

# TEST REPORT



Intertek

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**EVALUATION CENTER**  
16015 Shady Falls Road  
Elmendorf, TX 78112  
(voice) 210-635-8100  
(fax) 210-635-8101  
www.intertek.com

**RENDERED TO**

AREVA NP Inc.  
4100 International Plaza  
Fort Worth, TX 76109

	AREVA NP Inc.
	58-9224231-000

PRODUCTS EVALUATED: Quantum Silicones QSil 5558MC Silicone Elastomer, Dow Corning® Sylgard 170 Silicone Elastomer, and Dow Corning® 732 Multi-Purpose Sealant

EVALUATION PROPERTY: Seismic Pressure Resistance (Seismic Pressure Test 6)

**Report of Testing pressure resistance capabilities for compliance with the applicable requirements of AREVA NP Inc. Test Plan, Document No. 51-9216585-000**

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## 2 Introduction

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Intertek Testing Services NA (Intertek) has conducted testing for AREVA NP Inc., on the seismic pressure resistance capabilities of Quantum Silicones QSil 5558MC Silicone Elastomer, Dow Corning® Sylgard 170 Silicone Elastomer, and Dow Corning® 732 Multi-Purpose Sealant through a 12" thick concrete deck for compliance with the applicable requirements of and in accordance with AREVA NP Inc. Document No. 51-9216585-000, *Detailed Test Plan for Conducting MOX Seismic Pressure Test 6*. This test took place on December 17, 2013.

This project was undertaken to evaluate the seismic pressure resistance capabilities of the test assembly using alternating pressures at the air pressure increments above atmospheric pressure.

NOTE: The test assembly used in this seismic pressure test was the same test assembly that was constructed and tested in Pressure Test 8A without any changes. Refer to AREVA Doc. 58-9224200-000 or Intertek Test Report No. 101276459SAT-008A for details on Pressure Test 8A.

## 3 Test Samples

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### 3.1. SAMPLE SELECTION

The sealant materials were not independently selected for testing; they were supplied by AREVA NP Inc., and were received in three shipments, June 13, July 8, and October 4, 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
QSil 5558 MC	130912	9/30/2014
DC-170	073B01	7/31/2014
DC-732	0007251823	5/29/2015

Information regarding receiving dates, and origin of these and all other items in the assembly can be found in Appendix F: Quality Documents of Pressure Test 8A (Intertek Test Report 101276459SAT-008A; AREVA document 58-9224200-000). All samples were received in good condition at the Evaluation Center.

### 3.2. SAMPLE AND ASSEMBLY DESCRIPTION

The test assembly used in this test was the same assembly tested first as Pressure Test 8A. A detailed description of the test assembly can be found in AREVA NP Inc. Engineering Record 51-9216585-000, *Detailed Test Plan for Conducting Seismic Pressure Test 6*, which is contained in Appendix D. For drawings of the concrete deck and penetrations please refer to Appendix A of Pressure Test 8A (Intertek Report No. 101276459SAT-008A; AREVA document 58-9224200-000). The test assembly consisted of a 12" thick concrete slab measuring approximately 96" x 96" (8' x 8'). Within this slab there were four penetrations, two (2) 12"

diameter openings, and two 16" x 16" blockouts. Three of the penetrations were unlined (bare concrete) and one was steel lined (cast in place 12" diameter pipe). The installation and documentation of penetration seal assemblies contained within the test slab was performed by AREVA under AREVA's Quality Assurance Program (Reference 12.4 in the test plan found in Appendix D).

## **4 Testing and Evaluation Methods**

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The Test Plan in Appendix D defines the test methods, acceptance criteria and test report documentation requirements for penetration seal Seismic Pressure Test 6. 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 seismic pressure testing efforts.

The detailed test plan also describes the procurement plan for materials associated with penetration seals in Seismic Pressure Test 6 and identifies the entities responsible for procuring the various components of the test assembly 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 assembly and links quality requirements in the AREVA 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 for seismic qualification purposes, the MOX Penetration Seal Program has developed a standardized method for conducting seismic pressure testing of MOX penetration seal designs. Specifically, seismic pressure testing will be used to evaluate the seismic inertia of the self-weight of the seal assembly by applying an equivalent pressure to alternating sides of a penetration seal assembly. 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 devices described on the following pages:



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

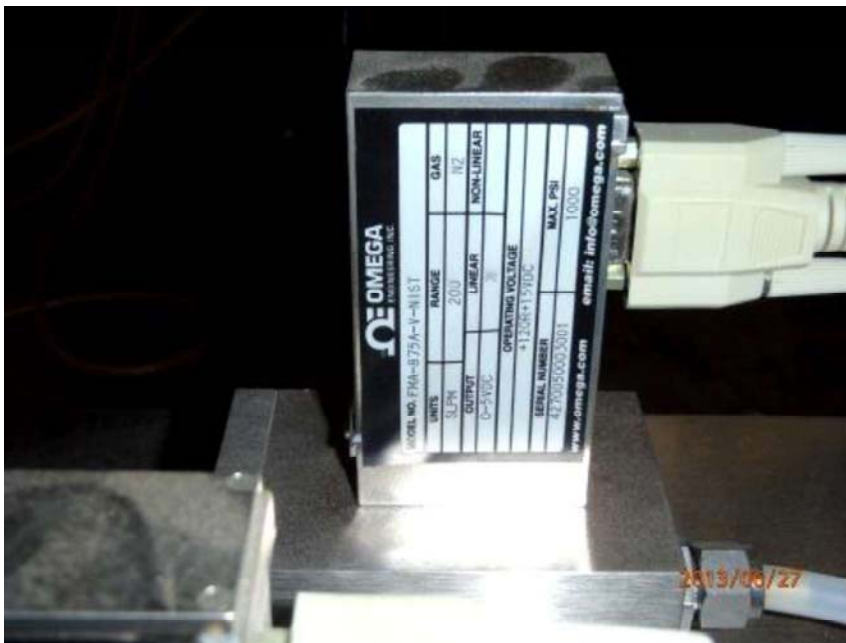
Regulator (high)                    Control Air, Inc., Amherst, NH  
Type 700  
0-15 psi



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



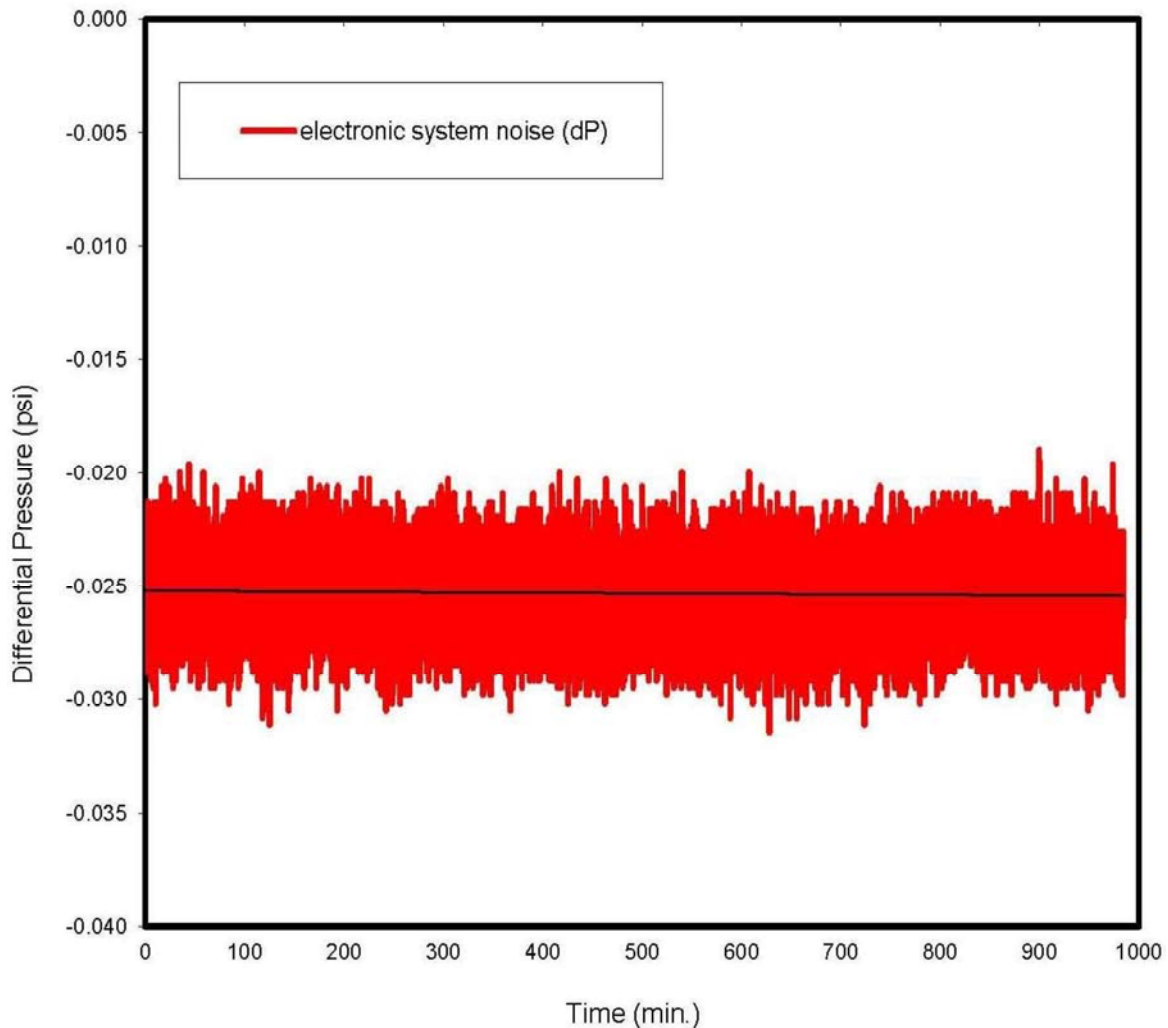
Dedicated CPU

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.

### 16-hr Average Electronic Noise (dP = -0.0253 psi)



As seen above, the average data fluctuation due to “signal noise” was -0.025 psi. For this test, 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. 51-9218565-000**

Seismically qualified penetration seals at the MOX facility are required to remain in the opening (penetration) during and after a Design Earthquake seismic event. In order demonstrate that a penetration seal will remain in place, the seal has to be evaluated for two conditions: 1) The seismic inertia of the self-weight of the seal has to be evaluated; and 2) The seismic deflection of the commodities penetrating the seal has to be considered.

Seismic pressure testing was used to evaluate the seismic inertia of the self-weight of the seal assembly. This was accomplished by applying a pressure to alternating sides of the penetration seal to demonstrate that the seal would not become dislodged from the opening due to the seismic inertia of the self-weight of the seal. The seismic deflection of commodities that penetrate the seal will be addressed by a separate analysis.

Ultimately, the overall seismic qualification of MOX penetration seal assemblies will be captured in a penetration seal seismic qualification report that will tie together the results of seismic pressure testing with other analyses performed to address seismic deflection of commodities that penetrate the seal.

The acceptance criterion for evaluating the seismic inertia of the seal self-weight is calculated in MOX Services Calculation "Penetration Seal Seismic Requirements" [Test Plan Reference 12.1] and expressed as an equivalent pressure. Testing at this equivalent pressure will qualify that a penetration seal assembly will remain in place (i.e., the penetration seal cannot become dislodged from the opening or otherwise catastrophically fail such that a substantial leakage path is created) during the design earthquake seismic event.

The relative movement of the items penetrating a seal and the movement of the wall / seal during a seismic event are not considered as a part of this test. A separate engineering evaluation is required to evaluate the effect of movement on a seal with penetrating items during a seismic event.

No pressure inducing events were required to be considered concurrently with a seismic event.

The table below identifies the differential pressure levels (stages) for conducting this seismic pressure test, as well as, the acceptance criteria in order for the penetration seal assemblies to meet the seismic pressure testing requirements.

**Differential Seismic Pressure Test Levels**

Test Stage	Differential Pressure (inch w.g.)	Required Hold Time (minutes)	Acceptance Criteria	Basis for the Selected Differential Pressure
1-4	45 (Note 1)	5	Penetration Seal Remains in Opening (Does not become dislodged)	Testing at this differential pressure meets the seismic demand expressed as a pressure [Test Plan Reference 12.1]

Note 1: For Seismic Pressure Test 6, a nominal density of 85 pcf was used for the silicone elastomer seal material installed for the purposes of determining the test penetration seal's weight per square foot. 85 pcf bounds the installed seal material with margin. 85 pcf times a seal depth of 8", yields a seal weight of approximately 56.7 psf. Based on Figure B-2.1 of Test Plan Reference 12.1, the corresponding seismic pressure for a seal weight of 56.7 psf is approximately 44.7 inches w.g. Therefore, for Seismic Pressure Test 6 an equivalent seismic pressure of 45 inches w.g. was used.

Note: Since only a minor amount of silicone caulk was added to these test penetrations, the additional weight (mass) of the silicone caulk is considered insignificant and is captured by the available margin that exists from using the 85 pcf density for the base silicone elastomer seal assemblies.

The test assembly was attached to the seismic pressure test apparatus and subjected to the pressures identified in the table above.

For Stage 1, the test assembly was attached to the seismic pressure test apparatus and subjected to air pressure at the select pressure level identified in the table above. Once this pressure was obtained, the pressure was maintained for the hold time specified. If the penetration seal catastrophically failed during this time, the time of failure was to be noted and the test stopped.

Once the designated hold time for Stage 1 was achieved, the pressure was vented from the test chamber. Next, the pressure identified in the table for Stage 2 was applied to the opposite side of the penetration seal and held for the designated hold time. If the penetration seal catastrophically failed during this time, the time of failure was to be noted and the test stopped.

Once the designated hold time for Stage 2 was achieved, the pressure was vented from the test chamber. Next, the pressure identified in the table for Stage 3 was applied to the original side of the penetration seal and held for the designated hold time. If the penetration seal catastrophically failed during this time, the time of failure was to be noted and the test stopped.

Once the designated hold time for Stage 3 has been achieved, the pressure was vented from the test chamber. Finally, the pressure identified in the table for Stage 4 was applied to the opposite side of the penetration seal and held for the designated hold time. If the penetration seal catastrophically failed during this time, the time of failure was to be noted and the test stopped.

Following completion of Stage 4 seismic pressure testing, the pressure was vented from the test chamber. At this point, the test was continued at the discretion of the AREVA test engineer and the testing laboratory manager in charge. Subsequent pressures, and hold times were recorded as directed by the AREVA test engineer.

NOTE: The pressure used for the testing performed above was based on a seal material depth of 8 inches and a seal material density of 85 pcf. Since the test was successful, subsequent testing pressures were evaluated for a 10 inch depth of material (56 inches w.g.) and a 12 inch depth of material (67 inches w.g.). These tests were designated Stages 1a-4a and 1b-4b, respectively.

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

## 5 Testing and Evaluation Results

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### 5.1. RESULTS AND OBSERVATIONS

The test was initiated at 10:43 a.m. on December 17, 2013. Scott Groesbeck, representing AREVA NP Inc. was present to witness the test. The ambient temperature at the start of the test was 57°F, with a relative humidity of 57%.

The test procedure followed that presented in Section 9.0 of the Test Plan, except that at the completion of Stage 4 the pressure was not vented from the bottom chamber. In lieu of this, the bottom chamber pressure was increased to the Stage 1a level of 56" w.g. and the test continued. This resulted in Stage 4a concluding with the pressure being applied to the top side of the test assembly. A similar process was followed, the top side pressure of 67 w.g. applied, and the test continued for Stages 1b-4b. This minor deviation from the prescribed test method was conducted with the verbal approval of the AREVA Test Engineer and is deemed to have had no adverse impact on the outcome of the test results.

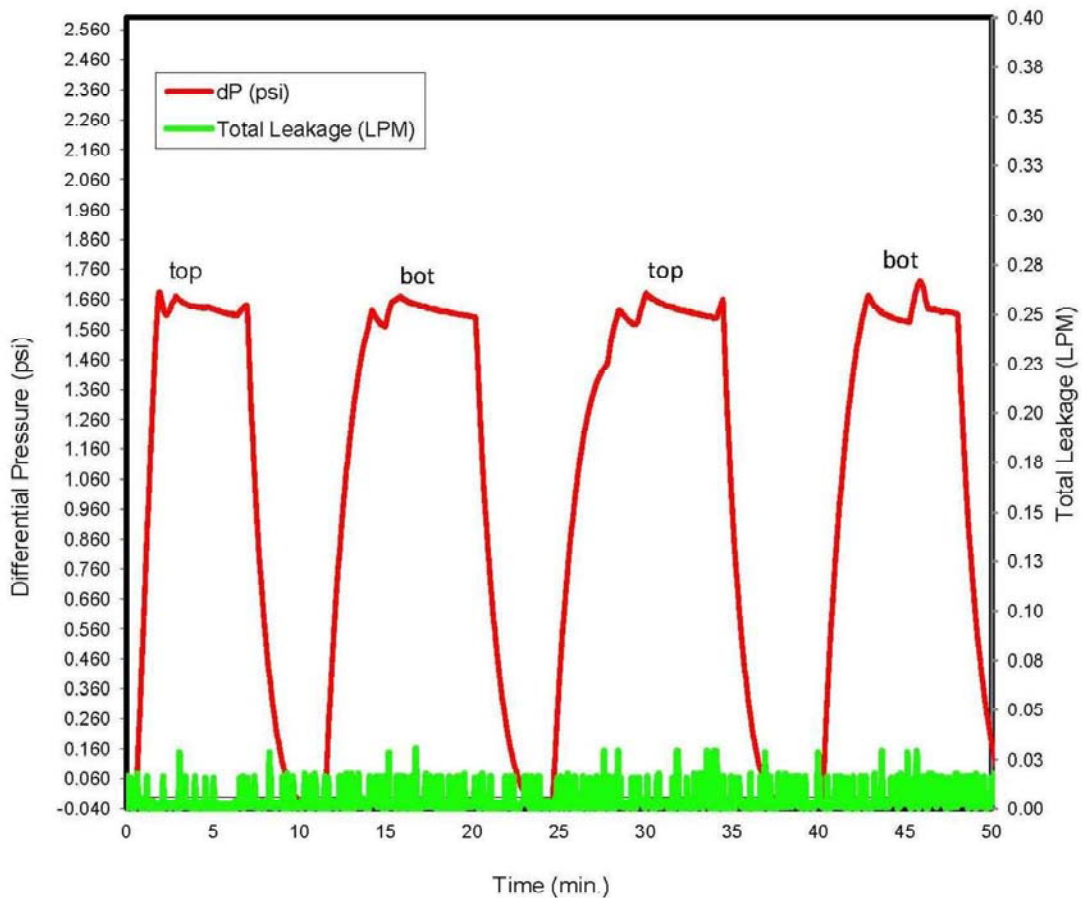
The graphs and table on the following page(s) provide a summary of results and observations for the various pressure stages; any observed leakage, and whether the seal remained in place. Appendix B of this test report contains the raw data for this test.

The graphs are based on data collected throughout the entire test process, including the time periods between stages when the pressure chamber was being vented and refilled. Pressure spikes and leakage rates displayed for time periods between stages should not be misinterpreted, as recorded leakage may have been caused by intentional venting of the pressure chamber through a mass flow meter.

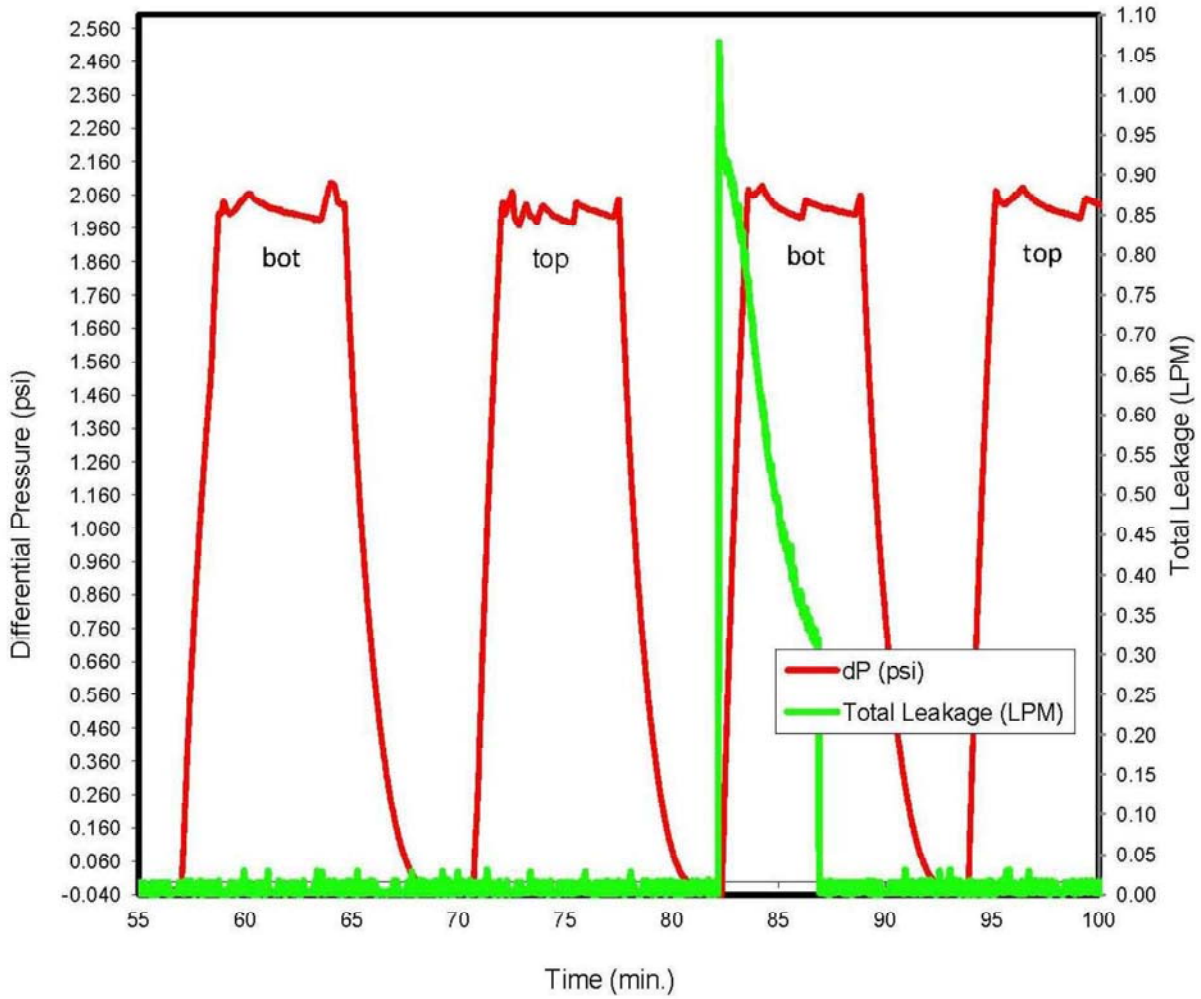
Additionally, it should be noted that when changing between mass flowmeters during a pressure a test, valve lineups and flowpath routes are changed. The time it takes to manipulate the valves, differences in tubing sizes, orifice sizes and mass flowmeter throughput capacity all affect bonnet pressure on the leakage side of the test assembly which can affect recorded leakage values. Generally, the input air on the opposite side of the test assembly remains constant during this time period, since manipulation of the input pressure regulator would require additional operator action. This results in reported differential pressure fluctuations which typically show up as pressure spikes when the raw data is graphed. Within a few minutes of mass flowmeter switchover, the system stabilizes to the new lineup and the data results in a more uniform graph.

Therefore, it is important to analyze the data compiled during the hold times for each pressure stage and not the data before, after or in between pressure stages. The summary table presented after the graphs identifies the approximate start time and stop times for each pressure stage of this test. These times can be correlated to the data under the "Time (min)" heading for the raw data contained in Appendix B of this report. The official start and stop times for each pressure stage were timed using a traceable, calibrated stopwatch.

**Stage 1-4**  
**Chamber Differential Pressure and Seal Leakage**  
**Seismic Pressure Test 6**  
**45-in w.g.**

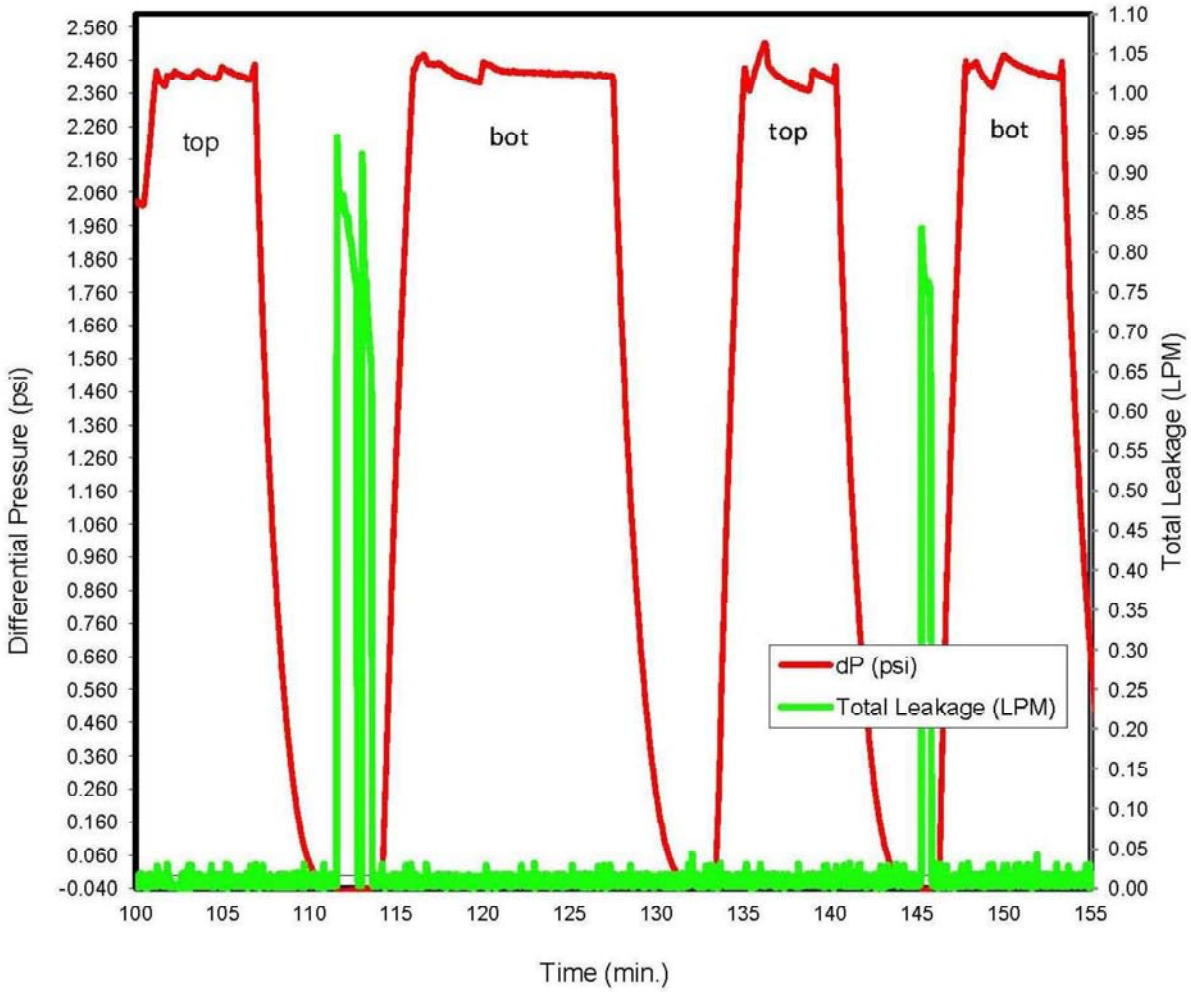


**Stage 1a-4a**  
**Chamber Differential Pressure and Seal Leakage**  
**Seismic Pressure Test 6**  
**56-in w.g.**





**Stage 1b-4b**  
**Chamber Differential Pressure and Seal Leakage**  
**Seismic Pressure Test 6**  
**67-in w.g.**



**Test Results and Observations**

Test Stage	Pressurized Side	Differential Pressure (inch w.g.)	Start Time (min)	Required Hold Time (minutes)	Acceptance Criteria	PASS/FAIL
1	TOP	45	1.8	5	Seal Remains In Place	PASS
2	BOTTOM	45	14.3	5	Seal Remains In Place	PASS
3	TOP	45	28.5	5	Seal Remains In Place	PASS
4	BOTTOM	45	42.7	5	Seal Remains In Place	PASS
1a	BOTTOM	56	59	5	Seal Remains In Place	PASS
2a	TOP	56	72.2	5	Seal Remains In Place	PASS
3a	BOTTOM	56	83.5	5	Seal Remains In Place	PASS
4a	TOP	56	95.2	5	Seal Remains In Place	PASS
1b	TOP	67	101	5	Seal Remains In Place	PASS
2b	BOTTOM	67	116	5	Seal Remains In Place	PASS
3b	TOP	67	135	5	Seal Remains In Place	PASS
4b	BOTTOM	67	148	5	Seal Remains In Place	PASS

**5.2. POST TEST EXAMINATION**

Following completion of Seismic Pressure Test 6, the top bonnet was removed and the top side of the test specimen was visually inspected. This inspection revealed the following:

- Integrity of seal and conditions on the exposed side of the penetration
  - No visual changes were observed.
- Location of any penetration seal degradation
  - No visual changes were observed.
- Condition of seal to barrier interface
  - No visual changes were observed.
- Condition of seal to penetrating item interfaces
  - No visual changes were observed.



Finally, the slab was removed from the bottom bonnet and the bottom side of the test assembly was inspected. No visual changes were noted on the bottom side of the test assembly.

## 6 Conclusion

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Intertek Testing Services NA (Intertek) has conducted testing for AREVA NP Inc., on the seismic pressure resistance capabilities of Quantum Silicones QSil 5558MC Silicone Elastomer and Dow Corning® Sylgard 170 Silicone Elastomer through a 12" thick concrete deck for compliance with the applicable requirements of and in accordance with AREVA NP Inc. Document No. 51-9216585-000, *Detailed Test Plan for Conducting MOX Seismic Pressure Test 6*. This test took place on December 17, 2013.

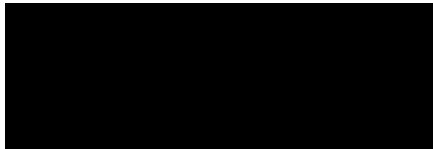
The seals in Seismic Pressure Test 6 met the acceptance criteria as defined in the Test Plan.

This project was undertaken to evaluate the seismic pressure resistance capabilities of the test assembly using alternating pressures at the 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.

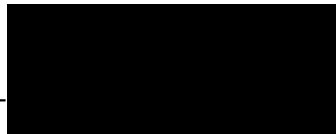
### INTERTEK TESTING SERVICES NA

Reported by:



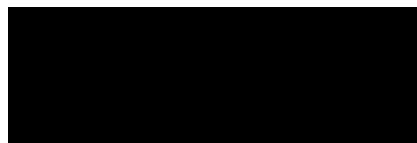
Mike Dey  
**Staff Engineer**

Reviewed by:



**Project Engineer, Fire Resistance**

Reviewed by:



Michael A. Brown  
**Quality Supervisor**

## APPENDIX A Assembly Drawings

The test assembly used in Seismic Pressure Test 6 was the same assembly tested in Pressure Test 8A. A detailed description of the assembly is presented in the Test Plan in Appendix D of this report. For drawings of the assembly, please refer to the final test report for Pressure Test 8A (Intertek Report No. 101276459SAT-008A; AREVA document 58-9224200-000).

## APPENDIX B Test Data

Areva NP, Inc.

Project No. G101276459SAT-015

December 17, 2013

Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
0	-0.0255	0	0	0
0.0333	-0.0246	0	0	0
0.0667	-0.0252	0.0155	0.0007	0.0162
0.1	-0.0249	0	0.0007	0.0007
0.1333	-0.0269	0.0023	0	0.0023
0.1667	-0.0252	0.0155	0	0.0155
0.2	-0.0252	0	0.0007	0.0007
0.2333	-0.0242	0.0023	0.0007	0.003
0.2667	-0.0249	0.0155	0	0.0155
0.3	-0.0259	0.0023	0.0007	0.003
0.3333	-0.0262	0	0	0
0.3667	-0.0282	0.0023	0	0.0023
0.4	-0.0249	0.0023	0	0.0023
0.4333	-0.0236	0.0023	0.0007	0.003
0.4667	-0.0239	0	0	0
0.5	-0.0288	0.0023	0	0.0023
0.5333	-0.0213	0	0.0007	0.0007
0.5667	0.01	0.0023	0.0007	0.003
0.6	0.0413	0.0023	0	0.0023
0.6333	0.0821	0.0155	0.002	0.0175
0.6667	0.1298	0.0023	0	0.0023
0.7	0.1759	0.0023	0	0.0023
0.7333	0.2246	0.0023	0.002	0.0044
0.7667	0.271	0.0023	0	0.0023
0.8	0.3223	0	0.002	0.002
0.8333	0.3691	0	0.0007	0.0007
0.8667	0.4165	0	0	0
0.9	0.4566	0.0023	0	0.0023
0.9333	0.5034	0.0023	0.0034	0.0057
0.9667	0.5432	0.0023	0.0007	0.003
1	0.588	0.0023	0	0.0023
1.0333	0.638	0	0	0
1.0667	0.6827	0.0023	0.0007	0.003
1.1	0.7344	0.0023	0	0.0023
1.1333	0.7831	0.0023	0	0.0023
1.1667	0.8289	0	0	0
1.2	0.8799	0.0155	0.0007	0.0162
1.2333	0.9283	0.0023	0.0007	0.003
1.2667	0.975	0.0023	0	0.0023
1.3	1.0224	0	0.002	0.002
1.3333	1.0682	0	0.0007	0.0007
1.3667	1.1106	0	0.002	0.002
1.4	1.1557	0.0023	0	0.0023

Areva NP, Inc.

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
1.4333	1.2001	0	0	0
1.4667	1.2423	0.0023	0.0007	0.003
1.5	1.2831	0	0	0
1.5333	1.3272	0.0023	0.002	0.0044
1.5667	1.368	0.0023	0	0.0023
1.6	1.4098	0	0	0
1.6333	1.4493	0.0023	0	0.0023
1.6667	1.4888	0	0	0
1.7	1.5253	0.0023	0	0.0023
1.7333	1.5671	0.0023	0	0.0023
1.7667	1.6053	0.0023	0	0.0023
1.8	1.6415	0	0.0007	0.0007
1.8333	1.6675	0	0	0
1.8667	1.6764	0	0.002	0.002
1.9	1.6846	0	0.0007	0.0007
1.9333	1.6833	0	0	0
1.9667	1.6738	0	0.0007	0.0007
2	1.6665	0.0023	0.0007	0.003
2.0333	1.657	0	0	0
2.0667	1.6491	0	0	0
2.1	1.6415	0.0023	0.0007	0.003
2.1333	1.6326	0.0155	0.0007	0.0162
2.1667	1.627	0	0	0
2.2	1.6185	0.0023	0	0.0023
2.2333	1.6126	0	0.0007	0.0007
2.2667	1.6089	0	0.002	0.002
2.3	1.6066	0.0023	0	0.0023
2.3333	1.6076	0.0023	0	0.0023
2.3667	1.6135	0	0.002	0.002
2.4	1.6168	0	0.0007	0.0007
2.4333	1.6178	0.0023	0	0.0023
2.4667	1.6214	0.0023	0.0007	0.003
2.5	1.627	0	0	0
2.5333	1.6313	0	0.0007	0.0007
2.5667	1.6349	0.0023	0	0.0023
2.6	1.6418	0	0.0007	0.0007
2.6333	1.6428	0	0.0007	0.0007
2.6667	1.6481	0.0023	0	0.0023
2.7	1.652	0.0023	0	0.0023
2.7333	1.652	0.0023	0	0.0023
2.7667	1.6613	0.0023	0.0007	0.003
2.8	1.6626	0	0.0007	0.0007
2.8333	1.6692	0.0023	0.0007	0.003

Areva NP, Inc.

Project No. G101276459SAT-015

December 17, 2013

Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
2.8667	1.6695	0.0023	0.0007	0.003
2.9	1.6692	0	0	0
2.9333	1.6665	0	0.0007	0.0007
2.9667	1.6622	0.0023	0.0007	0.003
3	1.6596	0.0023	0	0.0023
3.0333	1.6609	0	0.0007	0.0007
3.0667	1.6593	0.0286	0	0.0286
3.1	1.6563	0	0	0
3.1333	1.657	0.0023	0	0.0023
3.1667	1.6563	0.0023	0	0.0023
3.2	1.6511	0	0.0007	0.0007
3.2333	1.6517	0.0155	0	0.0155
3.2667	1.6491	0.0023	0	0.0023
3.3	1.6491	0.0023	0	0.0023
3.3333	1.6471	0.0023	0	0.0023
3.3667	1.6461	0.0023	0.0007	0.003
3.4	1.6471	0.0155	0.0007	0.0162
3.4333	1.6455	0	0.0007	0.0007
3.4667	1.6451	0.0023	0	0.0023
3.5	1.6422	0	0.0007	0.0007
3.5333	1.6428	0.0023	0	0.0023
3.5667	1.6422	0	0.0007	0.0007
3.6	1.6405	0	0.0007	0.0007
3.6333	1.6409	0.0023	0	0.0023
3.6667	1.6399	0.0023	0.0007	0.003
3.7	1.6366	0	0.0007	0.0007
3.7333	1.6359	0.0023	0	0.0023
3.7667	1.6389	0	0	0
3.8	1.6359	0.0023	0	0.0023
3.8333	1.6359	0.0023	0	0.0023
3.8667	1.6386	0	0	0
3.9	1.6356	0.0023	0	0.0023
3.9333	1.6376	0.0023	0	0.0023
3.9667	1.6382	0.0155	0.0007	0.0162
4	1.6359	0.0023	0	0.0023
4.0333	1.6369	0.0023	0	0.0023
4.0667	1.6339	0.0023	0	0.0023
4.1	1.6353	0.0023	0	0.0023
4.1333	1.6372	0	0	0
4.1667	1.6336	0	0	0
4.2	1.6369	0	0.0007	0.0007
4.2333	1.6346	0	0.002	0.002
4.2667	1.6362	0.0023	0	0.0023

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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	1.632	0.0023	0.0007	0.003
4.3333	1.6346	0	0.0007	0.0007
4.3667	1.6323	0.0023	0.0007	0.003
4.4	1.6346	0.0023	0	0.0023
4.4333	1.6313	0	0	0
4.4667	1.6353	0	0.0007	0.0007
4.5	1.6323	0	0.0007	0.0007
4.5333	1.6316	0.0023	0.0007	0.003
4.5667	1.6339	0.0155	0	0.0155
4.6	1.6336	0.0023	0	0.0023
4.6333	1.6326	0.0023	0.0007	0.003
4.6667	1.6346	0	0	0
4.7	1.6359	0	0	0
4.7333	1.6346	0.0023	0	0.0023
4.7667	1.633	0	0.0007	0.0007
4.8	1.6339	0.0023	0	0.0023
4.8333	1.631	0.0023	0.0007	0.003
4.8667	1.6343	0.0023	0	0.0023
4.9	1.6316	0.0023	0	0.0023
4.9333	1.628	0	0	0
4.9667	1.6297	0	0	0
5	1.6287	0.0023	0.0007	0.003
5.0333	1.6307	0.0155	0	0.0155
5.0667	1.6283	0	0	0
5.1	1.626	0.0023	0	0.0023
5.1333	1.6257	0	0	0
5.1667	1.6257	0.0023	0.0007	0.003
5.2	1.6237	0.0023	0.0007	0.003
5.2333	1.6244	0.0023	0	0.0023
5.2667	1.6234	0.0023	0	0.0023
5.3	1.6214	0	0	0
5.3333	1.6247	0	0.0007	0.0007
5.3667	1.6244	0.0023	0	0.0023
5.4	1.6224	0.0023	0	0.0023
5.4333	1.6191	0	0	0
5.4667	1.6195	0.0023	0	0.0023
5.5	1.6181	0	0	0
5.5333	1.6172	0	0	0
5.5667	1.6175	0.0023	0	0.0023
5.6	1.6155	0	0	0
5.6333	1.6158	0.0023	0	0.0023
5.6667	1.6175	0.0023	0	0.0023
5.7	1.6149	0.0023	0	0.0023



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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	1.6132	0.0023	0	0.0023
5.7667	1.6175	0.0023	0	0.0023
5.8	1.6126	0.0023	0	0.0023
5.8333	1.6149	0.0023	0	0.0023
5.8667	1.6135	0	0	0
5.9	1.6135	0	0	0
5.9333	1.6096	0.0023	0	0.0023
5.9667	1.6112	0	0	0
6	1.6132	0	0	0
6.0333	1.6129	0.0023	0	0.0023
6.0667	1.6112	0	0	0
6.1	1.6116	0	0.002	0.002
6.1333	1.6135	0	0.0007	0.0007
6.1667	1.6066	0	0	0
6.2	1.6129	0.0023	0	0.0023
6.2333	1.6122	0.0023	0.0007	0.003
6.2667	1.6102	0.0023	0.0007	0.003
6.3	1.6053	0.0023	0.002	0.0044
6.3333	1.6073	0	0	0
6.3667	1.6073	0.0023	0.0007	0.003
6.4	1.6066	0.0023	0	0.0023
6.4333	1.6086	0.0023	0	0.0023
6.4667	1.6135	0.0023	0	0.0023
6.5	1.6145	0	0.002	0.002
6.5333	1.6162	0	0.002	0.002
6.5667	1.6185	0.0155	0	0.0155
6.6	1.6228	0	0.0007	0.0007
6.6333	1.6251	0.0155	0	0.0155
6.6667	1.627	0.0023	0.0007	0.003
6.7	1.6287	0.0023	0.0007	0.003
6.7333	1.6326	0.0155	0.0007	0.0162
6.7667	1.6293	0	0	0
6.8	1.6369	0.0023	0	0.0023
6.8333	1.6395	0.0023	0	0.0023
6.8667	1.6382	0.0155	0	0.0155
6.9	1.6369	0.0023	0.0007	0.003
6.9333	1.6412	0.0023	0.0007	0.003
6.9667	1.6395	0.0023	0	0.0023
7	1.6224	0.0155	0	0.0155
7.0333	1.5684	0.0023	0	0.0023
7.0667	1.5187	0.0023	0.0007	0.003
7.1	1.4664	0	0.0007	0.0007
7.1333	1.4187	0.0023	0.0007	0.003

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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	1.3696	0.0023	0.0007	0.003
7.2	1.3219	0.0023	0.0007	0.003
7.2333	1.2765	0.0023	0	0.0023
7.2667	1.2347	0.0023	0.0007	0.003
7.3	1.1946	0.0023	0	0.0023
7.3333	1.1514	0.0023	0.0007	0.003
7.3667	1.1116	0	0.0007	0.0007
7.4	1.0767	0.0155	0.0007	0.0162
7.4333	1.0395	0.0023	0	0.0023
7.4667	1.0027	0.0023	0	0.0023
7.5	0.9707	0	0.0007	0.0007
7.5333	0.9345	0	0.0007	0.0007
7.5667	0.9029	0.0023	0	0.0023
7.6	0.873	0	0	0
7.6333	0.842	0	0.0007	0.0007
7.6667	0.8134	0.0023	0.0007	0.003
7.7	0.7821	0	0	0
7.7333	0.7594	0.0023	0	0.0023
7.7667	0.7311	0	0.0007	0.0007
7.8	0.7035	0.0023	0.0007	0.003
7.8333	0.6788	0.0023	0.002	0.0044
7.8667	0.6531	0.0023	0.0007	0.003
7.9	0.6314	0.0023	0	0.0023
7.9333	0.6034	0.0023	0.0007	0.003
7.9667	0.5814	0	0	0
8	0.5603	0.0023	0.0007	0.003
8.0333	0.5412	0.0023	0	0.0023
8.0667	0.5215	0.0023	0	0.0023
8.1	0.4951	0.0023	0	0.0023
8.1333	0.4797	0.0023	0	0.0023
8.1667	0.4583	0.0023	0	0.0023
8.2	0.4372	0.0023	0	0.0023
8.2333	0.4221	0.0023	0.0007	0.003
8.2667	0.405	0.0286	0	0.0286
8.3	0.3888	0	0.0007	0.0007
8.3333	0.3694	0.0155	0.0007	0.0162
8.3667	0.35	0.0023	0	0.0023
8.4	0.3365	0	0.0007	0.0007
8.4333	0.322	0	0.0007	0.0007
8.4667	0.3069	0.0023	0.0007	0.003
8.5	0.2894	0.0023	0.0007	0.003
8.5333	0.2763	0.0023	0	0.0023
8.5667	0.2661	0.0023	0.0007	0.003

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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	0.2486	0.0023	0.0007	0.003
8.6333	0.2381	0	0	0
8.6667	0.2216	0.0023	0	0.0023
8.7	0.2114	0.0023	0.0007	0.003
8.7333	0.1999	0.0023	0	0.0023
8.7667	0.191	0.0023	0	0.0023
8.8	0.1798	0.0023	0.0007	0.003
8.8333	0.168	0.0023	0	0.0023
8.8667	0.1545	0.0023	0.0007	0.003
8.9	0.1459	0.0023	0.0007	0.003
8.9333	0.1397	0	0.0007	0.0007
8.9667	0.1301	0.0023	0	0.0023
9	0.118	0.0023	0.0007	0.003
9.0333	0.1143	0.0155	0.0007	0.0162
9.0667	0.1048	0	0	0
9.1	0.0943	0.0023	0	0.0023
9.1333	0.0877	0.0023	0.002	0.0044
9.1667	0.0811	0.0023	0.002	0.0044
9.2	0.0771	0.0023	0	0.0023
9.2333	0.0699	0	0	0
9.2667	0.064	0.0155	0.002	0.0175
9.3	0.0581	0.0023	0.0007	0.003
9.3333	0.0505	0.0023	0.0007	0.003
9.3667	0.0459	0.0023	0.0007	0.003
9.4	0.0383	0	0	0
9.4333	0.0353	0	0	0
9.4667	0.0304	0	0.0007	0.0007
9.5	0.0258	0	0.0007	0.0007
9.5333	0.0228	0.0023	0	0.0023
9.5667	0.0182	0.0023	0	0.0023
9.6	0.0179	0.0155	0.0007	0.0162
9.6333	0.0126	0.0155	0.0007	0.0162
9.6667	0.0064	0	0.002	0.002
9.7	0.0064	0	0.0007	0.0007
9.7333	0.0031	0	0	0
9.7667	0.0031	0	0.002	0.002
9.8	0.0021	0.0023	0	0.0023
9.8333	-0.0035	0.0023	0.0007	0.003
9.8667	-0.0065	0.0023	0.0007	0.003
9.9	-0.0055	0	0.0007	0.0007
9.9333	-0.0055	0.0023	0.0007	0.003
9.9667	-0.0101	0.0023	0.0007	0.003
10	-0.0097	0	0.0007	0.0007

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10.0333	-0.0134	0.0023	0	0.0023
10.0667	-0.0144	0	0.0007	0.0007
10.1	-0.017	0.0023	0.002	0.0044
10.1333	-0.016	0	0	0
10.1667	-0.0173	0	0.0007	0.0007
10.2	-0.0173	0.0023	0	0.0023
10.2333	-0.017	0.0023	0.0007	0.003
10.2667	-0.017	0	0.0007	0.0007
10.3	-0.02	0.0155	0.002	0.0175
10.3333	-0.0213	0.0023	0	0.0023
10.3667	-0.018	0.0023	0.0007	0.003
10.4	-0.02	0.0023	0	0.0023
10.4333	-0.0226	0.0023	0.0007	0.003
10.4667	-0.019	0.0023	0.0007	0.003
10.5	-0.0203	0.0023	0.002	0.0044
10.5333	-0.0209	0.0023	0	0.0023
10.5667	-0.0226	0	0	0
10.6	-0.0203	0	0	0
10.6333	-0.0229	0	0.0007	0.0007
10.6667	-0.0236	0.0155	0.0007	0.0162
10.7	-0.0232	0.0023	0.0007	0.003
10.7333	-0.0216	0	0	0
10.7667	-0.0239	0	0.0007	0.0007
10.8	-0.0255	0.0023	0	0.0023
10.8333	-0.0249	0	0.0007	0.0007
10.8667	-0.0295	0.0155	0.002	0.0175
10.9	-0.0259	0.0023	0.0007	0.003
10.9333	-0.0048	0.0155	0	0.0155
10.9667	-0.0279	0	0.0007	0.0007
11	-0.0255	0.0023	0.0007	0.003
11.0333	-0.0265	0.0023	0.002	0.0044
11.0667	-0.0252	0	0.0007	0.0007
11.1	-0.0226	0.0023	0	0.0023
11.1333	-0.0262	0	0	0
11.1667	-0.0275	0	0	0
11.2	-0.0262	0.0023	0	0.0023
11.2333	-0.0269	0	0.0007	0.0007
11.2667	-0.0229	0.0023	0.0007	0.003
11.3	-0.0249	0.0023	0.0007	0.003
11.3333	-0.0358	0.0023	0	0.0023
11.3667	-0.0364	0.0023	0	0.0023
11.4	-0.0351	0	0	0
11.4333	-0.0367	0	0.0007	0.0007

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11.4667	-0.0348	0.0155	0.0007	0.0162
11.5	-0.0048	0	0.0007	0.0007
11.5333	0.0413	0	0	0
11.5667	0.0831	0	0.0007	0.0007
11.6	0.1239	0	0.0007	0.0007
11.6333	0.164	0.0023	0.002	0.0044
11.6667	0.2068	0.0155	0	0.0155
11.7	0.2483	0.0023	0.0007	0.003
11.7333	0.2855	0	0	0
11.7667	0.3233	0.0023	0	0.0023
11.8	0.3589	0	0.0007	0.0007
11.8333	0.3941	0	0.002	0.002
11.8667	0.4287	0.0023	0.0007	0.003
11.9	0.4609	0.0023	0	0.0023
11.9333	0.4925	0	0.002	0.002
11.9667	0.5261	0	0.0007	0.0007
12	0.5613	0.0023	0	0.0023
12.0333	0.5876	0.0023	0.002	0.0044
12.0667	0.6192	0.0023	0	0.0023
12.1	0.6505	0	0.0007	0.0007
12.1333	0.6745	0	0.0007	0.0007
12.1667	0.7061	0	0	0
12.2	0.7334	0.0023	0.0007	0.003
12.2333	0.7575	0.0023	0	0.0023
12.2667	0.7854	0.0023	0.0007	0.003
12.3	0.8075	0.0155	0.0007	0.0162
12.3333	0.8302	0	0.0007	0.0007
12.3667	0.8555	0.0023	0	0.0023
12.4	0.8806	0.0155	0.0007	0.0162
12.4333	0.9052	0.0023	0	0.0023
12.4667	0.9299	0.0023	0.0007	0.003
12.5	0.9503	0	0.0007	0.0007
12.5333	0.9724	0	0	0
12.5667	0.9948	0	0.0007	0.0007
12.6	1.0122	0.0023	0.0007	0.003
12.6333	1.0353	0.0155	0.0007	0.0162
12.6667	1.058	0	0	0
12.7	1.0764	0.0023	0.0007	0.003
12.7333	1.0975	0.0155	0.002	0.0175
12.7667	1.1113	0.0023	0.0007	0.003
12.8	1.1346	0.0155	0	0.0155
12.8333	1.1511	0.0023	0.002	0.0044
12.8667	1.1715	0.0155	0.0007	0.0162

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12.9	1.1863	0	0	0
12.9333	1.2064	0.0023	0	0.0023
12.9667	1.2192	0.0155	0	0.0155
13	1.2377	0.0155	0.002	0.0175
13.0333	1.2551	0.0155	0.0007	0.0162
13.0667	1.2706	0.0023	0	0.0023
13.1	1.2857	0.0023	0	0.0023
13.1333	1.2989	0	0.0007	0.0007
13.1667	1.3167	0	0	0
13.2	1.3265	0	0.0007	0.0007
13.2333	1.3446	0	0.0007	0.0007
13.2667	1.3555	0	0.0007	0.0007
13.3	1.3677	0	0.0007	0.0007
13.3333	1.3838	0.0023	0	0.0023
13.3667	1.396	0.0023	0.0007	0.003
13.4	1.4085	0.0155	0.002	0.0175
13.4333	1.4203	0.0155	0	0.0155
13.4667	1.4335	0.0023	0.0007	0.003
13.5	1.4411	0.0023	0	0.0023
13.5333	1.4546	0	0.0007	0.0007
13.5667	1.4648	0.0023	0	0.0023
13.6	1.4743	0.0023	0.0007	0.003
13.6333	1.4855	0.0023	0.002	0.0044
13.6667	1.4927	0.0023	0.0034	0.0057
13.7	1.5013	0.0023	0	0.0023
13.7333	1.5108	0.0023	0.0007	0.003
13.7667	1.5171	0.0023	0.0007	0.003
13.8	1.528	0.0023	0.002	0.0044
13.8333	1.5352	0	0	0
13.8667	1.5438	0.0023	0.0007	0.003
13.9	1.5523	0.0023	0	0.0023
13.9333	1.5589	0	0.0007	0.0007
13.9667	1.5652	0	0	0
14	1.574	0.0023	0	0.0023
14.0333	1.5833	0	0	0
14.0667	1.5931	0.0155	0.0007	0.0162
14.1	1.5997	0.0023	0	0.0023
14.1333	1.6076	0.0023	0.0007	0.003
14.1667	1.6162	0.0023	0	0.0023
14.2	1.6244	0.0023	0.002	0.0044
14.2333	1.6214	0.0023	0.0007	0.003
14.2667	1.6139	0	0.002	0.002
14.3	1.6152	0.0023	0.0007	0.003



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14.3333	1.6073	0.0023	0.002	0.0044
14.3667	1.6037	0	0.002	0.002
14.4	1.602	0.0023	0.002	0.0044
14.4333	1.5997	0.0155	0.0007	0.0162
14.4667	1.5938	0.0023	0	0.0023
14.5	1.5938	0	0.0007	0.0007
14.5333	1.5908	0.0155	0	0.0155
14.5667	1.5889	0.0023	0.0007	0.003
14.6	1.5849	0.0023	0	0.0023
14.6333	1.5823	0.0023	0.0007	0.003
14.6667	1.5849	0.0155	0.0007	0.0162
14.7	1.5786	0.0023	0.002	0.0044
14.7333	1.5813	0.0023	0	0.0023
14.7667	1.5767	0	0	0
14.8	1.5767	0	0	0
14.8333	1.5757	0.0155	0	0.0155
14.8667	1.5727	0.0023	0	0.0023
14.9	1.5727	0.0155	0.0007	0.0162
14.9333	1.5701	0	0.0007	0.0007
14.9667	1.5714	0	0	0
15	1.576	0	0	0
15.0333	1.5856	0	0	0
15.0667	1.5974	0	0	0
15.1	1.605	0.0023	0.0007	0.003
15.1333	1.6132	0.0023	0	0.0023
15.1667	1.6178	0.0286	0	0.0286
15.2	1.6283	0.0023	0.0007	0.003
15.2333	1.632	0.0023	0.0007	0.003
15.2667	1.6409	0	0.0007	0.0007
15.3	1.6465	0.0023	0	0.0023
15.3333	1.652	0.0023	0	0.0023
15.3667	1.6511	0.0023	0	0.0023
15.4	1.6514	0.0023	0	0.0023
15.4333	1.655	0.0023	0	0.0023
15.4667	1.654	0.0023	0.0007	0.003
15.5	1.6576	0.0023	0	0.0023
15.5333	1.6576	0.0023	0	0.0023
15.5667	1.6583	0	0	0
15.6	1.6599	0.0155	0.0007	0.0162
15.6333	1.6632	0.0023	0.002	0.0044
15.6667	1.6646	0.0155	0	0.0155
15.7	1.6675	0.0155	0.0007	0.0162
15.7333	1.6655	0.0023	0.0007	0.003



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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	1.6672	0.0023	0	0.0023
15.8	1.6688	0.0023	0	0.0023
15.8333	1.6688	0	0	0
15.8667	1.6646	0.0023	0.0007	0.003
15.9	1.6646	0.0155	0.0007	0.0162
15.9333	1.6662	0.0023	0	0.0023
15.9667	1.6613	0	0.0007	0.0007
16	1.6613	0	0	0
16.0333	1.6593	0.0023	0.0007	0.003
16.0667	1.6609	0.0155	0.0007	0.0162
16.1	1.6596	0	0.0007	0.0007
16.1333	1.6576	0	0	0
16.1667	1.6576	0.0155	0	0.0155
16.2	1.6573	0.0023	0.002	0.0044
16.2333	1.652	0	0.002	0.002
16.2667	1.6527	0.0023	0.002	0.0044
16.3	1.6537	0.0023	0	0.0023
16.3333	1.6491	0	0.0007	0.0007
16.3667	1.6527	0.0155	0	0.0155
16.4	1.6504	0	0	0
16.4333	1.6497	0.0023	0.0007	0.003
16.4667	1.6471	0.0155	0.0007	0.0162
16.5	1.6491	0.0155	0	0.0155
16.5333	1.6448	0	0	0
16.5667	1.6451	0.0023	0.0007	0.003
16.6	1.6474	0	0.0007	0.0007
16.6333	1.6471	0	0	0
16.6667	1.6441	0	0.0007	0.0007
16.7	1.6455	0.0023	0.0007	0.003
16.7333	1.6451	0.0286	0.002	0.0307
16.7667	1.6432	0.0023	0.002	0.0044
16.8	1.6438	0	0	0
16.8333	1.6432	0	0.0034	0.0034
16.8667	1.6418	0	0.0007	0.0007
16.9	1.6382	0	0	0
16.9333	1.6409	0	0	0
16.9667	1.6405	0.0023	0.0007	0.003
17	1.6392	0.0023	0.002	0.0044
17.0333	1.6366	0	0	0
17.0667	1.6379	0.0023	0	0.0023
17.1	1.6369	0	0.002	0.002
17.1333	1.6346	0.0023	0	0.0023
17.1667	1.6366	0	0.0007	0.0007

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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	1.6359	0	0.0007	0.0007
17.2333	1.6382	0.0023	0	0.0023
17.2667	1.6353	0.0155	0	0.0155
17.3	1.633	0.0155	0.002	0.0175
17.3333	1.6359	0	0.0007	0.0007
17.3667	1.6313	0.0023	0.0007	0.003
17.4	1.6323	0.0023	0.0007	0.003
17.4333	1.6336	0.0155	0.0007	0.0162
17.4667	1.6307	0.0155	0	0.0155
17.5	1.6316	0.0023	0.0007	0.003
17.5333	1.6293	0.0155	0.0007	0.0162
17.5667	1.6313	0	0.0007	0.0007
17.6	1.6316	0.0023	0	0.0023
17.6333	1.631	0.0023	0.002	0.0044
17.6667	1.628	0.0023	0	0.0023
17.7	1.6283	0.0023	0.002	0.0044
17.7333	1.6267	0.0155	0	0.0155
17.7667	1.6254	0.0023	0.0007	0.003
17.8	1.631	0.0023	0	0.0023
17.8333	1.626	0.0023	0	0.0023
17.8667	1.628	0	0	0
17.9	1.6234	0	0	0
17.9333	1.6254	0.0023	0.0007	0.003
17.9667	1.627	0.0155	0.0007	0.0162
18	1.6228	0	0	0
18.0333	1.6241	0.0023	0.0007	0.003
18.0667	1.6254	0.0023	0.002	0.0044
18.1	1.6237	0.0023	0	0.0023
18.1333	1.6204	0.0023	0	0.0023
18.1667	1.6214	0	0	0
18.2	1.6218	0.0155	0.0007	0.0162
18.2333	1.6231	0	0.0007	0.0007
18.2667	1.6201	0.0023	0	0.0023
18.3	1.6208	0	0.002	0.002
18.3333	1.6191	0.0023	0.0007	0.003
18.3667	1.6208	0	0	0
18.4	1.6224	0.0023	0	0.0023
18.4333	1.6191	0.0023	0	0.0023
18.4667	1.6178	0	0	0
18.5	1.6208	0.0023	0	0.0023
18.5333	1.6211	0.0023	0.0007	0.003
18.5667	1.6191	0.0023	0	0.0023
18.6	1.6188	0	0	0

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18.6333	1.6162	0.0023	0.0007	0.003
18.6667	1.6168	0.0155	0.0007	0.0162
18.7	1.6145	0.0023	0.0007	0.003
18.7333	1.6142	0.0023	0	0.0023
18.7667	1.6142	0	0	0
18.8	1.6149	0	0	0
18.8333	1.6162	0.0023	0	0.0023
18.8667	1.6126	0	0	0
18.9	1.6142	0.0155	0	0.0155
18.9333	1.6132	0.0023	0	0.0023
18.9667	1.6126	0	0.0007	0.0007
19	1.6149	0	0	0
19.0333	1.6135	0	0	0
19.0667	1.6112	0.0023	0.0007	0.003
19.1	1.6109	0.0023	0.0007	0.003
19.1333	1.6119	0.0155	0.0007	0.0162
19.1667	1.6102	0	0	0
19.2	1.6102	0.0023	0	0.0023
19.2333	1.6109	0.0155	0	0.0155
19.2667	1.6099	0	0	0
19.3	1.6089	0.0023	0	0.0023
19.3333	1.6096	0.0155	0.0007	0.0162
19.3667	1.6116	0	0	0
19.4	1.6076	0.0023	0	0.0023
19.4333	1.6096	0.0023	0.0007	0.003
19.4667	1.607	0.0023	0	0.0023
19.5	1.6089	0	0	0
19.5333	1.605	0.0155	0.002	0.0175
19.5667	1.6083	0.0023	0	0.0023
19.6	1.6083	0.0023	0	0.0023
19.6333	1.6056	0	0.0007	0.0007
19.6667	1.6073	0.0023	0.0007	0.003
19.7	1.607	0.0023	0.0007	0.003
19.7333	1.607	0	0.0007	0.0007
19.7667	1.606	0.0023	0.002	0.0044
19.8	1.6023	0	0.0007	0.0007
19.8333	1.6066	0.0023	0.0007	0.003
19.8667	1.6047	0.0023	0.0007	0.003
19.9	1.604	0.0023	0	0.0023
19.9333	1.604	0.0023	0.0007	0.003
19.9667	1.6043	0	0.0007	0.0007
20	1.602	0.0023	0.002	0.0044
20.0333	1.6023	0.0023	0.0007	0.003

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20.0667	1.6017	0.0023	0.0007	0.003
20.1	1.6004	0.0023	0.0007	0.003
20.1333	1.5994	0.0155	0	0.0155
20.1667	1.6017	0.0155	0	0.0155
20.2	1.5826	0.0023	0.0007	0.003
20.2333	1.5398	0.0023	0	0.0023
20.2667	1.4898	0	0.0007	0.0007
20.3	1.4444	0.0023	0	0.0023
20.3333	1.4022	0	0	0
20.3667	1.3581	0.0023	0	0.0023
20.4	1.3163	0.0155	0.0007	0.0162
20.4333	1.2752	0	0	0
20.4667	1.238	0.0023	0	0.0023
20.5	1.1995	0.0023	0.0007	0.003
20.5333	1.1606	0.0023	0	0.0023
20.5667	1.1258	0.0155	0.002	0.0175
20.6	1.0905	0.0023	0.0007	0.003
20.6333	1.0573	0.0023	0.0007	0.003
20.6667	1.0257	0	0.0007	0.0007
20.7	0.9925	0.0023	0	0.0023
20.7333	0.9651	0	0	0
20.7667	0.9312	0.0023	0	0.0023
20.8	0.9043	0	0.0007	0.0007
20.8333	0.8766	0.0023	0	0.0023
20.8667	0.846	0.0023	0.0007	0.003
20.9	0.8203	0	0	0
20.9333	0.7963	0	0.0007	0.0007
20.9667	0.771	0	0.0007	0.0007
21	0.7436	0.0155	0.0007	0.0162
21.0333	0.7229	0	0	0
21.0667	0.6933	0.0155	0.0007	0.0162
21.1	0.6765	0.0023	0.0007	0.003
21.1333	0.6518	0.0023	0	0.0023
21.1667	0.6294	0	0.0007	0.0007
21.2	0.6051	0	0	0
21.2333	0.5857	0	0.002	0.002
21.2667	0.5672	0.0023	0.0007	0.003
21.3	0.5465	0	0	0
21.3333	0.5228	0.0023	0.0007	0.003
21.3667	0.508	0.0023	0	0.0023
21.4	0.4869	0	0	0
21.4333	0.4691	0	0	0
21.4667	0.4514	0.0023	0	0.0023

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21.5	0.4382	0.0023	0.0007	0.003
21.5333	0.4194	0.0023	0.0007	0.003
21.5667	0.4	0	0.0007	0.0007
21.6	0.3859	0	0	0
21.6333	0.3684	0.0023	0.0007	0.003
21.6667	0.3553	0.0023	0.0007	0.003
21.7	0.3385	0	0.0007	0.0007
21.7333	0.3256	0	0.0007	0.0007
21.7667	0.3115	0	0.0007	0.0007
21.8	0.2983	0.0023	0	0.0023
21.8333	0.2825	0.0023	0	0.0023
21.8667	0.2713	0	0	0
21.9	0.2578	0.0155	0.0007	0.0162
21.9333	0.246	0.0155	0.0007	0.0162
21.9667	0.2341	0.0155	0	0.0155
22	0.2246	0.0023	0.0007	0.003
22.0333	0.2118	0	0.0007	0.0007
22.0667	0.1999	0	0.0007	0.0007
22.1	0.1907	0	0.0007	0.0007
22.1333	0.1802	0	0.0007	0.0007
22.1667	0.1723	0.0023	0	0.0023
22.2	0.1614	0.0023	0.0007	0.003
22.2333	0.1509	0.0155	0.0007	0.0162
22.2667	0.1443	0.0023	0.0007	0.003
22.3	0.1354	0.0023	0.0007	0.003
22.3333	0.1235	0	0	0
22.3667	0.1193	0.0155	0.0007	0.0162
22.4	0.1104	0.0023	0.0007	0.003
22.4333	0.1012	0	0	0
22.4667	0.0972	0.0023	0	0.0023
22.5	0.0906	0.0023	0	0.0023
22.5333	0.085	0	0.0007	0.0007
22.5667	0.0758	0	0.002	0.002
22.6	0.0702	0	0.0007	0.0007
22.6333	0.0636	0	0.002	0.002
22.6667	0.0581	0	0	0
22.7	0.0548	0	0.0007	0.0007
22.7333	0.0488	0	0	0
22.7667	0.0403	0.0023	0	0.0023
22.8	0.038	0.0023	0	0.0023
22.8333	0.0321	0.0023	0	0.0023
22.8667	0.0317	0.0023	0.0007	0.003
22.9	0.0297	0.0023	0.002	0.0044

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22.9333	0.0215	0.0023	0.0007	0.003
22.9667	0.0182	0.0023	0.002	0.0044
23	0.0179	0.0155	0.0007	0.0162
23.0333	0.013	0.0023	0	0.0023
23.0667	0.012	0.0023	0.002	0.0044
23.1	0.0057	0.0023	0.0007	0.003
23.1333	0.0067	0.0023	0	0.0023
23.1667	-0.0015	0.0155	0.0007	0.0162
23.2	0.0001	0.0023	0.0007	0.003
23.2333	-0.0038	0.0023	0	0.0023
23.2667	-0.0042	0.0023	0	0.0023
23.3	-0.0058	0	0	0
23.3333	-0.0081	0.0023	0	0.0023
23.3667	-0.0071	0.0023	0.0007	0.003
23.4	-0.0117	0.0155	0.0007	0.0162
23.4333	-0.0127	0	0	0
23.4667	-0.0111	0.0023	0.002	0.0044
23.5	-0.0124	0	0	0
23.5333	-0.0173	0	0.002	0.002
23.5667	-0.0173	0.0023	0.0007	0.003
23.6	-0.0157	0	0	0
23.6333	-0.0153	0.0023	0.0007	0.003
23.6667	-0.0163	0	0.0034	0.0034
23.7	-0.019	0.0023	0.0007	0.003
23.7333	-0.016	0.0023	0.0007	0.003
23.7667	-0.0183	0.0155	0.0007	0.0162
23.8	-0.0193	0	0.0007	0.0007
23.8333	-0.0223	0	0	0
23.8667	-0.0209	0.0155	0.0007	0.0162
23.9	-0.0226	0	0.0007	0.0007
23.9333	-0.0203	0.0023	0.0007	0.003
23.9667	-0.0242	0	0.002	0.002
24	-0.0216	0.0023	0.0007	0.003
24.0333	-0.016	0	0.0007	0.0007
24.0667	-0.0209	0	0.002	0.002
24.1	-0.019	0.0023	0.002	0.0044
24.1333	-0.0144	0	0.0007	0.0007
24.1667	-0.0147	0.0023	0	0.0023
24.2	-0.0147	0	0	0
24.2333	-0.0282	0.0023	0.0007	0.003
24.2667	-0.0242	0.0023	0	0.0023
24.3	-0.0236	0	0	0
24.3333	-0.0275	0.0023	0.002	0.0044



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24.3667	-0.0275	0.0023	0	0.0023
24.4	-0.0285	0	0.0007	0.0007
24.4333	-0.0295	0	0.0007	0.0007
24.4667	-0.0153	0.0023	0	0.0023
24.5	-0.0295	0	0.0007	0.0007
24.5333	-0.0305	0.0023	0	0.0023
24.5667	-0.0305	0	0.002	0.002
24.6	-0.0321	0	0	0
24.6333	-0.0203	0	0	0
24.6667	0.0169	0.0023	0.0007	0.003
24.7	0.0594	0	0.0007	0.0007
24.7333	0.0956	0.0023	0.002	0.0044
24.7667	0.1344	0.0023	0.0034	0.0057
24.8	0.1729	0.0023	0.002	0.0044
24.8333	0.2085	0.0023	0	0.0023
24.8667	0.2391	0	0	0
24.9	0.2766	0.0155	0	0.0155
24.9333	0.3062	0	0.0007	0.0007
24.9667	0.3421	0	0.0007	0.0007
25	0.3734	0.0023	0.0007	0.003
25.0333	0.4063	0.0023	0.0007	0.003
25.0667	0.4346	0.0023	0.0007	0.003
25.1	0.4612	0.0155	0.0007	0.0162
25.1333	0.4879	0.0023	0.002	0.0044
25.1667	0.5179	0	0	0
25.2	0.5462	0.0023	0.0007	0.003
25.2333	0.5712	0.0023	0.002	0.0044
25.2667	0.5968	0.0155	0	0.0155
25.3	0.6222	0.0023	0.0007	0.003
25.3333	0.6439	0.0023	0.0007	0.003
25.3667	0.6679	0.0023	0.0007	0.003
25.4	0.6903	0.0023	0.0007	0.003
25.4333	0.713	0	0	0
25.4667	0.7348	0.0023	0.0007	0.003
25.5	0.7568	0.0155	0.002	0.0175
25.5333	0.7798	0.0023	0	0.0023
25.5667	0.8026	0	0.0007	0.0007
25.6	0.8223	0.0023	0.0007	0.003
25.6333	0.8447	0.0023	0	0.0023
25.6667	0.8615	0.0023	0.002	0.0044
25.7	0.8799	0.0023	0	0.0023
25.7333	0.899	0.0023	0.0007	0.003
25.7667	0.9177	0	0	0

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25.8	0.9332	0.0023	0.0007	0.003
25.8333	0.9507	0.0023	0.002	0.0044
25.8667	0.9694	0	0.0007	0.0007
25.9	0.9842	0.0155	0.0007	0.0162
25.9333	1.0017	0.0023	0	0.0023
25.9667	1.0201	0.0155	0	0.0155
26	1.0326	0	0	0
26.0333	1.051	0.0023	0.0007	0.003
26.0667	1.0678	0	0	0
26.1	1.08	0	0.0007	0.0007
26.1333	1.0922	0	0.002	0.002
26.1667	1.1073	0.0023	0.0007	0.003
26.2	1.1195	0	0.0007	0.0007
26.2333	1.1317	0	0	0
26.2667	1.1485	0.0023	0	0.0023
26.3	1.1606	0	0	0
26.3333	1.1718	0.0023	0	0.0023
26.3667	1.184	0.0155	0.0007	0.0162
26.4	1.1962	0.0023	0.0007	0.003
26.4333	1.2061	0.0023	0	0.0023
26.4667	1.2189	0.0023	0	0.0023
26.5	1.2271	0	0.0007	0.0007
26.5333	1.2383	0.0023	0	0.0023
26.5667	1.2482	0	0.002	0.002
26.6	1.2554	0	0.0007	0.0007
26.6333	1.2663	0	0	0
26.6667	1.2749	0.0023	0	0.0023
26.7	1.2811	0	0.002	0.002
26.7333	1.29	0.0155	0	0.0155
26.7667	1.2999	0.0023	0.002	0.0044
26.8	1.3101	0.0155	0	0.0155
26.8333	1.3183	0.0023	0	0.0023
26.8667	1.3226	0	0.002	0.002
26.9	1.3328	0	0.0007	0.0007
26.9333	1.3371	0	0	0
26.9667	1.3453	0	0	0
27	1.3492	0.0023	0	0.0023
27.0333	1.3562	0.0023	0.0007	0.003
27.0667	1.3647	0.0023	0.0034	0.0057
27.1	1.3687	0.0023	0	0.0023
27.1333	1.3743	0.0023	0.002	0.0044
27.1667	1.3759	0.0155	0.0007	0.0162
27.2	1.3871	0.0023	0	0.0023



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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	1.3887	0	0	0
27.2667	1.395	0.0023	0	0.0023
27.3	1.3989	0.0023	0	0.0023
27.3333	1.4049	0.0023	0	0.0023
27.3667	1.4059	0.0023	0.0007	0.003
27.4	1.4111	0	0	0
27.4333	1.4184	0.0023	0	0.0023
27.4667	1.4174	0.0023	0	0.0023
27.5	1.4246	0.0023	0	0.0023
27.5333	1.4256	0.0155	0.0007	0.0162
27.5667	1.4276	0	0	0
27.6	1.4305	0.0286	0.0007	0.0293
27.6333	1.4335	0.0023	0	0.0023
27.6667	1.4361	0.0023	0.0007	0.003
27.7	1.4375	0	0.0007	0.0007
27.7333	1.4427	0.0023	0.0007	0.003
27.7667	1.4424	0.0023	0.0007	0.003
27.8	1.4509	0.0023	0.0007	0.003
27.8333	1.4621	0.0023	0.0007	0.003
27.8667	1.4717	0.0155	0.0007	0.0162
27.9	1.4835	0	0	0
27.9333	1.499	0	0.0007	0.0007
27.9667	1.5046	0	0.0007	0.0007
28	1.5178	0.0023	0.0007	0.003
28.0333	1.5273	0	0.0007	0.0007
28.0667	1.5398	0.0023	0	0.0023
28.1	1.5487	0.0155	0	0.0155
28.1333	1.5566	0	0	0
28.1667	1.5645	0	0.0007	0.0007
28.2	1.5724	0	0	0
28.2333	1.5767	0.0155	0.0007	0.0162
28.2667	1.5872	0.0023	0	0.0023
28.3	1.5931	0.0023	0.0007	0.003
28.3333	1.5974	0	0.0007	0.0007
28.3667	1.6063	0.0023	0.0007	0.003
28.4	1.6162	0.0286	0.0007	0.0293
28.4333	1.6231	0.0023	0.0007	0.003
28.4667	1.626	0.0023	0.0007	0.003
28.5	1.626	0.0023	0.0007	0.003
28.5333	1.6241	0.0023	0.0007	0.003
28.5667	1.6195	0.0155	0	0.0155
28.6	1.6162	0.0023	0	0.0023
28.6333	1.6165	0.0023	0.0007	0.003

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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	1.6102	0	0.0007	0.0007
28.7	1.6096	0.0023	0	0.0023
28.7333	1.607	0.0023	0.0007	0.003
28.7667	1.606	0.0023	0.0007	0.003
28.8	1.605	0.0023	0	0.0023
28.8333	1.601	0	0.0007	0.0007
28.8667	1.5977	0.0023	0.0007	0.003
28.9	1.5968	0	0.002	0.002
28.9333	1.5938	0	0	0
28.9667	1.5935	0	0	0
29	1.5921	0	0.002	0.002
29.0333	1.5879	0.0023	0	0.0023
29.0667	1.5879	0	0.0007	0.0007
29.1	1.5842	0.0023	0.002	0.0044
29.1333	1.5859	0.0023	0.0007	0.003
29.1667	1.5859	0	0.0007	0.0007
29.2	1.581	0.0155	0	0.0155
29.2333	1.581	0	0.0007	0.0007
29.2667	1.5793	0.0155	0	0.0155
29.3	1.5773	0	0	0
29.3333	1.58	0.0023	0.002	0.0044
29.3667	1.5786	0.0023	0	0.0023
29.4	1.5777	0	0.002	0.002
29.4333	1.5806	0	0	0
29.4667	1.58	0	0.002	0.002
29.5	1.5806	0.0155	0	0.0155
29.5333	1.5826	0.0155	0	0.0155
29.5667	1.5859	0.0023	0.0007	0.003
29.6	1.5954	0.0023	0.0007	0.003
29.6333	1.6027	0.0155	0	0.0155
29.6667	1.6102	0.0023	0.002	0.0044
29.7	1.6188	0.0023	0.0007	0.003
29.7333	1.6264	0.0023	0	0.0023
29.7667	1.6316	0.0023	0.002	0.0044
29.8	1.6409	0.0023	0	0.0023
29.8333	1.6458	0.0023	0	0.0023
29.8667	1.6547	0.0023	0.002	0.0044
29.9	1.657	0	0.0007	0.0007
29.9333	1.6649	0	0.0007	0.0007
29.9667	1.6715	0.0023	0.0007	0.003
30	1.6748	0	0	0
30.0333	1.6794	0.0023	0	0.0023
30.0667	1.6761	0.0023	0	0.0023

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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	1.6718	0.0155	0.0007	0.0162
30.1333	1.6741	0.0023	0	0.0023
30.1667	1.6705	0.0023	0.0007	0.003
30.2	1.6701	0.0023	0.0007	0.003
30.2333	1.6662	0.0023	0	0.0023
30.2667	1.6685	0.0023	0.002	0.0044
30.3	1.6662	0.0023	0.002	0.0044
30.3333	1.6672	0.0023	0.0007	0.003
30.3667	1.6613	0	0	0
30.4	1.6636	0	0.002	0.002
30.4333	1.6606	0.0023	0.0007	0.003
30.4667	1.6603	0.0023	0	0.0023
30.5	1.6609	0.0023	0.0007	0.003
30.5333	1.659	0.0023	0.0007	0.003
30.5667	1.658	0	0	0
30.6	1.6547	0.0023	0	0.0023
30.6333	1.6537	0.0023	0.0007	0.003
30.6667	1.656	0.0155	0.0007	0.0162
30.7	1.6511	0.0023	0.0007	0.003
30.7333	1.6534	0.0023	0.002	0.0044
30.7667	1.6501	0.0155	0.002	0.0175
30.8	1.6491	0	0.0007	0.0007
30.8333	1.6504	0.0023	0.0007	0.003
30.8667	1.6468	0	0.0007	0.0007
30.9	1.6468	0	0.0007	0.0007
30.9333	1.6478	0.0023	0.0007	0.003
30.9667	1.6458	0.0023	0.002	0.0044
31	1.6465	0.0023	0	0.0023
31.0333	1.6451	0.0023	0	0.0023
31.0667	1.6418	0	0.002	0.002
31.1	1.6422	0.0023	0	0.0023
31.1333	1.6405	0.0023	0	0.0023
31.1667	1.6392	0.0023	0.002	0.0044
31.2	1.6399	0.0023	0	0.0023
31.2333	1.6376	0.0023	0	0.0023
31.2667	1.6399	0.0023	0.002	0.0044
31.3	1.6372	0	0	0
31.3333	1.6386	0.0023	0	0.0023
31.3667	1.6379	0.0023	0.0007	0.003
31.4	1.6349	0.0023	0.0007	0.003
31.4333	1.6349	0	0.0007	0.0007
31.4667	1.6339	0.0023	0.002	0.0044
31.5	1.6339	0.0023	0.0007	0.003

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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	1.6336	0	0	0
31.5667	1.633	0.0155	0	0.0155
31.6	1.6359	0.0023	0.0007	0.003
31.6333	1.6303	0	0	0
31.6667	1.6326	0.0023	0.0007	0.003
31.7	1.631	0.0023	0.002	0.0044
31.7333	1.631	0.0023	0.0007	0.003
31.7667	1.6274	0.0023	0	0.0023
31.8	1.6264	0.0286	0.0007	0.0293
31.8333	1.6307	0.0155	0	0.0155
31.8667	1.6264	0.0286	0.0007	0.0293
31.9	1.6251	0.0023	0	0.0023
31.9333	1.6257	0	0.0007	0.0007
31.9667	1.6267	0.0023	0.0007	0.003
32	1.6237	0.0023	0	0.0023
32.0333	1.6247	0	0	0
32.0667	1.6234	0.0023	0	0.0023
32.1	1.6221	0	0.0007	0.0007
32.1333	1.6241	0.0023	0.002	0.0044
32.1667	1.6241	0	0	0
32.2	1.6218	0	0.0007	0.0007
32.2333	1.6237	0.0023	0	0.0023
32.2667	1.6237	0	0.0007	0.0007
32.3	1.6214	0	0	0
32.3333	1.6221	0	0.0007	0.0007
32.3667	1.6178	0.0155	0	0.0155
32.4	1.6201	0.0023	0.0007	0.003
32.4333	1.6188	0	0	0
32.4667	1.6188	0.0023	0.0007	0.003
32.5	1.6165	0.0023	0.0007	0.003
32.5333	1.6208	0.0023	0.0007	0.003
32.5667	1.6181	0.0023	0.0007	0.003
32.6	1.6165	0.0023	0	0.0023
32.6333	1.6135	0.0023	0	0.0023
32.6667	1.6181	0.0023	0	0.0023
32.7	1.6135	0.0023	0.002	0.0044
32.7333	1.6129	0	0	0
32.7667	1.6152	0.0023	0.0007	0.003
32.8	1.6139	0.0155	0.002	0.0175
32.8333	1.6145	0.0023	0	0.0023
32.8667	1.6142	0.0023	0.0007	0.003
32.9	1.6116	0	0	0
32.9333	1.6106	0.0023	0.0007	0.003

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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	1.6119	0.0023	0	0.0023
33	1.6122	0.0155	0.0007	0.0162
33.0333	1.6089	0	0.0007	0.0007
33.0667	1.6096	0.0023	0	0.0023
33.1	1.6126	0.0023	0.0007	0.003
33.1333	1.6089	0.0155	0.002	0.0175
33.1667	1.6079	0	0.002	0.002
33.2	1.6112	0	0.0007	0.0007
33.2333	1.6056	0.0023	0	0.0023
33.2667	1.6083	0.0155	0.002	0.0175
33.3	1.605	0	0	0
33.3333	1.6079	0.0023	0	0.0023
33.3667	1.6066	0.0023	0	0.0023
33.4	1.6076	0.0155	0.002	0.0175
33.4333	1.604	0.0155	0.002	0.0175
33.4667	1.6033	0.0023	0	0.0023
33.5	1.6027	0	0.002	0.002
33.5333	1.6053	0.0286	0.0007	0.0293
33.5667	1.604	0.0155	0.0007	0.0162
33.6	1.604	0	0.002	0.002
33.6333	1.6043	0.0023	0.0007	0.003
33.6667	1.6037	0.0023	0.002	0.0044
33.7	1.604	0	0.0007	0.0007
33.7333	1.6043	0	0	0
33.7667	1.603	0.0023	0	0.0023
33.8	1.602	0.0023	0.0007	0.003
33.8333	1.5997	0.0023	0.0007	0.003
33.8667	1.602	0.0023	0	0.0023
33.9	1.5991	0.0155	0	0.0155
33.9333	1.5961	0.0286	0.0007	0.0293
33.9667	1.5981	0	0	0
34	1.5981	0.0023	0.002	0.0044
34.0333	1.5968	0.0023	0.0007	0.003
34.0667	1.5968	0	0.0007	0.0007
34.1	1.5991	0.0286	0.0007	0.0293
34.1333	1.6014	0.0023	0.002	0.0044
34.1667	1.6086	0	0	0
34.2	1.6149	0.0023	0	0.0023
34.2333	1.6231	0.0023	0.002	0.0044
34.2667	1.6274	0.0023	0	0.0023
34.3	1.6326	0.0155	0.0007	0.0162
34.3333	1.6386	0.0023	0	0.0023
34.3667	1.6451	0	0.0007	0.0007

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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	1.6514	0.0023	0.0007	0.003
34.4333	1.6537	0.0023	0.002	0.0044
34.4667	1.6599	0	0	0
34.5	1.6224	0.0155	0.0007	0.0162
34.5333	1.5678	0.0023	0.0007	0.003
34.5667	1.5148	0.0023	0.0007	0.003
34.6	1.4628	0	0	0
34.6333	1.4147	0.0023	0.002	0.0044
34.6667	1.3677	0.0023	0.0007	0.003
34.7	1.3223	0	0.0007	0.0007
34.7333	1.2768	0.0023	0	0.0023
34.7667	1.2331	0.0023	0.002	0.0044
34.8	1.1942	0.0023	0.0007	0.003
34.8333	1.1524	0	0	0
34.8667	1.1139	0	0.0007	0.0007
34.9	1.0751	0	0.002	0.002
34.9333	1.0399	0.0155	0.0007	0.0162
34.9667	1.0027	0.0023	0.0007	0.003
35	0.9724	0.0023	0.0007	0.003
35.0333	0.9355	0.0023	0.0007	0.003
35.0667	0.9046	0	0	0
35.1	0.8713	0	0	0
35.1333	0.842	0.0023	0	0.0023
35.1667	0.817	0	0	0
35.2	0.7871	0.0023	0.0007	0.003
35.2333	0.7584	0.0155	0	0.0155
35.2667	0.7308	0.0023	0.0007	0.003
35.3	0.7064	0.0023	0.0007	0.003
35.3333	0.6791	0.0023	0	0.0023
35.3667	0.6554	0.0155	0	0.0155
35.4	0.6291	0.0155	0	0.0155
35.4333	0.6047	0.0023	0.0007	0.003
35.4667	0.5876	0.0023	0.002	0.0044
35.5	0.561	0.0023	0	0.0023
35.5333	0.5419	0.0023	0	0.0023
35.5667	0.5198	0	0.0007	0.0007
35.6	0.5001	0.0023	0.0007	0.003
35.6333	0.4797	0	0.002	0.002
35.6667	0.4596	0.0023	0	0.0023
35.7	0.4431	0	0	0
35.7333	0.4247	0	0	0
35.7667	0.4083	0.0023	0.0007	0.003
35.8	0.3888	0.0023	0.002	0.0044



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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	0.3717	0.0023	0.0007	0.003
35.8667	0.3556	0.0023	0.002	0.0044
35.9	0.3408	0.0023	0	0.0023
35.9333	0.3227	0	0	0
35.9667	0.3108	0.0023	0.002	0.0044
36	0.2931	0.0023	0	0.0023
36.0333	0.2812	0.0023	0.0007	0.003
36.0667	0.2684	0.0155	0.002	0.0175
36.1	0.2542	0.0023	0	0.0023
36.1333	0.2407	0.0023	0.0034	0.0057
36.1667	0.2256	0	0.002	0.002
36.2	0.2174	0	0.0007	0.0007
36.2333	0.2022	0	0	0
36.2667	0.19	0.0023	0.0007	0.003
36.3	0.1802	0.0023	0	0.0023
36.3333	0.1706	0.0023	0.0007	0.003
36.3667	0.1588	0	0.0007	0.0007
36.4	0.1502	0.0023	0	0.0023
36.4333	0.1413	0.0023	0	0.0023
36.4667	0.1344	0	0	0
36.5	0.1226	0.0023	0	0.0023
36.5333	0.1147	0.0023	0.002	0.0044
36.5667	0.1058	0	0	0
36.6	0.0972	0	0.0007	0.0007
36.6333	0.0896	0.0155	0.0007	0.0162
36.6667	0.086	0	0	0
36.7	0.0778	0	0	0
36.7333	0.0706	0	0.002	0.002
36.7667	0.0653	0.0023	0.0007	0.003
36.8	0.0584	0	0.0007	0.0007
36.8333	0.0531	0	0.002	0.002
36.8667	0.0478	0.0023	0.002	0.0044
36.9	0.0436	0.0286	0	0.0286
36.9333	0.037	0.0023	0.0007	0.003
36.9667	0.0337	0.0023	0.0007	0.003
37	0.0284	0.0023	0.002	0.0044
37.0333	0.0251	0.0023	0.0007	0.003
37.0667	0.0195	0.0023	0	0.0023
37.1	0.0189	0.0023	0	0.0023
37.1333	0.0143	0	0	0
37.1667	0.0103	0.0155	0.0007	0.0162
37.2	0.0064	0.0155	0.0007	0.0162
37.2333	0.0044	0.0023	0	0.0023

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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	0.0057	0	0	0
37.3	0.0047	0.0023	0.002	0.0044
37.3333	-0.0005	0.0023	0.002	0.0044
37.3667	-0.0018	0.0023	0.0007	0.003
37.4	-0.0025	0.0023	0	0.0023
37.4333	-0.0055	0	0.002	0.002
37.4667	-0.0078	0.0023	0.0007	0.003
37.5	-0.0065	0.0023	0	0.0023
37.5333	-0.0121	0	0.0007	0.0007
37.5667	-0.0101	0	0.002	0.002
37.6	-0.0121	0	0	0
37.6333	-0.0124	0.0023	0.0007	0.003
37.6667	-0.017	0.0155	0.002	0.0175
37.7	-0.0153	0.0023	0	0.0023
37.7333	-0.0176	0.0155	0.0007	0.0162
37.7667	-0.014	0.0023	0	0.0023
37.8	-0.0183	0.0023	0.0007	0.003
37.8333	-0.0167	0	0.0007	0.0007
37.8667	-0.0163	0.0023	0	0.0023
37.9	-0.0209	0.0023	0.0007	0.003
37.9333	-0.0209	0	0.0007	0.0007
37.9667	-0.02	0	0.0007	0.0007
38	-0.0206	0	0.0007	0.0007
38.0333	-0.0203	0	0.0007	0.0007
38.0667	-0.0216	0.0155	0.002	0.0175
38.1	-0.0236	0.0023	0.0007	0.003
38.1333	-0.0242	0.0023	0.0007	0.003
38.1667	-0.0226	0	0.0007	0.0007
38.2	-0.0229	0	0.0007	0.0007
38.2333	-0.0232	0.0023	0.0007	0.003
38.2667	-0.0209	0.0023	0.0007	0.003
38.3	-0.0252	0.0155	0.0007	0.0162
38.3333	-0.0223	0.0023	0.002	0.0044
38.3667	-0.0226	0.0023	0	0.0023
38.4	-0.0239	0.0023	0.0007	0.003
38.4333	-0.0252	0	0.0007	0.0007
38.4667	-0.0226	0.0023	0.0007	0.003
38.5	-0.0272	0.0023	0.0007	0.003
38.5333	-0.0252	0.0155	0	0.0155
38.5667	-0.0265	0.0023	0	0.0023
38.6	-0.0223	0.0155	0.0007	0.0162
38.6333	-0.0239	0.0023	0	0.0023
38.6667	-0.0242	0.0155	0.0007	0.0162

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38.7	-0.0219	0.0023	0.0007	0.003
38.7333	-0.0249	0.0023	0	0.0023
38.7667	-0.0275	0.0023	0.0007	0.003
38.8	-0.0265	0.0023	0	0.0023
38.8333	-0.0279	0	0.0007	0.0007
38.8667	-0.0282	0.0155	0.0007	0.0162
38.9	-0.0249	0	0.0007	0.0007
38.9333	-0.0265	0.0023	0.0007	0.003
38.9667	-0.0252	0.0023	0.0007	0.003
39	-0.0252	0	0	0
39.0333	-0.0275	0.0023	0.0007	0.003
39.0667	-0.0292	0.0023	0	0.0023
39.1	-0.0255	0.0023	0.002	0.0044
39.1333	-0.0265	0.0023	0	0.0023
39.1667	-0.0259	0.0023	0	0.0023
39.2	-0.0269	0.0155	0.0007	0.0162
39.2333	-0.0255	0.0155	0.0007	0.0162
39.2667	-0.0269	0	0.0007	0.0007
39.3	-0.0259	0	0	0
39.3333	-0.0262	0.0023	0.0007	0.003
39.3667	-0.0236	0.0023	0	0.0023
39.4	-0.0272	0	0.0007	0.0007
39.4333	-0.0285	0.0023	0.0007	0.003
39.4667	-0.0255	0	0.0007	0.0007
39.5	-0.0292	0	0.0007	0.0007
39.5333	-0.0246	0.0023	0	0.0023
39.5667	-0.0255	0.0023	0	0.0023
39.6	-0.0285	0.0023	0.0007	0.003
39.6333	-0.0285	0	0.0007	0.0007
39.6667	-0.0272	0.0023	0.0007	0.003
39.7	-0.0265	0	0	0
39.7333	-0.0242	0.0023	0.0007	0.003
39.7667	-0.0288	0	0.0007	0.0007
39.8	-0.0279	0	0.002	0.002
39.8333	-0.0315	0.0023	0.0007	0.003
39.8667	-0.0334	0.0023	0.002	0.0044
39.9	-0.0341	0.0023	0	0.0023
39.9333	-0.0338	0.0155	0.0007	0.0162
39.9667	-0.0341	0.0286	0	0.0286
40	-0.0331	0.0155	0	0.0155
40.0333	-0.0341	0.0023	0.0034	0.0057
40.0667	-0.0341	0.0155	0	0.0155
40.1	-0.0338	0	0.002	0.002

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40.1333	-0.0315	0.0023	0	0.0023
40.1667	-0.0338	0.0023	0.002	0.0044
40.2	-0.0315	0.0023	0	0.0023
40.2333	-0.0071	0	0.0007	0.0007
40.2667	0.037	0.0023	0.0007	0.003
40.3	0.085	0	0.0007	0.0007
40.3333	0.1328	0	0	0
40.3667	0.1756	0.0023	0	0.0023
40.4	0.2154	0.0023	0	0.0023
40.4333	0.2585	0.0023	0.0007	0.003
40.4667	0.2963	0.0023	0.0007	0.003
40.5	0.3368	0.0155	0.0007	0.0162
40.5333	0.3734	0.0023	0.0007	0.003
40.5667	0.4138	0	0	0
40.6	0.4435	0.0023	0.002	0.0044
40.6333	0.4803	0.0023	0	0.0023
40.6667	0.5149	0	0	0
40.7	0.5458	0	0.0007	0.0007
40.7333	0.5804	0.0023	0.0007	0.003
40.7667	0.6136	0	0.0007	0.0007
40.8	0.6452	0.0023	0	0.0023
40.8333	0.6729	0.0023	0	0.0023
40.8667	0.7048	0.0023	0.0007	0.003
40.9	0.7331	0.0023	0	0.0023
40.9333	0.7617	0	0.0007	0.0007
40.9667	0.7907	0.0155	0.0007	0.0162
41	0.8151	0.0023	0.0007	0.003
41.0333	0.8437	0.0023	0.0007	0.003
41.0667	0.8681	0.0023	0.0007	0.003
41.1	0.8937	0.0023	0	0.0023
41.1333	0.9187	0.0023	0.0007	0.003
41.1667	0.9451	0.0023	0	0.0023
41.2	0.9694	0	0.0007	0.0007
41.2333	0.9918	0.0155	0	0.0155
41.2667	1.0119	0.0155	0.0007	0.0162
41.3	1.0376	0.0023	0.0007	0.003
41.3333	1.0596	0.0023	0.0007	0.003
41.3667	1.0777	0.0023	0.002	0.0044
41.4	1.0981	0	0.0007	0.0007
41.4333	1.1218	0.0023	0.0007	0.003
41.4667	1.1432	0	0.0007	0.0007
41.5	1.1649	0.0155	0	0.0155
41.5333	1.1801	0.0023	0.002	0.0044

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41.5667	1.2028	0	0	0
41.6	1.2225	0	0	0
41.6333	1.239	0.0155	0	0.0155
41.6667	1.2597	0.0023	0.0007	0.003
41.7	1.2755	0	0	0
41.7333	1.2943	0.0023	0.0007	0.003
41.7667	1.3117	0	0	0
41.8	1.3288	0	0.0007	0.0007
41.8333	1.3417	0.0023	0	0.0023
41.8667	1.3598	0.0023	0.0007	0.003
41.9	1.372	0.0023	0.0007	0.003
41.9333	1.3891	0.0023	0	0.0023
41.9667	1.4022	0	0.002	0.002
42	1.4161	0.0155	0.0007	0.0162
42.0333	1.4325	0	0.0007	0.0007
42.0667	1.444	0.0023	0.0007	0.003
42.1	1.4595	0.0023	0	0.0023
42.1333	1.469	0	0	0
42.1667	1.4816	0.0023	0.0007	0.003
42.2	1.4974	0	0.0007	0.0007
42.2333	1.5066	0	0.002	0.002
42.2667	1.5155	0	0	0
42.3	1.5299	0.0023	0	0.0023
42.3333	1.5411	0.0023	0	0.0023
42.3667	1.552	0.0023	0.002	0.0044
42.4	1.5596	0.0023	0	0.0023
42.4333	1.5698	0.0155	0.0007	0.0162
42.4667	1.5796	0.0023	0	0.0023
42.5	1.5915	0	0.0007	0.0007
42.5333	1.5971	0.0155	0	0.0155
42.5667	1.6073	0.0023	0.0007	0.003
42.6	1.6116	0.0023	0.002	0.0044
42.6333	1.6228	0	0.002	0.002
42.6667	1.6293	0	0.0007	0.0007
42.7	1.6392	0	0	0
42.7333	1.6474	0.0155	0.0007	0.0162
42.7667	1.6557	0	0	0
42.8	1.659	0.0023	0	0.0023
42.8333	1.6682	0	0.0007	0.0007
42.8667	1.6718	0.0023	0	0.0023
42.9	1.6715	0.0023	0	0.0023
42.9333	1.6692	0	0.0007	0.0007
42.9667	1.6639	0.0023	0	0.0023

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
43	1.6616	0	0.0007	0.0007
43.0333	1.656	0	0	0
43.0667	1.6511	0.0023	0	0.0023
43.1	1.6504	0.0023	0.0007	0.003
43.1333	1.6474	0.0023	0.0007	0.003
43.1667	1.6438	0.0023	0.0007	0.003
43.2	1.6402	0	0.0007	0.0007
43.2333	1.6369	0.0155	0.002	0.0175
43.2667	1.6379	0	0.002	0.002
43.3	1.6362	0	0.0007	0.0007
43.3333	1.6339	0.0023	0.0007	0.003
43.3667	1.632	0	0.002	0.002
43.4	1.6293	0.0023	0.0034	0.0057
43.4333	1.6274	0.0023	0.002	0.0044
43.4667	1.6241	0.0023	0.0007	0.003
43.5	1.6228	0.0023	0.0007	0.003
43.5333	1.6214	0.0023	0.0007	0.003
43.5667	1.6234	0	0.0007	0.0007
43.6	1.6152	0.0023	0.0007	0.003
43.6333	1.6188	0.0023	0.0007	0.003
43.6667	1.6155	0.0286	0.0007	0.0293
43.7	1.6142	0.0023	0.002	0.0044
43.7333	1.6119	0.0023	0.0007	0.003
43.7667	1.6116	0.0023	0.0007	0.003
43.8	1.6119	0	0.0007	0.0007
43.8333	1.6086	0.0023	0.002	0.0044
43.8667	1.6083	0	0.0007	0.0007
43.9	1.6096	0.0023	0.0007	0.003
43.9333	1.6076	0	0.0007	0.0007
43.9667	1.6076	0.0023	0	0.0023
44	1.6089	0.0023	0	0.0023
44.0333	1.604	0	0.0007	0.0007
44.0667	1.6027	0	0.0007	0.0007
44.1	1.6037	0.0023	0	0.0023
44.1333	1.6056	0.0023	0.0007	0.003
44.1667	1.5997	0.0023	0	0.0023
44.2	1.6023	0.0155	0	0.0155
44.2333	1.6004	0.0023	0	0.0023
44.2667	1.6	0.0023	0.0007	0.003
44.3	1.5964	0.0023	0.0007	0.003
44.3333	1.5974	0.0023	0	0.0023
44.3667	1.5964	0.0023	0.002	0.0044
44.4	1.5954	0.0023	0.0007	0.003



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44.4333	1.5958	0.0023	0.0007	0.003
44.4667	1.5948	0.0023	0	0.0023
44.5	1.5951	0.0155	0.0007	0.0162
44.5333	1.5951	0.0023	0.0007	0.003
44.5667	1.5954	0	0	0
44.6	1.5912	0.0023	0.0007	0.003
44.6333	1.5902	0	0.002	0.002
44.6667	1.5898	0	0.0007	0.0007
44.7	1.5892	0	0.0007	0.0007
44.7333	1.5902	0.0155	0.002	0.0175
44.7667	1.5925	0.0023	0	0.0023
44.8	1.5882	0.0023	0.0007	0.003
44.8333	1.5889	0.0023	0	0.0023
44.8667	1.5875	0.0023	0	0.0023
44.9	1.5889	0.0023	0	0.0023
44.9333	1.5882	0.0023	0.0007	0.003
44.9667	1.5872	0.0023	0	0.0023
45	1.5872	0.0023	0	0.0023
45.0333	1.5869	0.0155	0	0.0155
45.0667	1.5865	0.0023	0.0007	0.003
45.1	1.5885	0.0023	0.0007	0.003
45.1333	1.5852	0.0286	0	0.0286
45.1667	1.5849	0	0.002	0.002
45.2	1.5842	0.0023	0.0007	0.003
45.2333	1.5826	0.0023	0.0007	0.003
45.2667	1.5889	0.0023	0.002	0.0044
45.3	1.5991	0	0	0
45.3333	1.6109	0.0023	0	0.0023
45.3667	1.6181	0.0023	0.0007	0.003
45.4	1.6283	0	0.0007	0.0007
45.4333	1.6392	0.0023	0	0.0023
45.4667	1.6484	0.0023	0	0.0023
45.5	1.6517	0	0.0007	0.0007
45.5333	1.6678	0.0155	0	0.0155
45.5667	1.6738	0.0155	0.0007	0.0162
45.6	1.6787	0.0023	0	0.0023
45.6333	1.6883	0.0155	0.0007	0.0162
45.6667	1.6915	0.0286	0.0007	0.0293
45.7	1.7011	0.0023	0.002	0.0044
45.7333	1.707	0.0023	0.0034	0.0057
45.7667	1.7096	0	0	0
45.8	1.7152	0.0023	0.0007	0.003
45.8333	1.7205	0.0023	0	0.0023

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45.8667	1.7189	0.0023	0.0007	0.003
45.9	1.7166	0.0023	0	0.0023
45.9333	1.7136	0.0023	0.0007	0.003
45.9667	1.7113	0.0023	0	0.0023
46	1.7047	0.0023	0	0.0023
46.0333	1.7014	0.0155	0.0007	0.0162
46.0667	1.6948	0.0023	0.0007	0.003
46.1	1.6873	0.0023	0.0007	0.003
46.1333	1.6774	0.0023	0.0007	0.003
46.1667	1.6636	0.0155	0	0.0155
46.2	1.6563	0.0023	0	0.0023
46.2333	1.6504	0	0	0
46.2667	1.6389	0.0023	0.002	0.0044
46.3	1.6323	0	0	0
46.3333	1.6267	0	0.0007	0.0007
46.3667	1.6274	0.0155	0.002	0.0175
46.4	1.6293	0.0023	0.0007	0.003
46.4333	1.6297	0.0023	0.0007	0.003
46.4667	1.6287	0.0023	0	0.0023
46.5	1.6293	0.0023	0	0.0023
46.5333	1.6257	0.0155	0.002	0.0175
46.5667	1.6274	0.0155	0.0007	0.0162
46.6	1.6247	0.0023	0.0007	0.003
46.6333	1.6251	0.0023	0.0007	0.003
46.6667	1.6257	0.0023	0.0007	0.003
46.7	1.629	0.0155	0.0007	0.0162
46.7333	1.6237	0	0.002	0.002
46.7667	1.6267	0.0023	0.0007	0.003
46.8	1.6241	0	0.0007	0.0007
46.8333	1.6247	0.0023	0.0007	0.003
46.8667	1.626	0.0155	0.0007	0.0162
46.9	1.6251	0.0023	0	0.0023
46.9333	1.6254	0.0023	0.0007	0.003
46.9667	1.6244	0.0023	0.0007	0.003
47	1.6218	0.0023	0.0007	0.003
47.0333	1.6201	0.0155	0	0.0155
47.0667	1.6172	0.0023	0.0007	0.003
47.1	1.6181	0.0155	0.0007	0.0162
47.1333	1.6201	0.0023	0	0.0023
47.1667	1.6214	0.0023	0.002	0.0044
47.2	1.6204	0.0023	0	0.0023
47.2333	1.6185	0.0155	0	0.0155
47.2667	1.6208	0.0023	0	0.0023

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47.3	1.6201	0.0023	0.0007	0.003
47.3333	1.6201	0	0	0
47.3667	1.6195	0.0023	0.0007	0.003
47.4	1.6218	0.0023	0.0007	0.003
47.4333	1.6191	0.0155	0	0.0155
47.4667	1.6191	0	0	0
47.5	1.6168	0.0155	0	0.0155
47.5333	1.6168	0.0155	0	0.0155
47.5667	1.6185	0.0023	0	0.0023
47.6	1.6172	0.0023	0	0.0023
47.6333	1.6168	0.0023	0.0007	0.003
47.6667	1.6162	0	0.0007	0.0007
47.7	1.6162	0.0023	0.0007	0.003
47.7333	1.6162	0	0.0007	0.0007
47.7667	1.6155	0.0023	0	0.0023
47.8	1.6155	0.0023	0.0007	0.003
47.8333	1.6132	0.0023	0.0007	0.003
47.8667	1.6122	0.0023	0	0.0023
47.9	1.6129	0.0155	0.002	0.0175
47.9333	1.6112	0.0023	0.0007	0.003
47.9667	1.6129	0.0155	0.002	0.0175
48	1.6126	0	0.0007	0.0007
48.0333	1.6102	0.0023	0	0.0023
48.0667	1.575	0.0023	0.002	0.0044
48.1	1.5296	0.0023	0.0007	0.003
48.1333	1.4773	0	0.002	0.002
48.1667	1.4378	0.0023	0	0.0023
48.2	1.391	0.0023	0.0007	0.003
48.2333	1.3499	0.0155	0.0007	0.0162
48.2667	1.3104	0.0023	0.0007	0.003
48.3	1.2673	0.0023	0	0.0023
48.3333	1.2301	0.0023	0	0.0023
48.3667	1.1929	0.0023	0	0.0023
48.4	1.156	0.0155	0	0.0155
48.4333	1.1198	0.0023	0.002	0.0044
48.4667	1.0853	0.0155	0.0007	0.0162
48.5	1.0537	0.0023	0	0.0023
48.5333	1.0195	0.0023	0.0007	0.003
48.5667	0.9902	0.0023	0	0.0023
48.6	0.9595	0.0023	0	0.0023
48.6333	0.9309	0	0	0
48.6667	0.8993	0.0155	0.0007	0.0162
48.7	0.8746	0.0155	0.0007	0.0162

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48.7333	0.8463	0.0023	0	0.0023
48.7667	0.8203	0.0023	0.0007	0.003
48.8	0.7947	0.0023	0	0.0023
48.8333	0.7677	0.0155	0.0007	0.0162
48.8667	0.742	0.0155	0	0.0155
48.9	0.7206	0.0023	0	0.0023
48.9333	0.6949	0.0155	0	0.0155
48.9667	0.6735	0	0.0007	0.0007
49	0.6498	0.0023	0	0.0023
49.0333	0.6275	0.0023	0	0.0023
49.0667	0.6051	0	0	0
49.1	0.585	0.0155	0.002	0.0175
49.1333	0.5639	0.0023	0.0007	0.003
49.1667	0.5465	0.0155	0	0.0155
49.2	0.5248	0.0023	0.0007	0.003
49.2333	0.507	0	0.0007	0.0007
49.2667	0.4869	0.0155	0	0.0155
49.3	0.4688	0.0023	0.002	0.0044
49.3333	0.455	0.0023	0.0007	0.003
49.3667	0.4356	0.0023	0.0007	0.003
49.4	0.4191	0.0023	0	0.0023
49.4333	0.403	0.0023	0.0007	0.003
49.4667	0.3885	0.0023	0.002	0.0044
49.5	0.3704	0.0023	0.0007	0.003
49.5333	0.3556	0	0.0007	0.0007
49.5667	0.3411	0.0155	0.0007	0.0162
49.6	0.3256	0.0023	0	0.0023
49.6333	0.3154	0.0023	0	0.0023
49.6667	0.2996	0	0	0
49.7	0.2861	0	0	0
49.7333	0.2723	0.0023	0	0.0023
49.7667	0.2601	0.0023	0	0.0023
49.8	0.248	0	0.0007	0.0007
49.8333	0.2361	0.0023	0	0.0023
49.8667	0.2233	0	0.0007	0.0007
49.9	0.2114	0	0.0007	0.0007
49.9333	0.2012	0.0023	0.0007	0.003
49.9667	0.1923	0.0155	0	0.0155
50	0.1775	0.0023	0.0007	0.003
50.0333	0.17	0.0155	0	0.0155
50.0667	0.1588	0.0155	0	0.0155
50.1	0.1505	0.0023	0.0007	0.003
50.1333	0.143	0.0023	0.0007	0.003

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50.1667	0.1321	0.0155	0.002	0.0175
50.2	0.1278	0.0023	0.0007	0.003
50.2333	0.1176	0.0023	0.0007	0.003
50.2667	0.1127	0.0023	0.002	0.0044
50.3	0.1005	0.0155	0	0.0155
50.3333	0.0956	0	0.002	0.002
50.3667	0.0867	0.0023	0.0007	0.003
50.4	0.0781	0.0023	0.002	0.0044
50.4333	0.0722	0.0023	0.002	0.0044
50.4667	0.0699	0	0.0007	0.0007
50.5	0.063	0	0	0
50.5333	0.0564	0.0023	0.0007	0.003
50.5667	0.0534	0	0.0007	0.0007
50.6	0.0472	0.0023	0	0.0023
50.6333	0.0399	0.0023	0.0007	0.003
50.6667	0.0363	0.0023	0	0.0023
50.7	0.0363	0	0.002	0.002
50.7333	0.0297	0.0155	0.002	0.0175
50.7667	0.0242	0	0	0
50.8	0.0205	0.0023	0.002	0.0044
50.8333	0.0163	0.0023	0	0.0023
50.8667	0.0133	0.0023	0	0.0023
50.9	0.0139	0.0155	0.0007	0.0162
50.9333	0.013	0	0.0007	0.0007
50.9667	0.0051	0.0023	0.0007	0.003
51	0.0024	0.0023	0.0007	0.003
51.0333	0.0011	0	0.002	0.002
51.0667	0.0005	0.0155	0.002	0.0175
51.1	-0.0025	0.0023	0.002	0.0044
51.1333	-0.0048	0.0023	0	0.0023
51.1667	-0.0042	0.0023	0.0007	0.003
51.2	-0.0065	0.0155	0.0007	0.0162
51.2333	-0.0084	0.0155	0.0007	0.0162
51.2667	-0.0124	0	0	0
51.3	-0.0084	0.0023	0.002	0.0044
51.3333	-0.0114	0.0023	0.0007	0.003
51.3667	-0.0153	0.0023	0.002	0.0044
51.4	-0.0121	0.0023	0.0007	0.003
51.4333	-0.0157	0.0023	0.0007	0.003
51.4667	-0.0134	0	0.0007	0.0007
51.5	-0.0186	0.0155	0.0007	0.0162
51.5333	-0.0153	0.0023	0	0.0023
51.5667	-0.017	0	0.0007	0.0007

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51.6	-0.0223	0.0023	0.002	0.0044
51.6333	-0.0186	0.0023	0	0.0023
51.6667	-0.0223	0.0023	0	0.0023
51.7	-0.0213	0.0023	0.002	0.0044
51.7333	-0.0229	0.0023	0	0.0023
51.7667	-0.0226	0.0155	0.0007	0.0162
51.8	-0.0226	0.0155	0.002	0.0175
51.8333	-0.0239	0	0.0007	0.0007
51.8667	-0.0242	0.0023	0.0007	0.003
51.9	-0.0246	0.0023	0.0007	0.003
51.9333	-0.0229	0	0.0007	0.0007
51.9667	-0.0232	0.0023	0	0.0023
52	-0.0219	0.0155	0.0007	0.0162
52.0333	-0.0219	0	0.0007	0.0007
52.0667	-0.0246	0	0.0007	0.0007
52.1	-0.0242	0.0023	0.0007	0.003
52.1333	-0.0249	0	0.002	0.002
52.1667	-0.0255	0.0155	0	0.0155
52.2	-0.0269	0.0155	0	0.0155
52.2333	-0.0246	0.0023	0	0.0023
52.2667	-0.0259	0.0023	0.0007	0.003
52.3	-0.0259	0.0023	0	0.0023
52.3333	-0.0252	0	0.002	0.002
52.3667	-0.0239	0.0155	0.0007	0.0162
52.4	-0.0255	0.0155	0.0007	0.0162
52.4333	-0.0272	0	0	0
52.4667	-0.0255	0	0.0007	0.0007
52.5	-0.0259	0.0023	0	0.0023
52.5333	-0.0242	0	0	0
52.5667	-0.0292	0	0.0007	0.0007
52.6	-0.0265	0.0155	0.0007	0.0162
52.6333	-0.0239	0.0023	0.0007	0.003
52.6667	-0.0226	0.0155	0.0007	0.0162
52.7	-0.0259	0.0023	0.0007	0.003
52.7333	-0.0236	0.0023	0	0.0023
52.7667	-0.0269	0	0.002	0.002
52.8	-0.0262	0	0	0
52.8333	-0.0255	0.0155	0.0007	0.0162
52.8667	-0.0288	0.0023	0.002	0.0044
52.9	-0.0288	0.0023	0.0007	0.003
52.9333	-0.0269	0	0.0007	0.0007
52.9667	-0.0265	0.0023	0.0007	0.003
53	-0.0249	0.0155	0	0.0155



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53.0333	-0.0255	0.0155	0.0007	0.0162
53.0667	-0.0288	0.0023	0.0007	0.003
53.1	-0.0262	0.0023	0.0007	0.003
53.1333	-0.0265	0.0286	0.002	0.0307
53.1667	-0.0229	0.0155	0.0007	0.0162
53.2	-0.0272	0.0023	0	0.0023
53.2333	-0.0272	0.0023	0.0007	0.003
53.2667	-0.0262	0.0023	0	0.0023
53.3	-0.0262	0	0	0
53.3333	-0.0259	0.0023	0.0007	0.003
53.3667	-0.0282	0.0023	0.002	0.0044
53.4	-0.0265	0.0023	0.0007	0.003
53.4333	-0.0269	0.0023	0	0.0023
53.4667	-0.0272	0.0023	0.002	0.0044
53.5	-0.0232	0.0023	0.0007	0.003
53.5333	-0.0285	0.0023	0.0007	0.003
53.5667	-0.0255	0.0023	0.0007	0.003
53.6	-0.0279	0.0023	0.0007	0.003
53.6333	-0.0285	0	0	0
53.6667	-0.0239	0	0.002	0.002
53.7	-0.0275	0.0023	0	0.0023
53.7333	-0.0269	0	0.0007	0.0007
53.7667	-0.0275	0.0023	0.0007	0.003
53.8	-0.0255	0.0023	0.0007	0.003
53.8333	-0.0292	0	0	0
53.8667	-0.0259	0	0.0007	0.0007
53.9	-0.0275	0.0023	0	0.0023
53.9333	-0.0285	0	0.002	0.002
53.9667	-0.0292	0.0023	0.002	0.0044
54	-0.0272	0.0155	0.002	0.0175
54.0333	-0.0259	0.0023	0	0.0023
54.0667	-0.0282	0.0155	0.0007	0.0162
54.1	-0.0262	0.0023	0.0007	0.003
54.1333	-0.0272	0	0.0007	0.0007
54.1667	-0.0259	0.0023	0	0.0023
54.2	-0.0285	0.0023	0.0007	0.003
54.2333	-0.0246	0.0023	0	0.0023
54.2667	-0.0275	0.0023	0.0007	0.003
54.3	-0.0282	0.0155	0.002	0.0175
54.3333	-0.0252	0	0.0007	0.0007
54.3667	-0.0272	0.0023	0	0.0023
54.4	-0.0255	0	0.002	0.002
54.4333	-0.0259	0.0023	0.002	0.0044

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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	-0.0249	0.0023	0.0007	0.003
54.5	-0.0269	0	0.002	0.002
54.5333	-0.0282	0.0023	0.002	0.0044
54.5667	-0.0272	0.0023	0	0.0023
54.6	-0.0239	0.0023	0.0007	0.003
54.6333	-0.0255	0.0155	0.0034	0.0188
54.6667	-0.0279	0.0155	0	0.0155
54.7	-0.0269	0	0.002	0.002
54.7333	-0.0279	0.0023	0	0.0023
54.7667	-0.0265	0.0155	0	0.0155
54.8	-0.0269	0	0.0007	0.0007
54.8333	-0.0259	0.0155	0.002	0.0175
54.8667	-0.0302	0.0023	0.0007	0.003
54.9	-0.0292	0.0023	0.0007	0.003
54.9333	-0.0272	0.0155	0	0.0155
54.9667	-0.0255	0.0023	0	0.0023
55	-0.0259	0.0023	0.0007	0.003
55.0333	-0.0269	0	0.0007	0.0007
55.0667	-0.0305	0.0023	0.0007	0.003
55.1	-0.0262	0	0.0007	0.0007
55.1333	-0.0279	0.0155	0.0007	0.0162
55.1667	-0.0292	0.0023	0.0007	0.003
55.2	-0.0255	0	0.0007	0.0007
55.2333	-0.0292	0.0023	0.002	0.0044
55.2667	-0.0265	0.0023	0.0007	0.003
55.3	-0.0265	0.0155	0	0.0155
55.3333	-0.0285	0	0.0007	0.0007
55.3667	-0.0259	0.0023	0.0007	0.003
55.4	-0.0259	0.0023	0	0.0023
55.4333	-0.0252	0.0023	0.0007	0.003
55.4667	-0.0255	0.0023	0.0007	0.003
55.5	-0.0249	0.0023	0.0007	0.003
55.5333	-0.0279	0.0023	0.0007	0.003
55.5667	-0.0272	0	0	0
55.6	-0.0269	0	0.0007	0.0007
55.6333	-0.0282	0.0155	0	0.0155
55.6667	-0.0249	0.0023	0	0.0023
55.7	-0.0272	0.0155	0.0007	0.0162
55.7333	-0.0252	0	0	0
55.7667	-0.0292	0.0023	0.002	0.0044
55.8	-0.0288	0.0023	0	0.0023
55.8333	-0.0249	0.0023	0	0.0023
55.8667	-0.0288	0	0	0

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55.9	-0.0269	0	0	0
55.9333	-0.0295	0.0155	0	0.0155
55.9667	-0.0269	0.0155	0	0.0155
56	-0.0269	0.0023	0.0007	0.003
56.0333	-0.0255	0	0.002	0.002
56.0667	-0.0275	0.0155	0	0.0155
56.1	-0.0255	0.0155	0	0.0155
56.1333	-0.0295	0.0023	0.0007	0.003
56.1667	-0.0242	0.0023	0	0.0023
56.2	-0.0246	0.0023	0.0007	0.003
56.2333	-0.0292	0.0023	0.002	0.0044
56.2667	-0.0249	0.0155	0.0007	0.0162
56.3	-0.0259	0	0.0007	0.0007
56.3333	-0.0255	0.0023	0.0007	0.003
56.3667	-0.0259	0.0155	0	0.0155
56.4	-0.0318	0.0155	0.0007	0.0162
56.4333	-0.0269	0	0	0
56.4667	-0.0262	0.0023	0.0007	0.003
56.5	-0.0295	0	0	0
56.5333	-0.0265	0.0023	0	0.0023
56.5667	-0.0272	0	0.0007	0.0007
56.6	-0.0282	0.0023	0.0007	0.003
56.6333	-0.0295	0.0023	0.0007	0.003
56.6667	-0.0269	0.0023	0.0007	0.003
56.7	-0.0288	0	0.002	0.002
56.7333	-0.0269	0.0023	0.0007	0.003
56.7667	-0.0259	0.0023	0	0.0023
56.8	-0.0246	0.0023	0.002	0.0044
56.8333	-0.0255	0.0023	0	0.0023
56.8667	-0.0282	0.0023	0.0007	0.003
56.9	-0.0265	0.0155	0.0007	0.0162
56.9333	-0.0252	0.0155	0.0007	0.0162
56.9667	-0.0259	0.0023	0.0007	0.003
57	-0.0216	0.0023	0	0.0023
57.0333	0.0143	0	0.002	0.002
57.0667	0.0508	0.0155	0.0007	0.0162
57.1	0.0999	0	0.0007	0.0007
57.1333	0.1551	0.0023	0.0007	0.003
57.1667	0.2068	0.0155	0	0.0155
57.2	0.2585	0.0155	0.002	0.0175
57.2333	0.3075	0.0155	0	0.0155
57.2667	0.3566	0.0155	0.0007	0.0162
57.3	0.4056	0.0023	0	0.0023

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57.3333	0.451	0.0023	0.0007	0.003
57.3667	0.4978	0.0023	0.0007	0.003
57.4	0.5422	0.0023	0.0007	0.003
57.4333	0.582	0.0155	0.002	0.0175
57.4667	0.6255	0.0155	0	0.0155
57.5	0.6673	0.0023	0.002	0.0044
57.5333	0.7035	0.0023	0.0007	0.003
57.5667	0.7469	0.0023	0	0.0023
57.6	0.7802	0	0	0
57.6333	0.8213	0.0023	0	0.0023
57.6667	0.8578	0.0023	0.0007	0.003
57.7	0.8941	0.0023	0	0.0023
57.7333	0.9299	0.0023	0	0.0023
57.7667	0.9642	0.0023	0.0007	0.003
57.8	0.9981	0.0155	0.0007	0.0162
57.8333	1.032	0.0023	0.0007	0.003
57.8667	1.0652	0.0023	0.002	0.0044
57.9	1.0978	0.0155	0.002	0.0175
57.9333	1.1284	0.0023	0.0007	0.003
57.9667	1.1626	0	0	0
58	1.1946	0	0	0
58.0333	1.2219	0	0.0007	0.0007
58.0667	1.2531	0	0.0007	0.0007
58.1	1.2831	0.0155	0.0007	0.0162
58.1333	1.3114	0	0.0007	0.0007
58.1667	1.3387	0.0023	0.0007	0.003
58.2	1.3654	0.0023	0	0.0023
58.2333	1.3937	0.0023	0	0.0023
58.2667	1.424	0	0.0007	0.0007
58.3	1.4457	0.0155	0.0007	0.0162
58.3333	1.4733	0.0023	0.002	0.0044
58.3667	1.499	0.0023	0.0007	0.003
58.4	1.5309	0.0155	0.0007	0.0162
58.4333	1.5773	0.0023	0.002	0.0044
58.4667	1.6293	0	0.0007	0.0007
58.5	1.6754	0.0155	0.0007	0.0162
58.5333	1.7258	0.0023	0	0.0023
58.5667	1.7722	0	0.0007	0.0007
58.6	1.8179	0.0155	0.0007	0.0162
58.6333	1.865	0.0023	0	0.0023
58.6667	1.9078	0.0023	0	0.0023
58.7	1.9509	0.0023	0.0007	0.003
58.7333	1.992	0	0.0007	0.0007

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58.7667	2.0049	0.0155	0.002	0.0175
58.8	2.0062	0	0.0007	0.0007
58.8333	2.0059	0.0023	0.0007	0.003
58.8667	2.0032	0	0	0
58.9	2.0092	0	0	0
58.9333	2.0256	0.0023	0	0.0023
58.9667	2.0398	0.0023	0.0007	0.003
59	2.0394	0.0023	0.0034	0.0057
59.0333	2.0338	0	0	0
59.0667	2.0263	0	0.0007	0.0007
59.1	2.02	0.0023	0	0.0023
59.1333	2.0171	0.0023	0.0007	0.003
59.1667	2.0098	0	0	0
59.2	2.0069	0	0.0007	0.0007
59.2333	2.0045	0.0023	0	0.0023
59.2667	2.0026	0.0023	0.0007	0.003
59.3	2.0062	0.0155	0.0007	0.0162
59.3333	2.0069	0.0155	0.0007	0.0162
59.3667	2.0078	0.0023	0.002	0.0044
59.4	2.0082	0.0023	0.002	0.0044
59.4333	2.0095	0	0.0007	0.0007
59.4667	2.0138	0.0023	0.0007	0.003
59.5	2.0138	0.0155	0	0.0155
59.5333	2.0161	0.0023	0.0007	0.003
59.5667	2.0217	0.0023	0.002	0.0044
59.6	2.0236	0	0	0
59.6333	2.0243	0.0023	0.0007	0.003
59.6667	2.0273	0.0023	0.0007	0.003
59.7	2.0319	0	0.002	0.002
59.7333	2.0352	0.0023	0.0007	0.003
59.7667	2.0394	0.0023	0.0007	0.003
59.8	2.0371	0.0155	0.002	0.0175
59.8333	2.0417	0.0023	0	0.0023
59.8667	2.049	0.0023	0	0.0023
59.9	2.047	0.0023	0.0007	0.003
59.9333	2.051	0.0286	0.0007	0.0293
59.9667	2.051	0.0023	0.0007	0.003
60	2.0542	0.0155	0.0007	0.0162
60.0333	2.0589	0.0023	0	0.0023
60.0667	2.0579	0	0.002	0.002
60.1	2.0625	0.0155	0.0007	0.0162
60.1333	2.0621	0.0155	0.0007	0.0162
60.1667	2.0658	0	0.0007	0.0007

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60.2	2.0645	0.0023	0.0007	0.003
60.2333	2.0645	0.0155	0	0.0155
60.2667	2.0628	0.0023	0.002	0.0044
60.3	2.0589	0.0023	0	0.0023
60.3333	2.0549	0.0023	0	0.0023
60.3667	2.0516	0	0	0
60.4	2.0503	0	0	0
60.4333	2.0506	0	0.0007	0.0007
60.4667	2.0457	0.0023	0.0007	0.003
60.5	2.0447	0.0023	0	0.0023
60.5333	2.0447	0.0023	0.002	0.0044
60.5667	2.0424	0.0155	0	0.0155
60.6	2.0421	0	0	0
60.6333	2.0394	0	0.0007	0.0007
60.6667	2.0381	0.0023	0.002	0.0044
60.7	2.0368	0.0155	0.0007	0.0162
60.7333	2.0352	0.0023	0.002	0.0044
60.7667	2.0348	0.0023	0.0007	0.003
60.8	2.0365	0.0023	0	0.0023
60.8333	2.0338	0.0023	0.0007	0.003
60.8667	2.0348	0.0155	0.0007	0.0162
60.9	2.0302	0.0023	0.002	0.0044
60.9333	2.0315	0	0	0
60.9667	2.0282	0.0023	0.0007	0.003
61	2.0276	0.0023	0.0007	0.003
61.0333	2.0256	0.0023	0	0.0023
61.0667	2.025	0.0286	0.0007	0.0293
61.1	2.022	0.0023	0.0007	0.003
61.1333	2.0227	0.0023	0.0007	0.003
61.1667	2.023	0.0023	0.0007	0.003
61.2	2.0233	0	0.002	0.002
61.2333	2.0213	0	0.002	0.002
61.2667	2.018	0.0023	0.002	0.0044
61.3	2.019	0.0023	0	0.0023
61.3333	2.018	0.0023	0	0.0023
61.3667	2.0197	0	0.002	0.002
61.4	2.0194	0	0.0007	0.0007
61.4333	2.019	0.0023	0	0.0023
61.4667	2.0157	0.0023	0.0007	0.003
61.5	2.0171	0	0.002	0.002
61.5333	2.0174	0	0.0007	0.0007
61.5667	2.0131	0.0155	0.002	0.0175
61.6	2.0121	0.0155	0.0007	0.0162



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61.6333	2.0184	0.0155	0	0.0155
61.6667	2.0138	0	0.002	0.002
61.7	2.0134	0.0023	0.0007	0.003
61.7333	2.0111	0.0023	0.0007	0.003
61.7667	2.0085	0.0023	0.0007	0.003
61.8	2.0088	0.0155	0.0007	0.0162
61.8333	2.0059	0	0.002	0.002
61.8667	2.0069	0	0	0
61.9	2.0092	0	0	0
61.9333	2.0095	0.0023	0.002	0.0044
61.9667	2.0059	0.0023	0.0007	0.003
62	2.0062	0.0023	0	0.0023
62.0333	2.0042	0.0023	0	0.0023
62.0667	2.0065	0.0023	0.0007	0.003
62.1	2.0042	0.0023	0.0007	0.003
62.1333	2.0059	0.0155	0	0.0155
62.1667	2.0069	0.0023	0.0007	0.003
62.2	2.0065	0.0023	0	0.0023
62.2333	2.0059	0.0023	0	0.0023
62.2667	2.0013	0.0155	0.0007	0.0162
62.3	2.0039	0	0.0007	0.0007
62.3333	2.0003	0.0023	0.0007	0.003
62.3667	2.0009	0.0155	0.0007	0.0162
62.4	2.0029	0.0155	0	0.0155
62.4333	2.0013	0.0155	0	0.0155
62.4667	1.9996	0	0.0007	0.0007
62.5	1.9999	0	0	0
62.5333	1.9996	0.0023	0.002	0.0044
62.5667	1.9976	0.0023	0	0.0023
62.6	1.9986	0.0023	0	0.0023
62.6333	1.9986	0	0	0
62.6667	1.9976	0.0155	0	0.0155
62.7	1.9973	0.0023	0.002	0.0044
62.7333	1.9953	0.0155	0.002	0.0175
62.7667	1.9963	0.0023	0	0.0023
62.8	1.998	0.0023	0	0.0023
62.8333	1.9953	0.0023	0	0.0023
62.8667	1.996	0.0023	0.0007	0.003
62.9	1.9943	0.0023	0.002	0.0044
62.9333	1.9924	0.0023	0.0007	0.003
62.9667	1.9943	0.0023	0	0.0023
63	1.9927	0.0023	0	0.0023
63.0333	1.9937	0.0023	0	0.0023

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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	1.9917	0.0023	0	0.0023
63.1	1.9914	0.0023	0	0.0023
63.1333	1.9904	0.0023	0.0034	0.0057
63.1667	1.992	0.0023	0	0.0023
63.2	1.9868	0.0023	0	0.0023
63.2333	1.9855	0.0023	0	0.0023
63.2667	1.9891	0.0155	0.0007	0.0162
63.3	1.9907	0.0155	0	0.0155
63.3333	1.9881	0.0023	0	0.0023
63.3667	1.9874	0.0286	0.0007	0.0293
63.4	1.9861	0	0.0007	0.0007
63.4333	1.9848	0.0155	0	0.0155
63.4667	1.9864	0.0155	0.0007	0.0162
63.5	1.9868	0.0023	0.0007	0.003
63.5333	1.9868	0.0023	0.0007	0.003
63.5667	1.9878	0.0155	0.002	0.0175
63.6	1.993	0.0286	0	0.0286
63.6333	2.0085	0.0155	0.0007	0.0162
63.6667	2.0151	0.0155	0.0007	0.0162
63.7	2.0246	0.0023	0.0007	0.003
63.7333	2.0338	0	0.0007	0.0007
63.7667	2.0444	0.0023	0.0007	0.003
63.8	2.0542	0.0155	0	0.0155
63.8333	2.0602	0.0155	0.0007	0.0162
63.8667	2.0691	0	0.002	0.002
63.9	2.0737	0.0023	0.0007	0.003
63.9333	2.0835	0.0155	0.002	0.0175
63.9667	2.0858	0.0023	0.0007	0.003
64	2.0967	0.0023	0.002	0.0044
64.0333	2.0947	0.0155	0.0007	0.0162
64.0667	2.0947	0.0023	0.0007	0.003
64.1	2.0918	0.0023	0	0.0023
64.1333	2.0928	0.0023	0.002	0.0044
64.1667	2.0895	0.0155	0.002	0.0175
64.2	2.0835	0.0023	0.002	0.0044
64.2333	2.076	0.0023	0.002	0.0044
64.2667	2.0677	0.0155	0	0.0155
64.3	2.0539	0.0023	0	0.0023
64.3333	2.0368	0	0.002	0.002
64.3667	2.0371	0	0.0007	0.0007
64.4	2.0368	0.0023	0.0007	0.003
64.4333	2.0375	0.0023	0	0.0023
64.4667	2.0322	0.0155	0	0.0155

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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	2.0355	0.0023	0.0007	0.003
64.5333	2.0319	0	0	0
64.5667	2.0312	0.0155	0.0007	0.0162
64.6	2.0338	0.0023	0	0.0023
64.6333	2.0342	0.0023	0.002	0.0044
64.6667	2.0259	0	0.0007	0.0007
64.7	1.9674	0.0023	0	0.0023
64.7333	1.915	0	0.002	0.002
64.7667	1.866	0.0023	0.0007	0.003
64.8	1.815	0.0155	0.0007	0.0162
64.8333	1.764	0.0155	0.002	0.0175
64.8667	1.7156	0.0023	0	0.0023
64.9	1.6688	0.0155	0.002	0.0175
64.9333	1.6247	0.0155	0.0007	0.0162
64.9667	1.581	0	0.002	0.002
65	1.5398	0.0023	0.0007	0.003
65.0333	1.4957	0	0.0007	0.0007
65.0667	1.4556	0.0023	0	0.0023
65.1	1.4187	0.0023	0	0.0023
65.1333	1.3799	0.0023	0.002	0.0044
65.1667	1.3413	0.0155	0.002	0.0175
65.2	1.3081	0.0023	0	0.0023
65.2333	1.2722	0	0	0
65.2667	1.24	0.0286	0.0007	0.0293
65.3	1.2011	0	0.0007	0.0007
65.3333	1.1712	0.0023	0.0007	0.003
65.3667	1.1386	0.0023	0.0007	0.003
65.4	1.107	0	0.0007	0.0007
65.4333	1.077	0.0155	0.0007	0.0162
65.4667	1.0487	0.0023	0.002	0.0044
65.5	1.0185	0.0023	0.002	0.0044
65.5333	0.9921	0.0023	0.002	0.0044
65.5667	0.9645	0	0.0007	0.0007
65.6	0.9332	0	0.002	0.002
65.6333	0.9085	0.0023	0.002	0.0044
65.6667	0.8812	0.0155	0.0007	0.0162
65.7	0.8529	0.0023	0.002	0.0044
65.7333	0.8299	0.0023	0.0007	0.003
65.7667	0.8049	0.0023	0	0.0023
65.8	0.7808	0.0023	0	0.0023
65.8333	0.7591	0.0023	0.0007	0.003
65.8667	0.7328	0.0155	0.002	0.0175
65.9	0.7111	0.0023	0	0.0023

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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	0.69	0.0023	0.002	0.0044
65.9667	0.6702	0	0.002	0.002
66	0.6462	0.0155	0.002	0.0175
66.0333	0.6238	0.0023	0	0.0023
66.0667	0.6051	0.0023	0.0007	0.003
66.1	0.5843	0.0155	0	0.0155
66.1333	0.5659	0	0	0
66.1667	0.5442	0.0023	0.0007	0.003
66.2	0.5287	0.0023	0	0.0023
66.2333	0.5109	0.0023	0.002	0.0044
66.2667	0.4909	0.0023	0.002	0.0044
66.3	0.4724	0.0023	0.0007	0.003
66.3333	0.452	0.0023	0	0.0023
66.3667	0.4392	0	0.0007	0.0007
66.4	0.4224	0	0.002	0.002
66.4333	0.4053	0.0023	0.002	0.0044
66.4667	0.3905	0	0.0007	0.0007
66.5	0.3717	0.0023	0.0007	0.003
66.5333	0.3602	0.0023	0	0.0023
66.5667	0.3428	0	0.0007	0.0007
66.6	0.3286	0	0.002	0.002
66.6333	0.3128	0	0.0007	0.0007
66.6667	0.3052	0	0.0007	0.0007
66.7	0.2894	0.0023	0.0007	0.003
66.7333	0.2766	0.0023	0.002	0.0044
66.7667	0.2631	0.0023	0.002	0.0044
66.8	0.2489	0.0023	0.0007	0.003
66.8333	0.2394	0.0023	0	0.0023
66.8667	0.2259	0	0.0007	0.0007
66.9	0.2157	0.0023	0.002	0.0044
66.9333	0.2085	0.0023	0.0034	0.0057
66.9667	0.1969	0.0155	0.002	0.0175
67	0.1841	0.0023	0.002	0.0044
67.0333	0.1765	0.0155	0	0.0155
67.0667	0.1634	0	0.0007	0.0007
67.1	0.1578	0.0155	0.002	0.0175
67.1333	0.1472	0	0.0007	0.0007
67.1667	0.14	0.0023	0	0.0023
67.2	0.1278	0.0023	0.002	0.0044
67.2333	0.1226	0.0023	0.002	0.0044
67.2667	0.1127	0.0023	0.0007	0.003
67.3	0.1045	0.0023	0.0007	0.003
67.3333	0.1002	0.0023	0.002	0.0044

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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	0.0926	0	0.0007	0.0007
67.4	0.0844	0.0023	0.0007	0.003
67.4333	0.0801	0	0.0007	0.0007
67.4667	0.0748	0	0.002	0.002
67.5	0.0673	0.0023	0	0.0023
67.5333	0.063	0.0023	0.002	0.0044
67.5667	0.0551	0.0023	0.0007	0.003
67.6	0.0498	0.0155	0.0007	0.0162
67.6333	0.0449	0.0023	0.002	0.0044
67.6667	0.0419	0.0155	0	0.0155
67.7	0.037	0	0.0007	0.0007
67.7333	0.033	0.0023	0.0007	0.003
67.7667	0.0265	0	0.0007	0.0007
67.8	0.0235	0.0286	0	0.0286
67.8333	0.0199	0.0023	0.002	0.0044
67.8667	0.0182	0	0.002	0.002
67.9	0.0146	0.0023	0	0.0023
67.9333	0.0123	0.0155	0.002	0.0175
67.9667	0.01	0	0.0007	0.0007
68	0.0077	0.0155	0	0.0155
68.0333	0.0047	0	0	0
68.0667	0.0031	0.0023	0.0007	0.003
68.1	-0.0022	0	0.002	0.002
68.1333	-0.0038	0.0023	0.0007	0.003
68.1667	-0.0042	0.0023	0.0007	0.003
68.2	-0.0058	0.0155	0.0034	0.0188
68.2333	-0.0084	0.0155	0.002	0.0175
68.2667	-0.0071	0.0023	0	0.0023
68.3	-0.0114	0	0.0007	0.0007
68.3333	-0.0091	0.0155	0.002	0.0175
68.3667	-0.0104	0.0155	0.002	0.0175
68.4	-0.0127	0.0023	0.002	0.0044
68.4333	-0.014	0	0.0007	0.0007
68.4667	-0.0153	0.0155	0.0007	0.0162
68.5	-0.0167	0.0023	0.002	0.0044
68.5333	-0.0153	0.0023	0	0.0023
68.5667	-0.016	0.0023	0.0007	0.003
68.6	-0.02	0.0023	0.0007	0.003
68.6333	-0.019	0.0023	0.002	0.0044
68.6667	-0.0203	0.0023	0.002	0.0044
68.7	-0.0193	0	0.0007	0.0007
68.7333	-0.0193	0.0155	0	0.0155
68.7667	-0.0213	0.0023	0	0.0023

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68.8	-0.0232	0.0023	0.0007	0.003
68.8333	-0.0209	0.0023	0.0007	0.003
68.8667	-0.0216	0	0.0007	0.0007
68.9	-0.02	0.0155	0.002	0.0175
68.9333	-0.0232	0.0155	0.0007	0.0162
68.9667	-0.0226	0.0023	0	0.0023
69	-0.0226	0	0	0
69.0333	-0.0236	0.0023	0.0007	0.003
69.0667	-0.0232	0.0023	0.002	0.0044
69.1	-0.0246	0.0023	0	0.0023
69.1333	-0.0239	0	0.002	0.002
69.1667	-0.0236	0.0155	0.0007	0.0162
69.2	-0.0275	0.0023	0.002	0.0044
69.2333	-0.0229	0.0286	0.0007	0.0293
69.2667	-0.0242	0	0.0007	0.0007
69.3	-0.0272	0	0.0007	0.0007
69.3333	-0.0252	0	0	0
69.3667	-0.0242	0	0	0
69.4	-0.0229	0.0023	0.002	0.0044
69.4333	-0.0223	0.0023	0.0007	0.003
69.4667	-0.0252	0.0155	0.002	0.0175
69.5	-0.0259	0.0023	0.0007	0.003
69.5333	-0.0216	0.0155	0.0034	0.0188
69.5667	-0.0246	0.0155	0.002	0.0175
69.6	-0.0223	0	0.0007	0.0007
69.6333	-0.0236	0.0155	0.0007	0.0162
69.6667	-0.0259	0.0023	0.0007	0.003
69.7	-0.0226	0	0.002	0.002
69.7333	-0.0232	0	0.0007	0.0007
69.7667	-0.0252	0	0	0
69.8	-0.0259	0.0023	0.0007	0.003
69.8333	-0.0265	0.0023	0.0007	0.003
69.8667	-0.0262	0.0023	0.0007	0.003
69.9	-0.0272	0.0023	0.002	0.0044
69.9333	-0.0232	0.0023	0.0007	0.003
69.9667	-0.0279	0.0286	0	0.0286
70	-0.0315	0.0155	0.002	0.0175
70.0333	-0.0252	0.0023	0.002	0.0044
70.0667	-0.0295	0	0.0007	0.0007
70.1	-0.0239	0.0023	0	0.0023
70.1333	-0.0275	0.0023	0.0007	0.003
70.1667	-0.0252	0.0155	0.002	0.0175
70.2	-0.0229	0.0023	0.0007	0.003



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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	-0.0249	0.0023	0.0007	0.003
70.2667	-0.0252	0.0023	0.002	0.0044
70.3	-0.0279	0.0155	0.0007	0.0162
70.3333	-0.0282	0.0155	0.0007	0.0162
70.3667	-0.0275	0.0023	0.002	0.0044
70.4	-0.0246	0.0023	0	0.0023
70.4333	-0.0269	0.0155	0.0007	0.0162
70.4667	-0.0295	0	0	0
70.5	-0.0279	0.0023	0.0007	0.003
70.5333	-0.0275	0.0155	0.0034	0.0188
70.5667	-0.0305	0.0023	0.002	0.0044
70.6	-0.0282	0.0023	0.0007	0.003
70.6333	-0.0288	0.0023	0.0007	0.003
70.6667	-0.0259	0	0.0007	0.0007
70.7	0.0067	0.0023	0.0007	0.003
70.7333	0.0485	0.0023	0	0.0023
70.7667	0.0943	0.0023	0.002	0.0044
70.8	0.137	0.0023	0	0.0023
70.8333	0.1785	0.0155	0.0007	0.0162
70.8667	0.2167	0	0.002	0.002
70.9	0.2638	0.0023	0.0007	0.003
70.9333	0.3227	0.0023	0	0.0023
70.9667	0.3948	0	0.002	0.002
71	0.4622	0	0	0
71.0333	0.5244	0.0155	0	0.0155
71.0667	0.5909	0.0023	0.002	0.0044
71.1	0.6531	0.0023	0.002	0.0044
71.1333	0.7137	0.0155	0.0007	0.0162
71.1667	0.7742	0	0	0
71.2	0.8309	0	0.0007	0.0007
71.2333	0.8901	0	0.002	0.002
71.2667	0.9493	0	0.0007	0.0007
71.3	1.004	0.0155	0.0007	0.0162
71.3333	1.0566	0.0286	0.002	0.0307
71.3667	1.1119	0.0023	0	0.0023
71.4	1.162	0.0023	0.0007	0.003
71.4333	1.215	0.0023	0	0.0023
71.4667	1.266	0.0023	0.0007	0.003
71.5	1.3147	0.0023	0	0.0023
71.5333	1.367	0.0023	0.002	0.0044
71.5667	1.419	0.0155	0	0.0155
71.6	1.4664	0.0023	0.0007	0.003
71.6333	1.5151	0.0155	0	0.0155

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71.6667	1.5635	0	0	0
71.7	1.6122	0.0023	0.0007	0.003
71.7333	1.6586	0.0023	0	0.0023
71.7667	1.7021	0	0.0007	0.0007
71.8	1.7488	0.0023	0	0.0023
71.8333	1.7903	0	0.002	0.002
71.8667	1.8377	0.0155	0	0.0155
71.9	1.8798	0.0155	0.002	0.0175
71.9333	1.9242	0.0023	0	0.0023
71.9667	1.971	0.0023	0	0.0023
72	2.0052	0	0.0007	0.0007
72.0333	2.023	0	0	0
72.0667	2.0378	0.0023	0.0007	0.003
72.1	2.021	0.0023	0	0.0023
72.1333	2.0115	0.0023	0	0.0023
72.1667	2.0013	0.0023	0.002	0.0044
72.2	2.0072	0.0023	0	0.0023
72.2333	2.0128	0.0023	0.0007	0.003
72.2667	2.0187	0.0155	0.002	0.0175
72.3	2.0289	0.0023	0.0007	0.003
72.3333	2.0342	0	0.0007	0.0007
72.3667	2.0408	0	0.0007	0.0007
72.4	2.0477	0	0.0007	0.0007
72.4333	2.0559	0.0023	0.0007	0.003
72.4667	2.0605	0.0023	0.0007	0.003
72.5	2.0697	0.0023	0.0007	0.003
72.5333	2.0648	0.0023	0.0007	0.003
72.5667	2.0391	0.0023	0.002	0.0044
72.6	2.0078	0	0.0007	0.0007
72.6333	1.9894	0.0023	0.0007	0.003
72.6667	1.9891	0.0023	0.002	0.0044
72.7	1.9828	0	0.0007	0.0007
72.7333	1.9799	0.0155	0.0007	0.0162
72.7667	1.973	0.0023	0.0007	0.003
72.8	1.969	0	0.002	0.002
72.8333	1.9674	0.0023	0	0.0023
72.8667	1.9723	0.0023	0.0007	0.003
72.9	1.9825	0	0.0007	0.0007
72.9333	1.9881	0.0155	0.0007	0.0162
72.9667	1.9943	0.0023	0	0.0023
73	2.0052	0.0023	0.002	0.0044
73.0333	2.0082	0.0023	0.0007	0.003
73.0667	2.0161	0.0023	0.0007	0.003

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73.1	2.023	0.0023	0.002	0.0044
73.1333	2.0282	0.0023	0.0007	0.003
73.1667	2.0325	0	0.002	0.002
73.2	2.0253	0.0023	0	0.0023
73.2333	2.019	0.0023	0.0007	0.003
73.2667	2.0098	0.0023	0.0007	0.003
73.3	2.0078	0.0023	0	0.0023
73.3333	1.9993	0.0155	0.002	0.0175
73.3667	1.996	0.0286	0	0.0286
73.4	1.9976	0.0023	0.0007	0.003
73.4333	1.9943	0.0023	0.002	0.0044
73.4667	1.9943	0.0023	0.0007	0.003
73.5	1.9924	0.0023	0.0007	0.003
73.5333	1.9888	0.0155	0.002	0.0175
73.5667	1.9878	0.0155	0.0007	0.0162
73.6	1.9845	0.0155	0	0.0155
73.6333	1.9809	0.0023	0	0.0023
73.6667	1.9772	0.0023	0.002	0.0044
73.7	1.9874	0.0155	0.0007	0.0162
73.7333	1.9924	0.0155	0.0007	0.0162
73.7667	2.0016	0.0023	0.0007	0.003
73.8	2.0075	0.0023	0.0007	0.003
73.8333	2.0128	0	0.0007	0.0007
73.8667	2.018	0	0.002	0.002
73.9	2.0259	0.0155	0	0.0155
73.9333	2.0286	0.0155	0.0007	0.0162
73.9667	2.0292	0.0023	0.0007	0.003
74	2.024	0.0155	0.0007	0.0162
74.0333	2.025	0.0023	0.0007	0.003
74.0667	2.023	0.0023	0.0007	0.003
74.1	2.0184	0.0023	0	0.0023
74.1333	2.0164	0.0023	0.002	0.0044
74.1667	2.0154	0.0023	0	0.0023
74.2	2.0111	0	0	0
74.2333	2.0108	0.0155	0.0007	0.0162
74.2667	2.0101	0.0023	0.0007	0.003
74.3	2.0062	0.0155	0.002	0.0175
74.3333	2.0052	0.0023	0.0007	0.003
74.3667	2.0016	0.0023	0.0007	0.003
74.4	2.0003	0	0.0007	0.0007
74.4333	1.9966	0.0023	0.0007	0.003
74.4667	1.995	0.0023	0	0.0023
74.5	1.9953	0.0023	0.002	0.0044

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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	1.9943	0.0023	0.002	0.0044
74.5667	1.9947	0.0023	0.0007	0.003
74.6	1.9953	0.0023	0.002	0.0044
74.6333	1.9927	0.0023	0.0007	0.003
74.6667	1.9901	0	0	0
74.7	1.9917	0.0155	0	0.0155
74.7333	1.9891	0.0023	0	0.0023
74.7667	1.9911	0.0023	0.0007	0.003
74.8	1.9861	0.0023	0	0.0023
74.8333	1.9825	0.0155	0.0007	0.0162
74.8667	1.9855	0.0023	0.0007	0.003
74.9	1.9851	0.0023	0.002	0.0044
74.9333	1.9822	0.0023	0.0007	0.003
74.9667	1.9851	0.0155	0	0.0155
75	1.9825	0.0023	0.0007	0.003
75.0333	1.9822	0	0.0007	0.0007
75.0667	1.9828	0.0155	0.0007	0.0162
75.1	1.9779	0.0155	0.0007	0.0162
75.1333	1.9772	0.0023	0	0.0023
75.1667	1.9802	0.0023	0.0007	0.003
75.2	1.9785	0.0023	0.0007	0.003
75.2333	1.9756	0.0023	0.0007	0.003
75.2667	1.9769	0.0023	0	0.0023
75.3	1.9789	0	0.0007	0.0007
75.3333	1.9756	0.0155	0.0007	0.0162
75.3667	1.9753	0	0.0007	0.0007
75.4	1.9868	0.0023	0	0.0023
75.4333	2.0042	0.0023	0.002	0.0044
75.4667	2.019	0.0023	0.002	0.0044
75.5	2.0365	0.0023	0	0.0023
75.5333	2.0371	0.0023	0.0007	0.003
75.5667	2.0332	0.0023	0.002	0.0044
75.6	2.0322	0.0023	0.0007	0.003
75.6333	2.0329	0.0155	0	0.0155
75.6667	2.0302	0.0023	0.0007	0.003
75.7	2.0302	0.0155	0	0.0155
75.7333	2.0299	0.0155	0.002	0.0175
75.7667	2.0282	0.0023	0.002	0.0044
75.8	2.0243	0.0155	0.0007	0.0162
75.8333	2.0233	0.0155	0.002	0.0175
75.8667	2.0269	0.0023	0.0007	0.003
75.9	2.0243	0.0023	0.0007	0.003
75.9333	2.023	0.0286	0	0.0286

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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	2.0217	0	0.002	0.002
76	2.0207	0.0023	0.002	0.0044
76.0333	2.022	0.0023	0.0007	0.003
76.0667	2.0177	0.0023	0	0.0023
76.1	2.0161	0.0155	0	0.0155
76.1333	2.0144	0.0023	0.0007	0.003
76.1667	2.0157	0	0.002	0.002
76.2	2.0151	0.0023	0.0007	0.003
76.2333	2.0141	0.0023	0.0007	0.003
76.2667	2.0164	0	0	0
76.3	2.0111	0	0.002	0.002
76.3333	2.0144	0	0.0007	0.0007
76.3667	2.0141	0.0023	0.002	0.0044
76.4	2.0121	0	0	0
76.4333	2.0101	0.0155	0.0007	0.0162
76.4667	2.0101	0	0	0
76.5	2.0115	0.0155	0	0.0155
76.5333	2.0085	0	0.0007	0.0007
76.5667	2.0075	0.0023	0.0007	0.003
76.6	2.0078	0.0155	0.0007	0.0162
76.6333	2.0049	0.0023	0	0.0023
76.6667	2.0049	0.0023	0.0034	0.0057
76.7	2.0045	0	0.002	0.002
76.7333	2.0055	0	0.0007	0.0007
76.7667	2.0049	0.0023	0.002	0.0044
76.8	2.0049	0.0155	0	0.0155
76.8333	2.0019	0.0023	0.0007	0.003
76.8667	2.0036	0	0.0007	0.0007
76.9	1.9996	0.0023	0	0.0023
76.9333	1.9999	0.0155	0.002	0.0175
76.9667	2.0009	0.0155	0.002	0.0175
77	1.998	0.0023	0.0007	0.003
77.0333	1.9973	0.0023	0.002	0.0044
77.0667	1.9957	0.0023	0	0.0023
77.1	1.9963	0	0.0007	0.0007
77.1333	1.9957	0.0023	0	0.0023
77.1667	1.996	0.0023	0.002	0.0044
77.2	1.9943	0.0023	0.002	0.0044
77.2333	1.9943	0.0155	0	0.0155
77.2667	1.9953	0.0155	0.0007	0.0162
77.3	2.0006	0.0023	0.0007	0.003
77.3333	2.0082	0	0.0007	0.0007
77.3667	2.0144	0.0155	0.0007	0.0162

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77.4	2.0256	0.0023	0	0.0023
77.4333	2.0329	0.0023	0.0007	0.003
77.4667	2.0437	0.0155	0	0.0155
77.5	2.0487	0.0155	0.002	0.0175
77.5333	2.0098	0.0023	0	0.0023
77.5667	1.9519	0.0023	0.0047	0.007
77.6	1.894	0.0023	0	0.0023
77.6333	1.8383	0.0023	0.0007	0.003
77.6667	1.784	0.0023	0.002	0.0044
77.7	1.7261	0.0155	0	0.0155
77.7333	1.6771	0.0023	0.0007	0.003
77.7667	1.6264	0	0	0
77.8	1.5777	0.0023	0	0.0023
77.8333	1.528	0.0023	0.002	0.0044
77.8667	1.4845	0.0023	0	0.0023
77.9	1.4398	0.0155	0.0007	0.0162
77.9333	1.395	0.0023	0	0.0023
77.9667	1.3545	0.0023	0.0007	0.003
78	1.3114	0.0155	0.0007	0.0162
78.0333	1.2719	0.0023	0.002	0.0044
78.0667	1.2354	0.0286	0	0.0286
78.1	1.1975	0.0023	0.0007	0.003
78.1333	1.1613	0.0023	0	0.0023
78.1667	1.1274	0.0023	0.0007	0.003
78.2	1.0922	0.0155	0.0007	0.0162
78.2333	1.057	0.0023	0.002	0.0044
78.2667	1.0287	0.0023	0.002	0.0044
78.3	0.9954	0.0023	0.0007	0.003
78.3333	0.9632	0.0023	0.0007	0.003
78.3667	0.9342	0.0023	0.0007	0.003
78.4	0.9029	0.0023	0.002	0.0044
78.4333	0.8743	0	0	0
78.4667	0.8493	0.0023	0.0007	0.003
78.5	0.8216	0	0.0007	0.0007
78.5333	0.7937	0	0	0
78.5667	0.771	0.0023	0.0007	0.003
78.6	0.743	0.0023	0	0.0023
78.6333	0.7203	0.0023	0.002	0.0044
78.6667	0.6966	0.0155	0.002	0.0175
78.7	0.6745	0.0155	0.002	0.0175
78.7333	0.6495	0	0.002	0.002
78.7667	0.6251	0.0023	0	0.0023
78.8	0.6054	0.0155	0.0007	0.0162



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78.8333	0.5837	0.0155	0.002	0.0175
78.8667	0.5636	0.0023	0.0007	0.003
78.9	0.5386	0.0023	0.0007	0.003
78.9333	0.5218	0.0023	0.0007	0.003
78.9667	0.4991	0.0023	0.002	0.0044
79	0.482	0.0155	0	0.0155
79.0333	0.4642	0	0.0007	0.0007
79.0667	0.4454	0.0155	0.0007	0.0162
79.1	0.4267	0.0155	0	0.0155
79.1333	0.4066	0.0023	0.002	0.0044
79.1667	0.3905	0.0023	0	0.0023
79.2	0.378	0	0.002	0.002
79.2333	0.3635	0	0	0
79.2667	0.3434	0.0023	0.002	0.0044
79.3	0.3293	0	0.002	0.002
79.3333	0.3125	0.0155	0.002	0.0175
79.3667	0.2977	0	0.002	0.002
79.4	0.2842	0.0023	0.002	0.0044
79.4333	0.27	0.0023	0	0.0023
79.4667	0.2582	0.0023	0.0007	0.003
79.5	0.246	0.0023	0.002	0.0044
79.5333	0.2299	0	0.002	0.002
79.5667	0.2203	0.0023	0	0.0023
79.6	0.2055	0.0023	0.0007	0.003
79.6333	0.196	0.0155	0.002	0.0175
79.6667	0.1841	0.0155	0	0.0155
79.7	0.1759	0	0	0
79.7333	0.1627	0.0023	0.0007	0.003
79.7667	0.1532	0.0023	0	0.0023
79.8	0.1466	0.0155	0	0.0155
79.8333	0.1314	0.0023	0	0.0023
79.8667	0.1245	0.0155	0.002	0.0175
79.9	0.1196	0.0023	0.0007	0.003
79.9333	0.1114	0.0023	0.0007	0.003
79.9667	0.1012	0.0155	0.002	0.0175
80	0.0946	0.0023	0.002	0.0044
80.0333	0.0887	0.0023	0	0.0023
80.0667	0.0778	0	0.002	0.002
80.1	0.0732	0.0155	0.0007	0.0162
80.1333	0.0656	0.0155	0.0007	0.0162
80.1667	0.0587	0	0	0
80.2	0.0551	0.0023	0	0.0023
80.2333	0.0498	0.0023	0.0007	0.003

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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	0.0446	0.0155	0	0.0155
80.3	0.0426	0.0023	0.0007	0.003
80.3333	0.0357	0.0023	0.0007	0.003
80.3667	0.0307	0	0	0
80.4	0.0281	0.0155	0.0007	0.0162
80.4333	0.0215	0.0155	0	0.0155
80.4667	0.0202	0	0.002	0.002
80.5	0.0143	0	0.0007	0.0007
80.5333	0.0139	0	0.0007	0.0007
80.5667	0.0116	0.0155	0.0007	0.0162
80.6	0.011	0.0023	0.002	0.0044
80.6333	0.006	0.0023	0	0.0023
80.6667	0.0037	0.0023	0.002	0.0044
80.7	0.0018	0.0023	0.002	0.0044
80.7333	-0.0018	0.0023	0.0007	0.003
80.7667	-0.0048	0.0023	0.0007	0.003
80.8	-0.0065	0	0.0007	0.0007
80.8333	-0.0058	0.0023	0	0.0023
80.8667	-0.0045	0	0.0007	0.0007
80.9	-0.0124	0.0155	0.0007	0.0162
80.9333	-0.0104	0.0155	0.002	0.0175
80.9667	-0.013	0.0023	0.0007	0.003
81	-0.0107	0.0023	0.0007	0.003
81.0333	-0.0137	0.0023	0.002	0.0044
81.0667	-0.0153	0.0023	0	0.0023
81.1	-0.0157	0.0155	0.0007	0.0162
81.1333	-0.0173	0.0155	0.0007	0.0162
81.1667	-0.0176	0.0155	0.002	0.0175
81.2	-0.019	0.0023	0.0007	0.003
81.2333	-0.019	0.0155	0.0007	0.0162
81.2667	-0.0186	0.0023	0.002	0.0044
81.3	-0.0196	0	0.0007	0.0007
81.3333	-0.0206	0.0155	0	0.0155
81.3667	-0.0203	0.0155	0	0.0155
81.4	-0.0229	0.0023	0.0007	0.003
81.4333	-0.0246	0.0155	0.0007	0.0162
81.4667	-0.0213	0.0023	0.002	0.0044
81.5	-0.0209	0.0023	0.002	0.0044
81.5333	-0.0292	0.0023	0.0007	0.003
81.5667	-0.0269	0.0023	0.002	0.0044
81.6	-0.0272	0.0023	0	0.0023
81.6333	-0.0252	0.0155	0.0007	0.0162
81.6667	-0.0272	0.0155	0.0007	0.0162

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81.7	-0.0259	0.0155	0.0034	0.0188
81.7333	-0.0275	0	0	0
81.7667	-0.0229	0.0023	0.0007	0.003
81.8	-0.0275	0.0023	0	0.0023
81.8333	-0.0259	0.0155	0.0007	0.0162
81.8667	-0.0259	0.0023	0.0007	0.003
81.9	-0.0272	0.0023	0.002	0.0044
81.9333	-0.0246	0.0023	0.0007	0.003
81.9667	-0.0246	0	0	0
82	-0.0262	0.0023	0.0007	0.003
82.0333	-0.0377	0.0023	0	0.0023
82.0667	-0.0512	0.0155	0.002	0.0175
82.1	-0.0506	0.0023	0.0007	0.003
82.1333	-0.0499	0	0.0007	0.0007
82.1667	-0.0492	0.0155	0	0.0155
82.2	-0.0483	0.0023	1.0632	1.0655
82.2333	-0.0522	0.0023	1.0185	1.0208
82.2667	-0.0469	0.0023	0.9817	0.984
82.3	-0.0509	0.0023	0.9501	0.9525
82.3333	-0.0249	0.0023	0.9265	0.9288
82.3667	0.036	0.0023	0.9159	0.9183
82.4	0.114	0.0155	0.9159	0.9314
82.4333	0.1877	0	0.912	0.912
82.4667	0.268	0.0023	0.9081	0.9104
82.5	0.3404	0.0023	0.9067	0.9091
82.5333	0.4115	0.0155	0.9041	0.9196
82.5667	0.4823	0.0023	0.9002	0.9025
82.6	0.5419	0.0155	0.9002	0.9156
82.6333	0.6149	0.0155	0.9002	0.9156
82.6667	0.6775	0.0023	0.8975	0.8999
82.7	0.7377	0.0155	0.891	0.9064
82.7333	0.8016	0.0023	0.8857	0.888
82.7667	0.8648	0.0023	0.8844	0.8867
82.8	0.924	0.0155	0.8818	0.8972
82.8333	0.9832	0.0155	0.8765	0.892
82.8667	1.0402	0	0.8765	0.8765
82.9	1.0971	0.0155	0.8725	0.888
82.9333	1.1528	0.0023	0.8686	0.8709
82.9667	1.2077	0.0023	0.8594	0.8617
83	1.2617	0.0023	0.8528	0.8551
83.0333	1.3117	0.0023	0.8476	0.8499
83.0667	1.365	0.0023	0.8489	0.8512
83.1	1.4193	0.0155	0.841	0.8565

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83.1333	1.4704	0.0286	0.8331	0.8617
83.1667	1.522	0	0.8252	0.8252
83.2	1.574	0.0155	0.8239	0.8394
83.2333	1.6195	0.0023	0.816	0.8183
83.2667	1.6701	0.0023	0.8134	0.8157
83.3	1.7215	0.0155	0.8134	0.8288
83.3333	1.7663	0.0155	0.7989	0.8144
83.3667	1.8156	0	0.7937	0.7937
83.4	1.8627	0.0023	0.7884	0.7907
83.4333	1.9065	0.0155	0.7858	0.8012
83.4667	1.9522	0	0.7779	0.7779
83.5	1.9993	0.0023	0.7739	0.7762
83.5333	2.045	0.0023	0.7674	0.7697
83.5667	2.076	0.0023	0.766	0.7684
83.6	2.0671	0.0023	0.7529	0.7552
83.6333	2.0668	0.0023	0.7371	0.7394
83.6667	2.0605	0.0023	0.7345	0.7368
83.7	2.0615	0.0023	0.7279	0.7302
83.7333	2.0612	0.0023	0.7148	0.7171
83.7667	2.0569	0.0155	0.7069	0.7223
83.8	2.0595	0.0023	0.695	0.6973
83.8333	2.0612	0.0023	0.6924	0.6947
83.8667	2.0612	0.0023	0.6832	0.6855
83.9	2.0674	0.0023	0.6714	0.6737
83.9333	2.0671	0.0023	0.6727	0.675
83.9667	2.0684	0.0023	0.6608	0.6632
84	2.0694	0.0023	0.6529	0.6553
84.0333	2.0727	0.0023	0.6477	0.65
84.0667	2.075	0.0023	0.6385	0.6408
84.1	2.0789	0.0023	0.6293	0.6316
84.1333	2.0796	0.0023	0.624	0.6263
84.1667	2.0849	0.0023	0.6161	0.6184
84.2	2.0862	0.0155	0.6082	0.6237
84.2333	2.0875	0.0023	0.6056	0.6079
84.2667	2.0789	0	0.5964	0.5964
84.3	2.0747	0.0155	0.5911	0.6066
84.3333	2.0737	0.0155	0.5806	0.5961
84.3667	2.0664	0.0023	0.5741	0.5764
84.4	2.0625	0.0023	0.5662	0.5685
84.4333	2.0628	0.0155	0.5609	0.5764
84.4667	2.0582	0	0.553	0.553
84.5	2.0516	0	0.5491	0.5491
84.5333	2.051	0.0023	0.5425	0.5448

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84.5667	2.0457	0	0.5359	0.5359
84.6	2.0437	0.0023	0.5293	0.5317
84.6333	2.0447	0	0.528	0.528
84.6667	2.0401	0.0155	0.5228	0.5382
84.7	2.0391	0	0.5175	0.5175
84.7333	2.0342	0.0023	0.5149	0.5172
84.7667	2.0329	0.0023	0.507	0.5093
84.8	2.0306	0	0.4991	0.4991
84.8333	2.0309	0.0023	0.4925	0.4948
84.8667	2.0253	0.0023	0.4912	0.4935
84.9	2.0266	0.0155	0.482	0.4975
84.9333	2.0259	0.0155	0.482	0.4975
84.9667	2.0253	0.0155	0.4754	0.4909
85	2.022	0.0155	0.4702	0.4856
85.0333	2.0213	0.0023	0.4675	0.4699
85.0667	2.0184	0.0023	0.461	0.4633
85.1	2.0164	0.0023	0.4583	0.4607
85.1333	2.0157	0.0023	0.4478	0.4501
85.1667	2.0151	0.0155	0.4491	0.4646
85.2	2.0167	0	0.4426	0.4426
85.2333	2.0134	0.0023	0.4399	0.4422
85.2667	2.0138	0.0155	0.4373	0.4528
85.3	2.0131	0.0023	0.4333	0.4357
85.3333	2.0108	0.0023	0.4294	0.4317
85.3667	2.0092	0.0023	0.4333	0.4357
85.4	2.0059	0.0155	0.4241	0.4396
85.4333	2.0082	0.0023	0.4228	0.4251
85.4667	2.0082	0.0023	0.4149	0.4173
85.5	2.0029	0.0023	0.4136	0.4159
85.5333	2.0049	0.0023	0.4136	0.4159
85.5667	2.0022	0.0286	0.407	0.4357
85.6	2.0013	0.0023	0.3965	0.3988
85.6333	2.0032	0	0.3952	0.3952
85.6667	2.0036	0.0155	0.3939	0.4094
85.7	1.9986	0.0155	0.3939	0.4094
85.7333	1.9996	0.0155	0.3873	0.4028
85.7667	1.9963	0.0023	0.3834	0.3857
85.8	1.999	0.0023	0.3781	0.3804
85.8333	1.9957	0	0.3768	0.3768
85.8667	1.9953	0.0023	0.3768	0.3791
85.9	1.9973	0	0.3663	0.3663
85.9333	1.9943	0.0023	0.365	0.3673
85.9667	1.9914	0.0023	0.361	0.3633

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
86	1.9943	0.0155	0.3637	0.3791
86.0333	1.9953	0.0023	0.3584	0.3607
86.0667	1.9973	0.0155	0.3584	0.3739
86.1	1.994	0.0023	0.3492	0.3515
86.1333	2.0059	0.0023	0.3492	0.3515
86.1667	2.0164	0.0023	0.3452	0.3476
86.2	2.0279	0.0155	0.3439	0.3594
86.2333	2.0388	0.0023	0.3452	0.3476
86.2667	2.0457	0.0155	0.3426	0.3581
86.3	2.0408	0.0155	0.3413	0.3568
86.3333	2.0414	0	0.3347	0.3347
86.3667	2.0404	0	0.3321	0.3321
86.4	2.0417	0.0023	0.3334	0.3357
86.4333	2.0355	0.0023	0.3321	0.3344
86.4667	2.0384	0.0155	0.3295	0.3449
86.5	2.0348	0.0023	0.3268	0.3292
86.5333	2.0358	0.0155	0.3216	0.337
86.5667	2.0342	0	0.3203	0.3203
86.6	2.0361	0	0.3203	0.3203
86.6333	2.0325	0.0023	0.3189	0.3213
86.6667	2.0335	0.0023	0.3137	0.316
86.7	2.0302	0.0155	0.3163	0.3318
86.7333	2.0332	0.0023	0.315	0.3173
86.7667	2.0315	0.0023	0.3111	0.3134
86.8	2.0299	0.0023	0.3045	0.3068
86.8333	2.0273	0.0023	0.3005	0.3029
86.8667	2.0289	0.0155	0.3045	0.32
86.9	2.0269	0.0023	0.0007	0.003
86.9333	2.0276	0.0023	0.0007	0.003
86.9667	2.0269	0.0023	0	0.0023
87	2.0243	0.0023	0.002	0.0044
87.0333	2.022	0.0155	0.002	0.0175
87.0667	2.0223	0.0155	0	0.0155
87.1	2.0197	0.0023	0.002	0.0044
87.1333	2.0194	0.0023	0	0.0023
87.1667	2.0213	0.0023	0	0.0023
87.2	2.0203	0.0155	0	0.0155
87.2333	2.0223	0	0.0007	0.0007
87.2667	2.0171	0.0155	0.0007	0.0162
87.3	2.0177	0.0155	0.0007	0.0162
87.3333	2.02	0.0155	0	0.0155
87.3667	2.0184	0	0	0
87.4	2.0197	0.0155	0.002	0.0175



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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	2.02	0.0155	0.002	0.0175
87.4667	2.018	0.0155	0.0007	0.0162
87.5	2.0177	0.0155	0.0007	0.0162
87.5333	2.0194	0.0023	0.0007	0.003
87.5667	2.0167	0.0023	0.0007	0.003
87.6	2.0164	0.0023	0.002	0.0044
87.6333	2.0128	0.0155	0.0007	0.0162
87.6667	2.0148	0.0023	0	0.0023
87.7	2.0141	0.0155	0	0.0155
87.7333	2.0138	0.0023	0.002	0.0044
87.7667	2.0111	0.0023	0.0007	0.003
87.8	2.0138	0.0155	0	0.0155
87.8333	2.0085	0.0155	0.0007	0.0162
87.8667	2.0124	0.0023	0.0007	0.003
87.9	2.0124	0.0023	0.002	0.0044
87.9333	2.0105	0.0023	0.0007	0.003
87.9667	2.0111	0.0155	0.0007	0.0162
88	2.0088	0.0023	0	0.0023
88.0333	2.0082	0.0155	0.0007	0.0162
88.0667	2.0085	0.0023	0	0.0023
88.1	2.0095	0	0.0007	0.0007
88.1333	2.0075	0.0023	0	0.0023
88.1667	2.0082	0.0155	0.0007	0.0162
88.2	2.0042	0	0.0007	0.0007
88.2333	2.0069	0.0023	0.0007	0.003
88.2667	2.0069	0.0155	0.0007	0.0162
88.3	2.0075	0	0.0007	0.0007
88.3333	2.0032	0.0023	0	0.0023
88.3667	2.0039	0.0023	0	0.0023
88.4	2.0045	0.0023	0.002	0.0044
88.4333	2.0032	0	0	0
88.4667	2.0032	0.0155	0.0007	0.0162
88.5	2.0026	0.0023	0.0007	0.003
88.5333	2.0022	0.0023	0.002	0.0044
88.5667	1.9999	0.0023	0.002	0.0044
88.6	2.0029	0.0155	0.0007	0.0162
88.6333	2.0131	0.0023	0	0.0023
88.6667	2.018	0.0023	0.0007	0.003
88.7	2.0309	0.0023	0	0.0023
88.7333	2.0388	0.0023	0.0007	0.003
88.7667	2.0467	0.0155	0.0007	0.0162
88.8	2.0546	0.0023	0	0.0023
88.8333	2.0605	0.0023	0.002	0.0044

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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	2.0533	0.0155	0	0.0155
88.9	1.9976	0.0023	0.002	0.0044
88.9333	1.9417	0.0155	0.0007	0.0162
88.9667	1.8854	0.0023	0.0007	0.003
89	1.8364	0.0023	0.002	0.0044
89.0333	1.784	0.0023	0.0007	0.003
89.0667	1.737	0.0155	0.0007	0.0162
89.1	1.6896	0.0023	0.002	0.0044
89.1333	1.6465	0.0155	0.0007	0.0162
89.1667	1.6014	0.0023	0.002	0.0044
89.2	1.5592	0.0155	0.002	0.0175
89.2333	1.5161	0.0155	0	0.0155
89.2667	1.4743	0	0.0007	0.0007
89.3	1.4358	0.0023	0	0.0023
89.3333	1.3999	0.0155	0.0007	0.0162
89.3667	1.3627	0.0023	0.002	0.0044
89.4	1.3255	0.0155	0.0007	0.0162
89.4333	1.29	0.0155	0.002	0.0175
89.4667	1.2548	0	0	0
89.5	1.2199	0	0.0007	0.0007
89.5333	1.185	0.0023	0.0007	0.003
89.5667	1.1544	0	0.002	0.002
89.6	1.1228	0	0	0
89.6333	1.0909	0.0023	0.0007	0.003
89.6667	1.0622	0.0155	0.0007	0.0162
89.7	1.0297	0.0023	0	0.0023
89.7333	1.0007	0.0023	0.0007	0.003
89.7667	0.9724	0.0155	0.0007	0.0162
89.8	0.9487	0	0	0
89.8333	0.9168	0.0023	0.002	0.0044
89.8667	0.8931	0.0023	0.0007	0.003
89.9	0.8667	0.0023	0.0007	0.003
89.9333	0.845	0.0023	0.0007	0.003
89.9667	0.8174	0.0023	0	0.0023
90	0.791	0.0023	0.0007	0.003
90.0333	0.768	0.0023	0.0007	0.003
90.0667	0.745	0.0023	0.0007	0.003
90.1	0.7216	0	0.002	0.002
90.1333	0.7009	0.0023	0	0.0023
90.1667	0.6772	0.0023	0.002	0.0044
90.2	0.6564	0.0155	0	0.0155
90.2333	0.6354	0.0155	0.0007	0.0162
90.2667	0.6163	0.0023	0	0.0023

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90.3	0.5939	0	0.002	0.002
90.3333	0.5731	0.0023	0.0007	0.003
90.3667	0.5531	0.0023	0.0007	0.003
90.4	0.5346	0.0023	0	0.0023
90.4333	0.5202	0.0155	0.0007	0.0162
90.4667	0.4997	0.0023	0	0.0023
90.5	0.4833	0.0155	0.0007	0.0162
90.5333	0.4603	0.0023	0.0007	0.003
90.5667	0.4438	0.0023	0.002	0.0044
90.6	0.4254	0.0023	0	0.0023
90.6333	0.4125	0.0023	0.0007	0.003
90.6667	0.3967	0.0023	0.0007	0.003
90.7	0.3832	0.0155	0.0007	0.0162
90.7333	0.3668	0.0155	0.0007	0.0162
90.7667	0.3507	0.0023	0	0.0023
90.8	0.3372	0.0023	0.0007	0.003
90.8333	0.3197	0.0023	0.002	0.0044
90.8667	0.3098	0	0.0007	0.0007
90.9	0.2947	0.0023	0	0.0023
90.9333	0.2838	0.0286	0.002	0.0307
90.9667	0.2713	0.0023	0.002	0.0044
91	0.2592	0.0023	0.0007	0.003
91.0333	0.247	0.0023	0.0007	0.003
91.0667	0.2355	0.0023	0.0007	0.003
91.1	0.2233	0.0023	0.0007	0.003
91.1333	0.2121	0.0023	0	0.0023
91.1667	0.1993	0	0.002	0.002
91.2	0.1897	0.0023	0	0.0023
91.2333	0.1798	0.0155	0.002	0.0175
91.2667	0.169	0	0.002	0.002
91.3	0.1614	0.0023	0.0007	0.003
91.3333	0.1515	0	0.0007	0.0007
91.3667	0.142	0.0155	0.0007	0.0162
91.4	0.1338	0.0023	0.0007	0.003
91.4333	0.1255	0.0023	0.002	0.0044
91.4667	0.1189	0.0023	0.0007	0.003
91.5	0.1087	0.0023	0.002	0.0044
91.5333	0.1022	0.0023	0.002	0.0044
91.5667	0.0962	0.0155	0	0.0155
91.6	0.087	0.0023	0.002	0.0044
91.6333	0.0814	0.0155	0.002	0.0175
91.6667	0.0732	0	0.0007	0.0007
91.7	0.0692	0.0155	0.002	0.0175

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91.7333	0.0636	0.0155	0.0007	0.0162
91.7667	0.0567	0.0023	0	0.0023
91.8	0.0531	0.0155	0.002	0.0175
91.8333	0.0482	0.0155	0	0.0155
91.8667	0.0459	0.0155	0.002	0.0175
91.9	0.0396	0.0023	0.002	0.0044
91.9333	0.0353	0.0023	0	0.0023
91.9667	0.0288	0.0023	0.002	0.0044
92	0.0261	0	0.002	0.002
92.0333	0.0215	0.0023	0.002	0.0044
92.0667	0.0189	0.0023	0.002	0.0044
92.1	0.0156	0.0155	0.0034	0.0188
92.1333	0.0139	0.0023	0.0007	0.003
92.1667	0.0116	0.0155	0.002	0.0175
92.2	0.0103	0	0.002	0.002
92.2333	0.0037	0.0023	0.0007	0.003
92.2667	0.0044	0.0023	0	0.0023
92.3	-0.0009	0.0023	0	0.0023
92.3333	-0.0018	0	0.0007	0.0007
92.3667	-0.0058	0	0	0
92.4	-0.0061	0.0155	0.0007	0.0162
92.4333	-0.0051	0	0.0007	0.0007
92.4667	-0.0114	0.0023	0.0007	0.003
92.5	-0.0121	0.0023	0.0007	0.003
92.5333	-0.0114	0.0286	0.0007	0.0293
92.5667	-0.0114	0.0155	0.0007	0.0162
92.6	-0.015	0	0.002	0.002
92.6333	-0.0176	0.0023	0	0.0023
92.6667	-0.0153	0.0023	0	0.0023
92.7	-0.015	0.0023	0.002	0.0044
92.7333	-0.0157	0.0023	0.0007	0.003
92.7667	-0.0193	0.0155	0.0007	0.0162
92.8	-0.018	0.0023	0	0.0023
92.8333	-0.0203	0.0023	0.0007	0.003
92.8667	-0.0216	0	0.0007	0.0007
92.9	-0.0213	0.0023	0.0007	0.003
92.9333	-0.0239	0.0023	0.002	0.0044
92.9667	-0.0229	0.0023	0.002	0.0044
93	-0.0183	0.0286	0	0.0286
93.0333	-0.017	0.0286	0.002	0.0307
93.0667	-0.0183	0.0023	0.0034	0.0057
93.1	-0.0223	0.0023	0	0.0023
93.1333	-0.0229	0.0155	0.0007	0.0162

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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	-0.0167	0.0155	0.0007	0.0162
93.2	-0.0213	0.0023	0	0.0023
93.2333	-0.0193	0.0155	0.0034	0.0188
93.2667	-0.0219	0.0023	0.002	0.0044
93.3	-0.0232	0.0023	0.0007	0.003
93.3333	-0.0209	0.0155	0.002	0.0175
93.3667	-0.0262	0.0023	0.0007	0.003
93.4	-0.0262	0.0023	0	0.0023
93.4333	-0.0279	0.0155	0	0.0155
93.4667	-0.0298	0	0	0
93.5	-0.0295	0.0155	0.002	0.0175
93.5333	-0.0265	0.0023	0	0.0023
93.5667	-0.0259	0.0023	0	0.0023
93.6	-0.0252	0.0023	0.0007	0.003
93.6333	-0.0288	0.0155	0	0.0155
93.6667	-0.016	0.0023	0.0007	0.003
93.7	-0.015	0.0023	0.002	0.0044
93.7333	-0.016	0	0.0007	0.0007
93.7667	-0.0315	0.0023	0.002	0.0044
93.8	-0.0295	0.0023	0.0007	0.003
93.8333	-0.0288	0.0023	0.002	0.0044
93.8667	-0.0295	0	0	0
93.9	0.0116	0.0023	0	0.0023
93.9333	0.0729	0.0155	0.002	0.0175
93.9667	0.1456	0.0023	0.0007	0.003
94	0.222	0.0023	0.0007	0.003
94.0333	0.2901	0.0155	0.002	0.0175
94.0667	0.3589	0.0023	0.002	0.0044
94.1	0.4254	0.0023	0.0007	0.003
94.1333	0.4895	0	0	0
94.1667	0.5521	0.0155	0	0.0155
94.2	0.6159	0	0	0
94.2333	0.6739	0.0155	0.0007	0.0162
94.2667	0.7361	0.0023	0.0007	0.003
94.3	0.797	0.0023	0.0007	0.003
94.3333	0.8536	0.0023	0.0007	0.003
94.3667	0.9105	0.0023	0.002	0.0044
94.4	0.9688	0.0155	0.0007	0.0162
94.4333	1.0221	0.0155	0	0.0155
94.4667	1.0774	0	0.0007	0.0007
94.5	1.131	0.0023	0.0007	0.003
94.5333	1.183	0.0023	0.002	0.0044
94.5667	1.236	0	0	0

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94.6	1.2864	0.0023	0.0007	0.003
94.6333	1.3381	0.0155	0.0007	0.0162
94.6667	1.3887	0.0023	0.0007	0.003
94.7	1.4398	0.0155	0.0007	0.0162
94.7333	1.4878	0	0	0
94.7667	1.5332	0.0023	0	0.0023
94.8	1.5806	0.0023	0	0.0023
94.8333	1.6339	0.0155	0.002	0.0175
94.8667	1.6774	0.0023	0.0007	0.003
94.9	1.7261	0.0155	0	0.0155
94.9333	1.7686	0.0023	0.002	0.0044
94.9667	1.815	0.0155	0.002	0.0175
95	1.8587	0.0023	0.0007	0.003
95.0333	1.9075	0	0	0
95.0667	1.9446	0.0155	0	0.0155
95.1	1.992	0.0023	0.0007	0.003
95.1333	2.0338	0.0023	0.0007	0.003
95.1667	2.0727	0	0.0007	0.0007
95.2	2.0707	0.0023	0.002	0.0044
95.2333	2.0668	0.0023	0.002	0.0044
95.2667	2.0536	0.0023	0.0007	0.003
95.3	2.0477	0.0023	0.002	0.0044
95.3333	2.047	0.0023	0.0007	0.003
95.3667	2.0394	0.0155	0.0007	0.0162
95.4	2.0394	0.0155	0.002	0.0175
95.4333	2.0371	0.0023	0.0007	0.003
95.4667	2.0378	0.0023	0.0007	0.003
95.5	2.0352	0.0155	0.002	0.0175
95.5333	2.0315	0.0023	0.0007	0.003
95.5667	2.0338	0.0023	0.0007	0.003
95.6	2.0338	0.0023	0.0007	0.003
95.6333	2.0329	0.0155	0.002	0.0175
95.6667	2.0381	0.0286	0.0007	0.0293
95.7	2.0375	0.0023	0.0007	0.003
95.7333	2.0384	0.0286	0.0007	0.0293
95.7667	2.0427	0.0155	0	0.0155
95.8	2.0414	0.0286	0.002	0.0307
95.8333	2.0457	0.0155	0.0007	0.0162
95.8667	2.048	0.0023	0.0007	0.003
95.9	2.0483	0.0023	0.002	0.0044
95.9333	2.0529	0.0155	0.0007	0.0162
95.9667	2.0536	0.0023	0.0007	0.003
96	2.051	0.0023	0.0007	0.003



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96.0333	2.0549	0.0023	0.002	0.0044
96.0667	2.0618	0.0155	0	0.0155
96.1	2.0628	0.0023	0	0.0023
96.1333	2.0582	0.0023	0	0.0023
96.1667	2.0635	0.0023	0	0.0023
96.2	2.0668	0.0023	0	0.0023
96.2333	2.0664	0	0.0007	0.0007
96.2667	2.0691	0.0023	0	0.0023
96.3	2.0737	0	0.0007	0.0007
96.3333	2.0756	0.0023	0	0.0023
96.3667	2.0796	0.0023	0.0007	0.003
96.4	2.0796	0.0155	0.002	0.0175
96.4333	2.0819	0.0023	0	0.0023
96.4667	2.0799	0.0023	0.0007	0.003
96.5	2.076	0.0023	0.0007	0.003
96.5333	2.0724	0	0.0007	0.0007
96.5667	2.07	0	0.002	0.002
96.6	2.0677	0	0.002	0.002
96.6333	2.0645	0.0023	0.002	0.0044
96.6667	2.0612	0.0155	0	0.0155
96.7	2.0615	0.0023	0.0007	0.003
96.7333	2.0579	0.0286	0.0007	0.0293
96.7667	2.0575	0.0155	0	0.0155
96.8	2.0579	0.0023	0.0007	0.003
96.8333	2.0506	0.0023	0.0007	0.003
96.8667	2.0493	0.0155	0.0007	0.0162
96.9	2.0493	0.0023	0.002	0.0044
96.9333	2.0493	0.0155	0.002	0.0175
96.9667	2.0483	0.0023	0	0.0023
97	2.044	0.0023	0.002	0.0044
97.0333	2.0417	0.0023	0.0007	0.003
97.0667	2.0394	0.0155	0.002	0.0175
97.1	2.0398	0.0023	0.002	0.0044
97.1333	2.0388	0.0023	0.0007	0.003
97.1667	2.0345	0.0023	0.002	0.0044
97.2	2.0352	0.0155	0.0007	0.0162
97.2333	2.0348	0.0023	0.0007	0.003
97.2667	2.0338	0.0023	0	0.0023
97.3	2.0315	0.0155	0.002	0.0175
97.3333	2.0302	0.0023	0	0.0023
97.3667	2.0299	0.0155	0.0007	0.0162
97.4	2.0289	0.0023	0.0007	0.003
97.4333	2.0292	0.0023	0	0.0023

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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	2.0266	0.0155	0.0007	0.0162
97.5	2.0243	0.0155	0.0007	0.0162
97.5333	2.0217	0.0155	0.002	0.0175
97.5667	2.0243	0.0155	0	0.0155
97.6	2.0223	0	0.0007	0.0007
97.6333	2.019	0.0023	0.0007	0.003
97.6667	2.0243	0.0023	0.002	0.0044
97.7	2.0174	0	0	0
97.7333	2.019	0.0155	0	0.0155
97.7667	2.02	0.0023	0.0007	0.003
97.8	2.0184	0.0155	0.002	0.0175
97.8333	2.0138	0.0023	0.002	0.0044
97.8667	2.0167	0.0023	0.0007	0.003
97.9	2.0138	0.0023	0.0007	0.003
97.9333	2.0128	0.0155	0	0.0155
97.9667	2.0148	0.0023	0.0007	0.003
98	2.0118	0.0155	0	0.0155
98.0333	2.0118	0.0023	0	0.0023
98.0667	2.0121	0.0023	0	0.0023
98.1	2.0115	0.0023	0.0007	0.003
98.1333	2.0088	0.0023	0.0007	0.003
98.1667	2.0105	0.0023	0.0007	0.003
98.2	2.0101	0.0023	0	0.0023
98.2333	2.0072	0.0023	0	0.0023
98.2667	2.0069	0.0023	0	0.0023
98.3	2.0065	0	0	0
98.3333	2.0098	0	0.0007	0.0007
98.3667	2.0065	0.0023	0.0034	0.0057
98.4	2.0026	0.0023	0.0007	0.003
98.4333	2.0026	0.0155	0.0007	0.0162
98.4667	2.0049	0.0023	0.0007	0.003
98.5	2.0039	0.0155	0.0007	0.0162
98.5333	2.0055	0.0155	0	0.0155
98.5667	2.0019	0.0023	0.002	0.0044
98.6	2.0009	0.0023	0.002	0.0044
98.6333	2.0016	0.0155	0	0.0155
98.6667	2.0003	0.0023	0.002	0.0044
98.7	1.998	0.0023	0.0007	0.003
98.7333	1.9983	0.0023	0.0007	0.003
98.7667	1.9999	0.0155	0.002	0.0175
98.8	1.9976	0.0023	0	0.0023
98.8333	1.9963	0.0023	0.002	0.0044
98.8667	1.996	0	0.0007	0.0007

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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	1.9976	0.0023	0.002	0.0044
98.9333	1.9957	0.0155	0.0007	0.0162
98.9667	1.9927	0.0155	0.0007	0.0162
99	1.9943	0.0023	0	0.0023
99.0333	1.9927	0.0155	0	0.0155
99.0667	1.9937	0.0023	0.0007	0.003
99.1	1.9888	0.0023	0.002	0.0044
99.1333	1.9897	0.0023	0.0007	0.003
99.1667	2.0022	0.0155	0.002	0.0175
99.2	2.0072	0.0023	0	0.0023
99.2333	2.0164	0.0023	0.0034	0.0057
99.2667	2.0227	0.0023	0.002	0.0044
99.3	2.0335	0.0023	0.0007	0.003
99.3333	2.0401	0.0023	0.002	0.0044
99.3667	2.0483	0.0023	0.0007	0.003
99.4	2.0506	0.0155	0.002	0.0175
99.4333	2.0503	0.0155	0	0.0155
99.4667	2.047	0.0155	0.0007	0.0162
99.5	2.0473	0.0023	0.0007	0.003
99.5333	2.0483	0.0023	0.0007	0.003
99.5667	2.0431	0.0023	0.002	0.0044
99.6	2.0434	0.0155	0.0007	0.0162
99.6333	2.0427	0.0023	0.0007	0.003
99.6667	2.0434	0.0155	0.002	0.0175
99.7	2.0421	0.0155	0	0.0155
99.7333	2.0371	0.0023	0.002	0.0044
99.7667	2.0398	0.0023	0.002	0.0044
99.8	2.0411	0.0023	0.002	0.0044
99.8333	2.0361	0.0023	0	0.0023
99.8667	2.0368	0.0023	0	0.0023
99.9	2.0365	0.0155	0.0007	0.0162
99.9333	2.0342	0.0023	0	0.0023
99.9667	2.0352	0.0023	0.0007	0.003
100	2.0345	0.0155	0	0.0155
100.0333	2.0315	0.0023	0.002	0.0044
100.0667	2.0309	0.0023	0.002	0.0044
100.1	2.0329	0.0023	0.0007	0.003
100.1333	2.0302	0.0023	0.0007	0.003
100.1667	2.0276	0	0.0007	0.0007
100.2	2.0259	0.0023	0	0.0023
100.2333	2.0306	0.0155	0.0007	0.0162
100.2667	2.0263	0.0155	0.0034	0.0188
100.3	2.0253	0	0.002	0.002

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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	2.0269	0.0155	0.0007	0.0162
100.3667	2.0246	0.0023	0	0.0023
100.4	2.0266	0.0023	0.0007	0.003
100.4333	2.022	0.0155	0.002	0.0175
100.4667	2.0236	0.0023	0.0007	0.003
100.5	2.0279	0.0023	0.0007	0.003
100.5333	2.0493	0.0155	0.0007	0.0162
100.5667	2.0717	0.0155	0.0007	0.0162
100.6	2.0878	0	0	0
100.6333	2.1076	0.0023	0.002	0.0044
100.6667	2.129	0.0023	0	0.0023
100.7	2.1464	0.0155	0	0.0155
100.7333	2.1609	0	0.0007	0.0007
100.7667	2.179	0.0155	0.002	0.0175
100.8	2.1958	0.0155	0.002	0.0175
100.8333	2.2188	0.0155	0.002	0.0175
100.8667	2.2402	0.0023	0.0007	0.003
100.9	2.2646	0.0155	0.002	0.0175
100.9333	2.2866	0.0023	0.002	0.0044
100.9667	2.3047	0.0023	0.0007	0.003
101	2.3261	0.0023	0.0007	0.003
101.0333	2.3429	0.0023	0.002	0.0044
101.0667	2.362	0	0.002	0.002
101.1	2.3798	0.0155	0	0.0155
101.1333	2.3979	0.0023	0	0.0023
101.1667	2.4114	0	0.002	0.002
101.2	2.4272	0.0023	0.0007	0.003
101.2333	2.4193	0.0286	0	0.0286
101.2667	2.4166	0.0023	0	0.0023
101.3	2.4097	0.0023	0.0007	0.003
101.3333	2.4087	0.0023	0.002	0.0044
101.3667	2.4035	0.0023	0.0007	0.003
101.4	2.4002	0.0155	0.0007	0.0162
101.4333	2.3985	0.0155	0.002	0.0175
101.4667	2.3929	0.0155	0	0.0155
101.5	2.3926	0.0023	0.0007	0.003
101.5333	2.3883	0.0023	0.0007	0.003
101.5667	2.3877	0.0155	0.002	0.0175
101.6	2.3844	0.0023	0	0.0023
101.6333	2.3811	0.0023	0.002	0.0044
101.6667	2.3814	0.0023	0.0007	0.003
101.7	2.3794	0.0155	0.0007	0.0162
101.7333	2.386	0.0023	0.002	0.0044

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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	2.3985	0.0023	0	0.0023
101.8	2.4064	0.0155	0.0007	0.0162
101.8333	2.4146	0.0286	0.002	0.0307
101.8667	2.414	0.0023	0	0.0023
101.9	2.4114	0.0023	0.002	0.0044
101.9333	2.411	0	0.002	0.002
101.9667	2.4143	0.0155	0.0007	0.0162
102	2.4123	0	0.0007	0.0007
102.0333	2.4127	0.0023	0	0.0023
102.0667	2.4123	0.0023	0.002	0.0044
102.1	2.4091	0.0023	0.0007	0.003
102.1333	2.412	0.0023	0.0007	0.003
102.1667	2.417	0.0023	0.0007	0.003
102.2	2.4225	0.0023	0	0.0023
102.2333	2.4212	0	0.0007	0.0007
102.2667	2.4272	0.0023	0.0007	0.003
102.3	2.4258	0.0023	0.0007	0.003
102.3333	2.4216	0.0023	0.002	0.0044
102.3667	2.4212	0	0.0007	0.0007
102.4	2.4222	0.0023	0.0007	0.003
102.4333	2.4186	0.0023	0	0.0023
102.4667	2.4166	0.0023	0.002	0.0044
102.5	2.4189	0	0	0
102.5333	2.4166	0.0023	0.002	0.0044
102.5667	2.4166	0	0.0007	0.0007
102.6	2.4163	0	0.0007	0.0007
102.6333	2.415	0.0155	0.002	0.0175
102.6667	2.4166	0.0023	0.002	0.0044
102.7	2.4107	0.0155	0.0034	0.0188
102.7333	2.4091	0	0	0
102.7667	2.4114	0.0155	0.0007	0.0162
102.8	2.4091	0.0023	0	0.0023
102.8333	2.412	0.0155	0.002	0.0175
102.8667	2.4091	0.0023	0.002	0.0044
102.9	2.4094	0.0023	0.002	0.0044
102.9333	2.4081	0.0155	0.002	0.0175
102.9667	2.4077	0	0	0
103	2.4058	0.0023	0.0007	0.003
103.0333	2.4084	0.0286	0.0007	0.0293
103.0667	2.4091	0.0155	0	0.0155
103.1	2.4074	0.0155	0.0007	0.0162
103.1333	2.4048	0.0155	0.0007	0.0162
103.1667	2.4087	0	0	0

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103.2	2.4068	0.0155	0.0007	0.0162
103.2333	2.4071	0.0286	0.0007	0.0293
103.2667	2.4104	0.0155	0.0007	0.0162
103.3	2.413	0.0155	0	0.0155
103.3333	2.4156	0.0155	0.002	0.0175
103.3667	2.4156	0.0155	0.0007	0.0162
103.4	2.4209	0.0023	0.002	0.0044
103.4333	2.4189	0.0023	0.002	0.0044
103.4667	2.4229	0.0023	0	0.0023
103.5	2.4239	0.0023	0.002	0.0044
103.5333	2.4265	0.0155	0.002	0.0175
103.5667	2.4232	0.0155	0.002	0.0175
103.6	2.4258	0.0023	0	0.0023
103.6333	2.4258	0.0155	0.002	0.0175
103.6667	2.4216	0.0023	0.002	0.0044
103.7	2.4239	0.0023	0	0.0023
103.7333	2.4196	0.0155	0.002	0.0175
103.7667	2.4173	0.0023	0	0.0023
103.8	2.4219	0.0155	0.0007	0.0162
103.8333	2.4186	0.0023	0.0007	0.003
103.8667	2.4166	0.0023	0	0.0023
103.9	2.4173	0.0155	0	0.0155
103.9333	2.4163	0.0023	0	0.0023
103.9667	2.4117	0.0155	0.0007	0.0162
104	2.4114	0.0155	0	0.0155
104.0333	2.414	0.0023	0.002	0.0044
104.0667	2.411	0.0023	0.0007	0.003
104.1	2.4077	0	0.002	0.002
104.1333	2.4071	0.0023	0.002	0.0044
104.1667	2.4107	0.0023	0	0.0023
104.2	2.4104	0.0155	0	0.0155
104.2333	2.4087	0.0155	0.0007	0.0162
104.2667	2.4068	0.0023	0.002	0.0044
104.3	2.4061	0.0155	0.002	0.0175
104.3333	2.4061	0.0023	0	0.0023
104.3667	2.4051	0.0286	0.0007	0.0293
104.4	2.4041	0.0023	0.0007	0.003
104.4333	2.4051	0	0.0007	0.0007
104.4667	2.4048	0.0023	0	0.0023
104.5	2.4035	0	0.0007	0.0007
104.5333	2.4081	0.0155	0.0007	0.0162
104.5667	2.4068	0.0023	0.002	0.0044
104.6	2.4021	0.0155	0	0.0155



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104.6333	2.4038	0.0023	0.0007	0.003
104.6667	2.4068	0.0155	0.002	0.0175
104.7	2.4038	0.0023	0.002	0.0044
104.7333	2.4044	0.0155	0.0007	0.0162
104.7667	2.4084	0.0023	0.0007	0.003
104.8	2.413	0.0155	0	0.0155
104.8333	2.4173	0.0155	0.002	0.0175
104.8667	2.4245	0.0023	0.002	0.0044
104.9	2.4278	0.0155	0.0007	0.0162
104.9333	2.4351	0	0.0007	0.0007
104.9667	2.4397	0.0023	0.0007	0.003
105	2.4397	0.0155	0.002	0.0175
105.0333	2.4383	0.0155	0.002	0.0175
105.0667	2.4357	0.0023	0.002	0.0044
105.1	2.4337	0.0023	0.002	0.0044
105.1333	2.4337	0.0023	0.0007	0.003
105.1667	2.4324	0	0.0007	0.0007
105.2	2.4314	0.0023	0.0007	0.003
105.2333	2.4298	0.0286	0.002	0.0307
105.2667	2.4298	0.0023	0.0007	0.003
105.3	2.4295	0	0	0
105.3333	2.4275	0.0023	0.0007	0.003
105.3667	2.4281	0.0155	0.002	0.0175
105.4	2.4245	0.0286	0.0007	0.0293
105.4333	2.4252	0.0023	0.0007	0.003
105.4667	2.4278	0.0023	0.0007	0.003
105.5	2.4219	0.0023	0.0007	0.003
105.5333	2.4219	0.0155	0	0.0155
105.5667	2.4219	0.0023	0.0007	0.003
105.6	2.4232	0.0155	0.0007	0.0162
105.6333	2.4219	0.0023	0.0007	0.003
105.6667	2.4179	0.0023	0.0007	0.003
105.7	2.4173	0.0023	0	0.0023
105.7333	2.4179	0.0023	0	0.0023
105.7667	2.4173	0.0155	0	0.0155
105.8	2.4166	0.0023	0	0.0023
105.8333	2.4166	0.0023	0.002	0.0044
105.8667	2.4143	0.0023	0.002	0.0044
105.9	2.4173	0.0023	0.002	0.0044
105.9333	2.4156	0.0023	0.002	0.0044
105.9667	2.4114	0.0155	0.0007	0.0162
106	2.4153	0.0023	0.0007	0.003
106.0333	2.4127	0.0023	0	0.0023

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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	2.4137	0.0155	0.0007	0.0162
106.1	2.413	0	0.002	0.002
106.1333	2.4087	0.0023	0	0.0023
106.1667	2.4077	0.0023	0	0.0023
106.2	2.4097	0.0155	0	0.0155
106.2333	2.4117	0.0155	0.0007	0.0162
106.2667	2.4068	0.0023	0.0007	0.003
106.3	2.4094	0.0023	0.002	0.0044
106.3333	2.4091	0	0.002	0.002
106.3667	2.4068	0.0155	0.0034	0.0188
106.4	2.4015	0.0023	0.002	0.0044
106.4333	2.4051	0	0.0007	0.0007
106.4667	2.4008	0	0	0
106.5	2.4028	0.0155	0.0007	0.0162
106.5333	2.4012	0.0155	0	0.0155
106.5667	2.4021	0.0023	0.002	0.0044
106.6	2.3998	0.0286	0	0.0286
106.6333	2.4058	0	0.002	0.002
106.6667	2.4104	0.0023	0.0007	0.003
106.7	2.4176	0.0155	0	0.0155
106.7333	2.4268	0.0155	0.002	0.0175
106.7667	2.4301	0.0155	0.0007	0.0162
106.8	2.4383	0.0155	0	0.0155
106.8333	2.4407	0.0023	0.0007	0.003
106.8667	2.4476	0.0023	0.0007	0.003
106.9	2.3801	0.0155	0.002	0.0175
106.9333	2.3169	0.0286	0.002	0.0307
106.9667	2.2524	0.0023	0.0007	0.003
107	2.1899	0	0.0007	0.0007
107.0333	2.1299	0.0023	0	0.0023
107.0667	2.0714	0.0023	0.002	0.0044
107.1	2.0151	0.0155	0.0007	0.0162
107.1333	1.9624	0	0	0
107.1667	1.9078	0.0023	0	0.0023
107.2	1.8531	0.0155	0.0007	0.0162
107.2333	1.7998	0	0.0034	0.0034
107.2667	1.7551	0.0023	0	0.0023
107.3	1.7044	0.0155	0.0007	0.0162
107.3333	1.6583	0.0286	0.0007	0.0293
107.3667	1.6132	0.0023	0.0034	0.0057
107.4	1.5668	0.0155	0	0.0155
107.4333	1.5286	0.0155	0.0007	0.0162
107.4667	1.4888	0.0155	0.0007	0.0162

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107.5	1.447	0.0023	0	0.0023
107.5333	1.4078	0.0023	0.0007	0.003
107.5667	1.3664	0.0023	0	0.0023
107.6	1.3295	0.0023	0.0007	0.003
107.6333	1.2959	0	0.0007	0.0007
107.6667	1.2568	0.0155	0.0007	0.0162
107.7	1.2202	0.0023	0.002	0.0044
107.7333	1.1896	0.0155	0.002	0.0175
107.7667	1.1551	0.0023	0.0007	0.003
107.8	1.1235	0.0023	0	0.0023
107.8333	1.0912	0.0023	0	0.0023
107.8667	1.0573	0.0023	0.0007	0.003
107.9	1.0297	0.0023	0.002	0.0044
107.9333	0.999	0.0023	0	0.0023
107.9667	0.9714	0.0023	0.0007	0.003
108	0.9395	0.0023	0.0007	0.003
108.0333	0.9122	0.0023	0.0007	0.003
108.0667	0.8855	0	0.0007	0.0007
108.1	0.8611	0.0155	0	0.0155
108.1333	0.8315	0	0.002	0.002
108.1667	0.8039	0.0023	0.002	0.0044
108.2	0.7825	0.0023	0.0007	0.003
108.2333	0.7594	0.0155	0.002	0.0175
108.2667	0.7321	0.0155	0.002	0.0175
108.3	0.7084	0.0023	0.002	0.0044
108.3333	0.6821	0	0.0007	0.0007
108.3667	0.6633	0.0155	0	0.0155
108.4	0.6426	0.0023	0.002	0.0044
108.4333	0.6136	0.0023	0	0.0023
108.4667	0.5982	0.0023	0.002	0.0044
108.5	0.5761	0.0155	0.002	0.0175
108.5333	0.5537	0	0.002	0.002
108.5667	0.533	0.0155	0	0.0155
108.6	0.5146	0.0023	0	0.0023
108.6333	0.4951	0	0.0007	0.0007
108.6667	0.4747	0.0155	0.002	0.0175
108.7	0.4579	0.0155	0.002	0.0175
108.7333	0.4389	0	0.002	0.002
108.7667	0.4188	0	0.0007	0.0007
108.8	0.4033	0.0023	0.002	0.0044
108.8333	0.3915	0	0.0007	0.0007
108.8667	0.373	0.0023	0.0007	0.003
108.9	0.3546	0.0023	0.0034	0.0057

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108.9333	0.3388	0.0155	0.0007	0.0162
108.9667	0.3217	0.0155	0.0007	0.0162
109	0.3102	0.0023	0.0007	0.003
109.0333	0.296	0.0023	0	0.0023
109.0667	0.2832	0.0155	0.0034	0.0188
109.1	0.2684	0	0.0007	0.0007
109.1333	0.2552	0.0023	0	0.0023
109.1667	0.2424	0.0023	0	0.0023
109.2	0.2305	0.0155	0.0034	0.0188
109.2333	0.2167	0.0155	0	0.0155
109.2667	0.2042	0.0155	0.0007	0.0162
109.3	0.1956	0.0023	0.0007	0.003
109.3333	0.1838	0.0155	0.0047	0.0201
109.3667	0.1732	0.0023	0.002	0.0044
109.4	0.1644	0.0155	0.0007	0.0162
109.4333	0.1532	0.0155	0	0.0155
109.4667	0.1426	0.0023	0.002	0.0044
109.5	0.1357	0.0023	0	0.0023
109.5333	0.1262	0.0023	0	0.0023
109.5667	0.1157	0.0155	0.0007	0.0162
109.6	0.1084	0	0.0007	0.0007
109.6333	0.1022	0.0023	0.0007	0.003
109.6667	0.0939	0.0023	0.002	0.0044
109.7	0.089	0.0286	0.002	0.0307
109.7333	0.0791	0	0.0007	0.0007
109.7667	0.0742	0.0023	0.002	0.0044
109.8	0.0676	0.0023	0.0007	0.003
109.8333	0.065	0.0023	0.0007	0.003
109.8667	0.0548	0.0023	0.0034	0.0057
109.9	0.0498	0.0023	0.002	0.0044
109.9333	0.0472	0.0155	0.002	0.0175
109.9667	0.0423	0.0023	0.002	0.0044
110	0.0357	0.0155	0.0007	0.0162
110.0333	0.0307	0.0023	0.0007	0.003
110.0667	0.0284	0.0023	0.0007	0.003
110.1	0.0271	0.0023	0.0007	0.003
110.1333	0.0228	0.0023	0.002	0.0044
110.1667	0.0179	0.0023	0.002	0.0044
110.2	0.0126	0.0023	0.0007	0.003
110.2333	0.0116	0.0023	0.002	0.0044
110.2667	0.009	0.0155	0.0034	0.0188
110.3	0.0064	0.0155	0.0007	0.0162
110.3333	0.0011	0.0155	0.0007	0.0162

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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	0.0028	0.0155	0.002	0.0175
110.4	0.0021	0.0023	0.0047	0.007
110.4333	-0.0032	0.0155	0.002	0.0175
110.4667	-0.0025	0.0155	0.002	0.0175
110.5	-0.0055	0	0.0007	0.0007
110.5333	-0.0074	0.0023	0	0.0023
110.5667	-0.0084	0.0023	0.0007	0.003
110.6	-0.0088	0.0023	0	0.0023
110.6333	-0.0107	0.0023	0.0007	0.003
110.6667	-0.0127	0.0023	0.0007	0.003
110.7	-0.0127	0	0.0007	0.0007
110.7333	-0.0137	0.0023	0.002	0.0044
110.7667	-0.0167	0.0155	0.002	0.0175
110.8	-0.0137	0.0023	0.0007	0.003
110.8333	-0.0157	0.0286	0.002	0.0307
110.8667	-0.019	0	0	0
110.9	-0.0209	0.0023	0.0007	0.003
110.9333	-0.019	0.0023	0.002	0.0044
110.9667	-0.0176	0.0023	0.0007	0.003
111	-0.02	0.0023	0.0007	0.003
111.0333	-0.0196	0.0023	0.0007	0.003
111.0667	-0.0196	0.0023	0.002	0.0044
111.1	-0.0186	0	0.002	0.002
111.1333	-0.0203	0.0023	0.002	0.0044
111.1667	-0.0262	0.0023	0.002	0.0044
111.2	-0.0282	0.0155	0.002	0.0175
111.2333	-0.0275	0.0023	0	0.0023
111.2667	-0.0269	0.0023	0.002	0.0044
111.3	-0.0279	0.0023	0	0.0023
111.3333	-0.0265	0.0023	0.0007	0.003
111.3667	-0.0242	0	0.002	0.002
111.4	-0.0246	0.0023	0.0007	0.003
111.4333	-0.0275	0.0155	0.002	0.0175
111.4667	-0.0249	0.0023	0.0007	0.003
111.5	-0.0249	0.0023	0.0007	0.003
111.5333	-0.0229	0.0023	0.0007	0.003
111.5667	-0.0255	0.0023	0.0007	0.003
111.6	-0.0502	0.0155	0.9291	0.9446
111.6333	-0.0502	0.0023	0.8975	0.8999
111.6667	-0.0473	0.0023	0.8765	0.8788
111.7	-0.046	0.0286	0.862	0.8906
111.7333	-0.0473	0.0023	0.8568	0.8591
111.7667	-0.0486	0.0023	0.8568	0.8591

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111.8	-0.0496	0.0023	0.8541	0.8565
111.8333	-0.0479	0.0023	0.8555	0.8578
111.8667	-0.0476	0	0.8555	0.8555
111.9	-0.0466	0.0023	0.8594	0.8617
111.9333	-0.0483	0.0155	0.8555	0.8709
111.9667	-0.0489	0.0155	0.8502	0.8657
112	-0.0469	0.0023	0.8581	0.8604
112.0333	-0.0492	0.0023	0.8528	0.8551
112.0667	-0.0502	0.0023	0.8476	0.8499
112.1	-0.0506	0.0023	0.8449	0.8473
112.1333	-0.0489	0.0023	0.8462	0.8486
112.1667	-0.0496	0.0023	0.8423	0.8446
112.2	-0.0479	0.0023	0.8318	0.8341
112.2333	-0.0473	0.0155	0.8292	0.8446
112.2667	-0.0486	0.0023	0.8265	0.8288
112.3	-0.0486	0.0023	0.82	0.8223
112.3333	-0.0473	0.0023	0.8173	0.8196
112.3667	-0.046	0	0.8186	0.8186
112.4	-0.0486	0	0.8121	0.8121
112.4333	-0.0456	0.0023	0.8055	0.8078
112.4667	-0.0506	0.0023	0.7963	0.7986
112.5	-0.0489	0.0023	0.791	0.7933
112.5333	-0.0463	0.0023	0.7871	0.7894
112.5667	-0.0453	0.0023	0.7805	0.7828
112.6	-0.046	0.0023	0.7739	0.7762
112.6333	-0.0496	0.0023	0.7713	0.7736
112.6667	-0.0466	0.0023	0.7608	0.7631
112.7	-0.0427	0.0023	0.7608	0.7631
112.7333	-0.0476	0.0023	0.7503	0.7526
112.7667	-0.0453	0.0155	0.002	0.0175
112.8	-0.043	0.0155	0.002	0.0175
112.8333	-0.0479	0.0023	0.0007	0.003
112.8667	-0.0436	0.0286	0.0007	0.0293
112.9	-0.0446	0.0155	0.002	0.0175
112.9333	-0.0473	0.0155	0.002	0.0175
112.9667	-0.0489	0.0023	0.0007	0.003
113	-0.0489	0.0023	0.0007	0.003
113.0333	-0.0486	0.0023	0.9212	0.9235
113.0667	-0.0466	0.0155	0.8725	0.888
113.1	-0.0476	0.0155	0.8318	0.8473
113.1333	-0.0476	0.0023	0.8029	0.8052
113.1667	-0.044	0.0023	0.7805	0.7828
113.2	-0.045	0.0023	0.7647	0.767



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113.2333	-0.0463	0	0.7516	0.7516
113.2667	-0.046	0.0286	0.7358	0.7644
113.3	-0.044	0.0155	0.7253	0.7407
113.3333	-0.0436	0	0.72	0.72
113.3667	-0.0466	0.0023	0.7082	0.7105
113.4	-0.0443	0.0155	0.7016	0.7171
113.4333	-0.0407	0.0023	0.6898	0.6921
113.4667	-0.045	0.0023	0.6819	0.6842
113.5	-0.0433	0.0023	0.6753	0.6776
113.5333	-0.042	0.0023	0.6648	0.6671
113.5667	-0.0394	0.0023	0.6582	0.6605
113.6	-0.0364	0	0.432	0.432
113.6333	-0.0321	0.0023	0.002	0.0044
113.6667	-0.0318	0.0155	0.0007	0.0162
113.7	-0.0265	0.0023	0	0.0023
113.7333	-0.0288	0.0023	0	0.0023
113.7667	-0.0242	0	0.002	0.002
113.8	-0.0259	0.0155	0.002	0.0175
113.8333	-0.0236	0.0023	0.002	0.0044
113.8667	-0.0242	0.0023	0.0007	0.003
113.9	-0.0232	0.0155	0.0007	0.0162
113.9333	-0.0285	0	0.002	0.002
113.9667	-0.0259	0.0155	0	0.0155
114	-0.0265	0.0023	0.0007	0.003
114.0333	-0.0285	0.0023	0.0007	0.003
114.0667	-0.0282	0.0023	0.002	0.0044
114.1	-0.0272	0.0155	0.0007	0.0162
114.1333	-0.0288	0.0023	0.0007	0.003
114.1667	-0.0288	0.0023	0.002	0.0044
114.2	-0.0269	0.0286	0.002	0.0307
114.2333	0.0199	0.0023	0.0007	0.003
114.2667	0.0778	0.0155	0	0.0155
114.3	0.1354	0.0023	0.002	0.0044
114.3333	0.19	0.0023	0.0007	0.003
114.3667	0.246	0	0	0
114.4	0.2937	0.0023	0.002	0.0044
114.4333	0.3493	0.0023	0.0007	0.003
114.4667	0.3931	0.0023	0.0007	0.003
114.5	0.4497	0.0023	0	0.0023
114.5333	0.508	0.0023	0.0007	0.003
114.5667	0.5699	0.0155	0.0007	0.0162
114.6	0.6288	0.0023	0.002	0.0044
114.6333	0.6903	0.0023	0.0007	0.003

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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	0.7459	0.0023	0.0007	0.003
114.7	0.7996	0.0155	0.0007	0.0162
114.7333	0.8569	0.0023	0	0.0023
114.7667	0.9066	0.0023	0	0.0023
114.8	0.9602	0.0155	0.0007	0.0162
114.8333	1.0106	0.0155	0.002	0.0175
114.8667	1.0639	0.0023	0	0.0023
114.9	1.1119	0.0023	0.0007	0.003
114.9333	1.1626	0	0.002	0.002
114.9667	1.2107	0.0155	0.002	0.0175
115	1.2571	0	0.0007	0.0007
115.0333	1.3045	0.0155	0.002	0.0175
115.0667	1.3496	0.0155	0	0.0155
115.1	1.3993	0.0023	0.002	0.0044
115.1333	1.4437	0.0155	0	0.0155
115.1667	1.4852	0.0155	0.0007	0.0162
115.2	1.5313	0.0023	0	0.0023
115.2333	1.574	0.0155	0.0007	0.0162
115.2667	1.6162	0.0155	0.0007	0.0162
115.3	1.6603	0	0.0007	0.0007
115.3333	1.7001	0.0155	0.002	0.0175
115.3667	1.7449	0.0023	0	0.0023
115.4	1.7844	0.0023	0.002	0.0044
115.4333	1.8262	0.0023	0.0007	0.003
115.4667	1.865	0.0023	0.0034	0.0057
115.5	1.9042	0.0023	0	0.0023
115.5333	1.9414	0.0023	0.002	0.0044
115.5667	1.9825	0.0286	0.0007	0.0293
115.6	2.0207	0.0155	0.002	0.0175
115.6333	2.0562	0.0286	0	0.0286
115.6667	2.0947	0.0023	0	0.0023
115.7	2.1332	0.0155	0.002	0.0175
115.7333	2.1708	0	0.002	0.002
115.7667	2.2076	0.0023	0.0007	0.003
115.8	2.2419	0	0.0007	0.0007
115.8333	2.2731	0.0023	0.0007	0.003
115.8667	2.31	0.0286	0.002	0.0307
115.9	2.3409	0.0023	0.0007	0.003
115.9333	2.3742	0.0155	0.0007	0.0162
115.9667	2.411	0.0155	0.002	0.0175
116	2.4344	0.0023	0	0.0023
116.0333	2.4344	0.0155	0.002	0.0175
116.0667	2.4314	0	0.0007	0.0007

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116.1	2.4367	0.0023	0	0.0023
116.1333	2.4407	0.0155	0	0.0155
116.1667	2.4456	0.0155	0.002	0.0175
116.2	2.4551	0.0155	0.0007	0.0162
116.2333	2.4588	0.0155	0.0007	0.0162
116.2667	2.466	0.0023	0	0.0023
116.3	2.4643	0.0155	0.0007	0.0162
116.3333	2.4643	0.0023	0	0.0023
116.3667	2.4673	0.0023	0	0.0023
116.4	2.4686	0.0155	0	0.0155
116.4333	2.4657	0	0.0007	0.0007
116.4667	2.4699	0	0.0007	0.0007
116.5	2.4729	0.0023	0.0007	0.003
116.5333	2.4699	0.0023	0.002	0.0044
116.5667	2.4775	0.0023	0.0007	0.003
116.6	2.4742	0.0023	0	0.0023
116.6333	2.4729	0.0023	0.0007	0.003
116.6667	2.4693	0.0023	0.0007	0.003
116.7	2.466	0.0023	0.002	0.0044
116.7333	2.465	0.0286	0.002	0.0307
116.7667	2.4535	0.0286	0.0007	0.0293
116.8	2.4528	0.0023	0.0007	0.003
116.8333	2.4486	0.0155	0.0007	0.0162
116.8667	2.4482	0.0155	0	0.0155
116.9	2.4499	0.0023	0.0007	0.003
116.9333	2.4495	0.0023	0.0007	0.003
116.9667	2.4482	0.0023	0.002	0.0044
117	2.4486	0.0155	0.0007	0.0162
117.0333	2.4479	0.0023	0.0034	0.0057
117.0667	2.4495	0.0155	0	0.0155
117.1	2.4476	0	0.002	0.002
117.1333	2.4446	0.0155	0.0007	0.0162
117.1667	2.4449	0.0023	0	0.0023
117.2	2.4456	0.0023	0	0.0023
117.2333	2.4453	0.0155	0.0007	0.0162
117.2667	2.4495	0.0023	0	0.0023
117.3	2.4495	0.0023	0	0.0023
117.3333	2.4495	0.0023	0.002	0.0044
117.3667	2.4486	0.0155	0.002	0.0175
117.4	2.4509	0.0155	0.0007	0.0162
117.4333	2.4509	0.0023	0.002	0.0044
117.4667	2.4515	0.0023	0.0007	0.003
117.5	2.4495	0.0155	0.002	0.0175

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117.5333	2.4515	0.0155	0	0.0155
117.5667	2.4449	0.0023	0.002	0.0044
117.6	2.4489	0.0155	0.0007	0.0162
117.6333	2.4436	0.0023	0	0.0023
117.6667	2.4439	0.0023	0.0007	0.003
117.7	2.4403	0.0023	0.002	0.0044
117.7333	2.441	0.0023	0.002	0.0044
117.7667	2.4407	0.0155	0.002	0.0175
117.8	2.4374	0.0155	0	0.0155
117.8333	2.4347	0.0023	0	0.0023
117.8667	2.436	0	0	0
117.9	2.4324	0.0023	0.0007	0.003
117.9333	2.4328	0.0023	0.002	0.0044
117.9667	2.4288	0.0155	0.002	0.0175
118	2.4285	0.0155	0.0007	0.0162
118.0333	2.4285	0.0023	0.0034	0.0057
118.0667	2.4308	0.0155	0.002	0.0175
118.1	2.4308	0.0155	0.0007	0.0162
118.1333	2.4258	0.0023	0	0.0023
118.1667	2.4265	0.0023	0.0007	0.003
118.2	2.4249	0.0023	0	0.0023
118.2333	2.4252	0.0155	0	0.0155
118.2667	2.4199	0.0155	0.0007	0.0162
118.3	2.4219	0.0155	0.0007	0.0162
118.3333	2.4179	0.0023	0.0007	0.003
118.3667	2.4206	0.0155	0	0.0155
118.4	2.4209	0	0.0007	0.0007
118.4333	2.4153	0.0023	0.0007	0.003
118.4667	2.4156	0.0155	0.002	0.0175
118.5	2.4166	0.0155	0	0.0155
118.5333	2.4146	0.0023	0	0.0023
118.5667	2.4146	0	0.0007	0.0007
118.6	2.4123	0.0155	0.0007	0.0162
118.6333	2.4094	0.0155	0.0007	0.0162
118.6667	2.4127	0.0023	0.0007	0.003
118.7	2.4127	0.0155	0.0007	0.0162
118.7333	2.4077	0.0023	0.0007	0.003
118.7667	2.4104	0.0023	0.002	0.0044
118.8	2.4081	0.0155	0.0007	0.0162
118.8333	2.4048	0.0023	0.002	0.0044
118.8667	2.4091	0.0023	0	0.0023
118.9	2.4064	0.0155	0	0.0155
118.9333	2.4038	0.0023	0.0007	0.003

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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	2.4081	0.0023	0.002	0.0044
119	2.4061	0.0023	0.002	0.0044
119.0333	2.4048	0.0023	0	0.0023
119.0667	2.4068	0.0023	0.002	0.0044
119.1	2.4041	0.0023	0	0.0023
119.1333	2.4035	0.0023	0.002	0.0044
119.1667	2.4002	0.0155	0.002	0.0175
119.2	2.4028	0.0023	0	0.0023
119.2333	2.4018	0	0.0007	0.0007
119.2667	2.4018	0.0155	0.0007	0.0162
119.3	2.4028	0.0023	0	0.0023
119.3333	2.4002	0.0023	0.0007	0.003
119.3667	2.3982	0.0155	0	0.0155
119.4	2.3992	0.0155	0.0007	0.0162
119.4333	2.3972	0.0155	0	0.0155
119.4667	2.3956	0	0	0
119.5	2.3972	0.0023	0.0007	0.003
119.5333	2.3942	0.0023	0.002	0.0044
119.5667	2.3956	0	0.002	0.002
119.6	2.3969	0.0023	0.0007	0.003
119.6333	2.3962	0.0023	0.002	0.0044
119.6667	2.3949	0.0023	0.0007	0.003
119.7	2.3949	0.0155	0.0007	0.0162
119.7333	2.3962	0.0023	0.0034	0.0057
119.7667	2.3956	0.0023	0.0007	0.003
119.8	2.3919	0.0023	0.0007	0.003
119.8333	2.4008	0.0155	0.0007	0.0162
119.8667	2.4061	0.0023	0.002	0.0044
119.9	2.4176	0.0155	0.0007	0.0162
119.9333	2.4298	0.0023	0.0007	0.003
119.9667	2.4364	0.0023	0.0007	0.003
120	2.4502	0.0023	0	0.0023
120.0333	2.4548	0.0155	0.0007	0.0162
120.0667	2.4525	0.0023	0.002	0.0044
120.1	2.4538	0.0023	0.0007	0.003
120.1333	2.4489	0.0023	0.0007	0.003
120.1667	2.4492	0.0286	0.0007	0.0293
120.2	2.4486	0.0155	0.0007	0.0162
120.2333	2.4446	0.0023	0	0.0023
120.2667	2.4446	0	0	0
120.3	2.4439	0.0023	0.0007	0.003
120.3333	2.4449	0.0023	0.002	0.0044
120.3667	2.4449	0.0155	0.002	0.0175

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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	2.4466	0.0155	0.0007	0.0162
120.4333	2.4449	0.0155	0.0007	0.0162
120.4667	2.4446	0.0155	0.002	0.0175
120.5	2.44	0.0023	0.0007	0.003
120.5333	2.441	0	0.002	0.002
120.5667	2.4383	0.0023	0.0034	0.0057
120.6	2.4387	0.0023	0.002	0.0044
120.6333	2.4387	0.0155	0.0007	0.0162
120.6667	2.4341	0.0023	0.0007	0.003
120.7	2.4334	0.0155	0.002	0.0175
120.7333	2.4351	0.0023	0	0.0023
120.7667	2.4328	0	0	0
120.8	2.4311	0.0023	0	0.0023
120.8333	2.4314	0.0155	0.002	0.0175
120.8667	2.4318	0.0023	0.0007	0.003
120.9	2.4328	0.0023	0.0007	0.003
120.9333	2.4288	0.0023	0	0.0023
120.9667	2.4304	0.0023	0	0.0023
121	2.4285	0.0155	0.0007	0.0162
121.0333	2.4288	0.0155	0.0007	0.0162
121.0667	2.4258	0.0023	0.002	0.0044
121.1	2.4301	0.0155	0.0007	0.0162
121.1333	2.4288	0.0023	0.002	0.0044
121.1667	2.4278	0.0155	0.002	0.0175
121.2	2.4272	0.0023	0.0007	0.003
121.2333	2.4265	0.0023	0.002	0.0044
121.2667	2.4258	0.0023	0.002	0.0044
121.3	2.4258	0.0155	0.0007	0.0162
121.3333	2.4268	0.0155	0.0007	0.0162
121.3667	2.4262	0.0155	0.002	0.0175
121.4	2.4288	0.0023	0.0007	0.003
121.4333	2.4275	0.0023	0	0.0023
121.4667	2.4249	0.0023	0.002	0.0044
121.5	2.4249	0.0155	0.002	0.0175
121.5333	2.4262	0.0155	0.002	0.0175
121.5667	2.4216	0	0.0007	0.0007
121.6	2.4258	0.0023	0.002	0.0044
121.6333	2.4265	0.0155	0.002	0.0175
121.6667	2.4249	0.0155	0.0007	0.0162
121.7	2.4272	0.0023	0.0007	0.003
121.7333	2.4298	0.0023	0.002	0.0044
121.7667	2.4272	0.0155	0.0007	0.0162
121.8	2.4239	0.0023	0.0007	0.003



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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	2.4272	0.0023	0	0.0023
121.8667	2.4232	0.0155	0.0007	0.0162
121.9	2.4245	0.0023	0.0007	0.003
121.9333	2.4265	0.0155	0.0007	0.0162
121.9667	2.4255	0.0023	0.002	0.0044
122	2.4235	0.0023	0.002	0.0044
122.0333	2.4232	0.0023	0.002	0.0044
122.0667	2.4216	0.0023	0.0007	0.003
122.1	2.4232	0.0023	0.0007	0.003
122.1333	2.4222	0.0023	0.0034	0.0057
122.1667	2.4262	0.0155	0.0007	0.0162
122.2	2.4249	0.0023	0.0007	0.003
122.2333	2.4252	0.0286	0.0007	0.0293
122.2667	2.4245	0.0155	0.0007	0.0162
122.3	2.4242	0.0023	0.002	0.0044
122.3333	2.4245	0.0155	0.002	0.0175
122.3667	2.4255	0.0023	0.002	0.0044
122.4	2.4209	0.0155	0.0007	0.0162
122.4333	2.4216	0.0155	0.002	0.0175
122.4667	2.4242	0.0023	0	0.0023
122.5	2.4252	0.0023	0.002	0.0044
122.5333	2.4235	0.0023	0	0.0023
122.5667	2.4235	0.0023	0.0007	0.003
122.6	2.4252	0.0023	0.0007	0.003
122.6333	2.4225	0.0155	0.002	0.0175
122.6667	2.4249	0.0023	0.0007	0.003
122.7	2.4255	0.0155	0	0.0155
122.7333	2.4219	0.0023	0.0007	0.003
122.7667	2.4216	0.0023	0.0007	0.003
122.8	2.4245	0.0155	0.0007	0.0162
122.8333	2.4225	0.0155	0.0007	0.0162
122.8667	2.4202	0.0023	0.002	0.0044
122.9	2.4229	0.0155	0	0.0155
122.9333	2.4222	0.0155	0.002	0.0175
122.9667	2.4212	0.0286	0.0034	0.032
123	2.4202	0	0	0
123.0333	2.4245	0.0023	0.002	0.0044
123.0667	2.4232	0.0023	0	0.0023
123.1	2.4225	0.0155	0.0007	0.0162
123.1333	2.4212	0.0155	0.0007	0.0162
123.1667	2.4216	0.0023	0.002	0.0044
123.2	2.4219	0.0023	0.0007	0.003
123.2333	2.4202	0.0155	0.002	0.0175

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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	2.4232	0.0023	0	0.0023
123.3	2.4186	0.0155	0.0007	0.0162
123.3333	2.4245	0.0155	0.0007	0.0162
123.3667	2.4235	0.0023	0	0.0023
123.4	2.4222	0.0023	0.0007	0.003
123.4333	2.4216	0.0023	0	0.0023
123.4667	2.4235	0.0023	0.002	0.0044
123.5	2.4196	0.0155	0.002	0.0175
123.5333	2.4232	0.0155	0.002	0.0175
123.5667	2.4193	0.0023	0	0.0023
123.6	2.4193	0.0155	0.0007	0.0162
123.6333	2.4232	0.0023	0.002	0.0044
123.6667	2.4225	0.0155	0.0007	0.0162
123.7	2.4179	0.0155	0.0007	0.0162
123.7333	2.4229	0.0155	0.002	0.0175
123.7667	2.4202	0.0023	0	0.0023
123.8	2.4232	0.0155	0.0007	0.0162
123.8333	2.4209	0.0023	0.0007	0.003
123.8667	2.4193	0	0.0034	0.0034
123.9	2.4199	0	0.0007	0.0007
123.9333	2.4222	0.0023	0.0007	0.003
123.9667	2.4225	0.0023	0.002	0.0044
124	2.4206	0.0023	0.002	0.0044
124.0333	2.4166	0.0023	0.002	0.0044
124.0667	2.4209	0.0155	0.0007	0.0162
124.1	2.4199	0.0023	0.0007	0.003
124.1333	2.4156	0.0155	0.0007	0.0162
124.1667	2.4199	0.0155	0.002	0.0175
124.2	2.4193	0.0155	0.0007	0.0162
124.2333	2.4179	0.0023	0	0.0023
124.2667	2.4196	0.0155	0	0.0155
124.3	2.416	0.0155	0.0007	0.0162
124.3333	2.4173	0.0155	0.002	0.0175
124.3667	2.4206	0.0023	0.0007	0.003
124.4	2.4176	0.0155	0.002	0.0175
124.4333	2.4189	0.0155	0.002	0.0175
124.4667	2.4209	0.0155	0.0007	0.0162
124.5	2.4193	0.0023	0.0007	0.003
124.5333	2.417	0.0023	0	0.0023
124.5667	2.4206	0.0023	0.002	0.0044
124.6	2.4196	0	0.0007	0.0007
124.6333	2.4196	0.0155	0.002	0.0175
124.6667	2.4202	0.0155	0.002	0.0175

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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	2.4222	0.0023	0.0007	0.003
124.7333	2.4166	0	0.002	0.002
124.7667	2.4186	0.0023	0.002	0.0044
124.8	2.417	0.0023	0.002	0.0044
124.8333	2.4183	0.0023	0.002	0.0044
124.8667	2.4176	0.0023	0.002	0.0044
124.9	2.4206	0.0023	0.0007	0.003
124.9333	2.4166	0.0023	0	0.0023
124.9667	2.4176	0.0023	0.0007	0.003
125	2.4196	0.0023	0.002	0.0044
125.0333	2.4196	0.0155	0	0.0155
125.0667	2.4176	0.0155	0.002	0.0175
125.1	2.4156	0.0023	0.0034	0.0057
125.1333	2.4153	0.0286	0.0007	0.0293
125.1667	2.415	0.0155	0	0.0155
125.2	2.417	0.0155	0.002	0.0175
125.2333	2.4176	0.0023	0.002	0.0044
125.2667	2.4156	0.0155	0.0007	0.0162
125.3	2.4196	0.0023	0.0007	0.003
125.3333	2.4163	0.0155	0	0.0155
125.3667	2.4166	0.0023	0.0007	0.003
125.4	2.4193	0.0155	0	0.0155
125.4333	2.416	0.0155	0.0007	0.0162
125.4667	2.4166	0.0155	0.002	0.0175
125.5	2.4166	0.0155	0.0007	0.0162
125.5333	2.4183	0.0155	0.0007	0.0162
125.5667	2.4176	0.0155	0.0007	0.0162
125.6	2.4173	0.0155	0	0.0155
125.6333	2.4173	0.0155	0.0007	0.0162
125.6667	2.4179	0.0155	0.002	0.0175
125.7	2.4196	0	0.0007	0.0007
125.7333	2.4186	0	0.002	0.002
125.7667	2.4166	0.0155	0.0007	0.0162
125.8	2.4166	0.0155	0	0.0155
125.8333	2.4166	0	0.0007	0.0007
125.8667	2.415	0.0155	0.0034	0.0188
125.9	2.416	0	0.0007	0.0007
125.9333	2.416	0.0023	0.0007	0.003
125.9667	2.4166	0.0023	0.002	0.0044
126	2.4183	0.0155	0.002	0.0175
126.0333	2.415	0.0023	0.0007	0.003
126.0667	2.4143	0.0023	0.002	0.0044
126.1	2.4163	0.0155	0.0007	0.0162

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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	2.4156	0.0155	0.002	0.0175
126.1667	2.4176	0	0.0007	0.0007
126.2	2.417	0.0023	0.002	0.0044
126.2333	2.416	0.0155	0.002	0.0175
126.2667	2.4163	0.0155	0	0.0155
126.3	2.4146	0.0155	0.0007	0.0162
126.3333	2.414	0.0023	0.0007	0.003
126.3667	2.4153	0.0023	0.0007	0.003
126.4	2.4143	0.0023	0.0007	0.003
126.4333	2.412	0.0023	0.0007	0.003
126.4667	2.4143	0.0023	0.002	0.0044
126.5	2.413	0.0023	0.0007	0.003
126.5333	2.4146	0.0023	0.0007	0.003
126.5667	2.4137	0.0155	0	0.0155
126.6	2.4127	0	0.0007	0.0007
126.6333	2.4146	0.0286	0	0.0286
126.6667	2.4143	0.0155	0.002	0.0175
126.7	2.4133	0	0.002	0.002
126.7333	2.4193	0.0155	0.002	0.0175
126.7667	2.4146	0.0023	0.0007	0.003
126.8	2.416	0	0.002	0.002
126.8333	2.4143	0.0023	0.002	0.0044
126.8667	2.4143	0.0023	0.0007	0.003
126.9	2.412	0.0155	0.0007	0.0162
126.9333	2.41	0.0286	0.0007	0.0293
126.9667	2.4114	0.0155	0.002	0.0175
127	2.4133	0.0155	0	0.0155
127.0333	2.4137	0	0.002	0.002
127.0667	2.4156	0.0023	0.002	0.0044
127.1	2.412	0	0	0
127.1333	2.4153	0.0023	0.002	0.0044
127.1667	2.412	0	0.0007	0.0007
127.2	2.413	0.0155	0.0007	0.0162
127.2333	2.4104	0.0023	0.002	0.0044
127.2667	2.413	0.0286	0.0007	0.0293
127.3	2.4127	0.0155	0.002	0.0175
127.3333	2.4117	0.0286	0.0007	0.0293
127.3667	2.4107	0.0023	0	0.0023
127.4	2.413	0.0155	0.002	0.0175
127.4333	2.4123	0.0023	0.0007	0.003
127.4667	2.4127	0.0155	0.002	0.0175
127.5	2.4041	0.0155	0.002	0.0175
127.5333	2.3455	0.0023	0.0034	0.0057

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127.5667	2.2866	0.0155	0.002	0.0175
127.6	2.2284	0.0155	0.002	0.0175
127.6333	2.175	0.0023	0.002	0.0044
127.6667	2.1204	0	0.002	0.002
127.7	2.0674	0.0023	0.0007	0.003
127.7333	2.0164	0.0023	0.002	0.0044
127.7667	1.9674	0.0023	0.0007	0.003
127.8	1.9219	0.0023	0	0.0023
127.8333	1.8712	0.0155	0.0007	0.0162
127.8667	1.8262	0.0023	0.002	0.0044
127.9	1.7837	0.0155	0	0.0155
127.9333	1.7406	0.0023	0.002	0.0044
127.9667	1.6945	0.0023	0.0007	0.003
128	1.6547	0.0155	0.002	0.0175
128.0333	1.6168	0.0023	0.0007	0.003
128.0667	1.5773	0.0155	0.0007	0.0162
128.1	1.5382	0.0023	0	0.0023
128.1333	1.5003	0.0023	0.0007	0.003
128.1667	1.4628	0.0023	0.0007	0.003
128.2	1.4256	0.0023	0.0007	0.003
128.2333	1.3897	0	0.002	0.002
128.2667	1.3571	0.0155	0.002	0.0175
128.3	1.3239	0.0023	0.002	0.0044
128.3333	1.2893	0.0155	0	0.0155
128.3667	1.2571	0.0155	0.0007	0.0162
128.4	1.2275	0.0023	0.002	0.0044
128.4333	1.1952	0.0023	0.0007	0.003
128.4667	1.1639	0.0023	0.002	0.0044
128.5	1.1333	0.0286	0.0007	0.0293
128.5333	1.106	0.0023	0.002	0.0044
128.5667	1.0751	0.0155	0	0.0155
128.6	1.0487	0.0155	0.002	0.0175
128.6333	1.0214	0	0.0007	0.0007
128.6667	0.9938	0.0023	0.002	0.0044
128.7	0.9661	0.0023	0.0007	0.003
128.7333	0.9398	0.0155	0.0007	0.0162
128.7667	0.9112	0.0155	0	0.0155
128.8	0.8901	0.0023	0.002	0.0044
128.8333	0.8641	0.0155	0.002	0.0175
128.8667	0.8397	0.0155	0.0007	0.0162
128.9	0.8141	0.0155	0.002	0.0175
128.9333	0.791	0.0155	0.0007	0.0162
128.9667	0.769	0.0023	0.0007	0.003

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
129	0.744	0.0155	0.0007	0.0162
129.0333	0.7236	0.0023	0.0007	0.003
129.0667	0.7002	0.0023	0.002	0.0044
129.1	0.6755	0.0155	0.002	0.0175
129.1333	0.6577	0.0155	0	0.0155
129.1667	0.639	0.0023	0.002	0.0044
129.2	0.6176	0.0155	0	0.0155
129.2333	0.5936	0	0.0007	0.0007
129.2667	0.5787	0.0155	0.0007	0.0162
129.3	0.5593	0	0.0007	0.0007
129.3333	0.5392	0.0023	0.002	0.0044
129.3667	0.5185	0.0155	0	0.0155
129.4	0.5024	0.0155	0.0034	0.0188
129.4333	0.4823	0.0155	0.0007	0.0162
129.4667	0.4662	0.0023	0.0007	0.003
129.5	0.4487	0.0023	0.0007	0.003
129.5333	0.4352	0.0155	0	0.0155
129.5667	0.4168	0.0155	0.002	0.0175
129.6	0.4023	0.0155	0.0007	0.0162
129.6333	0.3849	0.0155	0	0.0155
129.6667	0.3674	0.0023	0.0007	0.003
129.7	0.3553	0.0023	0.0007	0.003
129.7333	0.3375	0.0023	0.0034	0.0057
129.7667	0.324	0.0155	0.0007	0.0162
129.8	0.3112	0	0.0007	0.0007
129.8333	0.2993	0	0.002	0.002
129.8667	0.2868	0	0.0007	0.0007
129.9	0.2746	0.0023	0.0007	0.003
129.9333	0.2582	0.0023	0.002	0.0044
129.9667	0.245	0.0023	0.0007	0.003
130	0.2378	0.0023	0.002	0.0044
130.0333	0.2223	0.0155	0.0007	0.0162
130.0667	0.2121	0.0155	0	0.0155
130.1	0.2019	0.0155	0.0007	0.0162
130.1333	0.1933	0.0023	0.002	0.0044
130.1667	0.1808	0.0155	0.002	0.0175
130.2	0.1709	0.0023	0.0007	0.003
130.2333	0.1594	0.0155	0.0007	0.0162
130.2667	0.1548	0.0023	0.002	0.0044
130.3	0.1476	0.0155	0.0007	0.0162
130.3333	0.1393	0.0023	0.002	0.0044
130.3667	0.1249	0.0023	0	0.0023
130.4	0.1189	0.0023	0.0007	0.003



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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	0.1091	0.0023	0.002	0.0044
130.4667	0.1018	0.0155	0.002	0.0175
130.5	0.0943	0	0.0007	0.0007
130.5333	0.0926	0	0.002	0.002
130.5667	0.0857	0.0023	0	0.0023
130.6	0.0768	0.0155	0.002	0.0175
130.6333	0.0683	0.0023	0	0.0023
130.6667	0.064	0.0023	0	0.0023
130.7	0.0597	0.0155	0.0007	0.0162
130.7333	0.0528	0.0023	0.0007	0.003
130.7667	0.0475	0.0155	0.002	0.0175
130.8	0.0452	0.0023	0.0007	0.003
130.8333	0.0406	0	0.0007	0.0007
130.8667	0.0367	0.0155	0.002	0.0175
130.9	0.0294	0.0155	0.0007	0.0162
130.9333	0.0261	0.0155	0	0.0155
130.9667	0.0218	0.0155	0.0007	0.0162
131	0.0212	0.0023	0.002	0.0044
131.0333	0.0179	0.0023	0.0007	0.003
131.0667	0.0116	0.0023	0.0007	0.003
131.1	0.0113	0.0023	0.002	0.0044
131.1333	0.0064	0.0155	0.0007	0.0162
131.1667	0.007	0	0.0007	0.0007
131.2	0.0008	0.0155	0.002	0.0175
131.2333	0.0024	0.0155	0	0.0155
131.2667	-0.0038	0	0.0007	0.0007
131.3	-0.0025	0.0155	0.0007	0.0162
131.3333	-0.0035	0.0023	0	0.0023
131.3667	-0.0071	0.0155	0.0007	0.0162
131.4	-0.0097	0.0023	0.0007	0.003
131.4333	-0.0101	0.0023	0.0007	0.003
131.4667	-0.0121	0.0155	0.0034	0.0188
131.5	-0.017	0.0155	0.002	0.0175
131.5333	-0.0147	0	0.0007	0.0007
131.5667	-0.014	0.0155	0.0007	0.0162
131.6	-0.014	0.0023	0.002	0.0044
131.6333	-0.0147	0.0155	0.002	0.0175
131.6667	-0.018	0.0023	0.0007	0.003
131.7	-0.0193	0.0023	0	0.0023
131.7333	-0.0176	0	0.002	0.002
131.7667	-0.0206	0.0155	0.0007	0.0162
131.8	-0.02	0.0023	0.0034	0.0057
131.8333	-0.0193	0.0286	0.002	0.0307

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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	-0.0206	0.0023	0.0007	0.003
131.9	-0.0209	0.0155	0.002	0.0175
131.9333	-0.0216	0.0023	0.002	0.0044
131.9667	-0.0209	0.0155	0.0007	0.0162
132	-0.0229	0.0155	0.002	0.0175
132.0333	-0.0236	0.0418	0.002	0.0438
132.0667	-0.0213	0.0023	0.002	0.0044
132.1	-0.0236	0.0155	0.002	0.0175
132.1333	-0.0216	0.0023	0.0034	0.0057
132.1667	-0.0229	0.0155	0	0.0155
132.2	-0.0232	0.0155	0.0034	0.0188
132.2333	-0.0216	0.0155	0.002	0.0175
132.2667	-0.0239	0	0.002	0.002
132.3	-0.0262	0.0155	0.0007	0.0162
132.3333	-0.0262	0.0023	0.0034	0.0057
132.3667	-0.0262	0.0155	0.002	0.0175
132.4	-0.0249	0.0023	0.0007	0.003
132.4333	-0.0272	0	0.0007	0.0007
132.4667	-0.0255	0.0023	0.0007	0.003
132.5	-0.0279	0.0023	0.0007	0.003
132.5333	-0.0242	0.0023	0	0.0023
132.5667	-0.0216	0.0155	0	0.0155
132.6	-0.0226	0.0155	0.0007	0.0162
132.6333	-0.0216	0.0023	0.0007	0.003
132.6667	-0.0232	0.0023	0.002	0.0044
132.7	-0.0246	0	0.0007	0.0007
132.7333	-0.0226	0.0155	0.0007	0.0162
132.7667	-0.0239	0.0023	0	0.0023
132.8	-0.0279	0.0155	0.002	0.0175
132.8333	-0.0259	0.0286	0	0.0286
132.8667	-0.0275	0	0.002	0.002
132.9	-0.0226	0.0155	0.0007	0.0162
132.9333	-0.0236	0.0023	0.002	0.0044
132.9667	-0.0275	0.0155	0.002	0.0175
133	-0.0265	0.0155	0.002	0.0175
133.0333	-0.0272	0.0155	0	0.0155
133.0667	-0.0259	0.0023	0.002	0.0044
133.1	-0.0262	0.0286	0.0007	0.0293
133.1333	-0.0269	0.0023	0	0.0023
133.1667	-0.0252	0.0155	0.0007	0.0162
133.2	-0.0249	0.0023	0.002	0.0044
133.2333	-0.0259	0	0.0007	0.0007
133.2667	-0.0265	0.0286	0	0.0286

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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	-0.0275	0.0023	0.002	0.0044
133.3333	-0.0285	0.0155	0.0034	0.0188
133.3667	-0.0308	0.0023	0.002	0.0044
133.4	-0.014	0.0023	0.002	0.0044
133.4333	0.0386	0.0155	0	0.0155
133.4667	0.0903	0.0155	0.0007	0.0162
133.5	0.1364	0	0	0
133.5333	0.1835	0.0023	0.0007	0.003
133.5667	0.2332	0	0.0007	0.0007
133.6	0.2904	0.0023	0.002	0.0044
133.6333	0.3572	0.0155	0.0007	0.0162
133.6667	0.4287	0.0286	0.0034	0.032
133.7	0.4905	0.0155	0.002	0.0175
133.7333	0.559	0.0155	0.0007	0.0162
133.7667	0.6235	0.0023	0.002	0.0044
133.8	0.6841	0.0155	0.002	0.0175
133.8333	0.7443	0.0155	0.0007	0.0162
133.8667	0.8029	0.0023	0.002	0.0044
133.9	0.8631	0.0023	0.002	0.0044
133.9333	0.9171	0.0155	0.002	0.0175
133.9667	0.9724	0.0155	0.0007	0.0162
134	1.03	0.0023	0	0.0023
134.0333	1.0856	0.0023	0.0007	0.003
134.0667	1.1376	0.0023	0.002	0.0044
134.1	1.1896	0.0023	0.002	0.0044
134.1333	1.2429	0.0155	0.002	0.0175
134.1667	1.2956	0.0023	0	0.0023
134.2	1.346	0.0023	0.002	0.0044
134.2333	1.3976	0.0023	0.002	0.0044
134.2667	1.445	0	0.002	0.002
134.3	1.496	0.0023	0.002	0.0044
134.3333	1.5421	0.0023	0.002	0.0044
134.3667	1.5895	0.0023	0.002	0.0044
134.4	1.6353	0.0023	0.0007	0.003
134.4333	1.6843	0.0023	0	0.0023
134.4667	1.7297	0.0023	0.0007	0.003
134.5	1.7751	0.0155	0.0007	0.0162
134.5333	1.8222	0.0023	0.0007	0.003
134.5667	1.8676	0.0023	0	0.0023
134.6	1.9088	0.0155	0.002	0.0175
134.6333	1.9552	0.0023	0.0007	0.003
134.6667	1.998	0.0155	0	0.0155
134.7	2.0408	0.0155	0.0007	0.0162

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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	2.0832	0.0155	0.002	0.0175
134.7667	2.1263	0.0023	0.002	0.0044
134.8	2.1645	0.0023	0	0.0023
134.8333	2.2043	0.0155	0.002	0.0175
134.8667	2.2471	0.0155	0.0007	0.0162
134.9	2.285	0.0023	0.002	0.0044
134.9333	2.3294	0.0023	0.0007	0.003
134.9667	2.3643	0.0023	0.0007	0.003
135	2.3989	0.0023	0.0034	0.0057
135.0333	2.4189	0.0155	0.002	0.0175
135.0667	2.4354	0.0023	0	0.0023
135.1	2.4377	0.0155	0	0.0155
135.1333	2.4209	0.0155	0.002	0.0175
135.1667	2.4097	0.0286	0.002	0.0307
135.2	2.3982	0.0286	0.0007	0.0293
135.2333	2.3903	0.0155	0.002	0.0175
135.2667	2.3788	0.0023	0	0.0023
135.3	2.3712	0.0023	0.002	0.0044
135.3333	2.3666	0.0023	0	0.0023
135.3667	2.3732	0.0023	0.0007	0.003
135.4	2.3804	0	0	0
135.4333	2.3834	0.0155	0	0.0155
135.4667	2.3913	0.0023	0.002	0.0044
135.5	2.3969	0.0155	0.002	0.0175
135.5333	2.4035	0	0	0
135.5667	2.4084	0	0.002	0.002
135.6	2.413	0.0155	0	0.0155
135.6333	2.4186	0.0155	0.002	0.0175
135.6667	2.4295	0	0.0007	0.0007
135.7	2.4351	0.0023	0.0007	0.003
135.7333	2.44	0.0023	0.0007	0.003
135.7667	2.4449	0.0023	0.002	0.0044
135.8	2.4495	0.0023	0.002	0.0044
135.8333	2.4561	0.0155	0.002	0.0175
135.8667	2.4607	0.0023	0.002	0.0044
135.9	2.4673	0.0023	0.002	0.0044
135.9333	2.4716	0.0023	0.0007	0.003
135.9667	2.4762	0.0286	0.002	0.0307
136	2.4818	0.0155	0.0007	0.0162
136.0333	2.4874	0.0023	0.0007	0.003
136.0667	2.489	0.0155	0.0007	0.0162
136.1	2.494	0.0155	0.002	0.0175
136.1333	2.5012	0.0023	0.0007	0.003

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136.1667	2.5048	0.0023	0.0007	0.003
136.2	2.5085	0.0155	0.002	0.0175
136.2333	2.5117	0.0023	0	0.0023
136.2667	2.5127	0.0155	0.002	0.0175
136.3	2.5045	0.0155	0.0007	0.0162
136.3333	2.488	0.0023	0.0007	0.003
136.3667	2.4667	0.0155	0.0007	0.0162
136.4	2.4453	0.0023	0.002	0.0044
136.4333	2.4423	0.0023	0.002	0.0044
136.4667	2.4413	0.0155	0.002	0.0175
136.5	2.438	0.0155	0.0007	0.0162
136.5333	2.4354	0.0023	0.002	0.0044
136.5667	2.4331	0.0155	0.0007	0.0162
136.6	2.4344	0.0155	0.002	0.0175
136.6333	2.4291	0.0155	0.002	0.0175
136.6667	2.4285	0.0023	0.0007	0.003
136.7	2.4265	0.0155	0.0034	0.0188
136.7333	2.4245	0.0023	0.002	0.0044
136.7667	2.4245	0.0155	0.002	0.0175
136.8	2.4189	0.0155	0.0007	0.0162
136.8333	2.4183	0.0023	0.0007	0.003
136.8667	2.416	0	0.0007	0.0007
136.9	2.4173	0.0023	0	0.0023
136.9333	2.413	0	0.002	0.002
136.9667	2.4133	0.0155	0.002	0.0175
137	2.41	0.0155	0.0007	0.0162
137.0333	2.4127	0.0023	0.002	0.0044
137.0667	2.4091	0.0155	0.0007	0.0162
137.1	2.4074	0.0023	0.002	0.0044
137.1333	2.4074	0.0023	0.002	0.0044
137.1667	2.4077	0.0155	0	0.0155
137.2	2.4051	0	0.002	0.002
137.2333	2.4035	0.0023	0.0007	0.003
137.2667	2.4028	0.0155	0.002	0.0175
137.3	2.4015	0	0.0007	0.0007
137.3333	2.4008	0.0155	0.0007	0.0162
137.3667	2.3979	0	0	0
137.4	2.3962	0.0023	0.002	0.0044
137.4333	2.3975	0.0023	0.0007	0.003
137.4667	2.3956	0.0023	0	0.0023
137.5	2.3949	0.0155	0	0.0155
137.5333	2.3946	0.0155	0.0007	0.0162
137.5667	2.3949	0.0155	0.002	0.0175

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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	2.3919	0.0023	0.002	0.0044
137.6333	2.3906	0.0023	0.0007	0.003
137.6667	2.3946	0.0155	0.0007	0.0162
137.7	2.389	0.0023	0.002	0.0044
137.7333	2.3893	0.0155	0.0007	0.0162
137.7667	2.389	0.0155	0.0007	0.0162
137.8	2.3844	0.0023	0.0007	0.003
137.8333	2.3867	0.0023	0.0007	0.003
137.8667	2.3847	0.0023	0.0007	0.003
137.9	2.3837	0.0023	0.0007	0.003
137.9333	2.3817	0.0023	0.002	0.0044
137.9667	2.3817	0.0155	0.0007	0.0162
138	2.3804	0.0023	0	0.0023
138.0333	2.3827	0.0023	0.0007	0.003
138.0667	2.3831	0.0023	0	0.0023
138.1	2.3831	0.0023	0	0.0023
138.1333	2.3778	0	0.0007	0.0007
138.1667	2.3771	0.0286	0.002	0.0307
138.2	2.3781	0.0155	0.0007	0.0162
138.2333	2.3745	0.0155	0.002	0.0175
138.2667	2.3732	0.0023	0.002	0.0044
138.3	2.3755	0.0023	0	0.0023
138.3333	2.3735	0.0155	0	0.0155
138.3667	2.3712	0.0023	0.0007	0.003
138.4	2.3755	0.0023	0.0007	0.003
138.4333	2.3719	0.0023	0.002	0.0044
138.4667	2.3705	0.0023	0.0034	0.0057
138.5	2.3712	0.0023	0.0007	0.003
138.5333	2.3735	0.0023	0.0007	0.003
138.5667	2.3709	0.0023	0.002	0.0044
138.6	2.3702	0.0023	0.002	0.0044
138.6333	2.3676	0.0155	0.002	0.0175
138.6667	2.3689	0.0155	0.002	0.0175
138.7	2.3663	0.0155	0.002	0.0175
138.7333	2.3702	0.0155	0	0.0155
138.7667	2.3666	0.0023	0.0007	0.003
138.8	2.3682	0.0155	0.002	0.0175
138.8333	2.3788	0.0155	0.0007	0.0162
138.8667	2.3844	0.0023	0.002	0.0044
138.9	2.3952	0.0155	0.0007	0.0162
138.9333	2.4074	0.0023	0.002	0.0044
138.9667	2.4239	0.0023	0.002	0.0044
139	2.4288	0.0155	0.0034	0.0188



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139.0333	2.4288	0.0023	0.0007	0.003
139.0667	2.4249	0.0155	0.0007	0.0162
139.1	2.4249	0.0023	0.002	0.0044
139.1333	2.4255	0.0155	0.0007	0.0162
139.1667	2.4229	0.0155	0.0007	0.0162
139.2	2.4199	0.0155	0.002	0.0175
139.2333	2.417	0.0023	0.002	0.0044
139.2667	2.4156	0.0155	0.0007	0.0162
139.3	2.4166	0.0023	0.0007	0.003
139.3333	2.4166	0.0155	0.002	0.0175
139.3667	2.4176	0.0155	0.0007	0.0162
139.4	2.4163	0.0155	0.002	0.0175
139.4333	2.4127	0.0023	0.002	0.0044
139.4667	2.4123	0.0023	0.0007	0.003
139.5	2.414	0.0155	0.0007	0.0162
139.5333	2.4123	0.0023	0	0.0023
139.5667	2.4133	0.0155	0.002	0.0175
139.6	2.41	0.0023	0.002	0.0044
139.6333	2.4074	0.0286	0	0.0286
139.6667	2.4081	0	0.0007	0.0007
139.7	2.4061	0.0023	0	0.0023
139.7333	2.4025	0.0155	0.0007	0.0162
139.7667	2.4051	0.0023	0.0034	0.0057
139.8	2.4058	0.0286	0.0007	0.0293
139.8333	2.4015	0.0155	0.0007	0.0162
139.8667	2.4021	0.0155	0.0007	0.0162
139.9	2.4028	0.0023	0.0034	0.0057
139.9333	2.4002	0.0155	0.0007	0.0162
139.9667	2.3975	0.0023	0.0007	0.003
140	2.4008	0.0023	0.0007	0.003
140.0333	2.3995	0.0155	0.002	0.0175
140.0667	2.3959	0.0155	0.002	0.0175
140.1	2.3995	0.0023	0.002	0.0044
140.1333	2.3979	0.0155	0.002	0.0175
140.1667	2.3929	0.0155	0.0007	0.0162
140.2	2.4035	0	0	0
140.2333	2.4216	0	0.002	0.002
140.2667	2.4321	0.0023	0.0007	0.003
140.3	2.443	0.0023	0	0.0023
140.3333	2.4387	0.0286	0	0.0286
140.3667	2.3666	0.0155	0.0034	0.0188
140.4	2.3021	0.0155	0	0.0155
140.4333	2.2389	0.0155	0.002	0.0175

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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	2.178	0.0023	0.002	0.0044
140.5	2.1171	0.0023	0.002	0.0044
140.5333	2.0602	0.0155	0.0007	0.0162
140.5667	2.0029	0.0023	0.0007	0.003
140.6	1.944	0.0023	0.002	0.0044
140.6333	1.8933	0.0023	0.002	0.0044
140.6667	1.8406	0.0023	0.002	0.0044
140.7	1.7913	0.0155	0.002	0.0175
140.7333	1.7399	0.0155	0.0034	0.0188
140.7667	1.6925	0.0286	0.0007	0.0293
140.8	1.6438	0.0023	0	0.0023
140.8333	1.602	0	0.002	0.002
140.8667	1.5556	0.0155	0	0.0155
140.9	1.5105	0.0155	0.002	0.0175
140.9333	1.4727	0.0023	0.0034	0.0057
140.9667	1.4322	0.0155	0.002	0.0175
141	1.3937	0.0155	0.002	0.0175
141.0333	1.3548	0.0023	0.002	0.0044
141.0667	1.3167	0.0023	0	0.0023
141.1	1.2805	0.0023	0.002	0.0044
141.1333	1.2429	0.0286	0.0034	0.032
141.1667	1.2077	0.0023	0.0007	0.003
141.2	1.1755	0.0023	0.002	0.0044
141.2333	1.1402	0.0023	0.002	0.0044
141.2667	1.1103	0.0023	0	0.0023
141.3	1.0741	0.0155	0.002	0.0175
141.3333	1.0435	0.0155	0.0034	0.0188
141.3667	1.0135	0.0023	0.0007	0.003
141.4	0.9846	0.0155	0.002	0.0175
141.4333	0.9576	0.0155	0	0.0155
141.4667	0.9293	0.0023	0.0007	0.003
141.5	0.898	0.0023	0.0007	0.003
141.5333	0.8743	0.0155	0.0007	0.0162
141.5667	0.8427	0.0155	0.0007	0.0162
141.6	0.819	0.0286	0.0007	0.0293
141.6333	0.7947	0.0155	0	0.0155
141.6667	0.7673	0.0023	0	0.0023
141.7	0.7436	0.0286	0.002	0.0307
141.7333	0.7166	0.0023	0.0007	0.003
141.7667	0.6976	0.0023	0.0007	0.003
141.8	0.6729	0.0023	0.002	0.0044
141.8333	0.6492	0.0155	0.0007	0.0162
141.8667	0.6265	0.0023	0.002	0.0044

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141.9	0.6074	0.0023	0.0007	0.003
141.9333	0.5853	0.0023	0.002	0.0044
141.9667	0.5616	0.0023	0.002	0.0044
142	0.5432	0.0023	0.0007	0.003
142.0333	0.5218	0.0155	0.002	0.0175
142.0667	0.5001	0	0.0007	0.0007
142.1	0.484	0.0155	0.0007	0.0162
142.1333	0.4619	0.0155	0.0007	0.0162
142.1667	0.4454	0.0023	0.0007	0.003
142.2	0.4273	0	0.002	0.002
142.2333	0.4083	0.0155	0.0007	0.0162
142.2667	0.3934	0.0023	0.002	0.0044
142.3	0.3776	0.0023	0.0007	0.003
142.3333	0.3609	0.0155	0.0007	0.0162
142.3667	0.3464	0.0023	0.002	0.0044
142.4	0.3276	0.0023	0.0007	0.003
142.4333	0.3135	0.0023	0.0047	0.007
142.4667	0.2996	0.0023	0.002	0.0044
142.5	0.2842	0.0023	0.0007	0.003
142.5333	0.2723	0.0155	0.002	0.0175
142.5667	0.2582	0.0023	0	0.0023
142.6	0.244	0	0.0007	0.0007
142.6333	0.2312	0	0	0
142.6667	0.219	0.0023	0.0007	0.003
142.7	0.2085	0.0155	0.002	0.0175
142.7333	0.1963	0.0023	0	0.0023
142.7667	0.1884	0.0155	0.002	0.0175
142.8	0.1775	0.0023	0.002	0.0044
142.8333	0.1637	0.0023	0.002	0.0044
142.8667	0.1561	0.0023	0.0007	0.003
142.9	0.1472	0.0286	0	0.0286
142.9333	0.1351	0	0.0007	0.0007
142.9667	0.1272	0.0155	0.002	0.0175
143	0.1196	0	0	0
143.0333	0.1127	0.0023	0.0007	0.003
143.0667	0.1028	0.0023	0.0007	0.003
143.1	0.0936	0	0.002	0.002
143.1333	0.0893	0	0.0007	0.0007
143.1667	0.0814	0.0023	0.002	0.0044
143.2	0.0745	0.0155	0.002	0.0175
143.2333	0.0696	0.0023	0.002	0.0044
143.2667	0.0604	0.0023	0.0007	0.003
143.3	0.059	0.0286	0.0007	0.0293

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143.3333	0.0515	0.0155	0.0007	0.0162
143.3667	0.0465	0.0023	0.002	0.0044
143.4	0.0413	0.0023	0.002	0.0044
143.4333	0.038	0.0155	0.0034	0.0188
143.4667	0.0314	0.0023	0.0007	0.003
143.5	0.0258	0.0023	0.002	0.0044
143.5333	0.0232	0.0155	0.002	0.0175
143.5667	0.0205	0.0155	0.002	0.0175
143.6	0.0199	0.0155	0.002	0.0175
143.6333	0.0143	0.0023	0.002	0.0044
143.6667	0.011	0.0023	0.002	0.0044
143.7	0.011	0.0155	0.0007	0.0162
143.7333	0.0077	0.0286	0.0007	0.0293
143.7667	0.0005	0.0023	0.002	0.0044
143.8	-0.0012	0.0286	0.002	0.0307
143.8333	-0.0005	0.0023	0.0007	0.003
143.8667	-0.0042	0.0155	0.002	0.0175
143.9	-0.0058	0	0.002	0.002
143.9333	-0.0051	0.0155	0.0007	0.0162
143.9667	-0.0071	0.0155	0.0007	0.0162
144	-0.0101	0.0155	0.0007	0.0162
144.0333	-0.0088	0.0155	0.0007	0.0162
144.0667	-0.0117	0.0023	0.0007	0.003
144.1	-0.0121	0.0023	0.002	0.0044
144.1333	-0.0127	0.0023	0.002	0.0044
144.1667	-0.014	0.0155	0.002	0.0175
144.2	-0.0196	0.0155	0.002	0.0175
144.2333	-0.0147	0.0286	0.0007	0.0293
144.2667	-0.016	0.0023	0.0007	0.003
144.3	-0.0176	0	0.002	0.002
144.3333	-0.0203	0.0023	0.0007	0.003
144.3667	-0.018	0.0155	0.0007	0.0162
144.4	-0.0203	0.0023	0.002	0.0044
144.4333	-0.0219	0.0155	0	0.0155
144.4667	-0.02	0.0023	0.0007	0.003
144.5	-0.0219	0.0023	0.0007	0.003
144.5333	-0.0209	0.0023	0.0007	0.003
144.5667	-0.0229	0.0155	0.002	0.0175
144.6	-0.02	0.0155	0.0007	0.0162
144.6333	-0.0232	0.0023	0	0.0023
144.6667	-0.0216	0.0023	0.002	0.0044
144.7	-0.0206	0.0155	0.002	0.0175
144.7333	-0.0209	0.0023	0.0007	0.003

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144.7667	-0.0282	0.0155	0.002	0.0175
144.8	-0.0295	0	0.002	0.002
144.8333	-0.0275	0.0023	0.002	0.0044
144.8667	-0.0275	0.0023	0.002	0.0044
144.9	-0.0295	0.0023	0.002	0.0044
144.9333	-0.0255	0.0023	0.0007	0.003
144.9667	-0.0302	0.0155	0.0007	0.0162
145	-0.0223	0.0023	0.002	0.0044
145.0333	-0.0246	0.0023	0	0.0023
145.0667	-0.0236	0.0155	0.002	0.0175
145.1	-0.0292	0.0155	0.002	0.0175
145.1333	-0.0265	0	0.0034	0.0034
145.1667	-0.0272	0.0023	0.002	0.0044
145.2	-0.0255	0.0155	0.0007	0.0162
145.2333	-0.0262	0.0155	0.0007	0.0162
145.2667	-0.0433	0.0023	0.8278	0.8302
145.3	-0.0436	0.0023	0.7963	0.7986
145.3333	-0.045	0.0155	0.7739	0.7894
145.3667	-0.0463	0	0.7687	0.7687
145.4	-0.0476	0.0155	0.7555	0.771
145.4333	-0.045	0.0155	0.7516	0.767
145.4667	-0.044	0.0155	0.7489	0.7644
145.5	-0.0443	0.0023	0.7516	0.7539
145.5333	-0.0453	0.0023	0.7489	0.7513
145.5667	-0.0476	0.0155	0.7424	0.7578
145.6	-0.046	0.0023	0.7489	0.7513
145.6333	-0.0486	0.0155	0.7476	0.7631
145.6667	-0.043	0.0155	0.7411	0.7565
145.7	-0.0446	0.0155	0.7437	0.7592
145.7333	-0.046	0.0023	0.7384	0.7407
145.7667	-0.0407	0.0155	0.5819	0.5974
145.8	-0.0367	0.0023	0.3558	0.3581
145.8333	-0.0305	0.0155	0.002	0.0175
145.8667	-0.0292	0.0023	0.0007	0.003
145.9	-0.0295	0.0023	0.002	0.0044
145.9333	-0.0269	0.0155	0.002	0.0175
145.9667	-0.0275	0.0155	0.002	0.0175
146	-0.0232	0.0023	0	0.0023
146.0333	-0.0265	0.0023	0.002	0.0044
146.0667	-0.0246	0.0286	0.0034	0.032
146.1	-0.0275	0.0023	0.0007	0.003
146.1333	-0.0288	0	0.0007	0.0007
146.1667	-0.0265	0.0155	0.0007	0.0162

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146.2	-0.0285	0	0	0
146.2333	-0.0265	0.0155	0	0.0155
146.2667	0.0057	0.0155	0	0.0155
146.3	0.0663	0.0023	0.0007	0.003
146.3333	0.1318	0.0155	0.002	0.0175
146.3667	0.2085	0.0286	0.002	0.0307
146.4	0.2802	0.0155	0.002	0.0175
146.4333	0.3562	0.0023	0.0007	0.003
146.4667	0.4277	0.0023	0.002	0.0044
146.5	0.4945	0	0.0007	0.0007
146.5333	0.5656	0.0155	0.002	0.0175
146.5667	0.6304	0.0023	0.002	0.0044
146.6	0.6972	0.0023	0.0007	0.003
146.6333	0.7581	0.0155	0.0007	0.0162
146.6667	0.819	0.0023	0	0.0023
146.7	0.8802	0.0286	0	0.0286
146.7333	0.9375	0	0.0034	0.0034
146.7667	0.9994	0.0023	0.002	0.0044
146.8	1.053	0.0023	0.002	0.0044
146.8333	1.1123	0	0.0007	0.0007
146.8667	1.1685	0.0023	0.002	0.0044
146.9	1.2199	0.0023	0	0.0023
146.9333	1.2775	0.0023	0.002	0.0044
146.9667	1.3321	0.0155	0.0007	0.0162
147	1.3841	0.0155	0.0007	0.0162
147.0333	1.4358	0.0155	0.0007	0.0162
147.0667	1.4875	0.0023	0.0034	0.0057
147.1	1.5375	0.0155	0.0007	0.0162
147.1333	1.5905	0	0	0
147.1667	1.6366	0.0023	0	0.0023
147.2	1.6883	0.0155	0.002	0.0175
147.2333	1.7376	0.0155	0.0007	0.0162
147.2667	1.785	0.0155	0.0007	0.0162
147.3	1.8318	0.0023	0.0007	0.003
147.3333	1.8775	0.0155	0.0007	0.0162
147.3667	1.9233	0.0023	0	0.0023
147.4	1.971	0.0023	0.002	0.0044
147.4333	2.0134	0.0155	0.0007	0.0162
147.4667	2.0569	0.0023	0.0007	0.003
147.5	2.1039	0.0023	0.002	0.0044
147.5333	2.1484	0.0155	0.002	0.0175
147.5667	2.1892	0.0286	0.0007	0.0293
147.6	2.2326	0	0.002	0.002



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147.6333	2.2758	0.0023	0.0007	0.003
147.6667	2.3185	0.0023	0.002	0.0044
147.7	2.3567	0.0023	0.0007	0.003
147.7333	2.3995	0.0155	0.0007	0.0162
147.7667	2.4364	0.0155	0.0007	0.0162
147.8	2.4568	0.0023	0.0007	0.003
147.8333	2.4456	0.0155	0.002	0.0175
147.8667	2.4262	0.0286	0.0007	0.0293
147.9	2.4285	0.0023	0.002	0.0044
147.9333	2.4351	0.0286	0.0034	0.032
147.9667	2.4426	0.0023	0	0.0023
148	2.4446	0.0023	0.002	0.0044
148.0333	2.4449	0.0023	0	0.0023
148.0667	2.4443	0.0023	0.0007	0.003
148.1	2.4413	0.0023	0.002	0.0044
148.1333	2.4446	0.0155	0.002	0.0175
148.1667	2.4426	0.0155	0.0007	0.0162
148.2	2.4436	0	0.002	0.002
148.2333	2.4423	0.0155	0.0007	0.0162
148.2667	2.4482	0.0155	0.002	0.0175
148.3	2.4502	0.0023	0.002	0.0044
148.3333	2.4499	0.0155	0.0007	0.0162
148.3667	2.4555	0.0155	0.002	0.0175
148.4	2.4541	0.0155	0	0.0155
148.4333	2.4518	0.0023	0.002	0.0044
148.4667	2.4462	0.0023	0.0034	0.0057
148.5	2.4416	0.0023	0.0034	0.0057
148.5333	2.4397	0.0023	0.0007	0.003
148.5667	2.4328	0.0155	0.002	0.0175
148.6	2.4304	0.0023	0	0.0023
148.6333	2.4258	0.0155	0.0007	0.0162
148.6667	2.4242	0.0023	0.0007	0.003
148.7	2.4186	0.0023	0.0007	0.003
148.7333	2.4156	0.0023	0.0007	0.003
148.7667	2.4153	0.0155	0.0034	0.0188
148.8	2.4087	0.0023	0.0007	0.003
148.8333	2.4064	0.0023	0.002	0.0044
148.8667	2.4048	0	0.0007	0.0007
148.9	2.4058	0.0155	0.002	0.0175
148.9333	2.4035	0.0155	0.0007	0.0162
148.9667	2.3975	0.0155	0.0007	0.0162
149	2.3969	0.0155	0.0007	0.0162
149.0333	2.3929	0.0023	0.0007	0.003

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149.0667	2.3933	0.0023	0	0.0023
149.1	2.391	0.0155	0.0007	0.0162
149.1333	2.387	0.0286	0.0007	0.0293
149.1667	2.3854	0.0023	0	0.0023
149.2	2.3854	0.0155	0.0007	0.0162
149.2333	2.3821	0.0155	0.0007	0.0162
149.2667	2.385	0.0286	0.0007	0.0293
149.3	2.3791	0.0023	0.002	0.0044
149.3333	2.3798	0.0286	0.002	0.0307
149.3667	2.3811	0.0023	0.002	0.0044
149.4	2.3867	0.0023	0.0007	0.003
149.4333	2.3936	0.0023	0	0.0023
149.4667	2.3975	0	0.002	0.002
149.5	2.4077	0.0155	0.002	0.0175
149.5333	2.4127	0.0155	0.002	0.0175
149.5667	2.4206	0.0023	0.002	0.0044
149.6	2.4249	0.0023	0.002	0.0044
149.6333	2.4278	0.0023	0.0034	0.0057
149.6667	2.4367	0.0155	0.0007	0.0162
149.7	2.4383	0.0155	0.002	0.0175
149.7333	2.4453	0.0023	0.002	0.0044
149.7667	2.4482	0.0023	0	0.0023
149.8	2.4532	0.0023	0.002	0.0044
149.8333	2.4588	0.0023	0.0007	0.003
149.8667	2.462	0.0155	0.002	0.0175
149.9	2.4653	0.0023	0.0007	0.003
149.9333	2.4719	0.0023	0.002	0.0044
149.9667	2.4732	0.0286	0.0007	0.0293
150	2.4713	0.0023	0	0.0023
150.0333	2.4752	0.0155	0.002	0.0175
150.0667	2.4749	0.0155	0.002	0.0175
150.1	2.4683	0.0155	0.0034	0.0188
150.1333	2.4703	0.0286	0	0.0286
150.1667	2.4673	0.0286	0.0007	0.0293
150.2	2.4673	0.0155	0.0007	0.0162
150.2333	2.4643	0.0023	0.002	0.0044
150.2667	2.4624	0.0155	0.002	0.0175
150.3	2.463	0.0023	0.0007	0.003
150.3333	2.4611	0	0.0007	0.0007
150.3667	2.4584	0.0023	0.002	0.0044
150.4	2.4594	0.0155	0	0.0155
150.4333	2.4558	0	0.002	0.002
150.4667	2.4571	0.0023	0.002	0.0044

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150.5	2.4541	0.0023	0.002	0.0044
150.5333	2.4509	0.0155	0.002	0.0175
150.5667	2.4515	0.0155	0.002	0.0175
150.6	2.4518	0.0023	0.0007	0.003
150.6333	2.4512	0.0155	0.002	0.0175
150.6667	2.4482	0.0286	0.0007	0.0293
150.7	2.4469	0.0023	0.002	0.0044
150.7333	2.4472	0.0023	0.0007	0.003
150.7667	2.4462	0.0023	0.0007	0.003
150.8	2.4446	0.0155	0.002	0.0175
150.8333	2.4426	0.0023	0	0.0023
150.8667	2.4439	0.0286	0.002	0.0307
150.9	2.443	0.0023	0.002	0.0044
150.9333	2.4416	0.0023	0.0007	0.003
150.9667	2.443	0.0155	0.002	0.0175
151	2.4403	0.0023	0.0007	0.003
151.0333	2.4397	0.0155	0.0007	0.0162
151.0667	2.438	0.0155	0.0034	0.0188
151.1	2.437	0.0023	0.0007	0.003
151.1333	2.4357	0.0023	0.002	0.0044
151.1667	2.4354	0.0023	0	0.0023
151.2	2.4374	0.0023	0.002	0.0044
151.2333	2.4341	0.0023	0.0007	0.003
151.2667	2.4351	0.0023	0.002	0.0044
151.3	2.4351	0.0155	0.002	0.0175
151.3333	2.4364	0.0286	0.0007	0.0293
151.3667	2.4318	0.0286	0.002	0.0307
151.4	2.4281	0.0286	0.0007	0.0293
151.4333	2.4304	0.0023	0	0.0023
151.4667	2.4291	0.0023	0.0007	0.003
151.5	2.4265	0.0023	0	0.0023
151.5333	2.4311	0.0155	0.0007	0.0162
151.5667	2.4262	0.0023	0.002	0.0044
151.6	2.4265	0	0	0
151.6333	2.4265	0	0.0034	0.0034
151.6667	2.4252	0.0286	0	0.0286
151.7	2.4239	0.0155	0.002	0.0175
151.7333	2.4258	0.0155	0.002	0.0175
151.7667	2.4232	0.0023	0.002	0.0044
151.8	2.4212	0.0155	0.0007	0.0162
151.8333	2.4229	0.0155	0.0007	0.0162
151.8667	2.4219	0.0286	0.002	0.0307
151.9	2.4206	0.0418	0.0007	0.0425

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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	2.4212	0	0.002	0.002
151.9667	2.4179	0	0.002	0.002
152	2.417	0.0023	0.0007	0.003
152.0333	2.4199	0.0023	0.0007	0.003
152.0667	2.4179	0.0023	0.002	0.0044
152.1	2.4179	0.0155	0.0007	0.0162
152.1333	2.4189	0.0023	0.0007	0.003
152.1667	2.4179	0	0.0034	0.0034
152.2	2.4225	0.0155	0.002	0.0175
152.2333	2.417	0.0155	0	0.0155
152.2667	2.4156	0.0023	0.0007	0.003
152.3	2.4166	0.0023	0	0.0023
152.3333	2.4166	0.0023	0.002	0.0044
152.3667	2.413	0.0155	0.002	0.0175
152.4	2.414	0.0155	0	0.0155
152.4333	2.413	0.0023	0	0.0023
152.4667	2.414	0.0023	0.0007	0.003
152.5	2.412	0.0155	0.0007	0.0162
152.5333	2.4127	0.0155	0.002	0.0175
152.5667	2.4094	0.0023	0.0007	0.003
152.6	2.414	0.0023	0.0007	0.003
152.6333	2.4127	0.0023	0.0007	0.003
152.6667	2.414	0.0155	0.0007	0.0162
152.7	2.4127	0.0023	0.002	0.0044
152.7333	2.41	0.0023	0.0007	0.003
152.7667	2.412	0.0155	0.002	0.0175
152.8	2.4107	0.0155	0.0007	0.0162
152.8333	2.4097	0.0155	0.002	0.0175
152.8667	2.4091	0.0023	0	0.0023
152.9	2.4104	0.0023	0.002	0.0044
152.9333	2.4084	0.0023	0.0047	0.007
152.9667	2.4074	0.0155	0.0007	0.0162
153	2.4058	0.0023	0.0007	0.003
153.0333	2.4058	0.0286	0.002	0.0307
153.0667	2.4035	0.0155	0	0.0155
153.1	2.4035	0.0155	0.0007	0.0162
153.1333	2.4038	0.0023	0.0007	0.003
153.1667	2.4041	0.0155	0.0007	0.0162
153.2	2.4038	0	0.002	0.002
153.2333	2.412	0.0023	0.002	0.0044
153.2667	2.4258	0.0023	0.0007	0.003
153.3	2.4357	0.0155	0.002	0.0175
153.3333	2.4551	0.0023	0.0007	0.003

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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	2.414	0.0155	0.0007	0.0162
153.4	2.3482	0.0155	0.002	0.0175
153.4333	2.2955	0.0155	0.002	0.0175
153.4667	2.2363	0.0023	0.002	0.0044
153.5	2.181	0.0023	0.0007	0.003
153.5333	2.127	0.0023	0	0.0023
153.5667	2.0737	0.0023	0.0007	0.003
153.6	2.023	0.0155	0.0007	0.0162
153.6333	1.9713	0.0155	0.002	0.0175
153.6667	1.9256	0.0023	0.0007	0.003
153.7	1.8788	0.0286	0	0.0286
153.7333	1.8334	0.0023	0.0007	0.003
153.7667	1.784	0.0023	0.0007	0.003
153.8	1.7416	0.0155	0.0007	0.0162
153.8333	1.7008	0.0155	0.002	0.0175
153.8667	1.659	0.0023	0.002	0.0044
153.9	1.6188	0.0155	0.002	0.0175
153.9333	1.581	0.0155	0.002	0.0175
153.9667	1.5415	0.0155	0.002	0.0175
154	1.5066	0.0023	0.0007	0.003
154.0333	1.4671	0.0155	0.0007	0.0162
154.0667	1.4315	0.0023	0.0007	0.003
154.1	1.3953	0.0155	0.0007	0.0162
154.1333	1.3614	0.0023	0.0007	0.003
154.1667	1.3295	0.0023	0.0007	0.003
154.2	1.2949	0.0023	0.002	0.0044
154.2333	1.2624	0.0023	0.0007	0.003
154.2667	1.2308	0.0155	0	0.0155
154.3	1.2024	0.0155	0.002	0.0175
154.3333	1.1689	0.0023	0.0007	0.003
154.3667	1.136	0.0023	0.002	0.0044
154.4	1.1096	0.0023	0	0.0023
154.4333	1.0764	0.0155	0.002	0.0175
154.4667	1.0494	0.0023	0.002	0.0044
154.5	1.025	0.0023	0.0007	0.003
154.5333	0.9977	0.0023	0.0007	0.003
154.5667	0.9698	0.0155	0.002	0.0175
154.6	0.9438	0.0155	0.002	0.0175
154.6333	0.9154	0.0155	0	0.0155
154.6667	0.8894	0.0155	0.002	0.0175
154.7	0.8651	0.0286	0.0007	0.0293
154.7333	0.8407	0.0155	0.002	0.0175
154.7667	0.8177	0.0023	0.0007	0.003

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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	0.7923	0.0023	0.002	0.0044
154.8333	0.7706	0.0023	0.0007	0.003
154.8667	0.7459	0.0155	0.002	0.0175
154.9	0.7229	0	0.0007	0.0007
154.9333	0.7025	0.0286	0.002	0.0307
154.9667	0.6795	0.0155	0	0.0155
155	0.6591	0.0023	0.002	0.0044
155.0333	0.6396	0.0155	0.0034	0.0188
155.0667	0.6173	0.0155	0.002	0.0175
155.1	0.5982	0.0155	0	0.0155
155.1333	0.5791	0.0155	0.0007	0.0162
155.1667	0.556	0.0155	0.0007	0.0162
155.2	0.5373	0.0023	0	0.0023
155.2333	0.5182	0.0155	0.0007	0.0162
155.2667	0.5014	0.0155	0.002	0.0175
155.3	0.4836	0.0155	0	0.0155
155.3333	0.4639	0.0155	0.002	0.0175
155.3667	0.4497	0.0155	0.002	0.0175
155.4	0.4319	0.0155	0.002	0.0175
155.4333	0.4171	0.0155	0.002	0.0175
155.4667	0.4023	0.0023	0.002	0.0044
155.5	0.3832	0.0023	0	0.0023
155.5333	0.372	0.0155	0	0.0155
155.5667	0.353	0.0155	0	0.0155
155.6	0.3428	0.0155	0	0.0155
155.6333	0.3243	0	0.002	0.002
155.6667	0.3102	0.0023	0.0007	0.003
155.7	0.2967	0.0023	0.0007	0.003
155.7333	0.2861	0.0023	0	0.0023
155.7667	0.271	0.0023	0.0007	0.003
155.8	0.2608	0.0155	0.0007	0.0162
155.8333	0.2483	0.0023	0.002	0.0044
155.8667	0.2341	0.0023	0.002	0.0044
155.9	0.2226	0.0023	0.002	0.0044
155.9333	0.2114	0.0023	0.002	0.0044
155.9667	0.2039	0.0023	0.0007	0.003
156	0.191	0.0155	0.0007	0.0162
156.0333	0.1828	0.0155	0.002	0.0175
156.0667	0.1706	0.0023	0.002	0.0044
156.1	0.1624	0.0023	0	0.0023
156.1333	0.1538	0.0023	0.002	0.0044
156.1667	0.142	0.0155	0.002	0.0175
156.2	0.137	0.0023	0.002	0.0044



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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	0.1268	0	0.002	0.002
156.2667	0.1203	0.0155	0.002	0.0175
156.3	0.1124	0.0155	0.0007	0.0162
156.3333	0.1015	0.0023	0.002	0.0044
156.3667	0.0985	0.0023	0.0007	0.003
156.4	0.089	0.0023	0.002	0.0044
156.4333	0.0824	0.0286	0.002	0.0307
156.4667	0.0781	0.0155	0.002	0.0175
156.5	0.0666	0.0023	0.002	0.0044
156.5333	0.0656	0.0286	0	0.0286
156.5667	0.0557	0	0.0007	0.0007
156.6	0.0531	0.0155	0.0007	0.0162
156.6333	0.0469	0.0155	0.002	0.0175
156.6667	0.0429	0.0155	0.002	0.0175
156.7	0.0393	0.0155	0.0007	0.0162
156.7333	0.0363	0.0155	0.002	0.0175
156.7667	0.0301	0.0023	0.0007	0.003
156.8	0.0261	0.0023	0	0.0023
156.8333	0.0222	0.0023	0.0007	0.003
156.8667	0.0195	0.0155	0.0007	0.0162
156.9	0.0153	0.0023	0.002	0.0044
156.9333	0.012	0.0286	0.002	0.0307
156.9667	0.008	0.0286	0.0034	0.032
157	0.0077	0.0023	0.0007	0.003
157.0333	0.0044	0.0023	0.002	0.0044
157.0667	0.0028	0.0155	0.002	0.0175
157.1	-0.0005	0.0023	0.002	0.0044
157.1333	0.0014	0.0023	0.002	0.0044
157.1667	-0.0025	0.0155	0.0007	0.0162
157.2	-0.0081	0.0023	0	0.0023
157.2333	-0.0071	0.0023	0.0034	0.0057
157.2667	-0.0107	0.0155	0.002	0.0175
157.3	-0.0111	0.0155	0.0007	0.0162
157.3333	-0.0114	0.0023	0.002	0.0044
157.3667	-0.0127	0	0.002	0.002
157.4	-0.0124	0.0286	0	0.0286
157.4333	-0.0134	0.0023	0.002	0.0044
157.4667	-0.0163	0.0023	0.002	0.0044
157.5	-0.0167	0.0023	0.0007	0.003
157.5333	-0.0134	0.0023	0.002	0.0044
157.5667	-0.018	0.0023	0.0007	0.003
157.6	-0.0186	0.0155	0.002	0.0175
157.6333	-0.017	0.0023	0	0.0023

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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	-0.0206	0.0023	0.002	0.0044
157.7	-0.0209	0.0155	0.0034	0.0188
157.7333	-0.0209	0.0155	0.0007	0.0162
157.7667	-0.0206	0.0155	0.0007	0.0162
157.8	-0.0242	0.0155	0.002	0.0175
157.8333	-0.0223	0.0023	0	0.0023
157.8667	-0.0216	0.0155	0	0.0155
157.9	-0.0246	0.0023	0.002	0.0044
157.9333	-0.0226	0.0155	0.002	0.0175
157.9667	-0.0246	0.0023	0.0007	0.003
158	-0.0236	0.0023	0.0034	0.0057
158.0333	-0.0252	0.0023	0.0007	0.003
158.0667	-0.0262	0.0155	0.002	0.0175
158.1	-0.0255	0.0155	0.002	0.0175
158.1333	-0.0275	0.0155	0.0007	0.0162
158.1667	-0.0252	0.0155	0.002	0.0175
158.2	-0.0242	0.0023	0.002	0.0044
158.2333	-0.0252	0.0286	0.0007	0.0293
158.2667	-0.0252	0.0023	0.0034	0.0057
158.3	-0.0252	0.0023	0	0.0023
158.3333	-0.0255	0.0155	0.0034	0.0188
158.3667	-0.0279	0.0155	0.0007	0.0162
158.4	-0.0265	0.0155	0.002	0.0175
158.4333	-0.0265	0.0023	0.0007	0.003
158.4667	-0.0265	0.0023	0.0034	0.0057
158.5	-0.0242	0.0023	0.002	0.0044
158.5333	-0.0265	0.0286	0.0007	0.0293
158.5667	-0.0252	0.0155	0.0007	0.0162
158.6	-0.0252	0.0023	0.002	0.0044
158.6333	-0.0269	0.0155	0.0034	0.0188
158.6667	-0.0269	0.0155	0.002	0.0175
158.7	-0.0295	0.0155	0.0007	0.0162
158.7333	-0.0252	0.0286	0	0.0286
158.7667	-0.0311	0.0155	0.002	0.0175
158.8	-0.0246	0.0023	0.002	0.0044
158.8333	-0.0259	0.0023	0.0007	0.003
158.8667	-0.0279	0.0155	0	0.0155
158.9	-0.0282	0.0155	0.0007	0.0162
158.9333	-0.0269	0	0.0007	0.0007
158.9667	-0.0305	0.0023	0.002	0.0044
159	-0.0269	0.0023	0.002	0.0044
159.0333	-0.0285	0.0155	0.002	0.0175
159.0667	-0.0302	0.0023	0.0007	0.003

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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	-0.0282	0.0023	0.0007	0.003
159.1333	-0.0282	0.0155	0.0007	0.0162
159.1667	-0.0292	0.0023	0.0007	0.003
159.2	-0.0275	0.0155	0.002	0.0175
159.2333	-0.0269	0.0286	0.002	0.0307
159.2667	-0.0269	0.0023	0.0007	0.003
159.3	-0.0262	0.0155	0	0.0155
159.3333	-0.0292	0.0023	0.002	0.0044
159.3667	-0.0295	0.0155	0	0.0155
159.4	-0.0262	0.0023	0.0007	0.003
159.4333	-0.0249	0	0.0007	0.0007
159.4667	-0.0262	0.0023	0.0007	0.003
159.5	-0.0259	0.0155	0.002	0.0175
159.5333	-0.0255	0.0023	0.0007	0.003
159.5667	-0.0272	0.0286	0.002	0.0307
159.6	-0.0292	0.0155	0.002	0.0175
159.6333	-0.0282	0.0155	0.0007	0.0162
159.6667	-0.0259	0	0.002	0.002
159.7	-0.0279	0.0155	0.002	0.0175
159.7333	-0.0275	0.0023	0.0034	0.0057
159.7667	-0.0265	0.0023	0.002	0.0044
159.8	-0.0288	0.0023	0.002	0.0044
159.8333	-0.0265	0	0.002	0.002
159.8667	-0.0295	0.0286	0.0007	0.0293
159.9	-0.0292	0.0155	0.002	0.0175
159.9333	-0.0302	0.0155	0.002	0.0175
159.9667	-0.0262	0.0023	0.0007	0.003
160	-0.0265	0.0155	0.002	0.0175
160.0333	-0.0285	0.0155	0.002	0.0175
160.0667	-0.0302	0.0023	0.0007	0.003
160.1	-0.0302	0.0023	0.002	0.0044
160.1333	-0.0275	0.0023	0.0007	0.003
160.1667	-0.0269	0.0286	0.0007	0.0293
160.2	-0.0285	0.0155	0	0.0155
160.2333	-0.0272	0.0155	0.0007	0.0162
160.2667	-0.0295	0.0155	0.0007	0.0162
160.3	-0.0285	0.0286	0.0007	0.0293
160.3333	-0.0308	0.0155	0.0034	0.0188
160.3667	-0.0285	0.0023	0.0034	0.0057
160.4	-0.0275	0.0155	0.002	0.0175
160.4333	-0.0272	0.0023	0	0.0023
160.4667	-0.0292	0.0155	0.0007	0.0162
160.5	-0.0272	0.0023	0.002	0.0044

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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	-0.0255	0.0023	0.002	0.0044
160.5667	-0.0279	0.0286	0.0007	0.0293
160.6	-0.0308	0.0155	0.0007	0.0162
160.6333	-0.0298	0.0155	0.0007	0.0162
160.6667	-0.0255	0.0155	0.002	0.0175
160.7	-0.0275	0	0.0007	0.0007
160.7333	-0.0272	0.0023	0.0007	0.003
160.7667	-0.0282	0.0023	0.0007	0.003
160.8	-0.0305	0.0023	0.002	0.0044
160.8333	-0.0285	0.0023	0.002	0.0044
160.8667	-0.0275	0.0023	0.002	0.0044
160.9	-0.0295	0.0023	0.0007	0.003
160.9333	-0.0275	0.0023	0.002	0.0044
160.9667	-0.0269	0.0023	0.0007	0.003
161	-0.0302	0.0023	0.0007	0.003
161.0333	-0.0262	0.0155	0.002	0.0175
161.0667	-0.0305	0.0155	0.0007	0.0162
161.1	-0.0252	0.0023	0.0007	0.003
161.1333	-0.0292	0.0286	0.0034	0.032
161.1667	-0.0272	0.0155	0.0007	0.0162
161.2	-0.0285	0.0023	0.0007	0.003
161.2333	-0.0295	0.0023	0.002	0.0044
161.2667	-0.0302	0.0023	0.0007	0.003
161.3	-0.0292	0	0.0007	0.0007
161.3333	-0.0272	0	0.002	0.002
161.3667	-0.0255	0.0023	0.002	0.0044
161.4	-0.0259	0.0155	0	0.0155
161.4333	-0.0298	0.0155	0.002	0.0175
161.4667	-0.0272	0.0023	0	0.0023
161.5	-0.0269	0.0155	0.0007	0.0162
161.5333	-0.0305	0.0023	0.0034	0.0057
161.5667	-0.0265	0.0155	0.0007	0.0162
161.6	-0.0298	0.0155	0.0007	0.0162
161.6333	-0.0308	0	0	0
161.6667	-0.0279	0.0155	0.002	0.0175
161.7	-0.0305	0	0.0007	0.0007
161.7333	-0.0262	0.0155	0	0.0155
161.7667	-0.0275	0.0023	0.002	0.0044
161.8	-0.0282	0.0155	0	0.0155
161.8333	-0.0288	0.0023	0.002	0.0044
161.8667	-0.0272	0.0023	0.002	0.0044
161.9	-0.0269	0.0023	0.0007	0.003
161.9333	-0.0298	0.0155	0.0007	0.0162

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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	-0.0285	0.0155	0.002	0.0175
162	-0.0285	0.0155	0.002	0.0175
162.0333	-0.0305	0.0155	0	0.0155
162.0667	-0.0255	0.0023	0.0007	0.003
162.1	-0.0305	0.0155	0.002	0.0175
162.1333	-0.0292	0.0155	0.0007	0.0162
162.1667	-0.0279	0.0023	0.0007	0.003
162.2	-0.0279	0.0286	0	0.0286
162.2333	-0.0285	0.0023	0.002	0.0044
162.2667	-0.0265	0.0155	0.002	0.0175
162.3	-0.0282	0.0023	0.002	0.0044
162.3333	-0.0292	0.0155	0.002	0.0175
162.3667	-0.0288	0.0155	0.002	0.0175
162.4	-0.0262	0.0155	0.0007	0.0162
162.4333	-0.0265	0.0023	0.0007	0.003
162.4667	-0.0321	0.0286	0.002	0.0307
162.5	-0.0272	0.0023	0.0034	0.0057
162.5333	-0.0295	0.0155	0.0007	0.0162
162.5667	-0.0288	0.0023	0.002	0.0044
162.6	-0.0282	0.0155	0.0034	0.0188
162.6333	-0.0262	0.0023	0.002	0.0044
162.6667	-0.0279	0.0155	0.002	0.0175
162.7	-0.0285	0.0023	0.002	0.0044
162.7333	-0.0265	0.0023	0.0007	0.003
162.7667	-0.0288	0.0023	0.0007	0.003
162.8	-0.0308	0.0155	0.002	0.0175
162.8333	-0.0285	0.0286	0.002	0.0307
162.8667	-0.0255	0.0023	0.002	0.0044
162.9	-0.0298	0.0286	0.0007	0.0293
162.9333	-0.0298	0.0023	0	0.0023
162.9667	-0.0288	0.0155	0.002	0.0175
163	-0.0269	0.0155	0.0007	0.0162
163.0333	-0.0269	0.0155	0.0007	0.0162
163.0667	-0.0292	0.0023	0.002	0.0044
163.1	-0.0262	0.0286	0.0007	0.0293
163.1333	-0.0308	0.0155	0.002	0.0175
163.1667	-0.0285	0	0.002	0.002
163.2	-0.0285	0	0	0
163.2333	-0.0272	0.0023	0.002	0.0044
163.2667	-0.0308	0.0155	0.0007	0.0162
163.3	-0.0321	0	0.0007	0.0007
163.3333	-0.0259	0.0023	0.0007	0.003
163.3667	-0.0272	0.0023	0.0034	0.0057

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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	-0.0265	0.0155	0.0007	0.0162
163.4333	-0.0288	0.0023	0.0007	0.003
163.4667	-0.0298	0	0.0007	0.0007
163.5	-0.0311	0.0023	0.0007	0.003
163.5333	-0.0272	0.0155	0.0007	0.0162
163.5667	-0.0272	0.0155	0.002	0.0175
163.6	-0.0292	0.0023	0.0034	0.0057
163.6333	-0.0292	0.0023	0.002	0.0044
163.6667	-0.0279	0.0155	0.002	0.0175
163.7	-0.0269	0.0023	0.002	0.0044
163.7333	-0.0272	0	0.0007	0.0007
163.7667	-0.0305	0.0155	0.0034	0.0188
163.8	-0.0269	0.0155	0.002	0.0175
163.8333	-0.0259	0.0023	0.0007	0.003
163.8667	-0.0305	0.0155	0	0.0155
163.9	-0.0275	0.0023	0.0007	0.003
163.9333	-0.0321	0.0023	0.002	0.0044
163.9667	-0.0282	0.0286	0.0007	0.0293
164	-0.0295	0.0023	0.0007	0.003
164.0333	-0.0269	0.0155	0.002	0.0175
164.0667	-0.0298	0.0023	0.002	0.0044
164.1	-0.0295	0.0155	0.002	0.0175
164.1333	-0.0295	0.0155	0.002	0.0175
164.1667	-0.0288	0.0023	0.002	0.0044
164.2	-0.0292	0.0023	0	0.0023
164.2333	-0.0282	0.0155	0.0007	0.0162
164.2667	-0.0288	0.0155	0.0007	0.0162
164.3	-0.0262	0.0023	0.002	0.0044
164.3333	-0.0272	0.0023	0.002	0.0044
164.3667	-0.0295	0.0155	0.002	0.0175
164.4	-0.0285	0.0023	0.002	0.0044
164.4333	-0.0295	0.0023	0.0007	0.003
164.4667	-0.0272	0.0155	0	0.0155
164.5	-0.0288	0.0023	0.0007	0.003
164.5333	-0.0292	0	0.002	0.002
164.5667	-0.0302	0.0155	0.002	0.0175
164.6	-0.0315	0.0155	0.002	0.0175
164.6333	-0.0279	0.0023	0.002	0.0044
164.6667	-0.0292	0.0155	0.002	0.0175
164.7	-0.0302	0.0023	0.0007	0.003
164.7333	-0.0298	0.0155	0.0007	0.0162
164.7667	-0.0305	0	0.0034	0.0034
164.8	-0.0275	0.0023	0.0007	0.003



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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	-0.0288	0.0023	0.0007	0.003
164.8667	-0.0265	0.0023	0.002	0.0044
164.9	-0.0279	0	0.0034	0.0034
164.9333	-0.0262	0.0155	0.002	0.0175
164.9667	-0.0285	0.0155	0.002	0.0175
165	-0.0262	0	0.0007	0.0007
165.0333	-0.0288	0.0023	0.002	0.0044
165.0667	-0.0295	0.0023	0.0007	0.003
165.1	-0.0282	0.0023	0.002	0.0044
165.1333	-0.0285	0.0155	0.002	0.0175
165.1667	-0.0279	0.0023	0	0.0023
165.2	-0.0288	0.0155	0.002	0.0175
165.2333	-0.0279	0.0155	0.0007	0.0162
165.2667	-0.0292	0.0155	0.002	0.0175
165.3	-0.0255	0.0023	0	0.0023
165.3333	-0.0282	0.0023	0	0.0023
165.3667	-0.0288	0.0023	0	0.0023
165.4	-0.0279	0	0.002	0.002
165.4333	-0.0272	0.0023	0.0007	0.003
165.4667	-0.0298	0	0.0007	0.0007
165.5	-0.0288	0.0155	0.0007	0.0162
165.5333	-0.0272	0.0023	0.002	0.0044
165.5667	-0.0288	0	0.002	0.002
165.6	-0.0292	0.0155	0.0007	0.0162
165.6333	-0.0265	0.0023	0.0047	0.007
165.6667	-0.0292	0	0.0007	0.0007
165.7	-0.0272	0.0023	0.0007	0.003
165.7333	-0.0252	0.0023	0	0.0023
165.7667	-0.0265	0.0155	0	0.0155
165.8	-0.0282	0.0023	0.002	0.0044
165.8333	-0.0302	0.0023	0.0007	0.003
165.8667	-0.0295	0.0155	0.002	0.0175
165.9	-0.0311	0.0155	0.0007	0.0162
165.9333	-0.0302	0.0155	0.002	0.0175
165.9667	-0.0272	0.0155	0.0007	0.0162
166	-0.0269	0.0155	0	0.0155
166.0333	-0.0269	0.0155	0.002	0.0175
166.0667	-0.0265	0.0286	0.0034	0.032
166.1	-0.0279	0.0155	0.002	0.0175
166.1333	-0.0265	0.0023	0.0007	0.003
166.1667	-0.0272	0.0155	0.0007	0.0162
166.2	-0.0285	0.0023	0.0007	0.003
166.2333	-0.0269	0.0023	0.002	0.0044

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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	-0.0285	0.0023	0.0034	0.0057
166.3	-0.0259	0.0023	0.002	0.0044
166.3333	-0.0282	0.0155	0.0007	0.0162
166.3667	-0.0262	0.0023	0.0007	0.003
166.4	-0.0272	0.0023	0.0007	0.003
166.4333	-0.0262	0.0155	0	0.0155
166.4667	-0.0282	0.0286	0.002	0.0307
166.5	-0.0242	0	0.0007	0.0007
166.5333	-0.0282	0.0155	0.0007	0.0162
166.5667	-0.0272	0.0023	0	0.0023
166.6	-0.0275	0.0023	0.0007	0.003
166.6333	-0.0275	0.0155	0.0007	0.0162
166.6667	-0.0275	0	0	0
166.7	-0.0269	0.0023	0.0007	0.003
166.7333	-0.0246	0.0286	0.002	0.0307
166.7667	-0.0259	0.0023	0.002	0.0044
166.8	-0.0288	0.0023	0.002	0.0044
166.8333	-0.0279	0.0155	0.0007	0.0162
166.8667	-0.0259	0.0023	0.002	0.0044
166.9	-0.0252	0.0286	0.002	0.0307
166.9333	-0.0288	0.0155	0.002	0.0175
166.9667	-0.0279	0.0155	0.0007	0.0162
167	-0.0285	0.0023	0.002	0.0044
167.0333	-0.0259	0.0023	0	0.0023
167.0667	-0.0265	0.0023	0.002	0.0044
167.1	-0.0272	0.0023	0.002	0.0044
167.1333	-0.0249	0.0023	0.0007	0.003
167.1667	-0.0282	0.0155	0.0007	0.0162
167.2	-0.0262	0.0023	0.002	0.0044
167.2333	-0.0259	0.0155	0.002	0.0175
167.2667	-0.0295	0.0155	0.0034	0.0188
167.3	-0.0295	0.0023	0	0.0023
167.3333	-0.0255	0.0155	0.0007	0.0162
167.3667	-0.0311	0.0155	0.002	0.0175
167.4	-0.0279	0.0023	0	0.0023
167.4333	-0.0265	0.0155	0.002	0.0175
167.4667	-0.0285	0.0155	0.002	0.0175
167.5	-0.0272	0.0023	0.002	0.0044
167.5333	-0.0279	0.0023	0.0007	0.003
167.5667	-0.0275	0.0023	0.002	0.0044
167.6	-0.0285	0.0023	0	0.0023
167.6333	-0.0288	0.0023	0.002	0.0044
167.6667	-0.0269	0.0155	0.002	0.0175

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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	-0.0269	0.0023	0.002	0.0044
167.7333	-0.0272	0.0155	0.002	0.0175
167.7667	-0.0288	0.0155	0.0034	0.0188
167.8	-0.0259	0.0023	0.002	0.0044
167.8333	-0.0262	0.0155	0.002	0.0175
167.8667	-0.0255	0.0155	0	0.0155
167.9	-0.0292	0.0023	0.002	0.0044
167.9333	-0.0259	0.0023	0.0007	0.003
167.9667	-0.0282	0.0155	0.0007	0.0162
168	-0.0298	0.0155	0.002	0.0175
168.0333	-0.0269	0.0023	0.002	0.0044
168.0667	-0.0298	0.0023	0.002	0.0044
168.1	-0.0262	0.0023	0.0007	0.003
168.1333	-0.0285	0.0155	0	0.0155
168.1667	-0.0282	0.0155	0.0007	0.0162
168.2	-0.0262	0.0023	0.0007	0.003
168.2333	-0.0255	0.0023	0.0007	0.003
168.2667	-0.0275	0.0155	0.0007	0.0162
168.3	-0.0305	0.0023	0.002	0.0044
168.3333	-0.0269	0.0155	0.0047	0.0201
168.3667	-0.0285	0.0155	0.002	0.0175
168.4	-0.0295	0.0155	0.0034	0.0188
168.4333	-0.0275	0.0155	0.0007	0.0162
168.4667	-0.0262	0.0023	0.002	0.0044
168.5	-0.0259	0.0155	0.0007	0.0162
168.5333	-0.0265	0.0023	0.002	0.0044
168.5667	-0.0269	0.0023	0.002	0.0044
168.6	-0.0285	0.0023	0.0007	0.003
168.6333	-0.0288	0.0155	0.0034	0.0188
168.6667	-0.0282	0.0155	0	0.0155
168.7	-0.0279	0.0023	0.0007	0.003
168.7333	-0.0282	0.0155	0.002	0.0175
168.7667	-0.0275	0.0023	0.002	0.0044
168.8	-0.0255	0.0023	0.002	0.0044
168.8333	-0.0282	0.0155	0.002	0.0175
168.8667	-0.0279	0.0023	0.002	0.0044
168.9	-0.0288	0.0023	0.002	0.0044
168.9333	-0.0259	0.0286	0.0007	0.0293
168.9667	-0.0249	0.0155	0.002	0.0175
169	-0.0265	0.0155	0.002	0.0175
169.0333	-0.0275	0	0.0007	0.0007
169.0667	-0.0292	0.0023	0.0007	0.003
169.1	-0.0288	0.0023	0.002	0.0044

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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	-0.0255	0.0155	0.002	0.0175
169.1667	-0.0282	0.0023	0.002	0.0044
169.2	-0.0279	0	0.002	0.002
169.2333	-0.0272	0.0286	0.002	0.0307
169.2667	-0.0279	0.0155	0	0.0155
169.3	-0.0275	0.0023	0.002	0.0044
169.3333	-0.0269	0.0023	0.0034	0.0057
169.3667	-0.0295	0.0023	0.0007	0.003
169.4	-0.0285	0.0155	0.0007	0.0162
169.4333	-0.0265	0.0286	0.0007	0.0293
169.4667	-0.0328	0.0023	0	0.0023
169.5	-0.0285	0.0286	0.002	0.0307
169.5333	-0.0282	0.0155	0.002	0.0175
169.5667	-0.0279	0.0155	0.0034	0.0188
169.6	-0.0279	0.0023	0.0007	0.003
169.6333	-0.0282	0.0023	0.002	0.0044
169.6667	-0.0288	0.0023	0.002	0.0044
169.7	-0.0272	0.0155	0.002	0.0175
169.7333	-0.0288	0.0023	0.0007	0.003
169.7667	-0.0269	0.0155	0.0007	0.0162
169.8	-0.0242	0.0023	0.0007	0.003
169.8333	-0.0282	0.0023	0.0007	0.003
169.8667	-0.0282	0.0286	0.002	0.0307
169.9	-0.0265	0.0155	0.002	0.0175
169.9333	-0.0292	0.0155	0.0007	0.0162
169.9667	-0.0275	0.0023	0.002	0.0044
170	-0.0295	0.0023	0.002	0.0044
170.0333	-0.0285	0.0023	0.0007	0.003
170.0667	-0.0282	0.0155	0.0007	0.0162
170.1	-0.0285	0.0155	0.0034	0.0188
170.1333	-0.0255	0.0023	0.0007	0.003
170.1667	-0.0288	0.0155	0.002	0.0175
170.2	-0.0262	0.0023	0.0007	0.003
170.2333	-0.0288	0.0023	0.0007	0.003
170.2667	-0.0272	0.0155	0.002	0.0175
170.3	-0.0255	0.0286	0.0007	0.0293
170.3333	-0.0285	0.0023	0	0.0023
170.3667	-0.0275	0.0155	0	0.0155
170.4	-0.0246	0.0155	0.002	0.0175
170.4333	-0.0288	0.0155	0.002	0.0175
170.4667	-0.0272	0.0155	0.002	0.0175
170.5	-0.0259	0.0155	0.0007	0.0162
170.5333	-0.0265	0.0155	0.0007	0.0162

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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	-0.0305	0.0155	0.0007	0.0162
170.6	-0.0292	0.0023	0.002	0.0044
170.6333	-0.0249	0.0155	0.0007	0.0162
170.6667	-0.0288	0.0155	0.002	0.0175
170.7	-0.0262	0.0023	0.0034	0.0057
170.7333	-0.0269	0.0023	0	0.0023
170.7667	-0.0298	0.0023	0.002	0.0044
170.8	-0.0302	0.0286	0.0034	0.032
170.8333	-0.0288	0.0155	0.002	0.0175
170.8667	-0.0282	0.0023	0.002	0.0044
170.9	-0.0292	0.0155	0.0007	0.0162
170.9333	-0.0272	0.0155	0.0034	0.0188
170.9667	-0.0282	0.0155	0.0034	0.0188
171	-0.0288	0.0155	0.0007	0.0162
171.0333	-0.0295	0.0155	0.0034	0.0188
171.0667	-0.0292	0.0023	0.002	0.0044
171.1	-0.0255	0.0023	0.0007	0.003
171.1333	-0.0292	0.0023	0.0007	0.003
171.1667	-0.0279	0.0155	0.002	0.0175
171.2	-0.0249	0.0155	0.002	0.0175
171.2333	-0.0308	0.0023	0.0007	0.003
171.2667	-0.0259	0.0155	0.002	0.0175
171.3	-0.0302	0.0155	0.0007	0.0162
171.3333	-0.0288	0.0023	0.0007	0.003
171.3667	-0.0279	0.0286	0.002	0.0307
171.4	-0.0269	0.0023	0.0034	0.0057
171.4333	-0.0249	0.0023	0.002	0.0044
171.4667	-0.0318	0.0155	0.002	0.0175
171.5	-0.0275	0.0023	0.0007	0.003
171.5333	-0.0262	0.0155	0.002	0.0175
171.5667	-0.0255	0.0155	0.002	0.0175
171.6	-0.0252	0.0155	0.0007	0.0162
171.6333	-0.0279	0.0155	0.002	0.0175
171.6667	-0.0279	0.0155	0.0007	0.0162
171.7	-0.0265	0.0023	0.0007	0.003
171.7333	-0.0262	0.0023	0.002	0.0044
171.7667	-0.0285	0.0286	0.002	0.0307
171.8	-0.0292	0.0155	0.002	0.0175
171.8333	-0.0285	0.0155	0	0.0155
171.8667	-0.0298	0.0023	0.0007	0.003
171.9	-0.0262	0.0023	0.002	0.0044
171.9333	-0.0269	0.0023	0.0007	0.003
171.9667	-0.0282	0.0023	0.002	0.0044



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
172	-0.0265	0.0023	0.0007	0.003
172.0333	-0.0279	0.0023	0.002	0.0044
172.0667	-0.0279	0.0155	0.0007	0.0162
172.1	-0.0265	0.0023	0	0.0023
172.1333	-0.0269	0.0023	0.002	0.0044
172.1667	-0.0265	0	0.002	0.002
172.2	-0.0279	0.0286	0.0034	0.032
172.2333	-0.0255	0.0155	0.0007	0.0162
172.2667	-0.0272	0.0155	0.0007	0.0162
172.3	-0.0285	0.0023	0.0007	0.003
172.3333	-0.0269	0.0023	0.002	0.0044
172.3667	-0.0315	0.0155	0.002	0.0175
172.4	-0.0255	0.0023	0.0007	0.003
172.4333	-0.0265	0.0023	0.002	0.0044
172.4667	-0.0282	0.0023	0	0.0023
172.5	-0.0269	0.0023	0.0007	0.003
172.5333	-0.0295	0.0023	0.002	0.0044
172.5667	-0.0279	0.0155	0.0034	0.0188
172.6	-0.0252	0.0023	0.0007	0.003
172.6333	-0.0249	0.0286	0.002	0.0307
172.6667	-0.0249	0	0.002	0.002
172.7	-0.0259	0.0286	0.002	0.0307
172.7333	-0.0259	0.0023	0.0007	0.003
172.7667	-0.0269	0	0.0007	0.0007
172.8	-0.0275	0.0155	0.002	0.0175
172.8333	-0.0285	0.0023	0.002	0.0044
172.8667	-0.0242	0.0155	0.002	0.0175
172.9	-0.0259	0.0023	0.0007	0.003
172.9333	-0.0298	0.0155	0.0007	0.0162
172.9667	-0.0282	0.0023	0.0007	0.003
173	-0.0269	0.0023	0.0034	0.0057
173.0333	-0.0292	0.0155	0.0007	0.0162
173.0667	-0.0265	0.0155	0.0034	0.0188
173.1	-0.0255	0.0155	0.002	0.0175
173.1333	-0.0255	0.0155	0.002	0.0175
173.1667	-0.0272	0.0155	0.002	0.0175
173.2	-0.0282	0.0023	0.002	0.0044
173.2333	-0.0252	0.0023	0.0007	0.003
173.2667	-0.0269	0.0023	0.0007	0.003
173.3	-0.0242	0.0023	0.002	0.0044
173.3333	-0.0252	0	0.0007	0.0007
173.3667	-0.0272	0.0155	0.0034	0.0188
173.4	-0.0282	0.0023	0.002	0.0044



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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	-0.0259	0.0023	0.002	0.0044
173.4667	-0.0272	0.0023	0.002	0.0044
173.5	-0.0252	0.0155	0.002	0.0175
173.5333	-0.0275	0.0155	0.0007	0.0162
173.5667	-0.0275	0.0155	0.0007	0.0162
173.6	-0.0262	0.0155	0.002	0.0175
173.6333	-0.0292	0.0155	0	0.0155
173.6667	-0.0252	0.0023	0	0.0023
173.7	-0.0279	0.0023	0	0.0023
173.7333	-0.0275	0.0155	0.0007	0.0162
173.7667	-0.0265	0.0023	0.002	0.0044
173.8	-0.0259	0	0.0007	0.0007
173.8333	-0.0252	0.0023	0.002	0.0044
173.8667	-0.0262	0.0155	0.0007	0.0162
173.9	-0.0282	0.0155	0	0.0155
173.9333	-0.0259	0.0155	0.002	0.0175
173.9667	-0.0269	0.0023	0	0.0023
174	-0.0272	0.0023	0.002	0.0044
174.0333	-0.0262	0.0155	0.0007	0.0162
174.0667	-0.0282	0.0155	0.002	0.0175
174.1	-0.0288	0.0023	0.0007	0.003
174.1333	-0.0252	0.0023	0.002	0.0044
174.1667	-0.0262	0.0023	0.0007	0.003
174.2	-0.0275	0	0.002	0.002
174.2333	-0.0275	0.0023	0.0007	0.003
174.2667	-0.0292	0.0023	0.002	0.0044
174.3	-0.0269	0.0155	0.0007	0.0162
174.3333	-0.0302	0.0023	0	0.0023
174.3667	-0.0265	0.0023	0	0.0023
174.4	-0.0272	0	0.0007	0.0007
174.4333	-0.0275	0.0155	0.0007	0.0162
174.4667	-0.0275	0.0023	0.0007	0.003
174.5	-0.0269	0	0.002	0.002
174.5333	-0.0292	0.0023	0.002	0.0044
174.5667	-0.0255	0	0.0007	0.0007
174.6	-0.0279	0.0155	0.002	0.0175
174.6333	-0.0262	0.0155	0.0007	0.0162
174.6667	-0.0272	0	0.002	0.002
174.7	-0.0282	0.0155	0.0007	0.0162
174.7333	-0.0285	0.0023	0.002	0.0044
174.7667	-0.0298	0.0023	0.002	0.0044
174.8	-0.0295	0.0155	0	0.0155
174.8333	-0.0295	0	0.0007	0.0007

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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	-0.0265	0.0155	0.0034	0.0188
174.9	-0.0285	0.0023	0.002	0.0044
174.9333	-0.0305	0.0023	0.002	0.0044
174.9667	-0.0249	0.0155	0.0007	0.0162
175	-0.0295	0.0155	0.0007	0.0162
175.0333	-0.0292	0.0023	0.002	0.0044
175.0667	-0.0259	0.0155	0.0007	0.0162
175.1	-0.0265	0.0155	0.0007	0.0162
175.1333	-0.0265	0.0023	0.0007	0.003
175.1667	-0.0259	0.0023	0	0.0023
175.2	-0.0302	0.0023	0.0007	0.003
175.2333	-0.0308	0.0023	0.002	0.0044
175.2667	-0.0279	0.0023	0.0007	0.003
175.3	-0.0262	0.0023	0.0007	0.003
175.3333	-0.0259	0.0155	0.0007	0.0162
175.3667	-0.0285	0.0155	0	0.0155
175.4	-0.0259	0.0155	0.002	0.0175
175.4333	-0.0282	0.0155	0.002	0.0175
175.4667	-0.0262	0.0023	0.0007	0.003
175.5	-0.0288	0.0286	0.0007	0.0293
175.5333	-0.0275	0	0.002	0.002
175.5667	-0.0272	0.0023	0.0007	0.003
175.6	-0.0288	0.0023	0.0007	0.003
175.6333	-0.0262	0.0023	0.0007	0.003
175.6667	-0.0272	0.0155	0	0.0155
175.7	-0.0292	0.0155	0.0007	0.0162
175.7333	-0.0275	0.0286	0.0007	0.0293
175.7667	-0.0282	0.0155	0.002	0.0175
175.8	-0.0249	0.0023	0.0007	0.003
175.8333	-0.0272	0.0155	0.002	0.0175
175.8667	-0.0229	0.0155	0	0.0155
175.9	-0.0255	0	0.0034	0.0034
175.9333	-0.0272	0.0155	0.0007	0.0162
175.9667	-0.0262	0.0286	0.002	0.0307
176	-0.0288	0.0023	0.0007	0.003
176.0333	-0.0265	0.0155	0.002	0.0175
176.0667	-0.0282	0.0023	0.002	0.0044
176.1	-0.0292	0.0155	0.0007	0.0162
176.1333	-0.0259	0.0023	0.0007	0.003
176.1667	-0.0255	0.0023	0.002	0.0044
176.2	-0.0242	0.0023	0.0007	0.003
176.2333	-0.0292	0.0155	0	0.0155
176.2667	-0.0262	0.0023	0.0007	0.003

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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	-0.0288	0.0155	0.0007	0.0162
176.3333	-0.0288	0.0023	0.0007	0.003
176.3667	-0.0265	0	0.0034	0.0034
176.4	-0.0285	0.0023	0.002	0.0044
176.4333	-0.0269	0.0155	0.002	0.0175
176.4667	-0.0259	0.0155	0.0007	0.0162
176.5	-0.0259	0.0286	0.0007	0.0293
176.5333	-0.0255	0.0155	0.002	0.0175
176.5667	-0.0265	0.0023	0.002	0.0044
176.6	-0.0249	0.0023	0.0034	0.0057
176.6333	-0.0255	0.0023	0.002	0.0044
176.6667	-0.0272	0.0155	0	0.0155
176.7	-0.0272	0.0286	0.0007	0.0293
176.7333	-0.0298	0.0155	0.002	0.0175
176.7667	-0.0249	0.0023	0.0007	0.003
176.8	-0.0262	0.0023	0.0007	0.003
176.8333	-0.0259	0.0023	0.002	0.0044
176.8667	-0.0246	0.0023	0.0007	0.003
176.9	-0.0275	0.0023	0.0007	0.003
176.9333	-0.0282	0.0023	0.0007	0.003
176.9667	-0.0282	0.0155	0.0007	0.0162
177	-0.0298	0.0155	0.0007	0.0162
177.0333	-0.0298	0.0023	0.0007	0.003
177.0667	-0.0246	0.0155	0.0007	0.0162
177.1	-0.0279	0.0286	0.002	0.0307
177.1333	-0.0282	0.0023	0.002	0.0044
177.1667	-0.0272	0.0155	0	0.0155
177.2	-0.0259	0.0155	0.002	0.0175
177.2333	-0.0279	0.0155	0.0007	0.0162
177.2667	-0.0262	0.0155	0.002	0.0175
177.3	-0.0302	0.0155	0.002	0.0175
177.3333	-0.0275	0.0023	0.002	0.0044
177.3667	-0.0255	0.0023	0.0007	0.003
177.4	-0.0269	0.0155	0.002	0.0175
177.4333	-0.0255	0.0023	0.002	0.0044
177.4667	-0.0279	0.0155	0.002	0.0175
177.5	-0.0265	0.0155	0.0007	0.0162
177.5333	-0.0288	0.0023	0.002	0.0044
177.5667	-0.0265	0.0023	0.002	0.0044
177.6	-0.0265	0.0155	0.002	0.0175
177.6333	-0.0275	0.0286	0.0034	0.032
177.6667	-0.0269	0.0155	0.002	0.0175
177.7	-0.0288	0	0.002	0.002

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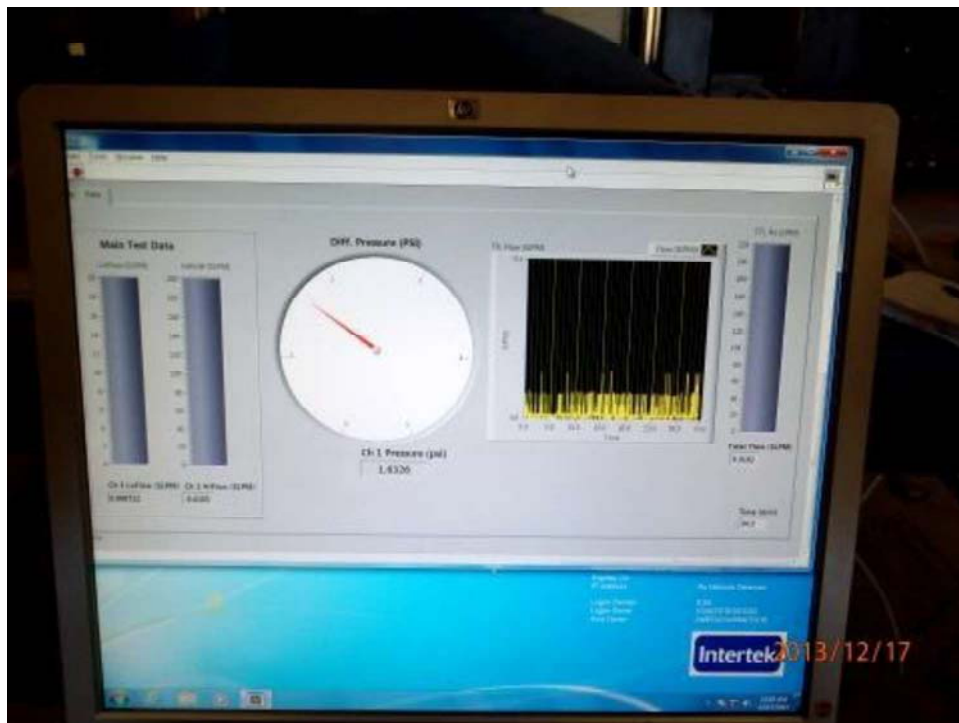
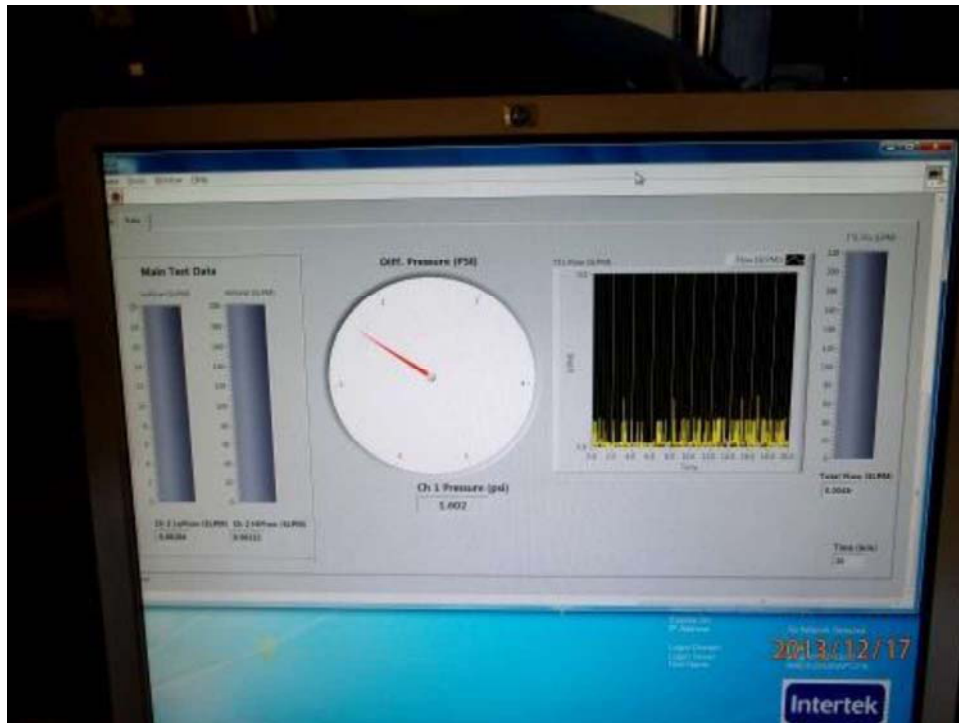
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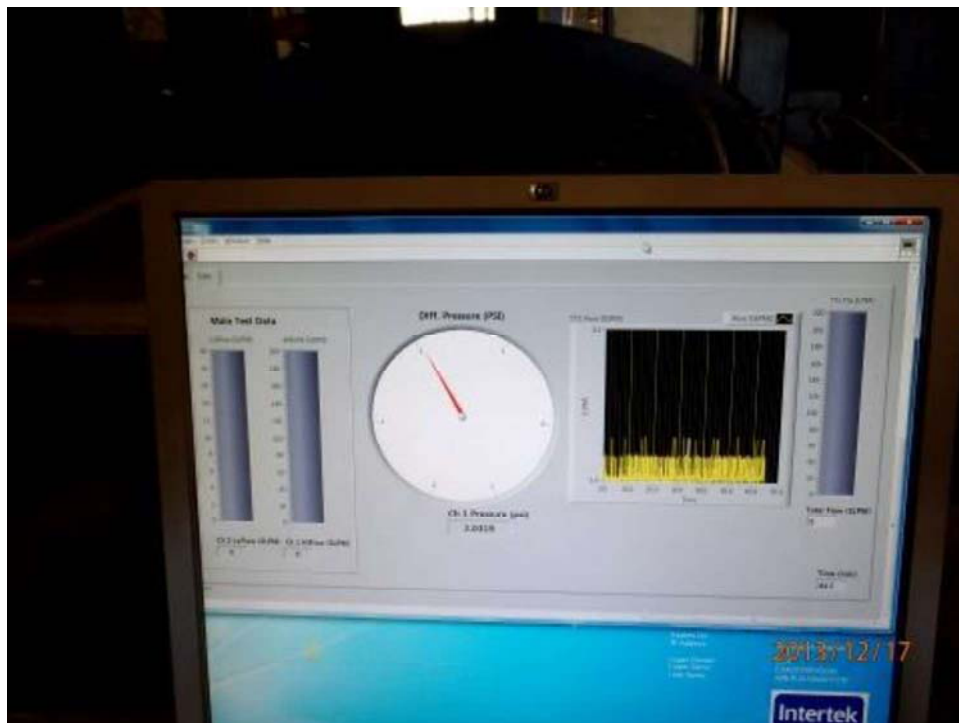
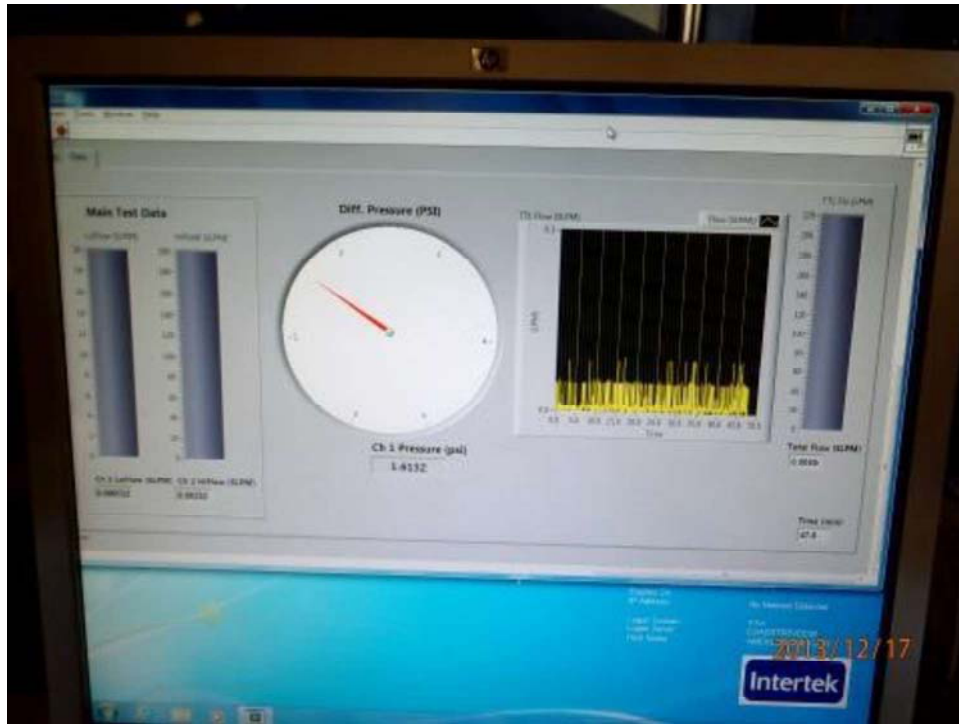
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177.7333	-0.0282	0	0.0007	0.0007
177.7667	-0.0272	0.0023	0.0007	0.003
177.8	-0.0265	0.0286	0.0034	0.032
177.8333	-0.0262	0.0155	0.0034	0.0188
177.8667	-0.0282	0.0155	0.0034	0.0188
177.9	-0.0285	0.0023	0.002	0.0044

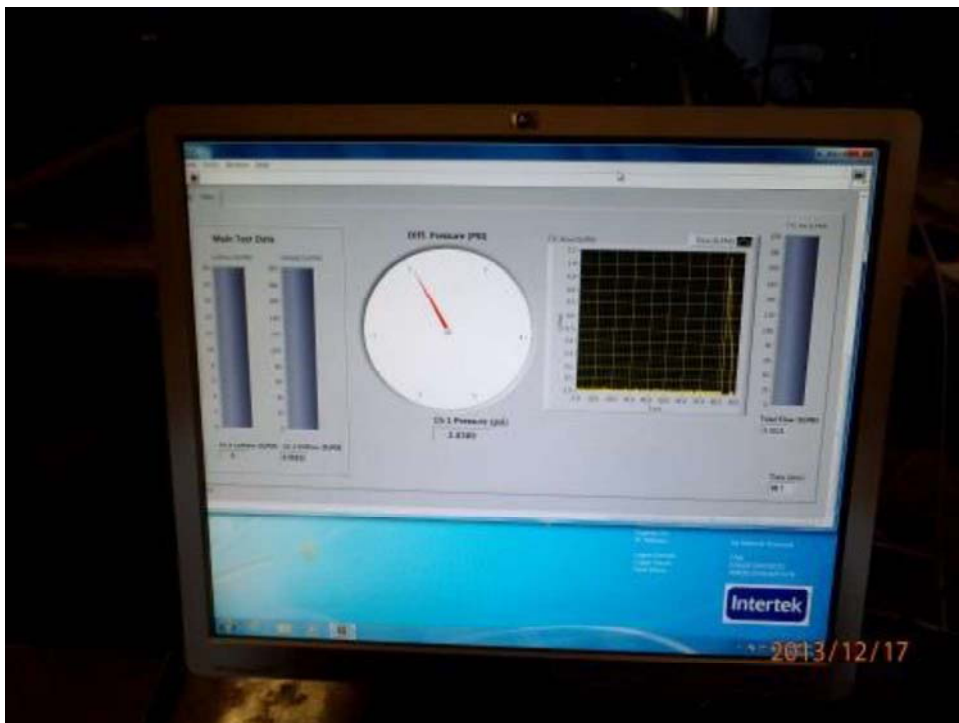
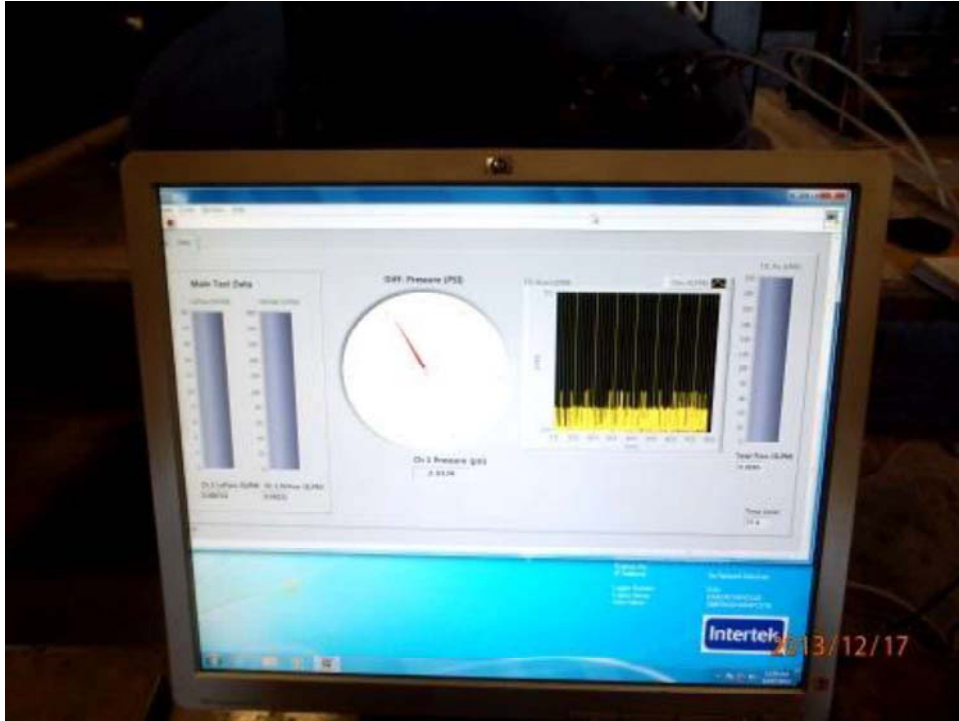
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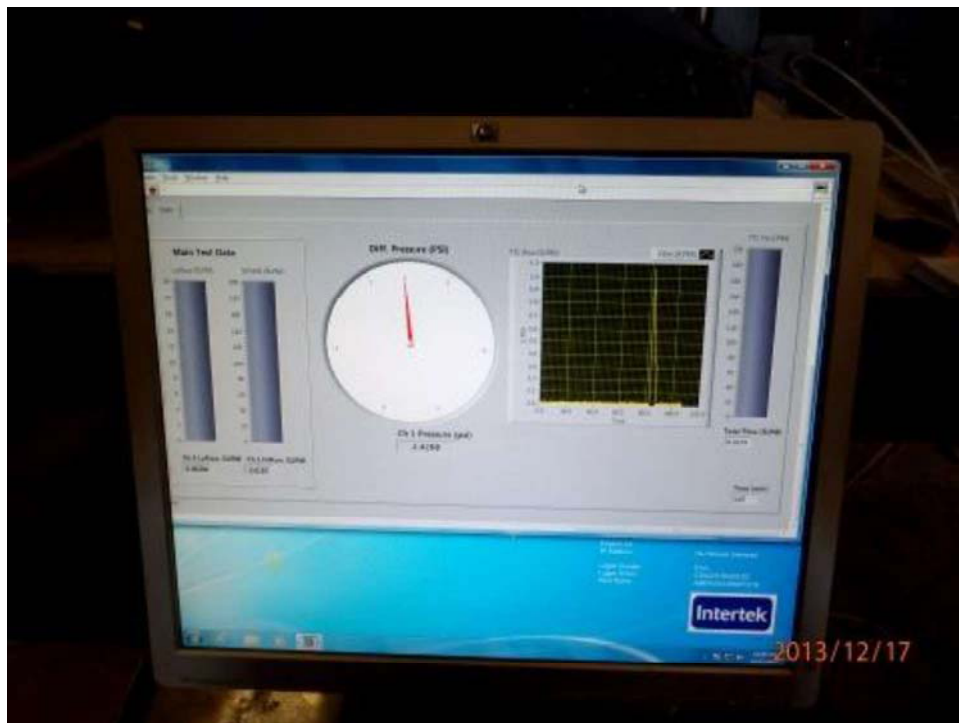
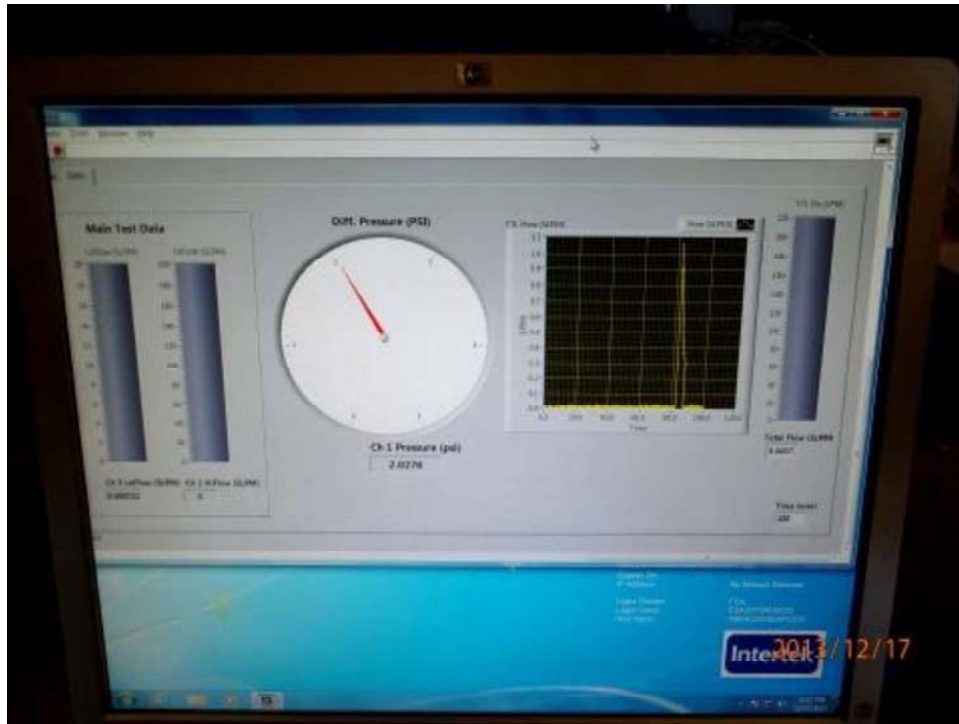
### Photographs

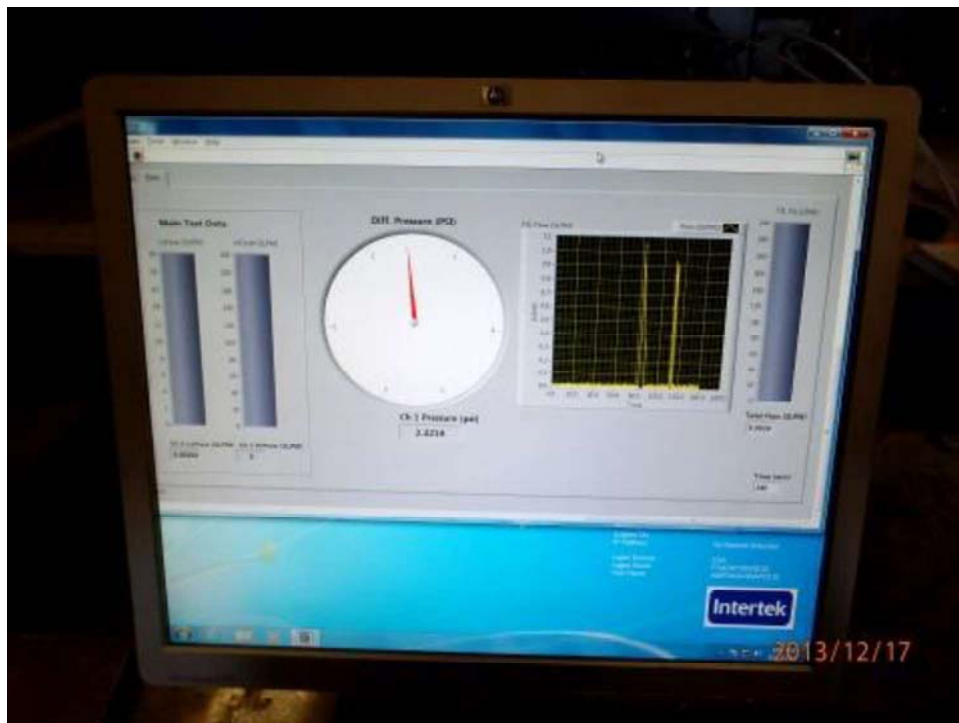
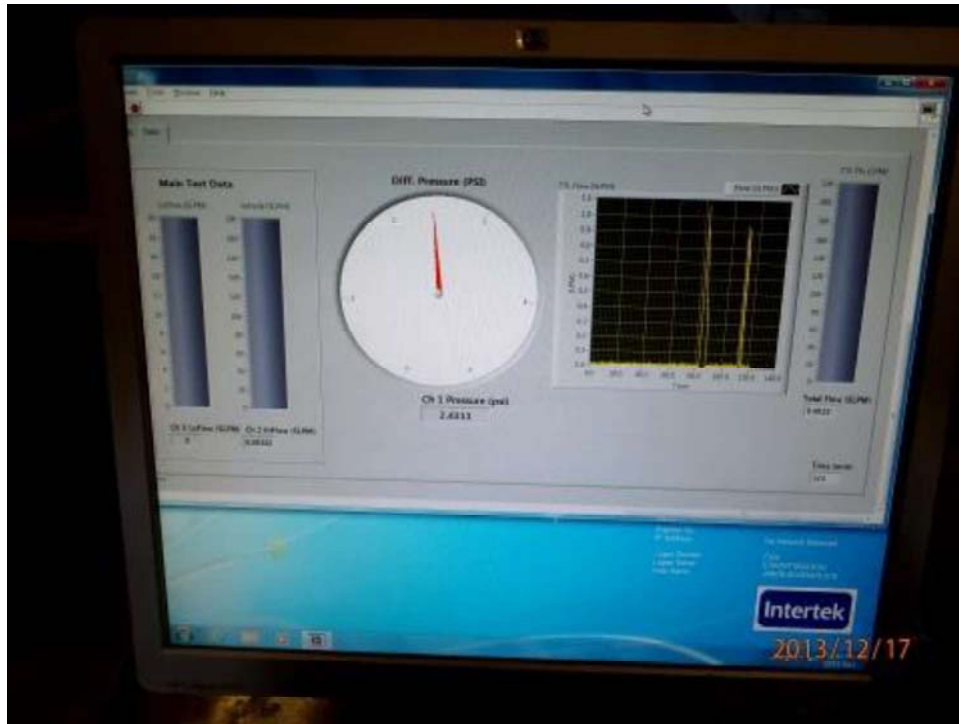


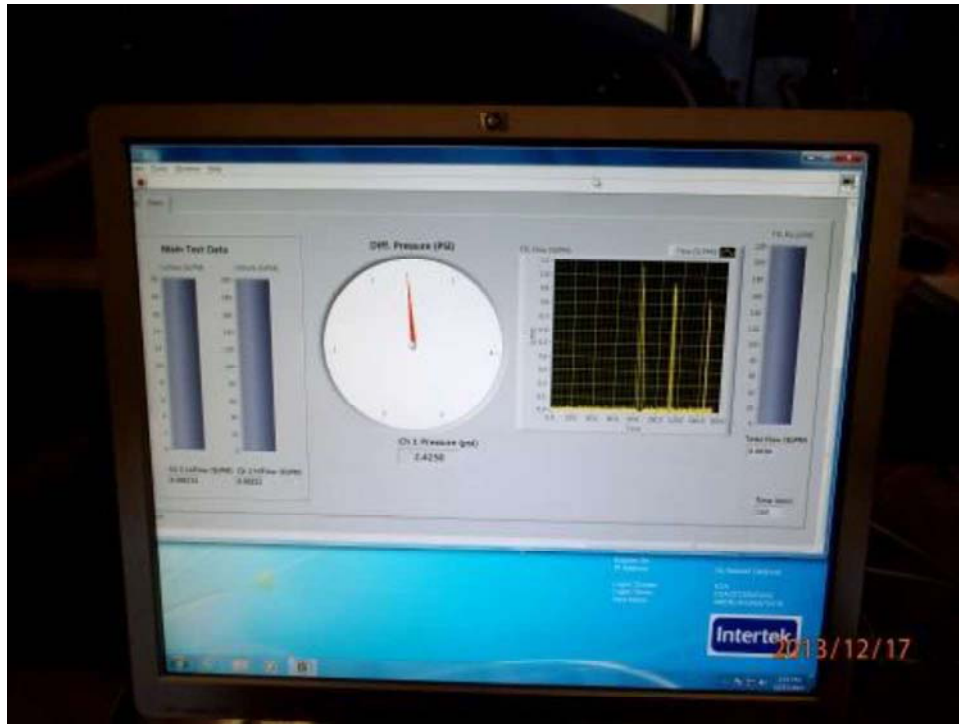












## APPENDIX D Test Plan



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20004-020 (10/21/2013)



## AREVA NP Inc.

### Engineering Information Record

Document No.: 51 - 9216585 - 000

#### Detailed Test Plan for Conducting MOX Seismic Pressure Test 6



Mike Dey  
Staff Engineer



Michael A. Brown  
Quality Supervisor

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Detailed Test Plan for Conducting MOX Seismic Pressure Test 6

- 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	12-16-13	All
Derrick Risner Engineer I / PEYF1-A	[Redacted]	R	12-16-13	All
Scott Groesbeck Manager Tech Ops / PEYF1-A	[Redacted]	A	12/16/13	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]	12/16/13

MOX Services concurrence: [Redacted] \_\_\_\_\_ engineer \_\_\_\_\_  
Name / Title Date

17Dec13

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Detailed Test Plan for Conducting MOX Seismic Pressure Test 6

**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 1-19), Appendix A (1 page), Appendix B (1 page), Appendix C (4 pages), and Appendix D (2 pages) for a total of 27 pages.

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**ACRONYMS**

CGD	Commercial Grade Dedication
CGI	Commercial Grade Item
IROFS	Items Relied On For Safety
MOX	Mixed Oxide
MFFF	Mixed Oxide Fuel Fabrication Facility
QL	Quality Level
pcf	pounds per cubic foot
psf	pounds per square foot
SSC	Structures, Systems and Components
w.g.	Water Gauge

Penetration Seal Materials

QSiil 5558MC	Quantum Silicones QSiil 5558MC Silicone Elastomer
DC-170	Dow Corning Sylgard 170 Silicone Elastomer
DC-732	Dow Corning 732 Multi-Purpose Sealant
DC-790	Dow Corning 790 Silicone Building Sealant

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**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. Seismic pressure testing is one type of qualification testing that needs to be performed in order to demonstrate the capability of MOX penetration seal designs to survive a seismic event. Other types of qualification testing, such as fire testing and pressure testing of penetration seal assemblies, are addressed by other test plans.

**1.0 PURPOSE**

The purpose of this test plan is to define the test assemblies, test methods and acceptance criteria for conducting a seismic 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 Seismic Pressure Test 6. 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 seismic pressure testing efforts.

This detailed test plan also describes the procurement plan for materials associated with penetration seals in Seismic Pressure Test 6 and identifies the entities responsible for procuring the various components of the test assembly 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 assembly and links quality requirements in the AREVA QA program to customer/project quality requirements.

The configuration being tested by Seismic Pressure Test 6 is the same assembly that was tested under Pressure Test 8A (51-9207462 [Ref. 12.8]). This configuration is described in detail in Section 2.2 of this Test Plan.

**2.0 OBJECTIVE**

The primary objective of this test plan is to evaluate the seismic resistance capabilities of the test assembly using alternating pressures at the air pressure increments above atmospheric pressure provided in Section 9.2.

The specific configurations to be tested are 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 there will be four penetrations, two (2) 12" diameter openings, and two 16" x 16" blockouts. Details for the four penetrations are provided in Section 2.2. Three of the penetrations will be unlined (bare concrete) and one will be steel lined (cast in place 12" diameter pipe). The test deck will be horizontally oriented with a hemispherical 72" diameter steel pressure vessel mounted on each side of the precast openings in the slab.

Note: It is anticipated that the slab with the silicone elastomer seals used for Pressure Test 8A will not be damaged during Pressure Test 8A and will be available for reuse in this seismic

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pressure test. For the purpose of Seismic Pressure Test 6, no changes will be made to the silicone elastomer seals installed for Pressure Test 8A (51-9207462 Ref. 12.8).

Additionally, most of the openings (penetrations) in the MOX facility have been cast with a 3/4" 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 seismically qualified 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 the seismic pressure test covered in this test plan.

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

Note: If the slab from Pressure Test 8A was damaged during testing or is otherwise not available, this test plan will require revision.

## 2.2 Test Description

There are four openings to be sealed and tested in Seismic Pressure Test 6.

- Penetration P1: This penetration is to be a round 12" diameter precast (or core-drilled) opening with a 16 gauge galvanized sheet metal sleeve sized to fit the precast opening. The sheet metal sleeve shall be approximately 18" long and installed such that the sleeve extends approximately 3" on both sides of the test slab. The sheet metal sleeve shall be fastened to the concrete opening in accordance with AREVA NP Inc. Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program* [Reference 12.5]. An 8" diameter schedule 40 carbon steel pipe will pass through the sleeve. The pipe will be capped on at least one side or fitted with a welded cover plate (Note: caps and/or cover plates are construction aids only and are not being qualified by this seismic pressure test). The cap/welded cover plate shall be made air tight, so that any leakage during the test must pass through the seal assembly and not internal to the pipe. The gap between the sleeve and the pipe will be sealed using an eight (8) inch thick Dow Corning Sylgard® 170 Silicone Elastomer (DC-170) penetration seal with no permanent damming, installed as described in AREVA NP Inc. Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program* [Reference 12.5]. See the **Note** at the end of Section 2.2 for additional information regarding this test penetration.
- Penetration P2: This penetration is to be a 16"x16" square precast opening with a 2" diameter schedule 40 carbon steel pipe, a 2" diameter S-40S stainless steel pipe, a 2" diameter Calbrite brand 304 stainless steel conduit, and a 2" diameter rigid galvanized steel conduit penetrating the opening. The pipes and conduits will be capped on at least one side or fitted with a welded cover plate (Note: caps and/or cover plates are construction aids only and are not being qualified by this seismic pressure test). The caps/welded cover plates shall be made air tight, so that any leakage during the test must pass through the seal assembly and not internal to the pipe or conduit. The opening will be sealed using an eight (8) inch thick Dow Corning Sylgard® 170 Silicone Elastomer (DC-170) penetration seal with no permanent damming, installed as described in AREVA NP Inc. Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program* [Reference 12.5]. See the **Note** at the end of Section 2.2 for additional information regarding this test penetration.
- Penetration P3: This penetration is to be a 16"x16" square precast opening with a 2" diameter schedule 40 carbon steel pipe, a 2" diameter S-40S stainless steel pipe, a 1 1/4" diameter S-40S titanium pipe, and a 2" diameter S-40S zirconium pipe penetrating the opening. The pipes will be capped on at least one side or fitted with a welded cover plate or otherwise sealed internally

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(Note: caps and/or cover plates and/or internal seals are construction aids only and are not being qualified by this seismic pressure test). The caps/welded cover plates/internal seals shall be made air tight, so that any leakage during the test must pass through the seal assembly and not internal to the pipe. The opening will be sealed using an eight (8) inch thick Quantum Silicones QSiil 5558MC Silicone Elastomer (QSiil 5558MC) penetration seal with no permanent damming, installed as described in AREVA NP Inc. Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program* [Reference 12.5]. See the **Note** at the end of Section 2.2 for additional information regarding this test penetration.

- Penetration P4: This penetration is to be a round opening with a 12" diameter cast-in-place schedule 40 steel pipe sleeve with a galvanized steel sleeve extension on the top side of the barrier. An 8" diameter schedule 40 carbon steel pipe will pass through the sleeve. The pipe will be capped on at least one side or fitted with a welded cover plate (Note: caps and/or cover plates are construction aids only and are not being qualified by this seismic pressure test). The cap/welded cover plate shall be made air tight, so that any leakage during the test must pass through the seal assembly and not internal to the pipe. The gap between the cast-in-place sleeve and the pipe will be sealed using an eight (8) inch thick Quantum Silicones QSiil 5558MC Silicone Elastomer (QSiil 5558MC) penetration seal with no permanent damming, installed as described in AREVA NP Inc. Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program* [Reference 12.5]. See the **Note** at the end of Section 2.2 for additional information regarding this test penetration.

**Note:** The seal descriptions above outline the base seals that were installed for MOX Pressure Test 8. This pressure tests failed due to excessive leakage, and the test assemblies were upgraded as part of MOX Pressure Test 8A. The upgrade consisted of applying a nominal ¼" bead of Dow Corning 732 caulk at the pipe/seal interface and the sleeve/seal interface for Penetrations P1 and P4. The caulk was then smoothed by fingertip to create a fillet of Dow Corning 732 at these interfaces. A similar upgrade was applied to the pipe or conduit/seal interface for all four commodities in Penetrations P2 and P3.

The penetrating items will be located within the openings as shown in Appendix B. The test will be performed with the test deck oriented in the horizontal position and in accordance with Section 9.0.

### 2.3 Critical Characteristics and Limiting Parameters Being Tested

The specific critical characteristics and associated limiting parameters being tested for Seismic Pressure Test 6 are as follows:

- P1: Dow Corning 170 silicone elastomer installed inside a galvanized sheet metal sleeve with a carbon steel pipe penetrant having a total bond area of approximately 518.36 in<sup>2</sup>, a total pressurized area of approximately 54.67 in<sup>2</sup>. This results in a "pressurized area" to "bond area" ratio of approximately 1:9.5 (54.67:518.36)
- P2: Dow Corning 170 silicone elastomer installed inside a concrete opening with a carbon steel pipe penetrant, a stainless steel pipe penetrant, a rigid galvanized steel conduit penetrant and a Calbrite stainless steel conduit penetrant having a total bond area of approximately 750.76 in<sup>2</sup>, a total pressurized area of approximately 238.28 in<sup>2</sup>. This results in a "pressurized area" to "bond area" ratio of approximately 1:3.2 (238.28:750.76)
- P3: QSiil 5558MC silicone elastomer installed inside a concrete opening with a carbon steel pipe penetrant, a stainless steel pipe penetrant, a zirconium pipe penetrant and a titanium pipe penetrant having a total bond area of approximately 732.79 in<sup>2</sup>, a total pressurized area of approximately 240.55 in<sup>2</sup>. This results in a "pressurized area" to "bond area" ratio of approximately 1:3.0 (240.55:732.79)



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- P4: QSiil 5558MC silicone elastomer installed inside a metal sleeve with a carbon steel pipe penetrant having a total bond area of approximately 518.36 in<sup>2</sup>, a total pressurized area of approximately 54.67 in<sup>2</sup>. This results in a "pressurized area" to "bond area" ratio of approximately 1:9.5 (54.67:518.36)

**Note:** The pipe, conduit and metal sleeve interfaces were given full credit for the bond area determinations above even though there was some leakage at most of these interfaces during Pressure Test 8. This was done because it is virtually impossible to determine what percentage of the bond area was leaking.

### 3.0 ACCEPTANCE CRITERIA

Seismically qualified penetration seals at the MOX facility are required to remain in the opening (penetration) during and after a Design Earthquake seismic event. In order demonstrate that a penetration seal will remain in place, the seal will have to be evaluated for two conditions: 1) The seismic inertia of the self-weight of the seal will have to be evaluated; and 2) The seismic deflection of the commodities penetrating the seal will have to be considered.

Seismic pressure testing will be used to evaluate the seismic inertia of the self-weight of the seal assembly. This will be accomplished by applying a pressure to alternating sides of the penetration seal to demonstrate that the seal will not become dislodged from the opening due to the seismic inertia of the self-weight of the seal. The seismic deflection of commodities that penetrate the seal will be addressed by a separate analysis.

Ultimately, the overall seismic qualification of MOX penetration seal assemblies will be captured in a penetration seal seismic qualification report that will tie together the results of seismic pressure testing with other analyses performed to address seismic deflection of commodities that penetrate the seal.

The acceptance criterion for evaluating the seismic inertia of the seal self-weight is calculated in MOX Services Calculation "Penetration Seal Seismic Requirements" [Reference 12.1] and expressed as an equivalent pressure. Testing at this equivalent pressure will qualify that a penetration seal assembly will remain in place (i.e., the penetration seal cannot become dislodged from the opening or otherwise catastrophically fail such that a substantial leakage path is created) during the design earthquake seismic event.

The relative movement of the items penetrating a seal and the movement of the wall / seal during a seismic event are not considered as a part of this test. A separate engineering evaluation is required to evaluate the effect of movement on a seal with penetrating items during a seismic event.

No pressure inducing events are required to be considered concurrently with a seismic event.

Table 9-1 identifies the differential pressure levels (stages) for conducting seismic pressures tests, as well as, the acceptance criteria in order for the penetration seal assemblies to meet the seismic pressure testing requirements.

### 4.0 RESPONSIBILITIES

The following roles and responsibilities apply to this detailed test plan.

#### 4.1 MOX Services

- 4.1.1 Provide review and concurrence of this detailed seismic pressure test plan.
- 4.1.2 Provide concurrence for any revisions made to this detailed seismic pressure test plan during test specimen construction activities.

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- 4.1.3 Provide some of the materials for test assembly construction from MOX Services surplus or scrap (if available).
- 4.1.4 Reserves the right to witness seismic pressure testing.

**4.2 AREVA**

- 4.2.1 Develop this detailed seismic 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 seismic pressure testing facility and establish sub-contract agreements.
- 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 any penetration seal materials, devices or components required to be Safety Related (QL-1) as designated in the procurement plan section of the test plan.
- 4.2.6 Notify MOX Services at least 10 days prior to test date to facilitate MOX Services decision to witness the seismic pressure test.
- 4.2.7 Witness the seismic pressure tests.
- 4.2.8 Perform post-test examinations.
- 4.2.9 Review, approve and issue final test report.

**4.3 Testing Laboratory**

- 4.3.1 Notify AREVA at least 5 days prior to the start of test assembly construction activities.
- 4.3.2 Construct test deck in accordance with this detailed 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 of this detailed test plan.
- 4.3.4 Procure testing equipment necessary for seismic pressure testing services in accordance with the detailed seismic pressure test plans and verify that the testing equipment is properly calibrated.
- 4.3.5 Provide seismic pressure testing services in accordance with this approved detailed seismic pressure test plan.
- 4.3.6 Assist AREVA, as necessary, in conducting detailed post-test destructive examinations of the test assembly.
- 4.3.7 Dispose of test assembly upon completion of the seismic pressure test.
- 4.3.8 Generate a final test report in accordance with test plan requirements.



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**4.4 Other Subcontracted Entities**

There are no other Subcontractors for this seismic pressure test plan.

**5.0 PROCUREMENT PLAN**

Penetration seal seismic pressure testing involves many elements beyond the penetration seal material being qualified. Some of these elements include the test deck or test slab, several different types of penetrating items, supports for penetrating items, various fasteners for securing test articles and laboratory instrumentation to the test assembly, etc. Not all elements of the test program are required to be procured to the same quality level as the penetration seal material to satisfy the quality requirements of the end product (e.g., QL-1 qualified penetration seals). The following procurement plan takes into consideration the required quality level of the various materials envisioned to be required for a typical penetration seal seismic pressure test 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 12.2] 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 12.3]:

*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.*

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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 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 12.4]. 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, CGD of penetration seal materials used for test purposes is not required.

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

1. Quantum Silicones QSil 5558MC Silicone Elastomer
2. Dow Corning Sylgard 170 Silicone Elastomer
3. Dow Corning 732 Multi-Purpose Sealant
4. Dow Corning 790 Silicone Building Sealant

## 5.2 Test Deck/Test Slab

The test deck/test slab will be used to simulate a boundary in which the penetration seal assemblies may be installed. The test deck/test slab 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/test slab will be comprised of normal weight reinforced concrete, unless otherwise stipulated in the detailed test plan.

Openings cast into the test deck/test slab will simulate certain features consistent with MOX penetrations (e.g., painted or coated 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/test slab, unless otherwise specified in the detailed test plan. The test deck shall comply with the requirements of the approved detailed test plan drawings contained in Appendix A, and shall be constructed 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., pipes and conduits) will be used in this seismic pressure test to simulate MOX-specific plant commodities during the seismic 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**.

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Penetrating items for this seismic pressure test will come from MOX Services or the testing lab (Intertek). MOX Services supplied items are identified on the MOX Services Bill of Materials in Section C.2 of Appendix C. Test lab (Intertek) supplied items are identified on the Intertek Bill of Materials in Section C.3 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 12.5].

**6.3 Precautions for Conducting Seismic 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 12.5].

**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 Appendix 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 12.5].

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**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 Appendices A and B 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* [Reference 12.5].

**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 and Appendix B of this detailed test plan and in accordance with AREVA Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program* [Reference 12.5].

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* [Reference 12.5].

**8.3 Pre-Test Verifications**

Prior to conducting the seismic pressure test, 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* [Reference 12.5].

**9.0 PROCEDURE**

**9.1 Seismic Pressure Test Apparatus**

The seismic pressure test apparatus to be used for this seismic pressure test 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 differential pressures calculated for seismic pressure testing purposes, as they apply to MFFF penetration seal designs, are discussed in Calculation DCS01-ZEQ-EQ-CAL-M-10118-0 [Reference 12.1]. The seismic pressure testing will be performed using the requirements for the seal material being tested based upon the seal weight per square foot found in Calculation DCS01-ZEQ-EQ-CAL-M-10118-0 [Reference 12.1].



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The pressure levels to be used for the seismic pressure are specified in Table 9-1. The pressure used in each seismic pressure test is intended to bound a calculated differential pressure based on the penetration seal material's weight per square foot as detailed in the referenced calculation, with additional margin. The penetration seal seismic requirements in the referenced calculation are based upon the seal system type and the seal material. The bounding differential pressure to be used for each penetration seal seismic pressure test, the test hold time at each pressure, the acceptance criteria to meet the seismic pressure testing requirements, and the basis for each pressure are identified in Table 9-1.

A hold time of 5 minutes has been established for each test stage to ensure that sufficient time at pressure is maintained to confirm that the penetration seal will not catastrophically fail (i.e., will not become dislodged from the opening). This hold time provides reasonable assurance that the penetration seal meets the requirements stated in Calculation DCS01-ZEQ-EQ-CAL-M-10118-0 [Reference 12.1].

**Table 9-1: Differential Seismic Pressure Test Levels**

Test Stage	Differential Pressure (inch w.g.)	Required Hold Time (minutes)	Acceptance Criteria	Basis for the Selected Differential Pressure
1-4	45 (Note 1)	5	Penetration Seal Remains in Opening (Does not become dislodged)	Testing at this differential pressure meets the seismic demand expressed as a pressure [Reference 12.1]

Note 1: For Seismic Pressure Test 6, a nominal density of 85 pcf was used for the silicone elastomer seal material installed for the purposes of determining the test penetration seal's weight per square foot. 85 pcf bounds the installed seal material with margin. 85 pcf times a seal depth of 8", yields a seal weight of approximately 56.7 psf. Based on Figure B-2.1 of Reference 12.1, the corresponding seismic pressure for a seal weight of 56.7 psf is approximately 44.7 inches w.g. Therefore, for Seismic Pressure Test 6 an equivalent seismic pressure of 45 inches w.g. shall be used.

**Note:** Since only a minor amount of silicone caulk was added to these test penetrations, the additional weight (mass) of the silicone caulk is considered insignificant and is captured by the available margin that exists from using the 85 pcf density for the base silicone elastomer seal assemblies.

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

- 9.2.1 For Stage 1, the test assembly shall be attached to the pressure test apparatus and subjected to air pressure test at the select pressure level identified in Table 9-1. Once this pressure has been obtained, the pressure shall be maintained for the hold time specified in Table 9-1. If the penetration seal catastrophically fails during this time, the time of failure shall be noted and the test shall be stopped.
- 9.2.2 Once the designated hold time for Stage 1 has been achieved, the pressure shall be vented from the test chamber. Next, the pressure identified in Table 9-1 for Stage 2 shall be applied to the opposite side of the penetration seal and held for the designated hold time. If the penetration seal catastrophically fails during this time, the time of failure shall be noted and the test shall be stopped.
- 9.2.3 Once the designated hold time for Stage 2 has been achieved, the pressure shall be vented from the test chamber. Next, the pressure identified in Table 9-1 for Stage 3 shall be applied to the original side of the penetration seal and held for the designated hold time.

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If the penetration seal catastrophically fails during this time, the time of failure shall be noted and the test shall be stopped.

- 9.2.4 Once the designated hold time for Stage 3 has been achieved, the pressure shall be vented from the test chamber. Finally, the pressure identified in Table 9-1 for Stage 4 shall be applied to the opposite side of the penetration seal and held for the designated hold time. If the penetration seal catastrophically fails during this time, the time of failure shall be noted and the test shall be stopped.
- 9.2.5 Following completion of Stage 4 pressure testing, the pressure shall be vented from the test chamber. At this point, the test may continue at the discretion of the AREVA test engineer and the testing laboratory manager in charge. Subsequent pressures, and hold times shall be recorded as directed by the AREVA test engineer.

NOTE: The pressure used for the testing performed above is based on a seal material depth of 8 inches and a seal material density of 85 pcf. Should the test be successful, possible subsequent testing pressures may include those for a 10 inch depth of material (56 inches w.g.) and a 12 inch depth of material (67 inches w.g.).

- 9.2.6 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 seismic 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 both sides of the penetration
- Location of greatest degradation
- Condition of seal to barrier interface
- Condition of seal to penetrating item interfaces
- Condition of penetrating items

Once visual observations are complete, the test specimen for Seismic Pressure Test 6 may be re-purposed for Pressure Test 8B (if necessary). No destructive examinations shall be performed on the test specimen unless it fails one of the pressure stages.

### 10.0 DATA SYSTEMS

During the seismic pressure test, the any data systems connected to the test apparatus shall be controlled and monitored by the testing laboratory. Data recorded for these components shall be compiled and contained in the final seismic pressure test report.



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**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
- Color digital photographs of the test project

**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 \*Shaw AREVA MOX Services Calculation DCS01-ZEQ-EQ-CAL-M-10118-0, "*Penetration Seal Seismic Requirements*"
- 12.2 \*Shaw AREVA MOX Services Procedure PP9-1, Revision 14, "*SSC Quality Levels & Marking Design Documents*"
- 12.3 AREVA NP Inc. Procedure 1702-25, Revision 018, "*Assignment of Nuclear Safety Classification to Products and Services*"
- 12.4 AREVA NP Inc. Document 56-9141754-001, "*AREVA NP Inc. Quality Assurance Program*"
- 12.5 AREVA NP Inc. Document 01-9198306, latest revision, "*Installation Instruction Manual for MOX Penetration Seal Test Program*"
- 12.6 \*Shaw AREVA MOX Services Document DCS01-BRA-DS-TRD-B-01365-0, "*Technical Requirements Document for MFFF Penetration Seals*"
- 12.7 \*Shaw AREVA MOX Services Specification DCS01-ZMJ-DS-SPE-M-21402-2, "*Equipment Seismic Qualification Specification*"
- 12.8 AREVA NP Inc. Document 51-9207462, latest revision, "*Detailed Test Plan for Conducting MOX Pressure Test 8 and 8A (If Needed)*"

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**APPENDIX A: TEST DECK/TEST SLAB DRAWINGS**

It is anticipated that the slab with the silicone elastomer seal material used for Pressure Test 8A will not be damaged during Pressure Test 8A and will be available for reuse in this seismic pressure test. For the purpose of Seismic Pressure Test 6, no changes will be made to the seal assemblies installed for Pressure Test 8A. For test slab drawings see Pressure Test 8A drawings in Appendix A of Document 51-9207462, "Detailed Test Plan for Conducting MOX Pressure Test 8 and 8A (If Needed)" [Reference 12.8].

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**APPENDIX B: TEST PENETRATION DRAWINGS**

It is anticipated that the slab with the silicone elastomer seal material and penetrants used for Pressure Test 8A will not be damaged during Pressure Test 8A and will be available for reuse in this seismic pressure test. For the purpose of Seismic Pressure Test 6, no changes will be made to the seal assemblies installed for Pressure Test 8A. For penetration drawings see Pressure Test 8A drawings in Appendix B of Document 51-9207462, "*Detailed Test Plan for Conducting MOX Pressure Test 8 and 8A (If Needed)*" [Reference 12.8].

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**APPENDIX C: BILL OF MATERIALS**

This appendix contains the Bill of Materials for this seismic 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.

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C.1 Table Bill of Materials for AREVA Supplied Items

Bill of Material for AREVA Supplied Items					
Item	Description	Part Number	Quantity	Units	Total
	None*				

None\* - Assuming a successful Pressure Test 8A, the seal will already be in place, no additional materials will be necessary.

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**C.2 Bill of Materials for MOX Services Supplied Items**

Bill of Material for MOX Services Supplied Items					
Item	Description	Part Number	Quantity	Units	Total
	None*				

None\* - Assuming a successful Pressure Test 8A, the penetrants will already be in place, no additional materials will be necessary.



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C.3 Bill of Materials for Intertek Supplied Items

Bill of Material for Intertek Supplied Items**					
Item	Description	Part Number	Quantity	Units	Total
	None*				

None\* - Assuming a successful Pressure Test 8A, the commodities will already be in place, no additional materials will be necessary

\*\* 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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APPENDIX D: DESIGN VERIFICATION CHECKLIST

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AREVA		DESIGN VERIFICATION CHECKLIST		
Document Identifier 51 - 9216585 - 000				
Title Detailed Test Plan for Conducting MOX Seismic Pressure Test 6				
1.	Were the inputs correctly selected and incorporated into design or analysis?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> 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? <i>Note: If there are no assumptions (of any type), then N/A shall be checked.</i>	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input checked="" type="checkbox"/> 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?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> 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?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A
5.	Have applicable construction and operating experience been considered?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A
6.	Have the design interface requirements been satisfied?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A
7.	Was an appropriate design or analytical method used?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A
8.	Is the output reasonable compared to inputs?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A
9.	Are the specified parts, equipment and processes suitable for the required application?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A
10.	Are the specified materials compatible with each other and the design environmental conditions to which the material will be exposed?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A
11.	Have adequate maintenance features and requirements been specified?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input checked="" type="checkbox"/> N/A
12.	Are accessibility and other design provisions adequate for performance of needed maintenance and repair?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input checked="" type="checkbox"/> N/A
13.	Has adequate accessibility been provided to perform the in-service inspection expected to be required during the plant life?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input checked="" type="checkbox"/> N/A
14.	Has the design properly considered radiation exposure to the public and plant personnel?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input checked="" type="checkbox"/> N/A
15.	Are the acceptance criteria incorporated in the design documents sufficient to allow verification that design requirements have been satisfactorily accomplished?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A
16.	Have adequate preoperational and subsequent periodic test requirements been appropriately specified?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input checked="" type="checkbox"/> N/A
17.	Are adequate handling, storage, cleaning and shipping requirements specified?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A
18.	Are adequate identification requirements specified?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> 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?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A


Controlled Document



Document No.: 51-9216585-000

Detailed Test Plan for Conducting MOX Seismic Pressure Test 6

22410-8 (02/25/2013) Page 2 of 2

	<b>DESIGN VERIFICATION CHECKLIST</b>
Document Identifier <u>51</u> - <u>0216585</u> - <u>000</u>	
Comments on the preceding responses:          	
Verified By: <u>Derrick V Risner</u> (First, MI, Last) Printed / Typed Name	 Signature
	<u>12/16/13</u> 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 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 51-9212663-000, "Quantum Silicones QSil 5558MC Silicone Elastomer Critical Characteristics"
- AREVA Document 51-9212666-000, "Dow Corning 732 Multi-Purpose Sealant Critical Characteristics"

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

## APPENDIX F Quality Documents

The test assembly used in Seismic Pressure Test 6 was the same assembly tested in Pressure Test 8A. For Quality Records of installation, Certificates of Conformance of the sealant materials, and QA Receiving Documents of the penetration materials for this, assembly, please see the Appendices in Intertek Report No. 101276459SAT-008A (Pressure Test 8A) [AREVA document 58-9224200-000].



## LIST OF CALIBRATED EQUIPMENT

Description	Serial No.	Calibration Due Date
Thermo-Hygrometer	130548237	9/19/2015
Data Acquisition System	18041FE	1/16/2014*
Pressure Transducer	406707	7/16/2014*
Mass Flowmeter	4270050001001	2/1/2014*
Mass Flowmeter	4270050003001	2/1/2014*
Stop watch	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



Calibration  
Certificate No. 1750.01

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

*Build B  
PROVIDENTIAL*



Cert. No.: 4096-5373559

**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: 11-661-13, FB61254, 245C5 S/N: 130548237 Manufacturer: Control Company

**Standards/Equipment:**

Description	Serial Number	Due Date	NIST Traceable Reference
Chilled Mirror Hygrometer	31874/H2048MCR	6/14/15	11081
Digital Thermometer	41334977/41335007	9/26/13	4000-4643062

**Certificate Information:**

Technician: 104 Procedure: CAL-17 Cal Date: 9/19/13 Cal Due: 9/19/15  
Test Conditions: 23.0°C 51.0 %RH 1013 mBar

**Calibration Data: (New Instrument)**

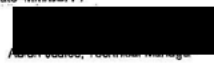
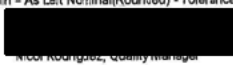
Unit(s)	Nominal	As Found	In Tol	Nominal	As Left	In Tol	Min	Max	±U	TUR
%RH		N.A.		42.95	42	Y	39	47	1.30	3.1:1
°C		N.A.		24.218	24	Y	23	25	0.590	1.7:1

**This instrument was calibrated in compliance with ISO/IEC 17025:2005 and ANSI/NCSL Z540-1-1994 Part 1.**

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.

The calibration results published in this certificate were obtained using equipment capable of producing results that are traceable to NIST and through NIST to the International System of Units (SI).

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 = As Left Nominal(Rounded) - Tolerance; Max = As Left Nominal(Rounded) + Tolerance; Date=MM/DD/YY



**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:**

This device was calibrated using a single test point. Should additional test points be required, please contact Control Company for factory calibration and re-certification traceable to National Institute of Standards and Technology.

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

Control Company is an ISO 17025:2005 Calibration Laboratory Accredited by (A2LA) American Association for Laboratory Accreditation, Certificate No. 1750.01.  
Control Company is ISO 9001:2008 Quality Certified by (DNV) Det Norske Veritas, Certificate No. CERT-01805-2005-AQ-HOU-RVA.  
International Laboratory Accreditation Cooperation (ILAC) - Multilateral Recognition Arrangement (MRA).

## Certificate of Calibration

<b>Certificate Number:</b>	2994344	<b>Date:</b>	28-MAY-2014
<b>Serial Number:</b>	18041FE	<b>Part Number:</b>	194710E-04L
<b>Description:</b>	CCA_USB-6210		
<b>Calibration Date:</b>	06-DEC-2012	<b>Shelf Life:</b>	0 Days
<b>Calibration Due Date*:</b>	-	<b>Recommended Calibration Interval:</b>	12 Months
<b>Temperature:</b>	22.26 °C	<b>Humidity:</b>	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. The 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, without prior written consent of National Instruments.

\*Optional field, *Calibration Due Date* may be established by combining the *Recommended Calibration Interval*, *Calibration Date* and, when applicable, 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.



Andrew Krupp  
Vice President, Quality and Continuous Improvement

## OMEGADYNE INC. CERTIFICATE OF CALIBRATION

<b>Model Number:</b> PX409-005DWUV	<b>Capacity:</b> 5.00 PSID
<b>Serial Number:</b> 406707	<b>Excitation:</b> 10.00 Vdc
<b>Date:</b> 7/15/2011	<b>Technician:</b> KAPOME
<b>Job:</b> R3274	

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/NC SL 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.

\_\_\_\_\_  
**Accepted and Certified By**

7/15/2011  
**Date**



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: 162  
Timer Number: N/A  
Thermometer Number: N/A  
Voltmeter: NA  
Calibrated By: [REDACTED]  
Date Calibrated: 2-1-13

Uncertainty of measurements: +/- 0.3 % of reading

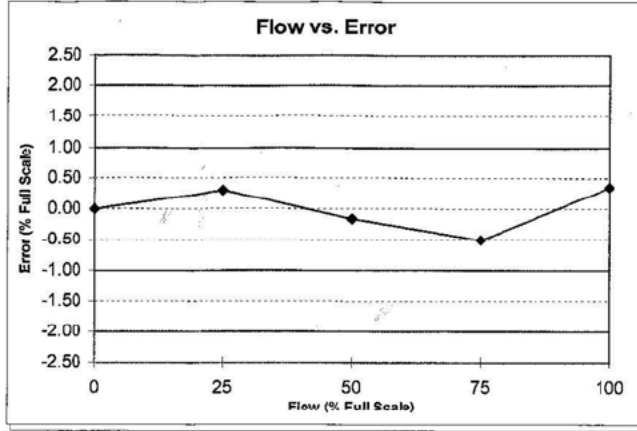
Calibrations were performed under a controlled Quality System Manual, which incorporates the requirements of ISO Guide 25, ISO 10012-1, ISO 9001 (1994) and ISO 13485. The released ISO 13485 registration (Medical Devices – Quality Management Systems – System Requirements for Regulatory Purposes) includes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

0122220B

FM-1011 REV B



**Mass Flowmeter/Flow Controller Calibration Data Sheet**



**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

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

**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<sub>1</sub>) 20 PSIG  
Outlet (P<sub>2</sub>) 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<sup>-8</sup> atm cc/sec  
Vacuum Pressure: < 5 milliTorr

Tested By: [Redacted] Date: 2-1-13





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

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



**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) <input checked="" type="checkbox"/> Vdc <input type="checkbox"/> 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	-7.3415
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:  $<1 \times 10^{-8}$  atm cc/sec

VACUUM PRESSURE: <5 millitorr

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

FM-355-OE Rev. 0



Calibration  
Certificate No. 1750.01

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

Cert. No.: 1042-4689088

**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	26.8 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 best 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 Signature]

[Redacted Signature]

**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 Stopwatches change little, if any at all, but can be affected by aging, temperature, shock, and contamination.

**Recalibration:**

For factory calibration and re-verification 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

Control Company is an ISO 17025:2005 Calibration Laboratory Accredited by (A2LA) American Association for Laboratory Accreditation, Certificate No. 1750.01.  
Control Company is ISO 9001:2009 Quality Certified by (DNV) Det Norske Veritas, Certificate No. CERT-01805-2009-AQ-HOU-ANAB.  
International Laboratory Accreditation Cooperation (ILAC) - Multilateral Recognition Arrangement (MRA).

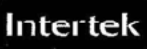


### TEST ARTICLE ATTRIBUTE CHECKLIST

PROJECT NO: 6101276459-015 CLIENT: AREVA

Project Description SEISMIC #6

	SAT	UNSAT
<b>I. ASSEMBLY</b>		
Proper materials used .....	X	
Material documentation complete.....	X	
Configuration/dimensions in accordance w/ approved drawings....	X	
Description of assembly: <u>NOX AREVA SEISMIC #6</u>		
<b>II. ELECTRICAL CABLE</b>		
Correct material used .....	N/A	
Material documentation complete .....	N/A	
Correct cable lay-in and fill requirements .....	N/A	
Description of electrical cable: _____		
<b>III. THERMOCOUPLES</b>		
Correct thermocouple type, certs received .....	N/A	
Thermocouples positioned in accordance with test plan .....	N/A	
Adequately labeled and secured .....	N/A	
Quality Assurance verification done .....	N/A	
Description of thermocouples: _____		
<b>IV. FIRE BARRIER</b>		
Name or type of material <u>Q51, DC170, DC732</u>		
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 <input checked="" type="checkbox"/>
Special requirements _____		
<b>V. FINAL PREBURN VERIFICATION</b>		
Final visual inspection & approval (initials)	INTERTEK	Client
CALIBRATION DOCUMENTATION (S/N and calibration due date)		
Data Acquisition Equipment:	<u>SEE TEST DATA PACKAGE</u>	
Other Measurement Devices:	<u>SEE TEST DATA PACKAGE</u>	
Temperature <u>57</u> Humidity <u>57</u> Date <u>12-17-13</u> Time of Test start <u>10:43 A</u>		
INTERTEK pre-burn checklist performed by		
Client representative present to witness test		
Note: Verification to be made using initials by INTERTEK Quality Assurance or test personnel.		



### 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-015 for AREVA NP, Inc.

Page 1 of 1

ITEM	DATE	INIT'L
Concrete poured by Alamo Concrete	9/3/13	MD
Concrete conditioned	9/9/13	MD
Critical attributes of test slab verified	9/25/13	MD
Completed seal assemblies verified against the test plan	10/10/13	MD
Test conducted on the top (boot) side	10/18/13	MD
Pressure Test #6 conducted on the bottom (non-boot) side	10/21/13	MD
Seismic Test #4 conducted	10/22/13	MD
<b>**Test assembly re-purposed for Pressure Test #8**</b>		
Critical attributes of the test slab and applicable penetrations verified	12/4/13	MD
Begin pouring seals	12/4/13	MD
Finish pouring seals	12/5/13	MD
Completed seal assemblies verified against the test plan	12/10/13	MD
Pressure Test #8 conducted	12/12/13	MD
<b>**Test assembly re-purposed for Pressure Test #8A**</b>		
Critical attributes of test slab and applicable penetrations verified	12/12/13	MD
DC 732 applied around penetrante on the top side	12/12/13	MD
Completed seal assemblies verified against the test plan	12/12/13	MD
Pressure Test #8A conducted	12/16/13	MD
Seismic Pressure Test #6 conducted using the same assembly	12/17/13	MD





### Certificate of Conformance

Client Name: AREVA NP Inc.  
Project No: G101276459SAT-015

Date: September 4, 2014

Intertek Testing Services NA (Intertek) has conducted testing for AREVA NP Inc., on the seismic pressure resistance capabilities of Quantum Silicones QSil 5558MC Silicone Elastomer, Dow Corning<sup>®</sup> Sylgard 170 Silicone Elastomer, and Dow Corning<sup>®</sup> 732 Multi-Purpose Sealant through a 12" thick concrete deck for compliance with the applicable requirements of and in accordance with AREVA NP Inc. Document No. 51-9216585-000, *Detailed Test Plan for Conducting MOX Seismic Pressure Test 6*. This test took place on December 17, 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.



Michael A Rrwnn  
Quality Supervisor

September 4, 2014

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
September 4, 2014	Original Issue Date