.0025	0.0051
64.0333	0.1772	0.0026	0	0.0026
64.0667	0.1795	0.0026	0.0025	0.0051
64.1	0.1795	0.0289	0.0025	0.0314
64.1333	0.1772	0	0.0011	0.0011
64.1667	0.1785	0.0158	0	0.0158
64.2	0.1759	0	0	0
64.2333	0.1785	0	0.0011	0.0011
64.2667	0.1765	0	0	0
64.3	0.1765	0.0289	0	0.0289
64.3333	0.1762	0	0.0011	0.0011
64.3667	0.1792	0	0.0011	0.0011
64.4	0.1775	0.0026	0	0.0026
64.4333	0.1749	0	0.0011	0.0011
64.4667	0.1772	0.0158	0.0011	0.0169

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
64.5	0.1756	0	0	0
64.5333	0.1762	0	0	0
64.5667	0.1765	0	0.0011	0.0011
64.6	0.1759	0	0.0011	0.0011
64.6333	0.1742	0.0026	0	0.0026
64.6667	0.1762	0.0026	0	0.0026
64.7	0.1742	0.0026	0.0025	0.0051
64.7333	0.1775	0	0.0011	0.0011
64.7667	0.1765	0	0	0
64.8	0.1759	0.0026	0	0.0026
64.8333	0.1742	0	0	0
64.8667	0.1756	0	0.0011	0.0011
64.9	0.1739	0.0026	0	0.0026
64.9333	0.1752	0.0158	0	0.0158
64.9667	0.1782	0	0.0011	0.0011
65	0.1749	0	0.0011	0.0011
65.0333	0.1759	0.0026	0.0011	0.0038
65.0667	0.1739	0	0	0
65.1	0.1765	0	0	0
65.1333	0.1792	0.0026	0.0011	0.0038
65.1667	0.1775	0	0	0
65.2	0.1732	0.0026	0.0011	0.0038
65.2333	0.1742	0	0	0
65.2667	0.1732	0	0.0011	0.0011
65.3	0.1742	0	0.0011	0.0011
65.3333	0.1752	0	0.0011	0.0011
65.3667	0.1746	0	0.0011	0.0011
65.4	0.1729	0	0.0011	0.0011
65.4333	0.1752	0.0026	0.0011	0.0038
65.4667	0.1759	0.0026	0.0011	0.0038
65.5	0.1775	0	0	0
65.5333	0.1769	0	0.0011	0.0011
65.5667	0.1729	0.0026	0	0.0026
65.6	0.1709	0	0	0
65.6333	0.1752	0	0.0011	0.0011
65.6667	0.1765	0.0026	0.0011	0.0038
65.7	0.1772	0	0.0011	0.0011
65.7333	0.1769	0.0026	0.0011	0.0038
65.7667	0.1759	0.0026	0	0.0026
65.8	0.1756	0.0026	0.0025	0.0051
65.8333	0.1742	0.0026	0.0011	0.0038
65.8667	0.1739	0	0	0
65.9	0.1726	0.0158	0	0.0158

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
65.9333	0.1729	0.0158	0.0011	0.0169
65.9667	0.1746	0.0026	0.0011	0.0038
66	0.1746	0.0026	0	0.0026
66.0333	0.1739	0	0.0025	0.0025
66.0667	0.1746	0.0026	0.0011	0.0038
66.1	0.1769	0	0.0011	0.0011
66.1333	0.1788	0	0.0011	0.0011
66.1667	0.1756	0	0.0025	0.0025
66.2	0.1762	0.0026	0.0011	0.0038
66.2333	0.1759	0.0026	0	0.0026
66.2667	0.1769	0.0158	0	0.0158
66.3	0.1762	0.0026	0.0011	0.0038
66.3333	0.1759	0	0.0011	0.0011
66.3667	0.1739	0.0026	0.0025	0.0051
66.4	0.1762	0	0	0
66.4333	0.1759	0.0158	0.0011	0.0169
66.4667	0.1769	0.0158	0	0.0158
66.5	0.1732	0.0026	0.0011	0.0038
66.5333	0.1756	0.0026	0	0.0026
66.5667	0.1723	0.0289	0	0.0289
66.6	0.1746	0	0	0
66.6333	0.1756	0	0	0
66.6667	0.1736	0	0	0
66.7	0.1759	0	0.0011	0.0011
66.7333	0.1752	0	0.0011	0.0011
66.7667	0.1759	0.0026	0.0011	0.0038
66.8	0.1746	0.0158	0	0.0158
66.8333	0.1752	0	0.0011	0.0011
66.8667	0.1762	0	0.0011	0.0011
66.9	0.1732	0.0158	0	0.0158
66.9333	0.1769	0	0.0011	0.0011
66.9667	0.1742	0.0026	0	0.0026
67	0.1732	0.0289	0	0.0289
67.0333	0.1749	0.0158	0	0.0158
67.0667	0.1765	0	0.0011	0.0011
67.1	0.1719	0.0026	0.0025	0.0051
67.1333	0.1772	0.0026	0.0011	0.0038
67.1667	0.1762	0.0026	0	0.0026
67.2	0.1742	0.0158	0	0.0158
67.2333	0.1749	0.0026	0.0025	0.0051
67.2667	0.1742	0.0026	0.0011	0.0038
67.3	0.1729	0	0.0025	0.0025
67.3333	0.1726	0.0026	0.0011	0.0038

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
67.3667	0.1729	0.0026	0	0.0026
67.4	0.1772	0	0	0
67.4333	0.1742	0.0026	0.0011	0.0038
67.4667	0.1739	0.0289	0.0011	0.0301
67.5	0.1759	0.0158	0.0011	0.0169
67.5333	0.1746	0.0158	0	0.0158
67.5667	0.1736	0.0026	0.0011	0.0038
67.6	0.1759	0.0158	0	0.0158
67.6333	0.1729	0	0.0011	0.0011
67.6667	0.1765	0	0.0011	0.0011
67.7	0.1732	0.0026	0.0011	0.0038
67.7333	0.1752	0	0	0
67.7667	0.1749	0	0.0011	0.0011
67.8	0.1742	0.0026	0	0.0026
67.8333	0.1749	0.0026	0	0.0026
67.8667	0.1739	0.0158	0	0.0158
67.9	0.1779	0	0.0011	0.0011
67.9333	0.1732	0.0026	0.0011	0.0038
67.9667	0.1762	0.0026	0.0011	0.0038
68	0.1749	0	0.0011	0.0011
68.0333	0.1765	0.0026	0	0.0026
68.0667	0.1788	0.0026	0.0025	0.0051
68.1	0.1742	0.0026	0.0011	0.0038
68.1333	0.1779	0.0026	0	0.0026
68.1667	0.1772	0.0026	0.0011	0.0038
68.2	0.1742	0.0158	0	0.0158
68.2333	0.1759	0.0026	0.0011	0.0038
68.2667	0.1756	0.0289	0	0.0289
68.3	0.1746	0.0026	0.0011	0.0038
68.3333	0.1746	0	0.0011	0.0011
68.3667	0.1752	0.0158	0	0.0158
68.4	0.1749	0.0026	0.0011	0.0038
68.4333	0.1726	0	0	0
68.4667	0.1742	0.0026	0.0011	0.0038
68.5	0.1756	0.0026	0	0.0026
68.5333	0.1723	0.0026	0.0025	0.0051
68.5667	0.1775	0.0026	0.0025	0.0051
68.6	0.1762	0	0	0
68.6333	0.1749	0.0026	0	0.0026
68.6667	0.1732	0.0026	0.0011	0.0038
68.7	0.1762	0	0	0
68.7333	0.1739	0	0	0
68.7667	0.1756	0.0158	0.0025	0.0182

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
68.8	0.1762	0.0026	0.0011	0.0038
68.8333	0.1732	0.0158	0.0011	0.0169
68.8667	0.1779	0	0.0025	0.0025
68.9	0.1756	0	0	0
68.9333	0.1752	0.0026	0.0011	0.0038
68.9667	0.1775	0	0	0
69	0.1732	0.0026	0.0011	0.0038
69.0333	0.1765	0.0026	0.0011	0.0038
69.0667	0.1752	0.0026	0.0011	0.0038
69.1	0.1752	0.0026	0	0.0026
69.1333	0.1752	0.0158	0.0011	0.0169
69.1667	0.1729	0.0026	0.0011	0.0038
69.2	0.1726	0	0.0011	0.0011
69.2333	0.1769	0	0.0011	0.0011
69.2667	0.1779	0.0026	0	0.0026
69.3	0.1723	0	0	0
69.3333	0.1759	0.0158	0.0011	0.0169
69.3667	0.1736	0.0158	0.0011	0.0169
69.4	0.1759	0.0026	0	0.0026
69.4333	0.1762	0.0026	0.0011	0.0038
69.4667	0.1742	0.0026	0.0011	0.0038
69.5	0.1765	0.0026	0.0011	0.0038
69.5333	0.1775	0	0	0
69.5667	0.1762	0.0026	0.0011	0.0038
69.6	0.1749	0.0026	0	0.0026
69.6333	0.1759	0.0026	0.0011	0.0038
69.6667	0.1779	0.0026	0.0011	0.0038
69.7	0.1729	0	0.0011	0.0011
69.7333	0.1795	0	0	0
69.7667	0.1792	0	0.0025	0.0025
69.8	0.1779	0	0	0
69.8333	0.1746	0.0026	0.0025	0.0051
69.8667	0.1765	0.0026	0.0011	0.0038
69.9	0.1765	0.0026	0.0011	0.0038
69.9333	0.1742	0.0158	0.0011	0.0169
69.9667	0.1772	0.0158	0.0011	0.0169
70	0.1759	0	0.0011	0.0011
70.0333	0.1775	0	0.0011	0.0011
70.0667	0.1775	0	0	0
70.1	0.1759	0.0158	0.0011	0.0169
70.1333	0.1746	0.0026	0.0011	0.0038
70.1667	0.1769	0.0026	0	0.0026
70.2	0.1765	0.0158	0	0.0158

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
70.2333	0.1746	0	0.0011	0.0011
70.2667	0.1782	0	0	0
70.3	0.1775	0.0026	0	0.0026
70.3333	0.1759	0	0	0
70.3667	0.1772	0.0158	0.0011	0.0169
70.4	0.1749	0.0158	0	0.0158
70.4333	0.1772	0.0026	0	0.0026
70.4667	0.1775	0	0	0
70.5	0.1756	0.0158	0.0011	0.0169
70.5333	0.1762	0.0026	0	0.0026
70.5667	0.1775	0.0026	0	0.0026
70.6	0.1746	0.0026	0.0011	0.0038
70.6333	0.1746	0.0158	0.0011	0.0169
70.6667	0.1765	0.0026	0.0011	0.0038
70.7	0.1759	0.0026	0.0011	0.0038
70.7333	0.1785	0.0026	0.0011	0.0038
70.7667	0.1749	0.0026	0.0025	0.0051
70.8	0.1779	0.0026	0	0.0026
70.8333	0.1772	0.0026	0	0.0026
70.8667	0.1759	0.0158	0	0.0158
70.9	0.1775	0.0158	0.0011	0.0169
70.9333	0.1765	0.0158	0	0.0158
70.9667	0.1756	0.0026	0	0.0026
71	0.1759	0.0026	0	0.0026
71.0333	0.1785	0.0026	0.0011	0.0038
71.0667	0.1772	0.0026	0	0.0026
71.1	0.1785	0.0026	0	0.0026
71.1333	0.1756	0.0158	0	0.0158
71.1667	0.1759	0.0158	0.0025	0.0182
71.2	0.1788	0	0.0011	0.0011
71.2333	0.1775	0	0.0011	0.0011
71.2667	0.1769	0.0026	0.0025	0.0051
71.3	0.1759	0.0026	0.0011	0.0038
71.3333	0.1779	0.0026	0.0011	0.0038
71.3667	0.1788	0	0.0011	0.0011
71.4	0.1752	0	0	0
71.4333	0.1765	0.0026	0.0011	0.0038
71.4667	0.1792	0.0026	0.0025	0.0051
71.5	0.1752	0.0158	0	0.0158
71.5333	0.1785	0.0026	0.0025	0.0051
71.5667	0.1775	0.0289	0	0.0289
71.6	0.1749	0.0289	0.0011	0.0301
71.6333	0.1785	0.0158	0.0011	0.0169

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
71.6667	0.1802	0.0026	0.0011	0.0038
71.7	0.1759	0	0	0
71.7333	0.1805	0.0026	0.0025	0.0051
71.7667	0.1805	0.0158	0	0.0158
71.8	0.1825	0.0026	0.0011	0.0038
71.8333	0.1825	0.0026	0.0011	0.0038
71.8667	0.1818	0	0.0011	0.0011
71.9	0.1841	0.0026	0.0011	0.0038
71.9333	0.1871	0.0158	0.0011	0.0169
71.9667	0.1867	0.0026	0.0011	0.0038
72	0.1897	0.0158	0.0011	0.0169
72.0333	0.1937	0	0	0
72.0667	0.1973	0	0.0011	0.0011
72.1	0.2002	0	0	0
72.1333	0.2042	0.0026	0	0.0026
72.1667	0.2071	0.0158	0.0011	0.0169
72.2	0.2118	0.0026	0.0025	0.0051
72.2333	0.2154	0.0026	0.0025	0.0051
72.2667	0.2177	0	0.0011	0.0011
72.3	0.2223	0	0	0
72.3333	0.2249	0	0.0011	0.0011
72.3667	0.2276	0.0026	0.0011	0.0038
72.4	0.2308	0.0158	0	0.0158
72.4333	0.2328	0.0026	0	0.0026
72.4667	0.2384	0	0	0
72.5	0.2404	0.0026	0.0011	0.0038
72.5333	0.2437	0.0026	0	0.0026
72.5667	0.2493	0.0158	0.0011	0.0169
72.6	0.2509	0.0158	0	0.0158
72.6333	0.2519	0.0158	0	0.0158
72.6667	0.2549	0	0	0
72.7	0.2595	0	0.0011	0.0011
72.7333	0.2615	0.0026	0	0.0026
72.7667	0.2638	0.0026	0.0011	0.0038
72.8	0.268	0.0026	0.0011	0.0038
72.8333	0.2674	0	0.0011	0.0011
72.8667	0.2687	0.0026	0.0011	0.0038
72.9	0.272	0.0026	0.0011	0.0038
72.9333	0.2786	0	0.0011	0.0011
72.9667	0.2819	0.0026	0.0011	0.0038
73	0.2842	0	0.0011	0.0011
73.0333	0.2852	0.0026	0.0025	0.0051
73.0667	0.2865	0.0026	0.0011	0.0038

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
73.1	0.2888	0	0.0011	0.0011
73.1333	0.2944	0.0026	0	0.0026
73.1667	0.296	0	0	0
73.2	0.2963	0.0158	0	0.0158
73.2333	0.299	0.0026	0.0011	0.0038
73.2667	0.2996	0.0026	0.0025	0.0051
73.3	0.3026	0	0	0
73.3333	0.3039	0.0026	0	0.0026
73.3667	0.3069	0.0026	0.0011	0.0038
73.4	0.3105	0.0158	0	0.0158
73.4333	0.3125	0.0158	0	0.0158
73.4667	0.3115	0.0026	0	0.0026
73.5	0.3138	0.0158	0.0025	0.0182
73.5333	0.3164	0	0	0
73.5667	0.3194	0.0026	0.0025	0.0051
73.6	0.3184	0.0026	0	0.0026
73.6333	0.324	0.0026	0.0025	0.0051
73.6667	0.3247	0	0.0025	0.0025
73.7	0.3286	0.0158	0.0011	0.0169
73.7333	0.327	0.0026	0.0011	0.0038
73.7667	0.3293	0.0158	0.0011	0.0169
73.8	0.3325	0.0026	0.0011	0.0038
73.8333	0.3342	0.0026	0	0.0026
73.8667	0.3325	0	0.0011	0.0011
73.9	0.3335	0.0026	0.0011	0.0038
73.9333	0.3362	0.0158	0.0011	0.0169
73.9667	0.3372	0.0026	0.0025	0.0051
74	0.3395	0	0	0
74.0333	0.3398	0	0.0038	0.0038
74.0667	0.3454	0.0026	0.0011	0.0038
74.1	0.3437	0.0026	0.0011	0.0038
74.1333	0.3497	0	0.0025	0.0025
74.1667	0.348	0	0.0011	0.0011
74.2	0.3513	0	0	0
74.2333	0.3464	0	0.0011	0.0011
74.2667	0.3503	0.0026	0.0011	0.0038
74.3	0.3543	0	0.0011	0.0011
74.3333	0.3546	0.0158	0	0.0158
74.3667	0.3543	0	0.0011	0.0011
74.4	0.3569	0	0.0011	0.0011
74.4333	0.3582	0.0158	0.0025	0.0182
74.4667	0.3612	0	0	0
74.5	0.3582	0.0026	0.0025	0.0051

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
74.5333	0.3599	0.0158	0.0011	0.0169
74.5667	0.3641	0.0026	0.0011	0.0038
74.6	0.3641	0	0	0
74.6333	0.3651	0	0.0011	0.0011
74.6667	0.3655	0	0.0011	0.0011
74.7	0.3648	0.0026	0	0.0026
74.7333	0.3668	0	0.0011	0.0011
74.7667	0.3681	0.0026	0	0.0026
74.8	0.3674	0	0.0011	0.0011
74.8333	0.3694	0	0.0011	0.0011
74.8667	0.3697	0.0026	0.0011	0.0038
74.9	0.3734	0	0.0011	0.0011
74.9333	0.3717	0.0026	0.0025	0.0051
74.9667	0.374	0.0026	0	0.0026
75	0.3724	0.0158	0.0011	0.0169
75.0333	0.3711	0.0026	0.0011	0.0038
75.0667	0.3757	0	0	0
75.1	0.378	0.0026	0	0.0026
75.1333	0.3753	0	0	0
75.1667	0.3747	0.0158	0	0.0158
75.2	0.3753	0.0026	0.0011	0.0038
75.2333	0.3786	0	0.0011	0.0011
75.2667	0.379	0.0026	0	0.0026
75.3	0.3826	0.0026	0.0011	0.0038
75.3333	0.3813	0	0.0011	0.0011
75.3667	0.3806	0.0158	0.0011	0.0169
75.4	0.3829	0	0	0
75.4333	0.3819	0.0026	0.0025	0.0051
75.4667	0.3839	0.0026	0.0025	0.0051
75.5	0.3842	0.0026	0	0.0026
75.5333	0.3832	0	0	0
75.5667	0.3865	0	0.0011	0.0011
75.6	0.3849	0.0289	0	0.0289
75.6333	0.3829	0	0.0011	0.0011
75.6667	0.3836	0.0026	0.0011	0.0038
75.7	0.3832	0.0026	0.0025	0.0051
75.7333	0.3822	0.0026	0.0011	0.0038
75.7667	0.3849	0.0026	0.0011	0.0038
75.8	0.3839	0	0	0
75.8333	0.3839	0.0026	0.0011	0.0038
75.8667	0.3822	0.0026	0	0.0026
75.9	0.3839	0.0026	0.0011	0.0038
75.9333	0.3836	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
75.9667	0.3816	0	0.0025	0.0025
76	0.3852	0.0026	0.0011	0.0038
76.0333	0.3865	0	0.0011	0.0011
76.0667	0.3846	0.0158	0	0.0158
76.1	0.3842	0.0026	0	0.0026
76.1333	0.3822	0.0026	0.0011	0.0038
76.1667	0.3813	0.0026	0.0011	0.0038
76.2	0.3859	0.0026	0.0025	0.0051
76.2333	0.3816	0	0	0
76.2667	0.3842	0.0158	0.0011	0.0169
76.3	0.3816	0.0158	0.0011	0.0169
76.3333	0.3839	0.0026	0.0011	0.0038
76.3667	0.3796	0	0	0
76.4	0.3813	0	0	0
76.4333	0.3793	0	0	0
76.4667	0.3816	0	0.0011	0.0011
76.5	0.3773	0.0026	0	0.0026
76.5333	0.3763	0	0.0011	0.0011
76.5667	0.3773	0.0026	0	0.0026
76.6	0.375	0.0026	0	0.0026
76.6333	0.3773	0.0026	0	0.0026
76.6667	0.3757	0.0026	0	0.0026
76.7	0.376	0.0158	0.0011	0.0169
76.7333	0.3737	0.0026	0.0011	0.0038
76.7667	0.3724	0	0.0011	0.0011
76.8	0.372	0.0158	0	0.0158
76.8333	0.3737	0	0	0
76.8667	0.3757	0	0	0
76.9	0.375	0.0158	0	0.0158
76.9333	0.3734	0.0289	0	0.0289
76.9667	0.374	0.0026	0.0011	0.0038
77	0.3727	0	0	0
77.0333	0.3737	0.0158	0.0011	0.0169
77.0667	0.3701	0	0.0011	0.0011
77.1	0.374	0.0026	0	0.0026
77.1333	0.3694	0.0026	0.0011	0.0038
77.1667	0.3711	0	0.0011	0.0011
77.2	0.3704	0	0.0011	0.0011
77.2333	0.3704	0	0	0
77.2667	0.3674	0.0026	0.0011	0.0038
77.3	0.3691	0.0026	0.0011	0.0038
77.3333	0.3678	0.0026	0	0.0026
77.3667	0.3694	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
77.4	0.3697	0.0026	0.0011	0.0038
77.4333	0.3681	0.0026	0.0025	0.0051
77.4667	0.3697	0.0158	0.0025	0.0182
77.5	0.3665	0.0026	0	0.0026
77.5333	0.3655	0	0.0011	0.0011
77.5667	0.3668	0	0.0011	0.0011
77.6	0.3684	0.0026	0	0.0026
77.6333	0.3645	0.0158	0.0011	0.0169
77.6667	0.3665	0.0026	0	0.0026
77.7	0.3638	0	0.0025	0.0025
77.7333	0.3674	0.0026	0.0025	0.0051
77.7667	0.3668	0	0.0025	0.0025
77.8	0.3628	0.0026	0	0.0026
77.8333	0.3648	0	0.0011	0.0011
77.8667	0.3622	0.0158	0	0.0158
77.9	0.3648	0.0026	0	0.0026
77.9333	0.3645	0.0026	0.0011	0.0038
77.9667	0.3618	0.0026	0.0011	0.0038
78	0.3658	0.0158	0	0.0158
78.0333	0.3648	0.0026	0	0.0026
78.0667	0.3625	0	0.0025	0.0025
78.1	0.3635	0.0026	0	0.0026
78.1333	0.3628	0.0158	0.0011	0.0169
78.1667	0.3612	0.0026	0.0025	0.0051
78.2	0.3625	0	0.0011	0.0011
78.2333	0.3602	0.0158	0	0.0158
78.2667	0.3628	0.0026	0.0011	0.0038
78.3	0.3622	0	0.0011	0.0011
78.3333	0.3609	0	0	0
78.3667	0.3605	0.0026	0	0.0026
78.4	0.3599	0	0.0011	0.0011
78.4333	0.3609	0.0026	0.0011	0.0038
78.4667	0.3595	0.0026	0.0011	0.0038
78.5	0.3595	0.0026	0	0.0026
78.5333	0.3605	0.0158	0	0.0158
78.5667	0.3609	0.0026	0	0.0026
78.6	0.3595	0	0.0025	0.0025
78.6333	0.3599	0.0026	0.0011	0.0038
78.6667	0.3602	0.0158	0.0011	0.0169
78.7	0.3549	0.0026	0	0.0026
78.7333	0.3582	0	0.0011	0.0011
78.7667	0.3589	0	0	0
78.8	0.3582	0.0026	0.0011	0.0038

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
78.8333	0.3592	0.0026	0	0.0026
78.8667	0.3605	0	0	0
78.9	0.3592	0.0026	0	0.0026
78.9333	0.3566	0	0.0011	0.0011
78.9667	0.3589	0.0026	0	0.0026
79	0.3602	0.0158	0	0.0158
79.0333	0.3582	0.0026	0	0.0026
79.0667	0.3572	0.0026	0.0025	0.0051
79.1	0.3579	0.0026	0.0011	0.0038
79.1333	0.3589	0.0158	0.0025	0.0182
79.1667	0.3566	0	0.0011	0.0011
79.2	0.3595	0.0158	0.0011	0.0169
79.2333	0.3572	0.0026	0.0025	0.0051
79.2667	0.3576	0.0026	0.0011	0.0038
79.3	0.3579	0.0026	0.0025	0.0051
79.3333	0.3592	0	0.0011	0.0011
79.3667	0.3546	0.0026	0	0.0026
79.4	0.3562	0.0026	0.0011	0.0038
79.4333	0.3579	0	0.0011	0.0011
79.4667	0.3609	0.0026	0.0025	0.0051
79.5	0.3566	0.0158	0.0011	0.0169
79.5333	0.3536	0.0026	0.0025	0.0051
79.5667	0.3553	0.0158	0	0.0158
79.6	0.3592	0.0026	0.0011	0.0038
79.6333	0.3559	0	0	0
79.6667	0.3572	0	0.0011	0.0011
79.7	0.3559	0.0026	0.0011	0.0038
79.7333	0.3586	0.0026	0	0.0026
79.7667	0.3569	0.0026	0	0.0026
79.8	0.3569	0	0	0
79.8333	0.3576	0.0158	0.0011	0.0169
79.8667	0.3599	0.0158	0	0.0158
79.9	0.3569	0	0	0
79.9333	0.3566	0.0026	0.0011	0.0038
79.9667	0.3562	0.0026	0	0.0026
80	0.3576	0	0	0
80.0333	0.3543	0	0.0011	0.0011
80.0667	0.3582	0.0158	0	0.0158
80.1	0.3576	0.0026	0.0011	0.0038
80.1333	0.3576	0.0026	0	0.0026
80.1667	0.3579	0	0.0011	0.0011
80.2	0.3576	0.0026	0	0.0026
80.2333	0.3562	0	0.0011	0.0011

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
80.2667	0.3579	0	0.0011	0.0011
80.3	0.3579	0.0026	0	0.0026
80.3333	0.3586	0	0	0
80.3667	0.3562	0.0026	0.0011	0.0038
80.4	0.3582	0	0.0011	0.0011
80.4333	0.3576	0.0158	0.0011	0.0169
80.4667	0.3579	0.0026	0.0011	0.0038
80.5	0.3576	0	0.0011	0.0011
80.5333	0.3582	0.0026	0	0.0026
80.5667	0.3582	0	0.0011	0.0011
80.6	0.3609	0.0026	0.0011	0.0038
80.6333	0.3572	0.0158	0	0.0158
80.6667	0.3586	0.0026	0.0025	0.0051
80.7	0.3582	0.0158	0	0.0158
80.7333	0.3589	0.0026	0	0.0026
80.7667	0.3579	0.0026	0	0.0026
80.8	0.3605	0.0026	0.0011	0.0038
80.8333	0.3609	0.0026	0	0.0026
80.8667	0.3609	0.0026	0.0011	0.0038
80.9	0.3628	0	0.0011	0.0011
80.9333	0.3605	0	0.0011	0.0011
80.9667	0.3602	0.0026	0.0011	0.0038
81	0.3628	0.0026	0.0011	0.0038
81.0333	0.3566	0.0026	0	0.0026
81.0667	0.3582	0.0158	0	0.0158
81.1	0.3582	0.0158	0	0.0158
81.1333	0.3622	0.0026	0.0011	0.0038
81.1667	0.3605	0	0	0
81.2	0.3615	0.0026	0	0.0026
81.2333	0.3609	0.0026	0.0011	0.0038
81.2667	0.3638	0	0.0025	0.0025
81.3	0.3612	0	0.0011	0.0011
81.3333	0.3638	0.0026	0.0025	0.0051
81.3667	0.3632	0.0026	0.0011	0.0038
81.4	0.3641	0	0	0
81.4333	0.3648	0.0026	0	0.0026
81.4667	0.3645	0.0026	0.0011	0.0038
81.5	0.3658	0	0.0011	0.0011
81.5333	0.3638	0.0158	0.0025	0.0182
81.5667	0.3658	0.0026	0	0.0026
81.6	0.3658	0.0026	0.0011	0.0038
81.6333	0.3655	0.0158	0.0011	0.0169
81.6667	0.3665	0.0158	0.0011	0.0169

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
81.7	0.3668	0.0026	0.0025	0.0051
81.7333	0.3668	0	0	0
81.7667	0.3674	0.0158	0.0011	0.0169
81.8	0.3697	0.0026	0.0011	0.0038
81.8333	0.3688	0.0026	0.0025	0.0051
81.8667	0.3691	0.0026	0	0.0026
81.9	0.3651	0.0158	0.0011	0.0169
81.9333	0.3678	0	0.0011	0.0011
81.9667	0.3648	0	0.0011	0.0011
82	0.3655	0.0158	0.0025	0.0182
82.0333	0.3681	0.0158	0.0011	0.0169
82.0667	0.3691	0	0	0
82.1	0.3674	0	0.0025	0.0025
82.1333	0.3704	0.0158	0.0011	0.0169
82.1667	0.3714	0.0158	0.0011	0.0169
82.2	0.3661	0.0026	0.0011	0.0038
82.2333	0.3711	0	0.0011	0.0011
82.2667	0.3684	0	0	0
82.3	0.3704	0.0026	0.0011	0.0038
82.3333	0.3714	0.0158	0	0.0158
82.3667	0.3707	0.0026	0	0.0026
82.4	0.3694	0.0026	0	0.0026
82.4333	0.3674	0.0289	0.0011	0.0301
82.4667	0.3707	0	0	0
82.5	0.3727	0.0026	0	0.0026
82.5333	0.373	0.0158	0.0011	0.0169
82.5667	0.3707	0	0	0
82.6	0.3707	0	0.0011	0.0011
82.6333	0.3717	0	0.0011	0.0011
82.6667	0.3691	0.0158	0.0011	0.0169
82.7	0.3724	0.0158	0.0011	0.0169
82.7333	0.3694	0.0026	0.0011	0.0038
82.7667	0.372	0	0	0
82.8	0.372	0.0026	0.0011	0.0038
82.8333	0.3737	0	0.0011	0.0011
82.8667	0.3704	0.0026	0.0011	0.0038
82.9	0.3737	0.0026	0	0.0026
82.9333	0.373	0.0026	0.0011	0.0038
82.9667	0.3737	0.0158	0	0.0158
83	0.3707	0.0026	0.0011	0.0038
83.0333	0.3734	0.0026	0	0.0026
83.0667	0.373	0.0158	0.0011	0.0169
83.1	0.372	0.0289	0.0025	0.0314

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
83.1333	0.3724	0	0.0025	0.0025
83.1667	0.375	0.0026	0.0011	0.0038
83.2	0.375	0.0026	0.0011	0.0038
83.2333	0.376	0	0.0011	0.0011
83.2667	0.3743	0	0.0011	0.0011
83.3	0.376	0	0.0011	0.0011
83.3333	0.3737	0.0158	0.0025	0.0182
83.3667	0.3763	0.0026	0.0025	0.0051
83.4	0.374	0	0	0
83.4333	0.3757	0.0158	0.0011	0.0169
83.4667	0.3753	0.0026	0	0.0026
83.5	0.373	0	0.0011	0.0011
83.5333	0.375	0	0.0011	0.0011
83.5667	0.375	0.0026	0.0011	0.0038
83.6	0.3753	0.0158	0	0.0158
83.6333	0.3724	0.0026	0.0011	0.0038
83.6667	0.3786	0	0.0011	0.0011
83.7	0.374	0.0026	0.0011	0.0038
83.7333	0.3757	0.0026	0	0.0026
83.7667	0.3734	0	0.0011	0.0011
83.8	0.374	0	0	0
83.8333	0.3773	0	0	0
83.8667	0.3734	0	0.0011	0.0011
83.9	0.3753	0	0.0011	0.0011
83.9333	0.3747	0.0158	0.0011	0.0169
83.9667	0.373	0.0289	0.0011	0.0301
84	0.3757	0.0026	0.0025	0.0051
84.0333	0.372	0	0.0011	0.0011
84.0667	0.3763	0.0026	0.0011	0.0038
84.1	0.376	0.0026	0.0025	0.0051
84.1333	0.3727	0	0.0011	0.0011
84.1667	0.3734	0	0.0011	0.0011
84.2	0.375	0	0.0011	0.0011
84.2333	0.3763	0.0158	0.0025	0.0182
84.2667	0.3734	0.0289	0.0011	0.0301
84.3	0.3747	0.0158	0	0.0158
84.3333	0.3727	0.0026	0.0011	0.0038
84.3667	0.3753	0.0158	0	0.0158
84.4	0.375	0.0026	0.0011	0.0038
84.4333	0.372	0	0	0
84.4667	0.3737	0	0	0
84.5	0.373	0.0026	0.0025	0.0051
84.5333	0.377	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
84.5667	0.3757	0.0158	0.0011	0.0169
84.6	0.3727	0.0026	0.0011	0.0038
84.6333	0.3734	0.0158	0	0.0158
84.6667	0.3747	0	0	0
84.7	0.3717	0.0026	0.0011	0.0038
84.7333	0.375	0	0.0011	0.0011
84.7667	0.3767	0	0.0011	0.0011
84.8	0.3737	0.0026	0.0025	0.0051
84.8333	0.3737	0.0026	0.0011	0.0038
84.8667	0.3717	0.0026	0.0011	0.0038
84.9	0.3753	0.0026	0	0.0026
84.9333	0.372	0	0.0011	0.0011
84.9667	0.3724	0	0	0
85	0.3747	0.0026	0	0.0026
85.0333	0.3727	0.0026	0.0011	0.0038
85.0667	0.375	0	0.0011	0.0011
85.1	0.3724	0.0026	0.0011	0.0038
85.1333	0.372	0.0026	0.0011	0.0038
85.1667	0.3701	0.0158	0.0011	0.0169
85.2	0.3717	0	0.0038	0.0038
85.2333	0.3753	0.0026	0	0.0026
85.2667	0.3767	0	0	0
85.3	0.3724	0	0	0
85.3333	0.3753	0.0158	0.0011	0.0169
85.3667	0.3717	0.0026	0.0011	0.0038
85.4	0.3707	0.0026	0.0011	0.0038
85.4333	0.374	0.0026	0	0.0026
85.4667	0.3747	0.0026	0.0025	0.0051
85.5	0.3691	0.0026	0	0.0026
85.5333	0.3707	0.0026	0	0.0026
85.5667	0.3714	0.0158	0	0.0158
85.6	0.3714	0	0	0
85.6333	0.3711	0	0.0011	0.0011
85.6667	0.3737	0.0026	0.0011	0.0038
85.7	0.3714	0	0	0
85.7333	0.3714	0.0026	0.0011	0.0038
85.7667	0.3717	0	0	0
85.8	0.372	0	0	0
85.8333	0.374	0.0026	0.0011	0.0038
85.8667	0.3697	0	0.0011	0.0011
85.9	0.3734	0.0026	0.0025	0.0051
85.9333	0.3717	0.0026	0.0011	0.0038
85.9667	0.3697	0.0158	0.0011	0.0169

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
86	0.3743	0.0026	0.0011	0.0038
86.0333	0.3734	0	0	0
86.0667	0.373	0.0026	0	0.0026
86.1	0.3711	0.0026	0.0025	0.0051
86.1333	0.373	0.0026	0.0011	0.0038
86.1667	0.374	0.0026	0	0.0026
86.2	0.3714	0.0026	0	0.0026
86.2333	0.372	0.0158	0.0025	0.0182
86.2667	0.373	0	0	0
86.3	0.3711	0	0.0011	0.0011
86.3333	0.3714	0.0158	0.0011	0.0169
86.3667	0.3684	0.0026	0.0011	0.0038
86.4	0.375	0	0.0011	0.0011
86.4333	0.3707	0	0	0
86.4667	0.3697	0	0.0011	0.0011
86.5	0.3737	0.0158	0	0.0158
86.5333	0.372	0.0026	0.0011	0.0038
86.5667	0.3724	0.0026	0	0.0026
86.6	0.3678	0.0026	0	0.0026
86.6333	0.3717	0.0026	0	0.0026
86.6667	0.3691	0.0158	0.0011	0.0169
86.7	0.3704	0.0158	0.0025	0.0182
86.7333	0.3688	0.0026	0.0025	0.0051
86.7667	0.3697	0.0026	0.0025	0.0051
86.8	0.3691	0.0026	0.0025	0.0051
86.8333	0.3714	0.0026	0	0.0026
86.8667	0.3684	0.0026	0.0025	0.0051
86.9	0.3717	0.0026	0.0011	0.0038
86.9333	0.3704	0	0	0
86.9667	0.3727	0	0.0011	0.0011
87	0.3671	0.0158	0	0.0158
87.0333	0.3691	0	0	0
87.0667	0.3714	0.0026	0	0.0026
87.1	0.3704	0	0.0011	0.0011
87.1333	0.3707	0.0158	0	0.0158
87.1667	0.3697	0	0.0025	0.0025
87.2	0.372	0	0	0
87.2333	0.3711	0.0026	0	0.0026
87.2667	0.3701	0	0	0
87.3	0.3671	0.0026	0.0011	0.0038
87.3333	0.3707	0	0	0
87.3667	0.3714	0	0.0011	0.0011
87.4	0.3668	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
87.4333	0.3701	0.0158	0	0.0158
87.4667	0.3694	0.0026	0	0.0026
87.5	0.3704	0.0158	0.0011	0.0169
87.5333	0.3678	0	0.0011	0.0011
87.5667	0.3694	0	0	0
87.6	0.3737	0	0.0038	0.0038
87.6333	0.3707	0.0026	0	0.0026
87.6667	0.3688	0.0158	0.0011	0.0169
87.7	0.3678	0.0026	0	0.0026
87.7333	0.3717	0.0026	0.0011	0.0038
87.7667	0.373	0.0158	0.0011	0.0169
87.8	0.3707	0.0158	0.0011	0.0169
87.8333	0.3707	0	0	0
87.8667	0.3717	0.0158	0.0025	0.0182
87.9	0.3701	0.0026	0.0011	0.0038
87.9333	0.3701	0.0158	0.0011	0.0169
87.9667	0.3711	0	0.0025	0.0025
88	0.3681	0	0.0011	0.0011
88.0333	0.3707	0	0.0011	0.0011
88.0667	0.3694	0.0026	0.0011	0.0038
88.1	0.3734	0.0026	0.0011	0.0038
88.1333	0.3711	0.0026	0	0.0026
88.1667	0.3701	0	0.0011	0.0011
88.2	0.3704	0	0.0011	0.0011
88.2333	0.3727	0	0	0
88.2667	0.3707	0.0158	0.0011	0.0169
88.3	0.3681	0	0.0011	0.0011
88.3333	0.3714	0.0026	0.0011	0.0038
88.3667	0.3704	0.0158	0.0011	0.0169
88.4	0.3697	0	0	0
88.4333	0.3658	0	0.0011	0.0011
88.4667	0.3668	0.0026	0.0011	0.0038
88.5	0.3697	0	0	0
88.5333	0.3714	0.0158	0.0025	0.0182
88.5667	0.3678	0.0026	0.0011	0.0038
88.6	0.3681	0	0.0011	0.0011
88.6333	0.3701	0	0	0
88.6667	0.3691	0.0026	0.0025	0.0051
88.7	0.3691	0.0026	0.0025	0.0051
88.7333	0.3691	0.0158	0.0011	0.0169
88.7667	0.3684	0.0026	0.0011	0.0038
88.8	0.3671	0.0026	0	0.0026
88.8333	0.3691	0.0026	0.0011	0.0038

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
88.8667	0.3694	0.0026	0	0.0026
88.9	0.3691	0	0.0011	0.0011
88.9333	0.3691	0.0026	0	0.0026
88.9667	0.3671	0.0026	0.0011	0.0038
89	0.3704	0.0158	0.0025	0.0182
89.0333	0.3648	0.0158	0.0011	0.0169
89.0667	0.3691	0	0	0
89.1	0.3694	0.0026	0.0025	0.0051
89.1333	0.3681	0	0.0011	0.0011
89.1667	0.3688	0	0.0011	0.0011
89.2	0.3668	0.0026	0.0025	0.0051
89.2333	0.3684	0.0026	0.0011	0.0038
89.2667	0.3688	0	0.0011	0.0011
89.3	0.3665	0.0026	0.0011	0.0038
89.3333	0.3707	0	0.0025	0.0025
89.3667	0.3668	0	0.0011	0.0011
89.4	0.3681	0.0026	0	0.0026
89.4333	0.3694	0.0026	0.0011	0.0038
89.4667	0.3674	0.0026	0	0.0026
89.5	0.3697	0.0026	0.0011	0.0038
89.5333	0.3671	0	0.0011	0.0011
89.5667	0.3691	0.0026	0.0011	0.0038
89.6	0.3701	0.0026	0.0025	0.0051
89.6333	0.3694	0	0.0011	0.0011
89.6667	0.3681	0	0.0025	0.0025
89.7	0.3671	0	0.0011	0.0011
89.7333	0.3658	0	0	0
89.7667	0.3701	0.0026	0	0.0026
89.8	0.3694	0.0026	0	0.0026
89.8333	0.3707	0	0.0011	0.0011
89.8667	0.3684	0	0.0011	0.0011
89.9	0.3678	0.0289	0.0011	0.0301
89.9333	0.3701	0.0026	0	0.0026
89.9667	0.3681	0	0	0
90	0.3694	0.0026	0.0025	0.0051
90.0333	0.3681	0.0158	0	0.0158
90.0667	0.3665	0.0026	0.0011	0.0038
90.1	0.3688	0.0158	0.0025	0.0182
90.1333	0.3668	0	0	0
90.1667	0.3661	0	0.0011	0.0011
90.2	0.3674	0.0026	0.0011	0.0038
90.2333	0.3665	0.0158	0	0.0158
90.2667	0.3691	0	0.0025	0.0025

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
90.3	0.3694	0	0.0011	0.0011
90.3333	0.3665	0	0	0
90.3667	0.3648	0.0158	0.0011	0.0169
90.4	0.3665	0.0026	0.0011	0.0038
90.4333	0.3681	0.0026	0	0.0026
90.4667	0.3658	0.0289	0	0.0289
90.5	0.3674	0.0026	0.0025	0.0051
90.5333	0.3697	0.0158	0	0.0158
90.5667	0.3655	0	0.0011	0.0011
90.6	0.3671	0.0026	0	0.0026
90.6333	0.3618	0	0.0011	0.0011
90.6667	0.3661	0.0026	0.0011	0.0038
90.7	0.3678	0.0158	0.0011	0.0169
90.7333	0.3671	0.0026	0	0.0026
90.7667	0.3678	0.0026	0.0011	0.0038
90.8	0.3671	0	0	0
90.8333	0.3681	0	0.0011	0.0011
90.8667	0.3655	0.0158	0.0011	0.0169
90.9	0.3661	0.0158	0.0025	0.0182
90.9333	0.3671	0	0	0
90.9667	0.3668	0.0026	0	0.0026
91	0.3655	0.0026	0	0.0026
91.0333	0.3665	0.0026	0	0.0026
91.0667	0.3658	0	0.0011	0.0011
91.1	0.3684	0.0026	0.0011	0.0038
91.1333	0.3671	0.0026	0.0011	0.0038
91.1667	0.3641	0	0	0
91.2	0.3697	0.0026	0	0.0026
91.2333	0.3645	0	0.0011	0.0011
91.2667	0.3661	0	0.0011	0.0011
91.3	0.3665	0.0026	0.0011	0.0038
91.3333	0.3671	0	0	0
91.3667	0.3648	0	0	0
91.4	0.3658	0	0.0011	0.0011
91.4333	0.3661	0.0289	0.0038	0.0327
91.4667	0.3645	0.0026	0.0011	0.0038
91.5	0.3658	0.0026	0	0.0026
91.5333	0.3678	0.0026	0	0.0026
91.5667	0.3658	0.0026	0.0011	0.0038
91.6	0.3665	0.0158	0	0.0158
91.6333	0.3658	0.0158	0	0.0158
91.6667	0.3658	0.0026	0.0011	0.0038
91.7	0.3661	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
91.7333	0.3645	0.0158	0	0.0158
91.7667	0.3668	0	0.0025	0.0025
91.8	0.3681	0	0.0011	0.0011
91.8333	0.3658	0.0158	0	0.0158
91.8667	0.3678	0	0.0025	0.0025
91.9	0.3671	0.0026	0	0.0026
91.9333	0.3665	0.0158	0.0011	0.0169
91.9667	0.3648	0.0026	0.0011	0.0038
92	0.3671	0.0158	0.0011	0.0169
92.0333	0.3678	0.0026	0.0011	0.0038
92.0667	0.3671	0.0026	0.0011	0.0038
92.1	0.3661	0.0026	0.0011	0.0038
92.1333	0.3665	0	0.0011	0.0011
92.1667	0.3655	0.0026	0.0011	0.0038
92.2	0.3641	0.0026	0.0011	0.0038
92.2333	0.3688	0.0026	0.0011	0.0038
92.2667	0.3658	0	0	0
92.3	0.3668	0	0.0011	0.0011
92.3333	0.3655	0.0158	0	0.0158
92.3667	0.3671	0.0158	0.0011	0.0169
92.4	0.3645	0.0026	0.0011	0.0038
92.4333	0.3671	0.0026	0	0.0026
92.4667	0.3651	0	0.0011	0.0011
92.5	0.3681	0.0026	0.0011	0.0038
92.5333	0.3668	0.0026	0.0011	0.0038
92.5667	0.3678	0	0	0
92.6	0.3661	0.0026	0.0011	0.0038
92.6333	0.3674	0.0158	0	0.0158
92.6667	0.3641	0.0026	0.0011	0.0038
92.7	0.3665	0.0026	0.0025	0.0051
92.7333	0.3665	0.0158	0.0011	0.0169
92.7667	0.3671	0.0158	0	0.0158
92.8	0.3632	0	0.0011	0.0011
92.8333	0.3668	0.0158	0.0025	0.0182
92.8667	0.3665	0.0026	0.0025	0.0051
92.9	0.3655	0.0026	0.0025	0.0051
92.9333	0.3674	0	0.0011	0.0011
92.9667	0.3648	0.0026	0.0025	0.0051
93	0.3665	0.0026	0.0011	0.0038
93.0333	0.3655	0.0026	0	0.0026
93.0667	0.3635	0.0026	0	0.0026
93.1	0.3658	0.0026	0.0011	0.0038
93.1333	0.3668	0	0.0011	0.0011

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
93.1667	0.3668	0	0.0011	0.0011
93.2	0.3645	0	0.0011	0.0011
93.2333	0.3661	0.0026	0	0.0026
93.2667	0.3665	0.0026	0	0.0026
93.3	0.3697	0.0026	0.0011	0.0038
93.3333	0.3612	0	0	0
93.3667	0.3641	0	0.0011	0.0011
93.4	0.3668	0.0026	0	0.0026
93.4333	0.3641	0	0	0
93.4667	0.3661	0	0.0011	0.0011
93.5	0.3665	0.0026	0.0025	0.0051
93.5333	0.3648	0.0158	0.0011	0.0169
93.5667	0.3681	0.0026	0	0.0026
93.6	0.3661	0.0026	0.0011	0.0038
93.6333	0.3651	0	0	0
93.6667	0.3661	0.0026	0	0.0026
93.7	0.3665	0	0	0
93.7333	0.3661	0.0158	0.0011	0.0169
93.7667	0.3625	0	0.0011	0.0011
93.8	0.3655	0	0	0
93.8333	0.3651	0.0026	0.0025	0.0051
93.8667	0.3665	0.0289	0.0011	0.0301
93.9	0.3688	0.0026	0.0011	0.0038
93.9333	0.3668	0.0158	0.0038	0.0195
93.9667	0.3661	0.0026	0.0011	0.0038
94	0.3668	0	0.0011	0.0011
94.0333	0.3641	0.0026	0.0025	0.0051
94.0667	0.3641	0.0026	0.0025	0.0051
94.1	0.3655	0	0.0011	0.0011
94.1333	0.3658	0	0.0011	0.0011
94.1667	0.3671	0.0026	0.0011	0.0038
94.2	0.3665	0.0026	0.0011	0.0038
94.2333	0.3658	0	0	0
94.2667	0.3655	0	0.0011	0.0011
94.3	0.3661	0.0158	0.0011	0.0169
94.3333	0.3648	0	0.0011	0.0011
94.3667	0.3665	0.0026	0	0.0026
94.4	0.3638	0.0026	0	0.0026
94.4333	0.3681	0.0026	0.0011	0.0038
94.4667	0.3674	0.0026	0.0025	0.0051
94.5	0.3661	0	0	0
94.5333	0.3645	0.0158	0.0011	0.0169
94.5667	0.3678	0	0.0011	0.0011

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
94.6	0.3658	0	0	0
94.6333	0.3655	0.0026	0	0.0026
94.6667	0.3641	0	0.0025	0.0025
94.7	0.3668	0	0.0025	0.0025
94.7333	0.3645	0	0.0011	0.0011
94.7667	0.3632	0.0026	0.0025	0.0051
94.8	0.3671	0	0	0
94.8333	0.3681	0	0.0011	0.0011
94.8667	0.3655	0	0	0
94.9	0.3674	0.0026	0	0.0026
94.9333	0.3665	0	0.0011	0.0011
94.9667	0.3668	0.0026	0.0011	0.0038
95	0.3655	0.0026	0.0011	0.0038
95.0333	0.3678	0.0026	0.0011	0.0038
95.0667	0.3665	0.0026	0.0011	0.0038
95.1	0.3655	0.0026	0.0011	0.0038
95.1333	0.3678	0.0026	0	0.0026
95.1667	0.3665	0.0026	0	0.0026
95.2	0.3678	0.0026	0.0011	0.0038
95.2333	0.3625	0	0.0011	0.0011
95.2667	0.3678	0	0.0011	0.0011
95.3	0.3648	0.0026	0.0025	0.0051
95.3333	0.3658	0.0026	0.0011	0.0038
95.3667	0.3671	0.0026	0	0.0026
95.4	0.3684	0.0158	0.0011	0.0169
95.4333	0.3671	0.0026	0.0011	0.0038
95.4667	0.3668	0.0026	0	0.0026
95.5	0.3668	0.0026	0	0.0026
95.5333	0.3668	0.0026	0	0.0026
95.5667	0.3671	0	0.0011	0.0011
95.6	0.3651	0.0026	0.0025	0.0051
95.6333	0.3648	0	0.0011	0.0011
95.6667	0.3665	0.0026	0	0.0026
95.7	0.3681	0	0.0025	0.0025
95.7333	0.3671	0.0026	0.0011	0.0038
95.7667	0.3671	0.0026	0.0011	0.0038
95.8	0.3641	0	0.0011	0.0011
95.8333	0.3655	0	0	0
95.8667	0.3671	0.0026	0	0.0026
95.9	0.3668	0.0026	0	0.0026
95.9333	0.3661	0	0.0011	0.0011
95.9667	0.3665	0.0158	0	0.0158
96	0.3651	0.0158	0.0011	0.0169

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
96.0333	0.3655	0.0026	0.0025	0.0051
96.0667	0.3658	0	0.0025	0.0025
96.1	0.3648	0.0026	0	0.0026
96.1333	0.3661	0.0026	0.0011	0.0038
96.1667	0.3641	0	0	0
96.2	0.3678	0	0	0
96.2333	0.3665	0.0026	0	0.0026
96.2667	0.3678	0	0	0
96.3	0.3668	0.0026	0	0.0026
96.3333	0.3638	0	0.0011	0.0011
96.3667	0.3681	0	0.0011	0.0011
96.4	0.3681	0.0026	0	0.0026
96.4333	0.3661	0.0026	0.0011	0.0038
96.4667	0.3638	0	0	0
96.5	0.3674	0.0026	0	0.0026
96.5333	0.3648	0.0158	0.0011	0.0169
96.5667	0.3671	0	0	0
96.6	0.3658	0.0289	0.0011	0.0301
96.6333	0.3635	0.0026	0.0011	0.0038
96.6667	0.3678	0	0.0011	0.0011
96.7	0.3665	0	0	0
96.7333	0.3645	0.0026	0	0.0026
96.7667	0.3658	0.0158	0.0011	0.0169
96.8	0.3661	0.0026	0	0.0026
96.8333	0.3681	0	0	0
96.8667	0.3651	0.0026	0	0.0026
96.9	0.3648	0.0026	0	0.0026
96.9333	0.3658	0	0.0011	0.0011
96.9667	0.3641	0.0026	0	0.0026
97	0.3668	0	0	0
97.0333	0.3661	0	0	0
97.0667	0.3651	0	0.0011	0.0011
97.1	0.3658	0	0	0
97.1333	0.3694	0.0158	0.0011	0.0169
97.1667	0.3655	0.0026	0.0011	0.0038
97.2	0.3671	0.0026	0	0.0026
97.2333	0.3658	0	0.0011	0.0011
97.2667	0.3674	0.0158	0	0.0158
97.3	0.3674	0	0	0
97.3333	0.3658	0.0026	0	0.0026
97.3667	0.3658	0	0	0
97.4	0.3645	0.0026	0	0.0026
97.4333	0.3668	0.0026	0.0025	0.0051

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
97.4667	0.3658	0.0026	0.0011	0.0038
97.5	0.3665	0	0.0011	0.0011
97.5333	0.3678	0.0026	0.0011	0.0038
97.5667	0.3684	0.0026	0.0011	0.0038
97.6	0.3671	0	0	0
97.6333	0.3648	0.0158	0.0025	0.0182
97.6667	0.3655	0.0026	0.0011	0.0038
97.7	0.3671	0	0.0011	0.0011
97.7333	0.3658	0.0158	0.0038	0.0195
97.7667	0.3674	0.0026	0.0011	0.0038
97.8	0.3665	0	0.0011	0.0011
97.8333	0.3655	0.0026	0	0.0026
97.8667	0.3665	0.0026	0.0011	0.0038
97.9	0.3655	0.0158	0	0.0158
97.9333	0.3668	0.0158	0	0.0158
97.9667	0.3645	0.0026	0.0011	0.0038
98	0.3665	0.0026	0.0025	0.0051
98.0333	0.3641	0.0289	0.0011	0.0301
98.0667	0.3648	0.0158	0	0.0158
98.1	0.3655	0.0026	0.0011	0.0038
98.1333	0.3678	0.0158	0	0.0158
98.1667	0.3625	0.0026	0.0011	0.0038
98.2	0.3641	0.0158	0	0.0158
98.2333	0.3632	0.0158	0	0.0158
98.2667	0.3678	0	0	0
98.3	0.3648	0	0.0011	0.0011
98.3333	0.3694	0.0026	0.0011	0.0038
98.3667	0.3674	0.0026	0	0.0026
98.4	0.3638	0.0026	0.0011	0.0038
98.4333	0.3645	0.0026	0.0011	0.0038
98.4667	0.3681	0.0158	0	0.0158
98.5	0.3671	0.0158	0.0025	0.0182
98.5333	0.3658	0.0026	0.0011	0.0038
98.5667	0.3661	0.0158	0.0025	0.0182
98.6	0.3661	0.0026	0.0011	0.0038
98.6333	0.3651	0.0026	0.0011	0.0038
98.6667	0.3668	0.0026	0.0011	0.0038
98.7	0.3665	0	0.0011	0.0011
98.7333	0.3658	0	0	0
98.7667	0.3632	0.0158	0.0025	0.0182
98.8	0.3671	0.0026	0.0011	0.0038
98.8333	0.3668	0	0.0011	0.0011
98.8667	0.3661	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
98.9	0.3668	0	0	0
98.9333	0.3671	0	0	0
98.9667	0.3678	0.0026	0.0011	0.0038
99	0.3668	0.0026	0.0025	0.0051
99.0333	0.3655	0.0026	0	0.0026
99.0667	0.3655	0	0.0011	0.0011
99.1	0.3655	0	0.0025	0.0025
99.1333	0.3658	0.0026	0	0.0026
99.1667	0.3674	0.0026	0.0025	0.0051
99.2	0.3655	0	0	0
99.2333	0.3671	0.0026	0	0.0026
99.2667	0.3651	0.0026	0.0011	0.0038
99.3	0.3671	0.0026	0.0011	0.0038
99.3333	0.3648	0	0.0011	0.0011
99.3667	0.3688	0	0.0011	0.0011
99.4	0.3671	0.0026	0.0025	0.0051
99.4333	0.3684	0.0026	0.0038	0.0064
99.4667	0.3671	0	0	0
99.5	0.3665	0	0.0011	0.0011
99.5333	0.3648	0	0	0
99.5667	0.3655	0	0	0
99.6	0.3681	0.0026	0.0011	0.0038
99.6333	0.3681	0	0.0025	0.0025
99.6667	0.3684	0	0.0011	0.0011
99.7	0.3671	0	0.0025	0.0025
99.7333	0.3688	0.0158	0.0011	0.0169
99.7667	0.3665	0	0	0
99.8	0.3648	0.0026	0.0025	0.0051
99.8333	0.3665	0.0026	0.0025	0.0051
99.8667	0.3671	0.0158	0.0011	0.0169
99.9	0.3678	0	0	0
99.9333	0.3688	0.0158	0.0011	0.0169
99.9667	0.3661	0	0.0011	0.0011
100	0.3625	0.0158	0.0011	0.0169
100.0333	0.3694	0	0	0
100.0667	0.3661	0.0158	0	0.0158
100.1	0.3681	0.0289	0.0011	0.0301
100.1333	0.3684	0.0026	0.0011	0.0038
100.1667	0.3655	0	0.0011	0.0011
100.2	0.3701	0	0.0011	0.0011
100.2333	0.3674	0.0026	0.0011	0.0038
100.2667	0.3684	0.0158	0	0.0158
100.3	0.3688	0	0.0011	0.0011

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
100.3333	0.3655	0.0026	0	0.0026
100.3667	0.3684	0	0	0
100.4	0.3648	0	0	0
100.4333	0.3668	0.0026	0	0.0026
100.4667	0.3674	0.0026	0.0011	0.0038
100.5	0.3694	0	0.0011	0.0011
100.5333	0.3681	0	0.0025	0.0025
100.5667	0.3691	0.0026	0.0025	0.0051
100.6	0.3681	0.0026	0.0011	0.0038
100.6333	0.3671	0	0	0
100.6667	0.3691	0.0158	0.0011	0.0169
100.7	0.3645	0	0.0011	0.0011
100.7333	0.3681	0.0026	0	0.0026
100.7667	0.3651	0.0026	0.0025	0.0051
100.8	0.3651	0.0026	0	0.0026
100.8333	0.3671	0	0.0011	0.0011
100.8667	0.3655	0.0026	0	0.0026
100.9	0.3684	0.0026	0	0.0026
100.9333	0.3655	0.0026	0	0.0026
100.9667	0.3658	0.0158	0.0025	0.0182
101	0.3678	0	0.0011	0.0011
101.0333	0.3671	0.0026	0.0011	0.0038
101.0667	0.3648	0	0	0
101.1	0.3655	0	0	0
101.1333	0.3651	0.0026	0	0.0026
101.1667	0.3697	0	0	0
101.2	0.3671	0.0026	0.0011	0.0038
101.2333	0.3641	0.0026	0.0011	0.0038
101.2667	0.3655	0	0	0
101.3	0.3678	0	0	0
101.3333	0.3655	0	0.0011	0.0011
101.3667	0.3658	0.0026	0.0025	0.0051
101.4	0.3671	0.0158	0	0.0158
101.4333	0.3668	0.0026	0.0011	0.0038
101.4667	0.3691	0.0026	0.0011	0.0038
101.5	0.3674	0.0158	0.0011	0.0169
101.5333	0.3674	0.0026	0.0011	0.0038
101.5667	0.3668	0.0026	0.0011	0.0038
101.6	0.3668	0.0026	0.0025	0.0051
101.6333	0.3681	0.0026	0.0011	0.0038
101.6667	0.3681	0.0026	0.0025	0.0051
101.7	0.3671	0.0158	0	0.0158
101.7333	0.3638	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
101.7667	0.3678	0.0026	0.0011	0.0038
101.8	0.3697	0.0158	0	0.0158
101.8333	0.3665	0.0026	0.0011	0.0038
101.8667	0.3671	0	0.0011	0.0011
101.9	0.3651	0.0026	0	0.0026
101.9333	0.3671	0.0026	0	0.0026
101.9667	0.3661	0.0026	0.0011	0.0038
102	0.3668	0.0026	0	0.0026
102.0333	0.3688	0.0026	0.0011	0.0038
102.0667	0.3674	0.0026	0.0025	0.0051
102.1	0.3668	0.0026	0.0011	0.0038
102.1333	0.3671	0.0026	0.0011	0.0038
102.1667	0.3684	0.0026	0	0.0026
102.2	0.3691	0.0026	0	0.0026
102.2333	0.3704	0.0026	0.0011	0.0038
102.2667	0.3665	0.0026	0.0011	0.0038
102.3	0.3691	0.0026	0	0.0026
102.3333	0.3645	0.0026	0.0011	0.0038
102.3667	0.3668	0.0026	0.0011	0.0038
102.4	0.3658	0.0026	0.0011	0.0038
102.4333	0.3671	0.0158	0.0025	0.0182
102.4667	0.3661	0.0026	0.0011	0.0038
102.5	0.3681	0	0	0
102.5333	0.3681	0	0	0
102.5667	0.3691	0.0158	0.0011	0.0169
102.6	0.3671	0.0026	0	0.0026
102.6333	0.3714	0.0158	0.0011	0.0169
102.6667	0.3701	0.0026	0.0011	0.0038
102.7	0.3697	0	0.0011	0.0011
102.7333	0.3684	0.0026	0.0011	0.0038
102.7667	0.3628	0.0026	0.0011	0.0038
102.8	0.3661	0	0	0
102.8333	0.3658	0	0.0025	0.0025
102.8667	0.3674	0.0026	0.0011	0.0038
102.9	0.3658	0.0026	0.0011	0.0038
102.9333	0.3681	0.0158	0.0011	0.0169
102.9667	0.3684	0.0026	0.0011	0.0038
103	0.3671	0.0026	0.0025	0.0051
103.0333	0.3674	0.0026	0.0011	0.0038
103.0667	0.3704	0.0026	0	0.0026
103.1	0.3681	0.0026	0.0025	0.0051
103.1333	0.3671	0.0026	0.0011	0.0038
103.1667	0.3668	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
103.2	0.3658	0.0026	0	0.0026
103.2333	0.3655	0.0158	0	0.0158
103.2667	0.3681	0	0.0025	0.0025
103.3	0.3668	0	0.0011	0.0011
103.3333	0.3681	0.0026	0.0011	0.0038
103.3667	0.3671	0.0026	0	0.0026
103.4	0.3668	0.0026	0.0011	0.0038
103.4333	0.3681	0.0026	0.0011	0.0038
103.4667	0.3665	0.0026	0.0011	0.0038
103.5	0.3671	0	0.0011	0.0011
103.5333	0.3681	0.0289	0	0.0289
103.5667	0.3678	0.0026	0.0011	0.0038
103.6	0.3665	0.0026	0	0.0026
103.6333	0.3648	0.0026	0.0025	0.0051
103.6667	0.3674	0	0	0
103.7	0.3688	0	0.0011	0.0011
103.7333	0.3678	0.0026	0	0.0026
103.7667	0.3674	0	0.0025	0.0025
103.8	0.3655	0.0026	0.0025	0.0051
103.8333	0.3665	0.0026	0	0.0026
103.8667	0.3681	0.0026	0.0011	0.0038
103.9	0.3697	0.0026	0.0011	0.0038
103.9333	0.3655	0.0026	0.0011	0.0038
103.9667	0.3684	0.0026	0.0025	0.0051
104	0.3661	0.0026	0	0.0026
104.0333	0.3661	0.0158	0.0011	0.0169
104.0667	0.3655	0.0026	0	0.0026
104.1	0.3671	0.0158	0	0.0158
104.1333	0.3645	0.0026	0	0.0026
104.1667	0.3645	0.0026	0.0011	0.0038
104.2	0.3668	0.0026	0.0011	0.0038
104.2333	0.3691	0.0026	0.0011	0.0038
104.2667	0.3681	0.0158	0	0.0158
104.3	0.3684	0.0026	0.0011	0.0038
104.3333	0.3658	0	0.0011	0.0011
104.3667	0.3641	0.0026	0	0.0026
104.4	0.3684	0.0026	0.0011	0.0038
104.4333	0.3671	0.0289	0	0.0289
104.4667	0.3684	0	0.0011	0.0011
104.5	0.3668	0.0158	0.0011	0.0169
104.5333	0.3691	0.0026	0.0011	0.0038
104.5667	0.3707	0.0158	0	0.0158
104.6	0.3671	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
104.6333	0.3665	0.0026	0	0.0026
104.6667	0.3668	0.0026	0	0.0026
104.7	0.3668	0	0.0011	0.0011
104.7333	0.3668	0.0158	0	0.0158
104.7667	0.3668	0.0026	0.0011	0.0038
104.8	0.3645	0.0026	0.0011	0.0038
104.8333	0.3697	0.0026	0	0.0026
104.8667	0.3711	0.0026	0.0025	0.0051
104.9	0.3648	0.0158	0.0025	0.0182
104.9333	0.3717	0	0.0011	0.0011
104.9667	0.3776	0.0026	0.0011	0.0038
105	0.3803	0	0	0
105.0333	0.3816	0.0158	0	0.0158
105.0667	0.3842	0.0026	0	0.0026
105.1	0.3875	0.0026	0	0.0026
105.1333	0.3915	0.0026	0	0.0026
105.1667	0.3921	0	0.0011	0.0011
105.2	0.3961	0.0158	0	0.0158
105.2333	0.3971	0.0026	0.0011	0.0038
105.2667	0.4056	0	0.0011	0.0011
105.3	0.4073	0.0026	0.0011	0.0038
105.3333	0.4076	0.0026	0.0011	0.0038
105.3667	0.4155	0.0158	0.0025	0.0182
105.4	0.4194	0.0026	0	0.0026
105.4333	0.4201	0	0.0011	0.0011
105.4667	0.424	0.0158	0	0.0158
105.5	0.429	0	0.0025	0.0025
105.5333	0.4313	0.0289	0.0011	0.0301
105.5667	0.4316	0.0026	0.0011	0.0038
105.6	0.4375	0.0026	0.0011	0.0038
105.6333	0.4395	0.0026	0.0025	0.0051
105.6667	0.4431	0	0.0011	0.0011
105.7	0.4474	0.0026	0.0025	0.0051
105.7333	0.4474	0.0026	0.0011	0.0038
105.7667	0.4517	0.0026	0.0011	0.0038
105.8	0.4579	0.0158	0	0.0158
105.8333	0.4566	0.0158	0	0.0158
105.8667	0.4609	0.0026	0.0011	0.0038
105.9	0.4619	0	0	0
105.9333	0.4658	0.0158	0.0011	0.0169
105.9667	0.4695	0	0.0011	0.0011
106	0.4701	0.0026	0	0.0026
106.0333	0.4761	0.0026	0.0011	0.0038

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
106.0667	0.4793	0	0.0025	0.0025
106.1	0.477	0.0026	0.0025	0.0051
106.1333	0.484	0.0158	0.0025	0.0182
106.1667	0.4816	0.0158	0	0.0158
106.2	0.4892	0.0026	0.0011	0.0038
106.2333	0.4919	0.0158	0.0011	0.0169
106.2667	0.4922	0.0026	0.0011	0.0038
106.3	0.4965	0.0026	0	0.0026
106.3333	0.4978	0.0026	0.0011	0.0038
106.3667	0.5024	0	0.0011	0.0011
106.4	0.5057	0.0026	0	0.0026
106.4333	0.509	0	0.0025	0.0025
106.4667	0.5132	0.0026	0.0011	0.0038
106.5	0.5136	0.0026	0.0025	0.0051
106.5333	0.5165	0	0.0011	0.0011
106.5667	0.5182	0	0.0011	0.0011
106.6	0.5208	0.0026	0	0.0026
106.6333	0.5261	0	0.0011	0.0011
106.6667	0.5251	0	0	0
106.7	0.5284	0.0158	0.0025	0.0182
106.7333	0.5327	0	0	0
106.7667	0.5333	0	0	0
106.8	0.5399	0	0	0
106.8333	0.5412	0.0026	0	0.0026
106.8667	0.5406	0	0.0011	0.0011
106.9	0.5442	0	0	0
106.9333	0.5442	0.0026	0	0.0026
106.9667	0.5494	0	0	0
107	0.5524	0.0026	0	0.0026
107.0333	0.5534	0	0.0011	0.0011
107.0667	0.5564	0.0026	0.0011	0.0038
107.1	0.559	0.0026	0	0.0026
107.1333	0.559	0	0.0011	0.0011
107.1667	0.5606	0	0	0
107.2	0.5666	0.0026	0	0.0026
107.2333	0.5679	0.0158	0.0011	0.0169
107.2667	0.5728	0.0026	0	0.0026
107.3	0.5768	0.0026	0.0025	0.0051
107.3333	0.5751	0	0.0011	0.0011
107.3667	0.5774	0	0	0
107.4	0.5807	0.0026	0	0.0026
107.4333	0.583	0.0026	0.0011	0.0038
107.4667	0.584	0	0.0011	0.0011

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
107.5	0.5896	0	0	0
107.5333	0.5906	0	0.0011	0.0011
107.5667	0.5945	0	0.0011	0.0011
107.6	0.5972	0.0026	0.0011	0.0038
107.6333	0.5975	0	0	0
107.6667	0.6008	0.0026	0.0025	0.0051
107.7	0.6044	0.0026	0	0.0026
107.7333	0.6038	0.0026	0	0.0026
107.7667	0.6077	0.0026	0.0011	0.0038
107.8	0.6097	0.0026	0.0011	0.0038
107.8333	0.613	0	0.0011	0.0011
107.8667	0.6103	0.0158	0.0025	0.0182
107.9	0.6153	0	0	0
107.9333	0.6205	0	0	0
107.9667	0.6189	0	0.0025	0.0025
108	0.6215	0.0026	0	0.0026
108.0333	0.6265	0.0158	0.0025	0.0182
108.0667	0.6242	0.0026	0.0011	0.0038
108.1	0.6288	0.0026	0	0.0026
108.1333	0.6304	0	0.0025	0.0025
108.1667	0.6291	0.0158	0	0.0158
108.2	0.635	0.0026	0	0.0026
108.2333	0.6354	0	0.0025	0.0025
108.2667	0.6373	0.0026	0	0.0026
108.3	0.6403	0.0026	0	0.0026
108.3333	0.6383	0.0026	0.0011	0.0038
108.3667	0.6439	0.0158	0.0011	0.0169
108.4	0.6416	0	0	0
108.4333	0.6446	0.0026	0.0011	0.0038
108.4667	0.6456	0.0026	0.0011	0.0038
108.5	0.6492	0.0026	0.0011	0.0038
108.5333	0.6472	0.0026	0.0011	0.0038
108.5667	0.6502	0.0026	0	0.0026
108.6	0.6531	0.0158	0	0.0158
108.6333	0.6544	0	0.0025	0.0025
108.6667	0.6558	0.0158	0.0011	0.0169
108.7	0.6541	0.0026	0.0011	0.0038
108.7333	0.6577	0	0.0011	0.0011
108.7667	0.66	0.0026	0	0.0026
108.8	0.6574	0.0026	0	0.0026
108.8333	0.663	0	0	0
108.8667	0.6653	0.0026	0.0025	0.0051
108.9	0.6666	0	0.0011	0.0011

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
108.9333	0.6693	0	0.0011	0.0011
108.9667	0.6696	0.0026	0.0011	0.0038
109	0.6729	0	0	0
109.0333	0.6709	0.0158	0.0025	0.0182
109.0667	0.6755	0.0158	0	0.0158
109.1	0.6722	0	0	0
109.1333	0.6722	0.0026	0.0011	0.0038
109.1667	0.6768	0.0026	0.0025	0.0051
109.2	0.6765	0.0026	0.0011	0.0038
109.2333	0.6742	0.0026	0.0011	0.0038
109.2667	0.6791	0.0158	0.0011	0.0169
109.3	0.6804	0.0026	0.0011	0.0038
109.3333	0.6808	0.0026	0.0011	0.0038
109.3667	0.6827	0.0026	0.0011	0.0038
109.4	0.6827	0	0.0011	0.0011
109.4333	0.6857	0	0	0
109.4667	0.6867	0.0026	0.0011	0.0038
109.5	0.6851	0.0158	0	0.0158
109.5333	0.687	0.0026	0.0011	0.0038
109.5667	0.6893	0.0289	0.0011	0.0301
109.6	0.6903	0.0026	0	0.0026
109.6333	0.6887	0.0289	0.0011	0.0301
109.6667	0.689	0	0.0011	0.0011
109.7	0.6933	0.0026	0	0.0026
109.7333	0.6936	0	0.0011	0.0011
109.7667	0.6953	0.0026	0.0025	0.0051
109.8	0.692	0.0158	0.0011	0.0169
109.8333	0.6976	0.0158	0	0.0158
109.8667	0.6966	0.0026	0.0025	0.0051
109.9	0.6969	0	0	0
109.9333	0.6946	0	0	0
109.9667	0.6979	0	0.0025	0.0025
110	0.6985	0	0.0011	0.0011
110.0333	0.7028	0.0026	0	0.0026
110.0667	0.6992	0.0026	0.0011	0.0038
110.1	0.7005	0	0	0
110.1333	0.7028	0	0.0025	0.0025
110.1667	0.7045	0	0.0011	0.0011
110.2	0.7051	0.0026	0.0011	0.0038
110.2333	0.7061	0	0	0
110.2667	0.7058	0.0026	0.0025	0.0051
110.3	0.7081	0.0158	0.0011	0.0169
110.3333	0.7048	0.0026	0.0011	0.0038

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
110.3667	0.7074	0.0026	0	0.0026
110.4	0.7061	0	0.0011	0.0011
110.4333	0.7101	0.0026	0.0025	0.0051
110.4667	0.7087	0	0.0011	0.0011
110.5	0.7117	0	0.0011	0.0011
110.5333	0.7081	0.0026	0.0025	0.0051
110.5667	0.712	0.0158	0	0.0158
110.6	0.7114	0.0026	0.0025	0.0051
110.6333	0.7127	0	0	0
110.6667	0.7143	0.0026	0.0011	0.0038
110.7	0.7143	0.0026	0.0011	0.0038
110.7333	0.714	0	0	0
110.7667	0.7143	0	0.0011	0.0011
110.8	0.7127	0.0026	0.0011	0.0038
110.8333	0.715	0.0026	0.0011	0.0038
110.8667	0.713	0.0026	0.0011	0.0038
110.9	0.7147	0.0026	0	0.0026
110.9333	0.7186	0	0	0
110.9667	0.7186	0.0026	0.0025	0.0051
111	0.717	0	0.0011	0.0011
111.0333	0.717	0.0026	0.0011	0.0038
111.0667	0.7157	0	0.0011	0.0011
111.1	0.7213	0.0026	0.0011	0.0038
111.1333	0.7213	0	0.0011	0.0011
111.1667	0.718	0	0.0011	0.0011
111.2	0.7209	0.0158	0	0.0158
111.2333	0.7216	0	0.0025	0.0025
111.2667	0.7275	0.0026	0	0.0026
111.3	0.7216	0	0.0011	0.0011
111.3333	0.7226	0.0158	0.0011	0.0169
111.3667	0.7269	0.0026	0	0.0026
111.4	0.7242	0	0.0011	0.0011
111.4333	0.7272	0	0.0011	0.0011
111.4667	0.7259	0	0.0011	0.0011
111.5	0.7252	0	0.0025	0.0025
111.5333	0.7282	0.0026	0.0025	0.0051
111.5667	0.7278	0.0026	0.0011	0.0038
111.6	0.7272	0	0	0
111.6333	0.7288	0	0.0025	0.0025
111.6667	0.7301	0.0158	0	0.0158
111.7	0.7311	0.0158	0.0011	0.0169
111.7333	0.7331	0.0026	0.0011	0.0038
111.7667	0.7305	0	0.0011	0.0011

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
111.8	0.7298	0	0.0011	0.0011
111.8333	0.7315	0	0	0
111.8667	0.7301	0.0026	0.0011	0.0038
111.9	0.7338	0	0	0
111.9333	0.7338	0	0.0011	0.0011
111.9667	0.7348	0.0158	0	0.0158
112	0.7348	0.0026	0	0.0026
112.0333	0.7351	0.0158	0.0025	0.0182
112.0667	0.7328	0.0026	0.0011	0.0038
112.1	0.7367	0	0	0
112.1333	0.7364	0.0026	0	0.0026
112.1667	0.7387	0	0.0011	0.0011
112.2	0.7374	0.0158	0	0.0158
112.2333	0.7354	0.0158	0.0025	0.0182
112.2667	0.7377	0.0026	0.0011	0.0038
112.3	0.7351	0.0158	0.0011	0.0169
112.3333	0.7364	0.0026	0.0038	0.0064
112.3667	0.7344	0.0026	0.0011	0.0038
112.4	0.7374	0.0026	0	0.0026
112.4333	0.7364	0.0026	0.0011	0.0038
112.4667	0.7367	0.0026	0.0011	0.0038
112.5	0.7377	0.0158	0.0011	0.0169
112.5333	0.7357	0.0158	0.0011	0.0169
112.5667	0.7351	0.0026	0.0011	0.0038
112.6	0.7354	0	0	0
112.6333	0.7348	0.0026	0.0011	0.0038
112.6667	0.7367	0.0026	0.0011	0.0038
112.7	0.7351	0.0158	0.0011	0.0169
112.7333	0.7394	0	0.0011	0.0011
112.7667	0.7367	0.0026	0.0025	0.0051
112.8	0.7331	0.0026	0.0011	0.0038
112.8333	0.7348	0.0026	0	0.0026
112.8667	0.7341	0	0.0011	0.0011
112.9	0.7341	0.0026	0.0025	0.0051
112.9333	0.7331	0.0026	0	0.0026
112.9667	0.7318	0.0158	0	0.0158
113	0.7315	0	0.0011	0.0011
113.0333	0.7321	0.0026	0	0.0026
113.0667	0.7324	0	0	0
113.1	0.7298	0.0158	0.0011	0.0169
113.1333	0.7324	0.0026	0.0011	0.0038
113.1667	0.7341	0.0026	0.0011	0.0038
113.2	0.7301	0	0.0025	0.0025

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
113.2333	0.7272	0.0026	0.0011	0.0038
113.2667	0.7278	0.0158	0	0.0158
113.3	0.7255	0.0026	0.0011	0.0038
113.3333	0.7262	0.0026	0	0.0026
113.3667	0.7298	0	0.0011	0.0011
113.4	0.7245	0.0158	0.0011	0.0169
113.4333	0.7239	0.0026	0.0011	0.0038
113.4667	0.7242	0	0.0011	0.0011
113.5	0.7239	0.0026	0.0011	0.0038
113.5333	0.7245	0.0026	0	0.0026
113.5667	0.7249	0.0158	0.0011	0.0169
113.6	0.7239	0	0	0
113.6333	0.7203	0	0	0
113.6667	0.7236	0.0026	0.0025	0.0051
113.7	0.7219	0.0026	0.0011	0.0038
113.7333	0.7219	0.0026	0	0.0026
113.7667	0.7242	0.0158	0.0011	0.0169
113.8	0.7216	0	0.0011	0.0011
113.8333	0.719	0.0158	0.0025	0.0182
113.8667	0.7209	0.0026	0.0011	0.0038
113.9	0.7203	0.0026	0	0.0026
113.9333	0.719	0.0026	0.0011	0.0038
113.9667	0.7183	0	0	0
114	0.7196	0.0026	0.0011	0.0038
114.0333	0.7176	0	0	0
114.0667	0.7186	0.0026	0	0.0026
114.1	0.7186	0.0026	0.0011	0.0038
114.1333	0.7166	0	0	0
114.1667	0.718	0.0026	0	0.0026
114.2	0.7183	0.0026	0	0.0026
114.2333	0.7163	0.0026	0.0011	0.0038
114.2667	0.715	0	0.0011	0.0011
114.3	0.715	0.0026	0.0011	0.0038
114.3333	0.7127	0.0026	0.0025	0.0051
114.3667	0.716	0.0158	0.0025	0.0182
114.4	0.7163	0	0	0
114.4333	0.7157	0	0	0
114.4667	0.713	0.0026	0.0011	0.0038
114.5	0.7147	0.0026	0.0011	0.0038
114.5333	0.713	0.0158	0	0.0158
114.5667	0.7111	0	0.0011	0.0011
114.6	0.7157	0.0026	0.0011	0.0038
114.6333	0.712	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
114.6667	0.7134	0	0.0011	0.0011
114.7	0.7137	0.0289	0	0.0289
114.7333	0.7127	0.0026	0.0025	0.0051
114.7667	0.712	0.0026	0.0011	0.0038
114.8	0.7111	0.0026	0.0011	0.0038
114.8333	0.712	0	0.0011	0.0011
114.8667	0.712	0.0026	0	0.0026
114.9	0.7111	0	0.0025	0.0025
114.9333	0.7127	0	0	0
114.9667	0.7104	0	0.0011	0.0011
115	0.7107	0.0026	0	0.0026
115.0333	0.7114	0	0	0
115.0667	0.7094	0	0	0
115.1	0.7124	0.0026	0	0.0026
115.1333	0.7097	0	0.0025	0.0025
115.1667	0.7091	0	0.0011	0.0011
115.2	0.7117	0.0158	0.0011	0.0169
115.2333	0.7111	0.0026	0.0011	0.0038
115.2667	0.7091	0.0026	0	0.0026
115.3	0.712	0	0.0011	0.0011
115.3333	0.7124	0	0	0
115.3667	0.7124	0.0158	0.0011	0.0169
115.4	0.712	0.0026	0	0.0026
115.4333	0.7097	0.0026	0.0025	0.0051
115.4667	0.7087	0.0158	0.0011	0.0169
115.5	0.713	0.0026	0.0025	0.0051
115.5333	0.7111	0.0026	0.0025	0.0051
115.5667	0.7111	0.0158	0.0011	0.0169
115.6	0.7097	0.0026	0	0.0026
115.6333	0.7111	0.0026	0.0011	0.0038
115.6667	0.7114	0.0026	0	0.0026
115.7	0.7101	0.0026	0	0.0026
115.7333	0.7094	0	0.0011	0.0011
115.7667	0.7101	0	0.0011	0.0011
115.8	0.7094	0.0026	0.0011	0.0038
115.8333	0.7124	0	0.0025	0.0025
115.8667	0.714	0	0.0011	0.0011
115.9	0.7134	0.0158	0	0.0158
115.9333	0.712	0.0026	0.0025	0.0051
115.9667	0.7127	0.0026	0.0011	0.0038
116	0.7114	0.0158	0.0011	0.0169
116.0333	0.714	0.0158	0.0025	0.0182
116.0667	0.7101	0.0026	0.0025	0.0051

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
116.1	0.7134	0.0158	0.0011	0.0169
116.1333	0.7137	0.0026	0.0011	0.0038
116.1667	0.7143	0.0289	0.0025	0.0314
116.2	0.716	0	0.0011	0.0011
116.2333	0.7114	0.0158	0	0.0158
116.2667	0.7143	0.0026	0.0025	0.0051
116.3	0.713	0.0026	0.0025	0.0051
116.3333	0.7176	0	0.0011	0.0011
116.3667	0.716	0.0026	0.0011	0.0038
116.4	0.7137	0.0026	0.0011	0.0038
116.4333	0.717	0.0026	0	0.0026
116.4667	0.714	0	0.0011	0.0011
116.5	0.7196	0.0026	0.0025	0.0051
116.5333	0.7183	0	0.0011	0.0011
116.5667	0.7183	0.0158	0.0011	0.0169
116.6	0.7183	0.0026	0.0011	0.0038
116.6333	0.7176	0.0158	0.0025	0.0182
116.6667	0.7186	0.0026	0	0.0026
116.7	0.7206	0	0.0011	0.0011
116.7333	0.7193	0.0026	0.0011	0.0038
116.7667	0.7209	0.0158	0	0.0158
116.8	0.7206	0	0.0011	0.0011
116.8333	0.7176	0	0	0
116.8667	0.7193	0.0026	0	0.0026
116.9	0.7203	0	0.0025	0.0025
116.9333	0.7196	0	0.0025	0.0025
116.9667	0.7242	0.0026	0.0011	0.0038
117	0.7226	0	0	0
117.0333	0.7226	0	0.0011	0.0011
117.0667	0.7213	0.0026	0.0011	0.0038
117.1	0.7226	0	0.0011	0.0011
117.1333	0.7239	0	0	0
117.1667	0.7219	0	0.0011	0.0011
117.2	0.7242	0.0026	0	0.0026
117.2333	0.7239	0.0026	0.0025	0.0051
117.2667	0.7229	0	0.0011	0.0011
117.3	0.7213	0.0026	0	0.0026
117.3333	0.7219	0.0026	0.0025	0.0051
117.3667	0.7252	0.0026	0.0011	0.0038
117.4	0.7242	0.0026	0.0011	0.0038
117.4333	0.7259	0	0.0011	0.0011
117.4667	0.7245	0.0026	0.0011	0.0038
117.5	0.7269	0.0026	0.0011	0.0038

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
117.5333	0.7259	0.0026	0.0025	0.0051
117.5667	0.7278	0.0026	0.0011	0.0038
117.6	0.7272	0	0.0025	0.0025
117.6333	0.7262	0.0026	0.0011	0.0038
117.6667	0.7269	0	0.0025	0.0025
117.7	0.7262	0.0026	0.0011	0.0038
117.7333	0.7259	0.0026	0.0038	0.0064
117.7667	0.7278	0.0026	0	0.0026
117.8	0.7278	0	0.0025	0.0025
117.8333	0.7255	0.0158	0.0011	0.0169
117.8667	0.7288	0.0158	0	0.0158
117.9	0.7278	0.0026	0	0.0026
117.9333	0.7275	0	0.0011	0.0011
117.9667	0.7282	0.0026	0.0011	0.0038
118	0.7301	0.0026	0.0025	0.0051
118.0333	0.7255	0.0158	0	0.0158
118.0667	0.7275	0.0026	0.0038	0.0064
118.1	0.7265	0.0026	0	0.0026
118.1333	0.7295	0.0026	0.0011	0.0038
118.1667	0.7282	0	0.0011	0.0011
118.2	0.7301	0.0026	0.0011	0.0038
118.2333	0.7272	0.0158	0.0025	0.0182
118.2667	0.7275	0.0026	0.0011	0.0038
118.3	0.7278	0.0158	0.0011	0.0169
118.3333	0.7305	0	0.0011	0.0011
118.3667	0.7315	0	0.0011	0.0011
118.4	0.7298	0.0026	0.0011	0.0038
118.4333	0.7305	0.0026	0.0025	0.0051
118.4667	0.7288	0.0158	0	0.0158
118.5	0.7311	0	0	0
118.5333	0.7305	0.0026	0	0.0026
118.5667	0.7292	0	0	0
118.6	0.7315	0.0026	0.0011	0.0038
118.6333	0.7292	0.0158	0	0.0158
118.6667	0.7334	0	0	0
118.7	0.7318	0	0.0011	0.0011
118.7333	0.7311	0	0	0
118.7667	0.7324	0.0158	0	0.0158
118.8	0.7315	0.0158	0	0.0158
118.8333	0.7321	0	0	0
118.8667	0.7324	0.0026	0	0.0026
118.9	0.7334	0.0158	0.0011	0.0169
118.9333	0.7348	0	0.0011	0.0011

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
118.9667	0.7305	0.0026	0.0011	0.0038
119	0.7315	0.0026	0.0025	0.0051
119.0333	0.7334	0	0.0011	0.0011
119.0667	0.7301	0.0026	0.0011	0.0038
119.1	0.7321	0	0.0011	0.0011
119.1333	0.7308	0.0158	0.0011	0.0169
119.1667	0.7338	0.0289	0.0011	0.0301
119.2	0.7311	0.0026	0.0011	0.0038
119.2333	0.7315	0	0.0011	0.0011
119.2667	0.7318	0.0026	0.0011	0.0038
119.3	0.7308	0.0026	0.0011	0.0038
119.3333	0.7344	0.0026	0.0038	0.0064
119.3667	0.7341	0.0158	0.0011	0.0169
119.4	0.7324	0.0026	0.0011	0.0038
119.4333	0.7341	0.0026	0.0011	0.0038
119.4667	0.7351	0.0026	0.0011	0.0038
119.5	0.7334	0.0158	0.0011	0.0169
119.5333	0.7334	0.0158	0	0.0158
119.5667	0.7328	0	0.0011	0.0011
119.6	0.7328	0	0.0025	0.0025
119.6333	0.7318	0.0158	0.0038	0.0195
119.6667	0.7341	0.0026	0.0025	0.0051
119.7	0.7331	0.0026	0.0025	0.0051
119.7333	0.7324	0	0.0011	0.0011
119.7667	0.7328	0.0026	0	0.0026
119.8	0.7354	0.0026	0	0.0026
119.8333	0.7341	0.0158	0	0.0158
119.8667	0.7344	0.0158	0.0011	0.0169
119.9	0.7324	0.0026	0	0.0026
119.9333	0.7318	0.0158	0.0011	0.0169
119.9667	0.7318	0	0	0
120	0.7341	0.0158	0	0.0158
120.0333	0.7364	0.0026	0.0011	0.0038
120.0667	0.7331	0	0	0
120.1	0.7344	0.0158	0	0.0158
120.1333	0.7361	0.0026	0.0011	0.0038
120.1667	0.7344	0.0158	0	0.0158
120.2	0.7357	0.0158	0.0011	0.0169
120.2333	0.7344	0.0026	0.0011	0.0038
120.2667	0.7338	0.0158	0.0011	0.0169
120.3	0.7364	0.0026	0.0011	0.0038
120.3333	0.7344	0.0026	0.0011	0.0038
120.3667	0.7334	0.0026	0.0011	0.0038

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
120.4	0.7354	0.0026	0.0038	0.0064
120.4333	0.7357	0.0026	0	0.0026
120.4667	0.7351	0.0158	0.0011	0.0169
120.5	0.7361	0.0158	0.0011	0.0169
120.5333	0.7321	0	0.0011	0.0011
120.5667	0.7344	0.0026	0.0011	0.0038
120.6	0.7334	0.0026	0.0011	0.0038
120.6333	0.7344	0	0	0
120.6667	0.7331	0.0026	0.0011	0.0038
120.7	0.7341	0.0026	0	0.0026
120.7333	0.7364	0.0158	0.0025	0.0182
120.7667	0.7344	0.0026	0.0011	0.0038
120.8	0.7357	0.0158	0	0.0158
120.8333	0.7328	0	0.0025	0.0025
120.8667	0.7354	0.0026	0	0.0026
120.9	0.7367	0.0158	0	0.0158
120.9333	0.7374	0	0.0011	0.0011
120.9667	0.7374	0.0026	0	0.0026
121	0.7377	0	0.0011	0.0011
121.0333	0.7387	0.0026	0.0011	0.0038
121.0667	0.7348	0.0026	0.0025	0.0051
121.1	0.7361	0.0026	0.0011	0.0038
121.1333	0.7357	0	0.0011	0.0011
121.1667	0.7374	0.0158	0	0.0158
121.2	0.739	0.0026	0	0.0026
121.2333	0.7371	0	0.0011	0.0011
121.2667	0.7334	0.0026	0.0011	0.0038
121.3	0.7364	0	0.0025	0.0025
121.3333	0.7364	0.0158	0.0011	0.0169
121.3667	0.7374	0.0026	0.0011	0.0038
121.4	0.7377	0	0.0011	0.0011
121.4333	0.7341	0.0026	0.0011	0.0038
121.4667	0.738	0.0026	0.0011	0.0038
121.5	0.7387	0.0026	0.0011	0.0038
121.5333	0.7348	0	0.0025	0.0025
121.5667	0.7377	0	0.0025	0.0025
121.6	0.7367	0.0158	0	0.0158
121.6333	0.7354	0	0.0025	0.0025
121.6667	0.7357	0.0026	0.0011	0.0038
121.7	0.7394	0	0.0011	0.0011
121.7333	0.7364	0.0026	0	0.0026
121.7667	0.7374	0.0026	0.0011	0.0038
121.8	0.7377	0.0158	0.0011	0.0169

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
121.8333	0.7348	0.0026	0.0011	0.0038
121.8667	0.739	0.0026	0.0025	0.0051
121.9	0.7394	0.0158	0.0011	0.0169
121.9333	0.7407	0	0	0
121.9667	0.7397	0.0026	0.0011	0.0038
122	0.7407	0.0158	0.0011	0.0169
122.0333	0.7374	0	0.0011	0.0011
122.0667	0.7374	0	0.0011	0.0011
122.1	0.739	0.0158	0	0.0158
122.1333	0.738	0.0026	0.0011	0.0038
122.1667	0.7357	0.0026	0.0011	0.0038
122.2	0.7394	0.0026	0.0011	0.0038
122.2333	0.7377	0	0.0011	0.0011
122.2667	0.7354	0.0026	0.0025	0.0051
122.3	0.7377	0.0026	0	0.0026
122.3333	0.7371	0.0026	0.0011	0.0038
122.3667	0.738	0	0.0011	0.0011
122.4	0.739	0	0.0011	0.0011
122.4333	0.7394	0	0.0025	0.0025
122.4667	0.7397	0.0026	0.0011	0.0038
122.5	0.738	0.0026	0.0011	0.0038
122.5333	0.7384	0	0	0
122.5667	0.7403	0.0026	0.0025	0.0051
122.6	0.7394	0.0026	0	0.0026
122.6333	0.7407	0.0026	0	0.0026
122.6667	0.7397	0.0026	0.0011	0.0038
122.7	0.7403	0.0158	0.0025	0.0182
122.7333	0.738	0	0	0
122.7667	0.7397	0.0158	0.0025	0.0182
122.8	0.7403	0.0026	0	0.0026
122.8333	0.7371	0.0158	0	0.0158
122.8667	0.7367	0.0026	0	0.0026
122.9	0.7384	0	0.0011	0.0011
122.9333	0.7377	0.0026	0.0011	0.0038
122.9667	0.7387	0	0.0011	0.0011
123	0.7357	0.0026	0.0025	0.0051
123.0333	0.738	0	0.0025	0.0025
123.0667	0.738	0	0	0
123.1	0.7394	0	0	0
123.1333	0.7364	0	0.0011	0.0011
123.1667	0.7387	0	0.0025	0.0025
123.2	0.738	0.0026	0	0.0026
123.2333	0.739	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
123.2667	0.7403	0.0026	0.0025	0.0051
123.3	0.7377	0.0158	0	0.0158
123.3333	0.7371	0.0158	0.0011	0.0169
123.3667	0.7367	0.0158	0.0011	0.0169
123.4	0.738	0	0.0011	0.0011
123.4333	0.7357	0.0026	0.0011	0.0038
123.4667	0.7351	0.0026	0.0011	0.0038
123.5	0.7344	0.0026	0.0011	0.0038
123.5333	0.7357	0.0158	0.0011	0.0169
123.5667	0.7341	0.0026	0.0011	0.0038
123.6	0.738	0.0026	0	0.0026
123.6333	0.7341	0.0026	0	0.0026
123.6667	0.7364	0.0026	0.0011	0.0038
123.7	0.738	0.0026	0	0.0026
123.7333	0.7348	0.0026	0.0011	0.0038
123.7667	0.7341	0.0026	0.0011	0.0038
123.8	0.7338	0.0026	0.0011	0.0038
123.8333	0.7341	0	0	0
123.8667	0.7348	0.0026	0	0.0026
123.9	0.7334	0.0026	0.0011	0.0038
123.9333	0.7344	0.0158	0.0025	0.0182
123.9667	0.7318	0.0026	0.0011	0.0038
124	0.7338	0	0.0011	0.0011
124.0333	0.7331	0	0.0011	0.0011
124.0667	0.7341	0.0158	0	0.0158
124.1	0.7348	0.0289	0	0.0289
124.1333	0.7348	0.0026	0	0.0026
124.1667	0.7321	0.0026	0.0011	0.0038
124.2	0.7351	0.0026	0	0.0026
124.2333	0.7324	0	0.0011	0.0011
124.2667	0.7321	0.0026	0.0011	0.0038
124.3	0.7305	0	0.0011	0.0011
124.3333	0.7328	0.0026	0.0011	0.0038
124.3667	0.7318	0	0	0
124.4	0.7351	0.0026	0.0011	0.0038
124.4333	0.7301	0.0158	0	0.0158
124.4667	0.7324	0.0026	0	0.0026
124.5	0.7315	0	0	0
124.5333	0.7318	0.0026	0	0.0026
124.5667	0.7301	0	0	0
124.6	0.7321	0.0026	0.0011	0.0038
124.6333	0.7308	0.0158	0.0011	0.0169
124.6667	0.7288	0.0158	0.0011	0.0169

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
124.7	0.7318	0.0158	0.0011	0.0169
124.7333	0.7288	0.0026	0	0.0026
124.7667	0.7318	0	0	0
124.8	0.7308	0.0158	0	0.0158
124.8333	0.7305	0.0026	0	0.0026
124.8667	0.7308	0.0026	0.0011	0.0038
124.9	0.7311	0	0.0011	0.0011
124.9333	0.7285	0	0.0011	0.0011
124.9667	0.7288	0.0026	0	0.0026
125	0.7301	0.0026	0.0011	0.0038
125.0333	0.7305	0	0	0
125.0667	0.7282	0.0289	0.0011	0.0301
125.1	0.7288	0	0	0
125.1333	0.7308	0.0026	0.0011	0.0038
125.1667	0.7305	0.0026	0.0011	0.0038
125.2	0.7318	0.0026	0	0.0026
125.2333	0.7278	0.0158	0	0.0158
125.2667	0.7315	0.0026	0	0.0026
125.3	0.7305	0.0289	0.0011	0.0301
125.3333	0.7282	0	0.0011	0.0011
125.3667	0.7262	0	0.0011	0.0011
125.4	0.7285	0.0158	0	0.0158
125.4333	0.7282	0.0026	0.0011	0.0038
125.4667	0.7275	0.0158	0	0.0158
125.5	0.7255	0.0026	0.0011	0.0038
125.5333	0.7272	0	0.0025	0.0025
125.5667	0.7305	0.0026	0.0025	0.0051
125.6	0.7262	0.0026	0	0.0026
125.6333	0.7288	0.0026	0	0.0026
125.6667	0.7239	0.0026	0.0011	0.0038
125.7	0.7265	0.0026	0	0.0026
125.7333	0.7278	0.0026	0.0011	0.0038
125.7667	0.7265	0	0.0011	0.0011
125.8	0.7242	0	0.0011	0.0011
125.8333	0.7259	0.0026	0.0025	0.0051
125.8667	0.7209	0.0026	0.0011	0.0038
125.9	0.7269	0	0	0
125.9333	0.7269	0.0026	0	0.0026
125.9667	0.7236	0.0026	0.0011	0.0038
126	0.7259	0.0026	0.0011	0.0038
126.0333	0.7239	0.0026	0	0.0026
126.0667	0.7255	0.0158	0.0011	0.0169
126.1	0.7239	0.0026	0.0011	0.0038

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
126.1333	0.7252	0	0.0011	0.0011
126.1667	0.7278	0.0026	0.0038	0.0064
126.2	0.7272	0.0026	0.0011	0.0038
126.2333	0.7219	0.0026	0	0.0026
126.2667	0.7239	0	0.0011	0.0011
126.3	0.7262	0.0158	0.0011	0.0169
126.3333	0.7242	0.0026	0.0011	0.0038
126.3667	0.7249	0.0026	0	0.0026
126.4	0.7269	0	0.0011	0.0011
126.4333	0.7252	0.0158	0.0025	0.0182
126.4667	0.7259	0.0158	0	0.0158
126.5	0.7236	0.0026	0.0011	0.0038
126.5333	0.7229	0.0158	0	0.0158
126.5667	0.7259	0.0026	0.0011	0.0038
126.6	0.7255	0.0026	0	0.0026
126.6333	0.7236	0.0158	0.0011	0.0169
126.6667	0.7239	0.0158	0.0025	0.0182
126.7	0.7236	0.0026	0.0025	0.0051
126.7333	0.7242	0.0026	0.0025	0.0051
126.7667	0.7226	0.0026	0.0025	0.0051
126.8	0.7226	0	0.0025	0.0025
126.8333	0.7242	0	0.0038	0.0038
126.8667	0.7232	0.0158	0	0.0158
126.9	0.7226	0.0026	0.0011	0.0038
126.9333	0.7229	0.0026	0	0.0026
126.9667	0.7236	0	0.0025	0.0025
127	0.7206	0	0.0025	0.0025
127.0333	0.7236	0	0	0
127.0667	0.7219	0.0026	0	0.0026
127.1	0.7219	0.0026	0.0011	0.0038
127.1333	0.7209	0.0026	0	0.0026
127.1667	0.7219	0.0026	0	0.0026
127.2	0.7226	0.0026	0.0011	0.0038
127.2333	0.7206	0.0026	0.0011	0.0038
127.2667	0.7213	0.0158	0.0011	0.0169
127.3	0.7203	0.0026	0	0.0026
127.3333	0.7216	0.0026	0.0038	0.0064
127.3667	0.7203	0.0026	0	0.0026
127.4	0.7199	0	0.0011	0.0011
127.4333	0.7219	0.0026	0.0038	0.0064
127.4667	0.7219	0.0026	0	0.0026
127.5	0.7186	0.0026	0.0011	0.0038
127.5333	0.7216	0.0026	0.0025	0.0051

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
127.5667	0.7206	0.0026	0.0011	0.0038
127.6	0.7183	0.0158	0	0.0158
127.6333	0.7213	0	0.0011	0.0011
127.6667	0.7186	0	0	0
127.7	0.7203	0.0158	0.0025	0.0182
127.7333	0.7216	0	0	0
127.7667	0.7209	0.0026	0.0025	0.0051
127.8	0.719	0.0026	0.0011	0.0038
127.8333	0.7219	0	0.0025	0.0025
127.8667	0.7203	0.0158	0.0025	0.0182
127.9	0.7219	0.0026	0	0.0026
127.9333	0.719	0.0158	0.0025	0.0182
127.9667	0.7203	0.0026	0	0.0026
128	0.7209	0	0	0
128.0333	0.7196	0.0026	0.0011	0.0038
128.0667	0.7216	0.0158	0	0.0158
128.1	0.7183	0.0158	0.0011	0.0169
128.1333	0.7196	0.0026	0.0011	0.0038
128.1667	0.7203	0	0.0025	0.0025
128.2	0.7216	0.0026	0.0011	0.0038
128.2333	0.717	0.0026	0.0011	0.0038
128.2667	0.7166	0.0026	0	0.0026
128.3	0.7183	0	0	0
128.3333	0.7222	0.0026	0.0025	0.0051
128.3667	0.7186	0.0158	0.0011	0.0169
128.4	0.7173	0.0026	0.0011	0.0038
128.4333	0.7196	0	0	0
128.4667	0.719	0.0026	0.0011	0.0038
128.5	0.7203	0	0.0011	0.0011
128.5333	0.7183	0	0.0011	0.0011
128.5667	0.7199	0.0158	0.0011	0.0169
128.6	0.7193	0	0.0011	0.0011
128.6333	0.7193	0	0.0011	0.0011
128.6667	0.7176	0.0158	0.0025	0.0182
128.7	0.716	0	0.0011	0.0011
128.7333	0.7163	0.0026	0.0011	0.0038
128.7667	0.7176	0.0026	0.0025	0.0051
128.8	0.7176	0.0026	0.0025	0.0051
128.8333	0.717	0.0158	0.0025	0.0182
128.8667	0.718	0.0026	0.0025	0.0051
128.9	0.7137	0.0158	0.0011	0.0169
128.9333	0.717	0.0026	0.0025	0.0051
128.9667	0.7186	0.0158	0	0.0158

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
129	0.7199	0	0	0
129.0333	0.7193	0.0026	0.0025	0.0051
129.0667	0.718	0.0026	0.0011	0.0038
129.1	0.7196	0	0.0011	0.0011
129.1333	0.7173	0.0026	0.0011	0.0038
129.1667	0.716	0	0.0011	0.0011
129.2	0.717	0.0026	0.0025	0.0051
129.2333	0.7166	0	0.0025	0.0025
129.2667	0.7196	0.0026	0	0.0026
129.3	0.718	0	0	0
129.3333	0.7173	0.0026	0.0025	0.0051
129.3667	0.7173	0	0.0025	0.0025
129.4	0.718	0.0026	0.0011	0.0038
129.4333	0.717	0.0026	0	0.0026
129.4667	0.7163	0.0158	0.0011	0.0169
129.5	0.7153	0.0158	0	0.0158
129.5333	0.719	0.0026	0.0011	0.0038
129.5667	0.7157	0	0.0011	0.0011
129.6	0.717	0.0026	0.0011	0.0038
129.6333	0.7173	0.0158	0	0.0158
129.6667	0.7163	0	0	0
129.7	0.7143	0.0026	0.0025	0.0051
129.7333	0.7193	0.0158	0.0011	0.0169
129.7667	0.7163	0.0158	0.0011	0.0169
129.8	0.719	0	0	0
129.8333	0.7147	0.0026	0	0.0026
129.8667	0.7173	0.0026	0.0011	0.0038
129.9	0.717	0.0026	0	0.0026
129.9333	0.718	0.0158	0.0011	0.0169
129.9667	0.716	0.0158	0.0011	0.0169
130	0.7157	0.0026	0	0.0026
130.0333	0.7173	0.0026	0.0025	0.0051
130.0667	0.716	0.0026	0.0011	0.0038
130.1	0.716	0.0026	0.0011	0.0038
130.1333	0.7157	0	0.0011	0.0011
130.1667	0.718	0.0026	0.0011	0.0038
130.2	0.7173	0	0.0011	0.0011
130.2333	0.7153	0	0.0038	0.0038
130.2667	0.7173	0.0026	0.0011	0.0038
130.3	0.7176	0.0026	0.0011	0.0038
130.3333	0.7153	0.0026	0.0025	0.0051
130.3667	0.7183	0.0158	0.0011	0.0169
130.4	0.7153	0.0026	0.0011	0.0038

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
130.4333	0.7157	0.0026	0.0025	0.0051
130.4667	0.7176	0.0026	0	0.0026
130.5	0.7183	0.0026	0.0025	0.0051
130.5333	0.716	0.0026	0	0.0026
130.5667	0.716	0.0158	0	0.0158
130.6	0.7134	0	0.0011	0.0011
130.6333	0.715	0.0026	0	0.0026
130.6667	0.7163	0.0158	0.0011	0.0169
130.7	0.7176	0	0	0
130.7333	0.7134	0	0.0025	0.0025
130.7667	0.715	0.0026	0.0038	0.0064
130.8	0.7143	0.0158	0.0011	0.0169
130.8333	0.7157	0.0026	0.0011	0.0038
130.8667	0.7163	0	0.0025	0.0025
130.9	0.7134	0.0026	0.0011	0.0038
130.9333	0.7176	0.0026	0.0011	0.0038
130.9667	0.7163	0	0	0
131	0.7143	0.0026	0.0025	0.0051
131.0333	0.7157	0.0158	0	0.0158
131.0667	0.7163	0.0026	0.0011	0.0038
131.1	0.7163	0	0.0011	0.0011
131.1333	0.7143	0	0.0025	0.0025
131.1667	0.713	0.0158	0.0025	0.0182
131.2	0.7117	0.0158	0.0011	0.0169
131.2333	0.7143	0.0026	0.0011	0.0038
131.2667	0.7153	0.0026	0.0011	0.0038
131.3	0.7111	0.0026	0	0.0026
131.3333	0.7147	0	0.0025	0.0025
131.3667	0.713	0.0026	0.0025	0.0051
131.4	0.7137	0.0026	0	0.0026
131.4333	0.7166	0.0158	0	0.0158
131.4667	0.715	0.0026	0.0011	0.0038
131.5	0.7157	0.0026	0.0011	0.0038
131.5333	0.717	0.0026	0.0011	0.0038
131.5667	0.716	0.0158	0.0011	0.0169
131.6	0.7127	0.0026	0.0011	0.0038
131.6333	0.713	0.0026	0.0011	0.0038
131.6667	0.7147	0.0026	0.0025	0.0051
131.7	0.7147	0	0.0011	0.0011
131.7333	0.7166	0	0	0
131.7667	0.7166	0.0158	0	0.0158
131.8	0.7153	0	0.0011	0.0011
131.8333	0.7157	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
131.8667	0.7137	0	0.0011	0.0011
131.9	0.7134	0.0026	0.0011	0.0038
131.9333	0.7137	0.0026	0.0011	0.0038
131.9667	0.714	0	0	0
132	0.7117	0	0.0011	0.0011
132.0333	0.7137	0.0026	0.0025	0.0051
132.0667	0.715	0	0.0025	0.0025
132.1	0.7137	0	0.0011	0.0011
132.1333	0.7134	0.0158	0	0.0158
132.1667	0.713	0.0026	0.0025	0.0051
132.2	0.7163	0.0026	0.0011	0.0038
132.2333	0.7163	0	0.0011	0.0011
132.2667	0.7111	0.0026	0.0011	0.0038
132.3	0.713	0	0.0011	0.0011
132.3333	0.7117	0	0.0025	0.0025
132.3667	0.714	0.0026	0	0.0026
132.4	0.7137	0	0.0025	0.0025
132.4333	0.7153	0.0026	0	0.0026
132.4667	0.7117	0.0026	0.0011	0.0038
132.5	0.714	0	0	0
132.5333	0.713	0.0026	0.0025	0.0051
132.5667	0.715	0	0.0011	0.0011
132.6	0.7127	0.0026	0.0011	0.0038
132.6333	0.7147	0.0158	0.0011	0.0169
132.6667	0.7143	0.0026	0.0025	0.0051
132.7	0.7127	0.0026	0	0.0026
132.7333	0.713	0.0026	0.0025	0.0051
132.7667	0.7153	0.0026	0	0.0026
132.8	0.7114	0.0026	0	0.0026
132.8333	0.7134	0.0158	0.0025	0.0182
132.8667	0.713	0.0158	0.0025	0.0182
132.9	0.7147	0.0158	0.0011	0.0169
132.9333	0.7147	0	0.0011	0.0011
132.9667	0.7137	0.0026	0.0025	0.0051
133	0.7186	0.0026	0.0011	0.0038
133.0333	0.7147	0.0158	0.0025	0.0182
133.0667	0.7173	0.0026	0	0.0026
133.1	0.716	0.0158	0	0.0158
133.1333	0.717	0.0026	0	0.0026
133.1667	0.713	0.0026	0.0011	0.0038
133.2	0.7127	0.0026	0.0011	0.0038
133.2333	0.7137	0.0026	0.0025	0.0051
133.2667	0.7137	0.0026	0.0011	0.0038

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
133.3	0.716	0	0	0
133.3333	0.716	0.0158	0	0.0158
133.3667	0.7163	0.0158	0.0011	0.0169
133.4	0.7147	0.0158	0	0.0158
133.4333	0.7166	0.0158	0.0011	0.0169
133.4667	0.7157	0.0026	0.0011	0.0038
133.5	0.7157	0.0026	0.0011	0.0038
133.5333	0.712	0	0.0025	0.0025
133.5667	0.716	0	0.0011	0.0011
133.6	0.715	0.0289	0.0011	0.0301
133.6333	0.7127	0.0158	0.0011	0.0169
133.6667	0.7124	0.0026	0	0.0026
133.7	0.717	0.0026	0.0025	0.0051
133.7333	0.7127	0.0026	0.0025	0.0051
133.7667	0.7134	0	0	0
133.8	0.712	0.0026	0.0038	0.0064
133.8333	0.716	0	0.0011	0.0011
133.8667	0.7111	0.0026	0.0011	0.0038
133.9	0.714	0.0026	0.0011	0.0038
133.9333	0.7153	0.0026	0.0011	0.0038
133.9667	0.7137	0	0	0
134	0.713	0.0026	0	0.0026
134.0333	0.7153	0.0158	0	0.0158
134.0667	0.7157	0	0.0011	0.0011
134.1	0.7153	0.0158	0	0.0158
134.1333	0.7134	0	0.0025	0.0025
134.1667	0.716	0.0026	0.0011	0.0038
134.2	0.7173	0.0158	0	0.0158
134.2333	0.715	0.0026	0.0011	0.0038
134.2667	0.713	0.0026	0	0.0026
134.3	0.7183	0.0026	0	0.0026
134.3333	0.7157	0	0.0025	0.0025
134.3667	0.7124	0	0.0011	0.0011
134.4	0.7166	0.0026	0	0.0026
134.4333	0.716	0.0026	0.0025	0.0051
134.4667	0.717	0.0026	0	0.0026
134.5	0.7157	0.0158	0	0.0158
134.5333	0.7157	0.0026	0.0011	0.0038
134.5667	0.7157	0.0026	0.0011	0.0038
134.6	0.7163	0.0026	0.0038	0.0064
134.6333	0.7186	0.0026	0	0.0026
134.6667	0.7157	0.0026	0.0025	0.0051
134.7	0.7153	0.0158	0.0011	0.0169

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
134.7333	0.714	0.0158	0	0.0158
134.7667	0.7157	0.0158	0.0011	0.0169
134.8	0.7176	0	0.0011	0.0011
134.8333	0.7196	0.0026	0	0.0026
134.8667	0.7157	0	0.0011	0.0011
134.9	0.7157	0.0026	0.0011	0.0038
134.9333	0.7183	0.0026	0.0025	0.0051
134.9667	0.714	0.0026	0.0011	0.0038
135	0.7173	0	0	0
135.0333	0.718	0.0026	0.0011	0.0038
135.0667	0.715	0	0	0
135.1	0.7147	0.0026	0.0011	0.0038
135.1333	0.7147	0.0026	0.0011	0.0038
135.1667	0.7153	0.0289	0.0011	0.0301
135.2	0.7166	0.0158	0.0038	0.0195
135.2333	0.7137	0	0.0025	0.0025
135.2667	0.7157	0.0026	0.0011	0.0038
135.3	0.7176	0.0289	0.0011	0.0301
135.3333	0.7166	0.0158	0	0.0158
135.3667	0.7147	0.0026	0.0011	0.0038
135.4	0.7186	0.0026	0.0011	0.0038
135.4333	0.7183	0	0.0011	0.0011
135.4667	0.7176	0.0289	0.0011	0.0301
135.5	0.717	0.0026	0.0011	0.0038
135.5333	0.7157	0	0.0025	0.0025
135.5667	0.7193	0.0026	0.0025	0.0051
135.6	0.7173	0	0.0011	0.0011
135.6333	0.7203	0.0026	0	0.0026
135.6667	0.718	0.0026	0.0011	0.0038
135.7	0.715	0.0026	0.0011	0.0038
135.7333	0.7196	0.0026	0.0025	0.0051
135.7667	0.7166	0.0026	0	0.0026
135.8	0.7196	0.0026	0.0011	0.0038
135.8333	0.716	0	0	0
135.8667	0.7203	0	0.0011	0.0011
135.9	0.7186	0.0026	0.0011	0.0038
135.9333	0.7186	0.0026	0.0011	0.0038
135.9667	0.718	0.0026	0	0.0026
136	0.7193	0	0.0011	0.0011
136.0333	0.7193	0.0026	0.0011	0.0038
136.0667	0.7196	0.0026	0.0011	0.0038
136.1	0.7199	0.0026	0.0011	0.0038
136.1333	0.719	0.0026	0.0011	0.0038

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
136.1667	0.7186	0.0026	0.0025	0.0051
136.2	0.7222	0	0.0011	0.0011
136.2333	0.7193	0.0026	0	0.0026
136.2667	0.7186	0.0026	0	0.0026
136.3	0.715	0.0026	0	0.0026
136.3333	0.7186	0.0026	0	0.0026
136.3667	0.7213	0.0158	0	0.0158
136.4	0.7199	0	0	0
136.4333	0.7213	0.0026	0	0.0026
136.4667	0.7229	0.0158	0	0.0158
136.5	0.7226	0.0289	0.0011	0.0301
136.5333	0.7203	0	0.0025	0.0025
136.5667	0.7173	0.0026	0.0011	0.0038
136.6	0.7206	0	0.0011	0.0011
136.6333	0.7232	0.0289	0.0011	0.0301
136.6667	0.7219	0.0158	0.0011	0.0169
136.7	0.7183	0	0	0
136.7333	0.7199	0.0158	0.0011	0.0169
136.7667	0.7196	0.0026	0.0011	0.0038
136.8	0.7222	0.0026	0	0.0026
136.8333	0.719	0	0.0011	0.0011
136.8667	0.7226	0	0	0
136.9	0.7209	0	0	0
136.9333	0.7199	0	0.0025	0.0025
136.9667	0.7222	0	0	0
137	0.7216	0	0	0
137.0333	0.719	0.0158	0.0011	0.0169
137.0667	0.7242	0.0158	0.0011	0.0169
137.1	0.7199	0.0158	0.0025	0.0182
137.1333	0.7209	0	0.0011	0.0011
137.1667	0.7186	0.0158	0.0011	0.0169
137.2	0.7213	0.0158	0	0.0158
137.2333	0.7232	0	0.0025	0.0025
137.2667	0.7213	0.0158	0.0011	0.0169
137.3	0.7232	0	0.0011	0.0011
137.3333	0.7216	0.0026	0.0011	0.0038
137.3667	0.7213	0.0026	0.0025	0.0051
137.4	0.7213	0	0.0011	0.0011
137.4333	0.7222	0	0.0011	0.0011
137.4667	0.7209	0.0026	0	0.0026
137.5	0.7219	0.0158	0.0011	0.0169
137.5333	0.7229	0.0158	0	0.0158
137.5667	0.7193	0.0026	0.0025	0.0051

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
137.6	0.7222	0.0026	0	0.0026
137.6333	0.7245	0.0026	0.0011	0.0038
137.6667	0.7226	0.0026	0	0.0026
137.7	0.7196	0.0026	0.0011	0.0038
137.7333	0.7209	0.0158	0.0025	0.0182
137.7667	0.7229	0.0026	0.0011	0.0038
137.8	0.7242	0	0.0025	0.0025
137.8333	0.7219	0.0026	0.0025	0.0051
137.8667	0.7239	0.0026	0.0011	0.0038
137.9	0.7226	0.0026	0.0011	0.0038
137.9333	0.7216	0.0026	0.0011	0.0038
137.9667	0.7245	0.0026	0.0011	0.0038
138	0.7229	0.0158	0	0.0158
138.0333	0.7196	0.0026	0.0011	0.0038
138.0667	0.7242	0	0	0
138.1	0.7216	0.0026	0.0011	0.0038
138.1333	0.7206	0	0.0011	0.0011
138.1667	0.7226	0	0	0
138.2	0.7226	0.0026	0.0011	0.0038
138.2333	0.7236	0.0158	0	0.0158
138.2667	0.7242	0	0.0011	0.0011
138.3	0.7239	0.0026	0	0.0026
138.3333	0.7242	0	0.0011	0.0011
138.3667	0.7209	0.0289	0.0025	0.0314
138.4	0.7236	0.0158	0	0.0158
138.4333	0.7249	0.0026	0.0025	0.0051
138.4667	0.7226	0.0026	0.0038	0.0064
138.5	0.7222	0.0026	0	0.0026
138.5333	0.7245	0.0026	0.0025	0.0051
138.5667	0.7249	0	0.0011	0.0011
138.6	0.7245	0.0158	0.0025	0.0182
138.6333	0.7222	0.0026	0	0.0026
138.6667	0.7242	0.0026	0.0025	0.0051
138.7	0.7226	0	0	0
138.7333	0.7236	0.0158	0	0.0158
138.7667	0.7259	0.0026	0.0025	0.0051
138.8	0.7229	0	0	0
138.8333	0.7249	0.0026	0	0.0026
138.8667	0.7209	0.0026	0	0.0026
138.9	0.7226	0.0026	0.0011	0.0038
138.9333	0.7249	0	0.0011	0.0011
138.9667	0.7239	0	0.0011	0.0011
139	0.7219	0.0158	0.0011	0.0169

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
139.0333	0.7252	0.0026	0.0025	0.0051
139.0667	0.7219	0.0026	0.0011	0.0038
139.1	0.7282	0.0158	0.0011	0.0169
139.1333	0.7265	0.0026	0.0011	0.0038
139.1667	0.7249	0	0.0011	0.0011
139.2	0.7272	0.0026	0.0025	0.0051
139.2333	0.7242	0	0	0
139.2667	0.7245	0	0.0011	0.0011
139.3	0.7242	0.0026	0.0011	0.0038
139.3333	0.7239	0	0.0038	0.0038
139.3667	0.7245	0.0026	0	0.0026
139.4	0.7249	0	0	0
139.4333	0.7259	0.0026	0	0.0026
139.4667	0.7259	0.0026	0	0.0026
139.5	0.7242	0.0158	0	0.0158
139.5333	0.7275	0	0.0011	0.0011
139.5667	0.7219	0.0026	0	0.0026
139.6	0.7229	0.0158	0.0025	0.0182
139.6333	0.7252	0	0.0025	0.0025
139.6667	0.7216	0.0026	0	0.0026
139.7	0.7242	0	0.0011	0.0011
139.7333	0.7255	0.0026	0.0011	0.0038
139.7667	0.7236	0.0158	0	0.0158
139.8	0.7242	0.0158	0.0011	0.0169
139.8333	0.7249	0.0026	0.0011	0.0038
139.8667	0.7226	0.0158	0.0025	0.0182
139.9	0.7242	0.0158	0.0025	0.0182
139.9333	0.7222	0.0158	0.0025	0.0182
139.9667	0.7226	0.0026	0	0.0026
140	0.7242	0	0.0011	0.0011
140.0333	0.7229	0.0026	0	0.0026
140.0667	0.7265	0.0026	0	0.0026
140.1	0.7245	0.0158	0.0011	0.0169
140.1333	0.7229	0.0158	0.0011	0.0169
140.1667	0.7255	0.0289	0.0011	0.0301
140.2	0.7265	0	0.0011	0.0011
140.2333	0.7242	0.0026	0	0.0026
140.2667	0.7255	0.0158	0.0025	0.0182
140.3	0.7262	0	0.0025	0.0025
140.3333	0.7239	0	0	0
140.3667	0.7262	0.0026	0	0.0026
140.4	0.7245	0	0	0
140.4333	0.7229	0	0.0011	0.0011

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
140.4667	0.7245	0.0158	0	0.0158
140.5	0.7249	0	0.0025	0.0025
140.5333	0.7255	0	0.0011	0.0011
140.5667	0.7239	0	0.0011	0.0011
140.6	0.7255	0.0026	0.0011	0.0038
140.6333	0.7252	0.0026	0.0025	0.0051
140.6667	0.7249	0	0	0
140.7	0.7236	0.0026	0.0011	0.0038
140.7333	0.7242	0	0.0025	0.0025
140.7667	0.7252	0	0	0
140.8	0.7295	0.0158	0	0.0158
140.8333	0.7236	0	0.0025	0.0025
140.8667	0.7252	0	0.0011	0.0011
140.9	0.7255	0	0	0
140.9333	0.7285	0	0.0011	0.0011
140.9667	0.7249	0.0026	0.0011	0.0038
141	0.7278	0.0026	0	0.0026
141.0333	0.7262	0.0026	0.0025	0.0051
141.0667	0.7249	0.0158	0	0.0158
141.1	0.7255	0	0.0011	0.0011
141.1333	0.7252	0.0158	0.0025	0.0182
141.1667	0.7285	0.0026	0	0.0026
141.2	0.7232	0.0026	0	0.0026
141.2333	0.7255	0	0	0
141.2667	0.7252	0.0289	0	0.0289
141.3	0.7236	0.0026	0.0025	0.0051
141.3333	0.7275	0.0026	0.0025	0.0051
141.3667	0.7278	0.0026	0	0.0026
141.4	0.7262	0	0.0011	0.0011
141.4333	0.7229	0.0026	0.0025	0.0051
141.4667	0.7265	0	0	0
141.5	0.7252	0.0026	0.0011	0.0038
141.5333	0.7245	0	0.0025	0.0025
141.5667	0.7272	0.0158	0	0.0158
141.6	0.7242	0.0026	0.0011	0.0038
141.6333	0.7295	0.0026	0.0011	0.0038
141.6667	0.7249	0	0.0011	0.0011
141.7	0.7265	0.0026	0	0.0026
141.7333	0.7265	0.0026	0.0011	0.0038
141.7667	0.7278	0.0026	0.0011	0.0038
141.8	0.7265	0.0026	0.0025	0.0051
141.8333	0.7249	0.0158	0.0011	0.0169
141.8667	0.7236	0	0.0025	0.0025

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
141.9	0.7269	0	0	0
141.9333	0.7265	0	0.0011	0.0011
141.9667	0.7275	0.0026	0	0.0026
142	0.7239	0.0026	0.0025	0.0051
142.0333	0.7265	0.0026	0.0025	0.0051
142.0667	0.7242	0	0.0025	0.0025
142.1	0.7242	0.0158	0	0.0158
142.1333	0.7255	0.0026	0.0011	0.0038
142.1667	0.7288	0.0026	0.0011	0.0038
142.2	0.7288	0.0026	0	0.0026
142.2333	0.7275	0.0026	0	0.0026
142.2667	0.7278	0.0158	0.0011	0.0169
142.3	0.7265	0.0026	0.0011	0.0038
142.3333	0.7298	0.0026	0	0.0026
142.3667	0.7331	0.0026	0.0025	0.0051
142.4	0.7324	0	0.0011	0.0011
142.4333	0.7361	0.0158	0	0.0158
142.4667	0.739	0.0026	0	0.0026
142.5	0.7397	0	0	0
142.5333	0.7403	0.0026	0.0025	0.0051
142.5667	0.7469	0.0026	0.0011	0.0038
142.6	0.7463	0.0026	0	0.0026
142.6333	0.7519	0.0026	0.0025	0.0051
142.6667	0.7505	0.0026	0.0025	0.0051
142.7	0.7578	0.0026	0.0025	0.0051
142.7333	0.7565	0.0026	0.0011	0.0038
142.7667	0.7617	0	0.0025	0.0025
142.8	0.765	0.0026	0.0011	0.0038
142.8333	0.7703	0.0026	0	0.0026
142.8667	0.7723	0.0026	0.0038	0.0064
142.9	0.7736	0.0026	0.0011	0.0038
142.9333	0.7818	0.0158	0	0.0158
142.9667	0.7828	0.0026	0.0011	0.0038
143	0.7861	0.0026	0	0.0026
143.0333	0.7914	0.0026	0	0.0026
143.0667	0.7927	0.0026	0	0.0026
143.1	0.7973	0.0026	0.0011	0.0038
143.1333	0.8019	0.0026	0	0.0026
143.1667	0.8062	0.0026	0	0.0026
143.2	0.8095	0	0.0025	0.0025
143.2333	0.8098	0.0026	0.0011	0.0038
143.2667	0.8174	0.0026	0.0011	0.0038
143.3	0.8197	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
143.3333	0.8213	0.0158	0	0.0158
143.3667	0.8305	0.0026	0.0025	0.0051
143.4	0.8312	0.0026	0	0.0026
143.4333	0.8358	0.0158	0	0.0158
143.4667	0.8374	0.0158	0.0011	0.0169
143.5	0.8453	0.0026	0	0.0026
143.5333	0.8503	0.0158	0	0.0158
143.5667	0.849	0.0158	0.0011	0.0169
143.6	0.8572	0	0.0011	0.0011
143.6333	0.8575	0.0026	0	0.0026
143.6667	0.8628	0	0	0
143.7	0.8674	0	0	0
143.7333	0.8727	0.0026	0.0011	0.0038
143.7667	0.8713	0.0026	0	0.0026
143.8	0.8773	0.0026	0.0011	0.0038
143.8333	0.8825	0.0158	0	0.0158
143.8667	0.8858	0.0026	0.0011	0.0038
143.9	0.8871	0.0026	0	0.0026
143.9333	0.8908	0.0158	0.0025	0.0182
143.9667	0.8964	0.0026	0	0.0026
144	0.9013	0.0026	0	0.0026
144.0333	0.902	0	0	0
144.0667	0.9089	0.0158	0.0011	0.0169
144.1	0.9089	0	0	0
144.1333	0.9112	0	0.0011	0.0011
144.1667	0.9148	0.0158	0.0011	0.0169
144.2	0.9217	0.0026	0.0011	0.0038
144.2333	0.9207	0.0289	0.0011	0.0301
144.2667	0.9263	0.0026	0.0011	0.0038
144.3	0.9289	0	0	0
144.3333	0.9312	0.0026	0	0.0026
144.3667	0.9359	0.0158	0.0011	0.0169
144.4	0.9335	0	0.0011	0.0011
144.4333	0.9385	0.0026	0	0.0026
144.4667	0.9401	0	0.0038	0.0038
144.5	0.9441	0.0026	0.0011	0.0038
144.5333	0.9474	0	0.0011	0.0011
144.5667	0.9497	0	0.0011	0.0011
144.6	0.9543	0.0026	0.0011	0.0038
144.6333	0.954	0	0.0011	0.0011
144.6667	0.9579	0.0026	0.0011	0.0038
144.7	0.9582	0	0.0011	0.0011
144.7333	0.9592	0.0026	0.0011	0.0038

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
144.7667	0.9668	0.0158	0.0025	0.0182
144.8	0.9665	0.0026	0.0011	0.0038
144.8333	0.9651	0.0026	0.0038	0.0064
144.8667	0.9698	0.0026	0.0011	0.0038
144.9	0.9707	0.0158	0.0011	0.0169
144.9333	0.9727	0.0026	0.0011	0.0038
144.9667	0.9773	0.0026	0.0011	0.0038
145	0.9786	0.0026	0.0011	0.0038
145.0333	0.9813	0	0.0025	0.0025
145.0667	0.9796	0.0158	0.0011	0.0169
145.1	0.9862	0.0026	0	0.0026
145.1333	0.9836	0.0026	0	0.0026
145.1667	0.9869	0.0158	0	0.0158
145.2	0.9888	0.0026	0.0025	0.0051
145.2333	0.9918	0.0026	0.0011	0.0038
145.2667	0.9915	0	0	0
145.3	0.9944	0.0026	0	0.0026
145.3333	0.9964	0.0026	0.0011	0.0038
145.3667	0.9967	0	0.0011	0.0011
145.4	0.9967	0	0	0
145.4333	0.9997	0.0158	0.0011	0.0169
145.4667	0.9994	0.0158	0.0025	0.0182
145.5	1.004	0.0026	0.0011	0.0038
145.5333	1.0023	0	0.0011	0.0011
145.5667	1.0017	0.0158	0.0011	0.0169
145.6	1.0056	0.0158	0	0.0158
145.6333	1.0096	0	0.0011	0.0011
145.6667	1.0099	0.0026	0	0.0026
145.7	1.0129	0.0026	0.0011	0.0038
145.7333	1.0092	0.0158	0.0011	0.0169
145.7667	1.0145	0	0.0011	0.0011
145.8	1.0125	0.0026	0	0.0026
145.8333	1.0139	0.0026	0	0.0026
145.8667	1.0139	0	0.0011	0.0011
145.9	1.0152	0	0	0
145.9333	1.0168	0.0026	0	0.0026
145.9667	1.0168	0.0026	0.0011	0.0038
146	1.0165	0.0026	0.0011	0.0038
146.0333	1.0195	0.0026	0.0011	0.0038
146.0667	1.0195	0.0026	0.0011	0.0038
146.1	1.0204	0	0.0011	0.0011
146.1333	1.0257	0.0026	0.0011	0.0038
146.1667	1.0237	0	0.0025	0.0025

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
146.2	1.0241	0.0158	0.0025	0.0182
146.2333	1.0257	0	0	0
146.2667	1.0283	0.0158	0.0011	0.0169
146.3	1.026	0.0026	0.0011	0.0038
146.3333	1.0306	0.0026	0	0.0026
146.3667	1.0306	0.0026	0	0.0026
146.4	1.028	0.0026	0	0.0026
146.4333	1.028	0	0.0011	0.0011
146.4667	1.0333	0.0289	0	0.0289
146.5	1.0343	0	0.0025	0.0025
146.5333	1.0336	0	0.0011	0.0011
146.5667	1.0346	0.0158	0.0011	0.0169
146.6	1.0362	0.0026	0.0011	0.0038
146.6333	1.0343	0	0.0011	0.0011
146.6667	1.0382	0	0.0011	0.0011
146.7	1.0353	0.0158	0	0.0158
146.7333	1.0353	0	0.0025	0.0025
146.7667	1.0392	0	0	0
146.8	1.0392	0.0026	0	0.0026
146.8333	1.0402	0.0026	0	0.0026
146.8667	1.0395	0.0026	0.0011	0.0038
146.9	1.0385	0	0.0025	0.0025
146.9333	1.0418	0	0.0011	0.0011
146.9667	1.0408	0.0026	0	0.0026
147	1.0431	0.0158	0.0011	0.0169
147.0333	1.0428	0	0	0
147.0667	1.0408	0.0026	0	0.0026
147.1	1.0435	0.0026	0.0025	0.0051
147.1333	1.0405	0.0026	0.0038	0.0064
147.1667	1.0422	0.0158	0.0011	0.0169
147.2	1.0464	0.0026	0.0011	0.0038
147.2333	1.0455	0.0026	0.0011	0.0038
147.2667	1.0438	0.0026	0.0011	0.0038
147.3	1.0435	0.0026	0.0011	0.0038
147.3333	1.0504	0.0026	0.0011	0.0038
147.3667	1.0474	0.0158	0	0.0158
147.4	1.0474	0	0	0
147.4333	1.0481	0.0026	0	0.0026
147.4667	1.0481	0.0026	0.0025	0.0051
147.5	1.0507	0.0026	0	0.0026
147.5333	1.0504	0.0158	0.0011	0.0169
147.5667	1.0514	0.0026	0.0011	0.0038
147.6	1.054	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
147.6333	1.0566	0.0158	0.0038	0.0195
147.6667	1.055	0.0026	0.0025	0.0051
147.7	1.0557	0.0026	0.0011	0.0038
147.7333	1.0573	0.0158	0	0.0158
147.7667	1.0603	0.0026	0.0011	0.0038
147.8	1.0626	0.0026	0.0011	0.0038
147.8333	1.0639	0.0158	0.0011	0.0169
147.8667	1.0629	0.0026	0	0.0026
147.9	1.0652	0.0026	0.0011	0.0038
147.9333	1.0632	0.0026	0.0011	0.0038
147.9667	1.0685	0.0026	0.0011	0.0038
148	1.0682	0.0026	0.0011	0.0038
148.0333	1.0721	0.0026	0	0.0026
148.0667	1.0701	0	0.0025	0.0025
148.1	1.0724	0.0026	0	0.0026
148.1333	1.0724	0	0.0011	0.0011
148.1667	1.0747	0	0.0025	0.0025
148.2	1.077	0.0026	0	0.0026
148.2333	1.0761	0	0.0011	0.0011
148.2667	1.0784	0.0158	0	0.0158
148.3	1.0777	0.0026	0.0011	0.0038
148.3333	1.081	0.0158	0.0011	0.0169
148.3667	1.0813	0.0158	0.0011	0.0169
148.4	1.0879	0.0289	0.0011	0.0301
148.4333	1.0879	0.0026	0.0011	0.0038
148.4667	1.0879	0	0.0011	0.0011
148.5	1.0938	0.0158	0	0.0158
148.5333	1.0961	0	0.0011	0.0011
148.5667	1.0968	0.0026	0.0025	0.0051
148.6	1.0998	0	0	0
148.6333	1.0978	0.0026	0.0011	0.0038
148.6667	1.0994	0.0158	0	0.0158
148.7	1.1017	0.0026	0	0.0026
148.7333	1.1034	0.0158	0.0011	0.0169
148.7667	1.1073	0.0158	0.0011	0.0169
148.8	1.11	0.0026	0.0011	0.0038
148.8333	1.1119	0.0026	0.0011	0.0038
148.8667	1.1129	0	0	0
148.9	1.1133	0.0026	0.0025	0.0051
148.9333	1.1162	0.0158	0	0.0158
148.9667	1.1198	0.0158	0.0038	0.0195
149	1.1202	0	0	0
149.0333	1.1195	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
149.0667	1.1221	0	0.0025	0.0025
149.1	1.1248	0.0158	0.0011	0.0169
149.1333	1.1248	0.0026	0.0011	0.0038
149.1667	1.1287	0.0158	0.0011	0.0169
149.2	1.1304	0.0026	0.0011	0.0038
149.2333	1.1307	0.0026	0.0011	0.0038
149.2667	1.1291	0.0158	0.0011	0.0169
149.3	1.1337	0	0.0011	0.0011
149.3333	1.1363	0.0026	0	0.0026
149.3667	1.1376	0.0026	0.0011	0.0038
149.4	1.1389	0.0026	0.0011	0.0038
149.4333	1.1422	0.0026	0	0.0026
149.4667	1.1416	0	0.0025	0.0025
149.5	1.1468	0	0	0
149.5333	1.1488	0	0	0
149.5667	1.1508	0	0.0038	0.0038
149.6	1.1541	0.0026	0	0.0026
149.6333	1.1551	0	0.0011	0.0011
149.6667	1.1587	0.0026	0.0011	0.0038
149.7	1.161	0.0026	0.0011	0.0038
149.7333	1.1662	0.0026	0.0011	0.0038
149.7667	1.1653	0.0026	0	0.0026
149.8	1.1643	0.0026	0.0011	0.0038
149.8333	1.1689	0.0026	0.0025	0.0051
149.8667	1.1699	0	0	0
149.9	1.1685	0	0	0
149.9333	1.1755	0.0026	0.0025	0.0051
149.9667	1.1748	0.0158	0.0025	0.0182
150	1.1758	0.0026	0.0011	0.0038
150.0333	1.1794	0	0.0025	0.0025
150.0667	1.1807	0.0026	0.0025	0.0051
150.1	1.1804	0.0158	0.0011	0.0169
150.1333	1.185	0.0026	0	0.0026
150.1667	1.184	0.0026	0.0011	0.0038
150.2	1.1883	0	0	0
150.2333	1.1913	0.0158	0.0011	0.0169
150.2667	1.1899	0	0	0
150.3	1.1903	0.0026	0.0025	0.0051
150.3333	1.1946	0.0026	0.0011	0.0038
150.3667	1.1949	0.0026	0.0025	0.0051
150.4	1.1959	0.0158	0.0011	0.0169
150.4333	1.1975	0	0	0
150.4667	1.1995	0.0026	0.0011	0.0038

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
150.5	1.1988	0	0	0
150.5333	1.2024	0	0.0011	0.0011
150.5667	1.2051	0.0026	0.0025	0.0051
150.6	1.2018	0	0.0011	0.0011
150.6333	1.2015	0.0026	0.0011	0.0038
150.6667	1.2064	0.0026	0.0025	0.0051
150.7	1.2031	0	0.0011	0.0011
150.7333	1.2077	0	0	0
150.7667	1.2084	0.0026	0.0011	0.0038
150.8	1.2094	0.0158	0	0.0158
150.8333	1.2084	0.0026	0	0.0026
150.8667	1.211	0.0026	0.0011	0.0038
150.9	1.212	0.0026	0.0025	0.0051
150.9333	1.2143	0	0.0011	0.0011
150.9667	1.2156	0.0158	0	0.0158
151	1.215	0.0026	0	0.0026
151.0333	1.2156	0.0026	0.0011	0.0038
151.0667	1.2163	0.0026	0.0011	0.0038
151.1	1.2202	0	0.0011	0.0011
151.1333	1.2173	0.0026	0	0.0026
151.1667	1.2219	0	0.0011	0.0011
151.2	1.2222	0.0026	0.0011	0.0038
151.2333	1.2232	0	0.0025	0.0025
151.2667	1.2225	0.0026	0	0.0026
151.3	1.2258	0.0026	0.0011	0.0038
151.3333	1.2258	0.0158	0.0025	0.0182
151.3667	1.2261	0.0026	0	0.0026
151.4	1.2265	0.0158	0	0.0158
151.4333	1.2275	0.0026	0.0011	0.0038
151.4667	1.2291	0.0158	0.0011	0.0169
151.5	1.2285	0.0026	0.0025	0.0051
151.5333	1.2291	0.0158	0	0.0158
151.5667	1.2304	0.0158	0.0011	0.0169
151.6	1.2327	0	0	0
151.6333	1.2301	0	0.0011	0.0011
151.6667	1.234	0.0026	0	0.0026
151.7	1.2347	0	0.0011	0.0011
151.7333	1.2354	0.0026	0.0011	0.0038
151.7667	1.2364	0	0	0
151.8	1.235	0	0.0011	0.0011
151.8333	1.236	0	0.0011	0.0011
151.8667	1.2367	0.0158	0.0011	0.0169
151.9	1.2373	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
151.9333	1.238	0.0026	0.0011	0.0038
151.9667	1.237	0.0158	0.0011	0.0169
152	1.2393	0.0026	0.0025	0.0051
152.0333	1.2396	0	0	0
152.0667	1.2403	0.0158	0.0011	0.0169
152.1	1.2413	0.0026	0.0025	0.0051
152.1333	1.2429	0.0026	0.0025	0.0051
152.1667	1.241	0.0026	0.0011	0.0038
152.2	1.2426	0.0026	0	0.0026
152.2333	1.2416	0.0026	0.0011	0.0038
152.2667	1.2442	0	0.0025	0.0025
152.3	1.2462	0.0158	0.0011	0.0169
152.3333	1.2429	0.0158	0.0011	0.0169
152.3667	1.2459	0.0158	0.0011	0.0169
152.4	1.2452	0.0158	0.0011	0.0169
152.4333	1.2426	0.0026	0.0011	0.0038
152.4667	1.2469	0.0289	0	0.0289
152.5	1.2472	0.0026	0.0011	0.0038
152.5333	1.2469	0.0026	0.0025	0.0051
152.5667	1.2459	0.0158	0	0.0158
152.6	1.2449	0.0026	0	0.0026
152.6333	1.2472	0.0026	0.0025	0.0051
152.6667	1.2492	0.0026	0.0011	0.0038
152.7	1.2482	0	0.0011	0.0011
152.7333	1.2489	0.0026	0.0011	0.0038
152.7667	1.2489	0.0026	0	0.0026
152.8	1.2495	0	0.0011	0.0011
152.8333	1.2489	0	0.0025	0.0025
152.8667	1.2459	0.0026	0	0.0026
152.9	1.2466	0.0026	0	0.0026
152.9333	1.2521	0	0.0011	0.0011
152.9667	1.2502	0.0026	0.0025	0.0051
153	1.2528	0	0.0011	0.0011
153.0333	1.2512	0.0026	0.0025	0.0051
153.0667	1.2535	0.0026	0	0.0026
153.1	1.2541	0.0026	0.0011	0.0038
153.1333	1.2548	0.0158	0	0.0158
153.1667	1.2554	0	0.0011	0.0011
153.2	1.2574	0.0026	0	0.0026
153.2333	1.2581	0.0158	0	0.0158
153.2667	1.2591	0.0026	0.0011	0.0038
153.3	1.2604	0.0158	0.0011	0.0169
153.3333	1.262	0.0158	0.0011	0.0169

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
153.3667	1.2607	0.0026	0.0011	0.0038
153.4	1.2637	0.0026	0.0025	0.0051
153.4333	1.2666	0.0158	0.0011	0.0169
153.4667	1.2647	0.0026	0.0011	0.0038
153.5	1.266	0	0.0025	0.0025
153.5333	1.2673	0	0	0
153.5667	1.2693	0.0158	0.0025	0.0182
153.6	1.2706	0	0	0
153.6333	1.2735	0.0158	0	0.0158
153.6667	1.2762	0	0.0011	0.0011
153.7	1.2775	0.0158	0.0011	0.0169
153.7333	1.2788	0	0	0
153.7667	1.2772	0.0026	0.0011	0.0038
153.8	1.2788	0	0.0011	0.0011
153.8333	1.2818	0	0.0025	0.0025
153.8667	1.2828	0.0026	0	0.0026
153.9	1.2814	0.0158	0.0025	0.0182
153.9333	1.2857	0.0026	0.0025	0.0051
153.9667	1.2857	0	0.0011	0.0011
154	1.2834	0.0026	0.0025	0.0051
154.0333	1.287	0	0.0011	0.0011
154.0667	1.2887	0.0026	0	0.0026
154.1	1.2916	0.0158	0	0.0158
154.1333	1.291	0.0158	0.0025	0.0182
154.1667	1.2903	0.0026	0.0038	0.0064
154.2	1.2923	0.0158	0	0.0158
154.2333	1.2933	0.0026	0.0011	0.0038
154.2667	1.2956	0.0158	0	0.0158
154.3	1.2949	0.0158	0.0011	0.0169
154.3333	1.2969	0.0026	0	0.0026
154.3667	1.2976	0	0	0
154.4	1.2989	0.0026	0	0.0026
154.4333	1.3015	0.0026	0.0011	0.0038
154.4667	1.3042	0.0158	0.0011	0.0169
154.5	1.2995	0.0158	0.0011	0.0169
154.5333	1.3015	0.0026	0	0.0026
154.5667	1.3018	0.0026	0.0011	0.0038
154.6	1.3055	0	0	0
154.6333	1.3048	0.0026	0.0025	0.0051
154.6667	1.3071	0.0026	0.0011	0.0038
154.7	1.3071	0.0026	0.0011	0.0038
154.7333	1.3074	0	0	0
154.7667	1.3084	0.0158	0	0.0158

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
154.8	1.3078	0.0026	0.0011	0.0038
154.8333	1.3101	0.0289	0.0025	0.0314
154.8667	1.3111	0.0026	0.0011	0.0038
154.9	1.3137	0.0158	0	0.0158
154.9333	1.3127	0	0	0
154.9667	1.3121	0	0.0011	0.0011
155	1.3157	0	0.0011	0.0011
155.0333	1.317	0.0026	0.0011	0.0038
155.0667	1.32	0	0.0011	0.0011
155.1	1.32	0.0026	0.0011	0.0038
155.1333	1.3206	0	0.0011	0.0011
155.1667	1.3236	0.0026	0.0011	0.0038
155.2	1.3236	0.0158	0.0025	0.0182
155.2333	1.3246	0	0.0011	0.0011
155.2667	1.3252	0	0	0
155.3	1.3285	0	0.0011	0.0011
155.3333	1.3288	0.0158	0.0011	0.0169
155.3667	1.3298	0.0158	0.0011	0.0169
155.4	1.3331	0	0.0025	0.0025
155.4333	1.3338	0	0.0011	0.0011
155.4667	1.3338	0	0	0
155.5	1.3308	0.0026	0.0011	0.0038
155.5333	1.3321	0.0026	0	0.0026
155.5667	1.3328	0.0026	0.0011	0.0038
155.6	1.3348	0.0026	0	0.0026
155.6333	1.339	0	0.0011	0.0011
155.6667	1.3367	0.0026	0	0.0026
155.7	1.3361	0.0026	0	0.0026
155.7333	1.3364	0	0.0011	0.0011
155.7667	1.3387	0.0026	0.0025	0.0051
155.8	1.3384	0.0026	0.0011	0.0038
155.8333	1.345	0.0026	0	0.0026
155.8667	1.343	0.0158	0	0.0158
155.9	1.3443	0.0026	0	0.0026
155.9333	1.3446	0.0026	0.0038	0.0064
155.9667	1.3443	0.0026	0.0011	0.0038
156	1.3469	0.0026	0.0011	0.0038
156.0333	1.345	0.0026	0.0011	0.0038
156.0667	1.3433	0.0026	0.0025	0.0051
156.1	1.3479	0.0026	0	0.0026
156.1333	1.3486	0.0026	0.0011	0.0038
156.1667	1.3486	0.0026	0.0011	0.0038
156.2	1.3476	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
156.2333	1.3476	0.0289	0	0.0289
156.2667	1.3502	0.0026	0.0025	0.0051
156.3	1.3529	0.0026	0.0025	0.0051
156.3333	1.3522	0.0026	0	0.0026
156.3667	1.3529	0.0026	0	0.0026
156.4	1.3542	0.0158	0.0025	0.0182
156.4333	1.3515	0.0158	0	0.0158
156.4667	1.3529	0.0026	0.0011	0.0038
156.5	1.3532	0.0026	0.0025	0.0051
156.5333	1.3519	0	0.0011	0.0011
156.5667	1.3555	0.0026	0.0011	0.0038
156.6	1.3535	0.0026	0.0011	0.0038
156.6333	1.3568	0	0.0025	0.0025
156.6667	1.3571	0.0026	0.0025	0.0051
156.7	1.3555	0.0026	0.0011	0.0038
156.7333	1.3581	0	0.0011	0.0011
156.7667	1.3581	0.0026	0.0025	0.0051
156.8	1.3571	0.0026	0	0.0026
156.8333	1.3581	0	0.0011	0.0011
156.8667	1.3588	0	0	0
156.9	1.3631	0.0158	0	0.0158
156.9333	1.3608	0	0	0
156.9667	1.3608	0.0026	0.0011	0.0038
157	1.3581	0.0026	0.0011	0.0038
157.0333	1.3588	0.0026	0.0025	0.0051
157.0667	1.3637	0	0	0
157.1	1.3614	0.0158	0.0011	0.0169
157.1333	1.3624	0	0	0
157.1667	1.3608	0	0.0011	0.0011
157.2	1.3611	0	0	0
157.2333	1.3647	0	0	0
157.2667	1.3644	0.0026	0.0011	0.0038
157.3	1.365	0.0158	0.0011	0.0169
157.3333	1.3634	0.0026	0.0011	0.0038
157.3667	1.3631	0	0	0
157.4	1.368	0.0026	0.0011	0.0038
157.4333	1.3654	0.0026	0	0.0026
157.4667	1.3641	0.0158	0	0.0158
157.5	1.366	0	0.0025	0.0025
157.5333	1.3683	0.0026	0.0011	0.0038
157.5667	1.366	0	0.0025	0.0025
157.6	1.3664	0.0158	0.0011	0.0169
157.6333	1.367	0.0026	0.0025	0.0051

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
157.6667	1.366	0.0026	0.0011	0.0038
157.7	1.3677	0	0	0
157.7333	1.3667	0.0026	0.0011	0.0038
157.7667	1.369	0.0026	0	0.0026
157.8	1.3687	0	0.0025	0.0025
157.8333	1.37	0.0158	0.0011	0.0169
157.8667	1.3706	0.0026	0.0011	0.0038
157.9	1.3693	0	0	0
157.9333	1.3726	0	0	0
157.9667	1.3729	0.0026	0.0025	0.0051
158	1.3726	0	0	0
158.0333	1.3726	0	0.0011	0.0011
158.0667	1.3739	0	0	0
158.1	1.3746	0.0026	0.0011	0.0038
158.1333	1.3785	0.0026	0	0.0026
158.1667	1.3818	0.0158	0.0011	0.0169
158.2	1.3805	0	0.0038	0.0038
158.2333	1.3825	0.0026	0.0011	0.0038
158.2667	1.3848	0.0026	0.0025	0.0051
158.3	1.3838	0.0026	0	0.0026
158.3333	1.3878	0	0.0011	0.0011
158.3667	1.3868	0	0.0025	0.0025
158.4	1.3904	0.0026	0	0.0026
158.4333	1.3937	0	0.0011	0.0011
158.4667	1.393	0	0	0
158.5	1.3937	0.0026	0.0011	0.0038
158.5333	1.394	0.0158	0	0.0158
158.5667	1.3986	0.0026	0	0.0026
158.6	1.4012	0	0	0
158.6333	1.4016	0.0026	0.0011	0.0038
158.6667	1.4039	0.0158	0	0.0158
158.7	1.4049	0	0.0011	0.0011
158.7333	1.4049	0	0.0011	0.0011
158.7667	1.4045	0.0158	0.0011	0.0169
158.8	1.4078	0.0158	0.0011	0.0169
158.8333	1.4059	0	0.0025	0.0025
158.8667	1.4085	0.0158	0.0011	0.0169
158.9	1.4088	0	0.0011	0.0011
158.9333	1.4091	0.0026	0	0.0026
158.9667	1.4082	0.0026	0.0025	0.0051
159	1.4101	0.0158	0	0.0158
159.0333	1.4108	0.0026	0	0.0026
159.0667	1.4134	0.0158	0	0.0158

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
159.1	1.4147	0	0	0
159.1333	1.4118	0.0026	0.0011	0.0038
159.1667	1.4167	0	0.0011	0.0011
159.2	1.4164	0.0026	0.0011	0.0038
159.2333	1.417	0.0026	0.0011	0.0038
159.2667	1.4167	0.0026	0.0011	0.0038
159.3	1.417	0.0158	0.0011	0.0169
159.3333	1.4184	0.0026	0.0025	0.0051
159.3667	1.4207	0.0026	0	0.0026
159.4	1.4207	0.0026	0	0.0026
159.4333	1.4226	0	0.0025	0.0025
159.4667	1.424	0	0.0025	0.0025
159.5	1.4256	0.0026	0.0025	0.0051
159.5333	1.4259	0	0	0
159.5667	1.4246	0.0026	0	0.0026
159.6	1.4236	0.0026	0	0.0026
159.6333	1.4246	0.0026	0.0011	0.0038
159.6667	1.4223	0.0158	0.0011	0.0169
159.7	1.4272	0.0026	0.0011	0.0038
159.7333	1.4253	0	0.0011	0.0011
159.7667	1.4279	0.0026	0.0011	0.0038
159.8	1.4266	0.0026	0.0011	0.0038
159.8333	1.4259	0	0	0
159.8667	1.4315	0.0026	0	0.0026
159.9	1.4292	0.0026	0.0025	0.0051
159.9333	1.4272	0.0026	0.0011	0.0038
159.9667	1.4292	0.0158	0.0011	0.0169
160	1.4309	0.0026	0.0011	0.0038
160.0333	1.4338	0.0026	0.0011	0.0038
160.0667	1.4335	0.0026	0.0011	0.0038
160.1	1.4312	0	0.0025	0.0025
160.1333	1.4345	0	0	0
160.1667	1.4351	0.0026	0	0.0026
160.2	1.4338	0.0158	0.0011	0.0169
160.2333	1.4348	0.0158	0.0011	0.0169
160.2667	1.4332	0.0026	0	0.0026
160.3	1.4345	0.0026	0.0011	0.0038
160.3333	1.4332	0.0026	0.0011	0.0038
160.3667	1.4345	0.0026	0	0.0026
160.4	1.4358	0.0026	0.0011	0.0038
160.4333	1.4368	0.0289	0.0011	0.0301
160.4667	1.4355	0	0	0
160.5	1.4368	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
160.5333	1.4348	0.0289	0.0025	0.0314
160.5667	1.4365	0.0026	0	0.0026
160.6	1.4345	0	0.0011	0.0011
160.6333	1.4358	0.0026	0	0.0026
160.6667	1.4391	0.0026	0.0011	0.0038
160.7	1.4378	0.0026	0.0011	0.0038
160.7333	1.4378	0	0.0011	0.0011
160.7667	1.4375	0	0.0025	0.0025
160.8	1.4378	0.0158	0.0011	0.0169
160.8333	1.4388	0	0.0025	0.0025
160.8667	1.4381	0	0	0
160.9	1.4375	0	0.0025	0.0025
160.9333	1.4384	0.0026	0	0.0026
160.9667	1.4355	0.0026	0.0025	0.0051
161	1.4398	0.0026	0.0011	0.0038
161.0333	1.4358	0.0026	0	0.0026
161.0667	1.4398	0.0158	0.0025	0.0182
161.1	1.4371	0	0.0025	0.0025
161.1333	1.4378	0.0026	0.0011	0.0038
161.1667	1.4398	0.0026	0	0.0026
161.2	1.4375	0	0.0011	0.0011
161.2333	1.4384	0.0158	0.0011	0.0169
161.2667	1.4378	0	0.0025	0.0025
161.3	1.4378	0	0.0011	0.0011
161.3333	1.4384	0.0026	0.0011	0.0038
161.3667	1.4398	0.0026	0.0025	0.0051
161.4	1.4388	0	0	0
161.4333	1.4375	0.0158	0.0011	0.0169
161.4667	1.4381	0	0	0
161.5	1.4394	0.0026	0.0025	0.0051
161.5333	1.4411	0.0026	0	0.0026
161.5667	1.4375	0	0	0
161.6	1.4384	0	0	0
161.6333	1.4384	0.0026	0.0011	0.0038
161.6667	1.4404	0.0026	0.0011	0.0038
161.7	1.4378	0	0.0011	0.0011
161.7333	1.4391	0	0.0011	0.0011
161.7667	1.4401	0.0026	0	0.0026
161.8	1.4378	0.0026	0.0011	0.0038
161.8333	1.443	0	0.0011	0.0011
161.8667	1.4401	0.0026	0.0011	0.0038
161.9	1.4407	0.0026	0.0011	0.0038
161.9333	1.4398	0.0158	0.0011	0.0169

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
161.9667	1.4421	0	0	0
162	1.4398	0.0158	0	0.0158
162.0333	1.443	0	0	0
162.0667	1.4381	0.0158	0.0011	0.0169
162.1	1.4407	0.0026	0.0011	0.0038
162.1333	1.4378	0.0026	0.0025	0.0051
162.1667	1.4381	0.0026	0.0011	0.0038
162.2	1.4424	0.0026	0.0025	0.0051
162.2333	1.4398	0.0026	0.0025	0.0051
162.2667	1.4401	0.0026	0.0025	0.0051
162.3	1.4401	0.0158	0.0011	0.0169
162.3333	1.444	0.0026	0	0.0026
162.3667	1.4401	0.0026	0.0011	0.0038
162.4	1.4407	0.0026	0	0.0026
162.4333	1.4365	0.0026	0.0011	0.0038
162.4667	1.4404	0.0026	0.0011	0.0038
162.5	1.4401	0.0026	0.0011	0.0038
162.5333	1.4404	0.0158	0.0011	0.0169
162.5667	1.4384	0	0	0
162.6	1.4414	0	0	0
162.6333	1.4394	0.0158	0	0.0158
162.6667	1.4404	0	0.0011	0.0011
162.7	1.4375	0.0026	0.0025	0.0051
162.7333	1.4365	0.0026	0.0011	0.0038
162.7667	1.4375	0	0	0
162.8	1.4401	0.0026	0	0.0026
162.8333	1.4404	0.0158	0	0.0158
162.8667	1.4388	0.0158	0.0025	0.0182
162.9	1.4417	0.0026	0.0025	0.0051
162.9333	1.4381	0.0026	0	0.0026
162.9667	1.4404	0	0.0011	0.0011
163	1.4407	0	0.0025	0.0025
163.0333	1.4391	0	0	0
163.0667	1.4394	0	0.0011	0.0011
163.1	1.4365	0.0026	0.0011	0.0038
163.1333	1.4421	0.0158	0.0011	0.0169
163.1667	1.4398	0.0026	0.0011	0.0038
163.2	1.4378	0	0	0
163.2333	1.4401	0.0158	0	0.0158
163.2667	1.4371	0	0.0011	0.0011
163.3	1.4384	0.0158	0.0011	0.0169
163.3333	1.4381	0	0.0025	0.0025
163.3667	1.4371	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
163.4	1.4384	0.0026	0.0011	0.0038
163.4333	1.4398	0	0.0011	0.0011
163.4667	1.4388	0	0	0
163.5	1.4401	0	0	0
163.5333	1.4371	0.0026	0.0011	0.0038
163.5667	1.4391	0.0158	0.0011	0.0169
163.6	1.4345	0	0.0011	0.0011
163.6333	1.4394	0	0.0011	0.0011
163.6667	1.4375	0.0026	0.0011	0.0038
163.7	1.4391	0.0158	0.0011	0.0169
163.7333	1.4351	0.0158	0.0025	0.0182
163.7667	1.4384	0.0026	0.0011	0.0038
163.8	1.4394	0	0.0011	0.0011
163.8333	1.4368	0.0158	0	0.0158
163.8667	1.4368	0.0026	0.0011	0.0038
163.9	1.4388	0.0158	0.0025	0.0182
163.9333	1.4375	0.0026	0.0011	0.0038
163.9667	1.4378	0.0026	0	0.0026
164	1.4375	0.0026	0.0011	0.0038
164.0333	1.4355	0.0158	0.0011	0.0169
164.0667	1.4365	0.0026	0.0025	0.0051
164.1	1.4381	0.0158	0.0011	0.0169
164.1333	1.4358	0.0026	0.0025	0.0051
164.1667	1.4371	0.0026	0	0.0026
164.2	1.4371	0.0026	0.0011	0.0038
164.2333	1.4398	0.0026	0.0011	0.0038
164.2667	1.4361	0	0.0025	0.0025
164.3	1.4345	0.0026	0.0011	0.0038
164.3333	1.4358	0.0158	0.0011	0.0169
164.3667	1.4401	0	0	0
164.4	1.4325	0.0158	0.0025	0.0182
164.4333	1.4351	0	0.0011	0.0011
164.4667	1.4351	0	0.0025	0.0025
164.5	1.4345	0.0158	0.0011	0.0169
164.5333	1.4355	0.0158	0.0011	0.0169
164.5667	1.4365	0.0158	0	0.0158
164.6	1.4338	0	0.0011	0.0011
164.6333	1.4368	0	0	0
164.6667	1.4361	0	0.0011	0.0011
164.7	1.4355	0	0	0
164.7333	1.4358	0.0026	0.0011	0.0038
164.7667	1.4365	0.0026	0.0011	0.0038
164.8	1.4338	0.0158	0.0011	0.0169

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
164.8333	1.4335	0.0289	0.0011	0.0301
164.8667	1.4355	0	0.0011	0.0011
164.9	1.4342	0	0.0025	0.0025
164.9333	1.4312	0	0.0011	0.0011
164.9667	1.4319	0	0.0011	0.0011
165	1.4309	0.0026	0.0025	0.0051
165.0333	1.4309	0.0026	0.0025	0.0051
165.0667	1.4319	0.0026	0.0011	0.0038
165.1	1.4315	0.0026	0	0.0026
165.1333	1.4335	0.0026	0.0011	0.0038
165.1667	1.4338	0.0026	0.0025	0.0051
165.2	1.4332	0	0.0011	0.0011
165.2333	1.4325	0	0	0
165.2667	1.4309	0.0158	0.0025	0.0182
165.3	1.4335	0.0026	0.0011	0.0038
165.3333	1.4335	0.0158	0	0.0158
165.3667	1.4299	0.0026	0.0025	0.0051
165.4	1.4322	0.0158	0.0025	0.0182
165.4333	1.4325	0.0158	0	0.0158
165.4667	1.4322	0	0	0
165.5	1.4325	0.0026	0	0.0026
165.5333	1.4322	0	0	0
165.5667	1.4325	0.0026	0	0.0026
165.6	1.4299	0.0026	0	0.0026
165.6333	1.4332	0	0.0011	0.0011
165.6667	1.4312	0.0158	0	0.0158
165.7	1.4302	0.0026	0	0.0026
165.7333	1.4315	0.0026	0	0.0026
165.7667	1.4305	0.0026	0.0011	0.0038
165.8	1.4319	0.0026	0	0.0026
165.8333	1.4332	0.0026	0.0011	0.0038
165.8667	1.4319	0.0026	0.0011	0.0038
165.9	1.4302	0	0.0011	0.0011
165.9333	1.4282	0.0158	0.0011	0.0169
165.9667	1.4282	0.0026	0	0.0026
166	1.4296	0.0158	0.0025	0.0182
166.0333	1.4312	0.0158	0	0.0158
166.0667	1.4312	0	0.0025	0.0025
166.1	1.4309	0.0026	0.0011	0.0038
166.1333	1.4335	0.0158	0.0011	0.0169
166.1667	1.4282	0.0026	0.0011	0.0038
166.2	1.4305	0	0	0
166.2333	1.4296	0.0026	0.0011	0.0038

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
166.2667	1.4282	0.0026	0.0011	0.0038
166.3	1.4309	0.0158	0.0011	0.0169
166.3333	1.4263	0	0.0011	0.0011
166.3667	1.4269	0.0158	0	0.0158
166.4	1.4282	0.0026	0	0.0026
166.4333	1.4309	0.0026	0.0011	0.0038
166.4667	1.4299	0	0	0
166.5	1.4256	0.0158	0	0.0158
166.5333	1.4282	0	0.0011	0.0011
166.5667	1.4282	0.0158	0.0011	0.0169
166.6	1.4272	0	0.0025	0.0025
166.6333	1.4286	0.0158	0.0025	0.0182
166.6667	1.4276	0.0158	0.0011	0.0169
166.7	1.4269	0	0.0011	0.0011
166.7333	1.4282	0.0026	0	0.0026
166.7667	1.4282	0	0.0011	0.0011
166.8	1.4279	0.0026	0	0.0026
166.8333	1.4266	0	0.0025	0.0025
166.8667	1.4213	0	0.0025	0.0025
166.9	1.4233	0.0026	0.0011	0.0038
166.9333	1.4269	0	0	0
166.9667	1.4289	0.0026	0.0011	0.0038
167	1.421	0.0026	0.0025	0.0051
167.0333	1.4269	0	0	0
167.0667	1.4276	0.0026	0	0.0026
167.1	1.4272	0	0.0011	0.0011
167.1333	1.4256	0.0158	0.0011	0.0169
167.1667	1.4259	0	0	0
167.2	1.4253	0	0	0
167.2333	1.4243	0.0026	0.0025	0.0051
167.2667	1.424	0.0026	0	0.0026
167.3	1.4259	0.0026	0.0025	0.0051
167.3333	1.4223	0.0026	0	0.0026
167.3667	1.4266	0.0026	0.0025	0.0051
167.4	1.4256	0.0026	0	0.0026
167.4333	1.4213	0	0.0011	0.0011
167.4667	1.4207	0.0026	0	0.0026
167.5	1.423	0.0026	0.0025	0.0051
167.5333	1.423	0.0158	0.0011	0.0169
167.5667	1.4236	0.0026	0.0025	0.0051
167.6	1.4226	0.0026	0.0011	0.0038
167.6333	1.4213	0.0158	0.0011	0.0169
167.6667	1.424	0	0.0025	0.0025

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
167.7	1.4226	0.0026	0.0011	0.0038
167.7333	1.4223	0	0.0011	0.0011
167.7667	1.4203	0.0026	0.0011	0.0038
167.8	1.42	0	0.0025	0.0025
167.8333	1.4213	0.0158	0.0025	0.0182
167.8667	1.4213	0	0.0011	0.0011
167.9	1.42	0.0026	0.0011	0.0038
167.9333	1.4246	0	0	0
167.9667	1.4217	0	0	0
168	1.4217	0	0.0025	0.0025
168.0333	1.422	0.0026	0.0011	0.0038
168.0667	1.4233	0.0158	0.0011	0.0169
168.1	1.419	0.0026	0.0011	0.0038
168.1333	1.4223	0	0.0011	0.0011
168.1667	1.4217	0	0.0025	0.0025
168.2	1.4187	0.0026	0	0.0026
168.2333	1.4203	0.0026	0	0.0026
168.2667	1.4217	0	0	0
168.3	1.4187	0	0.0011	0.0011
168.3333	1.421	0	0	0
168.3667	1.4217	0.0026	0	0.0026
168.4	1.4193	0.0158	0	0.0158
168.4333	1.42	0.0026	0.0011	0.0038
168.4667	1.4184	0.0026	0.0011	0.0038
168.5	1.4197	0	0.0025	0.0025
168.5333	1.4197	0.0158	0	0.0158
168.5667	1.4164	0.0158	0.0011	0.0169
168.6	1.418	0.0026	0.0011	0.0038
168.6333	1.4187	0.0026	0	0.0026
168.6667	1.4187	0	0.0011	0.0011
168.7	1.4223	0	0.0011	0.0011
168.7333	1.4174	0.0158	0.0025	0.0182
168.7667	1.4203	0.0026	0	0.0026
168.8	1.4193	0.0026	0.0011	0.0038
168.8333	1.4197	0.0026	0.0011	0.0038
168.8667	1.4167	0.0158	0.0011	0.0169
168.9	1.417	0.0158	0.0011	0.0169
168.9333	1.4197	0.0026	0	0.0026
168.9667	1.4207	0.0158	0	0.0158
169	1.4193	0.0158	0	0.0158
169.0333	1.4233	0	0.0011	0.0011
169.0667	1.4223	0.0026	0	0.0026
169.1	1.424	0	0.0011	0.0011

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
169.1333	1.4226	0	0.0011	0.0011
169.1667	1.423	0	0	0
169.2	1.4226	0	0.0011	0.0011
169.2333	1.4243	0.0026	0	0.0026
169.2667	1.4263	0.0158	0.0025	0.0182
169.3	1.424	0.0026	0.0011	0.0038
169.3333	1.4266	0.0026	0.0011	0.0038
169.3667	1.4246	0.0026	0.0011	0.0038
169.4	1.4286	0	0.0011	0.0011
169.4333	1.4266	0	0.0011	0.0011
169.4667	1.4272	0	0	0
169.5	1.4296	0	0.0011	0.0011
169.5333	1.4296	0.0158	0.0011	0.0169
169.5667	1.4312	0.0026	0.0011	0.0038
169.6	1.4299	0.0026	0.0011	0.0038
169.6333	1.4279	0.0158	0.0011	0.0169
169.6667	1.4302	0	0.0011	0.0011
169.7	1.4338	0.0026	0	0.0026
169.7333	1.4299	0.0026	0	0.0026
169.7667	1.4296	0.0026	0.0011	0.0038
169.8	1.4332	0.0158	0	0.0158
169.8333	1.4368	0	0	0
169.8667	1.4355	0.0026	0.0011	0.0038
169.9	1.4371	0.0158	0.0025	0.0182
169.9333	1.4388	0	0	0
169.9667	1.4342	0.0026	0.0011	0.0038
170	1.4351	0.0158	0	0.0158
170.0333	1.4365	0.0026	0.0025	0.0051
170.0667	1.4361	0.0026	0.0011	0.0038
170.1	1.4348	0	0.0011	0.0011
170.1333	1.4384	0	0	0
170.1667	1.4371	0.0158	0.0011	0.0169
170.2	1.4388	0.0026	0.0011	0.0038
170.2333	1.4391	0.0026	0.0011	0.0038
170.2667	1.4371	0.0026	0.0011	0.0038
170.3	1.4371	0	0.0011	0.0011
170.3333	1.4401	0	0.0011	0.0011
170.3667	1.4375	0	0.0011	0.0011
170.4	1.4384	0.0026	0	0.0026
170.4333	1.4391	0.0026	0.0011	0.0038
170.4667	1.4427	0.0026	0	0.0026
170.5	1.4384	0.0026	0.0025	0.0051
170.5333	1.4404	0.0026	0.0011	0.0038

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
170.5667	1.4417	0.0026	0.0038	0.0064
170.6	1.4407	0	0.0025	0.0025
170.6333	1.4407	0	0	0
170.6667	1.4421	0	0.0025	0.0025
170.7	1.4384	0	0	0
170.7333	1.4421	0.0026	0	0.0026
170.7667	1.4424	0.0158	0.0011	0.0169
170.8	1.443	0.0026	0.0011	0.0038
170.8333	1.4444	0	0.0025	0.0025
170.8667	1.443	0.0026	0.0011	0.0038
170.9	1.4437	0.0026	0.0011	0.0038
170.9333	1.4447	0	0.0025	0.0025
170.9667	1.4437	0.0026	0.0011	0.0038
171	1.447	0	0.0011	0.0011
171.0333	1.446	0.0026	0.0038	0.0064
171.0667	1.447	0.0158	0.0011	0.0169
171.1	1.445	0.0158	0	0.0158
171.1333	1.4467	0.0026	0.0011	0.0038
171.1667	1.4463	0	0.0011	0.0011
171.2	1.4467	0.0026	0	0.0026
171.2333	1.4467	0.0026	0.0011	0.0038
171.2667	1.4454	0.0026	0	0.0026
171.3	1.4467	0	0.0025	0.0025
171.3333	1.4457	0	0	0
171.3667	1.4473	0.0026	0	0.0026
171.4	1.4463	0.0026	0.0011	0.0038
171.4333	1.445	0.0026	0	0.0026
171.4667	1.447	0.0026	0.0011	0.0038
171.5	1.4454	0	0	0
171.5333	1.448	0.0026	0.0025	0.0051
171.5667	1.4467	0.0026	0.0025	0.0051
171.6	1.445	0	0	0
171.6333	1.448	0.0026	0.0011	0.0038
171.6667	1.4477	0.0158	0.0025	0.0182
171.7	1.447	0.0026	0.0011	0.0038
171.7333	1.449	0.0026	0	0.0026
171.7667	1.447	0.0026	0	0.0026
171.8	1.4457	0	0	0
171.8333	1.4493	0.0158	0.0011	0.0169
171.8667	1.4467	0.0026	0	0.0026
171.9	1.4473	0.0026	0.0011	0.0038
171.9333	1.4477	0.0026	0.0025	0.0051
171.9667	1.448	0.0158	0.0011	0.0169

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
172	1.4463	0.0158	0.0011	0.0169
172.0333	1.4477	0.0026	0.0025	0.0051
172.0667	1.4473	0.0158	0.0011	0.0169
172.1	1.45	0.0026	0.0011	0.0038
172.1333	1.4496	0	0.0025	0.0025
172.1667	1.4447	0.0158	0.0025	0.0182
172.2	1.448	0.0026	0.0011	0.0038
172.2333	1.4473	0.0158	0.0025	0.0182
172.2667	1.445	0	0	0
172.3	1.4467	0	0	0
172.3333	1.4463	0.0026	0	0.0026
172.3667	1.446	0.0026	0.0011	0.0038
172.4	1.448	0.0026	0	0.0026
172.4333	1.4477	0.0026	0	0.0026
172.4667	1.4457	0.0026	0.0011	0.0038
172.5	1.4467	0.0026	0.0011	0.0038
172.5333	1.4454	0.0158	0.0011	0.0169
172.5667	1.4424	0.0026	0.0011	0.0038
172.6	1.448	0.0289	0.0011	0.0301
172.6333	1.4473	0.0026	0	0.0026
172.6667	1.447	0.0158	0	0.0158
172.7	1.448	0.0158	0	0.0158
172.7333	1.4437	0.0026	0.0011	0.0038
172.7667	1.4473	0	0.0025	0.0025
172.8	1.445	0	0.0011	0.0011
172.8333	1.4454	0.0026	0.0011	0.0038
172.8667	1.447	0.0158	0.0011	0.0169
172.9	1.4447	0.0026	0.0011	0.0038
172.9333	1.4454	0.0026	0.0011	0.0038
172.9667	1.4437	0.0026	0.0011	0.0038
173	1.4424	0.0026	0.0011	0.0038
173.0333	1.4427	0.0158	0.0011	0.0169
173.0667	1.4454	0.0158	0.0038	0.0195
173.1	1.4407	0	0.0011	0.0011
173.1333	1.443	0	0	0
173.1667	1.444	0.0026	0.0038	0.0064
173.2	1.4421	0	0.0011	0.0011
173.2333	1.4401	0	0.0011	0.0011
173.2667	1.4411	0	0.0025	0.0025
173.3	1.4424	0.0026	0.0011	0.0038
173.3333	1.4437	0	0	0
173.3667	1.443	0	0.0011	0.0011
173.4	1.444	0.0026	0	0.0026

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
173.4333	1.4444	0.0026	0.0011	0.0038
173.4667	1.4398	0	0.0011	0.0011
173.5	1.4417	0.0158	0.0011	0.0169
173.5333	1.4424	0.0026	0.0011	0.0038
173.5667	1.4398	0.0026	0.0011	0.0038
173.6	1.4414	0	0.0011	0.0011
173.6333	1.4361	0.0026	0.0011	0.0038
173.6667	1.4411	0.0026	0	0.0026
173.7	1.4421	0	0	0
173.7333	1.4411	0.0026	0	0.0026
173.7667	1.4411	0.0158	0	0.0158
173.8	1.4404	0	0.0011	0.0011
173.8333	1.4378	0	0.0011	0.0011
173.8667	1.4414	0.0026	0.0011	0.0038
173.9	1.4404	0	0.0011	0.0011
173.9333	1.4371	0	0.0011	0.0011
173.9667	1.4378	0	0.0025	0.0025
174	1.4407	0.0158	0.0011	0.0169
174.0333	1.4381	0.0158	0.0025	0.0182
174.0667	1.4375	0.0026	0.0011	0.0038
174.1	1.4407	0.0026	0.0011	0.0038
174.1333	1.4375	0.0026	0.0011	0.0038
174.1667	1.4365	0.0026	0	0.0026
174.2	1.4384	0	0.0011	0.0011
174.2333	1.4378	0.0026	0	0.0026
174.2667	1.4391	0	0.0011	0.0011
174.3	1.4417	0	0	0
174.3333	1.4384	0.0026	0.0011	0.0038
174.3667	1.4371	0.0026	0.0025	0.0051
174.4	1.4371	0.0026	0.0011	0.0038
174.4333	1.4355	0	0.0025	0.0025
174.4667	1.4384	0	0	0
174.5	1.4351	0.0026	0.0025	0.0051
174.5333	1.4384	0.0289	0.0025	0.0314
174.5667	1.4358	0.0158	0.0011	0.0169
174.6	1.4371	0.0026	0.0011	0.0038
174.6333	1.4358	0.0158	0	0.0158
174.6667	1.4351	0.0158	0	0.0158
174.7	1.4358	0.0026	0.0011	0.0038
174.7333	1.4368	0.0026	0.0011	0.0038
174.7667	1.4332	0.0158	0.0011	0.0169
174.8	1.4378	0	0.0011	0.0011
174.8333	1.4375	0.0026	0.0011	0.0038

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
174.8667	1.4358	0.0289	0.0011	0.0301
174.9	1.4348	0.0158	0.0011	0.0169
174.9333	1.4361	0.0026	0.0011	0.0038
174.9667	1.4335	0.0026	0.0011	0.0038
175	1.4345	0.0158	0.0025	0.0182
175.0333	1.4345	0.0026	0.0025	0.0051
175.0667	1.4319	0.0026	0	0.0026
175.1	1.4348	0.0026	0	0.0026
175.1333	1.4342	0.0026	0.0025	0.0051
175.1667	1.4348	0.0026	0.0025	0.0051
175.2	1.4358	0	0	0
175.2333	1.4355	0	0	0
175.2667	1.4365	0.0026	0	0.0026
175.3	1.4312	0.0158	0.0011	0.0169
175.3333	1.4335	0.0026	0	0.0026
175.3667	1.4338	0.0026	0.0025	0.0051
175.4	1.4358	0.0026	0.0025	0.0051
175.4333	1.4302	0.0026	0.0011	0.0038
175.4667	1.4348	0.0026	0.0011	0.0038
175.5	1.4319	0	0.0025	0.0025
175.5333	1.4355	0.0158	0.0011	0.0169
175.5667	1.4319	0.0158	0	0.0158
175.6	1.4315	0	0.0011	0.0011
175.6333	1.4335	0.0026	0.0025	0.0051
175.6667	1.4302	0.0026	0.0011	0.0038
175.7	1.4315	0.0026	0.0011	0.0038
175.7333	1.4325	0.0158	0.0011	0.0169
175.7667	1.4332	0.0158	0.0011	0.0169
175.8	1.4319	0.0026	0	0.0026
175.8333	1.4335	0.0158	0.0011	0.0169
175.8667	1.4315	0.0158	0.0011	0.0169
175.9	1.4309	0	0.0011	0.0011
175.9333	1.4319	0.0026	0.0011	0.0038
175.9667	1.4312	0.0026	0.0011	0.0038
176	1.4335	0.0158	0.0011	0.0169
176.0333	1.4328	0	0	0
176.0667	1.4335	0	0.0011	0.0011
176.1	1.4332	0.0026	0.0011	0.0038
176.1333	1.4302	0.0158	0.0011	0.0169
176.1667	1.4319	0.0158	0.0011	0.0169
176.2	1.4319	0.0158	0.0025	0.0182
176.2333	1.4299	0.0026	0.0011	0.0038
176.2667	1.4286	0.0158	0.0025	0.0182

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
176.3	1.4332	0.0026	0.0011	0.0038
176.3333	1.4266	0.0026	0.0011	0.0038
176.3667	1.4319	0.0026	0.0025	0.0051
176.4	1.4312	0.0026	0	0.0026
176.4333	1.4305	0.0158	0	0.0158
176.4667	1.4299	0.0026	0	0.0026
176.5	1.4282	0.0026	0.0025	0.0051
176.5333	1.4286	0	0.0011	0.0011
176.5667	1.4312	0	0	0
176.6	1.4302	0.0026	0.0011	0.0038
176.6333	1.4305	0.0026	0.0011	0.0038
176.6667	1.4292	0.0026	0.0011	0.0038
176.7	1.4279	0.0026	0	0.0026
176.7333	1.4312	0	0	0
176.7667	1.4299	0.0026	0	0.0026
176.8	1.4305	0.0026	0.0011	0.0038
176.8333	1.4282	0.0026	0	0.0026
176.8667	1.4299	0.0026	0.0025	0.0051
176.9	1.4296	0.0026	0.0011	0.0038
176.9333	1.4289	0.0158	0.0011	0.0169
176.9667	1.4305	0	0.0025	0.0025
177	1.4282	0.0026	0	0.0026
177.0333	1.4289	0.0026	0	0.0026
177.0667	1.4259	0.0026	0.0011	0.0038
177.1	1.4315	0.0026	0.0011	0.0038
177.1333	1.4302	0	0.0025	0.0025
177.1667	1.4305	0	0	0
177.2	1.4263	0	0	0
177.2333	1.4299	0.0026	0	0.0026
177.2667	1.4282	0.0158	0	0.0158
177.3	1.4305	0	0.0011	0.0011
177.3333	1.4286	0.0026	0	0.0026
177.3667	1.4266	0.0158	0	0.0158
177.4	1.4296	0.0026	0.0011	0.0038
177.4333	1.4319	0.0026	0	0.0026
177.4667	1.4276	0.0026	0.0038	0.0064
177.5	1.4299	0	0.0025	0.0025
177.5333	1.4286	0	0.0011	0.0011
177.5667	1.4286	0	0.0011	0.0011
177.6	1.4286	0	0	0
177.6333	1.4286	0.0026	0.0025	0.0051
177.6667	1.4296	0	0	0
177.7	1.4309	0.0026	0.0025	0.0051

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
177.7333	1.4299	0	0.0011	0.0011
177.7667	1.4289	0.0026	0.0011	0.0038
177.8	1.4286	0	0.0011	0.0011
177.8333	1.4296	0.0026	0.0011	0.0038
177.8667	1.4312	0.0158	0	0.0158
177.9	1.4292	0.0026	0	0.0026
177.9333	1.4315	0.0026	0.0011	0.0038
177.9667	1.4319	0.0158	0.0011	0.0169
178	1.4292	0.0026	0	0.0026
178.0333	1.4305	0	0.0011	0.0011
178.0667	1.4328	0.0026	0.0011	0.0038
178.1	1.4309	0.0026	0.0025	0.0051
178.1333	1.4305	0.0158	0.0011	0.0169
178.1667	1.4309	0.0026	0	0.0026
178.2	1.4328	0.0026	0.0025	0.0051
178.2333	1.4345	0.0026	0.0011	0.0038
178.2667	1.4361	0.0026	0.0011	0.0038
178.3	1.4335	0	0	0
178.3333	1.4322	0.0026	0.0011	0.0038
178.3667	1.4348	0.0026	0.0011	0.0038
178.4	1.4338	0	0	0
178.4333	1.4355	0.0026	0.0011	0.0038
178.4667	1.4361	0.0158	0	0.0158
178.5	1.4332	0.0158	0.0011	0.0169
178.5333	1.4325	0.0289	0	0.0289
178.5667	1.4345	0.0026	0.0011	0.0038
178.6	1.4358	0	0	0
178.6333	1.4368	0.0026	0.0025	0.0051
178.6667	1.4351	0.0158	0	0.0158
178.7	1.4371	0.0289	0.0011	0.0301
178.7333	1.4381	0.0158	0.0011	0.0169
178.7667	1.4384	0.0026	0	0.0026
178.8	1.4384	0	0	0
178.8333	1.4381	0.0158	0.0025	0.0182
178.8667	1.4378	0	0.0011	0.0011
178.9	1.4375	0.0026	0.0011	0.0038
178.9333	1.4348	0	0.0011	0.0011
178.9667	1.4371	0.0026	0.0011	0.0038
179	1.4355	0	0.0025	0.0025
179.0333	1.4394	0.0158	0	0.0158
179.0667	1.4381	0	0.0011	0.0011
179.1	1.4358	0	0.0011	0.0011
179.1333	1.4394	0.0158	0.0025	0.0182

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
179.1667	1.4371	0.0026	0.0011	0.0038
179.2	1.4391	0.0158	0.0011	0.0169
179.2333	1.4381	0.0026	0.0025	0.0051
179.2667	1.4388	0.0026	0.0025	0.0051
179.3	1.4391	0	0.0011	0.0011
179.3333	1.4388	0	0.0011	0.0011
179.3667	1.4365	0.0158	0.0011	0.0169
179.4	1.4391	0.0026	0.0011	0.0038
179.4333	1.4398	0.0026	0.0025	0.0051
179.4667	1.4414	0.0026	0.0011	0.0038
179.5	1.4398	0	0.0025	0.0025
179.5333	1.4375	0.0026	0.0025	0.0051
179.5667	1.4398	0.0026	0.0011	0.0038
179.6	1.4401	0.0026	0.0038	0.0064
179.6333	1.4371	0	0.0011	0.0011
179.6667	1.4388	0.0026	0.0011	0.0038
179.7	1.4388	0.0026	0.0011	0.0038
179.7333	1.4411	0.0026	0	0.0026
179.7667	1.4351	0.0026	0	0.0026
179.8	1.4398	0.0158	0.0011	0.0169
179.8333	1.4417	0	0.0011	0.0011
179.8667	1.4384	0.0026	0.0025	0.0051
179.9	1.4417	0.0158	0.0011	0.0169
179.9333	1.4421	0.0026	0	0.0026
179.9667	1.4401	0.0026	0.0011	0.0038
180	1.4407	0.0026	0.0011	0.0038
180.0333	1.4407	0.0158	0.0011	0.0169
180.0667	1.4401	0.0158	0.0025	0.0182
180.1	1.4424	0	0	0
180.1333	1.4424	0.0158	0.0011	0.0169
180.1667	1.4424	0	0.0025	0.0025
180.2	1.4404	0.0026	0.0025	0.0051
180.2333	1.4378	0.0158	0.0011	0.0169
180.2667	1.4421	0.0026	0.0011	0.0038
180.3	1.4417	0.0158	0.0011	0.0169
180.3333	1.4384	0	0	0
180.3667	1.4434	0.0026	0	0.0026
180.4	1.4391	0.0026	0	0.0026
180.4333	1.4391	0.0026	0.0011	0.0038
180.4667	1.4427	0.0026	0.0011	0.0038
180.5	1.4424	0.0026	0.0011	0.0038
180.5333	1.4404	0.0026	0.0025	0.0051
180.5667	1.4404	0.0158	0.0011	0.0169

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
180.6	1.4375	0.0026	0	0.0026
180.6333	1.4394	0.0026	0.0011	0.0038
180.6667	1.4417	0.0026	0	0.0026
180.7	1.4417	0.0026	0.0011	0.0038
180.7333	1.4398	0	0	0
180.7667	1.443	0.0158	0.0025	0.0182
180.8	1.4381	0.0026	0.0011	0.0038
180.8333	1.4384	0.0158	0.0025	0.0182
180.8667	1.4424	0.0158	0.0011	0.0169
180.9	1.4427	0.0026	0.0011	0.0038
180.9333	1.4388	0.0026	0.0011	0.0038
180.9667	1.4437	0.0158	0	0.0158
181	1.4404	0.0158	0	0.0158
181.0333	1.443	0	0.0011	0.0011
181.0667	1.4411	0.0026	0	0.0026
181.1	1.443	0.0026	0.0011	0.0038
181.1333	1.4417	0.0026	0.0011	0.0038
181.1667	1.4427	0.0026	0.0011	0.0038
181.2	1.443	0.0158	0	0.0158
181.2333	1.4391	0.0026	0.0011	0.0038
181.2667	1.4388	0.0158	0.0025	0.0182
181.3	1.4391	0.0158	0.0011	0.0169
181.3333	1.4414	0.0026	0	0.0026
181.3667	1.4394	0.0026	0	0.0026
181.4	1.443	0.0158	0	0.0158
181.4333	1.4401	0	0.0011	0.0011
181.4667	1.443	0.0026	0	0.0026
181.5	1.443	0.0026	0.0025	0.0051
181.5333	1.4407	0.0158	0	0.0158
181.5667	1.4417	0.0026	0.0011	0.0038
181.6	1.443	0.0026	0	0.0026
181.6333	1.4427	0.0158	0.0011	0.0169
181.6667	1.4398	0.0158	0.0011	0.0169
181.7	1.4398	0.0026	0.0011	0.0038
181.7333	1.4411	0.0026	0.0011	0.0038
181.7667	1.4401	0.0158	0.0011	0.0169
181.8	1.4424	0.0026	0	0.0026
181.8333	1.4447	0.0026	0.0025	0.0051
181.8667	1.4407	0.0158	0.0025	0.0182
181.9	1.4411	0.0026	0.0011	0.0038
181.9333	1.4411	0.0026	0.0011	0.0038
181.9667	1.4407	0	0.0011	0.0011
182	1.4414	0	0.0025	0.0025

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
182.0333	1.4398	0.0026	0.0011	0.0038
182.0667	1.4424	0.0026	0.0011	0.0038
182.1	1.4421	0.0026	0.0025	0.0051
182.1333	1.4427	0.0026	0.0011	0.0038
182.1667	1.4407	0.0158	0.0011	0.0169
182.2	1.4421	0.0158	0.0011	0.0169
182.2333	1.4398	0.0026	0	0.0026
182.2667	1.4404	0.0026	0.0011	0.0038
182.3	1.4424	0	0.0011	0.0011
182.3333	1.4444	0.0158	0.0025	0.0182
182.3667	1.4424	0	0.0025	0.0025
182.4	1.4424	0.0026	0.0011	0.0038
182.4333	1.4421	0.0026	0	0.0026
182.4667	1.4401	0.0026	0.0011	0.0038
182.5	1.4424	0.0026	0.0011	0.0038
182.5333	1.4404	0.0158	0	0.0158
182.5667	1.4404	0.0026	0	0.0026
182.6	1.4401	0.0026	0.0011	0.0038
182.6333	1.4411	0.0026	0.0011	0.0038
182.6667	1.4401	0	0	0
182.7	1.4388	0.0158	0.0025	0.0182
182.7333	1.4398	0	0	0
182.7667	1.4404	0.0158	0	0.0158
182.8	1.4371	0.0158	0.0011	0.0169
182.8333	1.4411	0.0026	0.0011	0.0038
182.8667	1.4401	0.0026	0.0011	0.0038
182.9	1.4398	0.0026	0.0011	0.0038
182.9333	1.4421	0	0	0
182.9667	1.4404	0.0026	0	0.0026
183	1.4394	0	0	0
183.0333	1.4394	0	0.0011	0.0011
183.0667	1.4424	0	0	0
183.1	1.4388	0.0026	0.0025	0.0051
183.1333	1.4388	0	0	0
183.1667	1.4407	0.0026	0.0011	0.0038
183.2	1.4391	0.0158	0.0011	0.0169
183.2333	1.4394	0.0026	0	0.0026
183.2667	1.4394	0.0026	0	0.0026
183.3	1.4398	0.0026	0.0025	0.0051
183.3333	1.443	0.0026	0.0011	0.0038
183.3667	1.4401	0.0026	0.0011	0.0038
183.4	1.4401	0.0026	0.0011	0.0038
183.4333	1.4388	0.0026	0.0011	0.0038

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
183.4667	1.4417	0.0026	0	0.0026
183.5	1.4394	0.0158	0	0.0158
183.5333	1.4368	0	0.0011	0.0011
183.5667	1.4394	0.0026	0.0011	0.0038
183.6	1.4371	0.0026	0.0011	0.0038
183.6333	1.4398	0.0026	0.0025	0.0051
183.6667	1.4398	0.0026	0.0011	0.0038
183.7	1.4407	0	0.0011	0.0011
183.7333	1.4424	0.0026	0.0011	0.0038
183.7667	1.4391	0.0026	0	0.0026
183.8	1.4407	0	0.0025	0.0025
183.8333	1.4384	0.0158	0	0.0158
183.8667	1.4414	0.0158	0.0025	0.0182
183.9	1.4401	0	0.0011	0.0011
183.9333	1.4398	0.0026	0	0.0026
183.9667	1.4388	0.0158	0.0011	0.0169
184	1.4378	0	0.0011	0.0011
184.0333	1.4381	0.0026	0.0025	0.0051
184.0667	1.4388	0.0289	0.0011	0.0301
184.1	1.4378	0	0.0011	0.0011
184.1333	1.4394	0.0026	0.0011	0.0038
184.1667	1.4384	0.0158	0	0.0158
184.2	1.4404	0.0158	0	0.0158
184.2333	1.4371	0.0026	0.0011	0.0038
184.2667	1.4401	0.0158	0.0011	0.0169
184.3	1.4384	0.0158	0.0011	0.0169
184.3333	1.4391	0.0158	0	0.0158
184.3667	1.4351	0.0158	0.0011	0.0169
184.4	1.4394	0.0026	0.0025	0.0051
184.4333	1.4391	0.0026	0	0.0026
184.4667	1.4371	0.0026	0.0011	0.0038
184.5	1.4371	0.0026	0.0011	0.0038
184.5333	1.4394	0.0158	0	0.0158
184.5667	1.4381	0	0.0011	0.0011
184.6	1.4345	0.0026	0	0.0026
184.6333	1.4407	0.0289	0	0.0289
184.6667	1.4384	0.0026	0.0011	0.0038
184.7	1.4375	0	0	0
184.7333	1.4358	0.0158	0	0.0158
184.7667	1.4345	0	0.0011	0.0011
184.8	1.4388	0	0.0011	0.0011
184.8333	1.4345	0.0026	0.0025	0.0051
184.8667	1.4401	0.0158	0.0011	0.0169

Areva NP Inc. Project No. G101276459SAT-001A July 29, 2013

Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
184.9	1.4358	0.0026	0.0025	0.0051
184.9333	1.4375	0.0026	0	0.0026
184.9667	1.4375	0.0026	0.0011	0.0038
185	1.4365	0.0158	0	0.0158
185.0333	1.4381	0.0026	0.0038	0.0064
185.0667	1.4348	0.0026	0.0011	0.0038
185.1	1.4351	0.0026	0.0011	0.0038
185.1333	1.4381	0.0026	0.0011	0.0038
185.1667	1.4368	0.0026	0	0.0026
185.2	1.4358	0.0158	0.0011	0.0169
185.2333	1.4375	0	0	0
185.2667	1.4368	0.0026	0.0011	0.0038
185.3	1.4371	0.0026	0.0011	0.0038
185.3333	1.4358	0	0.0011	0.0011
185.3667	1.4342	0.0026	0.0011	0.0038
185.4	1.4375	0.0026	0.0011	0.0038
185.4333	1.4358	0.0026	0.0025	0.0051
185.4667	1.4375	0.0158	0.0025	0.0182
185.5	1.4371	0.0026	0.0025	0.0051
185.5333	1.4368	0.0158	0.0011	0.0169
185.5667	1.4368	0.0026	0.0025	0.0051
185.6	1.4361	0	0.0011	0.0011
185.6333	1.4358	0.0026	0	0.0026
185.6667	1.4381	0	0.0011	0.0011
185.7	1.4348	0.0026	0	0.0026
185.7333	1.4348	0.0026	0.0011	0.0038
185.7667	1.4348	0	0	0
185.8	1.4358	0.0158	0.0011	0.0169
185.8333	1.4332	0.0026	0.0011	0.0038
185.8667	1.4361	0.0158	0.0011	0.0169
185.9	1.4355	0.0026	0.0011	0.0038
185.9333	1.4351	0.0158	0.0025	0.0182
185.9667	1.4351	0.0158	0.0011	0.0169
186	1.4368	0	0.0011	0.0011
186.0333	1.4342	0.0289	0.0038	0.0327
186.0667	1.4348	0	0.0011	0.0011
186.1	1.4361	0	0.0025	0.0025
186.1333	1.4375	0.0026	0.0011	0.0038
186.1667	1.4332	0.0026	0.0025	0.0051
186.2	1.4342	0	0	0
186.2333	1.4351	0.0158	0	0.0158
186.2667	1.4348	0.0158	0.0011	0.0169
186.3	1.4328	0.0158	0.0011	0.0169

Areva NP Inc. Project No. G101276459SAT-001A July 29, 2013

Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
186.3333	1.4332	0	0	0
186.3667	1.4345	0.0026	0.0011	0.0038
186.4	1.4338	0.0026	0	0.0026
186.4333	1.4358	0	0.0011	0.0011
186.4667	1.4351	0.0026	0.0025	0.0051
186.5	1.4358	0.0026	0.0025	0.0051
186.5333	1.4358	0.0026	0.0011	0.0038
186.5667	1.4358	0	0.0011	0.0011
186.6	1.4371	0.0158	0.0025	0.0182
186.6333	1.4338	0	0.0011	0.0011
186.6667	1.4378	0.0026	0.0011	0.0038
186.7	1.4345	0.0026	0	0.0026
186.7333	1.4342	0	0	0
186.7667	1.4351	0.0026	0.0025	0.0051
186.8	1.4345	0.0158	0.0011	0.0169
186.8333	1.4348	0	0	0
186.8667	1.4342	0.0026	0	0.0026
186.9	1.4335	0	0	0
186.9333	1.4351	0.0158	0.0011	0.0169
186.9667	1.4351	0.0158	0	0.0158
187	1.4355	0.0026	0	0.0026
187.0333	1.4342	0	0.0011	0.0011
187.0667	1.4332	0.0026	0	0.0026
187.1	1.4325	0.0026	0.0025	0.0051
187.1333	1.4342	0.0026	0.0025	0.0051
187.1667	1.4332	0.0026	0	0.0026
187.2	1.4348	0.0026	0.0011	0.0038
187.2333	1.4332	0.0158	0.0011	0.0169
187.2667	1.4335	0	0	0
187.3	1.4348	0.0026	0.0011	0.0038
187.3333	1.4335	0	0.0011	0.0011
187.3667	1.4361	0.0026	0.0011	0.0038
187.4	1.4325	0	0	0
187.4333	1.4355	0.0026	0.0025	0.0051
187.4667	1.4319	0.0158	0	0.0158
187.5	1.4345	0.0289	0	0.0289
187.5333	1.4371	0.0026	0.0038	0.0064
187.5667	1.4335	0	0	0
187.6	1.4348	0	0	0
187.6333	1.4332	0.0026	0	0.0026
187.6667	1.4332	0.0158	0.0011	0.0169
187.7	1.4328	0.0158	0.0011	0.0169
187.7333	1.4312	0.0026	0.0011	0.0038

Areva NP Inc. Project No. G101276459SAT-001A July 29, 2013

Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
187.7667	1.4345	0.0026	0.0011	0.0038
187.8	1.4358	0.0158	0.0011	0.0169
187.8333	1.4322	0	0	0
187.8667	1.4335	0.0026	0	0.0026
187.9	1.4335	0.0026	0	0.0026
187.9333	1.4338	0.0158	0	0.0158
187.9667	1.4319	0.0158	0.0025	0.0182
188	1.4335	0.0026	0.0011	0.0038
188.0333	1.4328	0	0.0011	0.0011
188.0667	1.4292	0	0.0025	0.0025
188.1	1.4335	0.0026	0.0011	0.0038
188.1333	1.4299	0	0	0
188.1667	1.4332	0.0026	0.0011	0.0038
188.2	1.4319	0.0026	0	0.0026
188.2333	1.4309	0.0026	0	0.0026
188.2667	1.4302	0.0026	0.0011	0.0038
188.3	1.4302	0.0026	0.0011	0.0038
188.3333	1.4325	0.0026	0.0025	0.0051
188.3667	1.4305	0	0.0011	0.0011
188.4	1.4309	0.0026	0.0011	0.0038
188.4333	1.4328	0.0158	0.0011	0.0169
188.4667	1.4286	0.0026	0.0011	0.0038
188.5	1.4312	0	0.0025	0.0025
188.5333	1.4312	0.0026	0.0011	0.0038
188.5667	1.4286	0	0.0011	0.0011
188.6	1.4319	0.0026	0.0011	0.0038
188.6333	1.4296	0.0158	0	0.0158
188.6667	1.4328	0.0158	0.0011	0.0169
188.7	1.4312	0	0.0011	0.0011
188.7333	1.4325	0.0026	0.0011	0.0038
188.7667	1.4292	0.0026	0	0.0026
188.8	1.4315	0.0158	0.0011	0.0169
188.8333	1.4325	0.0026	0	0.0026
188.8667	1.4302	0.0158	0.0011	0.0169
188.9	1.4319	0.0026	0	0.0026
188.9333	1.4332	0	0	0
188.9667	1.4299	0.0026	0.0011	0.0038
189	1.4296	0.0026	0.0025	0.0051
189.0333	1.4312	0.0158	0.0011	0.0169
189.0667	1.4309	0	0.0011	0.0011
189.1	1.4335	0.0158	0	0.0158
189.1333	1.4309	0.0289	0.0025	0.0314
189.1667	1.4296	0	0.0025	0.0025

Areva NP Inc. Project No. G101276459SAT-001A July 29, 2013

Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
189.2	1.4292	0.0158	0.0011	0.0169
189.2333	1.4312	0	0.0011	0.0011
189.2667	1.4328	0.0158	0.0011	0.0169
189.3	1.4322	0.0026	0.0025	0.0051
189.3333	1.4315	0.0026	0	0.0026
189.3667	1.4272	0.0026	0.0011	0.0038
189.4	1.4305	0.0026	0.0011	0.0038
189.4333	1.4305	0.0026	0.0011	0.0038
189.4667	1.4322	0.0158	0	0.0158
189.5	1.4302	0.0026	0.0011	0.0038
189.5333	1.4305	0	0.0011	0.0011
189.5667	1.4309	0.0158	0.0011	0.0169
189.6	1.4302	0.0026	0.0011	0.0038
189.6333	1.4305	0.0158	0.0011	0.0169
189.6667	1.4319	0.0026	0.0011	0.0038
189.7	1.4309	0.0158	0.0011	0.0169
189.7333	1.4299	0.0026	0.0011	0.0038
189.7667	1.4319	0.0026	0.0025	0.0051
189.8	1.4286	0	0.0025	0.0025
189.8333	1.4276	0.0026	0	0.0026
189.8667	1.4302	0.0026	0	0.0026
189.9	1.4312	0.0026	0.0011	0.0038
189.9333	1.4299	0.0158	0	0.0158
189.9667	1.4305	0.0158	0.0025	0.0182
190	1.4292	0.0026	0.0011	0.0038
190.0333	1.4305	0	0.0011	0.0011
190.0667	1.4315	0.0026	0.0011	0.0038
190.1	1.4335	0.0026	0	0.0026
190.1333	1.4309	0.0158	0.0011	0.0169
190.1667	1.4305	0.0158	0.0011	0.0169
190.2	1.4328	0	0.0025	0.0025
190.2333	1.4332	0	0.0025	0.0025
190.2667	1.4312	0.0026	0	0.0026
190.3	1.4335	0.0289	0.0011	0.0301
190.3333	1.4332	0.0026	0.0011	0.0038
190.3667	1.4299	0	0.0011	0.0011
190.4	1.4282	0.0026	0	0.0026
190.4333	1.4282	0.0026	0	0.0026
190.4667	1.4292	0.0158	0.0011	0.0169
190.5	1.4322	0.0026	0.0011	0.0038
190.5333	1.4286	0.0026	0.0011	0.0038
190.5667	1.4292	0.0026	0.0011	0.0038
190.6	1.4282	0.0158	0.0025	0.0182

Areva NP Inc. Project No. G101276459SAT-001A July 29, 2013

Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
190.6333	1.4305	0.0026	0.0011	0.0038
190.6667	1.4315	0.0026	0.0011	0.0038
190.7	1.4296	0.0158	0.0011	0.0169
190.7333	1.4282	0	0.0011	0.0011
190.7667	1.4279	0	0.0011	0.0011
190.8	1.4299	0.0158	0.0011	0.0169
190.8333	1.4315	0.0026	0.0011	0.0038
190.8667	1.4282	0.0158	0.0011	0.0169
190.9	1.4296	0.0026	0.0011	0.0038
190.9333	1.4296	0.0158	0.0011	0.0169
190.9667	1.4305	0.0026	0	0.0026
191	1.4296	0.0026	0	0.0026
191.0333	1.4282	0.0289	0.0011	0.0301
191.0667	1.4322	0.0026	0	0.0026
191.1	1.4299	0.0026	0.0011	0.0038
191.1333	1.4302	0.0158	0.0011	0.0169
191.1667	1.4296	0.0158	0	0.0158
191.2	1.4296	0.0026	0.0011	0.0038
191.2333	1.4309	0	0.0011	0.0011
191.2667	1.4312	0.0026	0	0.0026
191.3	1.4305	0.0026	0.0011	0.0038
191.3333	1.4276	0.0026	0.0011	0.0038
191.3667	1.4305	0.0158	0.0011	0.0169
191.4	1.4299	0	0.0011	0.0011
191.4333	1.4305	0.0026	0.0011	0.0038
191.4667	1.4312	0	0.0011	0.0011
191.5	1.4269	0.0026	0.0011	0.0038
191.5333	1.4309	0.0026	0.0011	0.0038
191.5667	1.4299	0.0158	0.0025	0.0182
191.6	1.4292	0.0026	0.0011	0.0038
191.6333	1.4319	0.0026	0.0011	0.0038
191.6667	1.4302	0.0158	0	0.0158
191.7	1.4309	0.0026	0.0025	0.0051
191.7333	1.4296	0	0.0025	0.0025
191.7667	1.4292	0	0.0011	0.0011
191.8	1.4286	0.0026	0.0025	0.0051
191.8333	1.4302	0	0.0011	0.0011
191.8667	1.4292	0.0158	0.0011	0.0169
191.9	1.42	0.0158	0.0011	0.0169
191.9333	1.3966	0.0026	0.0025	0.0051
191.9667	1.3657	0.0026	0.0011	0.0038
192	1.3318	0.0158	0.0011	0.0169

APPENDIX C
Photographs


07/17/2013 15:21
PT#1


07/17/2013 15:21


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07/17/2013 15:26


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07/17/2013 16:00


07/18/2013 08:20


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07/18/2013 08:22


07/18/2013 08:22


07/18/2013 08:22


SF-60-1R
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07/18/2013 09:24


07/18/2013 09:45

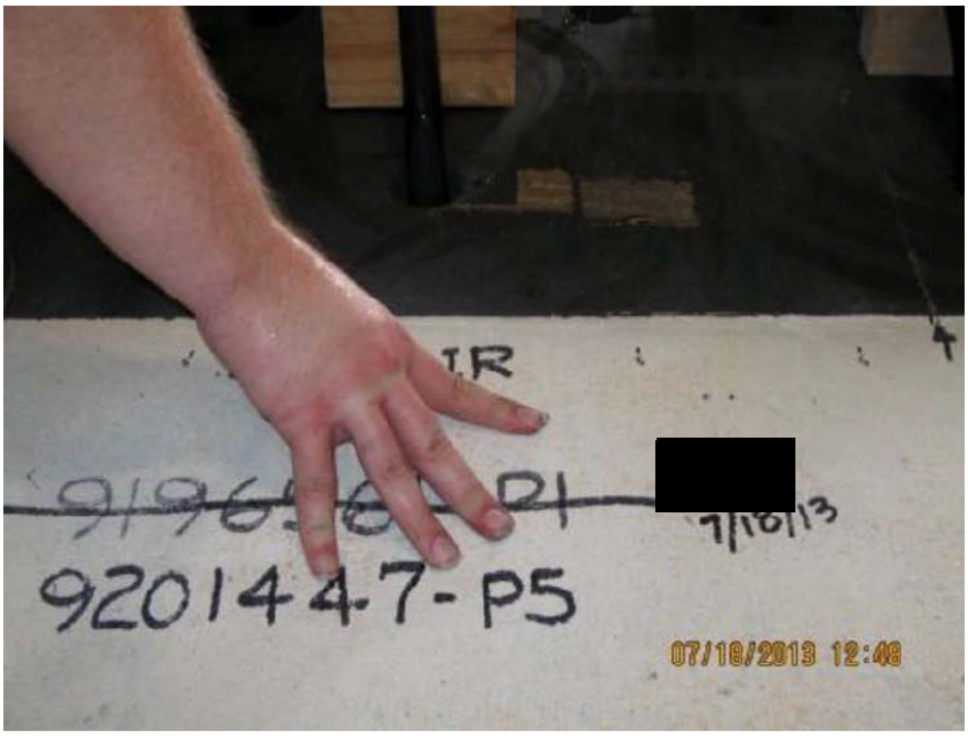

07/18/2013 09:48


07/18/2013 12:46


07/18/2013 12:46


07/18/2013 12:47


DC-170
07/18/2013 12:48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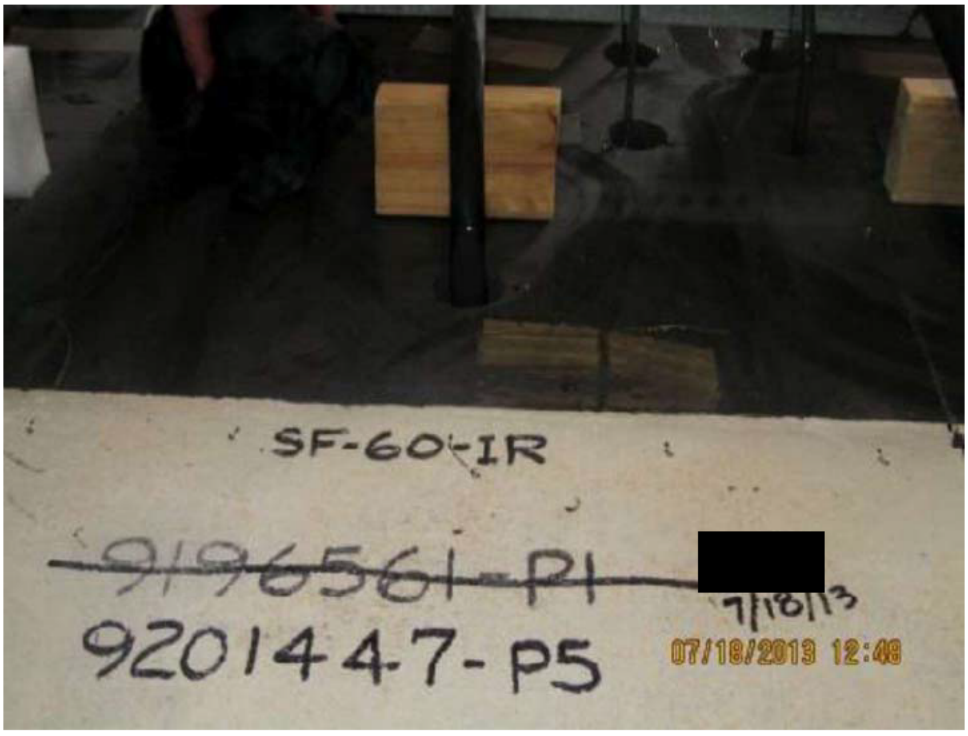
07/18/2013 12:48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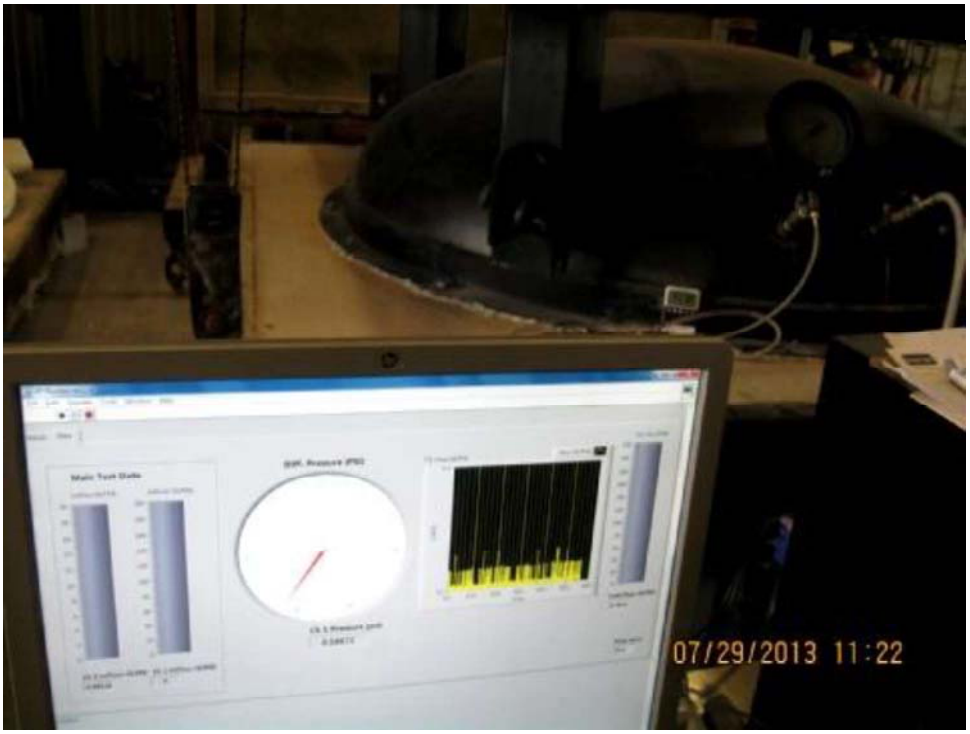
7/18/13
920144-7-P5
07/18/2013 12:48


07/18/2013 13:52


07/18/2013 13:53


Intertek
07/29/2013 10:27


07/29/2013 10:27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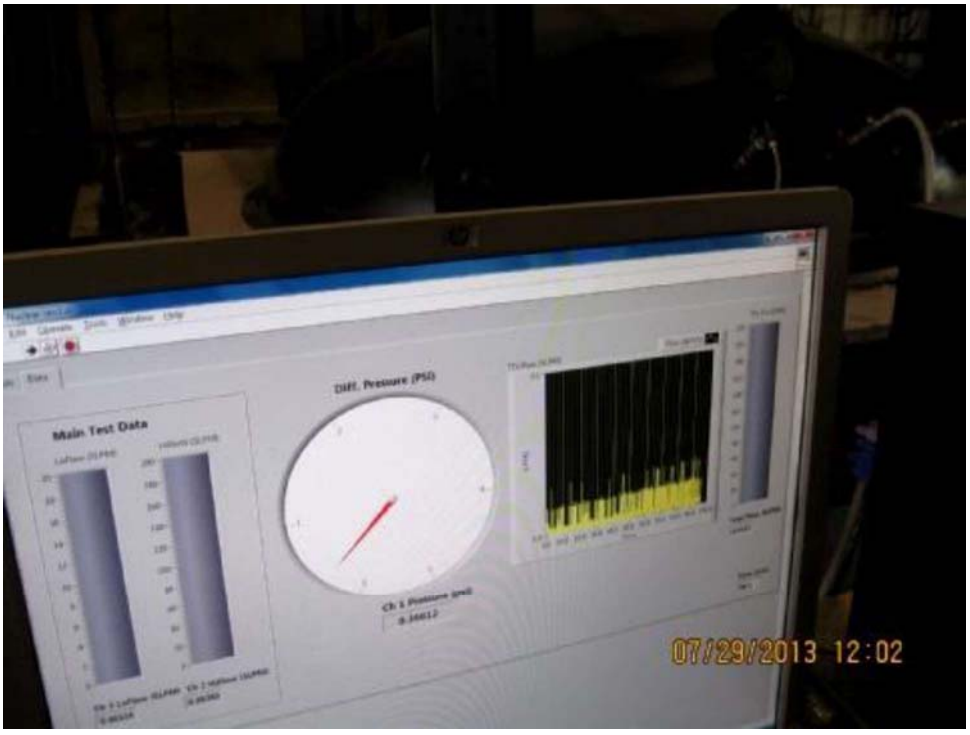
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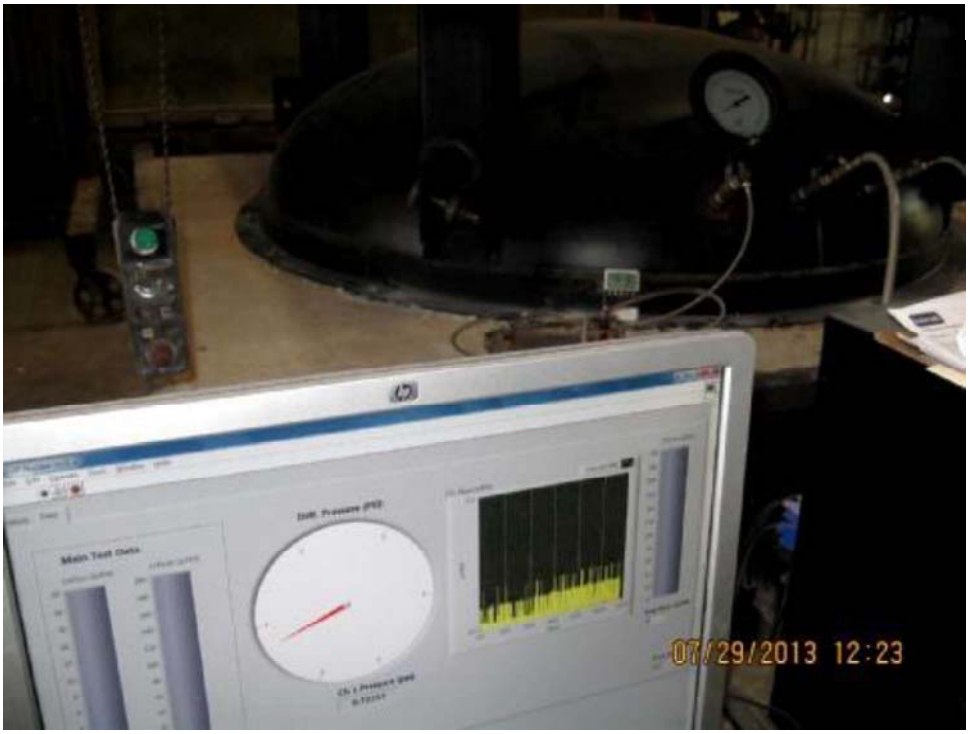
Diff. Pressure (PSI)
07/29/2013 12:02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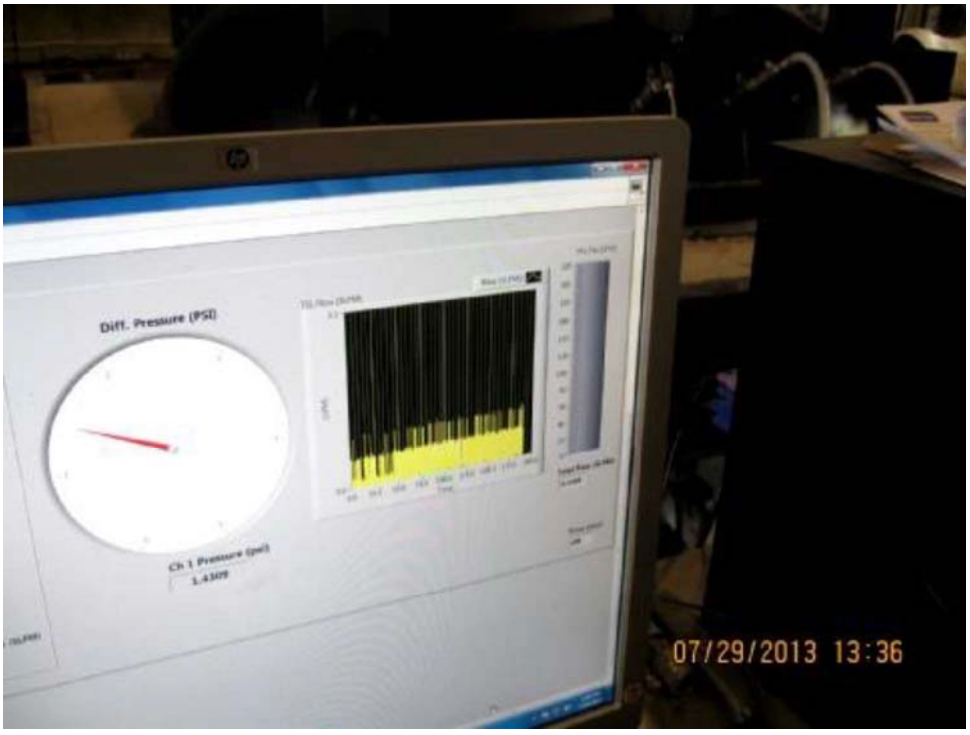
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07/29/2013 13:36

APPENDIX D
Test Plan

20004-019 (11/20/2012)

AREVA

AREVA NP Inc.

Engineering Information Record

Document No.: 51 - 9201447 - 002

Detailed Test Plan for Conducting MOX Pressure Test 5

[redacted]

Mike Dey
Staff Engineer

[redacted]

Michael A. Brown
Quality Supervisor

AREVA

20004-019 (11/20/2012)
Document No.: 51-9201447-002

Detailed Test Plan for Conducting MOX Pressure Test 5

Safety Related? ☒ YES ☐ NO

Does this document establish design or technical requirements? ☐ YES ☒ NO

Does this document contain assumptions requiring verification? ☐ YES ☒ NO

Does this document contain Customer Required Format? ☐ YES ☒ NO

Signature Block

Name and Title/Discipline	Signature	P/LP, R/LR, A-CRF, A	Date	Pages/Sections Prepared/Reviewed/ Approved or Comments
Andrew Ochsankehl Engineer III / PEYF1-A	[redacted]	P	7/3/2013	All
Vic Kaldenbach Princ Des Eng Spec II / PEYF1-A	[redacted]	R	07/03/2013	All
Scott Groesbeck Manager Tech Ops / PEYF1-A	[redacted]	A	7/3/13	All
Perry Calos Project Manager / IBL-A	[redacted]	A	7/5/13	All

Note: P/LP designates Preparer (P), Lead Preparer (LP)
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A designates Approver/RTM – Verification of Reviewer Independence

MOX Services concurrence: [redacted] 08Jul13

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20004-019 (11/20/2012)
Document No.: 51-9201447-002

Detailed Test Plan for Conducting MOX Pressure Test 5

Record of Revision

Revision No.	Pages/Sections/ Paragraphs Changed	Brief Description / Change Authorization
000	All	Initial Issue. This document contains the main body of the report (pages 1-18), Appendix A (2 pages), Appendix B (5 pages), Appendix C (5 pages), Appendix D (2 pages), for a total of 32 pages.
001	Page 7	Added penetration seal material acronyms.
001	Section 2.1	Corrected orientation to be consistent.
001	Section 2.2 and 2.3	Modified penetration descriptions to update penetration seal material, orientation to be consistent and corrected document title.
001	Section 5.1	Added penetration seal materials to procurement plan.
001	Section 5.3	Clarified that all penetrating items (cables) will be provided by MOX.
001	Section 8.2	Removed material selection hold.
001	Section12	Corrected document title.
001	Appendix B	Modified description and division of penetration seal material.
001	Appendix C	Modified penetration seal material Bill of Materials.
001	General	This document contains the main body of the report (pages 1-18), Appendix A (2 pages), Appendix B (5 pages), Appendix C (5 pages), and Appendix D (2 pages), for a total of 32 pages.
002	Page 8	Modified reference from Pressure Test 1 to Pressure Test 2. Changed formatting to box notes.
002	Page 9	Modified references from Pressure Test 1 to Pressure Test 2. Changed formatting to box notes.
002	Page 16	Deleted Section 9.2.1 as this step is unnecessary for the testing equipment being used.
002	General	This document contains the main body of the report (pages 1-18), Appendix A (2 pages), Appendix B (5 pages), Appendix C (5 pages), and Appendix D (2 pages), for a total of 32 pages.

AREVA

Document No.: 51-9201447-002

Detailed Test Plan for Conducting MOX Pressure Test 5

Table of Contents

Intertek

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(continued)

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List of Tables

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ACRONYMS

CGD	Commercial Grade Dedication
CGI	Commercial Grade Item
CSPE	Chlorosulfonated Polyethylene
IROFS	Items Relied On For Safety
LSZH	Low Smoke Zero Halogen
MOX	Mixed Oxide
MFFF	Mixed Oxide Fuel Fabrication Facility
QA	Quality Assurance
QL	Quality Level
SSC	Structures, Systems and Components
w.g.	Water Gauge
XLPE	Crosslinked Polyethylene
XLPO	Crosslinked Polyolefin

Penetration Seal Materials

DC-170	Dow Corning Sylgard® 170 Silicone Elastomer
QSil 5558MC	Quantum Silicones QSil 5558MC Silicone Elastomer
SF-60-IR	Promatec SF-60-IR Inhibition Resistant Silicone Elastomer

BACKGROUND

AREVA NP (AREVA) is assisting Shaw AREVA MOX Services (MOX Services) in the development and implementation of a penetration seal program for the Mixed Oxide Fuel Fabrication Facility (MFFF). One aspect of the MOX penetration seal program includes conducting various types of qualification tests of penetration seal assemblies to substantiate the performance capabilities of specific penetration seal designs. Pressure testing is one type of qualification testing that needs to be performed in order to demonstrate the pressure retaining capability of MOX penetration seal designs. The data collected during pressure testing is needed to determine acceptable levels of leakage to maintain the necessary pressure differentials between confinement zones within the MFFF under various conditions, such as normal operation or inadvertent clean agent discharge. Other types of qualification testing, such as fire testing and testing for seismic qualification of penetration seal assemblies, are addressed by other test plans.

1.0 PURPOSE

The purpose of this test plan is to define the test assembly, test methods and acceptance criteria for conducting pressure test in support of the MOX penetration seal program.

This test plan defines the test methods, acceptance criteria and test report documentation requirements for penetration seal pressure test 5. Additionally, this detailed test plan defines the roles and responsibilities of MOX Services, AREVA, the selected testing laboratory, and any other subcontracted entity engaged in support of pressure testing efforts.

This detailed test plan also describes the procurement plan for materials associated with penetration seal pressure test 5 and identifies the entities responsible for procuring the various components of the test assemblies based on the quality level assigned to each component.

This test plan also establishes minimum quality requirements for the penetration seal materials used in the test assemblies and links quality requirements in the AREVA Quality Assurance (QA) program to customer/project quality requirements.

2.0 OBJECTIVE

The primary objective of this test plan is to evaluate the pressure resistance capability of an 8" thick silicone elastomer seal when installed around various cables at air pressure increments above atmospheric pressure provided in Section 9.2.

The specific configuration to be tested is described below. Critical characteristics and the associated limiting parameters that will be substantiated by a successful test are also provided.

2.1 Test Deck Description

The test deck will consist of a 12" thick concrete slab measuring approximately 96" x 96" (8' x 8') [Note: Final test slab size to be determined by Intertek and documented in the final test report]. Within this slab will be one (1) precast 48" x 34" opening sized to replicate penetrations found in the MOX facility. The test deck will be horizontally oriented with a hemispherical 72" diameter steel pressure vessel mounted above and below the precast opening in the slab.

> **Note:** It is anticipated that the slab with the silicone elastomer seal material used for Pressure Test 2 will not be damaged during Pressure Test 2 and will be available for reuse in this pressure test. For the purpose of Pressure Test 5, holes will be drilled in the silicone elastomer for the penetration of the cables being tested; after the cables are installed the holes shall be patched using the silicone elastomer seal material in accordance with Document 01-9198306 (latest

revision), *"Installation Instruction Manual for MOX Penetration Seal Test Program"* [Reference 12.1].

Additionally, most of the openings (penetrations) in the MOX facility have been cast with a ¾" bevel on both sides of the opening. For testing and qualification purposes, this feature is considered aesthetic, and it has no adverse effect on the functional performance of the penetration seal installation. In fact for some applications, such as in the case of pressure resistant penetrations seals, the bevel provides a benefit over non-beveled openings. Therefore, for the purposes of the penetration seal test program, the bevel feature will not be included for pressure tests covered in this test plan.

Drawings showing the general layout of the test deck (test slab) for this pressure test can be found in Appendix A.

Note: If the slab from Pressure Test 2 was damaged during testing or is otherwise not available, this test plan will require revision.

2.2 Test Description

The opening to be sealed and tested in Pressure Test 5 is a 48" x 34" blockout containing multiple penetrating items. All sides of the opening will be unlined, bare concrete (i.e., no liners, coatings or sleeve materials). The penetrating items for this blockout will include the following items found in Shaw AREVA MOX Services Drawings DCS01-ZMJ-DS-NTE-N-65107-2 Sheets 84-116, "*Technical Engineering Information*" [Reference 12.2]:

- (1) 0.32" diameter cable with 15 mil CSPE jacket, product mark no. wfb-7
- (1) 0.50" diameter cable with 45 mil CSPE jacket, product mark no. wfa-1
- (1) 1.54" diameter cable with 80 mil CSPE jacket, product mark no. wfa-13
- (1) 0.248" diameter cable with 15 mil XLPE jacket, product mark no. whe-2
- (1) 0.33" diameter cable with 60 mil XLPE jacket, product mark no. wbe-1
- (1) 0.25" diameter cable with 7 mil Modified XLPO jacket, product mark no. whe-8
- (1) 0.44" diameter cable with 9 mil Modified XLPO jacket, product mark no. wbh-1
- (1) 0.53" diameter cable with 35 mil LSZH - XLPO jacket, product mark no. wfa-26
- (1) 1.02" diameter cable with 65 mil LSZH - XLPO jacket, product mark no. wfe-6

The cables will penetrate through the opening, make a "u" shaped bend on the pressurized side of the seal and penetrate through the opening again. In effect the cables will be looped with both ends of each cable terminating on the non-pressurized side of the opening and forming a "u" shape on the pressurized size of the opening. Using this configuration will prevent any pressure leakage due to air travel through the cables.

The opening will be sealed with an eight (8) inch thick Dow Corning Sylgard® 170 Silicone Elastomer (DC-170), Quantum Silicones QSil 5558MC Silicone Elastomer (QSil 5558MC) and Promatec SF-60-IR Inhibition Resistant Silicone Elastomer (SF-60-IR) penetration seal with no permanent damming installed around the various penetrating commodities.

Note: If reusing the test deck from Pressure Test 2, oversized holes will be drilled (or otherwise cut) in the silicone elastomer for the installation of the cables being tested in the locations depicted in Appendix B. After the cables are installed the holes shall be sealed using Promatec SF-60-IR Inhibition Resistant Silicone Elastomer (SF-60-IR) seal material in accordance with Document 01-9198306 (latest revision), *"Installation Instruction Manual for MOX Penetration Seal Test Program"* [Reference 12.1]. Additional "field patch" holes will be introduced and sealed as depicted in Appendix B and in accordance with Document 01-9198306 (latest revision).

The test will be performed with the test deck oriented in the horizontal position.

2.3 Critical Characteristics and Limiting Parameters Being Tested

The specific critical characteristics and associated limiting parameters being tested for Pressure Test 5 are as follows.

This test will evaluate pressure resistance capabilities of an eight (8) inch thick Dow Corning Sylgard® 170 Silicone Elastomer seal with no permanent damming installed in an unlined (bare concrete) penetration. MOX cables are being included to evaluate the pressure resistance capability of the silicone elastomer seal material at the cable interface. A successful test will substantiate the acceptability of this seal configuration to function as a pressure seal when installed around the following types of cables:

- CSPE jacketed cables
- XLPE jacketed cables
- Modified XLPO jacketed cables
- LSZH – XLPO jacketed cables

Additionally, for each jacket type the following parameters are being tested:

- Small diameter cable
- Large diameter cable
- Thin jacket material
- Thick jacket material

A variety of conductor configurations are being tested from one conductor to 37 conductors.

Finally, the test will substantiate repair processes using the various seal materials.

3.0 ACCEPTANCE CRITERIA

Pressure rated penetration seals at the MOX facility are required to remain "sufficiently leak-tight" at various pressure levels in order to support the functional goals of the various pressure rating requirements (i.e., confinement, suppression system clean agent concentration, fire induced pressure loads or HVAC pressure boundary loads). The term "sufficiently leak-tight" indicated that the penetration seal meets the predetermined acceptance criteria for the pressure level(s) being tested.

The acceptance criteria that constitutes "sufficiently leak-tight" varies based on the pressure requirement and the operating mode of the plant. For most pressure conditions and operating modes, "sufficiently leak-tight" means that the penetration seal assembly must remain in place but is allowed to leak (i.e., the penetration seal cannot become dislodged from the opening or otherwise catastrophically fail such that a substantial leakage path is created).

Per MOX Services Calculation "Confinement Boundary Air Leakage Criteria" [Reference 12.3], penetration seals that function as confinement zone 3b boundary components must maintain a leakage rate less than 0.01 cfm/sq. ft. of penetration area when tested at a pressure that bounds C3b to non-C3b zone pressures during normal operating conditions.

Table 9-1 identifies the differential pressure levels (stages) for conducting pressure tests, as well as, the acceptance criteria in order to be considered "sufficiently leak-tight".

4.0 RESPONSIBILITIES

The following roles and responsibilities apply to this test plan.

4.1 MOX Services

4.1.1 Provide review and concurrence of this detailed pressure test plan.

4.1.2 Provide concurrence for any revisions made to this test plan during test specimen construction activities.

4.1.3 Provide some of the materials for test assembly construction from MOX Services surplus or scrap (if available).

4.1.4 Witness pressure tests (if desired).

4.2 AREVA

4.2.1 Develop and revise (if necessary) this detailed pressure test plan.

4.2.2 Provide management and oversight of all aspects of the MOX penetration seal test program.

4.2.3 Select the pressure testing facility and establish sub-contract agreements. The testing laboratory selected for performance of this pressure test is Intertek Testing Services NA, Inc., Elmendorf, TX.

4.2.4 Provide engineering instructions to the testing laboratory for performance of the test including test parameters, acceptance criteria, requirements for documenting the test results in a final test report, etc.

4.2.5 Procure all primary penetration seal materials, devices and components (i.e., any materials, devices and components intended to replicate future Safety Related (QL-1) designs to be installed in the MOX facility) as designated in the procurement plan section (Section 5.0) of this test plan.

4.2.6 Notify MOX Services at least 10 days prior to test date to facilitate MOX Services decision to witness the pressure test.

4.2.7 Witness pressure test.

4.2.8 Perform post-test examinations.

4.2.9 Review, approve and issue final test reports.

4.3 Testing Laboratory (Intertek Testing Services NA, Inc.)

4.3.1 Notify AREVA at least 5 days prior to the start of test assembly construction activities.

4.3.2 Construct test decks in accordance with this test plan and AREVA direction.

4.3.3 Procure test deck materials and any other test assembly components identified under the Testing Laboratory scope in the procurement plan section (Section 5.0) of this test plan.

4.3.4 Procure testing equipment necessary for pressure testing services in accordance with this test plan and verify that the testing equipment is properly calibrated.

4.3.5 Provide pressure testing services in accordance with this test plan.

4.3.6 Assist AREVA, as necessary, in conducting detailed post-test destructive examinations of the test assemblies.

4.3.7 Dispose of test assemblies upon completion of the pressure tests.

4.3.8 Generate final test reports in accordance with test plan requirements (Section 11.0).

4.4 Other Subcontracted Entities

There are no other Subcontractors for this pressure test plan.

5.0 PROCUREMENT PLAN

This penetration seal pressure test plan involves many elements beyond the penetration seal material being qualified. Some of these elements include the test deck or test slab, various fasteners for securing laboratory instrumentation to the test assembly, etc. Not all elements of the test assembly are required to be procured to the same quality level as the penetration seal material, which must be capable of satisfying the quality requirements of the end product (i.e., QL-1 qualified penetration seal assemblies for plant applications). The following procurement plan takes into consideration the required quality level of the various materials required for these penetration seal pressure tests and prescribes an approach for material procurement which considers cost, schedule and quality requirements.

5.1 Penetration Seal Materials

The vast majority of penetration seals that will be installed throughout the MFFF are designated QL-1. MOX Services defines QL-1 in PP9-1, "SSC Quality Levels & Marking Design Documents" [Reference 12.4] as follows:

> *QL-1 SSCs are typically IROFS (all IROFS are QL-1 and may be either SSCs or Administrative Controls) credited in the Integrated Safety Analysis with a required function to prevent or mitigate design basis events such that high-consequence events are made highly unlikely; intermediate-consequence events are made unlikely; or to prevent criticality. For example, the failure of an IROFS item could cause:*
>
> 1. *Loss of a primary confinement feature leading to release of material resulting in exceeding 10CFR70.61 performance requirements;*
> 2. *Failure to satisfy the double contingency principle for the prevention of a criticality accident; or*
> 3. *Loss of other safety function required to meet 10CFR70.61 performance requirements.*

This definition correlates with the following definition of "Nuclear Safety Related" in AREVA Administrative Procedure (AP) 1702-25, "Assignment of Nuclear Safety Classification to Products and Services" [Reference 12.5]:

> *Definition of "Nuclear Safety Related"*
>
> *Company products and services are considered to be nuclear safety related if they involve the evaluation, specification, design or change in design, operation, or performance of structures, systems, and components which must function directly, or must support other systems which function, to ensure any of the following:*
>
> - *The integrity of the reactor coolant pressure boundary*
> - *The capability to shut down the reactor and maintain it in a safe shutdown condition*
> - *The capability to prevent or mitigate the consequences of accidents which could result in potential offsite radiation exposures greater than accepted limits.*

On this basis, permanent penetration seal materials used in this test program shall be procured by AREVA or supplied by MOX Services and suitably base-lined so that future procurements of the same commercial materials can undergo the commercial grade dedication process in support of Nuclear Safety Related (i.e., MOX QL-1) plant installations. Only the primary seal material specified as a part of the final seal design and which are left in place during testing become an integral part of the seal assembly and need to be base-lined for future dedication of similarly procured materials.

The quality level of the penetration seal materials procured for this test plan is **Non-Safety**.

Note: Commercial Grade Dedication (CGD) must be performed for Commercial Grade Items (CGIs) used in Safety Related applications when procured from suppliers where specific quality controls for nuclear applications cannot be imposed in a practical manner in accordance with 56-9141754-001, "AREVA NP Inc. Quality Assurance Program" [Reference 12.6]. However, none of the seal materials to be procured and used in the test program are intended or approved for installation in the MOX facility. Therefore, CDG of penetration seal materials used for test purposes is not required.

For this pressure test, the following materials shall be procured by AREVA and base-lined for future dedication activities.

1. Dow Corning Sylgard 170 Silicone Elastomer
2. Quantum Silicones QSil 5558MC Silicone Elastomer
3. Promatec SF-60-IR Inhibition Resistant Silicone Elastomer

5.2 Test Deck/Test Slab

The test deck will be used to simulate a confinement zone or HVAC boundary in which the penetration seal assemblies may be installed. The test deck is not considered an integral part of the penetration seal assembly being tested and therefore is not intended to replicate MOX-specific plant conditions and not considered integral in bounding the performance of the penetration seal assemblies (e.g., concrete blend, compressive strength, rebar size and spacing). The test deck will be comprised of normal weight reinforced concrete.

The opening cast into the test deck will simulate certain features consistent with MOX penetrations (e.g., chamfered edges when deemed relevant, relatively smooth interior finishes, etc.) as defined by detailed test plan drawings contained in Appendix A.

The testing laboratory shall be responsible for procuring all materials and components associated with the construction of the test deck, unless otherwise specified below. The test deck shall comply with the requirements of the approved detailed test plan drawings contained in Appendix A, and in accordance with the testing facility's Quality Assurance Program.

The quality level of the test deck is **Non-safety**.

5.3 Penetrating Items

Penetrating items (e.g., cables) will be used in this pressure test to simulate MOX-specific plant commodities during the pressure test but are not considered an integral part of the penetration seal assembly being tested. Therefore, the quality level of the penetrating items is **Non-safety**.

Penetrating items for this pressure test will come from MOX Services. MOX Services supplied items are identified on the MOX Services Bill of Materials in Section C.2 of Appendix C.

6.0 SPECIAL PRECAUTIONS

6.1 Precautions for Construction of Test Assemblies

Observe testing facilities safe work practices for construction, lifting, and moving of test assemblies.

6.2 Precautions for Installation of Seal Assemblies

Observe specific precautions recommended by seal material manufacturer as noted on product literature and material safety data sheets contained in AREVA NP Inc. Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program* [Reference 12.1].

6.3 Precautions for Conducting Pressure Tests

Proper safety precautions shall be exercised to preclude personnel from direct exposure to loss of pressure events, unexpected disengaging of testing equipment from the test deck, and all other related hazards.

7.0 PREREQUISITES

7.1 General Test Configuration Requirements

The test assembly, including slab layout and penetration seal configurations shall be as specified by AREVA and in accordance with the drawings and information contained in Appendix A of this test plan, and AREVA NP Inc. Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program* [Reference 12.1].

7.2 Safety Related Materials

Penetration seal materials that are purchased **Non-Safety** for this test program but are to be base-lined for future Nuclear Safety Related via the Commercial Grade Dedication process are indicated on the AREVA Bill of Materials (Appendix C.1).

7.3 Dimensioned Drawings

All test articles shall conform to the dimensioned drawings supplied by AREVA and contained in Appendix A and B of this test plan. Any differences between designed and constructed/tested assemblies shall be noted in final drawings contained within the test report.

7.4 Test Configuration

All test articles shall be securely fastened to the test apparatus by the laboratory. All openings shall be sealed in accordance with test plan instructions, drawings (Appendix A and Appendix B) and AREVA Document 01-9198306 [Reference 12.1].

8.0 TEST ASSEMBLY CONSTRUCTION

8.1 Test Slab Construction

The Testing Laboratory shall construct the test slab, including location and size of openings and placement of penetrating items, in accordance with the drawings contained in Appendix A of this Test Plan.

AREVA QC (or approved designee) shall conduct an inspection of the test slab for compliance with the approved Test Plan drawings prior to installation of individual penetration seal test assemblies. Any differences between the approved Test Plan drawings and the as-built test slab configuration shall be corrected (if deemed necessary by the ARVEA Test Engineer) or noted by the QC Inspector (if correction is not required). Completion of this verification shall be documented as required by AREVA Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program*.

8.2 Penetration Seal Installation

AREVA (or approved designee) shall install the penetration seal test assemblies in accordance with the drawings contained in Appendix A of this Test Plan and in accordance with AREVA Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program*.

QA/QC verification of penetration seal installations shall be documented as required by AREVA Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program*.

8.3 Pre-Test Verifications

Prior to conducting the pressure test for each test assembly, the AREVA Test Engineer shall sign-off indicating that the test article (test penetration) is complete and ready for testing as required by AREVA Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program*.

9.0 PROCEDURE

9.1 Pressure Test Apparatus

The pressure test apparatus to be used for these pressure tests shall be constructed and maintained by the testing laboratory. Two hemispherical 72" diameter steel pressure vessels shall be used to construct the assembly. One side shall be used to induce the testing pressures above atmospheric pressure based on Table 9-1, while the other side shall measure the pressure increase or "leakage" through the penetration. The test apparatus shall be "leak-tight" and substantial enough to withstand the pressures created for test purposes. Attachment shall be sufficient to withstand the forces imposed on the pressure vessels during the test.

9.2 Process

The anticipated differential pressures, as they apply to MFFF penetration seal designs, are discussed in DCS01-BRA-DS-TRD-B-01365-0 [Reference 12.7]. Depending upon its location in the plant, a penetration seal may be subjected to differential pressures from one or more of the following sources:

- Clean agent suppression system discharge (inadvertent or in response to a fire)
- Normal HVAC operation in support of facility confinement zone separation
- Fire induced pressure
- HVAC pressure boundary

The full range of differential pressures under various conditions is identified in Calculations DCS01-XGA-DS-CAL-B-01105-0 [Reference 12.8], DCS01-ASI-DS-CAL-R-10552-0 [Reference 12.9], and DCS01-QJJ-DS-CAL-V-10421-0 [Reference 12.10].

The pressure levels specified in Table 9-1 are to be used in the pressure tests. These pressures are intended to bound a range of calculated differential pressures anticipated based on the various pressure conditions described above and detailed in the referenced calculations, with additional margin. The bounding differential pressures to be used for each penetration seal pressure test, the test hold time at each pressure, the acceptance criteria to be considered "sufficiently leak-tight", and the basis for each pressure, are identified in Table 9-1.

A hold time of 30 minutes has been established for each pressure level to ensure that sufficient time at pressure is maintained to; 1) confirm that no leakage occurs at that pressure, or 2) stabilize make up air and attain reasonably accurate leakage rate information for those configurations where leakage is detected.

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Table 9-1: Differential Pressure Test Levels

Test Stage	Differential Pressure (inch w.g.)	Required Hold Time (minutes)	Acceptance Criteria	Basis for the Selected Differential Pressure
1	1.0	30	Leakage ≤ 0.01 cfm/sq. ft. of penetration area	Testing at this differential pressure bounds the 0.51 inches w.g. pressure for C3b to C2 areas during normal operation [Reference 12.10].
2	5.0	30	Seal Remains In Place	Testing at this differential pressure bounds the 4.0 inches w.g. pressure anticipated as a result of clean agent suppression system discharge [Reference 12.8].
3	10.0	30	Seal Remains In Place	Testing at this differential pressure bounds the 7.0 inches w.g. pressure used as the screening pressure cutoff for fire induced pressures [References 12.8 and 12.9] and some of the HVAC pressure boundaries [Reference 12.10].
4	20.0	30	Seal Remains In Place	Testing at this differential pressure bounds all of the calculated fire induced pressures [Reference 12.9] and many of the HVAC pressure boundaries [Reference 12.10].
5	40.0	30	Seal Remains In Place	Testing at this differential pressure bounds all of the HVAC pressure boundaries [Reference 12.10].

Each test assembly shall be attached to the pressure test apparatus and subjected to the pressures identified in Table 9-1 as described below.

9.2.1 The test assembly shall be attached to the pressure test apparatus and subjected to air pressure tests at the select pressure levels identified in Table 9-1, beginning with the Stage 1 pressure of 1.0 inches w.g. Once this pressure has been obtained, the pressure shall be maintained for the hold time specified in Table 9-1. The maximum leakage rate observed during the hold time shall be recorded. If the leakage rate exceeds the acceptance criteria during Stage 1 testing, the time of failure shall be noted and the test shall be continued, since leakage alone does not constitute failure after Stage 1.

9.2.2 Once the designated hold time has been achieved, the pressure shall be increased to the next pressure level identified in Table 9-1 (Stage 2, then Stage 3, then Stage 4 and finally Stage 5) and held for the designated hold time. The maximum leakage rate observed during each hold time shall be recorded.

9.2.3 Following completion of Stage 5 pressure testing, the test may continue at the discretion of the AREVA test engineer and the testing laboratory manager in charge. Subsequent pressures, hold times and maximum leakage rates shall be recorded as directed by the AREVA test engineer.

9.2.4 If at any pressure level (or test stage) the penetration seal becomes dislodged from the opening or otherwise catastrophically fails, the pressure test shall be terminated and the time to failure and pressure at which the failure occurred shall be recorded.

9.3 Post Test Examination

Following completion of the pressure test, visual and destructive (if deemed necessary) post-test examinations shall be performed. These examinations shall include, but not necessarily be limited to, the following:

Visual observations of penetration seal condition including:

- Integrity of seal and conditions on the exposed side of the penetration
- Integrity of seal and conditions on the unexposed side of the penetration
- Location of any penetration seal degradation
- Condition of seal to barrier interface
- Condition of seal to penetrating item interfaces

Once visual observations are complete, destructive examinations may be used to obtain additional information or gain extra insights into penetration seal performance during the pressure tests.

10.0 DATA SYSTEMS

During the pressure tests, the various data systems connected to the test apparatus (blowers, anemometers, manometers, etc.) shall be controlled and monitored by the testing laboratory. Data recorded for these components shall be compiled and contained in the pressure test report.

11.0 TEST REPORT

The testing laboratory shall submit a report on the results of the test. The test report shall contain the collected data and required quality control documentation. The final test report shall be prepared in sufficient detail to summarize the total testing activity. The final report shall include as a minimum:

- Date of test
- Location of test
- Description of test apparatus and test articles
- Calibration documentation for all data systems connected to the test apparatus
- Test procedures used
- Acceptance criteria
- Provide quality control records
- Results of the pressure test
- Color digital photographs of the test project
- A chronological log (Event Log) of all activities from receipt of materials through final test report]

12.0 REFERENCES

12.1 AREVA NP Inc. Document 01-9198306 (latest revision), *"Installation Instruction Manual for MOX Penetration Seal Test Program"*

12.2 Shaw AREVA MOX Services Drawings DCS01-ZMJ-DS-NTE-N-65107-2 Sheets 84-116, *"Technical Engineering Information"*

12.3 Shaw AREVA MOX Services Calculation DCS01-QJJ-DS-CAL-V-13312-0, *"Confinement Boundary Air Leakage Criteria"*

12.4 Shaw AREVA MOX Services Procedure PP9-1, Revision 13, *"SSC Quality Levels & Marking Design Documents"*

12.5 AREVA NP Inc. Procedure 1702-25, Revision 017, *"Assignment of Nuclear Safety Classification to Products and Services"*

12.6 AREVA NP Inc. Document 56-9141754-001, *"AREVA NP Inc. Quality Assurance Program"*

12.7 Shaw AREVA MOX Services Document DCS01-BRA-DS-TRD-B-01365-0, *"Technical Requirements Document for MFFF Penetration Seals"*

12.8 Shaw AREVA MOX Services Calculation DCS01-XGA-DS-CAL-B-01105-0, *"BMF HVAC and Fire Induced Pressure Loads"*

12.9 Shaw AREVA MOX Services Calculation DCS01-ASI-DS-CAL-R-10552-0, *"Fire Induced Room Pressure Analysis"*

12.10 Shaw AREVA MOX Services Calculation DCS01-QJJ-DS-CAL-V-10421-0, *"Pressure Differentials Across Internal Barriers within the MOX Facility"*

Retrieval of Reference Documents

References 12.2, 12.3, 12.4, 12.7, 12.8, 12.9 and 12.10 of this document were not entered into the AREVA NP Records Management system because they can be retrieved using the Shaw AREVA MOX Services Records Management system. These documents have been authorized for use as design information in this document with the AREVA NP Project Manager's written authorization as indicated by the PM's signature on Page 2.

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APPENDIX A: TEST DECK/TEST SLAB DRAWINGS

The test deck (test slab) for Pressure Test 5 is depicted on page A-2.

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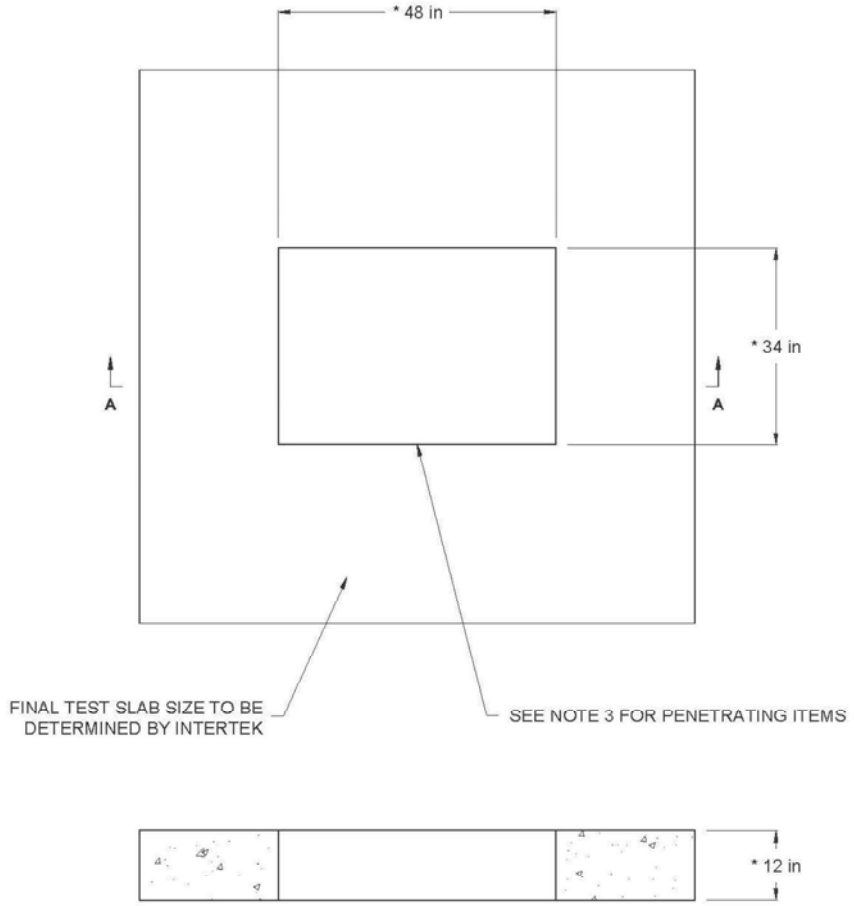
Detailed Test Plan for Conducting MOX Pressure Test 5

Pressure Test P5 Test Deck



SECTION A-A

NOTES:

1. TOLERANCE ON ALL SLAB DIMENSIONS IS +/- 1/4"
2. * INDICATES DIMENSIONS TO BE VERIFIED BY AREVA QC (OR APPROVED DESIGNEE).
3. SEE APPENDIX B FOR PENETRATING ITEMS AND PENETRATION SEAL DESIGN.

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APPENDIX B: TEST PENETRATION DRAWINGS

This appendix contains drawings for Test Penetrants C1 thru C9. These drawings identify penetrating cable locations within the test penetration, as well as, the penetration seal design. Table B1 of this appendix provides the cable types to be used in each location.

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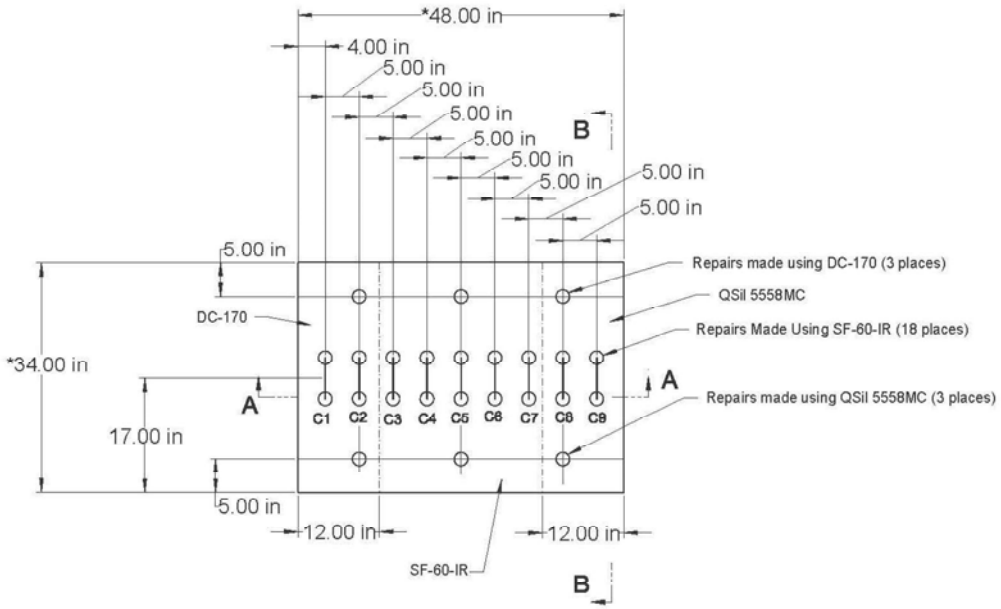
Pressure Test P5



Cable descriptions are provided in Table B-1.

Section Views are on Pages B-3, and B-4.

NOTES:

1. TOLERANCE ON ALL SLAB DIMENSIONS IS +/- 1/4"
2. * INDICATES DIMENSIONS TO BE VERIFIED BY AREVA QC.
3. CABLE INSTALLATION AND REPAIR HOLES ARE DEPICTED AS 2" DIAMETER DRILL/CORE BORE, HOWEVER, ACTUAL SIZE AND METHOD OF HOLE CREATION WILL BE DETERMINED AT THE TIME OF INSTALLATION.

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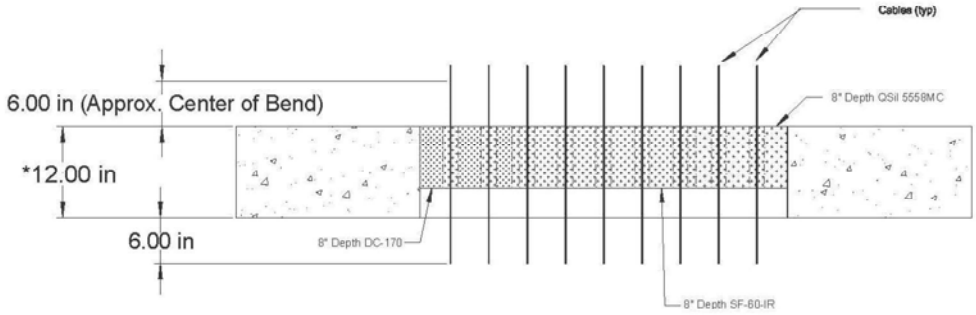
Pressure Test P5



Section A-A

NOTES:

1. TOLERANCE ON ALL SLAB DIMENSIONS IS +/- 1/4"
2. * INDICATES DIMENSIONS TO BE VERIFIED BY AREVA QC
3. REPAIR HOLES FILLED WITH ELASTOMER MATERIAL AS INDICATED ON PAGE B-2.

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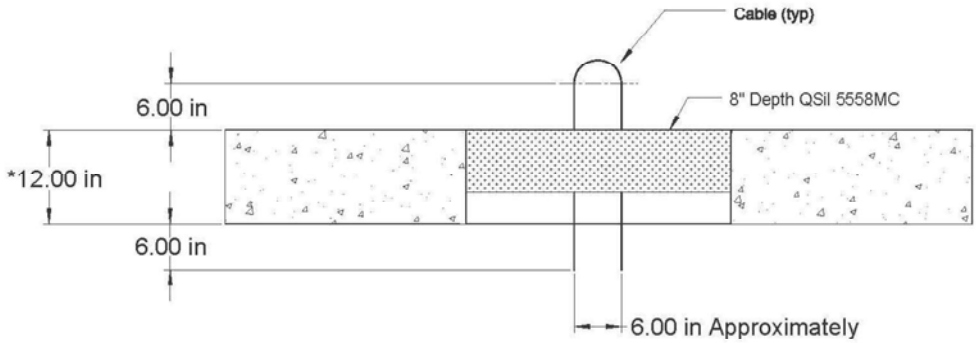
Detailed Test Plan for Conducting MOX Pressure Test 5

Pressure Test P5



Section B-B

NOTES:

1. TOLERANCE ON ALL SLAB DIMENSIONS IS +/- 1/4"
2. * INDICATES DIMENSIONS TO BE VERIFIED BY AREVA QC

Table B-1: Cable Descriptions

Cable Identification	Mark No.	Cable Description
C1	wfb-7	1/C 8 AWG 7/S TC 45 MILS XLPE, 15 MILS CSPE FIREWALL III® 600V
C2	wfa-1	2/C 10 AWG 7/S TC 30 MILS XLPE, 45 MILS CSPE JKT FIREWALL® III 600V
C3	wfa-13	37/C 10 AWG 7/S TC 30 MILS XLPE, 80 MIL CSPE JKT FIREWALL® III 600V
C4	whe-2	5/C 22 AWG 7/.010 SILVER PLATED ALLOY 20 MILS XLPE 15 MILS XLPE JACKET 600V
C5	wbe-1	1/C 6 AWG 7/S TC Class B Strand 60 MILS XLPE FIREWALL® SIS 600V Type SIS/XHHW-2 (UL) Listed Colored Grey
C6	whe-8	COAX CABLE WITH RG TYPE 59/U, or equal / 22 AWG FOR 62 OHMS (RSS-6-104/LE) Except Not UL Listed & Meets ICEA S-19-81 Paragraph 6.19.6 (IEEE-383 Paragraph 2.56)
C7	wbh-1	Coax Cable 16 AWG for 75 ohms (RSS-6-110A/LE) Excepts meets ICEA S-19-81 paragraph 6.16.6 (IEEE-383 Paragraph 2.56)
C8	wfa-26	3/C 10 AWG 7/S TC, 20 MILS XLPE, 1-#10 AWG CU GW, O/A TINNED COPPER BRAID SHIELD, 35 MIL ZH-XLPO JKT X-LINK® 600V
C9	wfe-6	3/C 2 AWG 7/S TC 35 MILS XLPE, 1-#6 AWG CU GW, 65 MIL ZH-XLPO JKT X-LINK® 600V

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APPENDIX C: BILL OF MATERIALS

This appendix contains the Bill of Materials for this fire test. The Bill of Materials in Section C.1 identifies materials to be provided by AREVA. The Bill of Materials in Section C.2 identifies materials to be provided by MOX Services. The Bill of Materials in Section C.3 identifies materials to be provided by Intertek.

C.1 Table Bill of Materials for AREVA Supplied Items

Bill of Material for AREVA Supplied Items					
Item	**Description**	**Part Number**	**Quantity**	**Units**	**Total**
1	Promatec SF-60-IR Inhibition Resistant Silicone Elastomer (50lb part A, 50lb part B, 100lb set)	N/A	1	Set	1 Set
2	Dow Corning Sylgard® 170 Silicone Elastomer (50lb part A, 50lb part B, 100lb set)	N/A	0*	Set	0* Set
3	Quantum Silicones QSil 5558MC (50lb part A, 50lb part B, 100lb set)	N/A	0*	Set	0* Set

0* Minor amounts required – use excess material from other tests.

C.2 Bill of Materials for MOX Services Supplied Items

Bill of Material for MOX Services Supplied Items					
Item	**Description**	**Mark Number**	**Quantity**	**Units**	**Total**
1	1/C 8 AWG 7/S TC 45 MILS XLPE, 15 MILS CSPE FIREWALL III® 600V	wfb-7	10	Ft.	10 Ft.
2	2/C 10 AWG 7/S TC 30 MILS XLPE, 45 MILS CSPE JKT FIREWALL® III 600V	wfa-1	10	Ft.	10 Ft.
3	37/C 10 AWG 7/S TC 30 MILS XLPE, 80 MIL CSPE JKT FIREWALL® III 600V	wfa-13	10	Ft.	10 Ft.
4	5/C 22 AWG 7/.010 SILVER PLATED ALLOY 20 MILS XLPE 15 MILS XLPE JACKET 600V	whe-2	10	Ft.	10 Ft.
5	1/C 6 AWG 7/S TC Class B Strand 60 MILS XLPE FIREWALL® SIS 600V Type SIS/XHHW-2 (UL) Listed Colored Grey	wbe-1	10	Ft.	10 Ft.
6	COAX CABLE WITH RG TYPE 59/U, or equal / 22 AWG FOR 62 OHMS (RSS-6-104/LE) Except Not UL Listed & Meets ICEA S-19-81 Paragraph 6.19.6 (IEEE-383 Paragraph 2.56)	whe-8	10	Ft.	10 Ft.
7	Coax Cable 16 AWG for 75 ohms (RSS-6-110A/LE) Excepts meets ICEA S-19-81 paragraph 6.16.6 (IEEE-383 Paragraph 2.56)	wbh-1	10	Ft.	10 Ft.

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Bill of Material for MOX Services Supplied Items					
Item	Description	Mark Number	Quantity	Units	Total
8	3/C 10 AWG 7/S TC, 20 MILS XLPE, 1-#10 AWG CU GW, O/A TINNED COPPER BRAID SHIELD, 35 MIL ZH-XLPO JKT X-LINK® 600V	wfa-26	10	Ft.	10 Ft.
9	3/C 2 AWG 7/S TC 35 MILS XLPE, 1-#6 AWG CU GW, 65 MIL ZH-XLPO JKT X-LINK® 600V	wfe-6	10	Ft.	10 Ft.

C.3 Bill of Materials for Intertek Supplied Items

Bill of Material for Intertek Supplied Items*					
Item	**Description**	**Part Number**	**Quantity**	**Units**	**Total**
N/A	There are no Intertek Supplied Items for Pressure Test 5.	N/A	N/A	N/A	N/A

* *This BOM applies to Intertek Supplied Items other than materials required to construct the test slab. Construction of the test slab, including procurement of any materials required for the test slab, is the responsibility of Intertek.*

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Detailed Test Plan for Conducting MOX Pressure Test 5

APPENDIX D: DESIGN VERIFICATION CHECKLIST

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DESIGN VERIFICATION CHECKLIST

Document Identifier 51 - 9201447 - 002

Title Detailed Test Plan for Conducting MOX Pressure Test 5

1.	Were the inputs correctly selected and incorporated into design or analysis?	☒ Y	☐ N	☐ N/A
2.	Are assumptions necessary to perform the design or analysis activity adequately described and reasonable? Where necessary, are the assumptions identified for subsequent re-verifications when the detailed design activities are completed? Note: If there are no assumptions (of any type), then N/A shall be checked.	☐ Y	☐ N	☒ N/A
3.	Are the appropriate quality and quality assurance requirements specified? Or, for documents prepared per AREVA NP Inc. procedures, have the procedural requirements been met?	☒ Y	☐ N	☐ N/A
4.	If the design or analysis cites or is required to cite requirements or criteria based upon applicable codes, standards, specific regulatory requirements, including issue and addenda, are these properly identified, and are the requirements/criteria for design or analysis met?	☒ Y	☐ N	☐ N/A
5.	Have applicable construction and operating experience been considered?	☒ Y	☐ N	☐ N/A
6.	Have the design interface requirements been satisfied?	☒ Y	☐ N	☐ N/A
7.	Was an appropriate design or analytical method used?	☒ Y	☐ N	☐ N/A
8.	Is the output reasonable compared to inputs?	☒ Y	☐ N	☐ N/A
9.	Are the specified parts, equipment and processes suitable for the required application?	☒ Y	☐ N	☐ N/A
10.	Are the specified materials compatible with each other and the design environmental conditions to which the material will be exposed?	☒ Y	☐ N	☐ N/A
11.	Have adequate maintenance features and requirements been specified?	☐ Y	☐ N	☒ N/A
12.	Are accessibility and other design provisions adequate for performance of needed maintenance and repair?	☐ Y	☐ N	☒ N/A
13.	Has adequate accessibility been provided to perform the in-service inspection expected to be required during the plant life?	☐ Y	☐ N	☒ N/A
14.	Has the design properly considered radiation exposure to the public and plant personnel?	☐ Y	☐ N	☒ N/A
15.	Are the acceptance criteria incorporated in the design documents sufficient to allow verification that design requirements have been satisfactorily accomplished?	☒ Y	☐ N	☐ N/A
16.	Have adequate preoperational and subsequent periodic test requirements been appropriately specified?	☐ Y	☐ N	☒ N/A
17.	Are adequate handling, storage, cleaning and shipping requirements specified?	☒ Y	☐ N	☐ N/A
18.	Are adequate identification requirements specified?	☒ Y	☐ N	☐ N/A
19.	Is the document prepared and being released under the AREVA NP Inc. Quality Assurance Program? If not, are requirements for record preparation review, approval, retention, etc., adequately specified?	☒ Y	☐ N	☐ N/A

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Document No.: 51-9201447-002

Detailed Test Plan for Conducting MOX Pressure Test 5

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DESIGN VERIFICATION CHECKLIST

Document Identifier 51 - 9201447 - 002

Comments on the preceding responses:
N/A

Verified By:	Victor E. Kaldenbach	[redacted]	07/03/2013
(First, MI, Last)	Printed / Typed Name	Signature	Date

20004-021 (01/30/2014)

AREVA Inc.

Engineering Information Record

Document No.: 51 - 9201447 - 003

Detailed Test Plan for Conducting MOX Pressure Test 5

[redacted]

Mike Dey
Staff Engineer

[redacted]

Michael A. Brown
Quality Supervisor

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20004-021 (01/30/2014)

Document No.: 51-9201447-003

Detailed Test Plan for Conducting MOX Pressure Test 5

Safety Related? ☒ YES ☐ NO

Does this document establish design or technical requirements? ☐ YES ☒ NO

Does this document contain assumptions requiring verification? ☐ YES ☒ NO

Does this document contain Customer Required Format? ☐ YES ☒ NO

Signature Block

Name and Title/Discipline	Signature	P/LP, R/LR, A-CRF, A	Date	Pages/Sections Prepared/Reviewed/ Approved or Comments
Aaron Adrian Princ Des Eng Spec II / PEYF1-A	[redacted]	P	6-23-14	All
Vic Kaldenbach Princ Des Eng Spec II / PEYF1-A	[redacted]	R	06/23/2014	All
Scott Groesbeck Manager Tech Ops / PEYF1-A	[redacted]	A	6/23/14	All

Note: P/LP designates Preparer (P), Lead Preparer (LP)
R/LR designates Reviewer (R), Lead Reviewer (LR)
A-CRF designates Project Manager Approver of Customer Required Format (A-CRF)
A designates Approver/RTM – Verification of Reviewer Independence

Project Manager Approval of Customer References (N/A if not applicable)

Name (printed or typed)	Title (printed or typed)	Signature	Date
Perry Calos	Project Manager / IBL-A	[redacted]	6/23/14

MOX Services concurrence: Richa[redacted] 25Jun14

Name / Title Date

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20004-021 (01/30/2014)
Document No.: 51-9201447-003

Detailed Test Plan for Conducting MOX Pressure Test 5

Record of Revision

Revision No.	Pages/Sections/ Paragraphs Changed	Brief Description / Change Authorization
000	All	Initial Issue. This document contains the main body of the report (pages 1-18), Appendix A (2 pages), Appendix B (5 pages), Appendix C (5 pages), Appendix D (2 pages), for a total of 32 pages.
001	Page 7	Added penetration seal material acronyms.
001	Section 2.1	Corrected orientation to be consistent.
001	Section 2.2 and 2.3	Modified penetration descriptions to update penetration seal material, orientation to be consistent and corrected document title.
001	Section 5.1	Added penetration seal materials to procurement plan.
001	Section 5.3	Clarified that all penetrating items (cables) will be provided by MOX.
001	Section 8.2	Removed material selection hold.
001	Section12	Corrected document title.
001	Appendix B	Modified description and division of penetration seal material.
001	Appendix C	Modified penetration seal material Bill of Materials.
001	General	This document contains the main body of the report (pages 1-18), Appendix A (2 pages), Appendix B (5 pages), Appendix C (5 pages), and Appendix D (2 pages), for a total of 32 pages.
002	Page 8	Modified reference from Pressure Test 1 to Pressure Test 2. Changed formatting to box notes.
002	Page 9	Modified references from Pressure Test 1 to Pressure Test 2. Changed formatting to box notes.
002	Page 16	Deleted Section 9.2.1 as this step is unnecessary for the testing equipment being used.
002	General	This document contains the main body of the report (pages 1-18), Appendix A (2 pages), Appendix B (5 pages), Appendix C (5 pages), and Appendix D (2 pages), for a total of 32 pages.
003	General	The purpose of this post-test revision is to document the use of a different test slab than the one identified in the previous revision of this document. The penetration seal installed in Pressure Test 2 was damaged, so a decision was made to use and modify the sealed slab from Pressure Test 1 instead.
003	Background	Changed company name format.
003	Page 2	Added procedurally required "Project Manager Approval of Customer References" block.
003	Section 2.1	Added notes to document the change from Pressure Test 2 to Pressure Test 1.
003	Section 2.2	Added note to document the change from Pressure Test 2 to Pressure Test 1.
003	Section 3	Added procedurally required "Assumptions" section.
003	Section 7.1	Corrected typo from "Appendix A" to "Appendix A and Appendix B".
003	Section 8.1	Corrected typo from "ARVEA" to "AREVA".
003	Section 8.2	Corrected typo from "Appendix A" to "Appendix B".

Record of Revision
(continued)

Revision No.	Pages/Sections/ Paragraphs Changed	Brief Description / Change Authorization
003	Section 12	Changed reference note to the procedurally required format, added asterisks where appropriate and updated revision levels.
003	Appendix C	Corrected typo from "fire" to "pressure".
003	General	This document contains the main body of the report (pages 1-19), Appendix A (2 pages), Appendix B (5 pages), Appendix C (5 pages), and Appendix D (2 pages), for a total of 33 pages. Note: Cable routing depicted in Appendix B was altered because of cable rigidity. Actual cable routing was as-built red-lined and added to the QC records contained within the test report, therefore, changes are not duplicated in Appendix B in this revision.

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List of Tables

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ACRONYMS

CGD	Commercial Grade Dedication
CGI	Commercial Grade Item
CSPE	Chlorosulfonated Polyethylene
IROFS	Items Relied On For Safety
LSZH	Low Smoke Zero Halogen
MOX	Mixed Oxide
MFFF	Mixed Oxide Fuel Fabrication Facility
QA	Quality Assurance
QL	Quality Level
SSC	Structures, Systems and Components
w.g.	Water Gauge
XLPE	Crosslinked Polyethylene
XLPO	Crosslinked Polyolefin

Penetration Seal Materials

DC 170	Dow Corning Sylgard® 170 Silicone Elastomer
QSil 5558MC	Quantum Silicones QSil 5558MC Silicone Elastomer
SF-60-IR	Prematec SF-60-IR Inhibition Resistant Silicone Elastomer

BACKGROUND

AREVA Inc. (AREVA) is assisting Shaw AREVA MOX Services (MOX Services) in the development and implementation of a penetration seal program for the Mixed Oxide Fuel Fabrication Facility (MFFF). One aspect of the MOX penetration seal program includes conducting various types of qualification tests of penetration seal assemblies to substantiate the performance capabilities of specific penetration seal designs. Pressure testing is one type of qualification testing that needs to be performed in order to demonstrate the pressure retaining capability of MOX penetration seal designs. The data collected during pressure testing is needed to determine acceptable levels of leakage to maintain the necessary pressure differentials between confinement zones within the MFFF under various conditions, such as normal operation or inadvertent clean agent discharge. Other types of qualification testing, such as fire testing and testing for seismic qualification of penetration seal assemblies, are addressed by other test plans.

1.0 PURPOSE

The purpose of this test plan is to define the test assembly, test methods and acceptance criteria for conducting pressure test in support of the MOX penetration seal program.

This test plan defines the test methods, acceptance criteria and test report documentation requirements for penetration seal pressure test 5. Additionally, this detailed test plan defines the roles and responsibilities of MOX Services, AREVA, the selected testing laboratory, and any other subcontracted entity engaged in support of pressure testing efforts.

This detailed test plan also describes the procurement plan for materials associated with penetration seal pressure test 5 and identifies the entities responsible for procuring the various components of the test assemblies based on the quality level assigned to each component.

This test plan also establishes minimum quality requirements for the penetration seal materials used in the test assemblies and links quality requirements in the AREVA Quality Assurance (QA) program to customer/project quality requirements.

2.0 OBJECTIVE

The primary objective of this test plan is to evaluate the pressure resistance capability of an 8" thick silicone elastomer seal when installed around various cables at air pressure increments above atmospheric pressure provided in Section 9.2.

The specific configuration to be tested is described below. Critical characteristics and the associated limiting parameters that will be substantiated by a successful test are also provided.

2.1 Test Deck Description

The test deck will consist of a 12" thick concrete slab measuring approximately 96" x 96" (8' x 8') [Note: Final test slab size to be determined by Intertek and documented in the final test report]. Within this slab will be one (1) precast 48" x 34" opening sized to replicate penetrations found in the MOX facility. The test deck will be horizontally oriented with a hemispherical 72" diameter steel pressure vessel mounted above and below the precast opening in the slab.

> **Note:** It is anticipated that the slab with the silicone elastomer seal material used for Pressure Test 2 will not be damaged during Pressure Test 2 and will be available for reuse in this pressure test. For the purpose of Pressure Test 5, holes will be drilled in the silicone elastomer for the penetration of the cables being tested; after the cables are installed the holes shall be patched using the silicone elastomer seal material in accordance with Document 01-9198306 (latest

revision), *"Installation Instruction Manual for MOX Penetration Seal Test Program"* [Reference 12.1].

Note: Slab from Pressure Test 1 used in lieu of Pressure Test 2, see note below.

Additionally, most of the openings (penetrations) in the MOX facility have been cast with a ¾" bevel on both sides of the opening. For testing and qualification purposes, this feature is considered aesthetic, and it has no adverse effect on the functional performance of the penetration seal installation. In fact for some applications, such as in the case of pressure resistant penetrations seals, the bevel provides a benefit over non-beveled openings. Therefore, for the purposes of the penetration seal test program, the bevel feature will not be included for pressure tests covered in this test plan.

Drawings showing the general layout of the test deck (test slab) for this pressure test can be found in Appendix A.

Note: If the slab from Pressure Test 2 was damaged during testing or is otherwise not available, this test plan will require revision.

Note: The seal in the slab from Pressure Test 2 was damaged, therefore; this revision documents a change to use the sealed slab from Pressure Test 1, rather than the sealed slab from Pressure Test 2.

2.2 Test Description

The opening to be sealed and tested in Pressure Test 5 is a 48" x 34" blockout containing multiple penetrating items. All sides of the opening will be unlined, bare concrete (i.e., no liners, coatings or sleeve materials). The penetrating items for this blockout will include the following items found in Shaw AREVA MOX Services Drawings DCS01-ZMJ-DS-NTE-N-65107-2 Sheets 84-116, *"Technical Engineering Information"* [Reference 12.2]:

- (1) 0.32" diameter cable with 15 mil CSPE jacket, product mark no. wfb-7
- (1) 0.50" diameter cable with 45 mil CSPE jacket, product mark no. wfa-1
- (1) 1.54" diameter cable with 80 mil CSPE jacket, product mark no. wfa-13
- (1) 0.248" diameter cable with 15 mil XLPE jacket, product mark no. whe-2
- (1) 0.33" diameter cable with 60 mil XLPE jacket, product mark no. wbe-1
- (1) 0.25" diameter cable with 7 mil Modified XLPO jacket, product mark no. whe-8
- (1) 0.44" diameter cable with 9 mil Modified XLPO jacket, product mark no. wbh-1
- (1) 0.53" diameter cable with 35 mil LSZH - XLPO jacket, product mark no. wfa-26
- (1) 1.02" diameter cable with 65 mil LSZH - XLPO jacket, product mark no. wfe-6

The cables will penetrate through the opening, make a "u" shaped bend on the pressurized side of the seal and penetrate through the opening again. In effect the cables will be looped with both ends of each cable terminating on the non-pressurized side of the opening and forming a "u" shape on the pressurized size of the opening. Using this configuration will prevent any pressure leakage due to air travel through the cables.

The opening will be sealed with an eight (8) inch thick Dow Corning Sylgard® 170 Silicone Elastomer (DC-170), Quantum Silicones QSil 5558MC Silicone Elastomer (QSil 5558MC) and Promatec SF-60-IR Inhibition Resistant Silicone Elastomer (SF-60-IR) penetration seal with no permanent damming installed around the various penetrating commodities.

Note: If reusing the test deck from Pressure Test 2, oversized holes will be drilled (or otherwise cut) in the silicone elastomer for the installation of the cables being tested in the locations depicted in Appendix B. After the cables are installed the holes shall be sealed using Promatec

SF-60-IR Inhibition Resistant Silicone Elastomer (SF-60-IR) seal material in accordance with Document 01-9198306 (latest revision), *"Installation Instruction Manual for MOX Penetration Seal Test Program"* [Reference 12.1]. Additional "field patch" holes will be introduced and sealed as depicted in Appendix B and in accordance with Document 01-9198306 (latest revision).

Note: Slab from Pressure Test 1 used in lieu of Pressure Test 2, see note above.

The test will be performed with the test deck oriented in the horizontal position.

2.3 Critical Characteristics and Limiting Parameters Being Tested

The specific critical characteristics and associated limiting parameters being tested for Pressure Test 5 are as follows.

This test will evaluate pressure resistance capabilities of an eight (8) inch thick Dow Corning Sylgard® 170 Silicone Elastomer seal with no permanent damming installed in an unlined (bare concrete) penetration. MOX cables are being included to evaluate the pressure resistance capability of the silicone elastomer seal material at the cable interface. A successful test will substantiate the acceptability of this seal configuration to function as a pressure seal when installed around the following types of cables:

- CSPE jacketed cables
- XLPE jacketed cables
- Modified XLPO jacketed cables
- LSZH – XLPO jacketed cables

Additionally, for each jacket type the following parameters are being tested:

- Small diameter cable
- Large diameter cable
- Thin jacket material
- Thick jacket material

A variety of conductor configurations are being tested from one conductor to 37 conductors.

Finally, the test will substantiate repair processes using the various seal materials.

3.0 ASSUMPTIONS AND ACCEPTANCE CRITERIA

3.1 Assumptions

No assumptions were used.

3.2 Acceptance Criteria

Pressure rated penetration seals at the MOX facility are required to remain "sufficiently leak-tight" at various pressure levels in order to support the functional goals of the various pressure rating requirements (i.e., confinement, suppression system clean agent concentration, fire induced pressure loads or HVAC pressure boundary loads). The term "sufficiently leak-tight" indicated that the penetration seal meets the predetermined acceptance criteria for the pressure level(s) being tested.

The acceptance criteria that constitutes "sufficiently leak-tight" varies based on the pressure requirement and the operating mode of the plant. For most pressure conditions and operating modes, "sufficiently leak-tight" means that the penetration seal assembly must remain in place but is allowed to leak (i.e., the penetration seal cannot

become dislodged from the opening or otherwise catastrophically fail such that a substantial leakage path is created).

Per MOX Services Calculation "Confinement Boundary Air Leakage Criteria" [Reference 12.3], penetration seals that function as confinement zone 3b boundary components must maintain a leakage rate less than 0.01 cfm/sq. ft. of penetration area when tested at a pressure that bounds C3b to non-C3b zone pressures during normal operating conditions.

Table 9-1 identifies the differential pressure levels (stages) for conducting pressure tests, as well as, the acceptance criteria in order to be considered "sufficiently leak-tight".

4.0 RESPONSIBILITIES

The following roles and responsibilities apply to this test plan.

4.1 MOX Services

4.1.1 Provide review and concurrence of this detailed pressure test plan.

4.1.2 Provide concurrence for any revisions made to this test plan during test specimen construction activities.

4.1.3 Provide some of the materials for test assembly construction from MOX Services surplus or scrap (if available).

4.1.4 Witness pressure tests (if desired).

4.2 AREVA

4.2.1 Develop and revise (if necessary) this detailed pressure test plan.

4.2.2 Provide management and oversight of all aspects of the MOX penetration seal test program.

4.2.3 Select the pressure testing facility and establish sub-contract agreements. The testing laboratory selected for performance of this pressure test is Intertek Testing Services NA, Inc., Elmendorf, TX.

4.2.4 Provide engineering instructions to the testing laboratory for performance of the test including test parameters, acceptance criteria, requirements for documenting the test results in a final test report, etc.

4.2.5 Procure all primary penetration seal materials, devices and components (i.e., any materials, devices and components intended to replicate future Safety Related (QL-1) designs to be installed in the MOX facility) as designated in the procurement plan section (Section 5.0) of this test plan.

4.2.6 Notify MOX Services at least 10 days prior to test date to facilitate MOX Services decision to witness the pressure test.

4.2.7 Witness pressure test.

4.2.8 Perform post-test examinations.

4.2.9 Review, approve and issue final test reports.

4.3 Testing Laboratory (Intertek Testing Services NA, Inc.)

4.3.1 Notify AREVA at least 5 days prior to the start of test assembly construction activities.

4.3.2 Construct test decks in accordance with this test plan and AREVA direction.

4.3.3 Procure test deck materials and any other test assembly components identified under the Testing Laboratory scope in the procurement plan section (Section 5.0) of this test plan.

4.3.4 Procure testing equipment necessary for pressure testing services in accordance with this test plan and verify that the testing equipment is properly calibrated.

4.3.5 Provide pressure testing services in accordance with this test plan.

4.3.6 Assist AREVA, as necessary, in conducting detailed post-test destructive examinations of the test assemblies.

4.3.7 Dispose of test assemblies upon completion of the pressure tests.

4.3.8 Generate final test reports in accordance with test plan requirements (Section 11.0).

4.4 Other Subcontracted Entities

There are no other Subcontractors for this pressure test plan.

5.0 PROCUREMENT PLAN

This penetration seal pressure test plan involves many elements beyond the penetration seal material being qualified. Some of these elements include the test deck or test slab, various fasteners for securing laboratory instrumentation to the test assembly, etc. Not all elements of the test assembly are required to be procured to the same quality level as the penetration seal material, which must be capable of satisfying the quality requirements of the end product (i.e., QL-1 qualified penetration seal assemblies for plant applications). The following procurement plan takes into consideration the required quality level of the various materials required for these penetration seal pressure tests and prescribes an approach for material procurement which considers cost, schedule and quality requirements.

5.1 Penetration Seal Materials

The vast majority of penetration seals that will be installed throughout the MFFF are designated QL-1. MOX Services defines QL-1 in PP9-1, "SSC Quality Levels & Marking Design Documents" [Reference 12.4] as follows:

> *QL-1 SSCs are typically IROFS (all IROFS are QL-1 and may be either SSCs or Administrative Controls) credited in the Integrated Safety Analysis with a required function to prevent or mitigate design basis events such that high-consequence events are made highly unlikely; intermediate-consequence events are made unlikely; or to prevent criticality. For example, the failure of an IROFS item could cause:*
>
> 1. *Loss of a primary confinement feature leading to release of material resulting in exceeding 10CFR70.61 performance requirements;*
> 2. *Failure to satisfy the double contingency principle for the prevention of a criticality accident; or*
> 3. *Loss of other safety function required to meet 10CFR70.61 performance requirements.*

This definition correlates with the following definition of "Nuclear Safety Related" in AREVA Administrative Procedure (AP) 1702-25, "Assignment of Nuclear Safety Classification to Products and Services" [Reference 12.5]:

> *Definition of "Nuclear Safety Related"*
>
> *Company products and services are considered to be nuclear safety related if they involve the evaluation, specification, design or change in design, operation, or performance of structures, systems, and components which must function directly, or must support other systems which function, to ensure any of the following:*
>
> - *The integrity of the reactor coolant pressure boundary*

- *The capability to shut down the reactor and maintain it in a safe shutdown condition*
- *The capability to prevent or mitigate the consequences of accidents which could result in potential offsite radiation exposures greater than accepted limits.*

On this basis, permanent penetration seal materials used in this test program shall be procured by AREVA or supplied by MOX Services and suitably base-lined so that future procurements of the same commercial materials can undergo the commercial grade dedication process in support of Nuclear Safety Related (i.e., MOX QL-1) plant installations. Only the primary seal material specified as a part of the final seal design and which are left in place during testing become an integral part of the seal assembly and need to be base-lined for future dedication of similarly procured materials.

The quality level of the penetration seal materials procured for this test plan is **Non-Safety**.

Note: Commercial Grade Dedication (CGD) must be performed for Commercial Grade Items (CGIs) used in Safety Related applications when procured from suppliers where specific quality controls for nuclear applications cannot be imposed in a practical manner in accordance with 56-9141754-001, "AREVA NP Inc. Quality Assurance Program" [Reference 12.6]. However, none of the seal materials to be procured and used in the test program are intended or approved for installation in the MOX facility. Therefore, CDG of penetration seal materials used for test purposes is not required.

For this pressure test, the following materials shall be procured by AREVA and base-lined for future dedication activities.

1. Dow Corning Sylgard 170 Silicone Elastomer
2. Quantum Silicones QSil 5558MC Silicone Elastomer
3. Promatec SF-60-IR Inhibition Resistant Silicone Elastomer

5.2 Test Deck/Test Slab

The test deck will be used to simulate a confinement zone or HVAC boundary in which the penetration seal assemblies may be installed. The test deck is not considered an integral part of the penetration seal assembly being tested and therefore is not intended to replicate MOX-specific plant conditions and not considered integral in bounding the performance of the penetration seal assemblies (e.g., concrete blend, compressive strength, rebar size and spacing). The test deck will be comprised of normal weight reinforced concrete.

The opening cast into the test deck will simulate certain features consistent with MOX penetrations (e.g., chamfered edges when deemed relevant, relatively smooth interior finishes, etc.) as defined by detailed test plan drawings contained in Appendix A.

The testing laboratory shall be responsible for procuring all materials and components associated with the construction of the test deck, unless otherwise specified below. The test deck shall comply with the requirements of the approved detailed test plan drawings contained in Appendix A, and in accordance with the testing facility's Quality Assurance Program.

The quality level of the test deck is **Non-safety**.

5.3 Penetrating Items

Penetrating items (e.g., cables) will be used in this pressure test to simulate MOX-specific plant commodities during the pressure test but are not considered an integral part of the penetration seal assembly being tested. Therefore, the quality level of the penetrating items is **Non-safety**.

Penetrating items for this pressure test will come from MOX Services. MOX Services supplied items are identified on the MOX Services Bill of Materials in Section C.2 of Appendix C.

6.0 SPECIAL PRECAUTIONS

6.1 Precautions for Construction of Test Assemblies

Observe testing facilities safe work practices for construction, lifting, and moving of test assemblies.

6.2 Precautions for Installation of Seal Assemblies

Observe specific precautions recommended by seal material manufacturer as noted on product literature and material safety data sheets contained in AREVA NP Inc. Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program* [Reference 12.1].

6.3 Precautions for Conducting Pressure Tests

Proper safety precautions shall be exercised to preclude personnel from direct exposure to loss of pressure events, unexpected disengaging of testing equipment from the test deck, and all other related hazards.

7.0 PREREQUISITES

7.1 General Test Configuration Requirements

The test assembly, including slab layout and penetration seal configurations shall be as specified by AREVA and in accordance with the drawings and information contained in Appendix A and Appendix B of this test plan, and AREVA NP Inc. Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program* [Reference 12.1].

7.2 Safety Related Materials

Penetration seal materials that are purchased **Non-Safety** for this test program but are to be base-lined for future Nuclear Safety Related via the Commercial Grade Dedication process are indicated on the AREVA Bill of Materials (Appendix C.1).

7.3 Dimensioned Drawings

All test articles shall conform to the dimensioned drawings supplied by AREVA and contained in Appendix A and B of this test plan. Any differences between designed and constructed/tested assemblies shall be noted in final drawings contained within the test report.

7.4 Test Configuration

All test articles shall be securely fastened to the test apparatus by the laboratory. All openings shall be sealed in accordance with test plan instructions, drawings (Appendix A and Appendix B) and AREVA Document 01-9198306 [Reference 12.1].

8.0 TEST ASSEMBLY CONSTRUCTION

8.1 Test Slab Construction

The Testing Laboratory shall construct the test slab, including location and size of openings and placement of penetrating items, in accordance with the drawings contained in Appendix A of this Test Plan.

AREVA QC (or approved designee) shall conduct an inspection of the test slab for compliance with the approved Test Plan drawings prior to installation of individual penetration seal test assemblies. Any differences between the approved Test Plan drawings and the as-built test slab configuration shall be

corrected (if deemed necessary by the AREVA Test Engineer) or noted by the QC Inspector (if correction is not required). Completion of this verification shall be documented as required by AREVA Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program*.

8.2 Penetration Seal Installation

AREVA (or approved designee) shall install the penetration seal test assemblies in accordance with the drawings contained in Appendix B of this Test Plan and in accordance with AREVA Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program*.

QA/QC verification of penetration seal installations shall be documented as required by AREVA Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program*.

8.3 Pre-Test Verifications

Prior to conducting the pressure test for each test assembly, the AREVA Test Engineer shall sign-off indicating that the test article (test penetration) is complete and ready for testing as required by AREVA Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program*.

9.0 PROCEDURE

9.1 Pressure Test Apparatus

The pressure test apparatus to be used for these pressure tests shall be constructed and maintained by the testing laboratory. Two hemispherical 72" diameter steel pressure vessels shall be used to construct the assembly. One side shall be used to induce the testing pressures above atmospheric pressure based on Table 9-1, while the other side shall measure the pressure increase or "leakage" through the penetration. The test apparatus shall be "leak-tight" and substantial enough to withstand the pressures created for test purposes. Attachment shall be sufficient to withstand the forces imposed on the pressure vessels during the test.

9.2 Process

The anticipated differential pressures, as they apply to MFFF penetration seal designs, are discussed in DCS01-BRA-DS-TRD-B-01365-0 [Reference 12.7]. Depending upon its location in the plant, a penetration seal may be subjected to differential pressures from one or more of the following sources:

- Clean agent suppression system discharge (inadvertent or in response to a fire)
- Normal HVAC operation in support of facility confinement zone separation
- Fire induced pressure
- HVAC pressure boundary

The full range of differential pressures under various conditions is identified in Calculations DCS01-XGA-DS-CAL-B-01105-0 [Reference 12.8], DCS01-ASI-DS-CAL-R-10552-0 [Reference 12.9], and DCS01-QJJ-DS-CAL-V-10421-0 [Reference 12.10].

The pressure levels specified in Table 9-1 are to be used in the pressure tests. These pressures are intended to bound a range of calculated differential pressures anticipated based on the various pressure conditions described above and detailed in the referenced calculations, with additional margin. The bounding differential pressures to be used for each penetration seal pressure test, the test hold time at each pressure, the acceptance criteria to be considered "sufficiently leak-tight", and the basis for each pressure, are identified in Table 9-1.

A hold time of 30 minutes has been established for each pressure level to ensure that sufficient time at pressure is maintained to; 1) confirm that no leakage occurs at that pressure, or 2) stabilize make up air

and attain reasonably accurate leakage rate information for those configurations where leakage is detected.

Table 9-1: Differential Pressure Test Levels

Test Stage	Differential Pressure (inch w.g.)	Required Hold Time (minutes)	Acceptance Criteria	Basis for the Selected Differential Pressure
1	1.0	30	Leakage ≤ 0.01 cfm/sq. ft. of penetration area	Testing at this differential pressure bounds the 0.51 inches w.g. pressure for C3b to C2 areas during normal operation [Reference 12.10].
2	5.0	30	Seal Remains In Place	Testing at this differential pressure bounds the 4.0 inches w.g. pressure anticipated as a result of clean agent suppression system discharge [Reference 12.8].
3	10.0	30	Seal Remains In Place	Testing at this differential pressure bounds the 7.0 inches w.g. pressure used as the screening pressure cutoff for fire induced pressures [References 12.8 and 12.9] and some of the HVAC pressure boundaries [Reference 12.10].
4	20.0	30	Seal Remains In Place	Testing at this differential pressure bounds all of the calculated fire induced pressures [Reference 12.9] and many of the HVAC pressure boundaries [Reference 12.10].
5	40.0	30	Seal Remains In Place	Testing at this differential pressure bounds all of the HVAC pressure boundaries [Reference 12.10].

Each test assembly shall be attached to the pressure test apparatus and subjected to the pressures identified in Table 9-1 as described below.

9.2.1 The test assembly shall be attached to the pressure test apparatus and subjected to air pressure tests at the select pressure levels identified in Table 9-1, beginning with the Stage 1 pressure of 1.0 inches w.g. Once this pressure has been obtained, the pressure shall be maintained for the hold time specified in Table 9-1. The maximum leakage rate observed during the hold time shall be recorded. If the leakage rate exceeds the acceptance criteria during Stage 1 testing, the time of failure shall be noted and the test shall be continued, since leakage alone does not constitute failure after Stage 1.

9.2.2 Once the designated hold time has been achieved, the pressure shall be increased to the next pressure level identified in Table 9-1 (Stage 2, then Stage 3, then Stage 4 and finally Stage 5) and held for the designated hold time. The maximum leakage rate observed during each hold time shall be recorded.

9.2.3 Following completion of Stage 5 pressure testing, the test may continue at the discretion of the AREVA test engineer and the testing laboratory manager in charge. Subsequent pressures, hold times and maximum leakage rates shall be recorded as directed by the AREVA test engineer.

9.2.4 If at any pressure level (or test stage) the penetration seal becomes dislodged from the opening or otherwise catastrophically fails, the pressure test shall be terminated and the time to failure and pressure at which the failure occurred shall be recorded.

9.3 Post Test Examination

Following completion of the pressure test, visual and destructive (if deemed necessary) post-test examinations shall be performed. These examinations shall include, but not necessarily be limited to, the following:

Visual observations of penetration seal condition including:

- Integrity of seal and conditions on the exposed side of the penetration
- Integrity of seal and conditions on the unexposed side of the penetration
- Location of any penetration seal degradation
- Condition of seal to barrier interface
- Condition of seal to penetrating item interfaces

Once visual observations are complete, destructive examinations may be used to obtain additional information or gain extra insights into penetration seal performance during the pressure tests.

10.0 DATA SYSTEMS

During the pressure tests, the various data systems connected to the test apparatus (blowers, anemometers, manometers, etc.) shall be controlled and monitored by the testing laboratory. Data recorded for these components shall be compiled and contained in the pressure test report.

11.0 TEST REPORT

The testing laboratory shall submit a report on the results of the test. The test report shall contain the collected data and required quality control documentation. The final test report shall be prepared in sufficient detail to summarize the total testing activity. The final report shall include as a minimum:

- Date of test
- Location of test
- Description of test apparatus and test articles
- Calibration documentation for all data systems connected to the test apparatus
- Test procedures used
- Acceptance criteria
- Provide quality control records
- Results of the pressure test
- Color digital photographs of the test project
- A chronological log (Event Log) of all activities from receipt of materials through final test report]

12.0 REFERENCES

References identified with an (*) are maintained within the MOX Records System and are not retrievable from AREVA Records Management. These are acceptable references per AREVA Administrative Procedure 0402-01, Attachment 8. See page 2 for Project Manager Approval of customer references.

12.1 AREVA NP Inc. Document 01-9198306 (latest revision), *"Installation Instruction Manual for MOX Penetration Seal Test Program"*

12.2 *Shaw AREVA MOX Services Drawings DCS01-ZMJ-DS-NTE-N-65107-2 Sheets 84-116, *"Technical Engineering Information"*

12.3 *Shaw AREVA MOX Services Calculation DCS01-QJJ-DS-CAL-V-13312-0, *"Confinement Boundary Air Leakage Criteria"*

12.4 *Shaw AREVA MOX Services Procedure PP9-1, Revision 14, *"SSC Quality Levels & Marking Design Documents"*

12.5 AREVA NP Inc. Procedure 1702-25, Revision 018, *"Assignment of Nuclear Safety Classification to Products and Services"*

12.6 AREVA NP Inc. Document 56-9141754-002, *"AREVA NP Inc. Quality Assurance Program"*

12.7 *Shaw AREVA MOX Services Document DCS01-BRA-DS-TRD-B-01365-0, *"Technical Requirements Document for MFFF Penetration Seals"*

12.8 *Shaw AREVA MOX Services Calculation DCS01-XGA-DS-CAL-B-01105-0, *"BMH HVAC and Fire Induced Pressure Loads"*

12.9 *Shaw AREVA MOX Services Calculation DCS01-ASI-DS-CAL-R-10552-0, *"Fire Induced Room Pressure Analysis"*

12.10 *Shaw AREVA MOX Services Calculation DCS01-QJJ-DS-CAL-V-10421-0, *"Pressure Differentials Across Internal Barriers within the MOX Facility"*

APPENDIX A: TEST DECK/TEST SLAB DRAWINGS

The test deck (test slab) for Pressure Test 5 is depicted on page A-2.

AREVA

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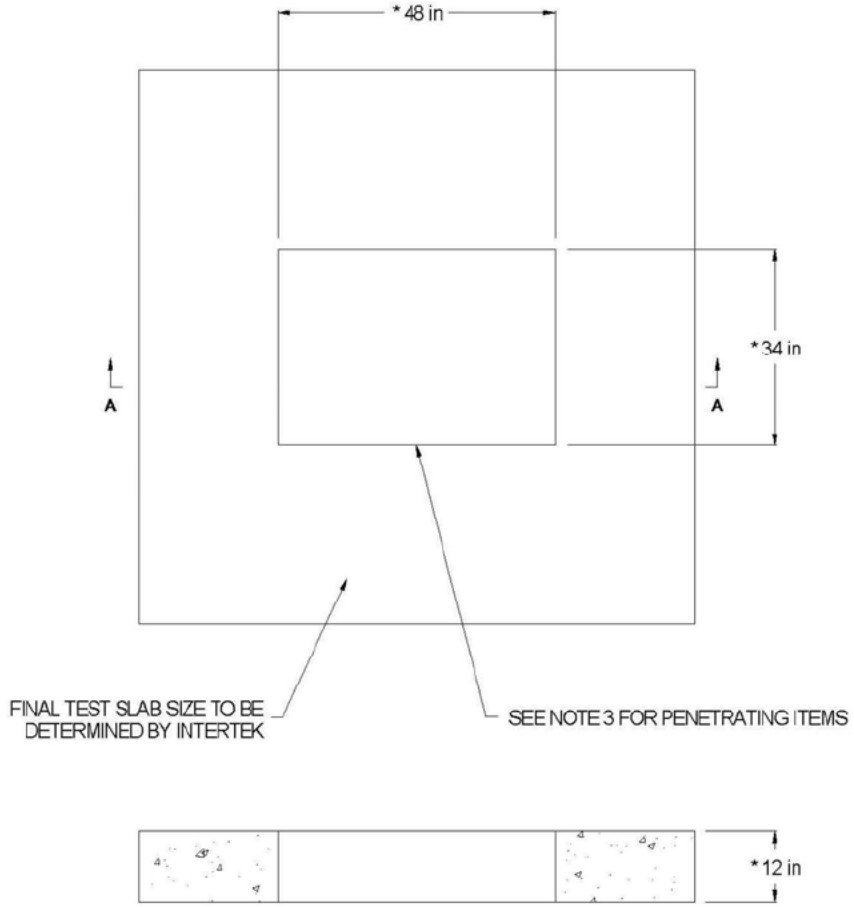
Detailed Test Plan for Conducting MOX Pressure Test 5

Pressure Test P5 Test Deck



SECTION A-A

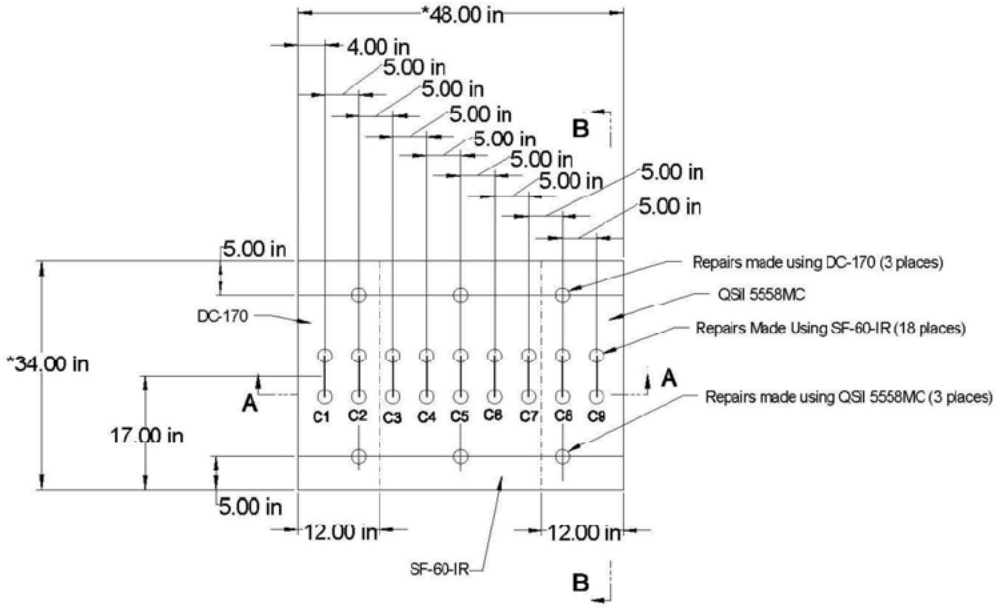
NOTES:

1. TOLERANCE ON ALL SLAB DIMENSIONS IS +/- 1/4"
2. * INDICATES DIMENSIONS TO BE VERIFIED BY AREVA QC (OR APPROVED DESIGNEE).
3. SEE APPENDIX B FOR PENETRATING ITEMS AND PENETRATION SEAL DESIGN.

APPENDIX B: TEST PENETRATION DRAWINGS

This appendix contains drawings for Test Penetrants C1 thru C9. These drawings identify penetrating cable locations within the test penetration, as well as, the penetration seal design. Table B1 of this appendix provides the cable types to be used in each location.

Pressure Test P5



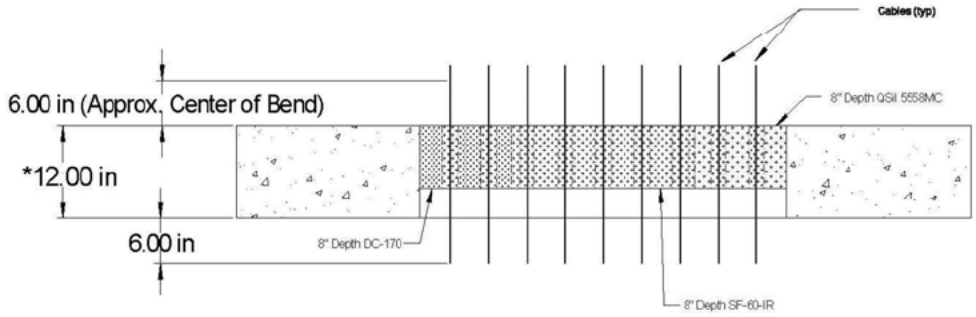
Cable descriptions are provided in Table B-1.

Section Views are on Pages B-3, and B-4.

NOTES:

1. TOLERANCE ON ALL SLAB DIMENSIONS IS +/- 1/4"
2. * INDICATES DIMENSIONS TO BE VERIFIED BY AREVA QC.
3. CABLE INSTALLATION AND REPAIR HOLES ARE DEPICTED AS 2" DIAMETER DRILL/CORE BORE, HOWEVER, ACTUAL SIZE AND METHOD OF HOLE CREATION WILL BE DETERMINED AT THE TIME OF INSTALLATION.

Pressure Test P5

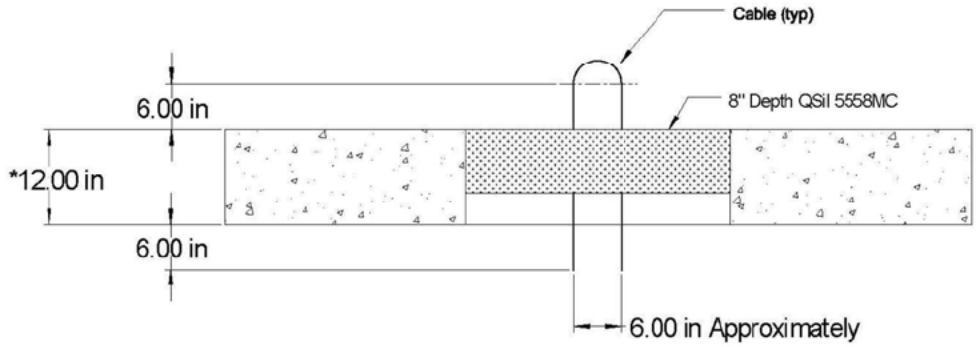


Section A-A

NOTES:

1. TOLERANCE ON ALL SLAB DIMENSIONS IS +/- 1/4"
2. * INDICATES DIMENSIONS TO BE VERIFIED BY AREVA QC
3. REPAIR HOLES FILLED WITH ELASTOMER MATERIAL AS INDICATED ON PAGE B-2.

Pressure Test P5



Section B-B

NOTES:

1. TOLERANCE ON ALL SLAB DIMENSIONS IS +/- 1/4"
2. * INDICATES DIMENSIONS TO BE VERIFIED BY AREVA QC

Table B-1: Cable Descriptions

Cable Identification	Mark No.	Cable Description
C1	wfb-7	1/C 8 AWG 7/S TC 45 MILS XLPE, 15 MILS CSPE FIREWALL III® 600V
C2	wfa-1	2/C 10 AWG 7/S TC 30 MILS XLPE, 45 MILS CSPE JKT FIREWALL® III 600V
C3	wfa-13	37/C 10 AWG 7/S TC 30 MILS XLPE, 80 MIL CSPE JKT FIREWALL® III 600V
C4	whe-2	5/C 22 AWG 7/.010 SILVER PLATED ALLOY 20 MILS XLPE 15 MILS XLPE JACKET 600V
C5	wbe-1	1/C 6 AWG 7/S TC Class B Strand 60 MILS XLPE FIREWALL® SIS 600V Type SIS/XLP-IW-2 (UL) Listed Colored Grey
C6	whe-8	COAX CABLE WITH RG TYPE 59/U, or equal / 22 AWG FOR 62 OHMS (RSS-6-104/LE) Except Not UL Listed & Meets ICEA S-19-81 Paragraph 6.19.6 (IEEE-383 Paragraph 2.56)
C7	wbh-1	Coax Cable 16 AWG for 75 ohms (RSS-6-110A/LE) Excepts meets ICEA S-19-81 paragraph 6.16.6 (IEEE-383 Paragraph 2.56)
C8	wfa 26	3/C 10 AWG 7/S TC, 20 MILS XLPE, 1 #10 AWG CU GW, O/A TINNED COPPER BRAID SHIELD, 35 MIL ZH-XLPO JKT X-LINK® 600V
C9	wfe-6	3/C 2 AWG 7/S TC 35 MILS XLPE, 1-#6 AWG CU GW, 65 MIL ZH-XLPO JKT X-LINK® 600V

APPENDIX C: BILL OF MATERIALS

This appendix contains the Bill of Materials for this pressure test. The Bill of Materials in Section C.1 identifies materials to be provided by AREVA. The Bill of Materials in Section C.2 identifies materials to be provided by MOX Services. The Bill of Materials in Section C.3 identifies materials to be provided by Intertek.

C.1 Table Bill of Materials for AREVA Supplied Items

Bill of Material for AREVA Supplied Items					
Item	**Description**	**Part Number**	**Quantity**	**Units**	**Total**
1	Prometec SF-60-IR Inhibition Resistant Silicone Elastomer (50lb part A, 50lb part B, 100lb set)	N/A	1	Set	1 Set
2	Dow Corning Sylgard® 170 Silicone Elastomer (50lb part A, 50lb part B, 100lb set)	N/A	0*	Set	0* Set
3	Quantum Silicones QSil 5558MC (50lb part A, 50lb part B, 100lb set)	N/A	0*	Set	0* Set

0* Minor amounts required – use excess material from other tests.

C.2 Bill of Materials for MOX Services Supplied Items

Bill of Material for MOX Services Supplied Items					
Item	**Description**	**Mark Number**	**Quantity**	**Units**	**Total**
1	1/C 8 AWG 7/S TC 45 MILS XLPE, 15 MILS CSPE FIREWALL III® 600V	wfb-7	10	Ft.	10 Ft.
2	2/C 10 AWG 7/S TC 30 MILS XLPE, 45 MILS CSPE JKT FIREWALL® III 600V	wfa-1	10	Ft.	10 Ft.
3	37/C 10 AWG 7/S TC 30 MILS XLPE, 80 MIL CSPE JKT FIREWALL® III 600V	wfa-13	10	Ft.	10 Ft.
4	5/C 22 AWG 7/.010 SILVER PLATED ALLOY 20 MILS XLPE 15 MILS XLPE JACKET 600V	whe-2	10	Ft.	10 Ft.
5	1/C 6 AWG 7/S TC Class B Strand 60 MILS XLPE FIREWALL® SIS 600V Type SIS/XHHW-2 (UL) Listed Colored Grey	wbe-1	10	Ft.	10 Ft.
6	COAX CABLE WITH RG TYPE 59/U, or equal / 22 AWG FOR 62 OHMS (RSS-6-104/LE) Except Not UL Listed & Meets ICEA S-19-81 Paragraph 6.19.6 (IEEE-383 Paragraph 2.56)	whe-8	10	Ft.	10 Ft.
7	Coax Cable 16 AWG for 75 ohms (RSS-6-110A/LE) Excepts meets ICEA S-19-81 paragraph 6.16.6 (IEEE-383 Paragraph 2.56)	wbh-1	10	Ft.	10 Ft.

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Detailed Test Plan for Conducting MOX Pressure Test 5

Bill of Material for MOX Services Supplied Items					
Item	**Description**	**Mark Number**	**Quantity**	**Units**	**Total**
8	3/C 10 AWG 7/S TC, 20 MILS XLPE, 1-#10 AWG CU GW, O/A TINNED COPPER BRAID SHIELD, 35 MIL ZH-XLPO JKT X-LINK® 600V	wfa-26	10	Ft.	10 Ft.
9	3/C 2 AWG 7/S TC 35 MILS XLPE, 1-#6 AWG CU GW, 65 MIL ZH-XLPO JKT X-LINK® 600V	wfe-6	10	Ft.	10 Ft.

Page C-4

C.3 Bill of Materials for Intertek Supplied Items

Bill of Material for Intertek Supplied Items*					
Item	**Description**	**Part Number**	**Quantity**	**Units**	**Total**
N/A	There are no Intertek Supplied Items for Pressure Test 5.	N/A	N/A	N/A	N/A

* *This BOM applies to Intertek Supplied Items other than materials required to construct the test slab. Construction of the test slab, including procurement of any materials required for the test slab, is the responsibility of Intertek.*

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Detailed Test Plan for Conducting MOX Pressure Test 5

APPENDIX D: DESIGN VERIFICATION CHECKLIST

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AREVA

DESIGN VERIFICATION CHECKLIST

Document Identifier 51 - 9201447 - 003

Title Detailed Test Plan for Conducting MOX Pressure Test 5

1.	Were the inputs correctly selected and incorporated into design or analysis?	☒ Y	☐ N	☐ N/A
2.	Are assumptions necessary to perform the design or analysis activity adequately described and reasonable? Where necessary, are the assumptions identified for subsequent re-verifications when the detailed design activities are completed? Note: If there are no assumptions (of any type), then N/A shall be checked.	☐ Y	☐ N	☒ N/A
3.	Are the appropriate quality and quality assurance requirements specified? Or, for documents prepared per AREVA NP Inc. procedures, have the procedural requirements been met?	☒ Y	☐ N	☐ N/A
4.	If the design or analysis cites or is required to cite requirements or criteria based upon applicable codes, standards, specific regulatory requirements, including issue and addenda, are these properly identified, and are the requirements/criteria for design or analysis met?	☒ Y	☐ N	☐ N/A
5.	Have applicable construction and operating experience been considered?	☒ Y	☐ N	☐ N/A
6.	Have the design interface requirements been satisfied?	☒ Y	☐ N	☐ N/A
7.	Was an appropriate design or analytical method used?	☒ Y	☐ N	☐ N/A
8.	Is the output reasonable compared to inputs?	☒ Y	☐ N	☐ N/A
9.	Are the specified parts, equipment and processes suitable for the required application?	☒ Y	☐ N	☐ N/A
10.	Are the specified materials compatible with each other and the design environmental conditions to which the material will be exposed?	☒ Y	☐ N	☐ N/A
11.	Have adequate maintenance features and requirements been specified?	☐ Y	☐ N	☒ N/A
12.	Are accessibility and other design provisions adequate for performance of needed maintenance and repair?	☐ Y	☐ N	☒ N/A
13.	Has adequate accessibility been provided to perform the in-service inspection expected to be required during the plant life?	☐ Y	☐ N	☒ N/A
14.	Has the design properly considered radiation exposure to the public and plant personnel?	☐ Y	☐ N	☒ N/A
15.	Are the acceptance criteria incorporated in the design documents sufficient to allow verification that design requirements have been satisfactorily accomplished?	☒ Y	☐ N	☐ N/A
16.	Have adequate preoperational and subsequent periodic test requirements been appropriately specified?	☐ Y	☐ N	☒ N/A
17.	Are adequate handling, storage, cleaning and shipping requirements specified?	☒ Y	☐ N	☐ N/A
18.	Are adequate identification requirements specified?	☒ Y	☐ N	☐ N/A
19.	Is the document prepared and being released under the AREVA NP Inc. Quality Assurance Program? If not, are requirements for record preparation review, approval, retention, etc., adequately specified?	☒ Y	☐ N	☐ N/A

Intertek

AREVA

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Detailed Test Plan for Conducting MOX Pressure Test 5

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AREVA

DESIGN VERIFICATION CHECKLIST

Document Identifier 51 - 9201447 - 003

Comments on the preceding responses:
N/A

Verified By:	Victor E. Kaldenbach	[redacted]	06/23/2014
(First, MI, Last)	Printed / Typed Name	Signature	Date

APPENDIX E
Commercial Grade Dedication-Related Documents

The vast majority of penetration seals that will be installed throughout the MFFF will be designated as quality level QL-1. For this reason, permanent penetration seal materials used in this test program were procured by AREVA or supplied by MOX Services and suitably base-lined so that future procurements of the same commercial materials can undergo the Commercial Grade Dedication process in support Nuclear Safety Related (i.e., MOX QL-1) plant installations.

Only the primary seal material(s) that were specified as a part of the final penetration seal design and left in place during the test needed to be base-lined for future dedication of similarly procured materials. For this fire test, the following AREVA documents contain information associated with materials that underwent the base-lining process. These documents establish material critical characteristics as a baseline for future Commercial Grade Dedication.

- AREVA Document 51-9212659-000, "Dow Corning Sylgard 170 Silicone Elastomer Critical Characteristics"
- AREVA Document 51-9212660-000, "PCI Promatec SF-60-IR Silicone Elastomer Critical Characteristics"
- AREVA Document 51-9212663-000, "Quantum Silicones QSil 5558MC Silicone Elastomer Critical Characteristics"

These documents are available from the AREVA Records Management System or the MOX Records Management System.

APPENDIX F
Quality Documents

The assembly for this test is a repair of a pre-existing assembly described as Pressure Test 1. For a detailed description of the test deck construction and base penetration seal installation, please refer to Intertek Report No 100982213SAT-001A,B,C (AREVA document number 58-9222833-000). For this test, twenty-four (24) holes were drilled through the seal in accordance with Test Plan 51-9201447-002. Three (3) holes were resealed using DC-170, 18 holes were resealed using SF-60-IR, and 3 holes were resealed using QSil 5558MC (see detailed drawings in the Test Plan).

AREVA

Document No.: 01-9198306-000

PAGE 1 OF 5

Installation Instruction Manual for MOX Penetration Seal Test Program

A.1 Quality Verification for Installation of Silicone Elastomer Penetration Seals 01-9198306-F01 (QC-F01)

01-9198306-F01 (QC-F01)

Attribute	Requirement	Initial / Date
7.1.2	Test Penetration Number 9201447-P5	[redacted] 7/18/13
QC	Verify critical attributes of the test slab and the applicable penetration are correct. Critical attributes are identified in the test plan (i.e., dimensions marked with an asterisk).	7/18/13
QC	Verify the dam depth is as specified in the test plan and confirm that the penetration is clean and free of dirt, oil, and any other foreign materials.	7/18/13
7.2.1.1	Record material type, lot number and shelf life for batch on Form QC-F01, Table A-1	Attached
7.2.1.3	Record the batch number on Form QC-F01, Table A-1	Attached
7.2.12	Record sample weight and sample density on Form QC-F01, Table A-1	Attached
QC	Verify the total sample weight recorded on the cup label, the sample weight recorded on the cup label and Form QC-F01, Table A-1, and sample density recorded on the cup label and Form QC-F01, Table A-1. Record acceptance on Form QC-F01, Table A-1.	Attached
7.3.2	Remove all temporary damming per Section 6.3	[redacted] 7/19/13 7/22/13
QC	Verify that the completed seal assembly is in accordance with the test plan design (i.e., temporary damming has been removed, and the installed seal configuration(s) and depth(s) are per the test plan. **Any approved deviations from the test plan shall be clearly noted below.**	[redacted] 7/19/13

Comments (can be continued on back):

NOTE 1: 9201447-P5 IS A REPAIR OF PENETRATION 9196561-P1. SEE QC-F01 FOR 9196561-P1 FOR INSTALLATION OF SEAL MATERIALS. 24 HOLES WILL BE DRILLED INTO THE SEAL ACCORDING TO APPENDIX B OF TEST PLAN 51-9201447 (latest Revision). HOLES WILL BE RESEALED ACCORDING TO 01-9198306-000 AND BATCH INFORMATION CAPTURED ON FORM QC-F01, TABLE A-1.

Penetration Seal Assembly Complete: [redacted] 7/19/13 Date

Penetration Ready for Testing: [redacted] 7/19/13 Date

[redacted]ineer

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AREVA

 Document No.: 01-9198306-000

Installation Instruction Manual for MOX Penetration Seal Test Program

TEST PENETRATION
9201447-P5

Form QC-F01, Table A-1: Silicone Elastomer Batch Sample Quality Control

	Product Name	Lot Number	Shelf Life (Expiration)	Batch Number	Sample Weight (g)	Sample Density (lbs/ft^3)	QC Initial / Date
7/18	SF-60-1R	130501	6/30/14	130501 - DTM-001	145.3	82.0	[redacted] / 7/19/13
7/18	SF-60-1R	130501	6/30/14	130501 - DTM-002	142.3	80.3	/ 7-19-13
7/18	SF-60-1R	130501	6/30/14	130501 - DTM-003	144.1	81.3	/ 7-19-13
7/19	QSIL5558 MC	130606	6/14/14	130606 - DTM-004	143.4	80.9	/ 7-29-13
7/19	DC-170	063301	6/30/14	063301 - DTM-005	143.1	80.7	7-29-13

Intertek

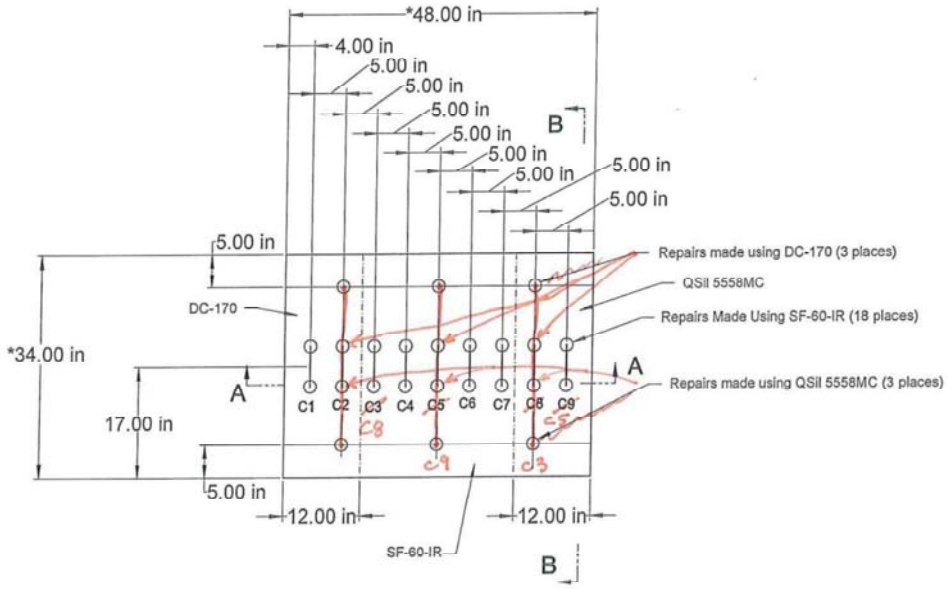
AREVA

Document No.: 51-9201447-002

PAGE 3 OF 5

Detailed Test Plan for Conducting MOX Pressure Test 5

Pressure Test P5



Cable descriptions are provided in Table B-1.

Section Views are on Pages B-3, and B-4.

NOTES:

1. TOLERANCE ON ALL SLAB DIMENSIONS IS +/- 1/4"
2. * INDICATES DIMENSIONS TO BE VERIFIED BY AREVA QC.
3. CABLE INSTALLATION AND REPAIR HOLES ARE DEPICTED AS 2" DIAMETER DRILL/CORE BORE, HOWEVER, ACTUAL SIZE AND METHOD OF HOLE CREATION WILL BE DETERMINED AT THE TIME OF INSTALLATION.

CABLES C2, C9 AND C3 (NOTE NEW LOCATIONS) ARE LOOPED THROUGH OUTSIDE HOLES. DC-170 AND QSil 5558MC REPAIRS ARE MADE TO INSIDE HOLES.

Page B-2

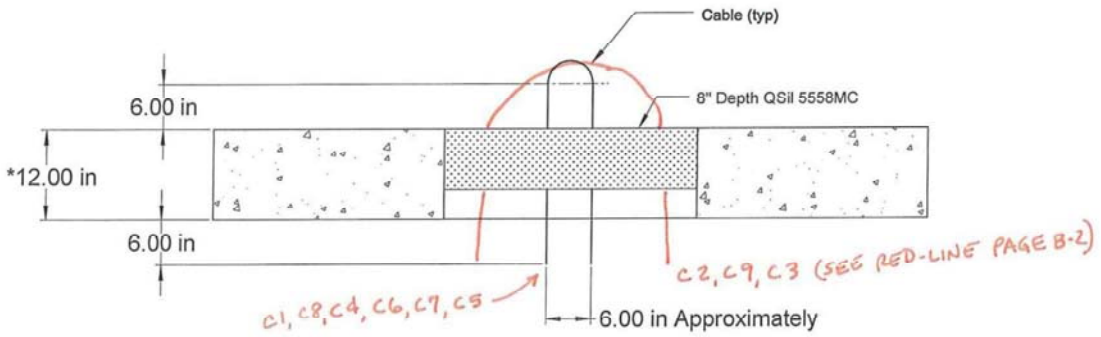
AREVA

Document No.: 51-9201447-002

PAGE 4 OF 5

Detailed Test Plan for Conducting MOX Pressure Test 5

Pressure Test P5



Section B-B

NOTES:

1. TOLERANCE ON ALL SLAB DIMENSIONS IS +/- 1/4"
2. * INDICATES DIMENSIONS TO BE VERIFIED BY AREVA QC.

Page B-4

Controlled Document

AREVA

Document No.: 51-9201447-002
PAGE 5 OF 5

Detailed Test Plan for Conducting MOX Pressure Test 5

Table B-1: Cable Descriptions

Cable Identification	Mark No.	Cable Description
C1	wfb-7	1/C 8 AWG 7/S TC 45 MILS XLPE, 15 MILS CSPE FIREWALL III® 600V
C2	wfa-1	2/C 10 AWG 7/S TC 30 MILS XLPE, 45 MILS CSPE JKT FIREWALL® III 600V
C3 *	wfa-13	37/C 10 AWG 7/S TC 30 MILS XLPE, 80 MIL CSPE JKT FIREWALL® III 600V
C4	whe-2	5/C 22 AWG 7/.010 SILVER PLATED ALLOY 20 MILS XLPE 15 MILS XLPE JACKET 600V
C5 *	wbe-1	1/C 6 AWG 7/S TC Class B Strand 60 MILS XLPE FIREWALL® SIS 600V Type SIS/XHHW-2 (UL) Listed Colored Grey
C6	whe-8	COAX CABLE WITH RG TYPE 59/U, or equal / 22 AWG FOR 62 OHMS (RSS-6-104/LE) Except Not UL Listed & Meets ICEA S-19-81 Paragraph 6.19.6 (IEEE-383 Paragraph 2.56)
C7	wbh-1	Coax Cable 16 AWG for 75 ohms (RSS-6-110A/LE) Excepts meets ICEA S-19-81 paragraph 6.16.6 (IEEE-383 Paragraph 2.56)
C8 *	wfa-26	3/C 10 AWG 7/S TC, 20 MILS XLPE, 1-#10 AWG CU GW, O/A TINNED COPPER BRAID SHIELD, 35 MIL ZH-XLPO JKT X-LINK® 600V
C9 *	wfe-6	3/C 2 AWG 7/S TC 35 MILS XLPE, 1-#6 AWG CU GW, 65 MIL ZH-XLPO JKT X-LINK® 600V

* DUE TO CABLE DIAMETER AND BEND RADIUS THE INSTALLED LOCATION OF CABLE C3 WAS SWAPPED WITH C8, AND C5 SWAPPED WITH C9. CABLES C2, C9 AND C3 WERE THEN LOOPED THROUGH OUTSIDE HOLES, (SEE RED-LINE PAGE B-2)

Page B-5

PCI PROMATEC

PO Box 710290, Houston, TX 77271-0290
11707 S Sam Houston Parkway W, Ste K, Houston, TX 77031
Phone: 281-933-7222 Fax: 281-933-7774
info@promatec.com
www.promatec.com

CERTIFICATE OF CONFORMANCE

CERTIFICATION NUMBER:	45550/13-562	CERT DATE:	JUNE 11, 2013
JOB NUMBER:	2860	SHIP DATE:	JUNE 11, 2013
CUSTOMER:	AREVA NP INC. c/o INTERTEK TESTING SERVICES NA, INC. 10015 SHADY FALLS ROAD ELMENDORF, TX 78112-9784	PRODUCT:	SF-60-IR-100lbs Part A and Part B
CUSTOMER ORDER NUMBER:	P.O. No. 1013037393 ITEM 1	VENDOR:	PCI PROMATEC
CUSTOMER SPECIFICATION NUMBER:	N/A	QUANTITY:	50 SETS @ 100lbs PER SET (Consisting of 2 each 5 gallon pails per kit)
IDENTIFICATION NUMBER:	130501A – PART A 130501B – PART B	EXPIRATION DATE:	30 JUNE 2014

CERTIFICATION REQUIREMENTS:

We hereby certify that all items furnished herein meet the requirements of the applicable product specifications, the above referenced customer order number, and supporting specifications. Vendor material certification on file and available upon written request.

Shelf Life – Twelve (12) months from date of certification, last day of the month.

This material is provided in accordance with Promatec Quality Assurance Program QAM20188, Issue F, dated 06/20/03.

[redacted]

DORCAS SMITHWICK COMBS
QUALITY ASSURANCE MANAGER

Form QC-8
Rev. 5 – 11/01/88

WORLD-CLASS CONSTRUCTION*

QSil 5558MC Certificate of Conformance

Product	QSil 5558MC
Batch Identification	130606

Final Batch Physicals

Tests	Specifications	Results
Appearance "A"	Black	Black
Appearance "B"	Beige	Beige
Viscosity "A" component, cps #5 Spindle @ 20rpm	<4,000	3,160 cps
Viscosity "B" component, cps # 5 Spindle @ 20 rpm	<4,000	1,980 cps
Specific Gravity "A" component (g/cm^3)	1.35-1.40	1.37
Specific Gravity "B" component (g/cm^3)	1.35-1.40	1.36
Catalyzed Properties 1:1 Mix Ratio		
Work Time, (snap time), minutes	20-40	25min.
Shore A, 24 hour	>45	57
QSi Heat Cured Method 15 min. @ 150°C		
Tensile strength, psi	>400	472
Elongation, %	>75	106
Young's Modulus	Report	478
General Product Information		
Date of Manufacture	6/6/13	
Shelf Life, months	12 months from date of shipment if stored at ≤38C (100F).	

Storage Conditions: This material should be stored in the original, unopened container at less than 100F. Under these conditions, the material will be useful for a period of 12 months.

QSi Batch Release Authorization: [redacted]
Quality Control
QSi, LLC

Quantum Silicones certifies that the [material described above] has been tested in accordance with the company's standard lot acceptance procedures and complies (except as stated above) with the specifications associated with such material's Quantum Silicones Product Reference Number. This certification applies only to the material lot tested. Lot acceptance data are available for examination. This material has not been subjected to tests appropriate for medical device or pharmaceutical applications. QUANTUM SILICONES MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MECHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE WITH RESPECT TO THE PRODUCT TO WHICH THE ABOVE INFORMATION REFERS. [This Certificate is valid unsigned.]

Quantum Silicones, LLC
8021 Reycan Road
Richmond, VA 23237
(804)271-9010
Fax (804)271-9055
www.quantumsilicones.com

Date of shipment 6/14/2013

REV-1
11/29/12

PCI PROMATEC

PO Box 710290, Houston, TX 77271-0290
11707 S Sam Houston Parkway W, Ste K, Houston, TX 77031
Phone: 281-933-7222 Fax: 281-933-7774
info@promatec.com
www.promatec.com

CERTIFICATE OF CONFORMANCE

CERTIFICATION NUMBER:	45550/13-587	CERT DATE:	JUNE 12, 2013
JOB NUMBER:	2860	SHIP DATE:	JUNE 12, 2013
CUSTOMER:	AREVA NP INC. c/o INTERTEK TESTING SERVICES NA, INC. 16015 SHADY FALLS ROAD ELMENDORF, TX 78112-9784	PRODUCT:	DC-170 Dow Corning® Sylgard 170 Elastomer; Part A&B 50/50 Blend
CUSTOMER ORDER NUMBER:	P.O. No. 1013037393, Rev. 1 ITEM 1	VENDOR:	PCI PROMATEC
CUSTOMER SPECIFICATION NUMBER:	N/A	QUANTITY:	6 SETS @ 100lbs PER SET (Consisting of 2 each 5 gallon pails per kit)
IDENTIFICATION NUMBER:	DC-170-063B01 PART A & B	EXPIRATION DATE:	30 JUNE 2014

CERTIFICATION REQUIREMENTS:

We hereby certify that all items furnished herein meet the requirements of the applicable product specifications, the above referenced customer order number, and supporting specifications. Vendor material certification on file and available upon written request.

Shelf Life – Twelve (12) months from date of certification, last day of the month.

This material is provided in accordance with Promatec Quality Assurance Program QAM20188, Issue F, dated 06/20/03.

[redacted]

QUALITY ASSURANCE DEPT.
DORCAS SMITHWICK COMBS
QUALITY ASSURANCE MANAGER

Form QC-8
Rev. 5 – 11/01/88

WORLD-CLASS CONSTRUCTION®

Intertek

Q/A RECEIVING REPORT

Client/Project Name: Areva NP
Client or Project No.: G101147165SAT-001
Received From: Areva Federal Services, c/o PCI
Project Location: INTERTEK –Elmendorf, TX

Report No: 06-G101147165SAT-001
Date Received: 6/13/2013
Date Inspected: 6/17/2013
Inspected By: MAB

ITEM DESCRIPTION	P.O. NO.	QUANTITY Order	QUANTITY Recv'd	QUANTITY B/O	I.D. NO.	Cont. Matl Y/N	Cert. Rec'd Y/N	Safety Rel'd Y/N	Con. Integrity	ACCEPTANCE Accpt.	ACCEPTANCE Rej.	ACCEPTANCE Hold	REMARKS
SF-60-IR Part A Resin 50 5 gal pails Lot # 1301501A	NA	50	50	–	SAT13061308 42-001	Y	Y	Y	G	✓			Receiving Only: Stored n the Conditioning Room
SF-60-IR Part B Resin 50 5 gal pails Lot # 13015018	NA	50	50	–	SAT13061308 42-002	Y	Y	Y	G	✓			

9/12-NQAP-005.7.1

Intertek

Q/A RECEIVING REPORT

Client/Project Name: Areva NP
Client or Project No.: G101147165SAT-001
Received From: c/o Quantum Silicones
Project Location: INTERTEK –Elmendorf, TX

Report No: 11-G101147165SAT-001
Date Received: 6/19/2013
Date Inspected: 6/19/2013
Inspected By: MABrown [redacted]

ITEM DESCRIPTION	P.O NO.	QUANTITY Order	QUANTITY Rec'd	QUANTITY B/O	I.D. NO.	Cont. Matl Y/N	Cert. Rec'd Y/N	Safety Rel'd Y/N	Gen. Integrity	ACCEPTANCE Accpt.	ACCEPTANCE Rej.	ACCEPTANCE Hold	REMARKS
QSIL 5558 MC Part A 50 5gal pails Lot # 130606	Client	50	50	–	SAT1306191104-001	Y	Y	Y	G	✓			Receiving Only: Materials stored in the Conditioning Room
QSIL 5558 MC Part B 50 5gal pails Lot # 130606	Client	50	50	–	SAT1306191104-002	Y	Y	Y	G	✓			

9/12-NQAP-005.7.1

Intertek

Q/A RECEIVING REPORT

Client/Project Name: Areva NP
Client or Project No.: G101147165SAT-001
Received From: Areva Federal Services, c/o PCI
Project Location: INTERTEK –Elmendorf, TX

Report No: 07-G101147165SAT-001
Date Received: 6/13/2013
Date Inspected: 6/17/2013
Inspected By: MAB [redacted]

ITEM DESCRIPTION	P.O. No.	QUANTITY Order	QUANTITY Recd	QUANTITY B/O	I.D. NO.	Cont Matl Y/N	Cert. Recd Y/n	Safety Rel'd Y/N	Cen. Integrity	ACCEPTANCE Accpt.	ACCEPTANCE Rej.	ACCEPTANCE Hold	REMARKS
DC Sylgard 170 Elastomer Part A 3 5gal Pails, # DC-170-063B01	Client	6	6	–	SAT1306131125-001	Y	Y	Y	G	✓			Receiving Only: Materials stored in the Conditioning Room
DC Sylgard 170 Elastomer Part B 3 5gal Pails, # DC-170-063B01	Client	6	6	–	SAT1306131125-002	Y	Y	Y	G	✓			
DC-732 Black 10.1 oz Tube 4 cases @ 12ea # 0007251823	Client	4	4	–	SAT1306131125-003	Y	Y	Y	G	✓			
DC-790 Gray 10.3oz Tube 2 cases @ 12ea # 0007390959	Client	2	2	–	SAT1306131125-004	Y	Y	Y	G	✓			
Unifrax Durablanket S 6lb density 1 Roll # 33068	Client	1	1	–	SAT1306131125-005	Y	Y	Y	G	✓			

9/12-NQAP-005.7.1

LIST OF CALIBRATED EQUIPMENT

Description	Serial No.	Calibration Due Date
Thermo-Hygrometer	111901142	11/2/2013
Data Acquisition System	18041FE	1/16/2014*
Pressure Transducer	406707	7/16/2014*
Mass Flowmeter	4270050001001	2/1/2014*
Mass Flowmeter	4270050003001	2/7/2014*
Stopwatch	122601005	10/23/2014

*See Intertek Corrective Action Request (CAR) 51-AMER-SAT-2014-INT and AREVA Contract Variation Approval Request (CVAR) 87-9224669-000

JZ [redacted]

ilac-MRA A2LA ACCREDITED
Calibration
Certificate No. 1750.01

Calibration complies with ISO/IEC 17025, ANSI/NCSL Z540-1, and 9001

Cert. No.: 4094-3993529

Traceable® Certificate of Calibration for Digital Humidity/Temp. Meter

Manufactured for and distributed by: Fisher Scientific, 300 Industry Drive, Pittsburgh, PA 15275-1001

Instrument Identification:

Model Numbers: 11-661-11, FB61252, 255TB S/N: 111901142 Manufacturer: Control Company

Standards/Equipment:

Description	Serial Number	Due Date	NIST Traceable Reference
Chilled Mirror Hygrometer	31874/H2048MCR	5/12/12	9193
Digital Thermometer	90969500	9/14/12	4000-3893285

Certificate Information:

Technician: 104 Procedure: CAL-17 Cal Date: 11/02/11 **Cal Due: 11/02/13**
Test Conditions: 22.5°C 45.0 %RH 1017 mBar

Calibration Data: (New Instrument)

Unit(s)	Nominal	As Found	In Tol	Nominal	As Left	In Tol	Min	Max	±U	TUR
°C		N.A.		23.667	23	Y	23	25	0.590	1.7:1
%RH		N.A.		41.450	41	Y	37	45	0.000	0.0:1

This Instrument was calibrated using Instruments Traceable to National Institute of Standards and Technology.

A Test Uncertainty Ratio of at least 4:1 is maintained unless otherwise stated and is calculated using the expanded measurement uncertainty. Uncertainty evaluation includes the instrument under test and is calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM). The uncertainty represents an expanded uncertainty using a coverage factor k=2 to approximate a 95% confidence level. In tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The results contained herein relate only to the item calibrated. This certificate shall not be reproduced except in full, without written approval of Control Company.

Nominal=Standard's Reading; As Left=Instrument's Reading; In Tol=In Tolerance; Min/Max=Acceptance Range; ±U=Expanded Measurement Uncertainty; TUR=Test Uncertainty Ratio; Accuracy=±(Max-Min)/2; Min = Nominal(Rounded) - Tolerance; Max = Nominal(Rounded) + Tolerance; Date=MM/DD/YY

[redacted]
Nicol Rodriguez, Quality Manager

[redacted]
Wallace Berry, Technical Manager

Maintaining Accuracy:

In our opinion once calibrated your Digital Humidity/Temp. Meter should maintain its accuracy. There is no exact way to determine how long calibration will be maintained. Digital Humidity/Temp. Meters change little, if any at all, but can be affected by aging, temperature, shock, and contamination.

Recalibration:

For factory calibration and re-certification traceable to National Institute of Standards and Technology contact Control Company.

CONTROL COMPANY 4455 Rex Road Friendswood, TX 77546 USA
Phone 281 482-1714 Fax 281 482-9448 service@control3.com www.control3.com

Certificate of Calibration

Certificate Number:	2994344	**Date:**	28-MAY-2014
Serial Number: **Description:**	18041FE CCA,USB-6210	**Part Number:**	194710E-04L
Calibration Date:	06-DEC-2012	**Shelf Life:**	0 Days
Calibration Due Date*:	-	**Recommended Calibration Interval:**	12 Months
Temperature:	22.26 °C	**Humidity:**	40.7% RH

Standards Used

Manufacturer	Model	Tracking Number	Calibration Date	Calibration Due
NATIONAL INSTRUMENTS	PXI-4070	6712	26-JUN-12	26-JUN-13
NATIONAL INSTRUMENTS	PXI-6259	6871	27-JUN-12	27-JUN-13
NATIONAL INSTRUMENTS	PXI-5421	7591	25-JUN-12	25-JUN-13
VAISALA	HMT331	7885	24-MAY-12	24-MAY-13

National Instruments certifies that at the time of test, the above product was calibrated in accordance with applicable National Instruments procedures. Th procedures are designed to ensure that the product listed above meets or exceeds National Instruments specifications.

We further certify that the environment in which this product was calibrated is maintained within the operating specifications of the instrument(s) standards. The measurement standards used during calibration are traceable to NIST and/or other International Measurement Institutes (NMI's) that signatories of the International Committee of Weights and Measure (CIPM) Mutual Recognition Agreement (MRA).

The information shown on this certificate applies only to the instrument identified above and this certificate may not be reproduced, except in full, withou prior written consent of National Instruments.

*Optional field. ***Calibration Due Date***, may be established by combining the *Recommended Calibration Interval*, *Calibration Date* and, when applic accounting for *Shelf Life*. Shelf life defines how long an instrument may be stored, after calibration, without impact to its specifications.

The instrument's Calibration Due Date can be calculated using the following methods:

a) If date placed in service is within *Calibration Date + Shelf Life*: *Calibration Due Date* = date placed in service + *Recommended Calibration Interval*

b) If date placed in service is outside *Calibration Date + Shelf Life*: *Calibration Due Date* = *Calibration Date + Shelf Life + Recommended Calibration Interval*

For questions or comments, please contact National Instruments Technical Support.

[redacted]

Andrew Krupp
Vice President, Quality and Continuous Improvement

OMEGADYNE INC.
CERTIFICATE OF CALIBRATION

Model Number: PX409-005DWUV
Serial Number: 406707
Date: 7/15/2011
Job: R3274

Capacity: 5.00 PSID
Excitation: 10.00 Vdc
Technician: KAPOME

Pressure Connection: 1/4-18 NPT Male

WIRING CODE

Electrical Connection: Integral Cable 4-Cond
BLACK = - EXCITATION
WHITE = + SIGNAL
GREEN = - SIGNAL
RED = + EXCITATION

CALIBRATION WORKSHEET

NOTES

Pressure PSID	OUTPUT mVdc
0.00	0.007
2.50	50.008
5.00	100.016
2.50	50.007
0.00	0.007

NIST Traceable Number(s): C-1954, C-1289

Omegadyne Inc. certifies that the above instrumentation has been calibrated and tested to meet or to exceed the published specifications. This calibration was performed using instrumentation and standards that are traceable to the National Institute of Standards and Technology. This document also ensures that all testing performed complies with MIL-STD 45662-A, ISO 10012-1, and ANSI/NCSL Z540-1-1994 requirements. After Final Calibration our products are stored in an environmentally controlled stock room and are considered in bonded storage. Depending on environmental conditions and severity of use, factory calibration is recommended every one to three years after the initial service installation date.

[redacted]

Accepted and Certified By

7/15/2011
Date

OMEGA ENGINEERING, INC.
An OMEGA Technologies Company
ONE OMEGA DRIVE, BOX 4047, STAMFORD, CT, U.S.A. 06907-0047
(203) 359-1660 TELEX: 996404 CABLE: OMEGA FAX: (203) 359-7700
http://www.omega.com e-mail: info@omega.com

CERTIFICATE OF ACCURACY

This is to certify that meter serial number 4270050001001 is certified to an accuracy of +/- 1 % of 20 SCFM of N2 and has been calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technology (N.I.S.T.) according to our procedures.

All traceable certifications and related procedures for the equipment used are on file.

Barometer Number:	n/a
Vol-U-Meter Number:	Base 1920 Cell 1898
Type of Gas:	N2
Gas Used for Calibration:	N2
Pressure Gauge Number:	1122
Timer Number:	n/a
Thermometer Number:	n/a
Voltmeter:	NA
Calibrated By:	[redacted]
Date Calibrated:	9-1-13

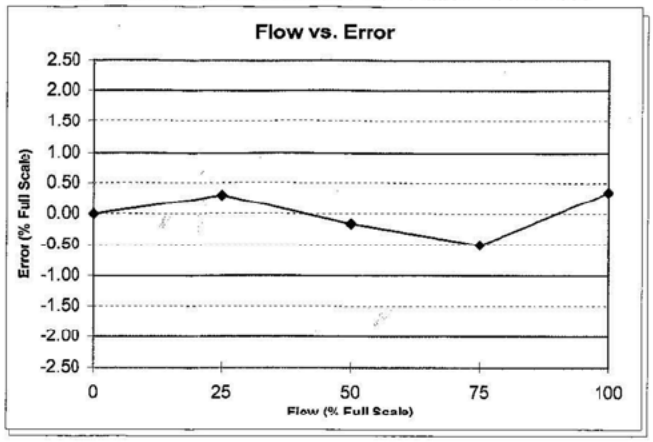
Uncertainty of measurements: +/- 0.3 % of reading

Calibrations were performed under a controlled Quality System Manual, which incorporates the requirements of ISO Guide 25, ISO 10012-1, ISO 9001 (1994) and ISO 13485. The released ISO 13485 registration (Medical Devices – Quality Management Systems – System Requirements for Regulatory Purposes) includes Design Controls and Metrology Systems.

0122220B FM-1011 REV B

OMEGA ENGINEERING, INC.
An OMEGA Technologies Company
ONE OMEGA DRIVE, BOX 4047, STAMFORD, CT, U.S.A. 06907-0047
(203) 359-1660 TELEX: 995404 CABLE OMEGA FAX: (203) 359-7700
http://www.omega.com e-mail: info@omega.com

Mass Flowmeter/Flow Controller Calibration Data Sheet



DATE	2/1/2013
TIME	7:59:59 AM
Shop Order No.	427005
Serial No.	4270050001001

Calibration Data

Setpoint (SLPM)	Flow Signal (Volts)	Device Flow (SLPM)	Actual Flow (SLPM)	% FS Error * (%)
00.00	0.000	00.00	00.00	0.00
05.00	1.253	05.01	05.07	0.30
10.00	2.502	10.01	09.98	-0.16
15.00	3.752	15.01	14.91	-0.50
20.00	5.000	20.00	20.07	0.35

* % Full Scale (FS) Error = (100)(Actual Flow - Device Flow) / Full Scale Flow

GAS

Nameplate (Actual)	Nitrogen
Surrogate (Calibration)	Nitrogen (N2)

STANDARD CONDITIONS

Std. Pressure	101.32 kPa (760 Torr)
Std. Temperature	21.1 °C

PRESSURE

Inlet (P_1)	20 PSIG
Outlet (P_2)	N/A

TEMPERATURE

Calib. Temperature	21.9 °C
Oper. Temperature	70 °F

Max. Flow Rate	20 SLPM
Gas Factor	1
Calibrator	MT
Flow Standard	PICO 1898-1
Unit Accuracy	1.0 FS & 0.0 Rate
Calib. Attitude	Horizontal (base down)

LEAK TEST DATA

Inboard (Externally Pressurized) Helium Leak Rate: < 1 x 10^{-8} atm cc/sec
Vacuum Pressure: < 5 milliTorr

Tested By: [redacted] **Date:** 1-1-13

FM-1119 Rev. K

OMEGA ENGINEERING, INC.
An OMEGA Technologies Company
ONE OMEGA DRIVE, BOX 4047, STAMFORD, CT, U.S.A. 06907-0047
(203) 359-1660 TELEX: 996404 CABLE: OMEGA FAX: (203) 359-7700
http://www.omega.com e-mail: info@omega.com

CERTIFICATE OF ACCURACY

This is to certify that meter serial number 4270050003001 is certified to an accuracy of +/- 1 % of 200 slpm of N2 and has been calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technology (N.I.S.T.) according to our procedures.

All traceable certifications and related procedures for the equipment used are on file.

Barometer Number:	1667
Vol-U-Meter Number:	613
Type of Gas:	N2
Gas Used for Calibration:	N2
Pressure Gauge Number:	1950
Timer Number:	1876
Thermometer Number:	985
Voltmeter:	NA
Calibrated By:	[redacted]
Date Calibrated:	2-7-13

Uncertainty of measurements: +/- 0.3 % of reading

Calibrations were performed under a controlled Quality System Manual, which incorporates the requirements of ISO Guide 25, ISO 10012-1, ISO 9001 (1994) and ISO 13485. The released ISO 13485 registration (Medical Devices – Quality Management Systems – System Requirements for Regulatory Purposes) includes Design Controls and Metrology Systems.

0122220B FM-1011 REV B

OMEGA ENGINEERING, INC.
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ONE OMEGA DRIVE, BOX 4047, STAMFORD, CT, U.S.A. 06907-0047
(203) 359-1660 TELEX: 996404 CABLE: OMEGA FAX: (203) 359-7700
http://www.omega.com e-mail: info@omega.com

MASS FLOWMETER/FLOW CONTROLLER CALIBRATION DATA SHEET

SPECIFICATIONS

MODEL #: FMA-875A-V-NIST

SERIAL #: 4270050003001

FLOW RANGE: 200 SLPM

OPERATING TEMPERATURE: 70 F

NAMEPLATE (PROCESS) GAS: N2

SURROGATE (CALIBRATION) GAS: N2

STANDARD TEMPERATURE: 21.1 C

STANDARD PRESSURE: 101.32 kPa (760 Torr)

P1 (INLET PRESSURE): 20 PSIG

P2 (OUTLET PRESSURE): N/A

CALIBRATION TEMPERATURE: 18.7 C

CALIBRATION ATTITUDE (calibration attitude checked):

- ☒ Horizontal (base down)
- ☐ Horizontal (upside down)
- ☐ Horizontal (front down)
- ☐ Horizontal (back down)
- ☐ Vertical (inlet up)
- ☐ Vertical (inlet down)

CALIBRATION ACCURACY: ± 1 % OF FULL SCALE FLOW

CALIBRATION DATA

% FULL SCALE (Nominal)	FLOW SIGNAL OUTPUT (signal type checked) ☒ Vdc ☐ mAdc	STANDARD VOLUMETRIC FLOW (Units: SLPM)		ERROR * (% Full Scale)
		DEVICE	MEASURED	
100	5.000	200.000	200.079	.5395
75	3.750	150.000	149.317	-.3415
50	2.500	100.000	100.488	.2440
25	1.250	50.000	50.852	.4260
0	0.00	0.000	0.000	------

* % FULL SCALE ERROR = (100) (MEASURED FLOW - DEVICE FLOW) ÷ FULL SCALE FLOW

CALIBRATED BY: [redacted] DATE: 2-7-13

LEAK TEST DATA

INBOARD (EXTERNALLY-PRESSURIZED) HELIUM LEAK RATE: $\leq 1 \times 10^{-8}$ atm cc/sec

VACUUM PRESSURE: ≤5 millitorr

TESTED BY: [redacted] DATE: 2-1-13

FM-355-OE Rev. 0

[redacted] 5/15/13

Calibration complies with ISO 9001 ISO/IEC 17025 AND ANSI/NCSL Z540-1

Cert. No.: 1042-4689088

Calibration Certificate No. 1750.01

Traceable® Certificate of Calibration for Waterproof Stopwatch

Manufactured for and distributed by: Fisher Scientific, 300 Industry Drive, Pittsburgh, PA 15275-1001

Instrument Identification:

Model Numbers: 0666256, FB70240 S/N: 122601005 Manufacturer: Control Company

Standards/Equipment:

Description	Serial Number	Due Date	NIST Traceable Reference
Non-contact Frequency Counter	26.6 2025	3/06/13	1000313632

Certificate Information:

Technician: 67 Procedure: CAL-01 Cal Date: 10/23/12 **Cal Due: 10/23/14**

Test Conditions: 22.5°C 45.0 %RH 1015 mBar

Calibration Data: (New Instrument)

Unit(s)	Nominal	As Found	In Tol	Nominal	As Left	In Tol	Min	Max	±U	TUR
Sec/24hr		N.A.		0.000	-0.600	Y	-8.640	8.640	0.130	>4:1

This Instrument was calibrated using Instruments Traceable to National Institute of Standards and Technology.

A Test Uncertainty Ratio of at least 4:1 is maintained unless otherwise stated and is calculated using the expanded measurement uncertainty. Uncertainty evaluation includes the instrument under test and is calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM). The uncertainty represents an expanded uncertainty using a coverage factor k=2 to approximate a 95% confidence level. In tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The results contained herein relate only to the item calibrated. This certificate shall not be reproduced except in full, without written approval of Control Company.

Nominal=Standard's Reading; As Left=Instrument's Reading; In Tol=In Tolerance; Min/Max=Acceptance Range; ±U=Expanded Measurement Uncertainty; TUR=Test Uncertainty Ratio; Accuracy=±(Max-Min)/2; Min = Nominal(Rounded) - Tolerance; Max = Nominal(Rounded) + Tolerance; Date=MM/DD/YY

[redacted] [redacted]

Nicol Rodriguez, Quality Manager [redacted], Technical Manager

Maintaining Accuracy:

In our opinion once calibrated your Waterproof Stopwatch should maintain its accuracy. There is no exact way to determine how long calibration will be maintained. Waterproof Stopwatchs change little, if any at all, but can be affected by aging, temperature, shock, and contamination.

Recalibration:

For factory calibration and re-certification traceable to National Institute of Standards and Technology contact Control Company.

CONTROL COMPANY 4455 Rex Road Friendswood, TX 77546 USA
Phone 281 482-1714 Fax 281 482-9448 service@control3.com www.control3.com

TEST ARTICLE ATTRIBUTE CHECKLIST

PROJECT NO: 6101276459-001A **CLIENT :** AREVA

Project Description MOX PRESSURE TEST #5

		SAT	UNSAT
I.	**ASSEMBLY**		
	Proper materials used	X	
	Material documentation complete	X	
	Configuration/dimensions in accordance w/ approved drawings	X	
	Description of assembly: 12" THICK NWC SLAB W/ 48 X 34" OPENING CONTAINING 8" THICK DC-170, QSIL 5558MC, AND PROMATEC SF-60-1R	X	
II.	**ELECTRICAL CABLE**		
	Correct material used	X	
	Material documentation complete	X	
	Correct cable lay-in and fill requirements	X	
	Description of electrical cable:		
III.	**THERMOCOUPLES**		
	Correct thermocouple type, certs received	N/A	
	Thermocouples positioned in accordance with test plan		
	Adequately labeled and secured		
	Quality Assurance verification done		
	Description of thermocouples:		
IV.	**FIRE BARRIER**		
	Name or type of material DC-170, QSIL 5558MC, SF-60-1R	X	
	INTERTEK received material documentation provided by Client	X	
	Materials provided by INTERTEK properly documented	X	
	Materials installed by INTERTEK in accordance with test plan	X	
	INTERTEK Quality Assurance responsibilities determined	X	
	QA responsibilities of Client installation determined	X	
	Moisture check required ..... Yes ____ No X		
	Special requirements		

V. FINAL PREBURN VERIFICATION

Final visual inspection & approval (initials) INTERTEK [redacted] Client [redacted] AREVA QA

1500psi mass flow S/N 427005000100 1

1000psi mass flow S/N 427005000800 1

CALIBRATION DOCUMENTATION (S/N and calibration due date)

Data Acquisition Equipment: CATEGORY 2 VERIFIED

Other Measurement Devices: 0-15 PSI PCESSURE GAUGE 4901-15A [redacted] 5/14/14

THERMO H4620 S/N 111901142 DUE 11/02/13

Temperature 90 Humidity 88 Date 7/24/13 Time of Test start 11:05a

INTERTEK pre-burn checklist performed by [redacted]

Client representative present to witness test [redacted]

Note: Verification to be made using initials by INTERTEK Quality Assurance or test personnel.

09-013-12/30/03

Intertek

TEST ACTIVITIES EVENT LOG

Note:
This Log is used to document the date and note the significant events during the completion of Test Project # G101276459SAT-001A (Pressure Test #5) for AREVA NP Inc.

ITEM	DATE	INIT'L
Verified opening sizes per the test plan	5/29/13	MD
Concrete poured by Alamo Concrete	5/29/13	MD
Concrete conditioned	6/3/13	MD
Critical attributes of test deck and test samples verified	6/17/13	MD
Begin pouring seals	6/19/13	MD
Finish pouring seals	6/24/13	MD
Completed seal assembly verified against the test plan	6/24/13	MD
Pressure Test #1 conducted	7/16/13	MD
Repurpose test deck for Pressure Test #5	7/17/13	MD
Critical attributes of test deck and test samples verified	7/18/13	MD
Holes cored, cables installed, seals poured	7/18/13	MD
Completed seal assembly verified against the test plan	7/19/13	MD
Pressure Test #5 conducted	7/29/13	MD

9/12 NQAP-007.7.3

Certificate of Conformance

Client Name: Areva NP Inc.
Project No: G101276459SAT-001A

Date: July 22, 2014

Intertek Testing Services NA (Intertek) has conducted testing for AREVA NP Inc., on the pressure resistance capabilities of PCI-Prematec SF-60-IR Inhibition Resistant Silicone Elastomer (SF-60-IR), Quantum Silicones QSil 5558MC Silicone Elastomer (QSil 5558MC) and Dow Corning® Sylgard® 170 Silicone Elastomer (DC-170) through a 12" thick concrete deck for compliance with the applicable requirements of and in accordance with AREVA NP Inc. Document No. 51-9201447-002, *Detailed Test Plan for Conducting MOX Pressure Test 5*. This evaluation took place on July 29, 2013.

The materials, processes), and deliverable(s) in this project were managed under and conform to the test laboratory's 10CFR50 Appendix B Quality Assurance Program.

[redacted]

July 22, 2014

Michael A Brown
Quality Supervisor

Date

Intertek Testing Laboratory
16015 Shady Falls Road, Elmendorf TX 78112
210-635-8100

Quality Assurance Statement

Intertek is devoted to engineering, inspection, quality assurance and testing of building materials, products and assemblies. Intertek has developed and implemented a Quality Assurance Program designed to provide its clients with a planned procedure of order and document processing for inspection and testing services it provides to assure conformity to requirements, codes, standards and specifications. The Program is designed to meet the intent of ANSI 45.2 Quality Assurance Program Requirements for Nuclear Power Plants, and complies with the requirements of the ASME Code, SPPE, Military Standards and other less stringent programs. It is the Laboratory's intention to adhere strictly to this Program, to assure that the services offered to its clients remains of the highest quality and accuracy possible.

All QA Surveillance documents remain on file at the Laboratory, and are available for inspection by authorized personnel in the performance of an on-site QA Audit. All materials, services and supplies used herein were obtained with appropriate QA Certifications of Compliance.

REVISION SUMMARY

DATE	SUMMARY
July 22, 2014	Original Issue Date