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**NUCLEAR REACTOR TECHNOLOGY
AND SCIENTIFIC COMPUTATIONS**

WSRC-TR-92-534
Task No.: 92-104-1

KEYWORDS:
ONSET OF FLOW INSTABILITY
ONSET OF SIGNIFICANT VOID
DEMAND CURVES
LOSS OF COOLANT ACCIDENT
ANNULUS

RETENTION:
PERMANENT

**NUCLEATE BOILING PRESSURE DROP IN AN ANNULUS,
BOOK 3 (U)**

**James A. Block, Christopher Crowley, Francis X. Dolan, Richard G. Sam,
and Brant H. Stoedefalke**

ISSUED: NOVEMBER, 1992

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**Authorized Derivative Classifier/
Reviewing Official**

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Westinghouse Savannah River Corporation
Prepared for the U.S. Department of Energy under
Contract DE-AC09-89SR18035

MASTER

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Final Report

**NUCLEATE BOILING PRESSURE DROP
IN AN ANNULUS**

Volume 2

DATA PLOTS AND SUMMARY FILES

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**Prepared for
U.S. Department of Energy
and
Savannah River Laboratory
Subcontract AX-721102**

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INTRODUCTION AND ORGANIZATION

Volumes 2 and 3 (Data Plots and Summary Files) are the companions to Volume 1 (Summary and Interpretation of Results) which together present the results of the annulus testing program performed by Create Incorporated under DOE Subcontract No. AX-721102. Volume 1 discusses the purpose and objectives of the experimental program, describes the test facility and measurements, and summarizes the results of the parametric investigations as well as the analytical effort. Volumes 2 and 3 provide a comprehensive compilation of the data in tables and graphs from all of the tests performed in both the non-ribbed and ribbed annulus test sections. The following paragraphs act as a guide to the remainder of this volume.

The data are arranged in 20 "chapters" in two volumes for ease of handling. Each of the first 19 chapters represents one of the 19 test series and the last chapter is for 5 series of pressure drop tests in the unheated annulus. Table 1 lists the sequence in which the data are presented in these volumes and gives the nominal conditions of the tests for quick reference by the user.

As described in Volume 1, a test is comprised of a period of 300 seconds of steady-state operation of the flow loop and steady annulus boundary conditions during which time data are automatically recorded by the data acquisition computer. At the conclusion of a test the data are reduced to average values of each measurement for the first 5 seconds of the recording interval and for the last 5 seconds. The differences between these averages are also computed. The average values and differences are then written into data summary tables called .SM1 and .SM2 and .DIF files. Data tabulations and graphs presented in Volumes 2 and 3 are from the .SM1 files. Table 2 describes the contents of the summary files and defines the terminology used in them.

Each of the measurements in the test facility was assigned a unique number which identifies the type of measurement as well as its location in the facility. Table 3 lists the names used for the measurements that are tabulated in the data summaries (.SM1 files). The locations of the annulus measurements are described in Table 4 and are also shown on a sketch of the annulus in Figure 1. Some of the annulus instruments failed during the course of the testing program and so certain of the listed measurements may not be valid for some of the tests. Table 5 is a list, covering the entire testing program, of known defective measurements. There are similar lists, covering the measurements for a single test series, in each of the data chapters.

Data from Heated Annulus Test Series

There were 19 heated annulus test series performed in this program - 5 in the non-ribbed annulus and 14 in the ribbed annulus. The data from each series is presented in the same way and each series is in a separate chapter. The order of the data presentation in a chapter is:

1. Title page giving the geometry number, test series and date of the test.
2. Demand curve (pressure drop vs. flow rate) for the test series and a tabulation of the data in the demand curve. The minimum pressure drop in each demand curve is identified in the table.

3. Profile plots for selected tests in the test series. The profile plots consist of pressure drop and wall and fluid temperature measurements in the annulus and are compared with the ANNULUS code predictions.
4. .SM1 files for each test in the series.
5. A list of defective measurements. The .SM1 files list all of the measurements even though an instrument is known to have been defective (in most cases from a post-test evaluation of the data). The list of defective measurements is provided so that known failed instruments can be eliminated from the data files prior to performing any analyses using these data.

Data from Unheated Annulus Pressure Drop Tests

Five series of tests were performed in which the total annulus pressure drop was measured as a function of inlet flow velocity. These measurements were made at the start of each major period of testing and are primarily keyed to a change in the annulus geometry. (There were only 4 annulus geometries, but the pressure drop test was repeated for Build 4 so there are 5 sets of data.) These data therefore provide a reference for comparison with the heated wall tests having the same annulus geometry. The data from all 5 of these test series are presented in Chapter 20. Each test series has a plot of total pressure drop vs. inlet flow velocity as well as a table of the values in the plot. Following the 5 plots are the .SM1 files for all of the 92 pressure drop tests.

Table 1a. ANNULUS TEST DATA SUMMARIES
(Index to Chapters in Volume 2)

Chapter Number	Annulus Geometry (Build No.)	Test Series	Test Date	Nominal Test Conditions				
				Wall Heat Flux	Heat Flux Distribution	Annulus Inlet Temperature	Annulus Inlet Pressure	Helium Saturation Pressure
				(kBtu/hr-ft ²)	(-)	(°F)	(psia)	(psig)
1	Non-ribbed (1)	1	14Nov89	100	uniform	86	40	5
2	Non-ribbed (2)	1A	01Feb90	100	uniform	86	40	5
3		2	05Feb90	100	uniform	86	60	5
4		3	06Feb90	100	uniform	86	40	1
5		4	08Feb90	200	uniform	86	40	5
6	Ribbed (3)	1	03May90	100	uniform	86	40	5
7		2	07May90	100	uniform	86	60	5
8		3	08May90	100	uniform	86	40	1
9	Ribbed (4)	1A	01Aug90	100	uniform	86	40	5
10		4	01Aug90	200	uniform	86	40	5
11		10	01Aug90	200/0	asymmetric	86	40	5

Table 1b. ANNULUS TEST DATA SUMMARIES
(Index to Chapters in Volume 3)

Chapter Number	Annulus Geometry (Build No.)	Test Series	Test Date	Nominal Test Conditions				
				Wall Heat Flux	Heat Flux Distribution	Annulus Inlet Temperature	Annulus Inlet Pressure	Helium Saturation Pressure
				(kBtu/hr-ft ²)	(-)	(°F)	(psia)	(psig)
12	Ribbed (4)	15	15Aug90	100	tilt	86	40	5
13		16	15Aug90	200	tilt	86	40	5
14		5	16Aug90	100	uniform	86	40	5
15		6	17Aug90	300	uniform	86	40	5
16		7	17Aug90	300	uniform	86	60	5
17		9	17Aug90	375	uniform	86	40	5
18		13	17Aug90	100	uniform	86	40	5
19		3A	17Aug90	100	uniform	86	40	15
20	all	N/A	various	0	N/A	86	various	5

Table 2. DEFINITIONS AND NOMENCLATURE FOR TEST DATA SUMMARY FILES

Header File (Page 1)

Test:	test identification number (date combined with test sequence);
Date:	calendar date and time at start of the data record;
Velocity 1:	annulus inlet velocity based on measured flow rate and annulus area (<i>A flow</i>); flow rate determined from instrument PFM000001;
Velocity 2:	same as Velocity 1; flow rate determined from instrument PFM000002; instrument reading valid for PFM000002 < 27 in. H ₂ O (approximately 13 ft/s annulus velocity);
Pressure Drop:	annulus pressure drop determined from instrument PAN000136;
Tsat in, Tsat out:	fluid saturation temperature at inlet to annulus and near the end of the heated length; calculated from saturated water property data at pressures PAB000136 and PAB125136;
Phi inner, outer:	average value of heat flux on inner and outer annulus walls determined from total power input to heaters in each wall and surface areas calculated from as-measured geometry <i>D inner</i> , <i>D outer</i> , <i>L inner</i> and <i>L outer</i> ;
A flow	annulus flow area, based on as-measured geometry <i>D inner</i> and <i>D outer</i> and including blockage by ribs where applicable;
D hyd:	annulus flow channel hydraulic diameter based on as-measured geometry and including effect of ribs where applicable.

Table 2 continued on next page

Table 2. DEFINITIONS AND NOMENCLATURE FOR TEST DATA SUMMARY FILES
(Concluded)

Column Headings (Pages 1, 2, 3, 4)

#:	computer input channel number;
Name:	alpha-numeric code which identifies type and location of measurement;
Min:	minimum value of the measurement in the data averaging interval, engineering units;
Max:	maximum value of the measurement in the data averaging interval, engineering units;
Ave:	arithmetic average of the readings in the 5 second averaging interval (5 seconds at 10 samples per second = 50 readings), engineering units;
SD:	standard deviation of the average value calculated from the 50 readings, engineering units;
Uncert:	estimated uncertainty of the <i>Ave</i> value of the measurement, engineering units;
Abs Diff:	difference between <i>Ave</i> values in <i>sum1</i> and <i>sum2</i> files, engineering units;
%Diff:	same as <i>Abs Diff</i> expressed as a percentage of the <i>Ave</i> value in <i>sum1</i> file.

Engineering Units

Temperature (T**, all):	°F
Differential Pressure (PAN, PFM):	inches of water
Absolute Pressure (PAB, PIN, PRV, PSR):	lbf/sq in. (absolute)
Power Supply Voltage (VPW):	volts
Power Supply Current (IPW):	amperes
Heater Current (IHT):	amperes

Table 3. INSTRUMENT IDENTIFICATION NUMBERS FOR ANNULUS MEASUREMENTS

FLUID TEMPERATURE	ANNULUS OUTER WALL TEMPERATURE	ANNULUS INNER WALL TEMPERATURE	ANNULUS PRESSURE DROP
TAF120048	TA0120048	TAI130048	PAN120048
TAF130048	TA0130048	TAI130136	PAN130048
TAF020136	TA0020136	TAI130224	PAN020136
TAF050136	TA0050136	TAI130312	PAN050136
TAF070136	TA0070136		PAN070136
TAF080136	TA0080136		PAN080136
TAF090136	TA0090136		PAN090136
TAF100136	TA0100136		PAN100136
TAF105136	TA0105136		PAN105136
TAF110136	TA0110136		PAN110136
TAF115136	TA0115136		PAN115136
TAF120136	TA0120136		PAN120136
TAF125136	TA0125136		PAN125136
TAF130136	TA0130136		PAN130136
TAF120224	TA0120224		PAN120224
TAF130224	TA0130224		PAN130224
TAF120312	TA0120312		PAN120312
TAF130312	TA0120312		PAN130312
			PAN000136

ANNULUS RIB TIP TEMPERATURE	ANNULUS RIB ROOT TEMPERATURE	ABSOLUTE PRESSURE
TRT020000	TRR130000	PAB000316
TRT070000		PAB100136
TRT100000		PAB125136
TRT120000		
TRT125000		
TRT130000

LOCATION IDENTIFIER YYY (FROM BEGINNING OF HEATED LENGTH)	ACTUAL DISTANCE FROM BEGINNING OF HEATED LENGTH (INCHES)				
	PAN YYY ZZZ UPPER TAP LOWER TAP		PAB YYY ZZZ	TAO YYY ZZZ TAI YYY ZZZ TRT YYY ZZZ TRR YYY ZZZ	TAF YYY ZZZ
	000	1.75	152.75	1.75	-
020	1.75	20.75	-	21.50	22.00
050	20.75	56.75	-	57.50	58.00
070	56.75	80.75	-	81.50	82.00
080	80.75	92.75	-	93.50	94.00
090	92.75	104.75	-	105.50	106.00
100	104.75	116.75	116.75	117.50	118.00
105	116.75	122.75	-	123.50	124.00
110	122.75	128.75	-	129.50	130.00
115	128.75	134.75	-	135.50	136.00
120	134.75	140.75	-	141.50	142.00
125	140.75	146.75	146.75	147.50	148.00
130	146.75	152.75	-	153.50	154.00

IDENTIFIER: XXX YYY ZZZ

└─ Circumferential Location (048°, 136°, 224°, 312°)

└─ Distance from BHL, ft x 10

└─ Measurement type

Figure 1. TEST SECTION INSTRUMENT LOCATIONS

Table 5. DEFECTIVE INSTRUMENTS FOR HEATED ANNULUS TEST SERIES			
Test Geometry	Series	Tests	Defective Instruments
Non-Ribbed (1)	1	Nov14_02 to Nov14_15	TA0120048 TRT020000 TAI130136 TA0020136 TRT070000 TAI130312 TA0110136 TRT130000 TA0120136 TRR130000 TA0130224 IHT000018 IHT000021 IHT000024 IHT000033
	1A	Feb01_01 to Feb01_11	TA0120048 TRT020000 TAI130048 TA0020136 TRT070000 TAI130136 TA0090136 TRT125000 TAI130224 TA0110136 TRT130000 TAI130312 TA0115136 TRR130000 TA0120136 TAF120312 TA0130136 TA0120224 TA0130224 IHT000021 IHT000024 IHT000033
Non-Ribbed (2)	2	Feb05_01 to Feb05_15	Same as Series 1A, Non-Ribbed
	3	Feb06_01 to Feb06_10	Same as Series 1A, Non-Ribbed
	4	Feb08_01 to Feb08_11	Same as Series 1A, Non-Ribbed

Table 5 continued on next page

Table 5. DEFECTIVE INSTRUMENTS FOR HEATED ANNULUS TEST SERIES (continued)			
Test Geometry	Series	Tests	Defective Instruments
Ribbed (3)	1	May03_11 to May03_21	TA0070136 TAF020136 TRR130090 TA0120136 TAF080136 TAF090136 TAF110136 TAF120136 TAF130312 IHT000021 IHT000024 IHT000033
	2	May07_01 to May07_09	Same as Series 1, Ribbed
	3	May08_01 to May08_08	Same as Series 1, Ribbed
Ribbed (4)	1A	Aug01_01 to Aug01_08	TA0120048 TAF080136 TRT125000 TA0020136 TAF090136 TRR130000 TA0070136 TAF120136 TA0125136 IHT000021 IHT000024 IHT000033
	4	Aug01_10 to Aug01_19	Same as Series 1A, Ribbed
	10	Aug01_21 to Aug01_27	Same as Series 1A, Ribbed
	15	Aug15_01 to Aug15_12	TA0120048 TAF080136 TRT125000 TA0020136 TAF090136 TRR130000 TA0070136 TAF120136 TA0125136 TAF070136
	16	Aug15_13 to Aug15_26	TA0120048 TAF080136 TRT125000 TA0020136 TAF090136 TRR130000 TA0070136 TAF120136 TA0125136 TAF070136 TA0080136

Table 5 continued on next page

**Table 5. DEFECTIVE INSTRUMENTS FOR HEATED ANNULUS
TEST SERIES (concluded)**

Test Geometry	Series	Tests	Defective Instruments
	5	Aug16_01 to Aug16_07	TA0120048 TAF070136 TRT120000 TA0020136 TAF080136 TRT125000 TA0070136 TAF090136 TRR130000 TA0080136 TAF120136 TA0110136 TA0125136 IHT000010 IHT000021 IHT000024 IHT000033
	6	Aug17_01 to Aug17_08	Same as Series 5, Ribbed
	7	Aug17_09 to Aug17_17	Same as Series 5, Ribbed
	9	Aug17_18 to Aug17_25	Same as Series 5, Ribbed
	13	Aug17_26 to Aug17_31	Same as Series 5, Ribbed
	3A	Aug17_32 to Aug17_37	TA0120048 TAF070136 TRT120000 TA0020136 TAF080136 TRT125000 TA0070136 TAF090136 TRR130000 TA0080136 TAF120136 TRT070000 TA0110136 TA0125136 IHT000010 IHT000021 IHT000024 IHT000033

Chapter 1

NUCLEATE BOILING PRESSURE DROP IN AN ANNULUS

Test Geometry: Non-Ribbed (1)
Test Series: 1
Test Date: November 14, 1989

Chapter 1

NUCLEATE BOILING PRESSURE DROP IN AN ANNULUS

Test Geometry: Non-Ribbed (1)
Test Series: 1
Test Date: November 14, 1989

TEST NUMBER	INLET VELOCITY(a) (ft/s)	PRESSURE DROP(b) (psi)
Nov14_02	24.89	16.43
Nov14_03	19.72	8.70
Nov14_04	14.79	2.75
Nov14_05	9.77	-1.66
Nov14_06	7.85	-2.93
Nov14_15	6.81	-3.50
Nov14_07	5.87	-3.96
Nov14_08	5.00	-4.34
Nov14_11	4.07	-4.65
Nov14_09	4.07	-4.66
Nov14_12	3.52	-4.82
Nov14_13	3.07	-4.89
Nov14_14	2.90	-4.76

(c)

NOMINAL TEST CONDITIONS	
Annulus geometry	non-ribbed (1)
Inlet temperature	86 °F
Inlet pressure	40 psia
Wall heat flux	100 kBtu/hr-ft ²
Flux distribution	uniform
He saturation pressure	5 psig

NOTES:

- (a) Inlet velocity calculated from PFM000001
- (b) Pressure drop calculated from PAN000136
- (c) Shading notes test at minimum pressure drop

DEMAND CURVE AND DATA FOR SERIES 1 - NON-RIBBED ANNULUS

SERIES 1, NOV14_02

NON-RIBBED (1)

$\Phi = 100,400 \text{ Btu/hr-ft}^2$

$V_f = 25.39 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P_{He} = 40.48 \text{ psia}$

$T = 86.28 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

NON-RIBBED (1)

$\Phi = 100,400 \text{ Btu/hr-ft}^2$

$V_f = 25.39 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 40.48 \text{ psia}$

$T = 86.28 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

SERIES 1, NOV14_09

NON-RIBBED (1)

$\Phi = 100,200 \text{ Btu/hr-ft}^2$

$V_f = 4.15 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 40.33 \text{ psia}$

$T = 85.24 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

NON-RIBBED (1)

$\Phi = 100,200 \text{ Btu/hr-ft}^2$

$V_f = 4.15 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 40.33 \text{ psia}$

$T = 85.24 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

SERIES 1, NOV14_13

NON-RIBBED (1)

$\phi = 100,500 \text{ Btu/hr-ft}^2$

$V_f = 3.14 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 40.22 \text{ psia}$

$T = 87.27 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

NON-RIBBED (1)

$\phi = 100,500 \text{ Btu/hr-ft}^2$

$V_f = 3.14 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 40.22 \text{ psia}$

$T = 87.27 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

Test: Nov14_02 sum1 Date: Tue Nov 14 17:58:28 1989 Page: 1

Velocity 1 - 24.8864 (ft/sec) (+/- 3.4806 %)
 Velocity 2 - 13.3709 (ft/sec) (+/- 3.4861 %)
 Pressure drop - 16.4300 (psi)
 Tsat in - 268.1542 (deg F) Tsat out - 240.0149 (deg F)
 Phi inner - 100.8845 (kBtu/hr-ft2) (+/- 1.5691 %)
 Phi outer - 100.0792 (kBtu/hr-ft2) (+/- 1.5539 %)
 D inner - 0.1973 (ft) D outer - 0.2412 (ft) D hyd - 0.0438 (ft)
 L inner - 12.8330 (ft) L outer - 12.8330 (ft) A flow - 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	74.3811	75.0186	74.7296	1.8594e-01	1.9000e+00
1	TRF0000002	74.9413	75.5756	75.2120	1.1333e-01	1.9000e+00
2	TFM0000001	85.9361	86.7745	86.3638	2.2392e-01	1.9002e+00
3	TIN0000001	85.9965	86.6273	86.2784	1.4930e-01	1.9002e+00
4	TRV0000001	85.9443	86.6777	86.3253	1.7023e-01	1.9002e+00
5	TSR0000001	106.3982	107.6325	107.2498	2.4591e-01	1.9009e+00
6	TAO020136	155.5012	156.6970	156.1272	2.3570e-01	1.9050e+00
7	TAO050136	115.8344	116.6530	116.2927	1.6176e-01	1.9014e+00
8	TAO070136	118.0712	118.9951	118.5273	2.1474e-01	1.9016e+00
9	TAO080136	122.2806	122.9923	122.6259	1.8032e-01	1.9019e+00
10	TAO090136	123.4652	124.2800	123.9134	1.9177e-01	1.9020e+00
11	TAO100136	123.8514	124.5644	124.1163	1.7585e-01	1.9020e+00
12	TAO105136	124.1351	125.0520	124.5874	2.1111e-01	1.9020e+00
13	EMPTY	40.9819	41.6693	41.3165	1.3264e-01	1.9011e+00
14	TAO115136	127.6519	128.3653	128.0676	2.0352e-01	1.9023e+00
15	EMPTY	37.3074	37.9974	37.4914	1.2297e-01	1.9009e+00
16	TAO125136	122.7853	123.2948	123.0338	1.5014e-01	1.9019e+00
17	TAO130136	116.5104	117.0200	116.7744	1.3528e-01	1.9015e+00
18	EMPTY	41.2111	41.6693	41.4586	1.0182e-01	1.9012e+00
19	TAO130048	120.5116	121.0219	120.8174	1.3218e-01	1.9017e+00
20	TAO120224	121.7725	122.2828	121.9725	1.5424e-01	1.9018e+00
21	EMPTY	38.9168	39.1464	39.1051	8.9139e-02	1.9010e+00
22	TAO120312	126.8058	127.5177	127.2044	1.6672e-01	1.9022e+00
23	TAO130312	121.4248	121.9349	121.6857	1.4009e-01	1.9018e+00
24	EMPTY	38.9168	39.6057	39.2337	1.9066e-01	1.9010e+00
25	TRT0700000	111.0921	112.1256	111.6381	2.1090e-01	1.9012e+00
26	TRT1000000	121.1948	122.0106	121.5336	1.9477e-01	1.9018e+00
27	TRT1200000	123.8410	124.4526	124.1428	1.5934e-01	1.9020e+00
28	TRT1250000	125.4797	126.2913	125.8694	1.8799e-01	1.9021e+00
29	EMPTY	39.6057	40.0646	39.8306	8.6618e-02	1.9011e+00
30	EMPTY	39.3761	40.0646	39.7112	1.9237e-01	1.9011e+00
31	TAFO50136	94.5503	95.1755	94.8671	1.8798e-01	1.9004e+00
32	TAFO70136	97.8509	98.5760	98.2150	1.8969e-01	1.9005e+00
33	TAFO80136	98.9660	99.6898	99.3842	1.4940e-01	1.9006e+00
34	TAFO90136	99.7305	100.7678	100.3403	2.5018e-01	1.9006e+00
35	TAF100136	101.2042	102.0348	101.6403	1.8281e-01	1.9007e+00
36	TAF105136	102.0833	103.1145	102.6565	2.5994e-01	1.9007e+00
37	TAF110136	102.8106	103.4316	103.1336	1.7178e-01	1.9007e+00
38	TAF115136	104.0892	104.7100	104.4822	1.6964e-01	1.9008e+00
39	TAF120136	104.9167	105.3310	105.1075	1.2252e-01	1.9008e+00
40	TAF125136	105.6036	106.2228	105.9256	1.6611e-01	1.9009e+00
41	TAF130136	106.0798	106.6999	106.3941	1.5335e-01	1.9009e+00
42	TAF120048	108.0462	108.9802	108.4735	2.3476e-01	1.9010e+00
43	TAF130048	108.4663	108.9826	108.6935	1.3187e-01	1.9010e+00
44	TAF120224	105.6459	106.3690	105.9517	1.7577e-01	1.9009e+00
45	TAF130224	106.1077	106.7292	106.3979	1.5522e-01	1.9009e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.3074	38.2273	37.9238	2.2969e-01	1.9010e+00
47	EMPTY	38.9168	39.3761	39.1419	7.3217e-02	1.9010e+00
48	TAI130048	124.4301	125.8553	125.1999	2.9804e-01	1.9021e+00
49	EMPTY	37.9974	38.6870	38.3285	1.8082e-01	1.9010e+00
50	TAI130224	121.4327	122.5575	121.9360	2.8688e-01	1.9018e+00
51	EMPTY	39.8352	40.5234	40.2161	1.7715e-01	1.9011e+00
52	TRR130000	78.5577	81.1894	80.2385	4.3321e-01	1.9001e+00
53	TSI0000001	50.2903	51.0462	50.7393	1.8433e-01	1.9002e+00
54	TSI0000002	72.7684	75.0966	74.0267	5.2917e-01	1.9000e+00
55	TSO0000001	49.4460	50.4226	49.9284	1.8763e-01	1.9003e+00
56	TSO0000002	54.7365	55.8142	55.3488	2.4286e-01	1.9001e+00
57	TAF020136	88.6431	89.4844	89.0555	2.1127e-01	1.9002e+00
58	TAF120312	106.8779	108.0132	107.3609	2.7850e-01	1.9009e+00
59	TAF130312	108.0971	108.7162	108.4026	1.6665e-01	1.9010e+00
60	EMPTY	0.9766	0.9863	0.9808	1.9754e-03	0.0000e+00
61	EMPTY	0.9863	0.9912	0.9910	9.6655e-04	0.0000e+00
62	EMPTY	1.0010	1.0010	1.0010	0.0000e+00	0.0000e+00
63	EMPTY	1.0107	1.0156	1.0136	2.4344e-03	0.0000e+00
64	EMPTY	0.5713	0.5762	0.5759	1.1714e-03	0.0000e+00
65	EMPTY	0.5908	0.5957	0.5956	6.9053e-04	0.0000e+00
66	EMPTY	0.6055	0.6104	0.6103	6.9053e-04	0.0000e+00
67	EMPTY	0.6250	0.6299	0.6276	2.4583e-03	0.0000e+00
68	EMPTY	0.6348	0.6396	0.6396	6.9053e-04	0.0000e+00
69	EMPTY	0.6543	0.6592	0.6578	2.2146e-03	0.0000e+00
70	EMPTY	0.6689	0.6738	0.6722	2.3365e-03	0.0000e+00
71	EMPTY	0.6885	0.6982	0.6935	1.2041e-03	0.0000e+00
72	EMPTY	0.7031	0.7080	0.7076	1.3381e-03	0.0000e+00
73	EMPTY	0.7227	0.7275	0.7249	2.4583e-03	0.0000e+00
74	EMPTY	0.7373	0.7520	0.7383	2.6100e-03	0.0000e+00
75	EMPTY	0.7520	0.7568	0.7566	9.6655e-04	0.0000e+00
76	EMPTY	0.7666	0.7715	0.7688	2.4583e-03	0.0000e+00
77	EMPTY	0.7861	0.7910	0.7866	1.4797e-03	0.0000e+00
78	EMPTY	0.8057	0.8105	0.8099	1.7115e-03	0.0000e+00
79	EMPTY	0.8252	0.8301	0.8300	6.9053e-04	0.0000e+00
80	PAN020136	55.9658	59.3990	57.6122	8.0876e-01	8.8184e-01
81	PAN050136	104.0522	105.7307	104.9495	3.9675e-01	1.7004e+00
82	PAN070136	77.0695	78.6716	78.0079	2.8348e-01	8.9159e-01
83	PAN080136	32.6827	34.2849	33.4594	3.9799e-01	8.7401e-01
84	PAN090136	33.7628	35.2124	34.5898	2.9863e-01	8.7429e-01
85	PAN100136	33.4475	34.8208	34.0579	2.9968e-01	8.7416e-01
86	PAN105136	18.2875	19.4319	18.6339	2.2027e-01	8.7125e-01
87	PAN110136	18.2736	18.7313	18.4826	1.0202e-01	8.7123e-01
88	PAN115136	23.3402	24.7135	24.0009	3.0307e-01	8.7207e-01
89	PAN120136	14.3054	15.2972	14.8364	2.4660e-01	8.7079e-01
90	PAN125136	17.9014	19.1221	18.3301	2.5039e-01	8.7121e-01
91	PAN130136	16.1145	16.5723	16.3464	1.1633e-01	8.7096e-01
92	PAN120048	35.6406	37.0139	36.1642	2.8672e-01	8.7469e-01
93	PAN130048	34.1470	35.3677	34.7146	2.6571e-01	8.7432e-01
94	PAN120224	39.8708	40.4812	40.1806	1.0501e-01	8.7578e-01
95	PAN130224	34.5110	35.2739	34.8513	1.6544e-01	8.7435e-01
96	PAN120312	35.7841	36.5470	36.1350	1.6239e-01	8.7468e-01
97	PAN130312	31.7737	32.9181	32.3108	3.2257e-01	8.7374e-01
98	PAB0000136	40.3023	40.8058	40.5302	1.1040e-01	5.8878e-01
99	PAB100136	28.2967	28.4798	28.3938	5.0350e-02	5.8433e-01
100	PAB125136	24.9274	25.0648	25.0080	3.8754e-02	5.8336e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	40.2249	40.8353	40.4788	1.3916e-01	7.5680e-01
102	PRV000001	20.2157	20.3378	20.2182	1.7263e-02	7.5170e-01
103	PSR000001	21.3614	21.6056	21.4835	3.4877e-02	7.5192e-01
104	PFM000001	95.9276	97.5756	96.7901	4.1610e-01	5.5547e-01
105	PAN000136	451.6221	460.3196	454.8722	1.7407e+00	5.0497e+00
106	PFM000002	27.7600	27.7600	27.7600	1.5414e-05	2.1170e-01
107	EMPTY	0.0049	0.0098	0.0083	2.2603e-03	0.0000e+00
108	EMPTY	-8.2227	-6.5430	-7.3029	4.6377e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0048	6.9053e-04	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	100.5906	101.1766	100.8797	1.1327e-01	1.0112e+00
113	VPW000002	118.3547	118.9406	118.6828	1.1464e-01	1.0785e+00
114	VPW000003	145.6631	146.4444	146.0459	1.4743e-01	1.1933e+00
115	VPW000004	104.2616	104.8475	104.4881	1.3873e-01	1.0243e+00
116	VPW000005	138.7472	139.3331	138.9815	1.3087e-01	1.1625e+00
117	VPW000006	146.5197	147.1056	146.8282	1.2534e-01	1.1967e+00
118	IPW000001	532.1901	538.0472	535.1580	1.3224e+00	9.1370e+00
119	IPW000002	1311.2531	1319.0582	1315.1555	2.0484e+00	1.3174e+01
120	IPW000003	1338.8044	1346.6044	1342.9385	1.7459e+00	1.3348e+01
121	IPW000004	379.4828	381.4359	380.3224	3.9508e-01	3.6093e+00
122	IPW000005	254.0808	255.5455	254.8132	3.5905e-01	2.8377e+00
123	IPW000006	265.1367	267.0898	266.0254	3.7809e-01	2.9012e+00
124	EMPTY	-0.0293	-0.0146	-0.0217	2.9856e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0141	2.7267e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0180	3.4793e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0166	3.1195e-03	0.0000e+00
128	IHT000001	129.6334	131.9772	130.8678	5.3151e-01	4.3038e+00
129	IHT000002	133.3491	135.6928	134.5171	5.8059e-01	4.3150e+00
130	IHT000003	133.1491	135.4928	134.2037	5.3525e-01	4.3141e+00
131	IHT000004	131.6759	134.2150	132.5939	5.7352e-01	4.3091e+00
132	IHT000005	130.2287	132.5725	131.1232	5.3972e-01	4.3046e+00
133	IHT000006	125.0025	127.9322	126.0454	5.9137e-01	4.2894e+00
134	IHT000007	131.9913	134.7256	132.8545	5.9463e-01	4.3099e+00
135	IHT000008	130.4288	133.3584	131.4639	5.8958e-01	4.3056e+00
136	IHT000009	130.9347	133.4738	131.9307	5.3706e-01	4.3070e+00
137	IHT000010	132.7325	134.8809	133.8301	5.0823e-01	4.3129e+00
138	IHT000011	131.0547	133.2031	132.1992	4.8969e-01	4.3079e+00
139	IHT000012	128.6734	130.8219	129.9351	5.1782e-01	4.3010e+00
140	IHT000013	91.9781	93.9313	93.1617	4.7582e-01	4.2045e+00
141	IHT000014	127.6144	129.9581	128.8448	4.9482e-01	4.2977e+00
142	IHT000015	94.9172	97.0656	95.8156	4.6186e-01	4.2105e+00
143	IHT000016	88.4366	90.5850	89.4405	4.3227e-01	4.1964e+00
144	IHT000017	106.4453	108.7891	107.3633	5.1637e-01	4.2382e+00
145	IHT000018	-0.8166	1.1366	0.1405	4.3450e-01	4.1000e+00
146	IHT000019	107.5372	109.4903	108.3184	4.3225e-01	4.2407e+00
147	IHT000020	106.1466	108.4903	107.1582	4.9864e-01	4.2377e+00
148	IHT000021	0.9103	3.0588	1.8087	4.1573e-01	4.1000e+00
149	IHT000022	92.4981	94.6466	93.3965	4.8488e-01	4.2050e+00
150	IHT000023	105.7441	107.6972	106.5761	4.8135e-01	4.2363e+00
151	IHT000024	67.3022	69.0600	68.0405	4.2734e-01	4.1561e+00
152	IHT000025	103.3509	105.6947	104.2845	4.5213e-01	4.2305e+00
153	IHT000026	105.5088	107.8525	106.4658	4.7719e-01	4.2360e+00
154	IHT000027	89.9238	92.0722	90.7363	4.4879e-01	4.1992e+00
155	IHT000028	90.1897	92.7288	91.3654	5.2123e-01	4.2006e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.8594	108.5938	107.1445	5.7465e-01	4.2377e+00
157	IHT000030	108.3184	111.2481	109.8223	5.4996e-01	4.2445e+00
158	IHT000031	105.9347	108.8644	107.5909	5.2975e-01	4.2388e+00
159	IHT000032	107.3066	110.0409	108.5449	5.0626e-01	4.2412e+00
160	IHT000033	-1.5872	0.7566	-0.3997	4.4615e-01	4.1000e+00
161	IHT000034	94.4912	96.2491	95.2022	4.5122e-01	4.2091e+00
162	IHT000035	124.2659	126.4144	125.1840	4.7392e-01	4.2869e+00
163	IHT000036	92.9688	94.7266	93.7813	4.6078e-01	4.2059e+00

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Velocity 1 = 19.7211 (ft/sec) (+/- 3.4954 %)
 Velocity 2 = 13.3712 (ft/sec) (+/- 3.4861 %)
 Pressure drop = 8.6998 (psi)
 Tsat in = 268.2324 (deg F) Tsat out = 255.1224 (deg F)
 Phi inner = 99.5695 (kBtu/hr-ft2) (+/- 1.5724 %)
 Phi outer = 100.0960 (kBtu/hr-ft2) (+/- 1.5528 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	74.8361	75.4434	75.0950	1.5920e-01	1.9000e+00
1	TRF0000002	75.3642	75.7869	75.5163	1.1331e-01	1.9000e+00
2	TFH0000001	86.1467	86.8803	86.5491	1.8980e-01	1.9002e+00
3	TIN0000001	86.2063	86.7323	86.4588	1.3426e-01	1.9002e+00
4	TRV0000001	86.0506	86.8876	86.5109	1.9834e-01	1.9002e+00
5	TSR0000001	110.0952	110.9172	110.6048	1.9879e-01	1.9011e+00
6	TAO020136	159.8807	160.5763	160.2108	2.0120e-01	1.9055e+00
7	TAO050136	122.2463	122.7557	122.4304	1.3640e-01	1.9019e+00
8	TAO070136	128.8191	129.7354	129.1942	1.9886e-01	1.9024e+00
9	TAO080136	131.1721	131.9800	131.5361	1.5669e-01	1.9025e+00
10	TAO090136	130.9681	131.6767	131.3287	1.7950e-01	1.9025e+00
11	TAO100136	132.2719	132.8793	132.5152	1.3563e-01	1.9026e+00
12	TAO105136	132.3607	133.2718	132.7412	2.1507e-01	1.9026e+00
13	EMPTY	40.9819	41.6693	41.2891	1.3583e-01	1.9011e+00
14	TAO115136	135.2754	135.9842	135.6317	1.7390e-01	1.9029e+00
15	EMPTY	37.3074	37.5374	37.5098	7.5526e-02	1.9009e+00
16	TAO125136	130.8928	131.5003	131.1604	1.3986e-01	1.9025e+00
17	TAO130136	123.8634	124.5713	124.1586	1.4588e-01	1.9020e+00
18	EMPTY	41.2111	41.6693	41.4403	6.5458e-02	1.9012e+00
19	TAO130048	128.3259	128.8336	128.5776	1.2998e-01	1.9023e+00
20	TAO120224	129.4984	130.3096	129.9930	1.6084e-01	1.9024e+00
21	EMPTY	38.9168	39.1464	39.1097	8.5059e-02	1.9010e+00
22	TAO120312	135.0158	135.7232	135.3875	1.5201e-01	1.9029e+00
23	TAO130312	128.9342	129.5430	129.2912	1.5492e-01	1.9024e+00
24	EMPTY	38.9168	39.6057	39.2705	1.7488e-01	1.9010e+00
25	TRT070000	117.4958	118.1141	117.7519	1.7912e-01	1.9015e+00
26	TRT100000	128.7043	129.4137	129.0652	2.0789e-01	1.9023e+00
27	TRT120000	132.2589	133.0686	132.6071	1.6861e-01	1.9026e+00
28	TRT125000	133.9420	134.6475	134.2805	1.6225e-01	1.9028e+00
29	EMPTY	39.6057	40.0646	39.8627	8.8451e-02	1.9011e+00
30	EMPTY	39.1464	40.0646	39.6745	2.1378e-01	1.9011e+00
31	TAFO50136	96.9373	97.6642	97.3156	1.5384e-01	1.9005e+00
32	TAFO70136	101.3592	102.3883	101.8535	2.3459e-01	1.9007e+00
33	TAFO80136	102.8778	103.7008	103.2893	1.7160e-01	1.9007e+00
34	TAFO90136	103.8719	105.1119	104.4837	2.6554e-01	1.9008e+00
35	TAF100136	105.8672	106.4876	106.1114	1.3503e-01	1.9009e+00
36	TAF105136	106.5996	107.8298	107.2846	2.7049e-01	1.9009e+00
37	TAF110136	107.6497	108.2673	108.0031	1.5166e-01	1.9010e+00
38	TAF115136	109.0338	109.9597	109.5273	1.8810e-01	1.9011e+00
39	TAF120136	109.9460	110.5633	110.2096	1.3955e-01	1.9011e+00
40	TAF125136	110.9327	111.6500	111.2318	1.4773e-01	1.9011e+00
41	TAF130136	111.6388	112.1536	111.8982	1.3343e-01	1.9012e+00
42	TAF120048	113.4330	114.1563	113.8012	1.6701e-01	1.9013e+00
43	TAF130048	114.1242	114.7402	114.3298	1.2623e-01	1.9013e+00
44	TAF120224	111.2077	112.2357	111.5494	2.2888e-01	1.9012e+00
45	TAF130224	111.8053	112.4240	112.1931	1.1320e-01	1.9012e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.2273	37.9422	2.2551e-01	1.9010e+00
47	EMPTY	38.9168	39.3761	39.1970	1.1636e-01	1.9010e+00
48	TAI130048	132.9530	134.0653	133.5157	2.9539e-01	1.9027e+00
49	EMPTY	37.9974	38.6870	38.2687	1.5184e-01	1.9010e+00
50	TAI130224	129.4913	130.7106	130.1904	2.7291e-01	1.9024e+00
51	EMPTY	40.2940	40.7527	40.4913	1.5374e-01	1.9011e+00
52	TRR130000	82.4501	86.2254	84.6746	8.1185e-01	1.9001e+00
53	TSI0000001	50.5072	51.1552	50.8308	1.7714e-01	1.9002e+00
54	TSI0000002	73.5116	76.2599	75.1823	6.2419e-01	1.9000e+00
55	TSO0000001	49.4444	50.2047	49.8616	1.8927e-01	1.9003e+00
56	TSO0000002	55.4909	56.2449	55.7754	1.8043e-01	1.9001e+00
57	TAP020136	89.6952	90.6416	90.1369	2.1352e-01	1.9003e+00
58	TAP120312	112.0283	113.2617	112.6370	2.6981e-01	1.9012e+00
59	TAF130312	113.6479	114.4684	114.0787	1.7954e-01	1.9013e+00
60	EMPTY	1.1035	1.1084	1.1067	2.3365e-03	0.0000e+00
61	EMPTY	1.1133	1.1152	1.1175	1.7115e-03	0.0000e+00
62	EMPTY	1.1230	1.1279	1.1261	2.3941e-03	0.0000e+00
63	EMPTY	1.1328	1.1426	1.1377	1.3951e-03	0.0000e+00
64	EMPTY	0.6250	0.6299	0.6297	9.6655e-04	0.0000e+00
65	EMPTY	0.6445	0.6494	0.6492	9.6655e-04	0.0000e+00
66	EMPTY	0.6592	0.6641	0.6636	1.4797e-03	0.0000e+00
67	EMPTY	0.6787	0.6836	0.6790	1.1714e-03	0.0000e+00
68	EMPTY	0.6885	0.6934	0.6932	9.6655e-04	0.0000e+00
69	EMPTY	0.7080	0.7129	0.7081	6.9053e-04	0.0000e+00
70	EMPTY	0.7227	0.7227	0.7227	0.0000e+00	0.0000e+00
71	EMPTY	0.7422	0.7471	0.7460	2.0432e-03	0.0000e+00
72	EMPTY	0.7568	0.7617	0.7569	6.9053e-04	0.0000e+00
73	EMPTY	0.7764	0.7764	0.7764	0.0000e+00	0.0000e+00
74	EMPTY	0.7861	0.7959	0.7910	9.8648e-04	0.0000e+00
75	EMPTY	0.8008	0.8105	0.8057	9.8648e-04	0.0000e+00
76	EMPTY	0.8154	0.8301	0.8204	1.5566e-03	0.0000e+00
77	EMPTY	0.8350	0.8398	0.8386	2.1635e-03	0.0000e+00
78	EMPTY	0.8594	0.8594	0.8594	0.0000e+00	0.0000e+00
79	EMPTY	0.8789	0.8838	0.8793	1.3381e-03	0.0000e+00
80	PAN020136	29.5681	31.7806	30.4897	5.1557e-01	8.7333e-01
81	PAN050136	54.7664	56.1396	55.5079	3.4191e-01	1.6857e+00
82	PAN070136	40.9824	41.8979	41.4219	2.3149e-01	8.7614e-01
83	PAN080136	17.2714	18.2632	17.7047	2.4827e-01	8.7113e-01
84	PAN090136	17.6648	18.1989	17.9135	1.4111e-01	8.7115e-01
85	PAN100136	17.2732	18.1124	17.7371	1.8357e-01	8.7113e-01
86	PAN105136	9.3611	9.8951	9.6022	1.4571e-01	8.7033e-01
87	PAN110136	9.5760	9.9575	9.7668	9.7789e-02	8.7034e-01
88	PAN115136	13.4220	14.4138	13.9545	2.5397e-01	8.7070e-01
89	PAN120136	6.9049	7.6678	7.2543	1.8373e-01	8.7019e-01
90	PAN125136	9.9668	10.5771	10.1606	1.3098e-01	8.7037e-01
91	PAN130136	8.0273	8.4088	8.2043	8.9133e-02	8.7024e-01
92	PAN120048	18.2456	19.1611	18.7095	2.1181e-01	8.7126e-01
93	PAN130048	17.5912	18.5067	17.9376	1.6970e-01	8.7115e-01
94	PAN120224	21.6366	22.3232	21.9402	1.8204e-01	8.7173e-01
95	PAN130224	17.9552	18.6418	18.2283	1.4549e-01	8.7119e-01
96	PAN120312	18.9994	19.6097	19.3046	1.5643e-01	8.7134e-01
97	PAN130312	17.3541	17.9645	17.7188	1.4483e-01	8.7113e-01
98	PAB000136	40.3938	40.7601	40.5833	8.5269e-02	5.8881e-01
99	PAB100136	34.2477	34.4308	34.3420	5.0154e-02	5.8632e-01
100	PAB125136	32.3890	32.5721	32.5053	4.4555e-02	5.8567e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	40.1028	40.7132	40.3909	1.6683e-01	7.5677e-01
102	PRV000001	20.3378	20.4599	20.3475	3.3453e-02	7.5172e-01
103	PSR000001	30.2726	30.3946	30.3092	5.6508e-02	7.5382e-01
104	PFM000001	60.2221	61.3207	60.6597	2.7076e-01	5.2249e-01
105	PAN000136	238.3042	244.7129	240.8585	1.4567e+00	4.9567e+00
106	PFM000002	27.7600	27.7600	27.7600	1.5414e-05	2.1170e-01
107	EMPTY	0.0049	0.0098	0.0070	2.4484e-03	0.0000e+00
108	EMPTY	-7.6660	-6.1719	-7.0343	3.0523e-01	0.0000e+00
109	EMPTY	0.0049	0.0049	0.0049	0.0000e+00	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0005	1.4797e-03	0.0000e+00
112	VPW000001	100.7859	101.1766	100.9656	1.1732e-01	1.0115e+00
113	VPW000002	118.7453	119.1359	118.8468	1.1995e-01	1.0792e+00
114	VPW000003	145.6631	146.2491	145.9990	1.2503e-01	1.1931e+00
115	VPW000004	104.4569	104.8475	104.5858	1.0145e-01	1.0246e+00
116	VPW000005	138.7472	139.1378	139.0088	1.2853e-01	1.1626e+00
117	VPW000006	146.7150	147.1056	146.9298	1.0625e-01	1.1972e+00
118	IPW000001	547.8089	553.6660	550.4250	1.8336e+00	9.1934e+00
119	IPW000002	1289.7892	1299.5455	1296.8918	1.7962e+00	1.3061e+01
120	IPW000003	1319.3044	1327.1045	1323.8281	1.9074e+00	1.3228e+01
121	IPW000004	383.3891	385.3422	384.2482	4.9873e-01	3.6352e+00
122	IPW000005	254.0808	255.0573	254.5301	2.5797e-01	2.8361e+00
123	IPW000006	263.6719	265.1367	264.3945	3.7226e-01	2.8918e+00
124	EMPTY	-0.0293	-0.0098	-0.0202	3.9471e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0146	3.1195e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0167	3.2851e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0172	3.4513e-03	0.0000e+00
128	IHT000001	129.8288	132.1725	130.7467	5.2386e-01	4.3034e+00
129	IHT000002	133.3491	135.6928	134.4077	4.8823e-01	4.3147e+00
130	IHT000003	133.1491	135.2975	134.0983	5.0688e-01	4.3137e+00
131	IHT000004	131.4806	133.8244	132.4572	4.9126e-01	4.3087e+00
132	IHT000005	130.0334	132.3772	130.9826	4.6690e-01	4.3041e+00
133	IHT000006	125.0025	127.1509	125.9907	4.5577e-01	4.2892e+00
134	IHT000007	131.7959	133.9444	132.8584	4.9152e-01	4.3099e+00
135	IHT000008	130.6241	132.5772	131.4834	4.5335e-01	4.3057e+00
136	IHT000009	130.9347	133.2784	131.9502	5.0992e-01	4.3071e+00
137	IHT000010	132.9278	134.8809	133.8731	4.9968e-01	4.3130e+00
138	IHT000011	131.0547	133.2031	132.2461	5.1183e-01	4.3080e+00
139	IHT000012	129.0641	131.0172	129.9546	4.3968e-01	4.3010e+00
140	IHT000013	92.3688	94.1266	93.2007	4.2280e-01	4.2046e+00
141	IHT000014	128.0050	129.5675	128.8760	4.5542e-01	4.2978e+00
142	IHT000015	95.1125	96.8703	95.9055	4.2206e-01	4.2107e+00
143	IHT000016	88.6319	90.3897	89.4951	4.6870e-01	4.1965e+00
144	IHT000017	105.8594	108.3984	107.0508	5.6669e-01	4.2375e+00
145	IHT000018	-0.8166	0.9413	0.0702	3.9697e-01	4.1000e+00
146	IHT000019	107.3419	109.2950	108.1856	4.2762e-01	4.2403e+00
147	IHT000020	106.3419	108.0997	107.0059	4.7021e-01	4.2373e+00
148	IHT000021	0.9103	2.4728	1.4767	4.2909e-01	4.1000e+00
149	IHT000022	92.3028	94.4512	93.2325	5.2432e-01	4.2047e+00
150	IHT000023	105.5488	107.6972	106.5019	4.9543e-01	4.2361e+00
151	IHT000024	67.1069	69.2553	67.9468	4.8045e-01	4.1559e+00
152	IHT000025	103.1556	105.3041	104.2142	4.8823e-01	4.2304e+00
153	IHT000026	105.1181	107.4619	106.4033	4.9299e-01	4.2358e+00
154	IHT000027	88.9472	91.6816	90.6113	5.2680e-01	4.1989e+00
155	IHT000028	90.3850	92.7288	91.3498	5.5018e-01	4.2005e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	106.2500	108.5938	107.1797	5.4040e-01	4.2378e+00
157	IHT000030	108.9044	111.0528	109.8301	5.0503e-01	4.2446e+00
158	IHT000031	106.7159	108.8644	107.6104	4.7693e-01	4.2389e+00
159	IHT000032	107.8925	109.8456	108.6425	4.6915e-01	4.2415e+00
160	IHT000033	-1.0013	0.7566	-0.2708	4.0971e-01	4.1000e+00
161	IHT000034	94.4912	96.2491	95.3193	4.5431e-01	4.2093e+00
162	IHT000035	124.4613	126.4144	125.2582	4.7325e-01	4.2871e+00
163	IHT000036	93.4641	94.9219	93.8867	4.3629e-01	4.2061e+00

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Velocity 1 = 14.7881 (ft/sec) (+/- 3.5481 %)
 Velocity 2 = 13.3714 (ft/sec) (+/- 3.4861 %)
 Pressure drop = 2.7527 (psi)
 Tsat in = 268.1138 (deg F) Tsat out = 264.6207 (deg F)
 Phi inner = 99.0369 (kBtu/hr-ft2) (+/- 1.5738 %)
 Phi outer = 100.0431 (kBtu/hr-ft2) (+/- 1.5522 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	75.0186	75.6557	75.3754	1.7397e-01	1.9000e+00
1	TRF000002	75.5756	75.9982	75.7784	1.4135e-01	1.9000e+00
2	TFM000001	86.3568	87.1949	86.7718	2.2003e-01	1.9002e+00
3	TIN000001	86.4168	87.0469	86.6856	1.4880e-01	1.9002e+00
4	TRV000001	86.4697	87.3074	86.8298	2.0395e-01	1.9002e+00
5	TSR000001	115.8242	116.5413	116.1768	1.5496e-01	1.9014e+00
6	TAO020136	163.4542	164.2464	163.8464	1.9508e-01	1.9059e+00
7	TAO050136	129.2325	130.0421	129.6573	1.8290e-01	1.9024e+00
8	TAO070136	132.4840	133.4987	133.0281	2.1963e-01	1.9027e+00
9	TAO080136	139.8050	140.6063	140.1577	1.7469e-01	1.9033e+00
10	TAO090136	143.6446	144.4466	144.0414	1.9933e-01	1.9037e+00
11	TAO100136	144.7523	145.3544	145.0455	1.6924e-01	1.9038e+00
12	TAO105136	144.0512	144.8539	144.4164	2.2368e-01	1.9037e+00
13	EMPTY	41.2111	41.4403	41.3211	1.1564e-01	1.9011e+00
14	TAO115136	146.5789	147.3815	146.9722	2.0763e-01	1.9040e+00
15	EMPTY	37.7675	37.9974	37.7813	5.5169e-02	1.9010e+00
16	TAO125136	143.0608	143.6632	143.3220	1.4614e-01	1.9036e+00
17	TAO130136	134.8622	135.4655	135.1513	1.4587e-01	1.9029e+00
18	EMPTY	41.2111	41.6693	41.4678	8.8301e-02	1.9012e+00
19	TAO130048	140.7114	141.3148	140.9813	1.4140e-01	1.9034e+00
20	TAO120224	141.1023	141.9064	141.5123	1.8260e-01	1.9034e+00
21	EMPTY	39.1464	39.1464	39.1465	1.5414e-05	1.9010e+00
22	TAO120312	148.2862	148.9866	148.6903	1.7026e-01	1.9042e+00
23	TAO130312	141.5216	142.1247	141.7831	1.7218e-01	1.9035e+00
24	EMPTY	38.9168	39.6057	39.3164	1.8445e-01	1.9010e+00
25	TRT070000	125.8177	126.7375	126.1738	1.8598e-01	1.9021e+00
26	TRT100000	140.1882	141.0919	140.7382	2.2049e-01	1.9034e+00
27	TRT120000	145.6360	146.5367	146.1165	1.8865e-01	1.9039e+00
28	TRT125000	147.3271	148.1250	147.7615	1.7979e-01	1.9041e+00
29	EMPTY	39.8352	40.0646	39.9316	1.1440e-01	1.9011e+00
30	EMPTY	39.3761	40.0646	39.7204	2.1873e-01	1.9011e+00
31	TAF050136	100.2505	101.0785	100.7015	2.0780e-01	1.9006e+00
32	TAF070136	105.4704	106.4998	105.9733	2.2617e-01	1.9009e+00
33	TAF080136	107.7982	108.6199	108.2537	1.9471e-01	1.9010e+00
34	TAF090136	109.4407	110.6756	110.1445	2.5745e-01	1.9011e+00
35	TAF100136	111.9553	112.8815	112.4327	2.0448e-01	1.9012e+00
36	TAF105136	113.4433	114.3624	113.8839	2.3993e-01	1.9013e+00
37	TAF110136	114.6142	115.2295	114.8732	1.5380e-01	1.9014e+00
38	TAF115136	116.3107	117.0264	116.6667	1.8861e-01	1.9015e+00
39	TAF120136	117.5019	118.0143	117.7522	1.3887e-01	1.9015e+00
40	TAF125136	118.6779	119.3913	119.0285	1.7379e-01	1.9016e+00
41	TAF130136	119.6258	120.1369	119.9608	1.3068e-01	1.9017e+00
42	TAF120048	122.1937	123.2180	122.7102	2.4490e-01	1.9019e+00
43	TAF130048	123.3284	123.9401	123.6182	1.3407e-01	1.9019e+00
44	TAF120224	118.6879	119.6083	119.0931	2.1751e-01	1.9016e+00
45	TAF130224	120.0480	120.6627	120.3103	1.4048e-01	1.9017e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.2273	37.8962	1.8089e-01	1.9010e+00
47	EMPTY	38.9168	39.3761	39.1510	5.6634e-02	1.9010e+00
48	TAI130048	145.9353	147.1367	146.5522	2.8563e-01	1.9039e+00
49	EMPTY	37.9974	38.4572	38.2411	1.4985e-01	1.9010e+00
50	TAI130224	141.5369	142.5444	142.0569	2.7013e-01	1.9035e+00
51	EMPTY	40.0646	40.5234	40.3858	1.3902e-01	1.9011e+00
52	TRR130000	85.7020	88.7361	87.1174	6.1074e-01	1.9002e+00
53	TSI000001	50.6156	51.4792	51.0429	1.7847e-01	1.9002e+00
54	TSI000002	73.6175	77.5275	75.7916	7.3236e-01	1.9000e+00
55	TSO000001	49.4439	50.4200	49.9429	2.3914e-01	1.9003e+00
56	TSO000002	56.1370	57.1057	56.5246	2.1958e-01	1.9001e+00
57	TAF020136	91.1684	92.2179	91.5629	2.0954e-01	1.9003e+00
58	TAF120312	120.9412	122.0637	121.5005	2.5110e-01	1.9018e+00
59	TAF130312	123.2516	124.0664	123.6426	1.7986e-01	1.9019e+00
60	EMPTY	1.3232	1.3281	1.3272	1.8950e-03	0.0000e+00
61	EMPTY	1.3330	1.3379	1.3346	2.3008e-03	0.0000e+00
62	EMPTY	1.3428	1.3428	1.3428	0.0000e+00	0.0000e+00
63	EMPTY	1.3525	1.3574	1.3535	1.9730e-03	0.0000e+00
64	EMPTY	0.7178	0.7275	0.7232	1.8821e-03	0.0000e+00
65	EMPTY	0.7373	0.7471	0.7422	1.7086e-03	0.0000e+00
66	EMPTY	0.7520	0.7568	0.7566	9.6655e-04	0.0000e+00
67	EMPTY	0.7715	0.7764	0.7730	2.3008e-03	0.0000e+00
68	EMPTY	0.7813	0.7861	0.7854	1.7115e-03	0.0000e+00
69	EMPTY	0.8008	0.8008	0.8008	0.0000e+00	0.0000e+00
70	EMPTY	0.8105	0.8154	0.8152	9.6655e-04	0.0000e+00
71	EMPTY	0.8301	0.8398	0.8363	2.4244e-03	0.0000e+00
72	EMPTY	0.8447	0.8496	0.8495	6.9053e-04	0.0000e+00
73	EMPTY	0.8643	0.8691	0.8652	1.9730e-03	0.0000e+00
74	EMPTY	0.8789	0.8838	0.8791	9.6655e-04	0.0000e+00
75	EMPTY	0.8936	0.8984	0.8951	2.3008e-03	0.0000e+00
76	EMPTY	0.9082	0.9082	0.9082	0.0000e+00	0.0000e+00
77	EMPTY	0.9229	0.9277	0.9269	1.8950e-03	0.0000e+00
78	EMPTY	0.9424	0.9473	0.9470	1.1714e-03	0.0000e+00
79	EMPTY	0.9668	0.9717	0.9673	1.4797e-03	0.0000e+00
80	PAN020136	8.8162	10.4946	9.5806	3.7233e-01	8.7033e-01
81	PAN050136	16.6194	17.6875	17.1565	2.1411e-01	1.6805e+00
82	PAN070136	14.1270	14.7373	14.4077	1.5601e-01	8.7075e-01
83	PAN080136	4.6829	5.4458	5.1208	1.5780e-01	8.7009e-01
84	PAN090136	4.8474	5.5341	5.1648	1.7189e-01	8.7010e-01
85	PAN100136	4.7610	5.2188	5.0250	1.0702e-01	8.7009e-01
86	PAN105136	2.7235	3.1813	2.9829	9.7485e-02	8.7003e-01
87	PAN110136	3.0148	3.3199	3.1552	7.6076e-02	8.7004e-01
88	PAN115136	5.4874	6.0215	5.7590	1.1132e-01	8.7012e-01
89	PAN120136	0.8014	1.2592	1.0806	1.1180e-01	8.7000e-01
90	PAN125136	3.6344	4.2448	3.9991	1.4151e-01	8.7006e-01
91	PAN130136	1.8475	2.2290	2.0795	7.0567e-02	8.7002e-01
92	PAN120048	4.8942	5.3519	5.1368	1.2681e-01	8.7009e-01
93	PAN130048	5.4604	5.9945	5.7412	1.3910e-01	8.7012e-01
94	PAN120224	7.2933	7.6748	7.4307	8.5820e-02	8.7020e-01
95	PAN130224	5.5193	6.0533	5.7741	1.3579e-01	8.7012e-01
96	PAN120312	6.0294	6.4109	6.2385	1.0769e-01	8.7014e-01
97	PAN130312	5.0708	5.4523	5.2676	8.8666e-02	8.7010e-01
98	PAB000136	40.3023	40.6685	40.5028	8.0566e-02	5.8877e-01
99	PAB100136	38.6880	38.8711	38.7667	4.0354e-02	5.8804e-01
100	PAB125136	38.1110	38.2484	38.1935	3.9237e-02	5.8781e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.8587	40.4690	40.1394	1.4433e-01	7.5668e-01
102	PRV0000001	19.7274	19.8495	19.8104	5.7521e-02	7.5163e-01
103	PSR0000001	36.8644	36.8644	36.8644	1.9267e-05	7.5564e-01
104	PFM0000001	33.4887	34.4042	33.9995	1.9230e-01	5.0717e-01
105	PAN000136	73.5093	80.3757	76.2101	1.4948e+00	4.9237e+00
106	PFM0000002	27.7600	27.7600	27.7600	1.5414e-05	2.1170e-01
107	EMPTY	0.0049	0.0098	0.0053	1.3381e-03	0.0000e+00
108	EMPTY	-7.5488	-5.8447	-6.7954	4.1422e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0044	1.4797e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW0000001	100.5906	101.1766	100.9031	1.7200e-01	1.0113e+00
113	VPW0000002	118.5500	119.1359	118.7726	1.0447e-01	1.0789e+00
114	VPW0000003	145.8584	146.2491	146.1123	1.2633e-01	1.1936e+00
115	VPW0000004	104.4569	105.0428	104.6952	1.4916e-01	1.0250e+00
116	VPW0000005	138.9425	139.3331	139.0791	1.2633e-01	1.1629e+00
117	VPW0000006	146.7150	147.1056	146.9571	1.2200e-01	1.1973e+00
118	IPW0000001	555.6183	561.4753	558.8202	1.2938e+00	9.2249e+00
119	IPW0000002	1287.8379	1293.6917	1291.2726	1.5550e+00	1.3026e+01
120	IPW0000003	1313.4545	1319.3044	1315.6780	1.6248e+00	1.3177e+01
121	IPW0000004	381.4359	383.8773	382.4025	7.5445e-01	3.6230e+00
122	IPW0000005	253.5926	255.0573	254.0517	3.4748e-01	2.8334e+00
123	IPW0000006	262.2070	264.1602	262.9785	4.1957e-01	2.8838e+00
124	EMPTY	-0.0293	-0.0146	-0.0219	3.9754e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0156	3.1195e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0190	3.1583e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0160	3.1257e-03	0.0000e+00
128	IHT0000001	129.6334	131.7819	130.5319	5.4247e-01	4.3028e+00
129	IHT0000002	133.3491	135.6928	134.2514	5.1128e-01	4.3142e+00
130	IHT0000003	132.9538	135.2975	134.0280	5.2534e-01	4.3135e+00
131	IHT0000004	131.2853	133.8244	132.3751	5.4117e-01	4.3084e+00
132	IHT0000005	129.8381	132.1819	130.8732	5.1486e-01	4.3038e+00
133	IHT0000006	124.8072	126.9556	125.9048	5.2481e-01	4.2890e+00
134	IHT0000007	131.6006	133.9444	132.7725	5.4676e-01	4.3096e+00
135	IHT0000008	130.0381	132.3819	131.3701	5.1401e-01	4.3053e+00
136	IHT0000009	130.5441	132.6925	131.7706	5.0074e-01	4.3065e+00
137	IHT0000010	132.9278	134.6856	133.6973	3.7932e-01	4.3125e+00
138	IHT0000011	131.4453	132.8125	132.1055	3.4375e-01	4.3076e+00
139	IHT0000012	128.8687	130.6266	129.7945	4.1349e-01	4.3005e+00
140	IHT0000013	92.1734	93.9313	93.1031	4.2601e-01	4.2044e+00
141	IHT0000014	128.0050	129.7628	128.7041	4.3600e-01	4.2973e+00
142	IHT0000015	95.1125	96.6750	95.7844	4.1603e-01	4.2104e+00
143	IHT0000016	88.4366	90.3897	89.2295	4.3119e-01	4.1960e+00
144	IHT0000017	103.9063	106.4453	105.2656	5.2934e-01	4.2330e+00
145	IHT0000018	-1.2072	0.7459	-0.2697	4.1196e-01	4.1000e+00
146	IHT0000019	107.3419	109.2950	108.0996	4.9227e-01	4.2401e+00
147	IHT0000020	105.9512	107.9044	106.7715	4.4293e-01	4.2367e+00
148	IHT0000021	0.7150	2.4728	1.4103	4.0847e-01	4.1000e+00
149	IHT0000022	92.1075	94.2559	92.9629	4.9582e-01	4.2041e+00
150	IHT0000023	105.5488	107.5019	106.2988	4.7080e-01	4.2356e+00
151	IHT0000024	66.9116	68.8647	67.7358	4.8374e-01	4.1556e+00
152	IHT0000025	103.3509	105.3041	104.0853	5.0310e-01	4.2301e+00
153	IHT0000026	105.5088	107.4619	106.2432	4.8417e-01	4.2354e+00
154	IHT0000027	89.5331	91.2909	90.4003	4.6044e-01	4.1985e+00
155	IHT0000028	89.7991	92.1428	91.0373	5.0007e-01	4.1999e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	105.6641	107.8125	106.8750	4.8327e-01	4.2370e+00
157	IHT0000030	108.3184	110.2716	109.5762	4.3074e-01	4.2439e+00
158	IHT0000031	106.1300	108.0831	107.3643	4.2943e-01	4.2382e+00
159	IHT0000032	107.1113	109.2597	108.3418	4.4161e-01	4.2407e+00
160	IHT0000033	-1.5872	0.3659	-0.4505	3.7161e-01	4.1000e+00
161	IHT0000034	94.1006	96.4444	95.2256	4.2601e-01	4.2091e+00
162	IHT0000035	123.8753	126.0238	125.1293	4.5178e-01	4.2867e+00
163	IHT0000036	92.7734	94.7266	93.8945	4.0589e-01	4.2061e+00

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Velocity 1 = 9.7731 (ft/sec) (+/- 3.8627 %)
 Velocity 2 = 9.7776 (ft/sec) (+/- 3.5241 %)
 Pressure drop = -1.6630 (psi)
 Tsat in = 268.0787 (deg F) Tsat out = 270.8601 (deg F)
 Phi inner = 100.6297 (kBtu/hr-ft2) (+/- 1.5699 %)
 Phi outer = 100.3912 (kBtu/hr-ft2) (+/- 1.5523 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	75.2310	76.0803	75.7237	1.7393e-01	1.9000e+00
1	TRF000002	75.9982	76.4207	76.1714	1.3955e-01	1.9000e+00
2	TRF000001	87.3001	87.9284	87.6414	1.7156e-01	1.9002e+00
3	TIN000001	87.1519	87.7816	87.4648	1.5509e-01	1.9002e+00
4	TRV000001	87.4111	88.2481	87.8152	1.9474e-01	1.9002e+00
5	TSR000001	127.0040	129.6340	128.3984	8.3810e-01	1.9023e+00
6	TAO020136	171.5582	172.3465	172.0135	1.9693e-01	1.9070e+00
7	TAO050136	146.2837	146.8838	146.5509	1.6473e-01	1.9039e+00
8	TAO070136	150.5573	151.4588	151.0800	1.9848e-01	1.9044e+00
9	TAO080136	156.9987	157.5943	157.3073	1.4047e-01	1.9051e+00
10	TAO090136	159.6688	160.4617	160.0791	2.0884e-01	1.9055e+00
11	TAO100136	160.6860	161.2806	160.9858	1.4364e-01	1.9056e+00
12	TAO105136	161.0012	161.8936	161.4553	2.2744e-01	1.9056e+00
13	EMPTY	41.2111	41.4403	41.3074	1.1424e-01	1.9011e+00
14	TAO115136	166.9264	167.8170	167.3719	2.2718e-01	1.9064e+00
15	EMPTY	36.3865	39.6057	38.4061	1.0126e+00	1.9010e+00
16	TAO125136	167.0697	167.7605	167.4350	1.6567e-01	1.9064e+00
17	TAO130136	156.8807	157.4746	157.2072	1.5358e-01	1.9051e+00
18	EMPTY	41.4403	41.8984	41.6143	1.1853e-01	1.9012e+00
19	TAO130048	165.2418	165.8339	165.5565	1.3028e-01	1.9061e+00
20	TAO120224	163.8149	164.6048	164.2160	1.8232e-01	1.9060e+00
21	EMPTY	39.1464	39.3761	39.1924	9.2786e-02	1.9010e+00
22	TAO120312	173.4608	174.3453	173.9228	1.9159e-01	1.9073e+00
23	TAO130312	165.7555	166.4469	166.1370	1.5309e-01	1.9062e+00
24	EMPTY	39.1464	39.6057	39.4036	1.7132e-01	1.9010e+00
25	TRT070000	144.4248	145.4343	144.8841	1.8691e-01	1.9038e+00
26	TRT100000	162.0727	163.2583	162.6642	2.4232e-01	1.9058e+00
27	TRT120000	171.8005	172.6855	172.1764	2.0504e-01	1.9070e+00
28	TRT125000	173.1204	173.9018	173.5443	1.8587e-01	1.9072e+00
29	EMPTY	39.6057	40.0646	39.9270	1.2266e-01	1.9011e+00
30	EMPTY	39.3761	40.0646	39.7571	2.0003e-01	1.9011e+00
31	TAF050136	107.6701	108.4937	108.1581	2.0965e-01	1.9010e+00
32	TAF070136	115.2885	116.5109	115.8237	2.5051e-01	1.9014e+00
33	TAF080136	118.7973	119.7145	119.3459	1.9045e-01	1.9016e+00
34	TAF090136	121.3207	122.5447	121.8578	2.7927e-01	1.9018e+00
35	TAF100136	125.0636	125.7768	125.3961	2.0146e-01	1.9021e+00
36	TAF105136	126.7145	127.9275	127.3767	2.6443e-01	1.9022e+00
37	TAF110136	128.5351	129.2440	128.9498	1.8440e-01	1.9023e+00
38	TAF115136	131.0441	131.9551	131.4637	2.3026e-01	1.9025e+00
39	TAF120136	132.7832	133.4912	133.1578	1.7450e-01	1.9027e+00
40	TAF125136	134.6308	135.4364	135.0689	1.8491e-01	1.9029e+00
41	TAF130136	136.3593	137.0653	136.7124	1.7440e-01	1.9030e+00
42	TAF120048	140.0446	141.2588	140.6378	2.5294e-01	1.9034e+00
43	TAF130048	142.3478	143.1514	142.7599	1.7838e-01	1.9036e+00
44	TAF120224	134.0247	135.1353	134.5037	2.3949e-01	1.9028e+00
45	TAF130224	136.6831	137.2905	137.0333	1.6121e-01	1.9030e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.2273	37.8962	2.2359e-01	1.9010e+00
47	EMPTY	39.1464	39.3761	39.2567	1.1589e-01	1.9010e+00
48	TAF130048	172.0216	173.2987	172.6640	3.0629e-01	1.9071e+00
49	EMPTY	37.7675	38.6870	38.2411	1.9927e-01	1.9010e+00
50	TAF130224	165.4083	166.3977	166.0118	2.8491e-01	1.9062e+00
51	EMPTY	40.2940	40.9819	40.5876	1.7967e-01	1.9011e+00
52	TRR130000	92.3877	95.3015	93.8763	7.7558e-01	1.9004e+00
53	TSI000001	51.1553	52.0190	51.5289	1.9763e-01	1.9002e+00
54	TSI000002	73.9365	76.7894	75.2536	6.8004e-01	1.9000e+00
55	TSO000001	49.5509	50.6358	50.1302	2.1548e-01	1.9003e+00
56	TSO000002	57.6432	58.5035	58.1786	2.0776e-01	1.9001e+00
57	TAF020136	94.5290	95.3690	94.9589	2.1923e-01	1.9004e+00
58	TAF120312	138.5842	139.8935	139.2030	3.0520e-01	1.9032e+00
59	TAF130312	142.6495	143.3526	142.9492	1.7850e-01	1.9036e+00
60	EMPTY	1.7773	1.7822	1.7811	2.1065e-03	0.0000e+00
61	EMPTY	1.7822	1.7871	1.7859	2.1065e-03	0.0000e+00
62	EMPTY	1.7871	1.7969	1.7896	2.6562e-03	0.0000e+00
63	EMPTY	1.7969	1.8018	1.7975	1.6028e-03	0.0000e+00
64	EMPTY	0.9180	0.9229	0.9182	9.6655e-04	0.0000e+00
65	EMPTY	0.9326	0.9375	0.9353	2.4583e-03	0.0000e+00
66	EMPTY	0.9473	0.9473	0.9473	0.0000e+00	0.0000e+00
67	EMPTY	0.9619	0.9668	0.9622	1.1714e-03	0.0000e+00
68	EMPTY	0.9717	0.9766	0.9728	2.0432e-03	0.0000e+00
69	EMPTY	0.9863	0.9912	0.9895	2.3675e-03	0.0000e+00
70	EMPTY	1.0010	1.0059	1.0011	6.9053e-04	0.0000e+00
71	EMPTY	1.0205	1.0254	1.0206	6.9053e-04	0.0000e+00
72	EMPTY	1.0303	1.0352	1.0324	2.4484e-03	0.0000e+00
73	EMPTY	1.0449	1.0547	1.0497	1.2041e-03	0.0000e+00
74	EMPTY	1.0596	1.0645	1.0613	2.3675e-03	0.0000e+00
75	EMPTY	1.0693	1.0791	1.0758	2.5034e-03	0.0000e+00
76	EMPTY	1.0889	1.0938	1.0891	9.6655e-04	0.0000e+00
77	EMPTY	1.1035	1.1084	1.1040	1.4797e-03	0.0000e+00
78	EMPTY	1.1182	1.1279	1.1236	1.8821e-03	0.0000e+00
79	EMPTY	1.1426	1.1475	1.1461	2.2146e-03	0.0000e+00
80	PAN020136	-6.2900	-5.1456	-5.7590	2.3777e-01	8.7012e-01
81	PAN050136	-11.9146	-10.9990	-11.5514	2.1555e-01	1.6802e+00
82	PAN070136	-6.5487	-5.9384	-6.2573	1.2959e-01	8.7014e-01
83	PAN080136	-4.7013	-4.3198	-4.4846	9.6702e-02	8.7007e-01
84	PAN090136	-4.0027	-3.5449	-3.8120	9.6567e-02	8.7005e-01
85	PAN100136	-4.3180	-3.8602	-4.0632	1.0635e-01	8.7006e-01
86	PAN105136	-1.8541	-1.5490	-1.7214	8.6934e-02	8.7001e-01
87	PAN110136	-2.0206	-1.7155	-1.8391	6.8742e-02	8.7001e-01
88	PAN115136	-0.6924	-0.3109	-0.4986	8.0403e-02	8.7000e-01
89	PAN120136	-2.9370	-2.5555	-2.6944	8.3987e-02	8.7003e-01
90	PAN125136	-1.7062	-1.4010	-1.5429	9.2495e-02	8.7001e-01
91	PAN130136	-2.2723	-1.9672	-2.1182	7.3097e-02	8.7002e-01
92	PAN120048	-4.5663	-4.1848	-4.3435	1.0206e-01	8.7007e-01
93	PAN130048	-4.0000	-3.6948	-3.8871	8.4761e-02	8.7005e-01
94	PAN120224	-3.0826	-2.7775	-2.9194	8.0107e-02	8.7003e-01
95	PAN130224	-4.0938	-3.7886	-3.9534	8.6317e-02	8.7006e-01
96	PAN120312	-3.8125	-3.5073	-3.6263	8.3234e-02	8.7005e-01
97	PAN130312	-4.3134	-3.8556	-4.0952	1.0109e-01	8.7006e-01
98	PAB000136	40.3023	40.6227	40.4790	7.5139e-02	5.8876e-01
99	PAB100136	41.9839	42.1212	42.0754	3.9237e-02	5.8946e-01
100	PAB125136	42.3225	42.4598	42.4040	4.1658e-02	5.8961e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.9808	40.4690	40.1956	1.2222e-01	7.5670e-01
102	PRV0000001	19.6054	19.7274	19.6273	4.7374e-02	7.5160e-01
103	PSR0000001	41.8692	41.9913	41.8839	4.0071e-02	7.5727e-01
104	PFH0000001	14.5373	15.0866	14.7515	1.4868e-01	5.0136e-01
105	PAN000136	-48.7136	-42.7627	-46.0403	1.3822e+00	4.9213e+00
106	PFH0000002	14.5654	15.0553	14.7651	1.1467e-01	2.0338e-01
107	EMPTY	-0.0049	0.0049	0.0029	3.4173e-03	0.0000e+00
108	EMPTY	-7.3633	-5.5518	-6.7449	3.8169e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0019	2.3941e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW0000001	100.7859	101.3719	101.0242	1.6408e-01	1.0117e+00
113	VPW0000002	118.7453	119.1359	118.8468	1.0617e-01	1.0792e+00
114	VPW0000003	146.0538	146.6397	146.3233	1.3606e-01	1.1945e+00
115	VPW0000004	104.4569	105.0428	104.7967	1.1712e-01	1.0254e+00
116	VPW0000005	139.1378	139.7238	139.4229	1.6838e-01	1.1644e+00
117	VPW0000006	146.9103	147.6916	147.2540	1.7892e-01	1.1986e+00
118	IPW0000001	532.1901	543.9042	540.9756	2.5024e+00	9.1583e+00
119	IPW0000002	1309.3019	1315.1556	1312.2289	1.5891e+00	1.3156e+01
120	IPW0000003	1332.9545	1344.6544	1336.5820	2.5535e+00	1.3308e+01
121	IPW0000004	378.5063	381.9242	381.2307	7.8974e-01	3.6153e+00
122	IPW0000005	254.5691	255.5455	255.0378	2.9526e-01	2.8389e+00
123	IPW0000006	263.6719	266.6016	265.0098	6.0658e-01	2.8954e+00
124	EMPTY	-0.0293	-0.0146	-0.0223	4.0864e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0142	2.8334e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0189	4.0241e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0154	3.4681e-03	0.0000e+00
128	IHT0000001	129.4381	132.1725	130.4967	5.6921e-01	4.3027e+00
129	IHT0000002	133.1537	135.8881	134.1968	5.7671e-01	4.3140e+00
130	IHT0000003	132.9538	135.1022	134.0045	5.0976e-01	4.3134e+00
131	IHT0000004	131.2853	133.6291	132.3243	5.3298e-01	4.3082e+00
132	IHT0000005	129.6428	131.9866	130.8107	5.1974e-01	4.3036e+00
133	IHT0000006	124.8072	127.1509	125.8618	5.0378e-01	4.2888e+00
134	IHT0000007	131.6006	134.1397	132.7608	4.9664e-01	4.3096e+00
135	IHT0000008	130.2334	132.5772	131.4092	4.9519e-01	4.3054e+00
136	IHT0000009	130.7394	133.0831	131.8487	5.0136e-01	4.3068e+00
137	IHT0000010	132.9278	134.6856	133.7012	4.7344e-01	4.3125e+00
138	IHT0000011	131.2500	133.3984	132.1641	4.9354e-01	4.3078e+00
139	IHT0000012	128.8687	131.4078	129.8921	5.4040e-01	4.3008e+00
140	IHT0000013	92.3688	94.7125	93.1343	5.0815e-01	4.2045e+00
141	IHT0000014	128.0050	130.1534	128.8760	5.2824e-01	4.2978e+00
142	IHT0000015	94.9172	97.2609	95.7766	5.2050e-01	4.2104e+00
143	IHT0000016	88.2412	90.1944	89.2217	4.9045e-01	4.1960e+00
144	IHT0000017	104.2969	107.6172	105.7109	7.5958e-01	4.2341e+00
145	IHT0000018	-1.2072	1.3319	-0.2267	5.0761e-01	4.1000e+00
146	IHT0000019	107.3419	109.0997	108.3692	4.3010e-01	4.2408e+00
147	IHT0000020	105.9512	107.7091	106.8692	4.2909e-01	4.2370e+00
148	IHT0000021	-0.6522	1.1056	0.2931	4.0503e-01	4.1000e+00
149	IHT0000022	92.1075	94.4512	92.9551	4.5781e-01	4.2041e+00
150	IHT0000023	105.5488	107.6972	106.4433	4.6369e-01	4.2359e+00
151	IHT0000024	67.1069	68.8647	67.9116	4.0171e-01	4.1559e+00
152	IHT0000025	103.3509	105.3041	104.3080	4.1244e-01	4.2306e+00
153	IHT0000026	105.3134	107.4619	106.3838	4.6057e-01	4.2358e+00
154	IHT0000027	89.3378	91.4863	90.4043	4.3083e-01	4.1985e+00
155	IHT0000028	89.9944	92.5334	91.0725	4.9950e-01	4.1999e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	106.0547	108.3984	106.9922	5.2497e-01	4.2373e+00
157	IHT0000030	108.9044	111.2481	109.7520	5.2735e-01	4.2444e+00
158	IHT0000031	106.7159	109.0597	107.5010	5.0761e-01	4.2386e+00
159	IHT0000032	107.5019	109.6503	108.3964	5.5816e-01	4.2409e+00
160	IHT0000033	-1.1966	0.7566	-0.4466	4.5739e-01	4.1000e+00
161	IHT0000034	94.2959	96.2491	95.1943	5.1750e-01	4.2091e+00
162	IHT0000035	124.0706	126.2191	125.2035	5.2497e-01	4.2869e+00
163	IHT0000036	92.9688	94.9219	93.8086	5.1486e-01	4.2059e+00

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Velocity 1 - 7.8505 (ft/sec) (+/- 4.3601 %)
 Velocity 2 - 7.8992 (ft/sec) (+/- 3.5956 %)
 Pressure drop - -2.9322 (psi)
 Tsat in - 268.0598 (deg F) Tsat out - 272.5237 (deg F)
 Phi inner - 100.8510 (kBtu/hr-ft2) (+/- 1.5693 %)
 Phi outer - 100.0504 (kBtu/hr-ft2) (+/- 1.5540 %)
 D inner - 0.1973 (ft) D outer - 0.2412 (ft) D hyd - 0.0438 (ft)
 L inner - 12.8330 (ft) L outer - 12.8330 (ft) A flow - 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRP000001	75.4434	76.0803	75.8171	1.6919e-01	1.9000e+00
1	TRP000002	75.9982	76.6320	76.2686	1.2832e-01	1.9000e+00
2	TFO000001	86.8814	87.8238	87.4345	1.8693e-01	1.9002e+00
3	TFO000001	86.8367	87.4666	87.2020	1.4736e-01	1.9002e+00
4	TRV000001	87.0985	87.9358	87.4795	2.3295e-01	1.9002e+00
5	TSR000001	132.0541	134.4723	133.2111	7.3112e-01	1.9027e+00
6	TAO020136	174.2166	175.1993	174.5549	2.1769e-01	1.9074e+00
7	TAO050136	156.8077	157.6008	157.2121	1.6863e-01	1.9051e+00
8	TAO070136	162.7372	163.5327	163.1671	2.0802e-01	1.9058e+00
9	TAO080136	171.2461	171.8351	171.5479	1.5711e-01	1.9069e+00
10	TAO090136	172.0798	172.9631	172.5037	2.2204e-01	1.9071e+00
11	TAO100136	174.6742	175.3608	175.0154	1.6842e-01	1.9074e+00
12	TAO105136	175.7852	176.5700	176.1895	2.0455e-01	1.9076e+00
13	EMPTY	41.2111	41.6693	41.3395	1.2386e-01	1.9012e+00
14	TAO115136	180.0335	181.1115	180.5001	2.4047e-01	1.9082e+00
15	EMPTY	32.4627	42.1273	37.4751	2.2237e+00	1.9009e+00
16	TAO125136	183.3012	183.8858	183.6012	1.4171e-01	1.9087e+00
17	TAO130136	171.5887	172.2740	171.9791	1.3575e-01	1.9070e+00
18	EMPTY	41.6693	42.1273	41.9258	8.8258e-02	1.9012e+00
19	TAO130048	181.0969	181.7798	181.3934	1.5760e-01	1.9083e+00
20	TAO120224	178.9457	179.9232	179.3719	1.9922e-01	1.9080e+00
21	EMPTY	39.1464	39.3761	39.2659	1.1589e-01	1.9010e+00
22	TAO120312	190.1573	190.8370	190.4720	1.5882e-01	1.9098e+00
23	TAO130312	181.9057	182.4909	182.1476	1.4775e-01	1.9085e+00
24	EMPTY	38.9168	39.6057	39.3439	2.1263e-01	1.9010e+00
25	TRT070000	156.5897	157.4898	157.0535	2.2270e-01	1.9051e+00
26	TRT100000	177.0900	177.7745	177.4028	2.1806e-01	1.9078e+00
27	TRT120000	188.6839	189.6546	189.0762	1.8181e-01	1.9095e+00
28	TRT125000	189.9883	191.0515	190.5139	1.7587e-01	1.9098e+00
29	EMPTY	39.8352	40.2940	40.0096	1.0931e-01	1.9011e+00
30	EMPTY	39.3761	40.0646	39.6975	2.1250e-01	1.9011e+00
31	TAF050136	112.3881	113.4122	112.9944	2.3579e-01	1.9012e+00
32	TAF070136	121.6881	122.8027	122.2350	2.5095e-01	1.9018e+00
33	TAF080136	126.2831	127.1912	126.8313	2.0328e-01	1.9022e+00
34	TAF090136	129.2493	130.6674	130.0595	3.2423e-01	1.9024e+00
35	TAF100136	133.7978	134.7082	134.3077	1.9387e-01	1.9028e+00
36	TAF105136	136.3583	137.1603	136.7504	2.0527e-01	1.9030e+00
37	TAF110136	138.5012	139.3048	138.7946	1.7085e-01	1.9032e+00
38	TAF115136	141.2106	142.3143	141.6802	2.2974e-01	1.9035e+00
39	TAF120136	143.4052	144.2064	143.7741	1.9224e-01	1.9037e+00
40	TAF125136	145.6247	146.6230	146.1798	1.9985e-01	1.9039e+00
41	TAF130136	147.9976	148.5976	148.3415	1.4022e-01	1.9041e+00
42	TAF120048	152.0496	153.7541	152.7911	3.1391e-01	1.9046e+00
43	TAF130048	155.0433	155.8392	155.3781	1.8510e-01	1.9049e+00
44	TAF120224	144.9849	145.9871	145.4461	2.7001e-01	1.9038e+00
45	TAF130224	148.5963	149.4990	148.9017	1.8353e-01	1.9042e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	37.9882	2.1771e-01	1.9010e+00
47	EMPTY	39.1464	39.6057	39.3623	9.7417e-02	1.9010e+00
48	TAI130048	189.0145	189.9859	189.4694	2.7417e-01	1.9096e+00
49	EMPTY	37.9974	38.4572	38.2871	1.6622e-01	1.9010e+00
50	TAI130224	181.9438	182.8243	182.3311	2.5068e-01	1.9085e+00
51	EMPTY	40.5234	41.2111	40.8673	1.6209e-01	1.9011e+00
52	TRR130000	99.0364	102.4510	100.4408	8.3219e-01	1.9006e+00
53	TSI000001	51.4792	52.3421	51.9020	2.2311e-01	1.9002e+00
54	TSI000002	77.9500	80.1626	78.7557	4.5309e-01	1.9001e+00
55	TSO000001	49.7678	50.7431	50.2362	1.9656e-01	1.9003e+00
56	TSO000002	58.7179	59.5775	59.2206	2.1089e-01	1.9001e+00
57	TAF020136	96.4172	97.4628	96.8605	2.4786e-01	1.9005e+00
58	TAF120312	150.5168	151.8144	151.1876	2.8870e-01	1.9044e+00
59	TAF130312	155.5261	156.3214	155.8402	1.9715e-01	1.9050e+00
60	EMPTY	2.0898	2.0947	2.0921	2.4583e-03	0.0000e+00
61	EMPTY	2.0947	2.1094	2.0953	2.3428e-03	0.0000e+00
62	EMPTY	2.0947	2.0996	2.0963	2.3008e-03	0.0000e+00
63	EMPTY	2.0996	2.1094	2.1041	1.6624e-03	0.0000e+00
64	EMPTY	1.0449	1.0498	1.0497	6.9053e-04	0.0000e+00
65	EMPTY	1.0645	1.0693	1.0649	1.4797e-03	0.0000e+00
66	EMPTY	1.0742	1.0791	1.0790	6.9053e-04	0.0000e+00
67	EMPTY	1.0889	1.0938	1.0934	1.3381e-03	0.0000e+00
68	EMPTY	1.1035	1.1035	1.1035	0.0000e+00	0.0000e+00
69	EMPTY	1.1133	1.1182	1.1181	6.9053e-04	0.0000e+00
70	EMPTY	1.1279	1.1328	1.1282	1.1714e-03	0.0000e+00
71	EMPTY	1.1475	1.1523	1.1486	2.1065e-03	0.0000e+00
72	EMPTY	1.1572	1.1719	1.1596	2.9986e-03	0.0000e+00
73	EMPTY	1.1719	1.1768	1.1760	1.8082e-03	0.0000e+00
74	EMPTY	1.1865	1.1914	1.1866	6.9053e-04	0.0000e+00
75	EMPTY	1.1963	1.2012	1.2011	6.9053e-04	0.0000e+00
76	EMPTY	1.2061	1.2158	1.2109	9.8648e-04	0.0000e+00
77	EMPTY	1.2256	1.2305	1.2271	2.3008e-03	0.0000e+00
78	EMPTY	1.2451	1.2500	1.2453	9.6655e-04	0.0000e+00
79	EMPTY	1.2646	1.2695	1.2654	1.8082e-03	0.0000e+00
80	PAN020136	-10.4862	-9.7233	-10.0910	1.7688e-01	8.7037e-01
81	PAN050136	-20.1543	-19.3914	-19.7454	2.2536e-01	1.6807e+00
82	PAN070136	-12.4233	-11.8893	-12.2036	1.1803e-01	8.7053e-01
83	PAN080136	-6.9901	-6.6086	-6.7734	1.0495e-01	8.7016e-01
84	PAN090136	-6.7493	-6.3678	-6.5524	9.3872e-02	8.7015e-01
85	PAN100136	-6.8357	-6.4542	-6.6556	7.9735e-02	8.7016e-01
86	PAN105136	-3.1511	-2.9222	-3.0611	6.1055e-02	8.7003e-01
87	PAN110136	-3.4702	-3.1650	-3.2566	7.2297e-02	8.7004e-01
88	PAN115136	-2.3708	-2.0657	-2.2244	6.6903e-02	8.7002e-01
89	PAN120136	-3.9288	-3.6237	-3.7289	6.5195e-02	8.7005e-01
90	PAN125136	-3.3083	-3.0032	-3.1420	7.3422e-02	8.7004e-01
91	PAN130136	-3.4167	-3.1116	-3.3176	7.4322e-02	8.7004e-01
92	PAN120048	-7.1603	-6.7025	-6.9543	1.0137e-01	8.7017e-01
93	PAN130048	-6.8229	-6.3651	-6.5314	9.5875e-02	8.7015e-01
94	PAN120224	-6.0581	-5.7529	-5.9650	8.6220e-02	8.7013e-01
95	PAN130224	-6.7640	-6.4589	-6.6160	7.6154e-02	8.7016e-01
96	PAN120312	-6.4828	-6.1013	-6.2936	9.7777e-02	8.7014e-01
97	PAN130312	-6.8311	-6.5259	-6.6541	7.9257e-02	8.7016e-01
98	PAB000136	40.3481	40.5770	40.4662	5.7077e-02	5.8876e-01
99	PAB100136	42.8994	43.0825	42.9964	3.9928e-02	5.8988e-01
100	PAB125136	43.5126	43.6500	43.5923	4.3190e-02	5.9015e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	40.1028	40.5911	40.4202	1.1827e-01	7.5678e-01
102	PRV000001	19.6054	19.7274	19.6493	5.9189e-02	7.5161e-01
103	PSR000001	43.2120	43.4562	43.3097	5.5146e-02	7.5778e-01
104	PFM000001	9.2272	9.7765	9.4744	1.0825e-01	5.0056e-01
105	PAN000136	-83.5037	-78.0105	-81.1782	1.1396e+00	4.9242e+00
106	PFM000002	9.4801	9.7673	9.5936	5.4829e-02	2.0143e-01
107	EMPTY	-0.0049	0.0049	-0.0033	3.0309e-03	0.0000e+00
108	EMPTY	-6.7041	-4.5361	-5.8317	4.6384e-01	0.0000e+00
109	EMPTY	-0.0049	0.0000	-0.0016	2.3008e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0009	1.8950e-03	0.0000e+00
112	VPW000001	100.3953	101.3719	100.9461	2.0764e-01	1.0114e+00
113	VPW000002	118.3547	118.9406	118.7140	1.2701e-01	1.0786e+00
114	VPW000003	145.8584	146.8350	146.3506	1.8609e-01	1.1946e+00
115	VPW000004	104.4569	105.4334	104.8397	1.9714e-01	1.0256e+00
116	VPW000005	138.7472	139.7238	139.2393	2.2405e-01	1.1636e+00
117	VPW000006	146.5197	147.4962	147.1173	2.1760e-01	1.1980e+00
118	IPW000001	532.1901	539.9995	535.8215	1.9726e+00	9.1394e+00
119	IPW000002	1307.3506	1317.1069	1312.5800	2.1023e+00	1.3158e+01
120	IPW000003	1334.9044	1342.7045	1339.6624	1.9761e+00	1.3327e+01
121	IPW000004	378.5063	381.4359	379.7170	6.9922e-01	3.6054e+00
122	IPW000005	253.1044	255.5455	254.4129	5.4421e-01	2.8354e+00
123	IPW000006	264.1602	266.6016	265.4492	5.1031e-01	2.8979e+00
124	EMPTY	-0.0293	-0.0146	-0.0217	3.4400e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0157	2.2689e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0182	3.2777e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0183	4.0446e-03	0.0000e+00
128	IHT000001	129.2428	132.1725	130.4850	6.2110e-01	4.3026e+00
129	IHT000002	132.9584	135.8881	134.1499	5.7079e-01	4.3139e+00
130	IHT000003	132.7584	135.4928	133.9498	5.3996e-01	4.3133e+00
131	IHT000004	130.8947	133.6291	132.2814	5.9222e-01	4.3081e+00
132	IHT000005	129.4475	132.1819	130.8419	5.8262e-01	4.3037e+00
133	IHT000006	124.4166	127.1509	125.8071	6.0314e-01	4.2887e+00
134	IHT000007	131.6006	134.3350	132.7451	5.7590e-01	4.3095e+00
135	IHT000008	130.2334	132.7725	131.3389	5.4047e-01	4.3052e+00
136	IHT000009	130.7394	133.2784	131.7041	5.2558e-01	4.3063e+00
137	IHT000010	132.5372	134.4903	133.7168	5.1139e-01	4.3125e+00
138	IHT000011	131.0547	133.0078	131.9883	5.1037e-01	4.3072e+00
139	IHT000012	128.6734	130.6266	129.6734	5.0167e-01	4.3002e+00
140	IHT000013	91.9781	93.9313	93.0250	4.9088e-01	4.2042e+00
141	IHT000014	127.6144	129.5675	128.6221	5.2253e-01	4.2970e+00
142	IHT000015	94.7219	96.6750	95.7375	4.9126e-01	4.2103e+00
143	IHT000016	88.2412	89.9991	89.1201	4.6897e-01	4.1957e+00
144	IHT000017	104.6875	108.2031	106.7148	7.4753e-01	4.2366e+00
145	IHT000018	-0.8166	1.1366	0.0975	5.0446e-01	4.1000e+00
146	IHT000019	107.5372	109.4903	108.3496	4.7080e-01	4.2408e+00
147	IHT000020	106.1466	108.0997	106.9161	4.6423e-01	4.2371e+00
148	IHT000021	0.1291	1.6916	0.6525	3.7108e-01	4.1000e+00
149	IHT000022	92.3028	94.2559	93.1270	4.6903e-01	4.2044e+00
150	IHT000023	105.9394	107.5019	106.5214	4.1664e-01	4.2361e+00
151	IHT000024	67.1069	68.8647	67.9585	4.2820e-01	4.1559e+00
152	IHT000025	103.5462	105.3041	104.4134	3.9293e-01	4.2309e+00
153	IHT000026	105.7041	107.6572	106.5127	5.1752e-01	4.2361e+00
154	IHT000027	89.7284	92.0722	90.5996	5.7482e-01	4.1989e+00
155	IHT000028	90.1897	92.3381	91.0217	4.7484e-01	4.1998e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	106.0547	108.5938	106.9102	4.9582e-01	4.2371e+00
157	IHT000030	108.9044	111.2481	109.7207	4.9393e-01	4.2443e+00
158	IHT000031	106.7159	108.6691	107.4073	4.6557e-01	4.2384e+00
159	IHT000032	107.5019	109.8456	108.2988	5.0662e-01	4.2406e+00
160	IHT000033	-1.3919	0.7566	-0.5755	4.6804e-01	4.1000e+00
161	IHT000034	94.2959	96.4444	95.0615	4.6159e-01	4.2088e+00
162	IHT000035	124.2659	126.0238	124.8910	4.5163e-01	4.2860e+00
163	IHT000036	92.9688	94.9219	93.7305	4.1992e-01	4.2058e+00

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Velocity 1 = 5.8666 (ft/sec) (+/- 5.8926 %)
 Velocity 2 = 5.8988 (ft/sec) (+/- 3.8629 %)
 Pressure drop = -3.9646 (psi)
 Tsat in = 268.2082 (deg F) Tsat out = 274.0817 (deg F)
 Phi inner = 99.1401 (kBtu/hr-ft2) (+/- 1.5737 %)
 Phi outer = 100.1744 (kBtu/hr-ft2) (+/- 1.5522 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	75.6557	76.2926	76.0506	1.7687e-01	1.9000e+00
1	TRF000002	76.2095	76.8431	76.5179	1.2950e-01	1.9000e+00
2	TFM000001	85.5202	86.5689	85.9566	2.2850e-01	1.9002e+00
3	TIN000001	85.5740	86.1005	85.7972	1.4353e-01	1.9002e+00
4	TRV000001	85.8465	86.6836	86.2772	1.8140e-01	1.9002e+00
5	TSR000001	142.7959	145.6938	144.6025	7.1560e-01	1.9037e+00
6	TAO020136	180.6937	181.5744	181.1165	2.0014e-01	1.9083e+00
7	TAO050136	174.1032	175.0816	174.5613	2.0965e-01	1.9074e+00
8	TAO070136	182.0854	183.0639	182.4575	2.1491e-01	1.9085e+00
9	TAO080136	188.4429	189.1205	188.8292	1.8551e-01	1.9095e+00
10	TAO090136	193.8761	194.6499	194.2401	1.8064e-01	1.9104e+00
11	TAO100136	198.2941	199.2582	198.7879	1.8033e-01	1.9111e+00
12	TAO105136	200.0876	200.9555	200.5700	1.8371e-01	1.9115e+00
13	EMPTY	40.9819	41.4403	41.2936	1.2036e-01	1.9011e+00
14	TAO115136	206.5673	207.4328	207.0480	2.3246e-01	1.9126e+00
15	EMPTY	31.7686	42.5851	38.2981	2.3354e+00	1.9010e+00
16	TAO125136	209.4108	210.1760	209.7971	1.6286e-01	1.9131e+00
17	TAO130136	195.7031	196.3745	196.0061	1.3354e-01	1.9107e+00
18	EMPTY	41.2111	41.8984	41.5090	2.0827e-01	1.9012e+00
19	TAO130048	208.1880	208.7618	208.4675	1.3383e-01	1.9129e+00
20	TAO120224	204.3248	204.9972	204.6358	1.5234e-01	1.9122e+00
21	EMPTY	39.1464	39.3761	39.2199	1.0821e-01	1.9010e+00
22	TAO120312	218.3282	218.9951	218.5686	1.8380e-01	1.9148e+00
23	TAO130312	208.9007	209.3800	209.0927	1.2074e-01	1.9130e+00
24	EMPTY	39.1464	39.8352	39.3807	1.7657e-01	1.9010e+00
25	TAT070000	175.8671	176.9520	176.2742	2.5548e-01	1.9076e+00
26	TAT100000	201.0024	201.9630	201.4286	1.8732e-01	1.9116e+00
27	TAT120000	217.2177	218.2654	217.6524	2.3566e-01	1.9146e+00
28	TAT125000	218.8107	219.5697	219.1034	1.6565e-01	1.9149e+00
29	EMPTY	39.8352	40.2940	40.0096	1.0931e-01	1.9011e+00
30	EMPTY	39.3761	40.0646	39.7158	1.9254e-01	1.9011e+00
31	TAF050136	119.8395	121.4671	120.5032	3.3487e-01	1.9017e+00
32	TAF070136	132.2840	133.4915	132.9683	2.9668e-01	1.9027e+00
33	TAF080136	138.4254	139.6258	138.9779	2.7807e-01	1.9032e+00
34	TAF090136	142.9575	144.2609	143.5514	3.4017e-01	1.9036e+00
35	TAF100136	148.6936	149.6944	149.2222	2.2054e-01	1.9042e+00
36	TAF105136	151.8760	152.8669	152.3552	2.4532e-01	1.9046e+00
37	TAF110136	154.7492	155.6424	155.2099	1.9622e-01	1.9049e+00
38	TAF115136	158.4458	159.6339	158.9723	2.8317e-01	1.9053e+00
39	TAF120136	161.1533	162.1404	161.5915	2.0931e-01	1.9056e+00
40	TAF125136	164.4060	165.2911	164.7201	1.7999e-01	1.9060e+00
41	TAF130136	166.9449	167.9301	167.5121	2.2038e-01	1.9064e+00
42	TAF120048	172.7786	174.4585	173.8304	3.6132e-01	1.9072e+00
43	TAF130048	177.1521	177.9360	177.5599	2.0696e-01	1.9078e+00
44	TAF120224	162.5945	163.8801	163.1961	3.0211e-01	1.9058e+00
45	TAF130224	167.5615	168.5520	168.0642	2.1440e-01	1.9065e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.3074	38.2273	37.9146	2.3119e-01	1.9010e+00
47	EMPTY	39.1464	39.6057	39.3853	1.0331e-01	1.9010e+00
48	TAF130048	216.5224	217.4751	217.0253	2.1003e-01	1.9145e+00
49	EMPTY	37.7675	38.6870	38.2411	1.9928e-01	1.9010e+00
50	TAF130224	207.1640	208.4130	207.8793	3.0835e-01	1.9128e+00
51	EMPTY	40.7527	41.4403	41.0828	1.8613e-01	1.9011e+00
52	TAF130000	109.2538	111.1031	110.1372	4.3440e-01	1.9011e+00
53	TSI000001	51.3720	52.2351	51.7992	1.7565e-01	1.9002e+00
54	TSI000002	74.2545	75.9457	75.1806	3.7578e-01	1.9000e+00
55	TSO000001	49.3318	50.4169	49.9002	2.2101e-01	1.9003e+00
56	TSO000002	60.2204	60.9720	60.6243	2.1191e-01	1.9001e+00
57	TAF020136	98.4054	99.4515	98.8859	2.3890e-01	1.9006e+00
58	TAF120312	170.8295	172.0088	171.3013	2.8651e-01	1.9069e+00
59	TAF130312	177.6003	178.6761	178.0385	2.0652e-01	1.9078e+00
60	EMPTY	2.6270	2.6367	2.6309	2.6100e-03	0.0000e+00
61	EMPTY	2.6221	2.6318	2.6284	2.4662e-03	0.0000e+00
62	EMPTY	2.6221	2.6318	2.6269	1.2041e-03	0.0000e+00
63	EMPTY	2.6270	2.6318	2.6316	9.6655e-04	0.0000e+00
64	EMPTY	1.2793	1.2842	1.2838	1.3381e-03	0.0000e+00
65	EMPTY	1.2939	1.3086	1.2987	1.8429e-03	0.0000e+00
66	EMPTY	1.3086	1.3135	1.3090	1.3381e-03	0.0000e+00
67	EMPTY	1.3232	1.3232	1.3232	0.0000e+00	0.0000e+00
68	EMPTY	1.3281	1.3330	1.3320	1.9730e-03	0.0000e+00
69	EMPTY	1.3428	1.3477	1.3432	1.3381e-03	0.0000e+00
70	EMPTY	1.3525	1.3574	1.3554	2.4344e-03	0.0000e+00
71	EMPTY	1.3721	1.3867	1.3728	2.4184e-03	0.0000e+00
72	EMPTY	1.3818	1.3867	1.3820	9.6655e-04	0.0000e+00
73	EMPTY	1.3965	1.3965	1.3965	0.0000e+00	0.0000e+00
74	EMPTY	1.4063	1.4160	1.4067	1.7784e-03	0.0000e+00
75	EMPTY	1.4160	1.4209	1.4207	9.6655e-04	0.0000e+00
76	EMPTY	1.4258	1.4307	1.4306	6.9053e-04	0.0000e+00
77	EMPTY	1.4404	1.4453	1.4450	1.1714e-03	0.0000e+00
78	EMPTY	1.4600	1.4648	1.4620	2.4344e-03	0.0000e+00
79	EMPTY	1.4795	1.4844	1.4823	2.4344e-03	0.0000e+00
80	PAN020136	-14.2246	-13.5380	-13.8401	1.5791e-01	8.7069e-01
81	PAN050136	-27.0208	-26.2578	-26.6057	1.7986e-01	1.6813e+00
82	PAN070136	-17.3824	-16.9247	-17.1566	9.2431e-02	8.7106e-01
83	PAN080136	-9.1263	-8.7449	-8.9081	9.3771e-02	8.7028e-01
84	PAN090136	-8.8855	-8.5803	-8.7527	8.9625e-02	8.7028e-01
85	PAN100136	-9.6482	-8.6667	-8.8819	7.6589e-02	8.7028e-01
86	PAN105136	-4.3718	-4.0667	-4.2192	7.3922e-02	8.7006e-01
87	PAN110136	-4.8435	-4.3857	-4.5963	1.1068e-01	8.7008e-01
88	PAN115136	-4.8885	-3.4390	-4.1454	4.1811e-01	8.7006e-01
89	PAN120136	-4.9969	-3.7762	-4.4492	4.1264e-01	8.7007e-01
90	PAN125136	-3.9187	-3.4609	-3.7005	9.2495e-02	8.7005e-01
91	PAN130136	-4.5612	-4.1797	-4.3811	7.3535e-02	8.7007e-01
92	PAN120048	-9.7543	-9.2282	-9.5422	9.5378e-02	8.7033e-01
93	PAN130048	-8.4250	-8.1199	-8.3045	7.2444e-02	8.7025e-01
94	PAN120224	-8.5758	-8.3469	-8.4690	7.0634e-02	8.7026e-01
95	PAN130224	-8.3662	-8.0610	-8.2792	8.4438e-02	8.7025e-01
96	PAN120312	-9.0005	-8.6190	-8.7853	7.9631e-02	8.7028e-01
97	PAN130312	-8.5858	-8.2806	-8.4271	6.5104e-02	8.7026e-01
98	PAB000136	40.4396	40.7143	40.5669	6.5584e-02	5.8880e-01
99	PAB100136	43.8149	43.9980	43.9202	4.6472e-02	5.9030e-01
100	PAB125136	44.6571	44.7944	44.7303	4.0312e-02	5.9068e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.9808	40.3470	40.2151	1.1258e-01	7.5671e-01
102	PRV000001	19.3612	19.4833	19.4760	2.9284e-02	7.5158e-01
103	PSR000001	44.4327	44.6769	44.5377	4.9385e-02	7.5822e-01
104	PPH000001	5.0158	5.4735	5.2501	1.0489e-01	5.0017e-01
105	PAN000136	-112.3428	-106.8496	-109.7610	1.0453e+00	4.9276e+00
106	PFH000002	5.2396	5.3916	5.3088	3.5676e-02	2.0044e-01
107	EMPTY	0.0000	0.0049	0.0044	1.4797e-03	0.0000e+00
108	EMPTY	-7.6953	-4.0430	-6.2840	8.3503e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0021	2.4344e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	100.9812	101.5672	101.2391	1.5999e-01	1.0125e+00
113	VPW000002	118.7453	119.1359	118.9718	1.2701e-01	1.0797e+00
114	VPW000003	146.2491	146.6397	146.4639	1.4363e-01	1.1951e+00
115	VPW000004	104.6522	105.2381	104.9413	1.4358e-01	1.0259e+00
116	VPW000005	139.1378	139.7238	139.4307	1.6857e-01	1.1645e+00
117	VPW000006	146.9103	147.6916	147.3478	1.4530e-01	1.1990e+00
118	IPW000001	551.7136	561.4753	556.8288	2.1922e+00	9.2174e+00
119	IPW000002	1285.8866	1295.6429	1290.7649	2.0953e+00	1.3023e+01
120	IPW000003	1311.5044	1317.3545	1313.7662	1.4929e+00	1.3165e+01
121	IPW000004	381.9242	384.3656	383.1252	5.0503e-01	3.6278e+00
122	IPW000005	252.6161	254.5691	253.5634	4.1157e-01	2.8307e+00
123	IPW000006	262.2070	263.1836	262.6758	3.5513e-01	2.8820e+00
124	EMPTY	-0.0244	-0.0098	-0.0106	4.1853e-03	0.0000e+00
125	EMPTY	-0.0146	-0.0049	-0.0115	3.0819e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0098	-0.0143	3.0945e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0098	-0.0160	2.7971e-03	0.0000e+00
128	INT000001	129.4381	131.5866	130.5123	5.0262e-01	4.3027e+00
129	INT000002	133.1537	135.3022	134.2046	4.8631e-01	4.3141e+00
130	INT000003	132.9538	134.9069	134.0162	4.6715e-01	4.3135e+00
131	INT000004	131.0900	133.6291	132.3634	5.2532e-01	4.3084e+00
132	INT000005	129.6428	131.9866	130.8576	5.0731e-01	4.3038e+00
133	INT000006	124.6119	126.9556	125.8853	4.9480e-01	4.2889e+00
134	INT000007	131.6006	133.9444	132.7725	5.0839e-01	4.3096e+00
135	INT000008	130.2334	132.3819	131.4209	5.2176e-01	4.3055e+00
136	INT000009	130.7394	132.8878	131.7940	5.0839e-01	4.3066e+00
137	INT000010	132.3419	134.6856	133.6504	5.2087e-01	4.3123e+00
138	INT000011	130.8594	133.0078	132.0078	5.0784e-01	4.3073e+00
139	INT000012	128.6734	131.0172	129.6578	5.0062e-01	4.3001e+00
140	INT000013	91.7828	93.9313	93.0367	4.6201e-01	4.2042e+00
141	INT000014	127.4191	129.5675	128.6456	4.4997e-01	4.2971e+00
142	INT000015	94.5266	96.6750	95.7727	4.7497e-01	4.2104e+00
143	INT000016	88.0459	89.9991	89.2959	4.9126e-01	4.1961e+00
144	INT000017	105.0781	108.0078	106.4844	6.9363e-01	4.2360e+00
145	INT000018	-1.2072	0.7459	-0.1017	4.4923e-01	4.1000e+00
146	INT000019	107.1466	109.4903	108.1504	4.6523e-01	4.2402e+00
147	INT000020	105.7559	107.9044	106.6856	4.4740e-01	4.2365e+00
148	INT000021	-0.2616	2.0822	0.6838	4.2197e-01	4.1000e+00
149	INT000022	91.9122	94.2559	92.8145	4.4798e-01	4.2037e+00
150	INT000023	105.1581	107.5019	106.2246	4.8522e-01	4.2354e+00
151	INT000024	66.7162	68.8647	67.6382	4.7848e-01	4.1554e+00
152	INT000025	103.3509	105.3041	104.1244	4.5841e-01	4.2302e+00
153	INT000026	105.1181	107.4619	106.2802	4.6389e-01	4.2353e+00
154	INT000027	88.9472	91.4863	90.3964	4.7856e-01	4.1985e+00
155	INT000028	90.1897	92.1428	91.0295	5.0417e-01	4.1998e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	INT000029	106.0547	108.0078	106.8516	5.2916e-01	4.2369e+00
157	INT000030	108.9044	110.6622	109.6036	5.2213e-01	4.2440e+00
158	INT000031	106.5206	108.2784	107.2979	4.9989e-01	4.2381e+00
159	INT000032	107.5019	109.4550	108.2558	4.9286e-01	4.2405e+00
160	INT000033	-1.1966	0.5612	-0.3723	4.3277e-01	4.1000e+00
161	INT000034	94.4912	95.8584	95.1397	4.5239e-01	4.2089e+00
162	INT000035	124.2659	126.0238	124.9496	5.1788e-01	4.2862e+00
163	INT000036	92.9688	94.7266	93.7305	4.7227e-01	4.2058e+00

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Velocity 1 - 5.0021 (ft/sec) (+/- 7.4441 %)
 Velocity 2 - 5.0440 (ft/sec) (+/- 4.1810 %)
 Pressure drop - -4.3356 (psi)
 Test in - 268.1569 (deg F) Test out - 274.5096 (deg F)
 Phi inner - 99.0554 (kBtu/hr-ft2) (+/- 1.5739 %)
 Phi outer - 99.9805 (kBtu/hr-ft2) (+/- 1.5528 %)
 D inner - 0.1973 (ft) D outer - 0.2412 (ft) D hyd - 0.0438 (ft)
 L inner - 12.8330 (ft) L outer - 12.8330 (ft) A flow - 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	76.0803	76.7169	76.3477	1.8094e-01	1.9000e+00
1	TRF000002	76.6320	77.0543	76.8515	1.2769e-01	1.9000e+00
2	TRF000001	85.3112	86.0463	85.7038	2.0965e-01	1.9002e+00
3	TTM000001	85.2584	85.9944	85.5507	1.3817e-01	1.9002e+00
4	TRV000001	86.1604	86.7894	86.4939	1.7259e-01	1.9002e+00
5	TSR000001	151.2686	154.2466	153.1965	6.3865e-01	1.9047e+00
6	TRO020136	186.9464	188.0181	187.5484	2.3516e-01	1.9093e+00
7	TRO050136	183.7395	184.6152	184.2160	1.9572e-01	1.9088e+00
8	TRO070136	195.5508	196.4238	195.9870	1.9724e-01	1.9107e+00
9	TRO080136	202.7603	203.5277	203.1424	1.7487e-01	1.9119e+00
10	TRO090136	211.2539	212.1133	211.6187	1.8169e-01	1.9135e+00
11	TRO100136	218.5947	219.5462	218.9584	2.0224e-01	1.9149e+00
12	TRO105136	217.1491	218.1026	217.7002	1.8298e-01	1.9146e+00
13	BNFTY	41.2111	41.6693	41.3440	1.3166e-01	1.9012e+00
14	TRO115136	217.0281	217.9838	217.4431	2.1894e-01	1.9146e+00
15	BNFTY	31.7686	42.8139	37.5934	2.7309e+00	1.9010e+00
16	TRO125136	226.6932	227.4498	227.0019	1.7072e-01	1.9165e+00
17	TRO130136	212.0000	212.7594	212.3897	1.6419e-01	1.9136e+00
18	BNFTY	40.7527	41.6693	41.1332	2.0504e-01	1.9011e+00
19	TRO130048	226.2308	226.8937	226.5092	1.6381e-01	1.9164e+00
20	TRO120224	219.3261	220.0872	219.6592	1.5737e-01	1.9150e+00
21	BNFTY	39.1464	39.6057	39.3669	1.0331e-01	1.9010e+00
22	TRO120312	236.6979	237.3575	237.0766	1.4921e-01	1.9187e+00
23	TRO130312	228.0781	228.7403	228.3978	1.4281e-01	1.9168e+00
24	BNFTY	39.1464	39.8352	39.4495	1.8807e-01	1.9010e+00
25	TRT070000	187.6602	189.4198	188.3157	3.2159e-01	1.9094e+00
26	TRT100000	218.6613	219.6107	219.0618	2.1728e-01	1.9149e+00
27	TRT120000	235.9483	236.6999	236.3297	1.8166e-01	1.9185e+00
28	TRT125000	238.0705	238.7264	238.4214	1.7116e-01	1.9190e+00
29	BNFTY	39.8352	40.2940	40.0601	8.6596e-02	1.9011e+00
30	BNFTY	39.3761	40.0646	39.7755	2.1152e-01	1.9011e+00
31	TAF050136	124.3102	125.5281	124.9215	2.9529e-01	1.9020e+00
32	TAF070136	139.3034	140.6029	140.0293	2.9134e-01	1.9033e+00
33	TAF080136	146.5948	148.2821	147.4223	3.6491e-01	1.9040e+00
34	TAF090136	152.3509	153.3472	152.7875	2.7279e-01	1.9046e+00
35	TAF100136	159.3611	160.3544	159.8080	2.5789e-01	1.9054e+00
36	TAF105136	162.6156	163.8934	163.2299	2.6911e-01	1.9058e+00
37	TAF110136	165.9008	167.0806	166.4384	2.4996e-01	1.9063e+00
38	TAF115136	169.7826	171.2553	170.4802	3.2924e-01	1.9068e+00
39	TAF120136	173.1190	174.0977	173.6926	2.1188e-01	1.9072e+00
40	TAF125136	176.8165	177.8882	177.3143	2.3230e-01	1.9077e+00
41	TAF130136	180.1813	181.2552	180.7888	2.4396e-01	1.9082e+00
42	TAF120048	187.0487	188.7123	187.8494	3.9058e-01	1.9093e+00
43	TAF130048	191.7659	193.0251	192.4536	2.8984e-01	1.9101e+00
44	TAF120224	175.6800	177.0510	176.3834	2.7881e-01	1.9076e+00
45	TAF130224	181.9587	182.9391	182.4352	2.5272e-01	1.9085e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	BNFTY	37.5374	38.4572	37.9330	2.2779e-01	1.9010e+00
47	BNFTY	39.3761	39.6057	39.5047	1.1512e-01	1.9011e+00
48	TAF130048	236.1248	237.2541	236.6882	2.3075e-01	1.9186e+00
49	BNFTY	37.7675	38.6870	38.2365	1.9127e-01	1.9010e+00
50	TAF130224	225.7072	226.8474	226.3098	2.8240e-01	1.9164e+00
51	BNFTY	40.9819	41.8984	41.4403	1.7319e-01	1.9012e+00
52	TRE130000	132.1744	136.0051	134.5645	1.0161e+00	1.9028e+00
53	TSI000001	51.6959	52.5587	52.1857	1.9515e-01	1.9002e+00
54	TSI000002	82.8986	85.6265	84.1889	6.3611e-01	1.9001e+00
55	TSO000001	49.5473	50.4149	49.9313	1.8633e-01	1.9003e+00
56	TRO000002	61.5077	62.4721	62.0328	2.2417e-01	1.9000e+00
57	TAF020136	96.6233	97.8785	97.2987	2.8499e-01	1.9005e+00
58	TAF120312	186.2846	187.5497	186.8550	3.1501e-01	1.9092e+00
59	TAF130312	194.0285	195.3818	194.7691	2.4126e-01	1.9105e+00
60	BNFTY	3.0322	3.0469	3.0487	2.7568e-03	0.0000e+00
61	BNFTY	3.0322	3.0371	3.0358	2.1635e-03	0.0000e+00
62	BNFTY	3.0273	3.0322	3.0317	1.4797e-03	0.0000e+00
63	BNFTY	3.0322	3.0371	3.0371	1.4797e-03	0.0000e+00
64	BNFTY	1.4600	1.4648	1.4683	1.1714e-03	0.0000e+00
65	BNFTY	1.4746	1.4746	1.4746	0.0000e+00	0.0000e+00
66	BNFTY	1.4844	1.4844	1.4844	0.0000e+00	0.0000e+00
67	BNFTY	1.4941	1.4990	1.4964	2.4583e-03	0.0000e+00
68	BNFTY	1.5039	1.5088	1.5041	9.6655e-04	0.0000e+00
69	BNFTY	1.5137	1.5186	1.5171	2.2603e-03	0.0000e+00
70	BNFTY	1.5234	1.5332	1.5266	2.5648e-03	0.0000e+00
71	BNFTY	1.5430	1.5479	1.5433	1.1714e-03	0.0000e+00
72	BNFTY	1.5479	1.5527	1.5525	9.6655e-04	0.0000e+00
73	BNFTY	1.5625	1.5674	1.5639	2.2146e-03	0.0000e+00
74	BNFTY	1.5723	1.5771	1.5732	1.9730e-03	0.0000e+00
75	BNFTY	1.5869	1.5869	1.5869	0.0000e+00	0.0000e+00
76	BNFTY	1.5918	1.5967	1.5959	1.8082e-03	0.0000e+00
77	BNFTY	1.6064	1.6113	1.6079	2.2603e-03	0.0000e+00
78	BNFTY	1.6260	1.6309	1.6261	6.9853e-04	0.0000e+00
79	BNFTY	1.6406	1.6455	1.6444	2.8432e-03	0.0000e+00
80	PAN020136	-15.5216	-14.6824	-15.1066	1.8378e-01	0.7082e-01
81	PAN050136	-29.4622	-28.5466	-28.9312	1.8558e-01	1.6816e+00
82	PAN070136	-18.9846	-18.4506	-18.7725	1.2644e-01	0.7126e-01
83	PAN080136	-9.8130	-9.5078	-9.6604	9.1189e-02	0.7034e-01
84	PAN090136	-10.0299	-9.6484	-9.8361	9.2752e-02	0.7035e-01
85	PAN100136	-9.7349	-9.4297	-9.5838	8.0815e-02	0.7033e-01
86	PAN105136	-4.6770	-4.2955	-4.4969	7.1901e-02	0.7007e-01
87	PAN110136	-4.9198	-4.5383	-4.7413	7.3292e-02	0.7008e-01
88	PAN115136	-4.2782	-3.9730	-4.1302	6.4314e-02	0.7006e-01
89	PAN120136	-5.1495	-4.8444	-4.9882	8.7587e-02	0.7009e-01
90	PAN125136	-4.6816	-4.4476	-4.4833	1.2522e-01	0.7007e-01
91	PAN130136	-5.1715	-4.6375	-4.7885	1.3568e-01	0.7008e-01
92	PAN120048	-10.1357	-9.7543	-9.9313	9.3046e-02	0.7035e-01
93	PAN130048	-9.4932	-9.1880	-9.3436	8.9824e-02	0.7031e-01
94	PAN120224	-9.5676	-9.5573	-9.1968	1.6530e-01	0.7030e-01
95	PAN130224	-9.9684	-9.3580	-9.7044	1.6400e-01	0.7034e-01
96	PAN120312	-9.5345	-9.1531	-9.3392	9.2687e-02	0.7031e-01
97	PAN130312	-9.5776	-9.2725	-9.4235	7.1454e-02	0.7032e-01
98	PAB000136	40.3938	40.6685	40.5321	7.3690e-02	5.8878e-01
99	PAB100136	44.0896	44.2727	44.1775	4.6093e-02	5.9042e-01
100	PAB125136	44.9775	45.1148	45.0471	3.9498e-02	5.9083e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIND000001	39.9008	40.5911	40.2688	1.6683e-01	7.5673e-01
102	PRV0000001	19.6054	19.8495	19.7250	3.0104e-02	7.5162e-01
103	PSR0000001	44.7989	45.0431	44.8917	5.8152e-02	7.5835e-01
104	PFH0000001	3.6425	4.0087	3.7963	8.7619e-02	5.0009e-01
105	PM0000136	-123.3291	-117.3782	-120.0332	1.4327e+00	4.9291e+00
106	PFH0000002	3.8035	3.9049	3.8613	2.3422e-02	2.0023e-01
107	EMPTY	-0.0049	0.0049	-0.0010	4.1573e-03	0.0000e+00
108	EMPTY	-7.1484	-3.8525	-5.2605	8.9959e-01	0.0000e+00
109	EMPTY	-0.0049	0.0049	-0.0004	2.3839e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0000	1.8082e-03	0.0000e+00
112	VP00000001	100.9012	101.3719	101.1609	1.4139e-01	1.0122e+00
113	VP00000002	118.5500	119.3313	118.9054	1.4680e-01	1.0794e+00
114	VP00000003	146.2491	146.8350	146.4912	1.3416e-01	1.1953e+00
115	VP00000004	104.4569	105.2381	104.8827	1.7059e-01	1.0257e+00
116	VP00000005	138.9425	139.7238	139.4307	1.6857e-01	1.1645e+00
117	VP00000006	147.1056	147.6916	147.3478	1.6857e-01	1.1990e+00
118	IP00000001	553.6660	567.3323	558.5858	2.9316e+00	9.2240e+00
119	IP00000002	1280.0328	1295.6429	1284.9497	4.2866e+00	1.2987e+01
120	IP00000003	1309.5544	1317.3545	1312.5571	1.7711e+00	1.3158e+01
121	IP00000004	382.9008	385.8305	384.1115	9.3710e-01	3.6343e+00
122	IP00000005	253.1044	254.5691	253.6318	3.7998e-01	2.8310e+00
123	IP00000006	261.7188	263.1836	262.2949	3.3728e-01	2.8799e+00
124	EMPTY	-0.0293	-0.0146	-0.0212	3.2133e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0140	3.2733e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0171	3.5908e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0168	3.5786e-03	0.0000e+00
128	INT0000001	129.2428	131.1959	130.3717	4.9172e-01	4.3023e+00
129	INT0000002	132.7631	134.9116	134.0210	4.4145e-01	4.3135e+00
130	INT0000003	132.5631	134.7116	133.8483	4.6870e-01	4.3129e+00
131	INT0000004	130.8947	133.4337	132.1993	4.7913e-01	4.3079e+00
132	INT0000005	129.4475	131.7912	130.7404	4.9739e-01	4.3034e+00
133	INT0000006	124.4166	126.7603	125.7056	4.9126e-01	4.2884e+00
134	INT0000007	131.4053	133.5538	132.6240	4.7933e-01	4.3092e+00
135	INT0000008	130.0381	132.7725	131.3076	5.2534e-01	4.3051e+00
136	INT0000009	130.5441	132.6925	131.6495	4.6120e-01	4.3062e+00
137	INT0000010	132.7325	134.6856	133.5762	5.3879e-01	4.3121e+00
138	INT0000011	131.0547	133.3984	131.9141	5.3959e-01	4.3070e+00
139	INT0000012	128.6734	131.0172	129.6499	5.3233e-01	4.3001e+00
140	INT0000013	91.9781	94.1266	92.9351	4.9166e-01	4.2040e+00
141	INT0000014	127.6144	129.5675	128.6143	5.0167e-01	4.2970e+00
142	INT0000015	94.3313	96.6750	95.6516	4.9215e-01	4.2101e+00
143	INT0000016	88.0459	90.1944	89.1514	4.7451e-01	4.1950e+00
144	INT0000017	104.6875	108.0078	106.6406	9.0067e-01	4.2364e+00
145	INT0000018	-1.2072	0.9413	-0.0822	4.6448e-01	4.1000e+00
146	INT0000019	107.7325	109.4903	108.5371	4.4053e-01	4.2412e+00
147	INT0000020	105.9512	108.0997	107.0098	4.6870e-01	4.2373e+00
148	INT0000021	0.1291	2.0822	0.9045	3.8640e-01	4.1000e+00
149	INT0000022	92.1075	94.0606	92.9590	3.9609e-01	4.2041e+00
150	INT0000023	105.3534	107.6972	106.4550	4.1151e-01	4.2359e+00
151	INT0000024	66.9116	69.0600	67.8413	3.9372e-01	4.1557e+00
152	INT0000025	103.3509	105.6947	104.3666	4.4990e-01	4.2307e+00
153	INT0000026	105.3134	107.6572	106.4307	4.3412e-01	4.2359e+00
154	INT0000027	89.3378	91.6816	90.4199	4.3443e-01	4.1985e+00
155	INT0000028	90.1897	91.9475	91.0022	4.2381e-01	4.1998e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	INT0000029	106.2500	108.0078	106.9609	4.2455e-01	4.2372e+00
157	INT0000030	108.7091	110.6622	109.6114	4.2479e-01	4.2440e+00
158	INT0000031	106.3253	108.4737	107.3448	4.3636e-01	4.2382e+00
159	INT0000032	106.9159	109.6503	108.3379	4.8974e-01	4.2407e+00
160	INT0000033	-1.3919	0.7566	-0.4622	4.0155e-01	4.1000e+00
161	INT0000034	93.9053	95.8584	94.9912	4.2160e-01	4.2006e+00
162	INT0000035	124.0706	125.8284	124.8949	4.0489e-01	4.2860e+00
163	INT0000036	92.7734	94.7266	93.6523	3.7486e-01	4.2056e+00

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Velocity 1 - 4.0688 (ft/sec) (+/- 10.6204 %)
 Velocity 2 - 4.1230 (ft/sec) (+/- 4.9413 %)
 Pressure drop - -4.6620 (psi)
 Tsat in - 268.1124 (deg F) Tsat out - 274.9019 (deg F)
 Phi inner - 100.3405 (kBtu/hr-ft2) (+/- 1.5707 %)
 Phi outer - 99.9188 (kBtu/hr-ft2) (+/- 1.5541 %)
 D inner - 0.1973 (ft) D outer - 0.2412 (ft) D hyd - 0.0438 (ft)
 L inner - 12.8330 (ft) L outer - 12.8330 (ft) A flow - 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRP000001	76.2926	77.1412	76.7890	1.9458e-01	1.9000e+00
1	TRP000002	77.0543	77.4764	77.2527	1.4405e-01	1.9000e+00
2	TPH000001	84.8939	85.7330	85.3717	2.2452e-01	1.9002e+00
3	TIN000001	84.9418	85.6782	85.2409	1.7438e-01	1.9002e+00
4	TRV000001	85.5351	86.3734	86.0089	1.9987e-01	1.9002e+00
5	TSR000001	157.7133	163.2391	160.2880	1.6840e+00	1.9055e+00
6	TAO020136	192.7833	193.7533	193.2529	2.0777e-01	1.9102e+00
7	TAO050136	200.9040	201.7694	201.3309	1.9722e-01	1.9116e+00
8	TAO070136	217.8176	218.8689	218.3876	2.4795e-01	1.9148e+00
9	TAO080136	223.5584	224.5990	224.2435	1.9906e-01	1.9160e+00
10	TAO090136	231.1683	232.2991	231.7602	2.3095e-01	1.9175e+00
11	TAO100136	237.2215	238.2553	237.8268	2.2805e-01	1.9189e+00
12	TAO105136	239.1054	240.5150	239.9176	2.5387e-01	1.9194e+00
13	EMPTY	40.9819	41.6693	41.3303	1.4071e-01	1.9012e+00
14	TAO115136	243.4898	244.8048	244.0985	2.7847e-01	1.9203e+00
15	EMPTY	32.0000	43.2713	38.3523	4.0116e+00	1.9010e+00
16	TAO125136	253.0088	254.0323	253.5861	2.2397e-01	1.9226e+00
17	TAO130136	237.8837	238.5397	238.1964	1.7019e-01	1.9190e+00
18	EMPTY	40.7527	41.4403	41.1195	1.4642e-01	1.9011e+00
19	TAO130048	251.9832	252.6360	252.2672	1.8616e-01	1.9223e+00
20	TAO120224	244.9776	245.9124	245.3145	1.9458e-01	1.9206e+00
21	EMPTY	39.3761	39.6057	39.4725	1.1446e-01	1.9010e+00
22	TAO120312	262.4756	263.3103	262.9431	1.8154e-01	1.9249e+00
23	TAO130312	254.3725	255.3029	254.7934	1.8792e-01	1.9229e+00
24	EMPTY	39.1464	40.0646	39.6102	1.8833e-01	1.9011e+00
25	TRT070000	205.6539	206.9107	206.3153	3.3977e-01	1.9125e+00
26	TRT100000	238.4633	239.4020	239.0189	2.1756e-01	1.9191e+00
27	TRT120000	261.3251	262.5295	261.7444	2.3095e-01	1.9246e+00
28	TRT125000	265.3879	266.6779	266.0885	2.0972e-01	1.9257e+00
29	EMPTY	40.0646	40.2940	40.1197	9.8971e-02	1.9011e+00
30	EMPTY	39.3761	40.0646	39.7893	2.1248e-01	1.9011e+00
31	TAP050136	133.2064	135.0192	134.2097	4.0940e-01	1.9028e+00
32	TAP070136	152.1394	154.3179	153.1700	4.2664e-01	1.9047e+00
33	TAP080136	161.5027	162.8808	162.2441	3.3191e-01	1.9057e+00
34	TAP090136	167.6008	169.5702	168.4917	4.2750e-01	1.9065e+00
35	TAP100136	175.8465	178.5919	176.9727	5.1130e-01	1.9077e+00
36	TAP105136	180.5561	185.5860	181.6833	7.4963e-01	1.9084e+00
37	TAP110136	186.4861	191.7080	188.6129	1.1841e+00	1.9095e+00
38	TAP115136	189.8654	192.2838	190.8795	5.0526e-01	1.9098e+00
39	TAP120136	193.9614	195.8873	194.7680	5.0692e-01	1.9105e+00
40	TAP125136	198.2566	199.8856	199.0350	3.7348e-01	1.9112e+00
41	TAP130136	202.1668	203.6078	202.9468	2.8317e-01	1.9119e+00
42	TAP120048	208.6280	210.8464	209.6620	5.2740e-01	1.9131e+00
43	TAP130048	214.7512	216.5633	215.5180	3.8923e-01	1.9142e+00
44	TAP120224	197.0630	199.5696	198.1662	6.1371e-01	1.9110e+00
45	TAP130224	204.3511	206.2814	205.1926	3.6898e-01	1.9123e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.3074	38.4572	37.9468	2.1934e-01	1.9010e+00
47	EMPTY	39.3761	39.8352	39.6470	1.1995e-01	1.9011e+00
48	TAI130048	262.5429	263.6547	263.1102	2.6635e-01	1.9250e+00
49	EMPTY	37.9974	38.6870	38.2641	1.9350e-01	1.9010e+00
50	TAI130224	254.1458	255.2660	254.7021	2.6858e-01	1.9228e+00
51	EMPTY	41.6693	42.3562	41.9716	1.7579e-01	1.9012e+00
52	TRR130000	126.5085	129.9519	128.1989	8.2137e-01	1.9023e+00
53	TSI000001	51.9120	52.7751	52.3829	1.8202e-01	1.9002e+00
54	TSI000002	87.1981	92.7337	89.5355	1.5066e+00	1.9003e+00
55	TSO000001	49.5457	50.5217	50.1010	2.2099e-01	1.9003e+00
56	TSO000002	63.4353	64.2910	63.8804	2.2809e-01	1.9000e+00
57	TAP020136	92.9477	93.9958	93.4255	2.6313e-01	1.9004e+00
58	TAP120312	207.2454	210.0245	208.4725	5.8085e-01	1.9129e+00
59	TAP130312	217.4266	219.5201	218.2113	4.1552e-01	1.9147e+00
60	EMPTY	3.6084	3.6328	3.6229	5.0772e-03	0.0000e+00
61	EMPTY	3.6084	3.6230	3.6151	4.2875e-03	0.0000e+00
62	EMPTY	3.5986	3.6133	3.6070	3.9508e-03	0.0000e+00
63	EMPTY	3.5986	3.6133	3.6055	3.9459e-03	0.0000e+00
64	EMPTY	1.7090	1.7139	1.7120	2.3941e-03	0.0000e+00
65	EMPTY	1.7236	1.7383	1.7259	3.1521e-03	0.0000e+00
66	EMPTY	1.7285	1.7383	1.7343	2.1364e-03	0.0000e+00
67	EMPTY	1.7432	1.7529	1.7453	2.6396e-03	0.0000e+00
68	EMPTY	1.7432	1.7578	1.7517	3.3901e-03	0.0000e+00
69	EMPTY	1.7578	1.7676	1.7623	3.2479e-03	0.0000e+00
70	EMPTY	1.7676	1.7773	1.7707	2.5648e-03	0.0000e+00
71	EMPTY	1.7822	1.7920	1.7879	2.4878e-03	0.0000e+00
72	EMPTY	1.7920	1.7969	1.7946	2.4583e-03	0.0000e+00
73	EMPTY	1.8018	1.8115	1.8064	2.9528e-03	0.0000e+00
74	EMPTY	1.8066	1.8213	1.8144	2.8058e-03	0.0000e+00
75	EMPTY	1.8213	1.8359	1.8249	2.9280e-03	0.0000e+00
76	EMPTY	1.8311	1.8359	1.8330	2.4164e-03	0.0000e+00
77	EMPTY	1.8408	1.8506	1.8446	2.2689e-03	0.0000e+00
78	EMPTY	1.8555	1.8652	1.8611	2.0598e-03	0.0000e+00
79	EMPTY	1.8750	1.8848	1.8795	1.9331e-03	0.0000e+00
80	PAN020136	-16.9712	-16.2083	-16.6065	1.6114e-01	8.7099e-01
81	PAN050136	-31.4458	-30.6829	-31.1132	1.6222e-01	1.6818e+00
82	PAN070136	-20.5868	-19.9764	-20.2679	1.3931e-01	8.7147e-01
83	PAN080136	-10.8811	-10.1182	-10.3364	1.4460e-01	8.7038e-01
84	PAN090136	-10.4114	-10.0299	-10.2176	6.5775e-02	8.7037e-01
85	PAN100136	-10.5741	-4.6232	-10.1011	8.0815e-01	8.7037e-01
86	PAN105136	-7.6525	-4.9059	-5.3881	5.9286e-01	8.7010e-01
87	PAN110136	-6.2931	2.8622	-5.2982	1.4404e+00	8.7010e-01
88	PAN115136	-6.2618	-2.4471	-4.1912	7.8731e-01	8.7006e-01
89	PAN120136	-6.5228	-4.6155	-5.4181	4.9088e-01	8.7011e-01
90	PAN125136	-6.2075	-3.2321	-4.8281	6.6294e-01	8.7008e-01
91	PAN130136	-5.0189	-3.1116	-4.3735	4.4466e-01	8.7007e-01
92	PAN120048	-11.6616	-10.5172	-11.1901	2.3002e-01	8.7045e-01
93	PAN130048	-10.2561	-8.8828	-9.6702	2.7114e-01	8.7034e-01
94	PAN120224	-12.4668	-8.2706	-9.6683	9.4054e-01	8.7034e-01
95	PAN130224	-9.9684	-8.9003	-9.5274	3.5828e-01	8.7033e-01
96	PAN120312	-10.6790	-9.0005	-9.7466	3.5795e-01	8.7034e-01
97	PAN130312	-10.5695	-9.1199	-9.8676	3.4432e-01	8.7035e-01
98	PAB000136	40.3481	40.6227	40.5019	6.5238e-02	5.8877e-01
99	PAB100136	44.1353	44.4558	44.3533	5.8899e-02	5.9050e-01
100	PAB125136	45.2521	45.4352	45.3391	4.4593e-02	5.9097e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	40.1028	40.5911	40.3274	1.1920e-01	7.5675e-01
102	PRV000001	19.4833	19.6054	19.5980	2.9284e-02	7.5160e-01
103	PSR000001	45.0431	45.1651	45.1627	1.7263e-02	7.5845e-01
104	PFM000001	2.3607	2.6354	2.4907	7.4194e-02	5.0004e-01
105	PAN000136	-132.0266	-126.5334	-129.0695	1.1923e+00	4.9306e+00
106	PFM000002	2.5027	2.6378	2.5591	2.8681e-02	2.0010e-01
107	EMPTY	-0.0049	0.0000	-0.0047	9.6655e-04	0.0000e+00
108	EMPTY	-6.2012	-3.8281	-4.4539	6.1962e-01	0.0000e+00
109	EMPTY	-0.0049	0.0000	-0.0023	2.4642e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0009	1.8950e-03	0.0000e+00
112	VPM000001	100.5906	101.7625	101.1961	2.7692e-01	1.0123e+00
113	VPM000002	118.5500	119.3313	118.9796	1.9331e-01	1.0797e+00
114	VPM000003	146.0538	147.2256	146.6748	2.6672e-01	1.1961e+00
115	VPM000004	104.4569	105.4334	104.9842	2.2408e-01	1.0261e+00
116	VPM000005	138.7472	140.3097	139.5752	3.3146e-01	1.1651e+00
117	VPM000006	146.7150	148.2775	147.5587	3.8549e-01	1.2000e+00
118	IPM000001	538.0472	545.8566	542.4984	1.8933e+00	9.1639e+00
119	IPM000002	1295.6429	1303.4480	1299.3896	2.2932e+00	1.3076e+01
120	IPM000003	1323.2045	1334.9044	1328.9375	2.6548e+00	1.3260e+01
121	IPM000004	377.5297	381.4359	379.6193	9.6170e-01	3.6047e+00
122	IPM000005	252.1279	255.5455	253.7392	6.8516e-01	2.8316e+00
123	IPM000006	262.6953	265.6250	264.3066	6.4875e-01	2.8913e+00
124	EMPTY	-0.0293	-0.0195	-0.0222	2.6488e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0150	2.5800e-03	0.0000e+00
126	EMPTY	-0.0293	-0.0146	-0.0189	3.2178e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0172	3.4513e-03	0.0000e+00
128	IHT000001	129.2428	131.5866	130.1842	6.4197e-01	4.3017e+00
129	IHT000002	132.9584	135.3022	133.9116	6.2470e-01	4.3131e+00
130	IHT000003	132.7584	134.9069	133.7506	5.5361e-01	4.3126e+00
131	IHT000004	131.0900	133.8244	132.0548	6.0927e-01	4.3074e+00
132	IHT000005	129.6428	132.1819	130.6271	5.8255e-01	4.3031e+00
133	IHT000006	124.4166	127.1509	125.6118	6.3090e-01	4.2881e+00
134	IHT000007	131.4053	133.7491	132.5615	5.7160e-01	4.3090e+00
135	IHT000008	129.8428	132.3819	131.2022	5.5237e-01	4.3048e+00
136	IHT000009	130.3488	132.4972	131.5284	5.7040e-01	4.3058e+00
137	IHT000010	132.1466	135.0762	133.4200	5.9483e-01	4.3116e+00
138	IHT000011	130.4688	133.3984	131.8086	6.0619e-01	4.3067e+00
139	IHT000012	128.0875	131.2125	129.5640	5.9863e-01	4.2998e+00
140	IHT000013	91.7828	94.3219	92.9390	5.4224e-01	4.2040e+00
141	IHT000014	127.4191	129.7628	128.5323	5.3707e-01	4.2967e+00
142	IHT000015	94.5266	96.4797	95.5500	4.5087e-01	4.2099e+00
143	IHT000016	88.0459	90.3897	89.0420	4.5206e-01	4.1956e+00
144	IHT000017	104.8828	108.0078	106.0781	6.9658e-01	4.2350e+00
145	IHT000018	-0.8166	1.1366	0.0038	3.8662e-01	4.1000e+00
146	IHT000019	107.3419	109.2950	108.2637	4.3232e-01	4.2405e+00
147	IHT000020	105.9512	107.9044	106.7754	4.6903e-01	4.2368e+00
148	IHT000021	0.3244	2.0822	0.8634	3.9569e-01	4.1000e+00
149	IHT000022	91.9122	93.8653	92.7207	4.8168e-01	4.2035e+00
150	IHT000023	105.1581	107.3066	106.1699	4.7135e-01	4.2352e+00
151	IHT000024	66.5209	68.8647	67.5561	4.8848e-01	4.1553e+00
152	IHT000025	103.1556	105.3041	104.1908	4.9166e-01	4.2303e+00
153	IHT000026	105.1181	107.8525	106.2588	5.6684e-01	4.2355e+00
154	IHT000027	88.9472	91.8769	90.2363	6.1130e-01	4.1981e+00
155	IHT000028	89.6038	91.9475	90.8225	5.0310e-01	4.1994e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.8594	107.8125	106.8398	4.6100e-01	4.2369e+00
157	IHT000030	108.3184	110.4669	109.4786	5.2409e-01	4.2436e+00
158	IHT000031	106.5206	108.2784	107.2588	4.9957e-01	4.2380e+00
159	IHT000032	107.3066	109.4550	108.2871	5.0454e-01	4.2406e+00
160	IHT000033	-1.1966	0.5612	-0.5286	4.4659e-01	4.1000e+00
161	IHT000034	93.7100	96.2491	94.9443	5.5445e-01	4.2085e+00
162	IHT000035	123.4847	126.4144	124.8011	6.3603e-01	4.2857e+00
163	IHT000036	92.5781	94.7266	93.5859	4.7080e-01	4.2055e+00

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Velocity 1 = 4.0723 (ft/sec) (+/- 10.6065 %)
 Velocity 2 = 4.1092 (ft/sec) (+/- 4.9593 %)
 Pressure drop = -4.6461 (psi)
 Tsat in = 268.0787 (deg F) Tsat out = 274.8995 (deg F)
 Phi inner = 100.7339 (kBtu/hr-ft2) (+/- 1.5698 %)
 Phi outer = 100.5295 (kBtu/hr-ft2) (+/- 1.5521 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	77.3532	77.9892	77.5440	1.4991e-01	1.9000e+00
1	TRF000002	77.6875	78.3203	78.0250	1.2786e-01	1.9000e+00
2	TRF000001	86.6764	87.5148	87.0349	1.9524e-01	1.9002e+00
3	TIN000001	86.4135	87.1493	86.7312	1.7694e-01	1.9002e+00
4	TRV000001	87.6289	88.5699	88.1286	1.9835e-01	1.9002e+00
5	TSR000001	156.9247	160.2857	159.1451	9.3587e-01	1.9053e+00
6	TAO020136	188.3086	189.2820	188.8479	1.8883e-01	1.9095e+00
7	TAO050136	201.5800	202.4438	201.9805	1.4867e-01	1.9117e+00
8	TAO070136	214.9415	215.8040	215.4569	2.2384e-01	1.9142e+00
9	TAO080136	223.6588	224.6047	224.2086	2.1657e-01	1.9160e+00
10	TAO090136	232.3945	233.5255	232.8826	2.3666e-01	1.9178e+00
11	TAO100136	238.0681	238.8198	238.4309	1.7504e-01	1.9190e+00
12	TAO105136	240.3274	241.2663	240.8364	1.9997e-01	1.9196e+00
13	EMPTY	41.2111	41.4403	41.2891	1.0964e-01	1.9011e+00
14	TAO115136	243.2052	244.0511	243.6093	2.0731e-01	1.9202e+00
15	EMPTY	32.2314	43.2713	38.6922	4.0796e+00	1.9010e+00
16	TAO125136	254.5905	255.1491	254.8900	1.4822e-01	1.9229e+00
17	TAO130136	238.4541	239.0131	238.7607	1.4255e-01	1.9191e+00
18	EMPTY	40.7527	41.4403	41.0645	1.3705e-01	1.9011e+00
19	TAO130048	253.1942	253.8454	253.5013	1.4462e-01	1.9226e+00
20	TAO120224	244.7914	245.5400	245.2126	1.6617e-01	1.9206e+00
21	EMPTY	39.3761	39.6057	39.4358	1.0172e-01	1.9010e+00
22	TAO120312	263.4953	264.3290	263.8714	1.6674e-01	1.9252e+00
23	TAO130312	255.9530	256.6032	256.2558	1.6333e-01	1.9232e+00
24	EMPTY	39.1464	39.8352	39.5827	1.8696e-01	1.9011e+00
25	TRT070000	202.6504	203.9078	203.3760	3.3935e-01	1.9119e+00
26	TRT100000	239.4973	240.5284	240.0123	2.1693e-01	1.9194e+00
27	TRT120000	261.5126	262.6236	262.0550	2.3741e-01	1.9247e+00
28	TRT125000	266.3133	267.2328	266.7783	1.8332e-01	1.9259e+00
29	EMPTY	39.8352	40.2940	40.0784	9.7338e-02	1.9011e+00
30	EMPTY	39.3761	40.0646	39.7204	2.2359e-01	1.9011e+00
31	TAF050136	134.9208	136.4306	135.6276	3.3606e-01	1.9029e+00
32	TAF070136	153.6294	155.5083	154.5620	4.1666e-01	1.9048e+00
33	TAF080136	162.4934	164.5535	163.3357	5.1477e-01	1.9059e+00
34	TAF090136	168.6856	170.4561	169.7423	3.9734e-01	1.9067e+00
35	TAF100136	176.7292	178.4934	177.7194	3.2367e-01	1.9078e+00
36	TAF105136	181.5298	182.7906	182.1874	3.1324e-01	1.9085e+00
37	TAF110136	186.3945	189.0071	187.8720	5.9680e-01	1.9093e+00
38	TAF115136	190.0609	191.7066	190.9961	3.3561e-01	1.9098e+00
39	TAF120136	194.4483	195.7962	195.0745	2.7449e-01	1.9105e+00
40	TAF125136	199.0276	200.0834	199.4368	2.2238e-01	1.9113e+00
41	TAF130136	203.1288	204.2810	203.5840	3.0296e-01	1.9120e+00
42	TAF120048	209.6839	214.4030	211.7137	1.3810e+00	1.9135e+00
43	TAF130048	215.8011	217.9931	216.7905	4.2180e-01	1.9145e+00
44	TAF120224	196.5816	197.7395	197.1473	2.8712e-01	1.9109e+00
45	TAF130224	204.1538	205.3125	204.7316	2.5389e-01	1.9122e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.2273	37.9560	1.9541e-01	1.9010e+00
47	EMPTY	39.3761	39.8352	39.5598	1.2271e-01	1.9011e+00
48	TAI130048	263.5624	264.6730	264.1568	2.4170e-01	1.9252e+00
49	EMPTY	37.7675	38.4572	38.1583	1.8138e-01	1.9010e+00
50	TAI130224	254.2381	255.4504	254.8520	2.5640e-01	1.9229e+00
51	EMPTY	41.2111	41.6693	41.4357	1.5689e-01	1.9012e+00
52	TRR130000	128.6391	133.4898	131.5815	9.6235e-01	1.9026e+00
53	TSI000001	52.0226	52.6704	52.3311	1.6455e-01	1.9002e+00
54	TSI000002	135.2599	136.4695	135.9235	2.4698e-01	1.9029e+00
55	TSO000001	49.8665	50.5187	50.1777	1.8727e-01	1.9003e+00
56	TSO000002	63.3284	64.3976	63.7797	2.3705e-01	1.9000e+00
57	TAF020136	88.3091	89.2565	88.7406	2.1400e-01	1.9002e+00
58	TAF120312	208.1091	212.2250	209.3449	6.6419e-01	1.9130e+00
59	TAF130312	218.5704	220.4712	219.2338	3.7897e-01	1.9149e+00
60	EMPTY	3.6230	3.6426	3.6312	4.0204e-03	0.0000e+00
61	EMPTY	3.6133	3.6279	3.6223	3.4681e-03	0.0000e+00
62	EMPTY	3.6084	3.6182	3.6124	2.5515e-03	0.0000e+00
63	EMPTY	3.6084	3.6133	3.6112	2.4344e-03	0.0000e+00
64	EMPTY	1.7139	1.7188	1.7153	2.2603e-03	0.0000e+00
65	EMPTY	1.7285	1.7334	1.7287	9.6655e-04	0.0000e+00
66	EMPTY	1.7334	1.7432	1.7381	1.6972e-03	0.0000e+00
67	EMPTY	1.7480	1.7480	1.7480	0.0000e+00	0.0000e+00
68	EMPTY	1.7529	1.7578	1.7535	1.6028e-03	0.0000e+00
69	EMPTY	1.7627	1.7676	1.7657	2.3941e-03	0.0000e+00
70	EMPTY	1.7725	1.7773	1.7728	1.1714e-03	0.0000e+00
71	EMPTY	1.7822	1.7920	1.7907	2.3778e-03	0.0000e+00
72	EMPTY	1.7969	1.8018	1.7970	6.9053e-04	0.0000e+00
73	EMPTY	1.8066	1.8115	1.8082	2.3008e-03	0.0000e+00
74	EMPTY	1.8164	1.8164	1.8164	0.0000e+00	0.0000e+00
75	EMPTY	1.8262	1.8311	1.8265	1.1714e-03	0.0000e+00
76	EMPTY	1.8311	1.8359	1.8354	1.4797e-03	0.0000e+00
77	EMPTY	1.8457	1.8506	1.8461	1.3381e-03	0.0000e+00
78	EMPTY	1.8604	1.8750	1.8621	2.9197e-03	0.0000e+00
79	EMPTY	1.8799	1.8945	1.8803	2.1702e-03	0.0000e+00
80	PAN020136	-16.8949	-16.3608	-16.6279	1.4724e-01	8.7099e-01
81	PAN050136	-31.5984	-30.6829	-31.1681	1.8157e-01	1.6818e+00
82	PAN070136	-20.5868	-20.1290	-20.3243	1.0697e-01	8.7148e-01
83	PAN080136	-11.1100	-10.1182	-10.5164	2.8350e-01	8.7040e-01
84	PAN090136	-10.3351	-9.4196	-9.9948	2.7322e-01	8.7036e-01
85	PAN100136	-10.2689	-10.0400	-10.1942	6.6279e-02	8.7037e-01
86	PAN105136	-5.0585	-4.7533	-4.9272	7.8655e-02	8.7009e-01
87	PAN110136	-5.3013	-4.9961	-5.1502	7.9332e-02	8.7010e-01
88	PAN115136	-4.6597	-4.3545	-4.5437	6.0173e-02	8.7007e-01
89	PAN120136	-6.2939	-5.2258	-5.5005	2.1907e-01	8.7011e-01
90	PAN125136	-4.8342	-3.6898	-4.6877	1.9426e-01	8.7008e-01
91	PAN130136	-5.0189	-4.6375	-4.8862	8.9625e-02	8.7009e-01
92	PAN120048	-12.1194	-3.8796	-11.1779	1.4915e+00	8.7045e-01
93	PAN130048	-12.6212	-8.8065	-9.8151	9.1127e-01	8.7035e-01
94	PAN120224	-10.1017	-9.7202	-9.9491	8.9877e-02	8.7036e-01
95	PAN130224	-10.1210	-9.7395	-9.9470	6.5467e-02	8.7036e-01
96	PAN120312	-11.5182	-9.7634	-10.2944	3.5450e-01	8.7038e-01
97	PAN130312	-10.4169	-8.2806	-9.7836	4.0671e-01	8.7034e-01
98	PAB000136	40.3481	40.6227	40.4790	6.9829e-02	5.8876e-01
99	PAB100136	44.3185	44.4558	44.3761	4.3190e-02	5.9051e-01
100	PAB125136	45.2521	45.4352	45.3373	4.6250e-02	5.9097e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.9808	40.3470	40.1883	1.0243e-01	7.5670e-01
102	PRV0000001	19.6054	19.6054	19.6054	7.7069e-06	7.5160e-01
103	PSR0000001	45.1651	45.2872	45.1725	2.9284e-02	7.5845e-01
104	PFM0000001	2.3607	2.6354	2.4944	6.4632e-02	5.0004e-01
105	PAN000136	-131.5688	-125.6179	-128.6300	1.1811e+00	4.9305e+00
106	PFM0000002	2.4858	2.6040	2.5408	2.6834e-02	2.0010e-01
107	EMPTY	-0.0049	0.0049	0.0022	3.9717e-03	0.0000e+00
108	EMPTY	-6.8164	-3.8623	-5.4173	8.0129e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0005	1.4797e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0001	6.9053e-04	0.0000e+00
112	VPW0000001	100.7859	101.5672	101.2469	1.9234e-01	1.0125e+00
113	VPW0000002	118.7453	119.3313	119.0890	1.6057e-01	1.0801e+00
114	VPW0000003	146.4444	147.2256	146.8467	1.5985e-01	1.1968e+00
115	VPW0000004	104.8475	105.6288	105.2264	1.8258e-01	1.0270e+00
116	VPW0000005	139.1378	140.3097	139.8096	2.0939e-01	1.1661e+00
117	VPW0000006	147.3009	148.2775	147.7853	1.9022e-01	1.2010e+00
118	IPW0000001	536.0948	541.9518	538.7111	1.7015e+00	9.1500e+00
119	IPW0000002	1309.3019	1317.1069	1313.4773	2.1233e+00	1.3164e+01
120	IPW0000003	1327.1045	1336.8544	1332.9547	2.5226e+00	1.3285e+01
121	IPW0000004	378.5063	381.9242	380.3420	6.6585e-01	3.6095e+00
122	IPW0000005	252.1279	255.5455	254.0907	6.1985e-01	2.8336e+00
123	IPW0000006	263.1836	265.6250	264.5703	5.0648e-01	2.8928e+00
124	EMPTY	-0.0293	-0.0098	-0.0201	4.2590e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0121	2.9986e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0159	3.2434e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0098	-0.0145	3.2658e-03	0.0000e+00
128	IHT0000001	128.6569	131.5866	130.2701	5.6746e-01	4.3020e+00
129	IHT0000002	132.5678	135.6928	134.0054	5.6049e-01	4.3134e+00
130	IHT0000003	132.3678	135.4928	133.8522	5.6909e-01	4.3130e+00
131	IHT0000004	130.8947	133.6291	132.2267	5.9410e-01	4.3079e+00
132	IHT0000005	129.2522	131.9866	130.6896	5.5909e-01	4.3033e+00
133	IHT0000006	124.4166	126.9556	125.7017	5.7870e-01	4.2884e+00
134	IHT0000007	131.2100	133.9444	132.6201	5.7357e-01	4.3092e+00
135	IHT0000008	129.8428	132.7725	131.2842	5.7574e-01	4.3051e+00
136	IHT0000009	130.1534	133.0831	131.6026	5.7601e-01	4.3060e+00
137	IHT0000010	132.3419	135.2716	133.5645	6.0594e-01	4.3121e+00
138	IHT0000011	130.8594	133.7891	132.0547	5.9535e-01	4.3074e+00
139	IHT0000012	128.6734	131.0172	129.7124	5.4310e-01	4.3003e+00
140	IHT0000013	91.9781	94.3219	93.0836	5.0933e-01	4.2043e+00
141	IHT0000014	127.6144	130.1534	128.6963	5.6938e-01	4.2972e+00
142	IHT0000015	94.5266	97.0656	95.7102	5.5160e-01	4.2102e+00
143	IHT0000016	87.8506	89.9991	89.0069	4.8783e-01	4.1955e+00
144	IHT0000017	104.2969	107.6172	105.8984	7.4032e-01	4.2346e+00
145	IHT0000018	-1.2072	0.7459	-0.1681	4.2579e-01	4.1000e+00
146	IHT0000019	107.5372	109.2950	108.2520	3.7768e-01	4.2405e+00
147	IHT0000020	106.1466	107.5137	106.8340	3.5125e-01	4.2369e+00
148	IHT0000021	0.1291	1.4963	0.8673	3.4239e-01	4.1000e+00
149	IHT0000022	91.7169	93.6700	92.5372	4.2682e-01	4.2031e+00
150	IHT0000023	105.5488	107.1113	106.2754	4.2323e-01	4.2355e+00
151	IHT0000024	66.7162	68.4741	67.5053	4.3218e-01	4.1552e+00
152	IHT0000025	103.3509	105.3041	104.1400	4.7180e-01	4.2302e+00
153	IHT0000026	105.5088	107.4619	106.3174	4.7680e-01	4.2356e+00
154	IHT0000027	89.5331	91.2909	90.1894	4.7639e-01	4.1980e+00
155	IHT0000028	89.6038	91.9475	90.7483	4.9601e-01	4.1992e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	105.8594	108.2031	106.9844	5.1230e-01	4.2373e+00
157	IHT0000030	108.3184	110.6622	109.4473	5.1492e-01	4.2436e+00
158	IHT0000031	106.3253	108.4737	107.2784	5.0012e-01	4.2380e+00
159	IHT0000032	107.5019	109.4550	108.4316	5.1533e-01	4.2410e+00
160	IHT0000033	-1.3919	0.3659	-0.4739	4.1806e-01	4.1000e+00
161	IHT0000034	94.1006	96.2491	95.1943	4.6186e-01	4.2091e+00
162	IHT0000035	123.8753	126.0238	124.9925	4.4997e-01	4.2863e+00
163	IHT0000036	92.5781	94.7266	93.8086	4.3090e-01	4.2059e+00

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Velocity 1 = 3.5190 (ft/sec) (+/- 13.9530 %)
 Velocity 2 = 3.5669 (ft/sec) (+/- 5.8687 %)
 Pressure drop = -4.8210 (psi)
 Tsat in = 268.0219 (deg F) Tsat out = 275.0919 (deg F)
 Phi inner = 99.0348 (kBtu/hr-ft2) (+/- 1.5741 %)
 Phi outer = 100.2175 (kBtu/hr-ft2) (+/- 1.5519 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	77.7772	78.4130	78.0697	1.8109e-01	1.9000e+00
1	TRF000002	78.3203	78.7420	78.5481	1.2666e-01	1.9000e+00
2	TFM000001	85.5251	86.3649	86.0100	2.1806e-01	1.9002e+00
3	TIN000001	85.4666	85.9926	85.7296	1.2614e-01	1.9002e+00
4	TRV000001	86.7969	87.5282	87.1623	1.7054e-01	1.9002e+00
5	TSR000001	164.0317	165.2133	164.5223	3.0136e-01	1.9060e+00
6	TAO020136	200.8179	201.8799	201.3567	2.2832e-01	1.9116e+00
7	TAO050136	213.5097	214.1767	213.7791	1.7062e-01	1.9139e+00
8	TAO070136	228.7787	229.8236	229.3086	2.6093e-01	1.9170e+00
9	TAO080136	238.4921	239.8022	239.0860	3.1293e-01	1.9192e+00
10	TAO090136	248.2290	249.5333	248.6966	3.1254e-01	1.9214e+00
11	TAO100136	253.6816	254.3336	253.9556	1.9844e-01	1.9227e+00
12	TAO105136	257.0523	258.3534	257.6415	2.7616e-01	1.9236e+00
13	EMPTY	40.9819	41.4403	41.3120	1.2387e-01	1.9011e+00
14	TAO115136	260.7025	261.6337	261.1441	2.3910e-01	1.9245e+00
15	EMPTY	32.2314	43.5000	39.8949	2.9682e+00	1.9011e+00
16	TAO125136	274.5206	275.2550	274.9269	1.5645e-01	1.9281e+00
17	TAO130136	257.2475	258.1663	257.7791	2.2129e-01	1.9236e+00
18	EMPTY	41.2111	42.3562	41.6922	2.7472e-01	1.9012e+00
19	TAO130048	273.6809	274.5085	274.1350	1.8507e-01	1.9279e+00
20	TAO120224	263.5843	264.6951	264.0934	2.1741e-01	1.9252e+00
21	EMPTY	39.3761	39.6057	39.5414	1.0413e-01	1.9011e+00
22	TAO120312	285.5846	286.3168	285.8975	1.7449e-01	1.9311e+00
23	TAO130312	276.0515	276.7864	276.3989	1.7229e-01	1.9285e+00
24	EMPTY	39.1464	40.0646	39.5735	1.6728e-01	1.9011e+00
25	TRT070000	213.8431	215.4754	214.5177	4.1515e-01	1.9140e+00
26	TRT100000	258.0277	258.7702	258.4046	2.1459e-01	1.9238e+00
27	TRT120000	280.7552	282.0374	281.3101	3.2538e-01	1.9298e+00
28	TRT125000	285.2163	286.0344	285.6653	1.9395e-01	1.9311e+00
29	EMPTY	40.0646	40.2940	40.1381	1.0810e-01	1.9011e+00
30	EMPTY	39.3761	40.0646	39.7342	2.0820e-01	1.9011e+00
31	TAP050136	140.5454	142.6475	141.6926	4.0255e-01	1.9035e+00
32	TAP070136	162.0161	164.5691	163.5932	5.0108e-01	1.9059e+00
33	TAP080136	172.8609	176.4602	174.3491	9.8436e-01	1.9073e+00
34	TAP090136	181.0305	185.6074	182.7010	1.2014e+00	1.9085e+00
35	TAP100136	190.5876	195.6290	191.6923	8.9127e-01	1.9100e+00
36	TAP105136	195.5015	201.4371	197.0069	1.2709e+00	1.9108e+00
37	TAP110136	201.9084	208.5054	204.3832	1.6552e+00	1.9121e+00
38	TAP115136	205.2753	207.7629	206.4991	4.8478e-01	1.9125e+00
39	TAP120136	210.1453	213.1883	211.2665	5.6965e-01	1.9134e+00
40	TAP125136	215.2288	216.8399	216.1178	3.2034e-01	1.9143e+00
41	TAP130136	219.8466	221.4603	220.5054	3.5653e-01	1.9152e+00
42	TAP120048	227.4211	230.3708	229.0946	6.1229e-01	1.9170e+00
43	TAP130048	235.2295	236.9242	236.1316	3.9671e-01	1.9185e+00
44	TAP120224	212.8027	214.9022	213.7251	5.3298e-01	1.9139e+00
45	TAP130224	222.1153	223.6425	222.6364	3.3743e-01	1.9156e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	37.9376	2.1193e-01	1.9010e+00
47	EMPTY	39.3761	39.8352	39.6332	8.8473e-02	1.9011e+00
48	TAI130048	283.2587	284.0828	283.7218	2.2604e-01	1.9305e+00
49	EMPTY	37.7675	38.6870	38.2365	1.9683e-01	1.9010e+00
50	TAI130224	274.0966	275.2031	274.6851	2.4568e-01	1.9280e+00
51	EMPTY	41.2111	41.8984	41.6281	2.0007e-01	1.9012e+00
52	TRR130000	140.5331	143.5408	142.3840	7.4012e-01	1.9035e+00
53	TSI000001	51.9161	52.5640	52.1948	1.6743e-01	1.9002e+00
54	TSI000002	146.3038	147.3041	146.7737	2.2064e-01	1.9040e+00
55	TSO000001	49.5385	50.4067	49.9317	2.2567e-01	1.9003e+00
56	TSO000002	64.5047	65.4667	64.9601	2.1356e-01	1.9000e+00
57	TAP020136	88.7284	89.5692	89.1550	1.7952e-01	1.9002e+00
58	TAF120312	227.2550	229.9977	228.2180	5.5411e-01	1.9168e+00
59	TAF130312	238.7864	240.4754	239.7117	3.5815e-01	1.9193e+00
60	EMPTY	4.1357	4.1504	4.1443	3.8913e-03	0.0000e+00
61	EMPTY	4.1260	4.1357	4.1322	3.1257e-03	0.0000e+00
62	EMPTY	4.1162	4.1260	4.1195	2.6908e-03	0.0000e+00
63	EMPTY	4.1113	4.1211	4.1148	2.4244e-03	0.0000e+00
64	EMPTY	1.9385	1.9434	1.9391	1.6028e-03	0.0000e+00
65	EMPTY	1.9482	1.9531	1.9519	2.1635e-03	0.0000e+00
66	EMPTY	1.9531	1.9629	1.9582	1.3811e-03	0.0000e+00
67	EMPTY	1.9629	1.9678	1.9676	9.6655e-04	0.0000e+00
68	EMPTY	1.9727	1.9775	1.9729	9.6655e-04	0.0000e+00
69	EMPTY	1.9775	1.9873	1.9824	9.8648e-04	0.0000e+00
70	EMPTY	1.9775	1.9922	1.9896	3.1567e-03	0.0000e+00
71	EMPTY	2.0020	2.0068	2.0053	2.3008e-03	0.0000e+00
72	EMPTY	2.0068	2.0117	2.0109	1.8082e-03	0.0000e+00
73	EMPTY	2.0166	2.0215	2.0214	6.9053e-04	0.0000e+00
74	EMPTY	2.0264	2.0313	2.0266	9.6655e-04	0.0000e+00
75	EMPTY	2.0361	2.0410	2.0364	1.1714e-03	0.0000e+00
76	EMPTY	2.0361	2.0459	2.0426	2.5034e-03	0.0000e+00
77	EMPTY	2.0508	2.0557	2.0555	9.6655e-04	0.0000e+00
78	EMPTY	2.0654	2.0703	2.0699	1.3381e-03	0.0000e+00
79	EMPTY	2.0801	2.0898	2.0850	9.8648e-04	0.0000e+00
80	PAN020136	-17.8104	-16.9712	-17.3420	1.7234e-01	8.7108e-01
81	PAN050136	-32.6665	-31.7510	-32.2667	1.8209e-01	1.6819e+00
82	PAN070136	-22.6467	-17.2299	-21.5862	9.9119e-01	8.7167e-01
83	PAN080136	-13.3225	-2.3362	-10.1777	1.5041e+00	8.7037e-01
84	PAN090136	-13.3868	-10.4114	-11.1011	5.8246e-01	8.7044e-01
85	PAN100136	-11.1844	-9.7349	-10.4337	3.5631e-01	8.7039e-01
86	PAN105136	-6.1266	-4.4481	-5.2217	4.2521e-01	8.7010e-01
87	PAN110136	-5.9879	-4.2332	-5.0922	3.9201e-01	8.7009e-01
88	PAN115136	-5.5752	-3.8967	-4.7115	3.2127e-01	8.7008e-01
89	PAN120136	-6.9043	-4.5392	-5.4257	4.0923e-01	8.7011e-01
90	PAN125136	-5.6735	-2.6217	-4.6481	4.8746e-01	8.7008e-01
91	PAN130136	-5.4767	-4.1034	-4.8190	2.3217e-01	8.7008e-01
92	PAN120048	-11.4327	-10.0594	-10.9673	2.2403e-01	8.7043e-01
93	PAN130048	-10.1798	-9.4169	-9.8624	1.6910e-01	8.7035e-01
94	PAN120224	-10.5594	-9.1099	-10.0742	2.8244e-01	8.7036e-01
95	PAN130224	-10.5024	-9.6632	-10.0142	2.0156e-01	8.7036e-01
96	PAN120312	-10.7552	-9.4583	-10.1434	2.8442e-01	8.7037e-01
97	PAN130312	-10.3406	-9.3488	-9.9179	2.0227e-01	8.7035e-01
98	PAB000136	40.3023	40.5770	40.4405	6.4400e-02	5.8875e-01
99	PAB100136	44.4100	44.5473	44.4988	3.9681e-02	5.9057e-01
100	PAB125136	45.3895	45.5726	45.4810	4.5307e-02	5.9104e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.8587	40.2249	40.0296	8.1794e-02	7.5665e-01
102	PRV0000001	19.6054	19.8495	19.7201	3.8286e-02	7.5162e-01
103	PSR0000001	45.1651	45.4093	45.2897	3.0104e-02	7.5850e-01
104	PFH0000001	1.7199	1.9945	1.8499	6.1596e-02	5.0002e-01
105	PAN000136	-135.6887	-131.1111	-133.4731	1.0559e+00	4.9313e+00
106	PFH0000002	1.8776	1.9282	1.9019	1.4545e-02	2.0006e-01
107	EMPTY	-0.0049	0.0049	-0.0022	3.8473e-03	0.0000e+00
108	EMPTY	-6.3916	-3.8916	-4.2938	5.3313e-01	0.0000e+00
109	EMPTY	-0.0049	0.0049	0.0001	2.5131e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0003	1.1714e-03	0.0000e+00
112	VPW0000001	100.9812	101.5672	101.3250	1.1545e-01	1.0128e+00
113	VPW0000002	118.9406	119.3313	119.0851	1.1712e-01	1.0801e+00
114	VPW0000003	146.6397	147.0303	146.8467	1.0741e-01	1.1968e+00
115	VPW0000004	104.8475	105.4334	105.1522	1.3182e-01	1.0267e+00
116	VPW0000005	139.3331	139.9191	139.6807	1.3833e-01	1.1655e+00
117	VPW0000006	147.4962	147.8869	147.6954	1.1497e-01	1.2006e+00
118	IPW0000001	555.6183	561.4753	558.4296	1.1267e+00	9.2235e+00
119	IPW0000002	1285.8866	1291.7404	1289.2819	1.4650e+00	1.3013e+01
120	IPW0000003	1305.6544	1311.5044	1308.6969	1.1923e+00	1.3134e+01
121	IPW0000004	380.4594	382.9008	381.5529	5.5419e-01	3.6174e+00
122	IPW0000005	252.6161	253.5926	253.3095	2.8055e-01	2.8292e+00
123	IPW0000006	261.2305	262.6953	262.0313	3.7899e-01	2.8784e+00
124	EMPTY	-0.0244	-0.0146	-0.0205	3.4173e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0136	2.6635e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0171	3.7239e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0153	3.2733e-03	0.0000e+00
128	IHT0000001	129.0475	131.3913	130.0631	6.2515e-01	4.3014e+00
129	IHT0000002	132.7631	135.1069	133.7749	5.6316e-01	4.3127e+00
130	IHT0000003	132.5631	134.9069	133.6647	6.0716e-01	4.3124e+00
131	IHT0000004	131.0900	133.2384	131.9532	5.9854e-01	4.3071e+00
132	IHT0000005	129.4475	131.5959	130.4435	5.8826e-01	4.3025e+00
133	IHT0000006	124.6119	126.7603	125.4712	5.6221e-01	4.2877e+00
134	IHT0000007	131.6006	133.3584	132.4287	5.5742e-01	4.3086e+00
135	IHT0000008	130.0381	132.3819	131.0576	5.5704e-01	4.3044e+00
136	IHT0000009	130.1534	132.3019	131.3916	5.5609e-01	4.3054e+00
137	IHT0000010	132.1466	134.8809	133.3301	5.5300e-01	4.3113e+00
138	IHT0000011	130.4688	133.3984	131.6797	5.4104e-01	4.3063e+00
139	IHT0000012	128.2828	131.2125	129.3804	5.4518e-01	4.2993e+00
140	IHT0000013	91.7828	94.1266	92.7789	4.9007e-01	4.2037e+00
141	IHT0000014	127.4191	129.3722	128.3565	4.8488e-01	4.2962e+00
142	IHT0000015	94.5266	96.4797	95.4055	4.6396e-01	4.2095e+00
143	IHT0000016	88.0459	89.9991	88.8740	4.3146e-01	4.1952e+00
144	IHT0000017	104.1016	106.8359	105.2813	5.0680e-01	4.2330e+00
145	IHT0000018	-1.4025	0.3553	-0.4298	3.7948e-01	4.1000e+00
146	IHT0000019	107.1466	109.0997	108.2754	4.1627e-01	4.2406e+00
147	IHT0000020	105.9512	107.5137	106.7246	3.7840e-01	4.2366e+00
148	IHT0000021	-0.0662	1.6916	0.7853	3.5679e-01	4.1000e+00
149	IHT0000022	91.7169	93.4747	92.5098	4.1462e-01	4.2031e+00
150	IHT0000023	105.3534	106.9159	106.1464	4.1836e-01	4.2352e+00
151	IHT0000024	66.5209	68.0834	67.3374	4.0758e-01	4.1549e+00
152	IHT0000025	103.1556	105.1087	103.9720	4.2258e-01	4.2298e+00
153	IHT0000026	105.1181	107.0713	106.1143	4.1055e-01	4.2351e+00
154	IHT0000027	88.5566	91.2909	90.0175	4.7718e-01	4.1977e+00
155	IHT0000028	90.1897	92.1428	91.0334	4.6091e-01	4.1998e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	106.2500	108.2031	107.1484	4.9756e-01	4.2377e+00
157	IHT0000030	108.5137	110.4669	109.5606	4.6649e-01	4.2439e+00
158	IHT0000031	106.5206	108.6691	107.4346	4.8559e-01	4.2384e+00
159	IHT0000032	107.6972	110.0409	108.6152	4.9324e-01	4.2414e+00
160	IHT0000033	-1.1966	0.7566	-0.2513	4.0695e-01	4.1000e+00
161	IHT0000034	94.1006	96.2491	95.2920	4.4337e-01	4.2093e+00
162	IHT0000035	124.2659	126.2191	125.1175	4.4601e-01	4.2867e+00
163	IHT0000036	93.1641	94.9219	93.9844	4.1385e-01	4.2063e+00

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Velocity 1 = 3.0747 (ft/sec) (+/- 18.1755 %)
 Velocity 2 = 3.1217 (ft/sec) (+/- 7.1275 %)
 Pressure drop = -4.8872 (psi)
 Tsat in = 268.0881 (deg F) Tsat out = 275.3618 (deg F)
 Phi inner = 100.4318 (kBtu/hr-ft2) (+/- 1.5706 %)
 Phi outer = 100.4276 (kBtu/hr-ft2) (+/- 1.5526 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	77.9892	78.6248	78.3833	1.8663e-01	1.9000e+00
1	TRF000002	78.5312	78.9529	78.8221	1.1964e-01	1.9001e+00
2	TPH000001	87.0973	87.9355	87.5917	2.0522e-01	1.9002e+00
3	TIN000001	86.9384	87.5690	87.2746	1.5593e-01	1.9002e+00
4	TRV000001	88.1545	89.0951	88.6104	2.1910e-01	1.9002e+00
5	TSR000001	161.2763	165.1162	163.3247	8.0998e-01	1.9059e+00
6	TAO020136	204.8683	205.8304	205.3800	2.1780e-01	1.9123e+00
7	TAO050136	225.1591	225.9147	225.5251	1.8176e-01	1.9162e+00
8	TAO070136	242.9670	244.0018	243.4713	2.2631e-01	1.9202e+00
9	TAO080136	253.1897	254.1166	253.7423	1.8927e-01	1.9226e+00
10	TAO090136	262.0622	263.2648	262.7467	2.5413e-01	1.9249e+00
11	TAO100136	268.0437	268.8742	268.5012	2.0839e-01	1.9264e+00
12	TAO105136	273.2437	274.3489	273.7741	3.0370e-01	1.9278e+00
13	EMPTY	40.9819	41.4403	41.3028	1.2248e-01	1.9011e+00
14	TAO115136	276.6400	277.9303	277.3075	3.7183e-01	1.9287e+00
15	EMPTY	32.0000	43.5000	39.4486	3.2665e+00	1.9010e+00
16	TAO125136	285.5871	286.9549	286.1054	3.2867e-01	1.9312e+00
17	TAO130136	274.2913	275.9255	275.2394	3.6990e-01	1.9282e+00
18	EMPTY	41.6693	42.8139	42.1960	2.5437e-01	1.9012e+00
19	TAO130048	286.8427	288.2095	287.5206	3.2299e-01	1.9316e+00
20	TAO120224	278.6913	280.5246	279.8391	3.6640e-01	1.9294e+00
21	EMPTY	39.3761	39.6057	39.5689	8.5020e-02	1.9011e+00
22	TAO120312	295.1637	296.0740	295.5572	1.8788e-01	1.9340e+00
23	TAO130312	288.6572	290.0225	289.3602	2.4678e-01	1.9321e+00
24	EMPTY	39.1464	39.8352	39.5597	1.7353e-01	1.9011e+00
25	TRT070000	229.3416	230.5784	229.9615	3.2126e-01	1.9172e+00
26	TRT100000	275.8072	276.7249	276.2954	2.0753e-01	1.9285e+00
27	TRT120000	289.4329	290.3452	289.9221	1.8312e-01	1.9323e+00
28	TRT125000	294.5473	295.1825	294.8853	1.6678e-01	1.9338e+00
29	EMPTY	40.0646	40.2940	40.1243	1.0165e-01	1.9011e+00
30	EMPTY	39.1464	40.0646	39.7066	2.3717e-01	1.9011e+00
31	TAF050136	151.6199	153.9011	152.6913	5.0051e-01	1.9046e+00
32	TAF070136	176.3933	178.6271	177.3887	5.3745e-01	1.9078e+00
33	TAF080136	188.4563	190.6712	189.6804	5.0065e-01	1.9096e+00
34	TAF090136	197.2277	200.1188	198.8632	6.2238e-01	1.9112e+00
35	TAF100136	209.4060	211.4183	210.2687	4.3638e-01	1.9132e+00
36	TAF105136	216.8245	220.8822	218.9704	1.0126e+00	1.9149e+00
37	TAF110136	223.6005	232.0806	228.5954	1.9007e+00	1.9169e+00
38	TAF115136	228.1862	232.6154	230.4569	9.5092e-01	1.9173e+00
39	TAF120136	232.9163	237.3201	234.6719	1.2660e+00	1.9182e+00
40	TAF125136	238.7420	242.6598	240.5938	8.2961e-01	1.9195e+00
41	TAF130136	242.9504	245.1022	243.8862	5.7551e-01	1.9203e+00
42	TAF120048	250.7930	253.6100	251.9047	6.4329e-01	1.9222e+00
43	TAF130048	262.1328	264.4477	263.2402	5.2916e-01	1.9250e+00
44	TAF120224	233.7569	236.1100	234.9170	6.4966e-01	1.9182e+00
45	TAF130224	246.1855	248.3477	247.0167	4.9095e-01	1.9210e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.2273	37.9008	2.0299e-01	1.9010e+00
47	EMPTY	39.6057	40.0646	39.7893	1.5378e-01	1.9011e+00
48	TAI130048	294.1180	295.2102	294.6859	2.4493e-01	1.9337e+00
49	EMPTY	37.7675	38.4572	38.2365	1.7964e-01	1.9010e+00
50	TAI130224	288.8906	290.1707	289.4976	2.8431e-01	1.9322e+00
51	EMPTY	41.2111	41.8984	41.6006	1.8072e-01	1.9012e+00
52	TRR130000	142.0380	144.0420	143.0722	4.1103e-01	1.9036e+00
53	TSI000001	51.9167	52.5646	52.2366	1.7431e-01	1.9002e+00
54	TSI000002	160.3264	161.6135	161.0355	2.8923e-01	1.9056e+00
55	TSO000001	49.3200	50.4056	49.8325	2.2364e-01	1.9003e+00
56	TSO000002	66.1076	67.0683	66.5942	2.1477e-01	1.9000e+00
57	TAF020136	89.0425	89.8836	89.4293	1.9983e-01	1.9003e+00
58	TAF120312	249.7197	255.0322	251.4770	9.5667e-01	1.9221e+00
59	TAF130312	269.1053	272.0527	270.5572	7.5757e-01	1.9269e+00
60	EMPTY	4.9268	4.9512	4.9409	5.7732e-03	0.0000e+00
61	EMPTY	4.9170	4.9268	4.9213	2.7267e-03	0.0000e+00
62	EMPTY	4.8975	4.9072	4.9024	2.0903e-03	0.0000e+00
63	EMPTY	4.8877	4.8975	4.8931	2.0337e-03	0.0000e+00
64	EMPTY	2.2803	2.2852	2.2839	2.1635e-03	0.0000e+00
65	EMPTY	2.2900	2.2949	2.2935	2.2603e-03	0.0000e+00
66	EMPTY	2.2949	2.2998	2.2996	9.6655e-04	0.0000e+00
67	EMPTY	2.3047	2.3096	2.3048	6.9053e-04	0.0000e+00
68	EMPTY	2.3047	2.3096	2.3092	1.3381e-03	0.0000e+00
69	EMPTY	2.3145	2.3193	2.3157	2.1635e-03	0.0000e+00
70	EMPTY	2.3193	2.3242	2.3201	1.8082e-03	0.0000e+00
71	EMPTY	2.3340	2.3389	2.3341	6.9053e-04	0.0000e+00
72	EMPTY	2.3340	2.3389	2.3387	9.6655e-04	0.0000e+00
73	EMPTY	2.3438	2.3486	2.3457	2.4164e-03	0.0000e+00
74	EMPTY	2.3486	2.3535	2.3519	2.3365e-03	0.0000e+00
75	EMPTY	2.3584	2.3633	2.3586	9.6655e-04	0.0000e+00
76	EMPTY	2.3584	2.3633	2.3630	1.1714e-03	0.0000e+00
77	EMPTY	2.3682	2.3779	2.3726	1.7784e-03	0.0000e+00
78	EMPTY	2.3828	2.3877	2.3842	2.2146e-03	0.0000e+00
79	EMPTY	2.3975	2.4023	2.3979	1.3381e-03	0.0000e+00
80	PAN020136	-18.1919	-16.8186	-17.2123	2.7242e-01	8.7106e-01
81	PAN050136	-33.2769	-31.1406	-32.6329	3.2521e-01	1.6820e+00
82	PAN070136	-21.2734	-20.0527	-20.6753	2.5156e-01	8.7153e-01
83	PAN080136	-11.4152	-9.5841	-10.3730	3.2901e-01	8.7039e-01
84	PAN090136	-11.7084	-9.7247	-10.5334	4.4779e-01	8.7040e-01
85	PAN100136	-11.2607	-7.3698	-9.3748	1.0357e+00	8.7032e-01
86	PAN105136	-7.7288	-7.5762	-7.6418	4.3624e-02	8.7021e-01
87	PAN110136	-0.7999	3.4725	1.1105	9.1785e-01	8.7000e-01
88	PAN115136	-6.3381	-6.1093	-6.2390	5.1699e-02	8.7014e-01
89	PAN120136	-7.0569	-2.2504	-5.2716	1.1443e+00	8.7010e-01
90	PAN125136	-7.1993	0.6589	-4.3200	2.2977e+00	8.7007e-01
91	PAN130136	-6.4685	1.5424	-2.5455	1.6711e+00	8.7002e-01
92	PAN120048	-12.1194	-6.0159	-11.1535	1.3529e+00	8.7045e-01
93	PAN130048	-9.7983	-3.0845	-6.9282	1.5132e+00	8.7017e-01
94	PAN120224	-11.9327	-7.1262	-9.0854	1.0243e+00	8.7030e-01
95	PAN130224	-10.4261	-5.5433	-9.0040	8.5720e-01	8.7029e-01
96	PAN120312	-12.3574	-5.4910	-9.7939	1.5372e+00	8.7034e-01
97	PAN130312	-10.2643	-3.6267	-7.1210	1.4150e+00	8.7018e-01
98	PAB000136	40.3938	40.6227	40.4854	4.8055e-02	5.8876e-01
99	PAB100136	44.2269	44.6847	44.4393	1.1393e-01	5.9054e-01
100	PAB125136	45.2979	45.9388	45.6834	1.4210e-01	5.9114e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.9808	40.4690	40.2200	1.2565e-01	7.5671e-01
102	PRV000001	19.4833	19.6054	19.5639	5.8413e-02	7.5159e-01
103	PSR000001	45.2872	45.4093	45.4068	1.7263e-02	7.5854e-01
104	PFM000001	1.2621	1.5368	1.4013	7.2207e-02	5.0001e-01
105	PAN000136	-138.4353	-132.9421	-135.3042	1.3666e+00	4.9316e+00
106	PFM000002	1.4214	1.4721	1.4457	1.4940e-02	2.0003e-01
107	EMPTY	-0.0049	0.0049	0.0004	3.9261e-03	0.0000e+00
108	EMPTY	-6.8652	-3.9307	-4.4672	6.5075e-01	0.0000e+00
109	EMPTY	-0.0049	0.0049	0.0003	2.0716e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0002	9.6655e-04	0.0000e+00
112	VPW000001	101.1766	101.5672	101.3914	9.8648e-02	1.0130e+00
113	VPW000002	118.9406	119.3313	119.1164	9.0412e-02	1.0802e+00
114	VPW000003	146.8350	147.2256	146.9522	1.1161e-01	1.1973e+00
115	VPW000004	104.8475	105.4334	105.2225	1.2992e-01	1.0270e+00
116	VPW000005	139.7238	140.1144	139.8877	1.2701e-01	1.1664e+00
117	VPW000006	147.6916	148.0822	147.8204	1.1578e-01	1.2011e+00
118	IPW000001	536.0948	543.9042	540.2339	1.7920e+00	9.1556e+00
119	IPW000002	1299.5455	1311.2531	1306.2968	2.9292e+00	1.3119e+01
120	IPW000003	1325.1544	1331.0044	1327.3386	1.7898e+00	1.3250e+01
121	IPW000004	381.4359	383.3891	382.6760	4.7525e-01	3.6248e+00
122	IPW000005	253.5926	255.0573	254.3250	3.4523e-01	2.8349e+00
123	IPW000006	263.6719	265.1367	264.3750	3.4400e-01	2.8917e+00
124	EMPTY	-0.0293	-0.0098	-0.0200	4.0971e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0128	2.9413e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0167	3.2851e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0098	-0.0144	3.1828e-03	0.0000e+00
128	IHT000001	129.2428	131.7819	130.2233	6.4415e-01	4.3018e+00
129	IHT000002	132.9584	135.4975	133.8921	6.0398e-01	4.3131e+00
130	IHT000003	132.7584	135.2975	133.7936	5.9353e-01	4.3128e+00
131	IHT000004	130.8947	133.4337	132.0782	5.9243e-01	4.3075e+00
132	IHT000005	129.4475	131.7912	130.5529	5.7400e-01	4.3028e+00
133	IHT000006	124.4166	127.1509	125.5493	5.7453e-01	4.2879e+00
134	IHT000007	131.6006	134.1397	132.4834	5.1333e-01	4.3087e+00
135	IHT000008	130.0381	132.5772	131.1279	4.9770e-01	4.3046e+00
136	IHT000009	130.5441	132.6925	131.4034	4.2864e-01	4.3054e+00
137	IHT000010	132.5372	134.6856	133.4590	5.0538e-01	4.3117e+00
138	IHT000011	131.0547	132.8125	131.7813	4.4475e-01	4.3066e+00
139	IHT000012	128.6734	130.4312	129.4546	4.8004e-01	4.2995e+00
140	IHT000013	91.9781	93.9313	92.9000	4.4300e-01	4.2039e+00
141	IHT000014	127.6144	129.7628	128.5479	4.8854e-01	4.2968e+00
142	IHT000015	94.5266	97.0656	95.5383	4.8116e-01	4.2098e+00
143	IHT000016	87.8506	90.5850	88.9990	5.0937e-01	4.1955e+00
144	IHT000017	103.7109	108.7891	106.3320	1.0076e+00	4.2356e+00
145	IHT000018	-1.7931	1.1366	-0.1173	4.4833e-01	4.1000e+00
146	IHT000019	107.3419	109.4903	108.1192	4.8567e-01	4.2402e+00
147	IHT000020	105.7559	107.9044	106.6465	5.1017e-01	4.2364e+00
148	IHT000021	0.1291	2.4728	1.0548	4.9412e-01	4.1000e+00
149	IHT000022	91.7169	93.8653	92.4786	5.2386e-01	4.2030e+00
150	IHT000023	105.1581	107.1113	106.1504	4.6495e-01	4.2352e+00
151	IHT000024	66.5209	68.4741	67.3139	4.2938e-01	4.1549e+00
152	IHT000025	103.1556	104.9134	103.9876	4.4957e-01	4.2298e+00
153	IHT000026	105.3134	107.0713	106.2041	4.6548e-01	4.2353e+00
154	IHT000027	88.9472	91.0956	90.1308	5.2261e-01	4.1979e+00
155	IHT000028	90.1897	92.1428	90.9123	4.6059e-01	4.1996e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	106.4453	108.2031	107.0977	4.4400e-01	4.2376e+00
157	IHT000030	108.7091	110.6622	109.5567	4.4923e-01	4.2439e+00
158	IHT000031	106.5206	108.6691	107.3956	4.7718e-01	4.2383e+00
159	IHT000032	107.5019	109.6503	108.4941	4.6327e-01	4.2411e+00
160	IHT000033	-1.0013	0.7566	-0.2942	3.9634e-01	4.1000e+00
161	IHT000034	94.1006	96.2491	95.1865	4.5874e-01	4.2090e+00
162	IHT000035	124.0706	126.0238	125.0629	4.7816e-01	4.2865e+00
163	IHT000036	92.9688	94.9219	93.8320	4.7530e-01	4.2060e+00

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Velocity 1 - 2.9041 (ft/sec) (+/- 20.3681 %)
 Velocity 2 - 2.9046 (ft/sec) (+/- 8.0136 %)
 Pressure drop - -4.7615 (psi)
 Tsat in - 267.9976 (deg F) Tsat out - 275.2569 (deg F)
 Phi inner - 100.5690 (kBtu/hr-ft2) (+/- 1.5702 %)
 Phi outer - 99.9338 (kBtu/hr-ft2) (+/- 1.5548 %)
 D inner - 0.1973 (ft) D outer - 0.2412 (ft) D hyd - 0.0438 (ft)
 L inner - 12.8330 (ft) L outer - 12.8330 (ft) A flow - 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	78.4130	79.0484	78.6841	1.7665e-01	1.9001e+00
1	TRF0000002	78.9529	79.5851	79.1510	1.5592e-01	1.9001e+00
2	TFM0000001	87.7263	88.5635	88.2180	1.9749e-01	1.9002e+00
3	TIN0000001	87.3584	88.0934	87.7930	1.6012e-01	1.9002e+00
4	TRV0000001	88.7820	89.6176	89.1980	2.2464e-01	1.9002e+00
5	TSR0000001	155.6438	158.0183	156.6278	6.0699e-01	1.9050e+00
6	TAO020136	209.6746	210.3465	210.0145	1.7574e-01	1.9132e+00
7	TAO050136	232.4061	233.3470	232.8674	1.9671e-01	1.9178e+00
8	TAO070136	251.4203	252.4498	251.8599	2.2788e-01	1.9222e+00
9	TAO080136	261.6877	262.6113	262.1701	2.0443e-01	1.9247e+00
10	TAO090136	271.6522	272.5724	272.1874	2.2504e-01	1.9273e+00
11	TAO100136	278.0716	279.0815	278.5912	2.1988e-01	1.9291e+00
12	TAO105136	280.3200	281.7878	281.0855	3.4989e-01	1.9298e+00
13	EMPTY	40.9819	41.4403	41.2616	1.2499e-01	1.9011e+00
14	TAO115136	282.2567	283.5435	282.8763	3.0832e-01	1.9303e+00
15	EMPTY	33.1563	43.5000	40.7313	2.4458e+00	1.9011e+00
16	TAO125136	292.5040	294.2297	293.7119	2.9430e-01	1.9334e+00
17	TAO130136	282.0748	284.1544	283.1519	4.7633e-01	1.9304e+00
18	EMPTY	41.8984	42.8139	42.3837	2.0494e-01	1.9012e+00
19	TAO130048	291.6634	292.4819	292.0437	2.3707e-01	1.9329e+00
20	TAO120224	283.4544	285.2833	284.5208	4.2070e-01	1.9308e+00
21	EMPTY	39.3761	39.6057	39.5919	5.5076e-02	1.9011e+00
22	TAO120312	299.1638	300.0709	299.5868	2.3241e-01	1.9352e+00
23	TAO130312	291.2960	292.7503	291.9887	3.4538e-01	1.9329e+00
24	EMPTY	39.3761	39.8352	39.6194	1.6983e-01	1.9011e+00
25	TRT0700000	229.8160	232.2885	231.3617	6.7086e-01	1.9175e+00
26	TRT1000000	283.1252	283.9477	283.6128	1.9417e-01	1.9305e+00
27	TRT1200000	292.8933	293.4398	293.1758	1.1533e-01	1.9333e+00
28	TRT1250000	295.1821	295.9972	295.6335	1.6524e-01	1.9340e+00
29	EMPTY	39.8352	40.2940	40.1289	1.1391e-01	1.9011e+00
30	EMPTY	39.3761	40.2940	39.7985	2.0401e-01	1.9011e+00
31	TAF050136	156.9737	159.4469	157.9850	5.6237e-01	1.9052e+00
32	TAF070136	183.4787	186.6717	185.2110	7.3095e-01	1.9089e+00
33	TAF080136	198.0587	202.6446	199.7323	8.3156e-01	1.9113e+00
34	TAF090136	207.7047	210.4799	209.1464	5.8749e-01	1.9130e+00
35	TAF100136	219.6320	221.7263	220.6012	4.6182e-01	1.9152e+00
36	TAF105136	227.7522	231.6885	229.2912	7.2296e-01	1.9170e+00
37	TAF110136	235.3659	244.9024	239.6224	2.2202e+00	1.9193e+00
38	TAF115136	238.9078	242.7467	240.7046	7.4530e-01	1.9195e+00
39	TAF120136	244.5067	247.0210	245.7829	4.9956e-01	1.9207e+00
40	TAF125136	251.6697	254.9085	253.0890	6.9779e-01	1.9225e+00
41	TAF130136	257.9543	266.6530	262.4432	2.2661e+00	1.9248e+00
42	TAF120048	263.3348	265.5703	264.2047	4.3019e-01	1.9252e+00
43	TAF130048	272.3870	275.8842	274.7345	7.6949e-01	1.9280e+00
44	TAF120224	244.3646	246.7957	245.1671	5.3077e-01	1.9206e+00
45	TAF130224	262.7508	275.8315	269.5947	2.7164e+00	1.9267e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.2273	37.9882	1.9132e-01	1.9010e+00
47	EMPTY	39.6057	40.0646	39.8857	1.4872e-01	1.9011e+00
48	TAI130048	294.8464	296.2104	295.5901	3.1428e-01	1.9340e+00
49	EMPTY	37.7675	38.4572	38.1813	1.5405e-01	1.9010e+00
50	TAI130224	293.0034	296.1046	294.3593	6.8542e-01	1.9336e+00
51	EMPTY	40.9819	41.8984	41.5319	1.9083e-01	1.9012e+00
52	TRR130000	151.6254	153.8132	152.7062	4.7841e-01	1.9046e+00
53	TSI0000001	51.9179	52.6729	52.2525	2.1037e-01	1.9002e+00
54	TSI0000002	171.3650	172.5428	172.1128	2.8728e-01	1.9070e+00
55	TSO0000001	49.6450	50.5125	50.0288	2.0353e-01	1.9003e+00
56	TSO0000002	67.4945	68.3479	67.9147	2.3932e-01	1.9000e+00
57	TAF020136	89.6724	90.4086	90.0912	1.9627e-01	1.9003e+00
58	TAF120312	260.7909	263.2931	262.1090	5.5160e-01	1.9247e+00
59	TAF130312	272.0527	275.6380	274.5665	7.7287e-01	1.9288e+00
60	EMPTY	5.0195	5.0537	5.0389	8.4837e-03	0.0000e+00
61	EMPTY	5.0098	5.0293	5.0187	5.5533e-03	0.0000e+00
62	EMPTY	4.9951	5.0195	5.0005	4.6532e-03	0.0000e+00
63	EMPTY	4.9854	4.9951	4.9906	4.0482e-03	0.0000e+00
64	EMPTY	2.3242	2.3340	2.3265	2.6488e-03	0.0000e+00
65	EMPTY	2.3340	2.3389	2.3355	2.3008e-03	0.0000e+00
66	EMPTY	2.3389	2.3438	2.3403	2.2603e-03	0.0000e+00
67	EMPTY	2.3438	2.3535	2.3478	2.1364e-03	0.0000e+00
68	EMPTY	2.3486	2.3535	2.3496	1.9730e-03	0.0000e+00
69	EMPTY	2.3535	2.3584	2.3577	1.7115e-03	0.0000e+00
70	EMPTY	2.3584	2.3682	2.3628	2.0337e-03	0.0000e+00
71	EMPTY	2.3682	2.3779	2.3748	2.5648e-03	0.0000e+00
72	EMPTY	2.3779	2.3828	2.3781	9.6655e-04	0.0000e+00
73	EMPTY	2.3828	2.3877	2.3874	1.1714e-03	0.0000e+00
74	EMPTY	2.3877	2.3926	2.3925	6.9053e-04	0.0000e+00
75	EMPTY	2.3925	2.4023	2.3994	2.4164e-03	0.0000e+00
76	EMPTY	2.4023	2.4121	2.4028	1.7784e-03	0.0000e+00
77	EMPTY	2.4072	2.4170	2.4124	1.5314e-03	0.0000e+00
78	EMPTY	2.4219	2.4268	2.4251	2.3365e-03	0.0000e+00
79	EMPTY	2.4316	2.4414	2.4389	2.6543e-03	0.0000e+00
80	PAN020136	-17.5052	-16.5134	-17.0002	1.9972e-01	8.7104e-01
81	PAN050136	-33.5820	-32.0562	-32.9808	3.6788e-01	1.6820e+00
82	PAN070136	-19.9764	-18.4506	-19.1723	3.4952e-01	8.7132e-01
83	PAN080136	-11.8729	-9.5841	-10.4722	5.5097e-01	8.7039e-01
84	PAN090136	-13.3868	-11.0980	-12.5125	6.7279e-01	8.7056e-01
85	PAN100136	-13.2444	-13.0918	-13.1376	4.0781e-02	8.7062e-01
86	PAN105136	-7.6525	0.9688	-2.5133	1.9747e+00	8.7002e-01
87	PAN110136	-6.3694	2.0229	-4.3796	1.7064e+00	8.7007e-01
88	PAN115136	-5.8041	-0.6924	-3.7136	1.1553e+00	8.7005e-01
89	PAN120136	-5.4547	-2.1741	-3.7778	6.7654e-01	8.7005e-01
90	PAN125136	-7.1993	-3.0795	-5.1241	1.1420e+00	8.7009e-01
91	PAN130136	-0.7465	3.4497	0.9457	9.8740e-01	8.7000e-01
92	PAN120048	-11.8142	-6.9314	-10.1495	1.1195e+00	8.7037e-01
93	PAN130048	-4.9918	-1.9401	-3.2950	6.3282e-01	8.7004e-01
94	PAN120224	-9.2625	-4.4559	-7.1522	1.2727e+00	8.7018e-01
95	PAN130224	-5.0856	-3.2545	-4.2189	5.0130e-01	8.7006e-01
96	PAN120312	-10.6027	-5.8724	-8.6068	1.2494e+00	8.7027e-01
97	PAN130312	-4.3896	-2.4823	-3.3429	3.8101e-01	8.7004e-01
98	PAB0000136	40.3023	40.5312	40.4240	5.8935e-02	5.8874e-01
99	PAB100136	44.5931	44.8678	44.7881	5.7614e-02	5.9071e-01
100	PAB125136	45.4352	45.7557	45.6046	6.1520e-02	5.9110e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.9808	40.3470	40.2249	8.1794e-02	7.5671e-01
102	PRV0000001	19.6054	19.7274	19.6078	1.7263e-02	7.5160e-01
103	PSR0000001	44.7989	45.0431	44.8795	6.3406e-02	7.5835e-01
104	PFM0000001	1.0790	1.3537	1.2456	7.7795e-02	5.0001e-01
105	PAN000136	-133.8577	-129.2800	-131.8252	9.7506e-01	4.9310e+00
106	PFM0000002	1.2187	1.2694	1.2460	1.3606e-02	2.0002e-01
107	EMPTY	-0.0049	0.0049	0.0015	3.7239e-03	0.0000e+00
108	EMPTY	-5.9326	-3.9063	-4.2859	4.6284e-01	0.0000e+00
109	EMPTY	-0.0049	0.0049	0.0001	1.2041e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW0000001	100.9812	101.5672	101.3172	1.4785e-01	1.0127e+00
113	VPW0000002	118.9406	119.7219	119.1711	1.5124e-01	1.0804e+00
114	VPW0000003	146.6397	147.0303	146.8584	1.1599e-01	1.1969e+00
115	VPW0000004	104.8475	105.4334	105.1366	1.2627e-01	1.0267e+00
116	VPW0000005	139.5284	140.1144	139.7940	1.7091e-01	1.1660e+00
117	VPW0000006	147.4962	148.2775	147.8478	1.8508e-01	1.2013e+00
118	IPW0000001	532.1901	538.0472	534.8063	1.4007e+00	9.1357e+00
119	IPW0000002	1301.4967	1307.3506	1304.3068	1.4301e+00	1.3107e+01
120	IPW0000003	1329.0544	1334.9044	1331.0433	1.6940e+00	1.3273e+01
121	IPW0000004	377.5297	379.9711	378.6916	4.8216e-01	3.5986e+00
122	IPW0000005	252.1279	253.5926	253.0654	3.9257e-01	2.8279e+00
123	IPW0000006	262.6953	264.6484	263.6523	4.4072e-01	2.8876e+00
124	EMPTY	-0.0244	-0.0098	-0.0182	3.2777e-03	0.0000e+00
125	EMPTY	-0.0146	0.0000	-0.0111	2.9660e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0098	-0.0131	3.0309e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0151	3.9766e-03	0.0000e+00
128	IHT0000001	129.0475	131.5866	130.1412	5.2199e-01	4.3016e+00
129	IHT0000002	132.9584	135.3022	133.8491	4.6213e-01	4.3130e+00
130	IHT0000003	133.1491	135.1022	133.8014	4.4400e-01	4.3128e+00
131	IHT0000004	131.2853	133.6291	132.0626	4.9989e-01	4.3074e+00
132	IHT0000005	130.0334	131.7912	130.5880	4.4706e-01	4.3029e+00
133	IHT0000006	124.8072	126.5650	125.5571	4.4180e-01	4.2879e+00
134	IHT0000007	131.7959	133.3584	132.5381	4.2864e-01	4.3089e+00
135	IHT0000008	130.4288	131.9913	131.1787	4.3110e-01	4.3047e+00
136	IHT0000009	130.7394	132.4972	131.5401	4.5720e-01	4.3058e+00
137	IHT0000010	132.5372	134.6856	133.3926	5.3799e-01	4.3115e+00
138	IHT0000011	130.8594	132.8125	131.7734	5.2858e-01	4.3066e+00
139	IHT0000012	128.6734	130.6266	129.4781	5.0477e-01	4.2996e+00
140	IHT0000013	91.9781	94.1266	92.8531	4.5718e-01	4.2038e+00
141	IHT0000014	127.6144	129.7628	128.5088	4.8823e-01	4.2967e+00
142	IHT0000015	94.7219	96.8703	95.4758	4.3407e-01	4.2097e+00
143	IHT0000016	88.2412	90.1944	88.9014	4.0219e-01	4.1953e+00
144	IHT0000017	106.0547	108.2031	107.0117	4.7719e-01	4.2374e+00
145	IHT0000018	-0.8166	1.5272	0.0272	3.9938e-01	4.1000e+00
146	IHT0000019	107.3419	108.9044	108.2871	4.2565e-01	4.2406e+00
147	IHT0000020	105.9512	107.9044	106.7950	4.9981e-01	4.2368e+00
148	IHT0000021	0.3244	1.8869	1.1681	4.5582e-01	4.1000e+00
149	IHT0000022	91.5216	93.4747	92.4903	4.8159e-01	4.2030e+00
150	IHT0000023	105.3534	107.3066	106.2519	4.7842e-01	4.2354e+00
151	IHT0000024	66.5209	68.2787	67.3803	4.4468e-01	4.1550e+00
152	IHT0000025	103.3509	105.1087	104.1126	4.4686e-01	4.2301e+00
153	IHT0000026	105.3134	107.2666	106.2393	5.0038e-01	4.2354e+00
154	IHT0000027	89.1425	91.0956	90.0293	5.2231e-01	4.1977e+00
155	IHT0000028	89.7991	91.9475	90.7678	5.4098e-01	4.1993e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	106.0547	108.3984	107.1406	5.4413e-01	4.2377e+00
157	IHT0000030	108.5137	110.8575	109.5762	5.2963e-01	4.2439e+00
158	IHT0000031	106.3253	108.6691	107.3721	5.0649e-01	4.2383e+00
159	IHT0000032	107.6972	109.8456	108.6894	5.3647e-01	4.2416e+00
160	IHT0000033	-1.1966	0.7566	-0.3059	4.3791e-01	4.1000e+00
161	IHT0000034	94.2959	96.0537	95.0615	4.4963e-01	4.2088e+00
162	IHT0000035	124.0706	125.8284	124.8832	4.4180e-01	4.2860e+00
163	IHT0000036	92.9688	94.5313	93.6680	3.9279e-01	4.2056e+00

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Velocity 1 = 6.8136 (ft/sec) (+/- 4.9400 %)
 Velocity 2 = 6.8543 (ft/sec) (+/- 3.6893 %)
 Pressure drop = -3.5026 (psi)
 Tsat in = 268.1826 (deg F) Tsat out = 273.5102 (deg F)
 Phi inner = 100.9219 (kBtu/hr-ft2) (+/- 1.5692 %)
 Phi outer = 100.0321 (kBtu/hr-ft2) (+/- 1.5543 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	78.8366	79.4718	79.1203	1.7433e-01	1.9001e+00
1	TRF000002	79.3744	80.0064	79.6735	1.4174e-01	1.9001e+00
2	TFH000001	86.1565	87.1006	86.6307	2.3214e-01	1.9002e+00
3	TIN000001	85.8860	86.7269	86.3738	1.8598e-01	1.9002e+00
4	TRV000001	87.2192	88.3692	87.8794	2.7068e-01	1.9002e+00
5	TSR000001	148.4974	149.3948	148.9516	2.1972e-01	1.9042e+00
6	TAO020136	178.2384	179.2190	178.5995	1.9951e-01	1.9079e+00
7	TAO050136	161.4646	162.1573	161.8090	1.8099e-01	1.9057e+00
8	TAO070136	169.3700	170.3578	169.8838	2.0732e-01	1.9067e+00
9	TAO080136	175.7551	176.4405	176.0336	1.8876e-01	1.9076e+00
10	TAO090136	179.7163	180.4006	180.0409	1.8866e-01	1.9081e+00
11	TAO100136	184.1541	185.0311	184.5128	1.7655e-01	1.9088e+00
12	TAO105136	184.6808	185.5579	185.1408	1.9884e-01	1.9089e+00
13	EMPTY	41.2111	41.6693	41.3440	1.2326e-01	1.9012e+00
14	TAO115136	186.8742	187.7519	187.2956	1.8938e-01	1.9092e+00
15	EMPTY	31.7686	42.5851	38.2967	2.8557e+00	1.9010e+00
16	TAO125136	194.4485	195.1256	194.8006	1.5346e-01	1.9105e+00
17	TAO130136	181.9629	182.4514	182.2055	1.4049e-01	1.9085e+00
18	EMPTY	41.6693	42.1273	41.9533	1.5729e-01	1.9012e+00
19	TAO130048	192.6433	193.5141	192.9802	1.6846e-01	1.9102e+00
20	TAO120224	188.0095	188.6901	188.3906	1.7207e-01	1.9094e+00
21	EMPTY	39.1464	39.3761	39.2613	1.1598e-01	1.9010e+00
22	TAO120312	201.5682	202.3387	201.8457	1.8629e-01	1.9117e+00
23	TAO130312	194.5124	195.0918	194.8329	1.4792e-01	1.9105e+00
24	EMPTY	39.1464	39.8352	39.4404	1.9702e-01	1.9010e+00
25	TRV070000	162.7623	163.9561	163.3542	2.6589e-01	1.9059e+00
26	TRT100000	185.4719	186.3472	185.9620	1.6890e-01	1.9090e+00
27	TRT120000	199.8040	200.8627	200.2084	2.1402e-01	1.9114e+00
28	TRT125000	202.1994	202.8722	202.5378	1.6117e-01	1.9118e+00
29	EMPTY	39.8352	40.2940	40.0050	1.1174e-01	1.9011e+00
30	EMPTY	39.3761	40.0646	39.7250	1.8686e-01	1.9011e+00
31	TAF050136	114.9602	116.0846	115.4183	2.6477e-01	1.9014e+00
32	TAF070136	125.9604	127.1748	126.4583	2.4423e-01	1.9021e+00
33	TAF080136	130.8387	131.9483	131.3596	2.4359e-01	1.9025e+00
34	TAF090136	134.2103	135.4218	134.8890	2.9554e-01	1.9028e+00
35	TAF100136	139.1499	140.2584	139.7988	2.2867e-01	1.9033e+00
36	TAF105136	141.8779	142.9764	142.4842	2.4621e-01	1.9035e+00
37	TAF110136	144.3208	145.2220	144.7255	1.8846e-01	1.9038e+00
38	TAF115136	147.4227	148.5220	148.0303	2.1432e-01	1.9041e+00
39	TAF120136	150.0963	150.7934	150.4940	1.8541e-01	1.9044e+00
40	TAF125136	152.8936	153.6887	153.2361	1.9554e-01	1.9047e+00
41	TAF130136	155.3755	156.2706	155.8290	2.0592e-01	1.9050e+00
42	TAF120048	160.0376	161.4347	160.6576	3.4977e-01	1.9055e+00
43	TAF130048	163.8723	164.6636	164.2326	1.9344e-01	1.9060e+00
44	TAF120224	151.1855	152.2818	151.7476	2.5372e-01	1.9045e+00
45	TAF130224	155.6000	156.5982	156.0953	2.1046e-01	1.9050e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	37.9974	2.2279e-01	1.9010e+00
47	EMPTY	39.1464	39.6057	39.3990	1.4851e-01	1.9010e+00
48	TAF130048	199.3690	200.8150	200.2250	3.3591e-01	1.9114e+00
49	EMPTY	37.9974	38.6870	38.3055	1.5824e-01	1.9010e+00
50	TAF130224	193.2442	194.4085	193.7954	2.6839e-01	1.9103e+00
51	EMPTY	39.8352	40.5234	40.1564	1.6711e-01	1.9011e+00
52	TRR130000	117.0510	119.8068	118.6389	7.0476e-01	1.9016e+00
53	TSI000001	50.6257	51.4898	51.0707	1.9464e-01	1.9002e+00
54	TSI000002	107.1402	108.2744	107.7093	2.3669e-01	1.9010e+00
55	TSO000001	49.4244	50.0762	49.7241	1.7884e-01	1.9003e+00
56	TSO000002	58.7174	59.6840	59.2156	1.9258e-01	1.9001e+00
57	TAF020136	87.8778	88.6133	88.2431	1.8312e-01	1.9002e+00
58	TAF120312	159.0774	160.7632	159.7716	3.0911e-01	1.9054e+00
59	TAF130312	164.7399	165.4313	165.1228	2.1249e-01	1.9061e+00
60	EMPTY	2.2363	2.2461	2.2404	2.8523e-03	0.0000e+00
61	EMPTY	2.2363	2.2461	2.2418	2.1249e-03	0.0000e+00
62	EMPTY	2.2412	2.2461	2.2431	2.3941e-03	0.0000e+00
63	EMPTY	2.2461	2.2510	2.2495	2.2603e-03	0.0000e+00
64	EMPTY	1.1133	1.1230	1.1182	9.8648e-04	0.0000e+00
65	EMPTY	1.1328	1.1377	1.1350	2.4484e-03	0.0000e+00
66	EMPTY	1.1475	1.1523	1.1476	6.9053e-04	0.0000e+00
67	EMPTY	1.1572	1.1621	1.1620	6.9053e-04	0.0000e+00
68	EMPTY	1.1719	1.1768	1.1720	6.9053e-04	0.0000e+00
69	EMPTY	1.1816	1.1865	1.1863	9.6655e-04	0.0000e+00
70	EMPTY	1.1963	1.2012	1.1965	9.6655e-04	0.0000e+00
71	EMPTY	1.2109	1.2158	1.2157	6.9053e-04	0.0000e+00
72	EMPTY	1.2207	1.2256	1.2255	6.9053e-04	0.0000e+00
73	EMPTY	1.2402	1.2500	1.2409	1.9754e-03	0.0000e+00
74	EMPTY	1.2500	1.2549	1.2530	2.3941e-03	0.0000e+00
75	EMPTY	1.2646	1.2695	1.2649	1.1714e-03	0.0000e+00
76	EMPTY	1.2744	1.2793	1.2756	2.1065e-03	0.0000e+00
77	EMPTY	1.2891	1.2939	1.2936	1.3381e-03	0.0000e+00
78	EMPTY	1.3086	1.3135	1.3111	2.4642e-03	0.0000e+00
79	EMPTY	1.3281	1.3330	1.3320	1.9730e-03	0.0000e+00
80	PAN020136	-12.6224	-11.2491	-12.0701	2.8024e-01	8.7052e-01
81	PAN050136	-24.1216	-22.9009	-23.5875	2.7443e-01	1.6810e+00
82	PAN070136	-15.1699	-14.1781	-14.7137	1.9769e-01	8.7078e-01
83	PAN080136	-8.2108	-7.7531	-7.9957	1.1188e-01	8.7023e-01
84	PAN090136	-7.9700	-7.5122	-7.8021	8.9877e-02	8.7022e-01
85	PAN100136	-7.9801	-7.6749	-7.8184	9.2019e-02	8.7022e-01
86	PAN105136	-3.8378	-3.4563	-3.6943	7.4943e-02	8.7005e-01
87	PAN110136	-4.0806	-3.8517	-3.9417	7.8125e-02	8.7006e-01
88	PAN115136	-3.5916	-3.2864	-3.4130	8.5278e-02	8.7004e-01
89	PAN120136	-4.0814	-3.7000	-3.9182	8.8558e-02	8.7006e-01
90	PAN125136	-3.8424	-3.5372	-3.6913	7.1454e-02	8.7005e-01
91	PAN130136	-4.1034	-3.7219	-3.9340	9.0259e-02	8.7006e-01
92	PAN120048	-8.6099	-7.9995	-8.2818	1.1663e-01	8.7025e-01
93	PAN130048	-7.8910	-7.5095	-7.7445	1.0990e-01	8.7022e-01
94	PAN120224	-7.5077	-7.2025	-7.3429	8.3519e-02	8.7019e-01
95	PAN130224	-7.9847	-7.5270	-7.7955	1.1559e-01	8.7022e-01
96	PAN120312	-7.7798	-7.2457	-7.5417	1.1183e-01	8.7020e-01
97	PAN130312	-8.1281	-7.5940	-7.9373	1.1865e-01	8.7023e-01
98	PAB000136	40.3481	40.8058	40.5495	9.8310e-02	5.8879e-01
99	PAB100136	43.4487	43.6776	43.5531	3.9280e-02	5.9013e-01
100	PAB125136	44.2451	44.3366	44.3101	3.0798e-02	5.9048e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIND000001	39.9808	40.8353	40.3347	1.7996e-01	7.5675e-01
102	PRV0000001	19.6054	19.7274	19.7079	4.5206e-02	7.5162e-01
103	PSR0000001	43.9444	44.0665	44.0323	5.5366e-02	7.5804e-01
104	PPH0000001	6.9384	7.3046	7.1123	9.1084e-02	5.0032e-01
105	PAN000136	-101.3564	-93.1167	-96.9711	1.8705e+00	4.9260e+00
106	PPH0000002	7.0811	7.3176	7.1987	4.9221e-02	2.0081e-01
107	EMPTY	-0.0049	0.0049	0.0024	3.4527e-03	0.0000e+00
108	EMPTY	-5.7373	-3.8721	-4.2071	3.9989e-01	0.0000e+00
109	EMPTY	-0.0049	0.0049	0.0014	2.4244e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW0000001	100.7859	101.1766	100.9930	1.3329e-01	1.0116e+00
113	VPW0000002	118.3547	118.9406	118.6945	1.1712e-01	1.0786e+00
114	VPW0000003	146.2491	146.8350	146.5147	1.3532e-01	1.1954e+00
115	VPW0000004	104.6522	105.0428	104.8553	1.2453e-01	1.0256e+00
116	VPW0000005	139.1378	139.7238	139.4620	1.3445e-01	1.1646e+00
117	VPW0000006	147.1056	147.6916	147.3868	1.4848e-01	1.1992e+00
118	IPW0000001	528.2855	538.0472	533.4786	2.3205e+00	9.1308e+00
119	IPW0000002	1309.3019	1321.0094	1314.7262	3.5324e+00	1.3171e+01
120	IPW0000003	1334.9044	1342.7045	1338.9602	1.9635e+00	1.3323e+01
121	IPW0000004	376.5531	380.4594	378.4670	1.2894e+00	3.5971e+00
122	IPW0000005	253.5926	255.0573	254.4031	3.7703e-01	2.8354e+00
123	IPW0000006	263.6719	266.6016	265.2930	7.8572e-01	2.8970e+00
124	EMPTY	-0.0244	-0.0098	-0.0194	3.8825e-03	0.0000e+00
125	EMPTY	-0.0146	-0.0049	-0.0128	2.5894e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0160	3.8257e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0149	3.7447e-03	0.0000e+00
128	IHT0000001	129.6334	131.7819	130.5436	5.3322e-01	4.3028e+00
129	IHT0000002	133.3491	135.3022	134.2514	4.8470e-01	4.3142e+00
130	IHT0000003	133.3444	135.4928	134.2272	4.8846e-01	4.3141e+00
131	IHT0000004	131.6759	133.6291	132.4962	3.9656e-01	4.3088e+00
132	IHT0000005	130.2287	131.7912	130.9748	4.2625e-01	4.3041e+00
133	IHT0000006	125.1978	126.7603	125.9165	4.0710e-01	4.2890e+00
134	IHT0000007	131.9913	133.7491	132.8194	4.3326e-01	4.3098e+00
135	IHT0000008	130.6241	132.3819	131.4639	4.5378e-01	4.3056e+00
136	IHT0000009	130.7394	132.8878	131.8252	5.2521e-01	4.3067e+00
137	IHT0000010	132.7325	135.0762	133.7364	4.8006e-01	4.3126e+00
138	IHT0000011	131.0547	133.3984	132.0781	4.8417e-01	4.3075e+00
139	IHT0000012	128.6734	130.8219	129.7828	5.2858e-01	4.3005e+00
140	IHT0000013	91.9781	93.9313	93.0211	4.8746e-01	4.2042e+00
141	IHT0000014	127.8097	129.9581	128.9034	4.7679e-01	4.2979e+00
142	IHT0000015	94.7219	96.4797	95.6555	5.0113e-01	4.2101e+00
143	IHT0000016	88.0459	90.1944	89.1436	5.2034e-01	4.1958e+00
144	IHT0000017	104.6875	108.2031	106.6172	9.4837e-01	4.2364e+00
145	IHT0000018	-1.0119	0.7459	-0.2541	3.9585e-01	4.1000e+00
146	IHT0000019	107.5372	108.9044	108.3184	3.4625e-01	4.2407e+00
147	IHT0000020	106.3419	107.7091	107.0293	3.7897e-01	4.2374e+00
148	IHT0000021	0.1291	1.6916	0.9259	3.2739e-01	4.1000e+00
149	IHT0000022	92.1075	93.6700	92.7989	3.7891e-01	4.2037e+00
150	IHT0000023	105.7441	107.1113	106.4746	3.4357e-01	4.2360e+00
151	IHT0000024	66.7162	68.0834	67.5171	3.5568e-01	4.1552e+00
152	IHT0000025	103.3509	104.9134	104.2337	3.4903e-01	4.2304e+00
153	IHT0000026	105.5022	107.2666	106.4893	4.1100e-01	4.2360e+00
154	IHT0000027	89.3378	91.0956	90.3730	4.0289e-01	4.1984e+00
155	IHT0000028	89.9944	92.7288	91.3029	5.7079e-01	4.2004e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	106.2500	108.9044	107.5039	5.6784e-01	4.2386e+00
157	IHT0000030	108.5137	111.0528	109.8145	5.9922e-01	4.2445e+00
158	IHT0000031	106.5206	108.6691	107.5831	5.5124e-01	4.2388e+00
159	IHT0000032	107.6972	110.0409	108.8418	5.6360e-01	4.2420e+00
160	IHT0000033	-1.3919	0.5612	-0.3411	4.7497e-01	4.1000e+00
161	IHT0000034	94.2959	96.6397	95.4326	5.3915e-01	4.2096e+00
162	IHT0000035	124.4613	126.8050	125.4886	5.2320e-01	4.2877e+00
163	IHT0000036	93.1641	95.3125	94.1133	4.8490e-01	4.2066e+00

DEFECTIVE INSTRUMENTS FOR THE NON-RIBBED GEOMETRY TEST SERIES

Series	Tests	Defective Instruments
1	Nov14_02 to Nov14_15	TAO120048 TRT020000 TAI130136 TAO020136 TRT070000 TAI130312 TAO110136 TRT130000 TAO120136 TRR130000 TAO130224 IHT000018 IHT000021 IHT000024 IHT000033

Chapter 2

NUCLEATE BOILING PRESSURE DROP IN AN ANNULUS

Test Geometry: Non-Ribbed (2)
Test Series: 1A
Test Date: February 1, 1990

TEST NUMBER	INLET VELOCITY(a) (ft/s)	PRESSURE DROP(b) (psi)
Feb01_01	25.98	21.29
Feb01_02	19.84	10.24
Feb01_03	14.04	2.50
Feb01_04	8.02	-2.72
Feb01_05	6.99	-3.30
Feb01_06	5.87	-3.92
Feb01_07	4.98	-4.33
Feb01_08	4.00	-4.68
Feb01_09	3.49	-4.54
Feb01_10	3.05	-4.75
Feb01_11	2.79	-3.87

(c)

NOMINAL TEST CONDITIONS	
Annulus geometry	non-ribbed (2)
Inlet temperature	86 °F
Inlet pressure	40 psia
Wall heat flux	100 kBtu/hr-ft ²
Flux distribution	uniform
He saturation pressure	5 psig

NOTES:

(a) Inlet velocity calculated from PFM000001

(b) Pressure drop calculated from PAN000136

(c) Shading notes test at minimum pressure drop

DEMAND CURVE AND DATA FOR SERIES 1A - NON-RIBBED ANNULUS

SERIES 1A, FEB01_08

NON-RIBBED (2)

$\phi = 100,800 \text{ Btu/hr-ft}^2$

$V_f = 4.00 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 40.25 \text{ psia}$

$T = 86.39 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

NON-RIBBED (2)

$\phi = 100,800 \text{ Btu/hr-ft}^2$

$V_f = 4.00 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 40.25 \text{ psia}$

$T = 86.39 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

SERIES 1A, FEB01_09

NON-RIBBED (2)

$\phi = 100,700 \text{ Btu/hr-ft}^2$

$V_f = 3.49 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 40.44 \text{ psia}$

$T = 87.69 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

NON-RIBBED (2)

$\phi = 100,700 \text{ Btu/hr-ft}^2$

$V_f = 3.49 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 40.44 \text{ psia}$

$T = 87.69 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

SERIES 1A, FEB01_11

$P_{He} = 5$ psig

NON-RIBBED (2)

$P = 40.31$ psia

$\phi = 101,000$ Btu/hr-ft²

$T = 85.98$ °F

$V_f = 2.79$ ft/sec

$L = 12.83$ ft

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Velocity 1 = 25.9646 (ft/sec) (+/- 3.4791 %)
 Velocity 2 = 13.2648 (ft/sec) (+/- 3.4866 %)
 Pressure drop = 21.2905 (psi)
 Tsat in = 268.1319 (deg F) Tsat out = 227.1699 (deg F)
 Phi inner = 100.7329 (kBtu/hr-ft2) (+/- 1.5694 %)
 Phi outer = 100.6647 (kBtu/hr-ft2) (+/- 1.5515 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	74.4220	75.0599	74.7324	1.6193e-01	1.9000e+00
1	TRF000002	74.7191	75.3537	75.0914	1.3886e-01	1.9000e+00
2	TFM000001	85.5993	86.4388	86.1095	1.9650e-01	1.9002e+00
3	TIN000001	85.8834	86.5139	86.1925	1.4772e-01	1.9002e+00
4	TRV000001	85.9470	86.8901	86.4566	2.0958e-01	1.9002e+00
5	TSR000001	105.7090	106.4313	106.1151	1.7488e-01	1.9009e+00
6	EMPTY	37.9974	38.9168	38.4664	2.1758e-01	1.9010e+00
7	TAO050136	115.0886	115.8059	115.3900	1.9228e-01	1.9014e+00
8	TAO070136	116.2565	117.0793	116.6291	1.8689e-01	1.9015e+00
9	TAO080136	117.1780	117.9959	117.6420	1.6676e-01	1.9015e+00
10	TAO090136	118.9948	119.8132	119.3121	1.7799e-01	1.9016e+00
11	TAO100136	118.7696	119.5879	119.1110	1.6487e-01	1.9016e+00
12	TAO105136	118.8442	119.6641	119.3175	2.1988e-01	1.9016e+00
13	EMPTY	40.9819	41.4403	41.2799	1.1573e-01	1.9011e+00
14	TAO115136	126.1238	126.9409	126.5224	1.8007e-01	1.9022e+00
15	EMPTY	37.3074	37.5374	37.4040	1.1471e-01	1.9009e+00
16	TAO125136	121.7475	122.3598	122.0476	1.5740e-01	1.9018e+00
17	EMPTY	31.9235	32.3911	32.1527	8.8240e-02	1.9007e+00
18	EMPTY	41.4403	41.6693	41.5273	1.1232e-01	1.9012e+00
19	TAO130048	118.6929	119.3067	118.9938	1.5225e-01	1.9016e+00
20	TAO120224	118.9555	119.5700	119.3384	1.4446e-01	1.9016e+00
21	EMPTY	38.9168	39.1464	39.1327	5.5101e-02	1.9010e+00
22	TAO120312	123.0197	123.6326	123.3935	1.6704e-01	1.9019e+00
23	TAO130312	119.4600	120.0732	119.8704	1.3777e-01	1.9017e+00
24	EMPTY	38.9168	39.6057	39.2567	1.9813e-01	1.9010e+00
25	TRT070000	117.0119	118.0416	117.4626	2.0690e-01	1.9015e+00
26	TRT100000	124.5283	125.3431	125.0272	1.9094e-01	1.9020e+00
27	TRT120000	122.8026	123.6189	123.2209	1.6260e-01	1.9019e+00
28	TRT125000	124.3971	125.3103	124.9353	1.8596e-01	1.9020e+00
29	EMPTY	39.6057	40.0646	39.8535	9.0851e-02	1.9011e+00
30	EMPTY	39.3761	40.0646	39.7204	1.8109e-01	1.9011e+00
31	TAF050136	93.6771	94.5111	94.1087	1.9057e-01	1.9004e+00
32	TAF070136	96.4161	97.2453	96.7750	1.9120e-01	1.9005e+00
33	TAF080136	97.3573	98.0827	97.6623	1.7815e-01	1.9005e+00
34	TAF090136	98.0181	98.9543	98.5196	2.5346e-01	1.9005e+00
35	TAF100136	99.6828	100.5144	100.1133	1.9253e-01	1.9006e+00
36	TAF105136	100.7394	101.7692	101.2928	2.3072e-01	1.9007e+00
37	TAF110136	101.6854	102.5134	102.0727	1.6306e-01	1.9007e+00
38	TAF115136	103.1820	103.9063	103.5108	1.9338e-01	1.9008e+00
39	TAF120136	103.8046	104.4253	104.1171	1.5121e-01	1.9008e+00
40	TAF125136	104.8483	105.4681	105.1440	1.4440e-01	1.9008e+00
41	TAF130136	105.3532	105.9737	105.7233	1.5351e-01	1.9009e+00
42	TAF120048	105.9951	106.7229	106.4009	2.0789e-01	1.9009e+00
43	TAF130048	106.6793	107.2996	107.0327	1.5061e-01	1.9009e+00
44	TAF120224	103.7980	104.8321	104.3298	1.9377e-01	1.9008e+00
45	TAF130224	104.5571	105.1790	104.9737	1.2989e-01	1.9008e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.2273	37.9100	1.9094e-01	1.9010e+00
47	EMPTY	38.9168	39.3761	39.1051	1.0049e-01	1.9010e+00
48	TAI130048	124.7138	125.9361	125.4902	2.6892e-01	1.9021e+00
49	TAI130136	122.5402	123.4557	122.9898	2.2529e-01	1.9019e+00
50	TAI130224	122.2290	123.5572	122.8606	3.0471e-01	1.9019e+00
51	TAI130312	117.7159	118.6378	118.1647	1.9303e-01	1.9016e+00
52	TRR130000	120.4058	122.1363	121.3042	3.7126e-01	1.9018e+00
53	TSI000001	41.9104	42.6719	42.3132	2.0404e-01	1.9005e+00
54	TSI000002	75.9161	77.1848	76.6033	3.4685e-01	1.9000e+00
55	TSO000001	40.9859	41.7513	41.3291	2.0011e-01	1.9006e+00
56	TSO000002	47.0679	48.1520	47.6992	1.9799e-01	1.9003e+00
57	TAF020136	89.1678	90.0085	89.6199	1.9497e-01	1.9003e+00
58	EMPTY	42.8139	43.5000	43.1387	2.3600e-01	1.9013e+00
59	TAF130312	106.8665	107.6914	107.3346	1.8555e-01	1.9009e+00
60	EMPTY	0.9521	0.9570	0.9558	2.1635e-03	0.0000e+00
61	EMPTY	0.9619	0.9668	0.9667	6.9053e-04	0.0000e+00
62	EMPTY	0.9717	0.9814	0.9766	9.8648e-04	0.0000e+00
63	EMPTY	0.9863	0.9912	0.9906	1.6028e-03	0.0000e+00
64	EMPTY	0.5518	0.5566	0.5565	6.9053e-04	0.0000e+00
65	EMPTY	0.5713	0.5762	0.5760	9.6655e-04	0.0000e+00
66	EMPTY	0.5908	0.5908	0.5908	0.0000e+00	0.0000e+00
67	EMPTY	0.6055	0.6104	0.6064	1.9730e-03	0.0000e+00
68	EMPTY	0.6201	0.6201	0.6201	0.0000e+00	0.0000e+00
69	EMPTY	0.6348	0.6396	0.6388	1.8950e-03	0.0000e+00
70	EMPTY	0.6494	0.6543	0.6526	2.3365e-03	0.0000e+00
71	EMPTY	0.6738	0.6787	0.6739	6.9053e-04	0.0000e+00
72	EMPTY	0.6885	0.6885	0.6885	0.0000e+00	0.0000e+00
73	EMPTY	0.7031	0.7080	0.7052	2.4344e-03	0.0000e+00
74	EMPTY	0.7178	0.7227	0.7182	1.3381e-03	0.0000e+00
75	EMPTY	0.7324	0.7373	0.7371	9.6655e-04	0.0000e+00
76	EMPTY	0.7471	0.7520	0.7494	2.4642e-03	0.0000e+00
77	EMPTY	0.7666	0.7715	0.7672	1.6028e-03	0.0000e+00
78	EMPTY	0.7861	0.7910	0.7907	1.1714e-03	0.0000e+00
79	EMPTY	0.8057	0.8105	0.8104	6.9053e-04	0.0000e+00
80	PAN020136	72.4310	76.5509	74.1201	9.6407e-01	8.8951e-01
81	PAN050136	136.6240	138.3024	137.5029	3.9425e-01	1.7148e+00
82	PAN070136	100.0393	100.0393	100.0394	2.3121e-05	9.0523e-01
83	PAN080136	44.1494	44.8361	44.4668	1.7800e-01	8.7707e-01
84	PAN090136	42.7115	43.3219	43.0396	1.4064e-01	8.7663e-01
85	PAN100136	44.0305	45.4801	45.0086	2.5732e-01	8.7725e-01
86	PAN105136	32.0647	33.5906	32.6400	2.6573e-01	8.7382e-01
87	PAN110136	27.2303	27.6881	27.4897	1.1221e-01	8.7271e-01
88	PAN115136	22.2244	22.6822	22.4792	1.1180e-01	8.7181e-01
89	PAN120136	18.5579	19.0156	18.8890	9.0679e-02	8.7128e-01
90	PAN125136	19.0845	19.4660	19.2661	9.9761e-02	8.7133e-01
91	PAN130136	17.6716	18.0531	17.9127	1.0719e-01	8.7115e-01
92	PAN120048	40.7808	41.7726	41.3148	2.4126e-01	8.7611e-01
93	PAN130048	38.7795	39.9240	39.3090	2.5580e-01	8.7553e-01
94	PAN120224	43.6022	44.2125	43.9425	1.4558e-01	8.7691e-01
95	PAN130224	38.3658	38.9761	38.7411	1.5168e-01	8.7537e-01
96	PAN120312	42.6456	43.1796	42.8623	1.3021e-01	8.7657e-01
97	PAN130312	36.8413	37.5280	37.1541	1.6475e-01	8.7494e-01
98	PAB000136	40.2697	40.6817	40.5151	9.7769e-02	5.8878e-01
99	PAB100136	24.0596	24.2885	24.1805	4.6939e-02	5.8314e-01
100	PAB125136	19.7284	19.8658	19.7962	3.7269e-02	5.8211e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	40.0188	41.1174	40.4460	1.8660e-01	7.5679e-01
102	PRV000001	19.5111	19.6331	19.6014	5.4088e-02	7.5160e-01
103	PSR000001	16.6025	16.7245	16.6928	5.4988e-02	7.5116e-01
104	PFM000001	104.5357	106.2752	105.3963	4.0860e-01	5.6518e-01
105	PAN000136	586.3162	594.0981	589.4380	1.6354e+00	5.1359e+00
106	PFM000002	27.3191	27.3191	27.3191	7.7069e-06	2.1134e-01
107	EMPTY	0.0049	0.0098	0.0077	2.4344e-03	0.0000e+00
108	EMPTY	-10.0000	1.5234	-5.4285	3.1977e+00	0.0000e+00
109	EMPTY	0.0000	0.0098	0.0049	9.8648e-04	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0002	9.6655e-04	0.0000e+00
112	VPW000001	101.3672	101.9531	101.6914	1.3445e-01	1.0141e+00
113	VPW000002	118.3556	118.9415	118.6525	1.2627e-01	1.0784e+00
114	VPW000003	146.4355	147.0215	146.7090	1.3669e-01	1.1962e+00
115	VPW000004	104.3870	104.9730	104.6410	1.3811e-01	1.0248e+00
116	VPW000005	138.7883	139.3743	139.1671	1.7384e-01	1.1633e+00
117	VPW000006	145.3388	145.9247	145.5185	1.5201e-01	1.1910e+00
118	IPW000001	545.0041	548.9088	547.2345	1.1807e+00	9.1807e+00
119	IPW000002	1310.2026	1318.0077	1312.6218	1.5042e+00	1.3158e+01
120	IPW000003	1331.5125	1337.3625	1334.2813	1.3698e+00	1.3294e+01
121	IPW000004	381.7514	383.2163	382.5326	3.1195e-01	3.6239e+00
122	IPW000005	254.6319	255.6084	255.0322	2.9077e-01	2.8389e+00
123	IPW000006	267.6626	269.6158	268.6003	4.9166e-01	2.9159e+00
124	EMPTY	-0.0293	-0.0146	-0.0229	3.4527e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0145	2.6025e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0146	-0.0201	3.5072e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0177	3.5417e-03	0.0000e+00
128	IHT000001	131.5392	133.6877	132.5197	5.1974e-01	4.3088e+00
129	IHT000002	131.0997	133.0529	131.8888	4.7998e-01	4.3069e+00
130	IHT000003	129.7776	131.5354	130.5941	4.7464e-01	4.3030e+00
131	IHT000004	131.9561	134.2999	132.9795	4.7279e-01	4.3103e+00
132	IHT000005	130.2960	132.2491	131.2061	4.5781e-01	4.3048e+00
133	IHT000006	125.8301	127.7832	126.7871	4.4512e-01	4.2916e+00
134	IHT000007	132.2378	134.3863	133.1323	4.8663e-01	4.3107e+00
135	IHT000008	130.8744	132.8275	131.8393	4.8554e-01	4.3068e+00
136	IHT000009	130.6002	132.9440	131.5494	5.3235e-01	4.3059e+00
137	IHT000010	130.3899	132.7336	131.9445	5.0680e-01	4.3071e+00
138	IHT000011	131.4491	133.7928	132.8749	4.6396e-01	4.3099e+00
139	IHT000012	130.6678	133.0116	131.9608	5.1884e-01	4.3071e+00
140	IHT000013	91.9171	94.2608	93.2412	5.0731e-01	4.2047e+00
141	IHT000014	127.6517	129.8002	128.8081	4.6662e-01	4.2976e+00
142	IHT000015	94.7566	96.7097	95.8347	4.7554e-01	4.2105e+00
143	IHT000016	88.6907	90.8391	89.8743	4.5747e-01	4.1973e+00
144	IHT000017	105.6903	107.4482	106.5927	4.3564e-01	4.2363e+00
145	IHT000018	107.4745	109.6229	108.3378	4.0451e-01	4.2407e+00
146	IHT000019	107.8463	109.6041	108.7212	4.2907e-01	4.2417e+00
147	IHT000020	106.4078	107.7749	107.0952	4.0480e-01	4.2376e+00
148	IHT000021	-2.3099	-0.3568	-1.4232	5.0101e-01	4.1000e+00
149	IHT000022	93.0288	94.7866	93.8999	4.3977e-01	4.2062e+00
150	IHT000023	105.6415	107.3993	106.5517	4.0933e-01	4.2362e+00
151	IHT000024	71.2027	72.7652	71.9683	3.9031e-01	4.1627e+00
152	IHT000025	103.5720	104.9392	104.2087	3.8624e-01	4.2304e+00
153	IHT000026	105.6941	107.4519	106.3856	3.8502e-01	4.2358e+00
154	IHT000027	90.3621	92.3152	91.1473	3.7536e-01	4.2001e+00
155	IHT000028	90.6025	92.9462	91.8017	6.0104e-01	4.2015e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.9007	108.4398	107.1702	6.0393e-01	4.2378e+00
157	IHT000030	108.8341	111.3732	109.9513	5.8930e-01	4.2449e+00
158	IHT000031	106.8960	109.4351	107.9038	5.7637e-01	4.2396e+00
159	IHT000032	107.3543	109.8933	108.5223	5.7248e-01	4.2412e+00
160	IHT000033	107.3618	109.9008	108.4751	5.6393e-01	4.2411e+00
161	IHT000034	94.1557	96.4994	95.2299	5.3561e-01	4.2091e+00
162	IHT000035	124.2563	126.4048	125.2056	5.6083e-01	4.2869e+00
163	IHT000036	93.0701	95.0233	93.8983	5.2875e-01	4.2061e+00

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Velocity 1 - 19.8354 (ft/sec) (+/- 3.4949 %)
 Velocity 2 - 13.2653 (ft/sec) (+/- 3.4866 %)
 Pressure drop - 10.2419 (psi)
 Tsat in - 268.0536 (deg F) Tsat out - 251.2193 (deg F)
 Phi inner - 100.5602 (kBtu/hr-ft2) (+/- 1.5698 %)
 Phi outer - 100.3141 (kBtu/hr-ft2) (+/- 1.5528 %)
 D inner - 0.1973 (ft) D outer - 0.2412 (ft) D hyd - 0.0438 (ft)
 L inner - 12.8330 (ft) L outer - 12.8330 (ft) A flow - 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	74.4220	75.0599	74.7409	1.7841e-01	1.9000e+00
1	TRF0000002	74.7191	75.3537	75.0702	1.2539e-01	1.9000e+00
2	TFM0000001	86.1245	86.9631	86.5307	2.0171e-01	1.9002e+00
3	TIN0000001	86.1984	86.7246	86.5310	1.4763e-01	1.9002e+00
4	TRV0000001	86.5748	87.3084	86.9190	1.9160e-01	1.9002e+00
5	TSR0000001	110.7434	111.9759	111.5771	2.8022e-01	1.9012e+00
6	EMPTY	37.9974	38.6870	38.3928	2.0262e-01	1.9010e+00
7	TAO050136	121.9149	122.5271	122.2861	1.5918e-01	1.9018e+00
8	TAO070136	123.2468	124.4750	123.8199	2.3116e-01	1.9020e+00
9	TAO080136	124.5956	125.3066	124.9690	1.7832e-01	1.9020e+00
10	TAO090136	126.4311	127.5492	127.0857	2.0856e-01	1.9022e+00
11	TAO100136	127.4320	128.1438	127.7492	1.5993e-01	1.9022e+00
12	TAO105136	127.3214	128.1360	127.6842	1.9847e-01	1.9022e+00
13	EMPTY	40.9819	41.4403	41.2845	1.1748e-01	1.9011e+00
14	TAO115136	134.6824	135.5951	135.1651	2.1925e-01	1.9029e+00
15	EMPTY	37.3074	37.5374	37.4408	1.1471e-01	1.9009e+00
16	TAO125136	130.7614	131.4706	131.1505	1.4945e-01	1.9025e+00
17	EMPTY	31.9235	32.3911	32.1480	6.6130e-02	1.9007e+00
18	EMPTY	41.4403	41.6693	41.5640	1.1533e-01	1.9012e+00
19	TAO130048	127.5268	128.1359	127.8886	1.4383e-01	1.9023e+00
20	TAO120224	127.6245	128.5396	128.1206	1.8446e-01	1.9023e+00
21	EMPTY	39.1464	39.3761	39.1556	4.5456e-02	1.9010e+00
22	TAO120312	132.4859	133.3981	132.9398	2.0706e-01	1.9027e+00
23	TAO130312	128.5063	129.1153	128.8436	1.2381e-01	1.9023e+00
24	EMPTY	38.9168	39.6057	39.3393	1.8763e-01	1.9010e+00
25	TRT0700000	126.1689	127.0879	126.5643	1.8876e-01	1.9022e+00
26	TRT1000000	134.3540	135.2635	134.8552	2.1492e-01	1.9028e+00
27	TRT1200000	132.8558	133.5646	133.3457	1.7150e-01	1.9027e+00
28	TRT1250000	134.5817	135.2885	134.9616	1.7814e-01	1.9028e+00
29	EMPTY	39.6057	40.0646	39.8673	1.2275e-01	1.9011e+00
30	EMPTY	39.3761	40.0646	39.6056	2.0215e-01	1.9011e+00
31	TAFO50136	96.2737	97.2098	96.8021	2.0012e-01	1.9005e+00
32	TAFO70136	99.6199	100.5511	100.1294	2.0034e-01	1.9006e+00
33	TAFO80136	100.9643	101.6876	101.3740	1.8320e-01	1.9007e+00
34	TAFO90136	102.0650	102.8946	102.5336	2.3700e-01	1.9007e+00
35	TAFO100136	104.2522	104.9776	104.6045	1.7009e-01	1.9008e+00
36	TAFO105136	105.5596	106.5875	106.1116	2.3435e-01	1.9009e+00
37	TAFO110136	106.7299	107.4523	107.1139	1.6140e-01	1.9009e+00
38	TAFO115136	108.4410	109.1611	108.8481	1.8255e-01	1.9010e+00
39	TAFO120136	109.2491	109.9700	109.6529	1.7370e-01	1.9011e+00
40	TAFO125136	110.4831	111.2029	110.8945	1.7602e-01	1.9011e+00
41	TAFO130136	111.4216	112.0386	111.7511	1.5270e-01	1.9012e+00
42	TAFO120048	111.9152	112.9481	112.4600	2.2010e-01	1.9012e+00
43	TAFO130048	113.0638	113.6810	113.4792	1.3618e-01	1.9013e+00
44	TAFO120224	109.4700	110.2938	109.8904	1.9272e-01	1.9011e+00
45	TAFO130224	110.4695	111.1918	110.9068	1.6757e-01	1.9011e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.2273	37.9054	2.0777e-01	1.9010e+00
47	EMPTY	38.9168	39.1464	39.1281	6.2945e-02	1.9010e+00
48	TAI130048	134.2568	135.6728	135.0943	2.9390e-01	1.9029e+00
49	TAI130136	131.6538	132.5644	132.1638	2.1322e-01	1.9026e+00
50	TAI130224	131.5035	132.6199	132.0354	2.9897e-01	1.9026e+00
51	TAI130312	127.1122	128.1294	127.6411	2.1751e-01	1.9022e+00
52	TRR1300000	111.2051	113.5630	112.3534	6.0850e-01	1.9012e+00
53	TSI0000001	41.8024	42.5639	42.1981	1.9003e-01	1.9005e+00
54	TSI0000002	73.6965	76.2342	74.7967	6.6663e-01	1.9000e+00
55	TSO0000001	40.5486	41.5323	41.1124	2.0772e-01	1.9006e+00
56	TSO0000002	47.6102	48.3693	47.9571	2.0070e-01	1.9003e+00
57	TAFO20136	90.4323	91.2738	90.9745	1.8421e-01	1.9003e+00
58	EMPTY	42.8139	43.5000	43.1341	2.3559e-01	1.9013e+00
59	TAFO130312	113.8561	114.3702	114.0496	1.3061e-01	1.9013e+00
60	EMPTY	1.1133	1.1182	1.1136	1.1714e-03	0.0000e+00
61	EMPTY	1.1182	1.1279	1.1234	1.6624e-03	0.0000e+00
62	EMPTY	1.1279	1.1377	1.1327	1.2041e-03	0.0000e+00
63	EMPTY	1.1426	1.1475	1.1461	2.2146e-03	0.0000e+00
64	EMPTY	0.6152	0.6201	0.6200	6.9053e-04	0.0000e+00
65	EMPTY	0.6396	0.6396	0.6396	0.0000e+00	0.0000e+00
66	EMPTY	0.6494	0.6543	0.6540	1.1714e-03	0.0000e+00
67	EMPTY	0.6689	0.6689	0.6689	0.0000e+00	0.0000e+00
68	EMPTY	0.6787	0.6836	0.6828	1.8082e-03	0.0000e+00
69	EMPTY	0.6982	0.7031	0.6985	1.1714e-03	0.0000e+00
70	EMPTY	0.7129	0.7129	0.7129	0.0000e+00	0.0000e+00
71	EMPTY	0.7324	0.7422	0.7364	2.1364e-03	0.0000e+00
72	EMPTY	0.7471	0.7471	0.7471	0.0000e+00	0.0000e+00
73	EMPTY	0.7666	0.7666	0.7666	0.0000e+00	0.0000e+00
74	EMPTY	0.7764	0.7813	0.7795	2.3675e-03	0.0000e+00
75	EMPTY	0.7959	0.8008	0.7960	6.9053e-04	0.0000e+00
76	EMPTY	0.8057	0.8105	0.8100	1.6028e-03	0.0000e+00
77	EMPTY	0.8252	0.8301	0.8261	1.8950e-03	0.0000e+00
78	EMPTY	0.8447	0.8496	0.8493	1.1714e-03	0.0000e+00
79	EMPTY	0.8691	0.8740	0.8694	1.1714e-03	0.0000e+00
80	PANO20136	34.9707	37.5647	36.3257	6.7514e-01	8.7473e-01
81	PANO50136	64.9076	66.7387	65.9697	4.5720e-01	1.6881e+00
82	PANO70136	47.9306	50.2957	49.3313	4.8468e-01	8.7870e-01
83	PANO80136	20.4983	21.6427	21.1025	2.2802e-01	8.7160e-01
84	PANO90136	19.5182	20.2811	19.8340	1.9740e-01	8.7141e-01
85	PANI00136	23.2786	24.3467	23.8615	2.7734e-01	8.7204e-01
86	PANI05136	13.6779	14.8986	14.1937	3.0578e-01	8.7072e-01
87	PANI10136	13.6500	14.0315	13.8575	1.0794e-01	8.7069e-01
88	PANI115136	10.5515	11.0855	10.8231	1.2152e-01	8.7042e-01
89	PANI120136	8.5634	9.0211	8.7831	1.1183e-01	8.7028e-01
90	PANI125136	9.1663	9.7766	9.5005	1.3863e-01	8.7032e-01
91	PANI130136	7.9823	8.5163	8.1791	1.1748e-01	8.7024e-01
92	PANI120048	19.0370	20.7154	19.7450	3.4879e-01	8.7140e-01
93	PANI130048	18.3328	19.4009	18.9630	2.7565e-01	8.7129e-01
94	PANI120224	20.7140	21.3243	21.1031	1.5510e-01	8.7160e-01
95	PANI130224	18.0716	18.8345	18.4256	1.4522e-01	8.7122e-01
96	PANI120312	19.9863	20.8255	20.4257	1.6783e-01	8.7150e-01
97	PANI130312	17.2338	17.9967	17.6290	1.7281e-01	8.7112e-01
98	PAB000136	40.1782	40.8190	40.4620	1.4026e-01	5.8875e-01
99	PAB100136	32.2994	32.6198	32.4715	5.7428e-02	5.8565e-01
100	PAB125136	30.3486	30.4859	30.4007	3.0687e-02	5.8496e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.6526	40.9954	40.3508	2.4419e-01	7.5675e-01
102	PRV000001	19.5111	19.6331	19.5892	5.9189e-02	7.5160e-01
103	PSR000001	28.8095	28.8095	28.8095	5.7801e-06	7.5345e-01
104	PFM000001	60.1326	61.8721	61.3685	3.8721e-01	5.2301e-01
105	PAN000136	275.4946	290.1431	283.5512	2.6010e+00	4.9708e+00
106	PFM000002	27.3191	27.3191	27.3191	7.7069e-06	2.1134e-01
107	EMPTY	0.0049	0.0049	0.0049	0.0000e+00	0.0000e+00
108	EMPTY	-4.4482	2.4219	-0.7922	1.6695e+00	0.0000e+00
109	EMPTY	-0.0049	0.0049	0.0025	3.3073e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	101.3672	101.9531	101.6680	1.4875e-01	1.0140e+00
113	VPW000002	118.3556	118.9415	118.6525	1.1327e-01	1.0784e+00
114	VPW000003	146.4355	147.0215	146.7168	1.4314e-01	1.1963e+00
115	VPW000004	104.3870	104.9730	104.6761	1.4358e-01	1.0250e+00
116	VPW000005	138.7883	139.5696	139.1945	1.9266e-01	1.1634e+00
117	VPW000006	145.1435	145.7294	145.5615	1.3675e-01	1.1912e+00
118	IPW000001	545.0041	550.8611	547.8547	1.5383e+00	9.1838e+00
119	IPW000002	1302.3975	1308.2513	1305.9491	1.5110e+00	1.3117e+01
120	IPW000003	1327.6125	1335.4125	1331.5902	1.4183e+00	1.3277e+01
121	IPW000004	379.7983	381.7514	380.7454	4.3461e-01	3.6121e+00
122	IPW000005	253.1672	255.1202	254.2315	4.5938e-01	2.8344e+00
123	IPW000006	267.6626	269.1275	268.3952	3.7239e-01	2.9147e+00
124	EMPTY	-0.0293	-0.0146	-0.0228	3.2133e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0159	2.5743e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0179	3.5030e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0098	-0.0167	2.6267e-03	0.0000e+00
128	IHT000001	131.3439	133.8830	132.4572	5.5978e-01	4.3087e+00
129	IHT000002	130.7091	133.0529	131.8497	5.1654e-01	4.3068e+00
130	IHT000003	129.5823	131.9261	130.6683	5.5686e-01	4.3032e+00
131	IHT000004	131.9561	134.2999	132.9912	5.3996e-01	4.3103e+00
132	IHT000005	130.1007	132.6397	131.2334	5.5943e-01	4.3049e+00
133	IHT000006	125.6348	127.9785	126.8223	5.5079e-01	4.2917e+00
134	IHT000007	132.0425	134.1910	133.1362	5.0839e-01	4.3107e+00
135	IHT000008	130.6791	133.2182	131.8862	5.1703e-01	4.3069e+00
136	IHT000009	130.4049	132.7487	131.5806	5.2272e-01	4.3060e+00
137	IHT000010	130.9758	132.9289	131.7531	5.0144e-01	4.3065e+00
138	IHT000011	131.8397	133.7928	132.7538	4.6928e-01	4.3096e+00
139	IHT000012	130.8631	133.0116	131.8280	4.6086e-01	4.3067e+00
140	IHT000013	92.1124	94.0655	93.1006	4.6590e-01	4.2044e+00
141	IHT000014	127.6517	129.8002	128.7495	4.6503e-01	4.2974e+00
142	IHT000015	94.9519	97.1003	95.7840	5.1420e-01	4.2104e+00
143	IHT000016	88.6907	90.8391	89.7844	4.9756e-01	4.1972e+00
144	IHT000017	105.2997	108.2294	106.5654	5.8957e-01	4.2362e+00
145	IHT000018	107.2791	109.4276	108.3729	5.4534e-01	4.2408e+00
146	IHT000019	107.6510	109.9947	108.8423	5.1183e-01	4.2420e+00
147	IHT000020	106.0171	108.1656	107.0405	4.7933e-01	4.2374e+00
148	IHT000021	-2.7006	-0.1615	-1.4857	5.5844e-01	4.1000e+00
149	IHT000022	92.8335	94.9820	93.7944	4.4088e-01	4.2059e+00
150	IHT000023	105.6415	107.7899	106.5439	4.4097e-01	4.2362e+00
151	IHT000024	71.0074	73.3511	71.8706	4.3600e-01	4.1625e+00
152	IHT000025	103.3767	105.5251	104.1970	4.2315e-01	4.2303e+00
153	IHT000026	105.4988	107.6472	106.4051	4.3362e-01	4.2358e+00
154	IHT000027	89.9715	92.1199	91.0691	4.4798e-01	4.1999e+00
155	IHT000028	90.7978	92.3368	91.7744	4.9756e-01	4.2015e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	106.4866	108.8304	107.1663	4.9006e-01	4.2377e+00
157	IHT000030	109.0294	111.7638	109.9122	5.1485e-01	4.2448e+00
158	IHT000031	107.0914	109.6304	107.8374	4.9707e-01	4.2394e+00
159	IHT000032	107.7449	109.8933	108.4403	5.0248e-01	4.2410e+00
160	IHT000033	107.7524	109.7055	108.3892	4.9569e-01	4.2409e+00
161	IHT000034	94.1557	96.3041	95.1284	4.5075e-01	4.2089e+00
162	IHT000035	124.2563	126.2095	125.1040	4.1508e-01	4.2866e+00
163	IHT000036	93.0701	94.8280	93.8006	3.5690e-01	4.2059e+00

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Velocity 1 = 14.0382 (ft/sec) (+/- 3.5658 %)
 Velocity 2 = 13.2655 (ft/sec) (+/- 3.4866 %)
 Pressure drop = 2.5021 (psi)
 Tsat in = 268.1926 (deg F) Tsat out = 264.3761 (deg F)
 Phi inner = 99.2324 (kBtu/hr-ft2) (+/- 1.5732 %)
 Phi outer = 100.8024 (kBtu/hr-ft2) (+/- 1.5498 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRP000001	74.6347	75.2724	74.9238	1.5343e-01	1.9000e+00
1	TRP000002	75.1422	75.3537	75.2564	1.0647e-01	1.9000e+00
2	TRP000001	86.2293	87.2772	86.7805	2.5918e-01	1.9002e+00
3	TIN000001	86.5139	87.1442	86.8020	1.3049e-01	1.9002e+00
4	TRV000001	86.7849	87.6235	87.2941	2.0182e-01	1.9002e+00
5	TSR000001	116.6787	121.7735	119.8454	1.6659e+00	1.9017e+00
6	EMPTY	37.9974	38.9168	38.4296	2.3048e-01	1.9010e+00
7	TRO050136	131.8367	132.5443	132.3038	1.5808e-01	1.9026e+00
8	TRO070136	135.0837	135.9965	135.5035	2.1784e-01	1.9029e+00
9	TRO080136	136.0951	136.6988	136.4029	1.4599e-01	1.9030e+00
10	TRO090136	141.8811	142.5845	142.3013	1.5550e-01	1.9035e+00
11	TRO100136	144.3875	145.0896	144.7545	1.7035e-01	1.9038e+00
12	TRO105136	144.9179	145.6211	145.2653	1.6002e-01	1.9038e+00
13	EMPTY	40.9819	41.4403	41.2799	1.2465e-01	1.9011e+00
14	TRO115136	149.0228	149.7257	149.3867	1.9856e-01	1.9042e+00
15	EMPTY	37.5374	37.9974	37.7169	1.0688e-01	1.9010e+00
16	TRO125136	145.7167	146.4169	146.1030	1.5265e-01	1.9039e+00
17	EMPTY	31.6897	32.6248	32.1947	2.0782e-01	1.9007e+00
18	EMPTY	41.4403	41.6693	41.5044	1.0390e-01	1.9012e+00
19	TRO130048	143.1208	143.7232	143.4279	1.6386e-01	1.9036e+00
20	TRO120224	142.4822	143.2868	142.8142	1.8530e-01	1.9036e+00
21	EMPTY	38.9168	39.6057	39.1924	1.2275e-01	1.9010e+00
22	TRO120312	149.1140	150.2152	149.5847	2.4377e-01	1.9043e+00
23	TRO130312	144.2161	144.9178	144.5587	1.5037e-01	1.9037e+00
24	EMPTY	38.9168	39.6057	39.2383	1.9683e-01	1.9010e+00
25	TRO170000	139.2225	140.0329	139.6338	1.8678e-01	1.9033e+00
26	TRO100000	151.1015	151.6007	151.3393	1.3936e-01	1.9045e+00
27	TRO120009	149.6424	150.3421	150.0843	1.6038e-01	1.9043e+00
28	TRO125000	151.2539	151.9505	151.5947	1.8081e-01	1.9045e+00
29	EMPTY	39.6057	40.0646	39.8306	1.1812e-01	1.9011e+00
30	EMPTY	39.3761	40.0646	39.6332	2.0552e-01	1.9011e+00
31	TAP050136	100.8328	101.4539	101.1288	1.7121e-01	1.9007e+00
32	TAP070136	105.0824	105.9059	105.5783	2.1076e-01	1.9009e+00
33	TAP080136	106.9219	107.6417	107.3151	1.8881e-01	1.9009e+00
34	TAP090136	108.5755	109.6060	109.1175	2.4084e-01	1.9010e+00
35	TAP100136	111.6938	112.4150	112.0545	1.7321e-01	1.9012e+00
36	TAP105136	113.7312	114.6501	114.1940	2.3329e-01	1.9013e+00
37	TAP110136	115.2314	115.9478	115.6471	1.8182e-01	1.9014e+00
38	TAP115136	117.5658	118.3834	117.9848	1.9518e-01	1.9016e+00
39	TAP120136	118.9526	119.4634	119.1677	1.2605e-01	1.9016e+00
40	TAP125136	120.2634	121.3795	120.8544	2.7127e-01	1.9017e+00
41	TAP130136	121.7446	122.3571	122.0040	1.4010e-01	1.9018e+00
42	TAP120048	123.1535	123.9747	123.5578	2.1074e-01	1.9019e+00
43	TAP130048	124.8231	125.4340	125.1061	1.2735e-01	1.9020e+00
44	TAP120224	119.3110	120.4347	119.8155	2.1782e-01	1.9017e+00
45	TAP130224	121.0826	121.6970	121.3468	1.6692e-01	1.9018e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.2273	37.9146	1.9020e-01	1.9010e+00
47	EMPTY	38.9168	39.3761	39.1556	9.2129e-02	1.9010e+00
48	TAP130048	151.3425	151.7425	151.5246	1.0812e-01	1.9045e+00
49	TAP130136	147.0063	147.6071	147.4004	1.1692e-01	1.9040e+00
50	TAP130224	146.8505	147.5528	147.1736	1.5999e-01	1.9040e+00
51	TAP130312	145.4034	145.9053	145.7387	1.2599e-01	1.9039e+00
52	TRO130000	111.7182	113.4612	112.7088	3.5424e-01	1.9012e+00
53	TSI000001	42.0204	42.6726	42.4094	1.6603e-01	1.9005e+00
54	TSI000002	84.7577	85.5975	85.1758	2.6429e-01	1.9002e+00
55	TSO000001	41.2040	41.8600	41.6174	1.6276e-01	1.9005e+00
56	TSO000002	48.5852	49.4521	49.0035	1.9452e-01	1.9003e+00
57	TAP020136	92.4302	93.1657	92.8690	1.7578e-01	1.9004e+00
58	EMPTY	42.5851	43.5000	43.1112	2.4989e-01	1.9013e+00
59	TAP130312	126.1005	126.9132	126.4155	1.8506e-01	1.9021e+00
60	EMPTY	1.3965	1.4063	1.4021	1.9754e-03	0.0000e+00
61	EMPTY	1.4663	1.4160	1.4101	2.2689e-03	0.0000e+00
62	EMPTY	1.4160	1.4209	1.4169	1.8950e-03	0.0000e+00
63	EMPTY	1.4258	1.4307	1.4283	2.4642e-03	0.0000e+00
64	EMPTY	0.7422	0.7471	0.7431	1.8950e-03	0.0000e+00
65	EMPTY	0.7617	0.7617	0.7617	0.0000e+00	0.0000e+00
66	EMPTY	0.7764	0.7764	0.7764	0.0000e+00	0.0000e+00
67	EMPTY	0.7910	0.7959	0.7911	6.9053e-04	0.0000e+00
68	EMPTY	0.8008	0.8057	0.8028	2.4344e-03	0.0000e+00
69	EMPTY	0.8154	0.8203	0.8200	1.1714e-03	0.0000e+00
70	EMPTY	0.8301	0.8350	0.8333	2.3355e-03	0.0000e+00
71	EMPTY	0.8545	0.8545	0.8545	0.0000e+00	0.0000e+00
72	EMPTY	0.8643	0.8691	0.8651	1.8950e-03	0.0000e+00
73	EMPTY	0.8789	0.8887	0.8838	9.8648e-04	0.0000e+00
74	EMPTY	0.8936	0.8984	0.8960	2.3365e-03	0.0000e+00
75	EMPTY	0.9082	0.9131	0.9123	1.8882e-03	0.0000e+00
76	EMPTY	0.9229	0.9277	0.9231	1.1714e-03	0.0000e+00
77	EMPTY	0.9375	0.9424	0.9421	1.1714e-03	0.0000e+00
78	EMPTY	0.9619	0.9619	0.9619	0.0000e+00	0.0000e+00
79	EMPTY	0.9814	0.9863	0.9824	1.9730e-03	0.0000e+00
80	PAN020136	8.2678	10.5566	9.4610	5.3010e-01	8.7032e-01
81	PAN050136	15.0114	16.5373	15.7682	3.8867e-01	1.6805e+00
82	PAN070136	13.1405	14.5138	13.7982	3.0552e-01	8.7068e-01
83	PAN080136	3.8662	4.5529	4.2019	1.7975e-01	8.7006e-01
84	PAN090136	4.4119	5.0223	4.7156	1.4515e-01	8.7008e-01
85	PAN100136	3.9762	4.5865	4.3027	1.5105e-01	8.7007e-01
86	PAN105136	4.2175	4.8278	4.4784	1.3533e-01	8.7007e-01
87	PAN110136	3.8081	4.2659	4.0172	1.1719e-01	8.7006e-01
88	PAN115136	3.2272	3.8376	3.5583	1.3403e-01	8.7005e-01
89	PAN120136	1.4680	1.9258	1.6511	9.9892e-02	8.7001e-01
90	PAN125136	0.7739	1.2317	1.0288	1.0635e-01	8.7000e-01
91	PAN130136	0.8869	1.3447	1.1372	1.1012e-01	8.7000e-01
92	PAN120048	3.2441	4.2360	3.7019	2.6653e-01	8.7005e-01
93	PAN130048	2.0822	3.3792	2.9138	2.7411e-01	8.7003e-01
94	PAN120224	5.4552	6.1418	5.8245	1.5821e-01	8.7012e-01
95	PAN130224	2.2024	2.9654	2.6175	1.4056e-01	8.7002e-01
96	PAN120312	4.1171	4.7275	4.4254	1.4124e-01	8.7007e-01
97	PAN130312	1.8987	2.5853	2.2039	1.4459e-01	8.7002e-01
98	PAB0000136	40.2239	40.9564	40.5563	1.4411e-01	5.8880e-01
99	PAB100136	38.3876	38.6623	38.4975	5.5489e-02	5.8793e-01
100	PAB125136	37.9474	38.1305	38.0362	4.2792e-02	5.8774e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.6526	40.9954	40.2507	2.9206e-01	7.5672e-01
102	PRV0000001	19.6331	19.7552	19.6356	1.7263e-02	7.5160e-01
103	PSR0000001	37.3544	37.4765	37.3715	4.2787e-02	7.5580e-01
104	PFM0000001	30.1948	31.0188	30.6178	1.9301e-01	5.0583e-01
105	PAM000136	61.7190	75.4519	69.2721	3.0995e+00	4.9230e+00
106	PFM0000002	27.3191	27.3191	27.3191	7.7069e-06	2.1134e-01
107	EMPTY	0.0049	0.0098	0.0055	1.6028e-03	0.0000e+00
108	EMPTY	-6.7090	-5.8740	-6.2668	2.1419e-01	0.0000e+00
109	EMPTY	0.0049	0.0049	0.0049	0.0000e+00	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW0000001	101.3672	102.5391	102.0039	2.3281e-01	1.0152e+00
113	VPW0000002	118.3556	119.3322	118.8243	1.9331e-01	1.0791e+00
114	VPW0000003	146.2402	147.0215	146.7246	2.0969e-01	1.1963e+00
115	VPW0000004	104.1917	105.1683	104.7503	2.0124e-01	1.0252e+00
116	VPW0000005	138.5930	139.7649	139.2140	2.2213e-01	1.1635e+00
117	VPW0000006	145.1435	146.1200	145.6552	2.1573e-01	1.1916e+00
118	IPW0000001	562.5752	572.3369	567.2216	1.8871e+00	9.2569e+00
119	IPW0000002	1284.8361	1300.4463	1292.7972	2.9458e+00	1.3035e+01
120	IPW0000003	1306.1625	1317.8625	1312.5192	2.8082e+00	1.3158e+01
121	IPW0000004	383.7046	387.6108	385.9896	9.2771e-01	3.6467e+00
122	IPW0000005	253.1672	255.6084	254.1436	5.1254e-01	2.8339e+00
123	IPW0000006	265.2212	267.6626	266.1100	5.1910e-01	2.9016e+00
124	EMPTY	-0.0293	-0.0146	-0.0205	4.0673e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0137	2.7902e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0165	3.6765e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0168	4.2038e-03	0.0000e+00
128	IHT0000001	131.3439	133.8830	132.3751	5.9456e-01	4.3084e+00
129	IHT0000002	130.7091	133.2482	131.8029	6.0232e-01	4.3066e+00
130	IHT0000003	129.3870	132.1214	130.5980	6.1384e-01	4.3030e+00
131	IHT0000004	131.5655	134.2999	132.9053	6.4115e-01	4.3100e+00
132	IHT0000005	129.9054	132.2491	131.1202	5.9227e-01	4.3046e+00
133	IHT0000006	125.4394	127.9785	126.8104	5.9896e-01	4.2917e+00
134	IHT0000007	131.8472	134.3863	133.1050	5.6794e-01	4.3106e+00
135	IHT0000008	130.8744	132.8275	131.8862	5.2451e-01	4.3069e+00
136	IHT0000009	130.4049	132.5533	131.5767	5.4960e-01	4.3060e+00
137	IHT0000010	130.7805	132.9289	131.7218	4.9393e-01	4.3064e+00
138	IHT0000011	131.8397	133.9881	132.8241	4.8482e-01	4.3098e+00
139	IHT0000012	130.8631	133.0116	131.9022	5.0754e-01	4.3070e+00
140	IHT0000013	92.1124	94.6514	93.1865	5.2977e-01	4.2046e+00
141	IHT0000014	127.6517	129.9955	128.6752	5.1230e-01	4.2972e+00
142	IHT0000015	94.7566	96.9050	95.7566	5.6309e-01	4.2103e+00
143	IHT0000016	89.0813	91.2297	90.0461	5.4877e-01	4.1977e+00
144	IHT0000017	104.9091	107.2528	106.1826	5.6254e-01	4.2353e+00
145	IHT0000018	106.8885	109.2323	108.0760	5.2621e-01	4.2401e+00
146	IHT0000019	106.8697	109.4088	108.5806	5.7258e-01	4.2413e+00
147	IHT0000020	105.2359	108.1656	106.9780	5.8639e-01	4.2373e+00
148	IHT0000021	-3.2865	0.0338	-1.4623	6.7498e-01	4.1000e+00
149	IHT0000022	92.0523	95.1773	93.9273	6.0618e-01	4.2062e+00
150	IHT0000023	104.8603	107.5946	106.4228	4.8488e-01	4.2359e+00
151	IHT0000024	70.0308	72.7652	71.6167	4.7292e-01	4.1621e+00
152	IHT0000025	102.5954	105.3298	104.1149	4.8051e-01	4.2301e+00
153	IHT0000026	104.7175	107.8425	106.3465	5.3614e-01	4.2357e+00
154	IHT0000027	89.9715	92.7058	91.3113	5.7319e-01	4.2004e+00
155	IHT0000028	90.9931	93.1415	91.9931	4.6961e-01	4.2019e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	106.2913	108.6351	107.1468	4.9109e-01	4.2377e+00
157	IHT0000030	108.8341	111.3732	109.8263	4.8942e-01	4.2445e+00
158	IHT0000031	106.8960	109.2398	107.8023	4.6649e-01	4.2394e+00
159	IHT0000032	107.5496	109.6980	108.4590	4.6288e-01	4.2410e+00
160	IHT0000033	107.5571	109.7055	108.4321	4.6895e-01	4.2410e+00
161	IHT0000034	94.1557	96.3041	95.2065	4.5316e-01	4.2091e+00
162	IHT0000035	124.0610	126.2095	125.0806	4.7889e-01	4.2866e+00
163	IHT0000036	92.6795	94.6326	93.8162	4.4238e-01	4.2060e+00

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Velocity 1 - 8.0163 (ft/sec) (+/- 4.2944 %)
 Velocity 2 - 7.9316 (ft/sec) (+/- 3.5935 %)
 Pressure drop - -2.7181 (psi)
 Tsat in - 268.1575 (deg F) Tsat out - 271.7560 (deg F)
 Phi inner - 99.2711 (kBtu/hr-ft2) (+/- 1.5732 %)
 Phi outer - 99.8236 (kBtu/hr-ft2) (+/- 1.5539 %)
 D inner - 0.1973 (ft) D outer - 0.2412 (ft) D hyd - 0.0438 (ft)
 L inner - 12.8330 (ft) L outer - 12.8330 (ft) A flow - 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	74.6347	75.2724	75.0471	1.8922e-01	1.9000e+00
1	TRF000002	75.1422	75.5651	75.3833	1.4806e-01	1.9000e+00
2	TFM000001	85.1810	86.1251	85.6722	2.0817e-01	1.9002e+00
3	TIN000001	85.3572	85.8837	85.6268	1.5345e-01	1.9002e+00
4	TRV000001	85.8433	86.6826	86.3009	2.5456e-01	1.9002e+00
5	TSR000001	136.3338	138.3443	137.7088	5.0951e-01	1.9031e+00
6	EMPTY	37.9974	38.9168	38.4388	2.3142e-01	1.9010e+00
7	TAO050136	155.9219	156.4193	156.1531	1.5223e-01	1.9050e+00
8	TAO070136	160.7405	161.7354	161.1824	2.3534e-01	1.9056e+00
9	TAO080136	162.1503	163.1373	162.7030	2.0354e-01	1.9058e+00
10	TAO090136	166.0583	166.6507	166.3426	1.3018e-01	1.9062e+00
11	TAO100136	170.6060	171.3932	170.9996	1.9483e-01	1.9069e+00
12	TAO105136	172.1681	172.9556	172.6525	2.2217e-01	1.9071e+00
13	EMPTY	40.9819	41.6693	41.2753	1.4669e-01	1.9011e+00
14	TAO115136	182.0748	183.0539	182.5565	2.3141e-01	1.9085e+00
15	EMPTY	31.7686	41.8984	36.7506	2.8845e+00	1.9009e+00
16	TAO125136	181.0830	181.6690	181.3373	1.6610e-01	1.9083e+00
17	EMPTY	31.9235	32.6248	32.2742	1.7191e-01	1.9007e+00
18	EMPTY	41.4403	41.6693	41.5502	1.1561e-01	1.9012e+00
19	TAO130048	177.5833	178.3653	177.9471	1.8325e-01	1.9078e+00
20	TAO120224	175.7416	176.5263	176.1182	1.9150e-01	1.9076e+00
21	EMPTY	38.9168	39.6057	39.2659	1.4845e-01	1.9010e+00
22	TAO120312	183.9226	184.9970	184.4583	2.6035e-01	1.9088e+00
23	TAO130312	177.5381	178.4188	178.0158	1.7195e-01	1.9078e+00
24	EMPTY	39.1464	39.6057	39.4174	2.0054e-01	1.9010e+00
25	TNT070000	172.6034	173.1980	172.8537	1.5496e-01	1.9071e+00
26	TNT100000	186.4220	187.2000	186.8110	1.8218e-01	1.9092e+00
27	TNT120000	187.5724	188.3503	187.9769	1.6369e-01	1.9094e+00
28	TNT125000	188.7354	189.4140	189.1119	1.9138e-01	1.9095e+00
29	EMPTY	39.8352	40.0646	39.9362	1.1506e-01	1.9011e+00
30	EMPTY	39.1464	40.0646	39.6883	2.0086e-01	1.9011e+00
31	TAP050136	109.2823	110.5159	110.0675	2.3195e-01	1.9011e+00
32	TAP070136	117.2571	118.2773	117.6495	2.5417e-01	1.9015e+00
33	TAP080136	120.5779	121.6952	121.0776	2.8867e-01	1.9018e+00
34	TAP090136	123.5347	124.8596	124.1099	3.3866e-01	1.9020e+00
35	TAP100136	129.0952	129.9082	129.4776	2.0893e-01	1.9024e+00
36	TAP105136	132.2224	133.3289	132.7773	2.2535e-01	1.9027e+00
37	TAP110136	135.5873	136.3933	135.9542	2.2728e-01	1.9029e+00
38	TAP115136	138.7443	139.5489	139.1343	2.0796e-01	1.9032e+00
39	TAP120136	141.2462	142.0486	141.6074	1.7671e-01	1.9035e+00
40	TAP125136	143.8918	144.9896	144.4622	2.6210e-01	1.9037e+00
41	TAP130136	146.3499	147.2496	146.7935	1.9828e-01	1.9040e+00
42	TAP120048	147.9707	148.9791	148.4987	2.4950e-01	1.9041e+00
43	TAP130048	151.4234	152.6210	151.9786	2.5117e-01	1.9045e+00
44	TAP120224	140.9807	141.8858	141.4195	2.2133e-01	1.9034e+00
45	TAP130224	144.9803	145.7852	145.3790	1.7474e-01	1.9038e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	37.9284	2.1915e-01	1.9010e+00
47	EMPTY	39.1464	39.6057	39.3485	9.9928e-02	1.9010e+00
48	TAI130048	187.9032	188.4874	188.1994	1.7687e-01	1.9094e+00
49	TAI130136	182.7487	183.4306	183.1267	1.4957e-01	1.9086e+00
50	TAI130224	180.3672	181.4444	180.7826	2.5610e-01	1.9083e+00
51	TAI130312	184.0929	184.7761	184.3860	1.7743e-01	1.9088e+00
52	TR130000	128.9364	130.6564	129.5676	4.3152e-01	1.9024e+00
53	TSI000001	43.1054	43.9752	43.5493	1.7817e-01	1.9005e+00
54	TSI000002	97.5906	98.8374	98.3554	2.9658e-01	1.9005e+00
55	TSO000001	41.9691	42.7344	42.4246	1.7970e-01	1.9005e+00
56	TSO000002	51.5061	52.3704	51.9080	2.1610e-01	1.9002e+00
57	TAP020136	95.7899	96.9419	96.3637	2.6349e-01	1.9005e+00
58	EMPTY	42.5851	43.5000	43.1341	2.4449e-01	1.9013e+00
59	TAI130312	152.3418	153.3370	152.8872	2.3484e-01	1.9046e+00
60	EMPTY	2.0313	2.0410	2.0366	2.4662e-03	0.0000e+00
61	EMPTY	2.0361	2.0410	2.0402	1.8082e-03	0.0000e+00
62	EMPTY	2.0410	2.0459	2.0437	2.4583e-03	0.0000e+00
63	EMPTY	2.0508	2.0557	2.0510	9.6655e-04	0.0000e+00
64	EMPTY	1.0107	1.0156	1.0147	1.8950e-03	0.0000e+00
65	EMPTY	1.0303	1.0303	1.0303	0.0000e+00	0.0000e+00
66	EMPTY	1.0400	1.0449	1.0445	1.3811e-03	0.0000e+00
67	EMPTY	1.0547	1.0596	1.0582	2.2146e-03	0.0000e+00
68	EMPTY	1.0645	1.0693	1.0690	1.1714e-03	0.0000e+00
69	EMPTY	1.0791	1.0840	1.0832	1.8082e-03	0.0000e+00
70	EMPTY	1.0938	1.0986	1.0939	9.6655e-04	0.0000e+00
71	EMPTY	1.1133	1.1182	1.1139	1.6028e-03	0.0000e+00
72	EMPTY	1.1230	1.1328	1.1263	2.5362e-03	0.0000e+00
73	EMPTY	1.1377	1.1426	1.1419	1.7115e-03	0.0000e+00
74	EMPTY	1.1523	1.1572	1.1525	9.6655e-04	0.0000e+00
75	EMPTY	1.1670	1.1670	1.1670	0.0000e+00	0.0000e+00
76	EMPTY	1.1768	1.1816	1.1769	6.9053e-04	0.0000e+00
77	EMPTY	1.1914	1.1963	1.1941	2.4484e-03	0.0000e+00
78	EMPTY	1.2109	1.2158	1.2130	2.4344e-03	0.0000e+00
79	EMPTY	1.2305	1.2354	1.2348	1.6028e-03	0.0000e+00
80	PAN020136	-9.8902	-8.4406	-9.1226	3.1150e-01	8.7030e-01
81	PAN050136	-18.8631	-17.7950	-18.1642	2.1818e-01	1.6806e+00
82	PAN070136	-11.9602	-11.0447	-11.4917	1.5414e-01	8.7047e-01
83	PAN080136	-6.5098	-6.1283	-6.2977	9.4125e-02	8.7014e-01
84	PAN090136	-6.6507	-6.2692	-6.4203	7.3097e-02	8.7015e-01
85	PAN100136	-6.2472	-5.9420	-6.1144	6.6850e-02	8.7013e-01
86	PAN105136	-2.3438	-1.8861	-2.1210	9.9702e-02	8.7002e-01
87	PAN110136	-2.8295	-2.5243	-2.6555	7.3986e-02	8.7003e-01
88	PAN115136	-2.8763	-2.6474	-2.7924	6.7627e-02	8.7003e-01
89	PAN120136	-3.2622	-3.0333	-3.1233	7.8125e-02	8.7004e-01
90	PAN125136	-3.8037	-3.4985	-3.6206	6.5395e-02	8.7005e-01
91	PAN130136	-3.3855	-3.0804	-3.2497	7.2772e-02	8.7004e-01
92	PAN120048	-7.4370	-6.5215	-6.9655	2.3814e-01	8.7017e-01
93	PAN130048	-6.9205	-6.0813	-6.4078	1.7712e-01	8.7015e-01
94	PAN120224	-6.0652	-5.7600	-5.9218	8.1036e-02	8.7013e-01
95	PAN130224	-6.9528	-6.4188	-6.6980	9.1980e-02	8.7016e-01
96	PAN120312	-6.1825	-5.8011	-6.0254	8.0698e-02	8.7013e-01
97	PAN130312	-7.0277	-6.6462	-6.8370	6.9362e-02	8.7017e-01
98	PAB000136	40.3613	40.7275	40.5325	8.9574e-02	5.8879e-01
99	PAB100136	42.4159	42.5533	42.4754	4.4593e-02	5.8964e-01
100	PAB125136	42.9828	43.1202	43.0405	4.5127e-02	5.8990e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.8967	40.7512	40.3337	1.7969e-01	7.5675e-01
102	PRV0000001	19.9994	20.1214	20.0555	6.1457e-02	7.5167e-01
103	PSR0000001	43.0917	43.2138	43.1918	4.7374e-02	7.5773e-01
104	PFM0000001	9.6870	10.0532	9.8866	9.3750e-02	5.0061e-01
105	PAN000136	-78.8145	-71.9480	-75.2531	1.4834e+00	4.9236e+00
106	PFM0000002	9.5157	9.8178	9.6765	5.7640e-02	2.0146e-01
107	EMPTY	-0.0049	0.0049	-0.0044	1.7784e-03	0.0000e+00
108	EMPTY	-6.7969	-5.8789	-6.3288	2.2797e-01	0.0000e+00
109	EMPTY	-0.0049	0.0049	-0.0013	2.3778e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0008	1.8082e-03	0.0000e+00
112	VPW0000001	101.5625	102.1484	101.8281	1.1679e-01	1.0146e+00
113	VPW0000002	118.5509	118.9415	118.7775	9.9512e-02	1.0789e+00
114	VPW0000003	146.6308	147.2168	146.8730	1.2823e-01	1.1969e+00
115	VPW0000004	104.3870	104.9730	104.7464	1.4953e-01	1.0252e+00
116	VPW0000005	139.3743	139.7649	139.5460	1.1599e-01	1.1650e+00
117	VPW0000006	145.7294	145.9247	145.7880	9.0412e-02	1.1922e+00
118	IPW0000001	558.6705	564.5275	561.3649	1.3601e+00	9.2346e+00
119	IPW0000002	1273.1284	1280.9336	1277.4210	1.4214e+00	1.2940e+01
120	IPW0000003	1310.0625	1315.9125	1312.0898	1.4720e+00	1.3155e+01
121	IPW0000004	383.2163	384.6811	383.7338	4.3461e-01	3.6318e+00
122	IPW0000005	253.1672	254.1437	253.7628	3.4580e-01	2.8318e+00
123	IPW0000006	264.7329	266.6861	265.5827	3.7963e-01	2.8986e+00
124	EMPTY	-0.0293	-0.0146	-0.0225	3.6911e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0160	2.6174e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0146	-0.0188	2.8523e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0146	-0.0192	3.6124e-03	0.0000e+00
128	IHT0000001	131.1486	133.4923	132.2032	5.6772e-01	4.3079e+00
129	IHT0000002	130.5138	132.8576	131.6115	5.1128e-01	4.3061e+00
130	IHT0000003	129.3870	131.7308	130.4261	5.2710e-01	4.3025e+00
131	IHT0000004	131.5655	133.7139	132.7178	4.9639e-01	4.3095e+00
132	IHT0000005	129.9054	132.0538	130.9600	5.0378e-01	4.3041e+00
133	IHT0000006	125.6348	127.5879	126.5723	4.6522e-01	4.2909e+00
134	IHT0000007	132.0425	133.9957	132.9019	4.8488e-01	4.3100e+00
135	IHT0000008	130.8744	132.8275	131.6284	4.8168e-01	4.3061e+00
136	IHT0000009	130.4049	132.5533	131.3345	4.9530e-01	4.3052e+00
137	IHT0000010	130.3899	132.5383	131.5890	4.4470e-01	4.3060e+00
138	IHT0000011	131.4491	133.4022	132.5233	4.0289e-01	4.3089e+00
139	IHT0000012	130.6678	132.4256	131.5468	4.3450e-01	4.3059e+00
140	IHT0000013	91.9171	93.8702	92.9170	4.5445e-01	4.2040e+00
141	IHT0000014	127.8470	129.6049	128.6206	4.1378e-01	4.2970e+00
142	IHT0000015	94.5613	96.3191	95.4949	4.0297e-01	4.2097e+00
143	IHT0000016	88.6907	90.6438	89.7219	4.1393e-01	4.1970e+00
144	IHT0000017	105.2997	107.2528	106.3193	4.9172e-01	4.2356e+00
145	IHT0000018	106.6932	109.4276	108.2088	5.6985e-01	4.2404e+00
146	IHT0000019	107.6510	110.1900	108.6861	4.7392e-01	4.2416e+00
147	IHT0000020	106.2124	108.3609	106.8960	4.3450e-01	4.2371e+00
148	IHT0000021	-2.5053	0.4244	-1.5209	5.3809e-01	4.1000e+00
149	IHT0000022	93.0288	95.3726	93.6694	4.0824e-01	4.2056e+00
150	IHT0000023	105.4462	107.9853	106.2509	4.0748e-01	4.2354e+00
151	IHT0000024	70.6167	73.1558	71.5191	4.1364e-01	4.1619e+00
152	IHT0000025	102.9560	105.5251	104.0134	4.0781e-01	4.2299e+00
153	IHT0000026	105.3035	107.6472	106.2840	3.9556e-01	4.2355e+00
154	IHT0000027	89.9715	92.1199	90.9715	3.6729e-01	4.1997e+00
155	IHT0000028	90.6025	92.7509	91.6376	4.9166e-01	4.2012e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	106.0960	108.2444	106.9632	5.1473e-01	4.2372e+00
157	IHT0000030	108.6388	110.9826	109.6427	5.4392e-01	4.2441e+00
158	IHT0000031	106.7007	108.6539	107.5640	5.4546e-01	4.2387e+00
159	IHT0000032	107.3543	109.5027	108.2801	5.6471e-01	4.2406e+00
160	IHT0000033	107.3618	109.5102	108.2290	5.5826e-01	4.2404e+00
161	IHT0000034	93.9603	95.9135	94.6948	5.1230e-01	4.2079e+00
162	IHT0000035	124.0610	126.2095	124.7759	5.3322e-01	4.2857e+00
163	IHT0000036	92.4842	95.0233	93.3514	5.4841e-01	4.2049e+00

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Velocity 1 = 6.9942 (ft/sec) (+/- 4.8127 %)
 Velocity 2 = 6.8849 (ft/sec) (+/- 3.6856 %)
 Pressure drop = -3.3048 (psi)
 Tsat in = 268.1751 (deg F) Tsat out = 272.6519 (deg F)
 Phi inner = 100.7894 (kBtu/hr-ft2) (+/- 1.5694 %)
 Phi outer = 100.7694 (kBtu/hr-ft2) (+/- 1.5518 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	74.8473	75.6974	75.2639	1.7154e-01	1.9000e+00
1	TRF000002	75.3537	75.9879	75.6032	1.3296e-01	1.9000e+00
2	TFM000001	86.7537	87.5919	87.1668	2.1110e-01	1.9002e+00
3	TIN000001	86.8292	87.3546	87.1211	1.4434e-01	1.9002e+00
4	TRV000001	88.3543	89.4002	88.7959	2.0511e-01	1.9002e+00
5	TSR000001	145.2530	145.9541	145.5994	1.7655e-01	1.9038e+00
6	EMPTY	37.7675	38.9168	38.3422	2.4241e-01	1.9010e+00
7	TAO050136	164.8097	165.4010	165.0832	1.4687e-01	1.9061e+00
8	TAO070136	170.6707	171.5599	171.0243	1.9460e-01	1.9069e+00
9	TAO080136	172.7486	173.5327	173.2013	1.6548e-01	1.9072e+00
10	TAO090136	176.7666	177.8436	177.3443	2.2310e-01	1.9077e+00
11	TAO100136	182.2638	183.0446	182.6445	1.9243e-01	1.9085e+00
12	TAO105136	184.0333	185.1071	184.4181	2.4268e-01	1.9088e+00
13	EMPTY	40.9819	41.4403	41.2936	1.2896e-01	1.9011e+00
14	TAO115136	195.2547	196.2248	195.6723	2.1586e-01	1.9106e+00
15	EMPTY	32.0000	41.6693	37.6580	2.6418e+00	1.9010e+00
16	TAO125136	193.7711	194.4476	194.0244	1.6563e-01	1.9103e+00
17	EMPTY	31.9235	32.6248	32.3070	1.8749e-01	1.9007e+00
18	EMPTY	41.4403	41.6693	41.5090	1.0604e-01	1.9012e+00
19	TAO130048	190.5927	191.1749	190.8358	1.4025e-01	1.9098e+00
20	TAO120224	187.8531	189.0204	188.4312	2.1829e-01	1.9094e+00
21	EMPTY	38.9168	39.3761	39.1786	1.4679e-01	1.9010e+00
22	TAO120312	197.7258	198.5962	198.1844	2.0289e-01	1.9110e+00
23	TAO130312	191.1519	191.7337	191.4021	1.5310e-01	1.9099e+00
24	EMPTY	39.1464	39.6057	39.3898	1.8210e-01	1.9010e+00
25	TRT070000	183.6526	184.3399	183.9566	1.7629e-01	1.9087e+00
26	TRT100000	199.7682	200.4434	200.0906	1.9131e-01	1.9114e+00
27	TRT120000	201.4062	202.2729	201.7743	1.8737e-01	1.9117e+00
28	TRT125000	202.4824	203.4414	202.9826	2.0353e-01	1.9119e+00
29	EMPTY	39.8352	40.0646	39.9453	1.1580e-01	1.9011e+00
30	EMPTY	39.1464	40.0646	39.6837	2.1557e-01	1.9011e+00
31	TAF050136	114.7154	115.7389	115.2329	2.1223e-01	1.9014e+00
32	TAF070136	123.2517	124.7739	123.8595	3.5329e-01	1.9020e+00
33	TAF080136	127.2520	128.3642	127.7956	2.7979e-01	1.9022e+00
34	TAF090136	130.4439	131.7618	131.1963	3.4678e-01	1.9025e+00
35	TAF100136	136.8000	137.9119	137.4812	2.4812e-01	1.9031e+00
36	TAF105136	140.5246	141.7244	141.0788	2.5230e-01	1.9034e+00
37	TAF110136	144.4017	145.4024	144.8640	2.2845e-01	1.9038e+00
38	TAF115136	147.4607	148.7597	148.2181	2.4972e-01	1.9041e+00
39	TAF120136	150.8147	151.5130	151.1004	1.9198e-01	1.9044e+00
40	TAF125136	153.6230	155.0105	154.2828	3.1420e-01	1.9048e+00
41	TAF130136	156.6012	157.4948	156.8973	1.8765e-01	1.9051e+00
42	TAF120048	158.3092	159.5087	158.8949	3.0265e-01	1.9053e+00
43	TAF130048	162.3534	163.3437	162.8033	2.2643e-01	1.9058e+00
44	TAF120224	150.4889	151.3871	150.8902	2.3461e-01	1.9044e+00
45	TAF130224	155.1205	156.0195	155.5258	1.9078e-01	1.9049e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.2273	37.8548	1.5332e-01	1.9010e+00
47	EMPTY	38.9168	39.6057	39.3026	1.4989e-01	1.9010e+00
48	TAI130048	201.4594	202.0376	201.7157	1.3857e-01	1.9117e+00
49	TAI130136	195.7168	196.3935	196.0900	1.4219e-01	1.9107e+00
50	TAI130224	175.5582	176.1477	175.9019	1.6272e-01	1.9075e+00
51	TAI130312	193.2380	194.0140	193.6859	1.7066e-01	1.9103e+00
52	TRR130000	134.3901	135.7011	135.1021	3.1782e-01	1.9029e+00
53	TSI000001	42.5641	43.3251	42.9707	1.8868e-01	1.9005e+00
54	TSI000002	102.7705	103.8056	103.2904	2.7522e-01	1.9007e+00
55	TSO000001	41.3118	42.2964	41.8742	1.9384e-01	1.9005e+00
56	TSO000002	51.9385	52.8023	52.3595	1.9178e-01	1.9002e+00
57	TAF020136	98.7209	99.8692	99.2960	2.7451e-01	1.9006e+00
58	EMPTY	42.5851	43.5000	43.1204	2.1972e-01	1.9013e+00
59	TAF130312	164.0392	165.2243	164.6377	2.4383e-01	1.9060e+00
60	EMPTY	2.3145	2.3242	2.3196	2.8608e-03	0.0000e+00
61	EMPTY	2.3145	2.3242	2.3198	1.7784e-03	0.0000e+00
62	EMPTY	2.3193	2.3242	2.3210	2.3365e-03	0.0000e+00
63	EMPTY	2.3242	2.3340	2.3272	2.5894e-03	0.0000e+00
64	EMPTY	1.1377	1.1377	1.1377	0.0000e+00	0.0000e+00
65	EMPTY	1.1523	1.1572	1.1528	1.4797e-03	0.0000e+00
66	EMPTY	1.1621	1.1670	1.1661	1.8950e-03	0.0000e+00
67	EMPTY	1.1768	1.1816	1.1771	1.1714e-03	0.0000e+00
68	EMPTY	1.1865	1.1914	1.1872	1.7115e-03	0.0000e+00
69	EMPTY	1.2012	1.2061	1.2014	9.6655e-04	0.0000e+00
70	EMPTY	1.2109	1.2158	1.2136	2.4583e-03	0.0000e+00
71	EMPTY	1.2305	1.2354	1.2331	2.4583e-03	0.0000e+00
72	EMPTY	1.2402	1.2451	1.2436	2.3008e-03	0.0000e+00
73	EMPTY	1.2549	1.2598	1.2559	1.9730e-03	0.0000e+00
74	EMPTY	1.2646	1.2695	1.2681	2.2603e-03	0.0000e+00
75	EMPTY	1.2793	1.2842	1.2812	2.3941e-03	0.0000e+00
76	EMPTY	1.2891	1.2939	1.2913	2.4583e-03	0.0000e+00
77	EMPTY	1.3037	1.3184	1.3082	2.1702e-03	0.0000e+00
78	EMPTY	1.3232	1.3281	1.3259	2.4583e-03	0.0000e+00
79	EMPTY	1.3428	1.3477	1.3457	2.4164e-03	0.0000e+00
80	PAN020136	-12.0264	-11.1109	-11.4954	2.1522e-01	8.7047e-01
81	PAN050136	-22.5252	-21.9149	-22.2597	1.5962e-01	1.6809e+00
82	PAN070136	-14.6305	-14.0964	-14.4092	1.1663e-01	8.7075e-01
83	PAN080136	-7.6542	-7.1964	-7.4695	9.2598e-02	8.7021e-01
84	PAN090136	-7.9477	-7.6425	-7.7371	6.0801e-02	8.7021e-01
85	PAN100136	-7.5442	-7.2390	-7.3840	6.9362e-02	8.7020e-01
86	PAN105136	-3.1831	-2.8779	-3.0564	6.4682e-02	8.7003e-01
87	PAN110136	-3.5924	-3.1346	-3.4398	1.0107e-01	8.7004e-01
88	PAN115136	-3.9444	-3.4103	-3.7415	1.1800e-01	8.7005e-01
89	PAN120136	-3.6437	-3.1859	-3.4377	1.0369e-01	8.7004e-01
90	PAN125136	-4.2615	-4.0326	-4.1302	6.7257e-02	8.7006e-01
91	PAN130136	-3.9196	-3.6907	-3.8235	6.3196e-02	8.7005e-01
92	PAN120048	-8.5814	-7.9711	-8.2381	1.4562e-01	8.7024e-01
93	PAN130048	-7.8361	-7.1494	-7.5309	1.5491e-01	8.7020e-01
94	PAN120224	-7.2859	-7.0570	-7.1714	7.4322e-02	8.7018e-01
95	PAN130224	-7.8684	-7.6395	-7.7432	5.1176e-02	8.7022e-01
96	PAN120312	-7.4032	-7.0981	-7.2583	7.1054e-02	8.7019e-01
97	PAN130312	-8.0195	-7.7143	-7.8379	6.1443e-02	8.7022e-01
98	PAB000136	40.3613	40.8190	40.5444	8.7248e-02	5.8879e-01
99	PAB100136	42.8737	43.1026	42.9771	6.5270e-02	5.8987e-01
100	PAB125136	43.5779	43.8068	43.6850	6.7714e-02	5.9019e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	40.0188	40.6292	40.3630	1.5140e-01	7.5676e-01
102	PRV000001	19.2669	19.3890	19.3426	5.9853e-02	7.5156e-01
103	PSR000001	43.8241	43.9462	43.8876	6.1605e-02	7.5798e-01
104	PFM000001	7.3067	7.6729	7.4989	8.1153e-02	5.0035e-01
105	PAN000136	-93.9207	-88.4275	-91.4945	1.2208e+00	4.9253e+00
106	PFM0000002	7.1834	7.3344	7.2632	3.7530e-02	2.0082e-01
107	EMPTY	-0.0049	0.0049	0.0024	3.3087e-03	0.0000e+00
108	EMPTY	-6.9482	-5.7617	-6.4775	2.3569e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0009	1.8950e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	101.7578	102.3438	102.1406	1.6250e-01	1.0157e+00
113	VPW000002	118.7462	119.1369	118.9181	8.4997e-02	1.0794e+00
114	VPW000003	146.8262	147.4121	147.1074	1.1942e-01	1.1980e+00
115	VPW000004	104.7777	105.1683	104.9496	1.1599e-01	1.0260e+00
116	VPW000005	139.1789	139.7649	139.5343	1.2283e-01	1.1649e+00
117	VPW000006	145.7294	146.1200	145.8466	1.1838e-01	1.1924e+00
118	IPW000001	541.0994	546.9564	543.4812	1.4379e+00	9.1676e+00
119	IPW000002	1306.3000	1319.9590	1315.1195	3.4646e+00	1.3174e+01
120	IPW000003	1327.6125	1335.4125	1332.0190	2.1510e+00	1.3279e+01
121	IPW000004	379.7983	380.7749	380.1790	3.3146e-01	3.6084e+00
122	IPW000005	253.1672	254.1437	253.6358	3.8152e-01	2.8311e+00
123	IPW000006	266.6861	268.6392	267.5358	4.2784e-01	2.9098e+00
124	EMPTY	-0.0293	-0.0098	-0.0195	4.1853e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0128	3.2554e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0167	3.9570e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0049	-0.0145	3.9410e-03	0.0000e+00
128	IHT0000001	130.9533	133.1017	132.0392	4.6213e-01	4.3074e+00
129	IHT0000002	130.5138	132.4669	131.5138	4.4229e-01	4.3058e+00
130	IHT0000003	129.5823	131.1448	130.3636	4.3405e-01	4.3023e+00
131	IHT0000004	131.7608	133.7139	132.6905	4.4039e-01	4.3094e+00
132	IHT0000005	130.1007	132.0538	130.9327	4.5130e-01	4.3040e+00
133	IHT0000006	125.6348	127.5879	126.5723	4.3940e-01	4.2909e+00
134	IHT0000007	131.8472	133.8003	132.8902	4.2059e-01	4.3100e+00
135	IHT0000008	130.6791	132.8275	131.7026	4.5602e-01	4.3063e+00
136	IHT0000009	130.2096	132.7487	131.2642	4.5847e-01	4.3050e+00
137	IHT0000010	130.9758	132.7336	131.8156	4.4860e-01	4.3067e+00
138	IHT0000011	131.8397	133.5975	132.7733	3.8112e-01	4.3096e+00
139	IHT0000012	131.0584	132.8162	131.7616	3.7016e-01	4.3065e+00
140	IHT0000013	92.5030	94.2608	93.2725	3.4038e-01	4.2048e+00
141	IHT0000014	128.2377	129.6049	128.9252	3.4903e-01	4.2979e+00
142	IHT0000015	95.3425	96.5144	95.9012	3.3946e-01	4.2107e+00
143	IHT0000016	89.2766	90.8391	90.0735	3.4814e-01	4.1978e+00
144	IHT0000017	103.9325	107.2528	105.8310	8.4080e-01	4.2344e+00
145	IHT0000018	106.8885	109.0370	108.2010	5.1605e-01	4.2404e+00
146	IHT0000019	107.6510	109.7994	108.4595	4.6356e-01	4.2410e+00
147	IHT0000020	105.8218	107.5796	106.6616	4.5034e-01	4.2365e+00
148	IHT0000021	-2.8959	-0.5521	-1.6888	5.5760e-01	4.1000e+00
149	IHT0000022	92.6382	94.3960	93.5757	4.3225e-01	4.2054e+00
150	IHT0000023	105.0556	107.2040	106.1376	4.5713e-01	4.2352e+00
151	IHT0000024	70.4214	72.1792	71.3472	4.2096e-01	4.1616e+00
152	IHT0000025	102.9860	104.5485	103.9235	3.9656e-01	4.2297e+00
153	IHT0000026	105.1082	107.0613	106.1824	4.1806e-01	4.2353e+00
154	IHT0000027	90.1668	91.9246	90.9949	3.9961e-01	4.1998e+00
155	IHT0000028	90.7978	93.1415	91.6923	5.0237e-01	4.2013e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	105.9007	108.0491	106.9632	4.9152e-01	4.2372e+00
157	IHT0000030	108.6388	110.7873	109.6037	4.7582e-01	4.2440e+00
158	IHT0000031	106.5054	108.6539	107.5601	4.9599e-01	4.2387e+00
159	IHT0000032	107.3543	109.3074	108.2488	4.8180e-01	4.2405e+00
160	IHT0000033	107.1665	109.3149	108.2134	4.9875e-01	4.2404e+00
161	IHT0000034	93.7650	95.9135	94.8627	4.9739e-01	4.2083e+00
162	IHT0000035	123.6704	125.8188	124.7563	4.8993e-01	4.2856e+00
163	IHT0000036	92.4842	94.6326	93.6092	5.1382e-01	4.2055e+00

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Velocity 1 = 5.8734 (ft/sec) (+/- 5.8844 %)
 Velocity 2 = 5.7276 (ft/sec) (+/- 3.9101 %)
 Pressure drop = -3.9235 (psi)
 Tsat in = 268.0293 (deg F) Tsat out = 273.2639 (deg F)
 Phi inner = 100.8884 (kBtu/hr-ft2) (+/- 1.5692 %)
 Phi outer = 100.5004 (kBtu/hr-ft2) (+/- 1.5533 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	75.2724	75.9099	75.5912	1.8834e-01	1.9000e+00
1	TRF0000002	75.7765	76.1992	75.9372	1.3203e-01	1.9000e+00
2	TFM0000001	86.8595	87.6982	87.2975	1.9008e-01	1.9002e+00
3	TIN0000001	87.2493	87.8791	87.5873	1.7781e-01	1.9002e+00
4	TRV0000001	86.5782	87.4165	87.0249	2.2171e-01	1.9002e+00
5	TSR0000001	135.3303	140.6535	138.6123	1.3512e+00	1.9032e+00
6	EMPTY	37.9974	38.9168	38.4204	2.2442e-01	1.9010e+00
7	TAO050135	176.2762	177.1571	176.6581	2.0078e-01	1.9076e+00
8	TAO070136	183.4748	184.3559	183.9550	1.9903e-01	1.9087e+00
9	TAO080136	185.4974	186.0809	185.8264	1.4141e-01	1.9090e+00
10	TAO090136	192.3403	193.1154	192.8186	1.7874e-01	1.9101e+00
11	TAO100136	198.8515	199.8162	199.3049	1.9023e-01	1.9112e+00
12	TAO105136	200.1532	201.1185	200.6998	2.1423e-01	1.9115e+00
13	EMPTY	40.9819	41.4403	41.2799	1.2465e-01	1.9011e+00
14	TAO115136	210.1459	210.9155	210.5943	1.9664e-01	1.9133e+00
15	EMPTY	32.6940	41.8984	37.4482	1.8595e+00	1.9009e+00
16	TAO125136	212.7403	213.5995	213.1965	1.6401e-01	1.9138e+00
17	EMPTY	31.9235	32.8585	32.4332	1.9291e-01	1.9007e+00
18	EMPTY	41.4403	41.8984	41.5365	1.2323e-01	1.9012e+00
19	TAO130048	209.0340	209.7031	209.3379	1.5315e-01	1.9130e+00
20	TAO120224	205.1605	206.1220	205.5663	2.0212e-01	1.9123e+00
21	EMPTY	38.6870	39.3761	39.0775	1.5564e-01	1.9010e+00
22	TAO120312	216.3764	217.5226	217.0852	2.6949e-01	1.9145e+00
23	TAO130312	209.2342	210.1916	209.8066	2.0238e-01	1.9131e+00
24	EMPTY	39.1464	39.6057	39.3899	1.7609e-01	1.9010e+00
25	TRT0700000	196.8566	197.6341	197.2899	1.8225e-01	1.9109e+00
26	TRT1000000	217.2835	218.2362	217.8645	1.8970e-01	1.9147e+00
27	TRT1200000	219.8754	220.5416	220.2387	1.7268e-01	1.9151e+00
28	TRT1250000	221.0249	222.0663	221.5680	1.9322e-01	1.9154e+00
29	EMPTY	39.8352	40.0646	39.9637	1.1506e-01	1.9011e+00
30	EMPTY	39.3761	40.0646	39.6883	2.1632e-01	1.9011e+00
31	TAF050136	121.0405	122.5677	121.9552	3.2227e-01	1.9018e+00
32	TAF070136	131.8419	133.1512	132.4402	3.1601e-01	1.9026e+00
33	TAF080136	136.4981	137.6019	137.0548	2.6271e-01	1.9030e+00
34	TAF090136	140.4388	141.8468	141.2775	2.7893e-01	1.9034e+00
35	TAF100136	147.7727	149.0748	148.4761	2.5879e-01	1.9041e+00
36	TAF105136	152.3410	153.4294	152.8967	2.9781e-01	1.9046e+00
37	TAF110136	156.7250	157.6169	157.1786	2.2219e-01	1.9051e+00
38	TAF115136	160.7773	161.6687	161.2942	2.3343e-01	1.9056e+00
39	TAF120136	164.3547	165.0449	164.6492	1.5866e-01	1.9060e+00
40	TAF125136	167.7967	169.2672	168.5641	3.3170e-01	1.9065e+00
41	TAF130136	171.2966	172.0830	171.7114	1.8647e-01	1.9070e+00
42	TAF120048	172.9285	174.1159	173.4936	2.7031e-01	1.9072e+00
43	TAF130048	177.8052	178.6864	178.2225	2.0346e-01	1.9079e+00
44	TAF120224	162.8979	163.9854	163.5210	2.3569e-01	1.9059e+00
45	TAF130224	168.8538	169.8429	169.4530	2.4105e-01	1.9067e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.2273	37.9514	1.9711e-01	1.9010e+00
47	EMPTY	39.1464	39.6057	39.4082	1.3128e-01	1.9010e+00
48	TAI130048	220.7073	221.3736	221.0329	1.6215e-01	1.9153e+00
49	TAI130136	215.0531	215.7207	215.4173	1.4512e-01	1.9142e+00
50	TAI130224	186.7211	187.5980	187.1285	1.7908e-01	1.9092e+00
51	TAI130312	207.1360	207.9048	207.5302	1.6835e-01	1.9127e+00
52	TRR130C00	137.2111	138.7194	138.0373	3.5791e-01	1.9031e+00
53	TSI0000001	43.6499	44.5193	44.1259	1.8341e-01	1.9005e+00
54	TSI0000002	111.2200	112.2482	111.7978	2.6402e-01	1.9012e+00
55	TSO0000001	42.5146	43.4971	42.9230	2.0670e-01	1.9005e+00
56	TSO0000002	54.0961	55.0665	54.5170	2.1253e-01	1.9002e+00
57	TAF020136	101.9592	103.0011	102.4066	2.1800e-01	1.9007e+00
58	EMPTY	42.5851	43.5000	43.1158	2.5070e-01	1.9013e+00
59	TAF130312	179.7453	181.1116	180.5510	2.9763e-01	1.9082e+00
60	EMPTY	2.7002	2.7100	2.7046	2.6562e-03	0.0000e+00
61	EMPTY	2.7002	2.7100	2.7024	2.6488e-03	0.0000e+00
62	EMPTY	2.7002	2.7051	2.7013	2.0432e-03	0.0000e+00
63	EMPTY	2.7002	2.7100	2.7051	1.3951e-03	0.0000e+00
64	EMPTY	1.2988	1.3037	1.3005	2.3365e-03	0.0000e+00
65	EMPTY	1.3135	1.3184	1.3147	2.1635e-03	0.0000e+00
66	EMPTY	1.3232	1.3281	1.3270	2.1065e-03	0.0000e+00
67	EMPTY	1.3379	1.3428	1.3380	6.9053e-04	0.0000e+00
68	EMPTY	1.3477	1.3477	1.3477	0.0000e+00	0.0000e+00
69	EMPTY	1.3574	1.3623	1.3615	1.8082e-03	0.0000e+00
70	EMPTY	1.3672	1.3721	1.3719	9.6655e-04	0.0000e+00
71	EMPTY	1.3867	1.3916	1.3912	1.3381e-03	0.0000e+00
72	EMPTY	1.3965	1.4014	1.3993	2.4344e-03	0.0000e+00
73	EMPTY	1.4111	1.4160	1.4118	1.7115e-03	0.0000e+00
74	EMPTY	1.4209	1.4258	1.4225	2.3008e-03	0.0000e+00
75	EMPTY	1.4355	1.4404	1.4356	6.9053e-04	0.0000e+00
76	EMPTY	1.4404	1.4502	1.4453	9.8648e-04	0.0000e+00
77	EMPTY	1.4600	1.4600	1.4600	0.0000e+00	0.0000e+00
78	EMPTY	1.4746	1.4795	1.4788	1.7115e-03	0.0000e+00
79	EMPTY	1.4941	1.4990	1.4984	1.6028e-03	0.0000e+00
80	PAN020136	-14.0100	-13.0182	-13.6011	2.3415e-01	8.7066e-01
81	PAN050136	-26.4925	-25.7296	-26.0775	1.7720e-01	1.6813e+00
82	PAN070136	-17.3008	-16.6904	-16.9956	1.2331e-01	8.7104e-01
83	PAN080136	-8.9512	-8.5697	-8.7574	8.6110e-02	8.7028e-01
84	PAN090136	-8.9395	-8.6343	-8.8342	8.1401e-02	8.7028e-01
85	PAN100136	-9.5278	-9.2227	-9.3707	6.9635e-02	8.7032e-01
86	PAN105136	-3.9460	-3.5645	-3.7385	7.0702e-02	8.7005e-01
87	PAN110136	-4.2028	-3.9739	-4.1295	6.8863e-02	8.7006e-01
88	PAN115136	-3.6392	-3.2578	-3.4409	8.4424e-02	8.7004e-01
89	PAN120136	-4.4829	-4.1014	-4.3654	7.4258e-02	8.7007e-01
90	PAN125136	-5.2533	-4.5666	-4.8947	2.2875e-01	8.7009e-01
91	PAN130136	-4.5300	-3.8433	-4.1882	2.4236e-01	8.7006e-01
92	PAN120048	-9.7258	-8.8866	-9.3779	1.9446e-01	8.7032e-01
93	PAN130048	-8.9042	-8.3701	-8.6768	1.4252e-01	8.7027e-01
94	PAN120224	-8.5829	-8.3540	-8.4990	7.1054e-02	8.7026e-01
95	PAN130224	-8.9365	-8.6313	-8.8083	7.6200e-02	8.7028e-01
96	PAN120312	-8.7002	-8.3951	-8.5446	7.3857e-02	8.7026e-01
97	PAN130312	-9.0876	-8.7825	-8.8954	7.4306e-02	8.7028e-01
98	PAB000136	40.1782	40.6359	40.4455	8.8879e-02	5.8875e-01
99	PAB100136	43.2399	43.3773	43.3287	4.1781e-02	5.9003e-01
100	PAB125136	44.0357	44.2188	44.1300	4.1781e-02	5.9040e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.8967	40.6292	40.2727	1.6879e-01	7.5673e-01
102	PRV000001	19.3890	19.5111	19.4061	4.2787e-02	7.5157e-01
103	PSR000001	44.4345	44.5566	44.4418	2.9284e-02	7.5818e-01
104	PFM000001	5.0178	5.4756	5.2614	9.7190e-02	5.0017e-01
105	PAN000136	-111.3157	-105.8225	-108.6240	1.2936e+00	4.9275e+00
106	PFM000002	4.9013	5.1027	4.9993	4.1845e-02	2.0039e-01
107	EMPTY	-0.0049	0.0049	-0.0016	3.8762e-03	0.0000e+00
108	EMPTY	-10.0000	2.3047	-5.0409	2.8338e+00	0.0000e+00
109	EMPTY	-0.0049	0.0049	-0.0003	2.6853e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0006	1.6028e-03	0.0000e+00
112	VPW000001	101.9531	102.3438	102.1758	1.2484e-01	1.0158e+00
113	VPW000002	118.7462	119.1369	118.9728	9.9512e-02	1.0797e+00
114	VPW000003	146.8262	147.2168	147.0566	1.1632e-01	1.1978e+00
115	VPW000004	104.5823	105.1683	105.0003	1.5789e-01	1.0262e+00
116	VPW000005	139.3743	139.7649	139.5382	1.1409e-01	1.1649e+00
117	VPW000006	145.9247	146.3153	146.0498	1.0259e-01	1.1933e+00
118	IPW000001	533.2900	545.0041	537.8975	3.6951e+00	9.1470e+00
119	IPW000002	1308.2513	1321.9102	1314.0267	3.5906e+00	1.3167e+01
120	IPW000003	1327.6125	1337.3625	1334.0085	2.8420e+00	1.3292e+01
121	IPW000004	375.8921	381.2632	378.6068	1.8327e+00	3.5981e+00
122	IPW000005	253.1672	254.1437	253.5479	3.3143e-01	2.8306e+00
123	IPW000006	266.6861	268.1509	267.2038	3.6124e-01	2.9079e+00
124	EMPTY	-0.0293	-0.0146	-0.0226	3.5417e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0132	3.1583e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0179	3.8975e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0160	3.5623e-03	0.0000e+00
128	IHT000001	130.9533	133.6877	132.0509	5.6344e-01	4.3074e+00
129	IHT000002	130.5138	132.8576	131.4747	5.1424e-01	4.3056e+00
130	IHT000003	129.1917	131.9261	130.2113	4.9645e-01	4.3018e+00
131	IHT000004	131.3702	134.1046	132.5928	5.1268e-01	4.3091e+00
132	IHT000005	129.5147	131.6632	130.7491	4.5582e-01	4.3034e+00
133	IHT000006	125.4394	127.3926	126.4785	4.9354e-01	4.2907e+00
134	IHT000007	131.8472	133.9957	132.8277	5.1522e-01	4.3098e+00
135	IHT000008	130.8744	132.8275	131.5502	4.7876e-01	4.3059e+00
136	IHT000009	130.4049	132.5533	131.2681	4.8663e-01	4.3050e+00
137	IHT000010	130.3899	132.5383	131.4171	5.0657e-01	4.3055e+00
138	IHT000011	131.6444	133.7928	132.5624	4.5720e-01	4.3090e+00
139	IHT000012	130.6678	133.0116	131.6327	5.2111e-01	4.3061e+00
140	IHT000013	91.9171	94.0655	92.9365	4.9957e-01	4.2040e+00
141	IHT000014	127.6517	129.6049	128.4331	4.7186e-01	4.2965e+00
142	IHT000015	94.7566	96.5144	95.5457	4.2856e-01	4.2099e+00
143	IHT000016	88.8860	90.8391	89.8352	4.4118e-01	4.1973e+00
144	IHT000017	104.3232	108.0341	106.1943	9.9987e-01	4.2353e+00
145	IHT000018	107.0838	109.4276	108.0799	5.5419e-01	4.2401e+00
146	IHT000019	108.0416	109.7994	108.7955	4.3586e-01	4.2419e+00
147	IHT000020	106.4078	107.9703	107.0913	3.8712e-01	4.2376e+00
148	IHT000021	-2.3099	-0.1615	-1.3763	4.8374e-01	4.1000e+00
149	IHT000022	93.2241	94.7866	93.8726	3.5390e-01	4.2061e+00
150	IHT000023	105.6415	107.2040	106.4228	3.6805e-01	4.2359e+00
151	IHT000024	70.6167	72.3745	71.4526	3.6601e-01	4.1618e+00
152	IHT000025	102.9860	104.7438	103.9235	3.7642e-01	4.2297e+00
153	IHT000026	105.3035	107.2566	106.2996	3.7278e-01	4.2356e+00
154	IHT000027	90.3621	92.3152	91.1473	4.2405e-01	4.2001e+00
155	IHT000028	90.7978	93.3368	91.7861	5.1055e-01	4.2015e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	106.0960	108.8304	107.0023	5.2905e-01	4.2373e+00
157	IHT000030	108.4435	111.3732	109.4357	5.5642e-01	4.2435e+00
158	IHT000031	106.5054	108.8492	107.3882	4.7718e-01	4.2383e+00
159	IHT000032	107.5496	109.5027	108.4324	5.0260e-01	4.2410e+00
160	IHT000033	107.5571	109.5102	108.4126	5.0206e-01	4.2409e+00
161	IHT000034	94.1557	96.1088	94.9448	4.7835e-01	4.2085e+00
162	IHT000035	123.6704	126.0141	124.8306	5.3000e-01	4.2858e+00
163	IHT000036	92.6795	94.6326	93.6014	4.6862e-01	4.2055e+00

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Velocity 1 = 4.9779 (ft/sec) (+/- 7.5035 %)
 Velocity 2 = 4.8030 (ft/sec) (+/- 4.3225 %)
 Pressure drop = -4.3309 (psi)
 Tsat in = 268.2721 (deg F) Tsat out = 274.0336 (deg F)
 Phi inner = 100.7235 (kBtu/hr-ft2) (+/- 1.5696 %)
 Phi outer = 100.9814 (kBtu/hr-ft2) (+/- 1.5510 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	75.4849	75.9099	75.6974	1.6624e-01	1.9000e+00
1	TRF0000002	75.7765	76.1992	76.0640	1.1894e-01	1.9000e+00
2	TRF0000001	86.6500	87.4889	87.1240	2.1922e-01	1.9002e+00
3	TIN0000001	86.9339	87.7739	87.3205	1.6217e-01	1.9002e+00
4	TRV0000001	86.4746	88.3577	87.3034	5.3277e-01	1.9002e+00
5	TSR0000001	154.6117	156.8913	155.7419	5.7450e-01	1.9049e+00
6	EMPTY	37.9974	38.6870	38.4893	1.9150e-01	1.9010e+00
7	TAO050136	188.1349	189.0075	188.5576	1.9364e-01	1.9094e+00
8	TAO070136	196.7491	197.7200	197.2039	2.2222e-01	1.9109e+00
9	TAO080136	196.0189	196.7905	196.3472	1.4965e-01	1.9107e+00
10	TAO090136	207.6526	208.3230	207.9936	1.7652e-01	1.9128e+00
11	TAO100136	214.2039	215.2543	214.6966	2.2851e-01	1.9141e+00
12	TAO105136	215.8121	216.8637	216.3246	2.3930e-01	1.9144e+00
13	EMPTY	40.9819	41.4403	41.2616	1.3329e-01	1.9011e+00
14	TAO115136	227.5589	228.5093	228.0837	2.3458e-01	1.9168e+00
15	EMPTY	31.5371	42.5851	37.6228	3.5744e+00	1.9010e+00
16	TAO125136	231.5691	232.1347	231.8706	1.4750e-01	1.9176e+00
17	EMPTY	32.1574	32.8585	32.4846	2.1116e-01	1.9007e+00
18	EMPTY	41.4403	41.6693	41.5411	1.1486e-01	1.9012e+00
19	TAO130048	228.4750	229.0417	228.7547	1.4008e-01	1.9169e+00
20	TAO120224	223.2192	223.9790	223.5497	2.0244e-01	1.9158e+00
21	EMPTY	38.6870	39.3761	39.0454	1.3256e-01	1.9010e+00
22	TAO120312	236.3119	237.1606	236.7797	2.0864e-01	1.9186e+00
23	TAO130312	228.5181	229.0856	228.7830	1.4535e-01	1.9169e+00
24	EMPTY	39.1464	39.8352	39.4449	2.1880e-01	1.9010e+00
25	TRT070000	207.8178	209.0742	208.4518	3.0796e-01	1.9129e+00
26	TRT100000	236.0109	236.6699	236.3385	1.5235e-01	1.9185e+00
27	TRT120000	239.4402	240.2857	239.8988	1.6293e-01	1.9193e+00
28	TRT125000	241.0258	242.0541	241.4858	1.9613e-01	1.9197e+00
29	EMPTY	39.8352	40.2940	40.0050	1.2097e-01	1.9011e+00
30	EMPTY	39.3761	40.0646	39.6883	2.1129e-01	1.9011e+00
31	TAF050136	127.3368	128.8552	127.9517	3.8210e-01	1.9023e+00
32	TAF070136	139.2718	141.5749	140.5297	4.7051e-01	1.9033e+00
33	TAF080136	145.2843	146.5752	145.9199	3.3824e-01	1.9039e+00
34	TAF090136	150.4580	152.1545	151.3204	3.2806e-01	1.9044e+00
35	TAF100136	159.0542	161.3388	160.1352	4.6102e-01	1.9055e+00
36	TAF105136	164.4430	166.1089	165.3133	4.5682e-01	1.9061e+00
37	TAF110136	169.4260	173.1468	171.1936	6.7678e-01	1.9069e+00
38	TAF115136	174.2600	176.0222	175.2663	4.2464e-01	1.9075e+00
39	TAF120136	178.2491	179.3217	178.8264	2.2588e-01	1.9080e+00
40	TAF125136	182.5062	183.8641	183.1306	3.1785e-01	1.9086e+00
41	TAF130136	186.2272	187.3928	186.8994	2.7105e-01	1.9092e+00
42	TAF120048	188.4770	189.7492	189.0608	3.4847e-01	1.9095e+00
43	TAF130048	194.1543	195.5091	194.8163	2.7600e-01	1.9105e+00
44	TAF120224	176.3709	177.5458	177.0328	2.5523e-01	1.9077e+00
45	TAF130224	183.7268	184.9023	184.3583	2.8750e-01	1.9088e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.2273	37.9560	1.8403e-01	1.9010e+00
47	EMPTY	39.1464	39.6057	39.4220	1.0372e-01	1.9010e+00
48	TAI130048	240.7517	241.4096	241.1126	1.3479e-01	1.9196e+00
49	TAI130136	234.6153	235.2741	234.9165	1.4848e-01	1.9182e+00
50	TAI130224	197.8947	198.4758	198.2240	1.5392e-01	1.9110e+00
51	TAI130312	221.3829	221.9537	221.6418	1.3874e-01	1.9154e+00
52	TRR130000	145.8328	147.2304	146.4395	3.1203e-01	1.9039e+00
53	TSI0000001	43.4337	44.1942	43.7771	1.6031e-01	1.9005e+00
54	TSI0000002	117.8779	118.9002	118.4055	2.7019e-01	1.9016e+00
55	TSO0000001	41.8581	42.9502	42.3777	2.1356e-01	1.9005e+00
56	TSO0000002	55.0663	55.9284	55.4758	1.7682e-01	1.9001e+00
57	TAF020136	104.2517	105.9166	104.9716	3.4400e-01	1.9008e+00
58	EMPTY	42.8139	43.5000	43.1752	2.4487e-01	1.9013e+00
59	TAF130312	196.9179	198.1717	197.4275	2.3950e-01	1.9109e+00
60	EMPTY	3.1152	3.1250	3.1204	2.2945e-01	0.0000e+00
61	EMPTY	3.1104	3.1250	3.1163	2.6635e-01	0.0000e+00
62	EMPTY	3.1104	3.1152	3.1123	2.4164e-03	0.0000e+00
63	EMPTY	3.1104	3.1201	3.1145	2.0598e-03	0.0000e+00
64	EMPTY	1.4795	1.4844	1.4840	1.3381e-03	0.0000e+00
65	EMPTY	1.4941	1.4990	1.4977	2.2146e-03	0.0000e+00
66	EMPTY	1.5039	1.5088	1.5076	2.1065e-03	0.0000e+00
67	EMPTY	1.5186	1.5234	1.5187	6.9053e-04	0.0000e+00
68	EMPTY	1.5234	1.5283	1.5260	2.4642e-03	0.0000e+00
69	EMPTY	1.5381	1.5430	1.5382	6.9053e-04	0.0000e+00
70	EMPTY	1.5479	1.5527	1.5480	9.6655e-04	0.0000e+00
71	EMPTY	1.5625	1.5674	1.5659	2.2603e-03	0.0000e+00
72	EMPTY	1.5723	1.5771	1.5726	1.1714e-03	0.0000e+00
73	EMPTY	1.5820	1.5918	1.5867	1.3811e-03	0.0000e+00
74	EMPTY	1.5918	1.5967	1.5965	9.6655e-04	0.0000e+00
75	EMPTY	1.6064	1.6113	1.6065	6.9053e-04	0.0000e+00
76	EMPTY	1.6113	1.6162	1.6161	6.9053e-04	0.0000e+00
77	EMPTY	1.6260	1.6309	1.6303	6.9028e-03	0.0000e+00
78	EMPTY	1.6455	1.6504	1.6456	6.9053e-04	0.0000e+00
79	EMPTY	1.6602	1.6650	1.6649	6.9053e-04	0.0000e+00
80	PAN020136	-15.4596	-14.4678	-15.0797	2.0993e-01	8.7082e-01
81	PAN050136	-29.0865	-28.4761	-28.7203	1.3786e-01	1.6815e+00
82	PAN070136	-19.0555	-18.5978	-18.8129	1.0532e-01	8.7127e-01
83	PAN080136	-9.5615	-9.1800	-9.4105	8.0815e-02	8.7032e-01
84	PAN090136	-11.0757	-9.9313	-10.7995	2.9443e-01	8.7042e-01
85	PAN100136	-12.6559	-8.1545	-10.9377	1.1734e+00	8.7043e-01
86	PAN105136	-6.8452	-0.9705	-4.2771	1.8659e+00	8.7007e-01
87	PAN110136	-6.9493	0.9089	-3.9586	1.8465e+00	8.7006e-01
88	PAN115136	-7.3776	-0.3586	-4.2526	2.1581e+00	8.7006e-01
89	PAN120136	-6.3139	-1.9652	-3.4377	1.2132e+00	8.7004e-01
90	PAN125136	-5.0244	-4.6429	-4.8611	9.3771e-02	8.7008e-01
91	PAN130136	-4.9114	-4.6825	-4.8214	6.2970e-02	8.7008e-01
92	PAN120048	-11.0991	-7.4370	-8.8271	1.1524e+00	8.7028e-01
93	PAN130048	-9.8960	-9.0568	-9.5908	1.6385e-01	8.7033e-01
94	PAN120224	-8.5829	-7.8962	-8.3296	1.3738e-01	8.7025e-01
95	PAN130224	-9.6231	-9.3942	-9.5239	6.0192e-02	8.7033e-01
96	PAN120312	-8.7765	-8.3951	-8.5568	9.4565e-02	8.7026e-01
97	PAN130312	-9.6217	-9.3928	-9.5179	6.3102e-02	8.7033e-01
98	PAB000136	40.4528	40.7733	40.6103	7.4653e-02	5.8882e-01
99	PAB100136	43.6977	43.9723	43.8680	7.4009e-02	5.9028e-01
100	PAB125136	44.6308	44.7681	44.6949	4.7157e-02	5.9067e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	40.1409	40.7512	40.4070	1.4733e-01	7.5677e-01
102	PRV0000001	19.2669	19.3890	19.3206	6.1209e-02	7.5155e-01
103	PSR0000001	45.0448	45.1669	45.0619	4.2787e-02	7.5841e-01
104	PFM0000001	3.6445	3.9192	3.7581	7.2961e-02	5.0009e-01
105	PAN000136	-121.8442	-117.7244	-119.9033	1.0322e+00	4.9291e+00
106	PFM0000002	3.4582	3.5421	3.4938	2.6180e-02	2.0019e-01
107	EMPTY	-0.0049	0.0049	0.0011	3.8574e-03	0.0000e+00
108	EMPTY	-10.0000	3.8721	-5.3220	3.1208e+00	0.0000e+00
109	EMPTY	-0.0049	0.0049	-0.0001	1.8429e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0002	9.6655e-04	0.0000e+00
112	VPW0000001	101.9531	102.3438	102.1445	1.2156e-01	1.0157e+00
113	VPW0000002	118.9415	119.3322	119.1017	9.4125e-02	1.0802e+00
114	VPW0000003	147.0215	147.6074	147.2676	1.5185e-01	1.1987e+00
115	VPW0000004	104.7777	105.3636	105.0355	1.1464e-01	1.0263e+00
116	VPW0000005	139.3743	139.9602	139.6320	1.6479e-01	1.1653e+00
117	VPW0000006	145.9247	146.3153	146.1279	1.3063e-01	1.1937e+00
118	IPW0000001	541.0994	545.0041	543.2860	1.5599e+00	9.1668e+00
119	IPW0000002	1312.1538	1318.0077	1314.7294	1.5490e+00	1.3171e+01
120	IPW0000003	1325.6625	1331.5125	1328.8997	1.2832e+00	1.3260e+01
121	IPW0000004	381.7514	384.1928	383.2552	5.6531e-01	3.6286e+00
122	IPW0000005	253.1672	254.6319	253.9678	4.0382e-01	2.8329e+00
123	IPW0000006	267.1743	268.1509	267.6530	3.8825e-01	2.9105e+00
124	EMPTY	-0.0293	-0.0146	-0.0198	3.8725e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0126	2.8058e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0098	-0.0157	3.1644e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0164	3.5238e-03	0.0000e+00
128	IHT0000001	130.9533	133.2970	132.0509	5.6619e-01	4.3074e+00
129	IHT0000002	130.3185	132.8576	131.4552	5.8486e-01	4.3056e+00
130	IHT0000003	129.3870	131.5354	130.3206	5.5424e-01	4.3021e+00
131	IHT0000004	131.5655	133.7139	132.6201	5.3815e-01	4.3092e+00
132	IHT0000005	129.7101	132.0538	130.8545	5.3816e-01	4.3038e+00
133	IHT0000006	125.4394	127.9785	126.5840	5.5103e-01	4.2910e+00
134	IHT0000007	131.6519	134.3863	132.9253	5.9089e-01	4.3101e+00
135	IHT0000008	130.2885	133.0229	131.6713	5.8904e-01	4.3062e+00
136	IHT0000009	129.8190	132.5533	131.2837	5.9090e-01	4.3051e+00
137	IHT0000010	130.5852	132.5383	131.4836	5.7453e-01	4.3057e+00
138	IHT0000011	131.2538	133.7928	132.4843	5.8427e-01	4.3087e+00
139	IHT0000012	130.2772	132.4256	131.5350	5.1473e-01	4.3058e+00
140	IHT0000013	91.7217	93.8702	92.9209	4.5508e-01	4.2040e+00
141	IHT0000014	127.6517	129.4095	128.4174	4.8462e-01	4.2964e+00
142	IHT0000015	94.5613	96.3191	95.4988	4.4117e-01	4.2098e+00
143	IHT0000016	88.8860	90.6438	89.7141	4.1302e-01	4.1970e+00
144	IHT0000017	105.2997	108.0341	106.7959	5.9269e-01	4.2368e+00
145	IHT0000018	107.2791	108.8416	108.1229	4.3304e-01	4.2402e+00
146	IHT0000019	107.6510	109.9947	108.6939	5.0163e-01	4.2416e+00
147	IHT0000020	106.0171	108.1656	106.9663	4.3942e-01	4.2372e+00
148	IHT0000021	-2.7006	0.2291	-1.3920	5.5278e-01	4.1000e+00
149	IHT0000022	92.6382	94.7866	93.6421	4.0435e-01	4.2056e+00
150	IHT0000023	105.6415	107.5946	106.4072	4.2834e-01	4.2358e+00
151	IHT0000024	70.6167	72.5699	71.3628	4.0566e-01	4.1616e+00
152	IHT0000025	103.1813	105.1345	103.9196	4.1999e-01	4.2296e+00
153	IHT0000026	105.4988	107.8425	106.3074	4.3407e-01	4.2356e+00
154	IHT0000027	90.1668	92.5105	91.0262	4.4293e-01	4.1998e+00
155	IHT0000028	90.4072	92.5556	91.6923	5.4117e-01	4.2013e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	105.9007	108.2444	107.1077	5.2894e-01	4.2376e+00
157	IHT0000030	108.2482	110.3966	109.4826	4.8878e-01	4.2437e+00
158	IHT0000031	105.9195	108.2632	107.3569	5.0649e-01	4.2382e+00
159	IHT0000032	107.3543	109.6980	108.4871	5.1448e-01	4.2411e+00
160	IHT0000033	107.1665	109.5102	108.4360	5.2534e-01	4.2410e+00
161	IHT0000034	93.7650	96.3041	94.9604	4.9700e-01	4.2085e+00
162	IHT0000035	123.4751	125.8188	124.7446	4.5206e-01	4.2856e+00
163	IHT0000036	92.6795	94.6326	93.5662	4.5542e-01	4.2054e+00

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	40.0188	40.6292	40.2459	1.4592e-01	7.5672e-01
102	PRV000001	19.2669	19.3890	19.3548	5.5366e-02	7.5156e-01
103	PSR000001	45.1669	45.2890	45.1913	4.9324e-02	7.5846e-01
104	PFM000001	2.2713	2.5459	2.4031	6.4499e-02	5.0004e-01
105	PAN000136	-131.9150	-121.3865	-129.5072	1.5021e+00	4.9306e+00
106	PFM000002	2.1159	2.1830	2.1598	1.7579e-02	2.0007e-01
107	EMPTY	-0.0049	0.0049	-0.0017	3.7706e-03	0.0000e+00
108	EMPTY	-10.0000	9.9951	-9.0224	3.6044e+00	0.0000e+00
109	EMPTY	-0.0049	0.0049	-0.0001	1.8429e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0001	6.9053e-04	0.0000e+00
112	VPW000001	101.7578	102.7344	102.3203	2.2544e-01	1.0164e+00
113	VPW000002	118.9415	119.7228	119.2853	1.7451e-01	1.0809e+00
114	VPW000003	147.0215	147.9980	147.4824	1.9635e-01	1.1996e+00
115	VPW000004	104.7777	105.7542	105.2347	2.1472e-01	1.0270e+00
116	VPW000005	139.1789	140.3508	139.8351	2.4881e-01	1.1662e+00
117	VPW000006	145.7294	146.7060	146.2451	2.0412e-01	1.1942e+00
118	IPW000001	529.3854	546.9564	538.4052	4.3725e+00	9.1488e+00
119	IPW000002	1306.3000	1319.9590	1313.5587	3.8229e+00	1.3164e+01
120	IPW000003	1323.7125	1339.3125	1331.5123	3.4793e+00	1.3276e+01
121	IPW000004	376.3803	381.2632	379.0950	1.4436e+00	3.6013e+00
122	IPW000005	252.1908	254.6319	253.3820	6.2509e-01	2.8296e+00
123	IPW000006	265.7095	267.6626	266.5300	5.0724e-01	2.9040e+00
124	EMPTY	-0.0342	-0.0146	-0.0217	4.6438e-03	0.0000e+00
125	EMPTY	-0.0244	-0.0049	-0.0140	3.4187e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0163	4.2556e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0154	3.6057e-03	0.0000e+00
128	IHT000001	130.5627	133.1017	131.9884	5.1938e-01	4.3072e+00
129	IHT000002	130.1232	132.4669	131.4083	4.4484e-01	4.3054e+00
130	IHT000003	129.1917	131.3401	130.3089	4.9133e-01	4.3021e+00
131	IHT000004	131.3702	133.7139	132.6006	5.2386e-01	4.3091e+00
132	IHT000005	129.7101	132.0538	130.8350	5.2875e-01	4.3037e+00
133	IHT000006	125.4394	127.7832	126.5176	5.1485e-01	4.2908e+00
134	IHT000007	131.8472	133.9957	132.8433	4.8045e-01	4.3098e+00
135	IHT000008	130.6791	132.6322	131.5854	4.7147e-01	4.3060e+00
136	IHT000009	130.2096	132.5533	131.2134	5.1450e-01	4.3048e+00
137	IHT000010	130.5852	132.5383	131.4367	5.0649e-01	4.3055e+00
138	IHT000011	131.4491	133.2069	132.2889	4.4860e-01	4.3081e+00
139	IHT000012	130.2772	132.4256	131.4022	4.8095e-01	4.3054e+00
140	IHT000013	92.1124	93.8702	92.9444	4.3191e-01	4.2040e+00
141	IHT000014	127.6517	129.2142	128.4018	4.3290e-01	4.2964e+00
142	IHT000015	94.7566	96.3191	95.5691	4.4531e-01	4.2099e+00
143	IHT000016	88.8860	90.8391	89.7571	4.3800e-01	4.1971e+00
144	IHT000017	103.9325	107.8388	105.9521	1.0804e+00	4.2347e+00
145	IHT000018	106.8885	109.2323	108.0213	6.0618e-01	4.2399e+00
146	IHT000019	107.4557	109.7994	108.6001	6.1004e-01	4.2414e+00
147	IHT000020	105.4312	107.7749	106.7163	6.0886e-01	4.2366e+00
148	IHT000021	-3.0912	-0.3568	-1.6771	7.2067e-01	4.1000e+00
149	IHT000022	92.0523	94.9820	93.4780	6.0650e-01	4.2052e+00
150	IHT000023	104.8603	107.2040	106.2041	5.5333e-01	4.2353e+00
151	IHT000024	70.0308	72.3745	71.2066	5.5872e-01	4.1614e+00
152	IHT000025	102.5954	104.9392	103.7556	5.6139e-01	4.2292e+00
153	IHT000026	104.9128	107.0613	106.0926	5.6076e-01	4.2350e+00
154	IHT000027	89.7762	91.9246	90.9285	5.6255e-01	4.1996e+00
155	IHT000028	90.4072	92.5556	91.5869	4.8642e-01	4.2010e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.9007	107.8538	106.8890	4.4888e-01	4.2370e+00
157	IHT000030	108.2482	110.3966	109.2833	4.9639e-01	4.2431e+00
158	IHT000031	106.1148	108.4585	107.1968	4.6557e-01	4.2378e+00
159	IHT000032	107.1590	109.3074	108.2567	4.9109e-01	4.2405e+00
160	IHT000033	107.1665	109.3149	108.2407	5.0571e-01	4.2405e+00
161	IHT000034	93.7650	95.7182	94.8588	4.7021e-01	4.2083e+00
162	IHT000035	123.4751	125.8188	124.7017	4.8172e-01	4.2854e+00
163	IHT000036	92.4842	94.4373	93.5428	4.6704e-01	4.2054e+00

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	40.1409	40.7512	40.4387	1.3317e-01	7.5678e-01
102	PRV000001	19.5111	19.6331	19.5135	1.7263e-02	7.5158e-01
103	PSR000001	45.5331	45.6552	45.5844	6.0861e-02	7.5861e-01
104	PFH000001	1.6304	1.9966	1.8135	7.6263e-02	5.0002e-01
105	PAN000136	-135.5771	-131.9150	-133.9750	8.2330e-01	4.9314e+00
106	PFH000002	1.4950	1.5789	1.5360	2.2012e-02	2.0004e-01
107	EMPTY	-0.0049	0.0049	-0.0012	3.6326e-03	0.0000e+00
108	EMPTY	-10.0000	1.3184	-9.6643	1.6747e+00	0.0000e+00
109	EMPTY	-0.0049	0.0049	-0.0003	1.8216e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0004	1.3381e-03	0.0000e+00
112	VPW000001	102.1484	102.7344	102.4609	1.3669e-01	1.0169e+00
113	VPW000002	119.1369	119.5275	119.2931	1.1838e-01	1.0809e+00
114	VPW000003	147.2168	147.8027	147.4941	1.4276e-01	1.1997e+00
115	VPW000004	104.9730	105.5589	105.2035	1.4600e-01	1.0269e+00
116	VPW000005	139.7649	140.1555	139.9445	1.2992e-01	1.1667e+00
117	VPW000006	146.1200	146.5107	146.2841	1.0705e-01	1.1943e+00
118	IPW000001	537.1947	543.0518	540.5917	1.5683e+00	9.1569e+00
119	IPW000002	1300.4463	1316.0564	1306.5342	4.4187e+00	1.3120e+01
120	IPW000003	1323.7125	1333.4625	1328.9775	2.0184e+00	1.3260e+01
121	IPW000004	377.3569	379.7983	378.6849	6.0037e-01	3.5986e+00
122	IPW000005	252.6790	253.6555	252.9328	2.8315e-01	2.8271e+00
123	IPW000006	266.1978	268.1509	266.9108	3.7186e-01	2.9062e+00
124	EMPTY	-0.0244	-0.0098	-0.0189	3.6433e-03	0.0000e+00
125	EMPTY	-0.0146	-0.0098	-0.0131	2.3008e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0150	3.9261e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0166	3.8206e-03	0.0000e+00
128	IHT000001	130.7580	133.4923	131.9025	6.1385e-01	4.3070e+00
129	IHT000002	130.3185	133.0529	131.3068	6.2317e-01	4.3051e+00
130	IHT000003	129.3870	131.3401	130.2386	5.5630e-01	4.3019e+00
131	IHT000004	131.5655	133.9093	132.4639	5.8793e-01	4.3087e+00
132	IHT000005	129.7101	132.0538	130.7452	5.2830e-01	4.3034e+00
133	IHT000006	125.2441	127.5879	126.4160	5.5102e-01	4.2905e+00
134	IHT000007	131.8472	134.1910	132.8433	5.6806e-01	4.3098e+00
135	IHT000008	130.4838	133.0229	131.5463	6.0123e-01	4.3059e+00
136	IHT000009	129.8190	132.7487	131.1587	6.1638e-01	4.3047e+00
137	IHT000010	130.3899	132.9289	131.3976	5.3432e-01	4.3054e+00
138	IHT000011	131.2538	133.7928	132.3241	5.1333e-01	4.3082e+00
139	IHT000012	130.2772	132.6209	131.3241	5.1412e-01	4.3052e+00
140	IHT000013	91.9171	93.8702	92.8155	4.8648e-01	4.2037e+00
141	IHT000014	127.4564	129.4095	128.4995	4.8905e-01	4.2967e+00
142	IHT000015	94.1707	96.3191	95.3855	4.9488e-01	4.2095e+00
143	IHT000016	88.6907	90.6438	89.8196	4.6737e-01	4.1972e+00
144	IHT000017	104.7138	108.0341	106.8779	6.2744e-01	4.2370e+00
145	IHT000018	106.8885	109.4276	108.0721	5.1207e-01	4.2400e+00
146	IHT000019	107.6510	109.9947	108.7212	5.4994e-01	4.2417e+00
147	IHT000020	105.8218	107.9703	106.7905	5.0680e-01	4.2368e+00
148	IHT000021	-2.7006	0.0338	-1.4193	6.2160e-01	4.1000e+00
149	IHT000022	92.8335	94.7866	93.6304	4.7978e-01	4.2056e+00
150	IHT000023	105.4462	107.2040	106.2197	4.3755e-01	4.2354e+00
151	IHT000024	70.4214	71.9839	71.2378	4.0566e-01	4.1614e+00
152	IHT000025	102.9860	104.7438	103.8102	4.5556e-01	4.2294e+00
153	IHT000026	105.3035	107.2566	106.0926	4.6179e-01	4.2350e+00
154	IHT000027	89.9715	92.1199	91.0223	4.7333e-01	4.1998e+00
155	IHT000028	90.7978	93.3368	91.7119	5.5586e-01	4.2013e+00

Test: Feb01_09 suml Date: Thu Feb 1 16:14:06 1990 Page: 4

#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.9007	108.4398	106.9984	5.2481e-01	4.2373e+00
157	IHT000030	108.2482	110.9826	109.3849	5.1854e-01	4.2434e+00
158	IHT000031	106.3101	109.0445	107.2124	5.2183e-01	4.2379e+00
159	IHT000032	107.3543	109.5027	108.2332	5.3851e-01	4.2405e+00
160	IHT000033	107.1665	109.5102	108.2095	5.4621e-01	4.2404e+00
161	IHT000034	93.7650	96.1088	94.7260	5.3502e-01	4.2080e+00
162	IHT000035	123.6704	126.2095	124.6626	5.4224e-01	4.2853e+00
163	IHT000036	92.4842	94.8280	93.3787	5.0082e-01	4.2050e+00

Test: Feb01_10 suml Date: Thu Feb 1 16:27:30 1990 Page: 3

#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	40.0188	40.5071	40.2581	9.5388e-02	7.5672e-01
102	PRV000001	19.5111	19.6331	19.5819	6.0861e-02	7.5160e-01
103	PSR000001	45.0448	45.1669	45.1205	5.9853e-02	7.5844e-01
104	PFH000001	1.2642	1.5388	1.3759	6.9920e-02	5.0001e-01
105	PAN000136	-133.2883	-129.1685	-131.4573	9.9176e-01	4.9310e+00
106	PFH000002	1.1091	1.1762	1.1383	1.9120e-02	2.0002e-01
107	EMPTY	-0.0049	0.0049	-0.0023	3.5895e-03	0.0000e+00
108	EMPTY	-10.0000	-3.2373	-9.4818	1.3009e+00	0.0000e+00
109	EMPTY	-0.0049	0.0049	0.0003	1.8216e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0002	9.6655e-04	0.0000e+00
112	VPW000001	101.9531	102.5391	102.3359	1.4205e-01	1.0164e+00
113	VPW000002	119.1369	119.5275	119.2931	9.6655e-02	1.0809e+00
114	VPW000003	147.4121	147.8027	147.5605	1.3416e-01	1.2000e+00
115	VPW000004	104.9730	105.5589	105.2269	1.5409e-01	1.0270e+00
116	VPW000005	139.7649	140.3508	139.9328	1.5288e-01	1.1666e+00
117	VPW000006	145.7294	146.5107	146.0263	1.7308e-01	1.1932e+00
118	IPW000001	562.5752	568.4323	565.5036	1.5403e+00	9.2503e+00
119	IPW000002	1277.0310	1286.7874	1282.2605	2.2453e+00	1.2970e+01
120	IPW000003	1298.3625	1306.1625	1303.4324	1.8894e+00	1.3101e+01
121	IPW000004	382.7280	384.6811	383.7338	3.9961e-01	3.6318e+00
122	IPW000005	252.1908	253.6555	252.8938	3.5782e-01	2.8269e+00
123	IPW000006	263.2681	265.2212	264.1765	6.1613e-01	2.8906e+00
124	EMPTY	-0.0293	-0.0146	-0.0199	4.5034e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0136	3.0067e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0163	3.8975e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0163	3.2133e-03	0.0000e+00
128	IHT000001	130.7580	132.5158	131.7814	4.9530e-01	4.3066e+00
129	IHT000002	130.3185	132.2716	131.2794	4.5135e-01	4.3050e+00
130	IHT000003	129.3870	131.3401	130.3167	4.6448e-01	4.3021e+00
131	IHT000004	131.7608	133.7139	132.5264	4.6828e-01	4.3089e+00
132	IHT000005	129.7101	131.8585	130.7256	5.0992e-01	4.3034e+00
133	IHT000006	125.6348	127.3926	126.4160	4.6522e-01	4.2905e+00
134	IHT000007	132.0425	133.8003	132.8081	4.5308e-01	4.3097e+00
135	IHT000008	130.8744	132.6322	131.5776	4.1196e-01	4.3060e+00
136	IHT000009	130.2096	132.3580	131.1236	4.5411e-01	4.3046e+00
137	IHT000010	130.5952	132.7336	131.3117	4.6361e-01	4.3051e+00
138	IHT000011	131.0584	133.4022	131.9608	4.8791e-01	4.3071e+00
139	IHT000012	130.2772	132.6209	131.0428	4.8462e-01	4.3043e+00
140	IHT000013	91.7217	94.2608	92.7490	4.5302e-01	4.2036e+00
141	IHT000014	127.6517	129.4095	128.4252	4.4810e-01	4.2964e+00
142	IHT000015	94.1707	96.3191	95.3269	4.2469e-01	4.2094e+00
143	IHT000016	88.6907	90.4485	89.6164	4.0781e-01	4.1968e+00
144	IHT000017	104.5185	107.0575	105.7373	6.1201e-01	4.2342e+00
145	IHT000018	106.3026	108.6463	107.8143	4.7484e-01	4.2394e+00
146	IHT000019	107.4557	110.3854	108.4790	6.2085e-01	4.2411e+00
147	IHT000020	105.4312	108.1656	106.4741	6.0825e-01	4.2360e+00
148	IHT000021	-2.8959	0.6197	-1.6303	7.9922e-01	4.1000e+00
149	IHT000022	92.2476	94.7866	93.2671	6.1039e-01	4.2047e+00
150	IHT000023	105.0556	107.3993	105.9892	5.5143e-01	4.2348e+00
151	IHT000024	70.0308	72.3745	71.0308	5.2740e-01	4.1611e+00
152	IHT000025	102.5954	104.9392	103.5954	4.9700e-01	4.2289e+00
153	IHT000026	104.9128	106.8660	105.8582	4.4356e-01	4.2345e+00
154	IHT000027	89.5808	91.5340	90.7801	4.5337e-01	4.1993e+00
155	IHT000028	90.2118	92.7509	91.3564	5.5525e-01	4.2005e+00

Test: Feb01_10 suml Date: Thu Feb 1 16:27:30 1990 Page: 4

#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.5101	108.2444	106.7132	5.8309e-01	4.2366e+00
157	IHT000030	107.8576	110.3966	109.1232	5.5976e-01	4.2427e+00
158	IHT000031	105.7242	108.2632	107.0327	5.4140e-01	4.2374e+00
159	IHT000032	106.7683	109.5027	108.0184	5.6634e-01	4.2399e+00
160	IHT000033	106.7758	109.5102	108.0024	5.6226e-01	4.2399e+00
161	IHT000034	93.5697	96.3041	94.6713	5.1260e-01	4.2079e+00
162	IHT000035	123.2798	126.4048	124.6157	5.1200e-01	4.2852e+00
163	IHT000036	92.2889	94.8280	93.3319	4.8905e-01	4.2049e+00

Test: Feb01_11 suml Date: Thu Feb 1 16:38:28 1990 Page: 3

#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	40.0188	40.7512	40.5339	1.4651e-01	7.5681e-01
102	PRV000001	19.7552	19.8773	19.7894	5.5366e-02	7.5163e-01
103	PSR000001	44.0683	44.1903	44.0927	4.9324e-02	7.5806e-01
104	PFM000001	0.9895	1.3557	1.1763	7.3893e-02	5.0001e-01
105	PAN000136	-113.6045	-105.8225	-108.8895	1.6472e+00	4.9275e+00
106	PFM000002	0.8742	0.9245	0.8919	1.2414e-02	2.0001e-01
107	EMPTY	-0.0049	0.0000	-0.0046	1.1714e-03	0.0000e+00
108	EMPTY	-10.0000	6.9092	-9.2976	3.0318e+00	0.0000e+00
109	EMPTY	-0.0049	0.0049	-0.0004	1.9331e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0006	1.6028e-03	0.0000e+00
112	VPW000001	101.9531	102.9297	102.4180	2.8424e-01	1.0167e+00
113	VPW000002	119.1369	119.5275	119.3634	8.2393e-02	1.0812e+00
114	VPW000003	147.4121	147.8027	147.5605	1.1545e-01	1.2000e+00
115	VPW000004	105.1683	105.5589	105.3792	9.5357e-02	1.0276e+00
116	VPW000005	139.5696	140.1555	139.8663	1.2627e-01	1.1663e+00
117	VPW000006	146.3153	146.9013	146.5849	1.6690e-01	1.1957e+00
118	IPW000001	537.1947	545.0041	540.6307	1.9547e+00	9.1570e+00
119	IPW000002	1296.5437	1302.3975	1298.6903	1.2621e+00	1.3072e+01
120	IPW000003	1321.7625	1325.6625	1323.6343	1.1793e+00	1.3227e+01
121	IPW000004	381.7514	383.2163	382.3373	3.1195e-01	3.6226e+00
122	IPW000005	252.6790	253.6555	253.1867	3.2655e-01	2.8286e+00
123	IPW000006	266.1978	267.6626	266.9401	3.7226e-01	2.9064e+00
124	EMPTY	-0.0244	-0.0146	-0.0210	3.3087e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0140	2.6118e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0170	3.3073e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0177	3.5417e-03	0.0000e+00
128	IHT000001	130.7580	132.9064	131.6720	5.0754e-01	4.3062e+00
129	IHT000002	130.3185	132.2716	131.0997	4.6354e-01	4.3045e+00
130	IHT000003	129.1917	130.9495	130.0589	4.0464e-01	4.3013e+00
131	IHT000004	131.5655	133.3233	132.2647	4.2698e-01	4.3081e+00
132	IHT000005	129.9054	131.6632	130.5889	4.3984e-01	4.3029e+00
133	IHT000006	125.2441	127.3926	126.2519	4.3290e-01	4.2900e+00
134	IHT000007	131.4566	133.9957	132.6987	4.7311e-01	4.3094e+00
135	IHT000008	130.0932	132.8275	131.4135	4.9687e-01	4.3055e+00
136	IHT000009	130.0143	132.1627	131.0142	4.6961e-01	4.3042e+00
137	IHT000010	129.9993	132.5383	131.4171	5.0503e-01	4.3055e+00
138	IHT000011	131.2538	133.4022	132.4764	4.6989e-01	4.3087e+00
139	IHT000012	130.2772	132.6209	131.4960	4.9687e-01	4.3057e+00
140	IHT000013	91.7217	94.2608	93.0030	4.8674e-01	4.2042e+00
141	IHT000014	127.0658	129.6049	128.3784	5.0229e-01	4.2963e+00
142	IHT000015	94.3660	96.7097	95.5535	4.9101e-01	4.2099e+00
143	IHT000016	88.6907	90.6438	89.7922	4.4251e-01	4.1972e+00
144	IHT000017	106.2763	109.0107	107.3115	6.0264e-01	4.2381e+00
145	IHT000018	107.0838	109.6229	108.3260	5.8893e-01	4.2407e+00
146	IHT000019	107.6510	109.6041	108.6783	4.9096e-01	4.2416e+00
147	IHT000020	105.8218	107.7749	106.7319	4.7941e-01	4.2366e+00
148	IHT000021	-2.3099	0.2291	-1.3451	5.6828e-01	4.1000e+00
149	IHT000022	92.4429	94.7866	93.5132	5.0876e-01	4.2053e+00
150	IHT000023	105.4462	107.0087	106.1728	3.8871e-01	4.2352e+00
151	IHT000024	70.6167	71.9839	71.2222	4.0482e-01	4.1614e+00
152	IHT000025	103.1813	104.7438	103.8337	3.8985e-01	4.2294e+00
153	IHT000026	105.3035	107.0613	106.0652	4.0289e-01	4.2350e+00
154	IHT000027	89.9715	92.1199	90.9246	5.2443e-01	4.1996e+00
155	IHT000028	90.6025	93.1415	91.7236	6.4695e-01	4.2013e+00

Test: Feb01_11 suml Date: Thu Feb 1 16:38:28 1990 Page: 4

#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	106.0960	108.2444	107.0257	5.5882e-01	4.2374e+00
157	IHT000030	108.4435	110.5919	109.3888	5.6546e-01	4.2434e+00
158	IHT000031	106.1148	108.2632	107.2046	5.5955e-01	4.2378e+00
159	IHT000032	107.1590	109.5027	108.2020	5.9269e-01	4.2404e+00
160	IHT000033	107.1665	109.5102	108.1665	6.0828e-01	4.2403e+00
161	IHT000034	93.7650	96.3041	94.8081	5.7940e-01	4.2082e+00
162	IHT000035	123.4751	125.8188	124.4673	5.8506e-01	4.2848e+00
163	IHT000036	92.6795	95.0233	93.5076	5.6985e-01	4.2053e+00

DEFECTIVE INSTRUMENTS FOR THE NON-RIBBED GEOMETRY TEST SERIES

Series	Tests	Defective Instruments
1A	Feb01_01 to Feb01_11	TAO120048 TRT020000 TAI130048 TAO020136 TRT070000 TAI130136 TAO090136 TRT125000 TAI130224 TAO110136 TRT130000 TAI130312 TAO115136 TRR130000 TAO120136 TAF120312 TAO130136 TAO120224 TAO130224 IHT000021 IHT000024 IHT000033

Chapter 3

NUCLEATE BOILING PRESSURE DROP IN AN ANNULUS

Test Geometry: Non-Ribbed (2)
Test Series: 2
Test Date: February 5, 1990

TEST NUMBER	INLET VELOCITY(a) (ft/s)	PRESSURE DROP(b) (psi)
Feb05_01	25.88	21.12
Feb05_02	20.01	10.47
Feb05_15	16.98	6.19
Feb05_03	14.00	2.49
Feb05_14	11.01	-0.40
Feb05_04	7.98	-2.72
Feb05_05	6.96	-3.34
Feb05_06	5.98	-3.87
Feb05_07	5.15	-4.24
Feb05_08	4.02	-4.63
Feb05_09	3.52	-4.83
Feb05_10	3.00	-4.91
Feb05_11	2.84	-4.94
Feb05_12	2.61	-4.95
Feb05_13	2.47	-4.56

NOMINAL TEST CONDITIONS	
Annulus geometry	non-ribbed (2)
Inlet temperature	86 °F
Inlet pressure	60 psia
Wall heat flux	100 kBtu/hr-ft ²
Flux distribution	uniform
He saturation pressure	5 psig

NOTES:

- (a) Inlet velocity calculated from PFM000001 and PFM000002 (for $V \leq 13$ ft/s)
- (b) Pressure drop calculated from PAN000136
- (c) Shading notes test at minimum pressure drop

DEMAND CURVE AND DATA FOR SERIES 2 - NON-RIBBED ANNULUS

Test: Feb05_01 suml Date: Mon Feb 5 11:39:25 1990 Page: 3

#	Name	Min	Max	Ave	SD	Uncert
101	PRN0000001	59.6389	60.4934	60.0076	2.0558e-01	7.6486e-01
102	PRV0000001	19.7336	19.9778	19.8557	2.4662e-02	7.5164e-01
103	PSR0000001	36.3798	36.6239	36.5116	4.1561e-02	7.5553e-01
104	PFM0000001	103.9792	105.9018	104.7171	4.2154e-01	5.6439e-01
105	PAN000136	581.2108	588.5350	584.8546	1.5279e+00	5.1327e+00
106	PFM0000002	27.5773	27.5773	27.5773	9.6336e-06	2.1155e-01
107	EMPTY	0.0049	0.0146	0.0085	2.3778e-03	0.0000e+00
108	EMPTY	-6.8359	-3.6230	-5.0714	8.9638e-01	0.0000e+00
109	EMPTY	0.0049	0.0098	0.0059	1.9730e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0014	2.2146e-03	0.0000e+00
112	VPW0000001	101.7428	102.5240	102.0318	1.5902e-01	1.0153e+00
113	VPW0000002	118.7876	119.3735	119.1431	1.4057e-01	1.0803e+00
114	VPW0000003	146.7173	147.1079	146.9751	1.0763e-01	1.1974e+00
115	VPW0000004	104.5786	105.1645	104.9106	1.5409e-01	1.0258e+00
116	VPW0000005	138.8972	139.6785	139.2723	1.4680e-01	1.1638e+00
117	VPW0000006	145.3050	146.0862	145.6801	1.9666e-01	1.1917e+00
118	IPW0000001	543.2770	558.8958	551.7112	3.6030e+00	9.1982e+00
119	IPW0000002	1294.0670	1307.7258	1301.4818	4.6142e+00	1.3089e+01
120	IPW0000003	1325.0248	1332.8248	1330.0168	2.3360e+00	1.3267e+01
121	IPW0000004	384.4933	386.9347	385.6066	4.9363e-01	3.6442e+00
122	IPW0000005	254.7822	257.2233	255.8661	4.8614e-01	2.8436e+00
123	IPW0000006	267.6815	270.1229	268.9706	5.3815e-01	2.9181e+00
124	EMPTY	-0.0293	-0.0146	-0.0225	4.3000e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0143	3.3944e-03	0.0000e+00
126	EMPTY	-0.0293	-0.0146	-0.0188	3.8219e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0166	3.2718e-03	0.0000e+00
128	IHT0000001	131.6632	133.8116	132.7100	6.0587e-01	4.3094e+00
129	IHT0000002	131.0359	133.3797	132.0086	5.6426e-01	4.3073e+00
130	IHT0000003	129.5410	131.8848	130.4980	5.4996e-01	4.3027e+00
131	IHT0000004	132.0801	134.0332	132.9941	5.1816e-01	4.3103e+00
132	IHT0000005	130.2321	132.5759	131.2008	4.7180e-01	4.3048e+00
133	IHT0000006	125.7775	127.9259	126.8829	4.9064e-01	4.2918e+00
134	IHT0000007	131.7833	133.9318	132.9669	4.6086e-01	4.3102e+00
135	IHT0000008	130.4537	132.6021	131.6998	4.9425e-01	4.3063e+00
136	IHT0000009	130.4875	132.6360	131.5109	5.6574e-01	4.3058e+00
137	IHT0000010	130.5138	132.8576	131.5060	5.3503e-01	4.3057e+00
138	IHT0000011	131.4153	134.1496	132.5636	5.4196e-01	4.3090e+00
139	IHT0000012	130.6077	133.3421	131.7093	5.4499e-01	4.3064e+00
140	IHT0000013	92.0072	94.3510	93.0307	5.2134e-01	4.2042e+00
141	IHT0000014	127.4715	129.8152	128.4286	4.6396e-01	4.2964e+00
142	IHT0000015	94.7341	96.8825	95.7341	4.7127e-01	4.2103e+00
143	IHT0000016	89.1940	91.5377	89.9791	4.7267e-01	4.1976e+00
144	IHT0000017	104.2706	107.7862	106.1065	9.7537e-01	4.2351e+00
145	IHT0000018	106.8134	109.1572	107.9463	5.6634e-01	4.2397e+00
146	IHT0000019	107.0350	109.3788	108.1092	5.3996e-01	4.2401e+00
147	IHT0000020	105.9721	108.5111	107.1440	5.5243e-01	4.2377e+00
148	IHT0000021	-2.7907	-0.2517	-1.5642	6.2768e-01	4.1000e+00
149	IHT0000022	93.0176	95.1660	93.9981	5.4030e-01	4.2064e+00
150	IHT0000023	105.5476	107.6961	106.3914	4.9668e-01	4.2358e+00
151	IHT0000024	70.8872	72.8403	71.6919	5.0322e-01	4.1622e+00
152	IHT0000025	102.4677	104.8114	103.4091	5.3480e-01	4.2284e+00
153	IHT0000026	105.0856	107.0388	105.9411	4.9109e-01	4.2347e+00
154	IHT0000027	90.0579	92.0110	91.0149	4.9007e-01	4.1998e+00
155	IHT0000028	90.3893	93.5284	92.1416	5.9615e-01	4.2023e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	106.0021	108.5412	107.0607	6.1014e-01	4.2375e+00
157	IHT0000030	108.5073	110.8511	109.5855	6.0392e-01	4.2439e+00
158	IHT0000031	106.5881	108.7365	107.5568	5.8522e-01	4.2387e+00
159	IHT0000032	107.4332	109.7769	108.5698	5.4059e-01	4.2413e+00
160	IHT0000033	107.4144	109.9534	108.4769	5.5965e-01	4.2411e+00
161	IHT0000034	94.3247	96.2778	95.1919	5.1774e-01	4.2091e+00
162	IHT0000035	123.9633	126.1118	124.9985	4.7719e-01	4.2863e+00
163	IHT0000036	92.6157	94.9594	93.7056	4.9140e-01	4.2057e+00

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	59.7610	60.4934	60.1370	1.6514e-01	7.6492e-01
102	PRV000001	19.7336	19.8557	19.7507	4.2787e-02	7.5162e-01
103	FSR000001	48.2206	48.4647	48.3255	5.5201e-02	7.5967e-01
104	FFN000001	61.5903	62.9636	62.4546	3.4710e-01	5.2381e-01
105	PAN000136	285.9533	296.0241	289.9450	1.8659e+00	4.9731e+00
106	PEM000002	27.5773	27.5773	27.5773	9.6336e-06	2.1155e-01
107	EMPTY	0.0049	0.0098	0.0057	1.8082e-03	0.0000e+00
108	EMPTY	-5.3369	-3.3594	-4.3834	5.4794e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0048	6.9053e-04	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	101.7428	102.1334	101.9029	1.4057e-01	1.0149e+00
113	VPW000002	118.9829	119.3735	119.1352	9.8963e-02	1.0803e+00
114	VPW000003	146.9126	147.3032	147.0220	1.0559e-01	1.1976e+00
115	VPW000004	104.5786	105.1645	104.8794	1.1975e-01	1.0257e+00
116	VPW000005	139.0925	139.4832	139.2919	7.3716e-02	1.1639e+00
117	VPW000006	145.5003	145.8909	145.6957	1.3087e-01	1.1918e+00
118	IPW000001	564.7528	570.6098	568.0718	1.8182e+00	9.2601e+00
119	IPW000002	1284.3107	1288.2131	1285.7551	1.4109e+00	1.2992e+01
120	IPW000003	1309.4248	1317.2247	1313.5197	1.6362e+00	1.3164e+01
121	IPW000004	384.9816	385.9581	385.5968	2.9280e-01	3.6441e+00
122	IPW000005	254.2939	255.2704	254.9385	2.5031e-01	2.8384e+00
123	IPW000006	266.2166	268.1697	267.0761	3.6326e-01	2.9072e+00
124	EMPTY	-0.0293	-0.0146	-0.0217	3.8409e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0153	2.9611e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0146	-0.0175	2.9742e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0146	-0.0188	3.4681e-03	0.0000e+00
128	IHT000001	131.4678	134.2022	132.6709	5.2846e-01	4.3093e+00
129	IHT000002	130.8406	133.1844	131.9461	5.0472e-01	4.3071e+00
130	IHT000003	129.5410	131.8848	130.4735	5.1448e-01	4.3026e+00
131	IHT000004	132.0801	134.2285	132.8926	5.5854e-01	4.3100e+00
132	IHT000005	130.4274	132.3806	131.1501	5.2977e-01	4.3047e+00
133	IHT000006	125.9728	128.3166	126.7931	5.3087e-01	4.2916e+00
134	IHT000007	132.1740	134.5177	133.0060	5.3643e-01	4.3103e+00
135	IHT000008	130.8443	133.1881	131.7037	4.8808e-01	4.3063e+00
136	IHT000009	130.6829	132.4407	131.4445	4.3984e-01	4.3056e+00
137	IHT000010	130.7091	133.4435	131.8068	6.1623e-01	4.3067e+00
138	IHT000011	131.8059	133.9543	132.7628	5.3416e-01	4.3096e+00
139	IHT000012	130.9984	132.9515	131.8226	5.2983e-01	4.3067e+00
140	IHT000013	92.0072	94.1556	92.9877	5.3741e-01	4.2041e+00
141	IHT000014	127.6668	129.6199	128.5731	4.9562e-01	4.2969e+00
142	IHT000015	94.7341	96.6872	95.7731	4.9037e-01	4.2104e+00
143	IHT000016	88.8033	90.9518	89.9908	4.9101e-01	4.1976e+00
144	IHT000017	105.0518	108.3722	106.8604	6.6358e-01	4.2370e+00
145	IHT000018	107.2040	109.5478	108.1533	5.1146e-01	4.2402e+00
146	IHT000019	107.2303	109.7694	108.1756	5.6132e-01	4.2403e+00
147	IHT000020	105.9721	108.9017	107.0385	5.9609e-01	4.2374e+00
148	IHT000021	-2.9860	0.7249	-1.4743	7.3272e-01	4.1000e+00
149	IHT000022	92.6270	95.7520	93.9043	6.0901e-01	4.2062e+00
150	IHT000023	105.1570	108.2820	106.4734	6.0978e-01	4.2360e+00
151	IHT000024	70.4965	73.6215	71.7309	6.0030e-01	4.1623e+00
152	IHT000025	102.2724	105.0068	103.5107	5.7536e-01	4.2286e+00
153	IHT000026	104.6950	107.4294	106.1012	5.8527e-01	4.2351e+00
154	IHT000027	89.8625	92.2063	91.0891	5.6777e-01	4.2000e+00
155	IHT000028	91.1846	93.5284	92.1104	5.7698e-01	4.2022e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	106.1974	108.9318	107.2013	6.0876e-01	4.2378e+00
157	IHT000030	108.5073	111.2417	109.7730	6.2170e-01	4.2444e+00
158	IHT000031	106.3927	108.9318	107.7326	5.9058e-01	4.2392e+00
159	IHT000032	107.4332	110.1675	108.7769	6.3582e-01	4.2418e+00
160	IHT000033	107.2190	110.1487	108.7230	6.3656e-01	4.2417e+00
161	IHT000034	93.9340	96.4731	95.1684	5.4310e-01	4.2090e+00
162	IHT000035	123.7680	126.1118	125.1079	5.4105e-01	4.2866e+00
163	IHT000036	92.6157	94.7641	93.7993	4.5747e-01	4.2059e+00

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	59.7610	60.4934	60.0841	1.6624e-01	7.6490e-01
102	PRV000001	19.7336	19.8557	19.8484	2.9284e-02	7.5164e-01
103	PSR000001	57.0096	57.1317	57.0633	6.1209e-02	7.6345e-01
104	PPM000001	30.0962	30.9201	30.4651	1.7929e-01	5.0577e-01
105	PRN000136	65.7690	71.7199	68.9916	1.4326e+00	4.9230e+00
106	PPM000002	27.5773	27.5773	27.5773	9.6336e-06	2.1155e-01
107	EMPTY	0.0049	0.0098	0.0059	1.9730e-03	0.0000e+00
108	EMPTY	-6.2598	-3.5352	-4.4557	6.2557e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0045	1.3381e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	101.7428	102.3287	102.0123	1.7598e-01	1.0153e+00
113	VPW000002	118.9829	119.5688	119.1743	1.5530e-01	1.0805e+00
114	VPW000003	146.7173	147.3032	146.9946	1.4812e-01	1.1975e+00
115	VPW000004	104.5786	105.1645	104.8677	1.4358e-01	1.0257e+00
116	VPW000005	138.8972	139.8738	139.3504	1.9507e-01	1.1641e+00
117	VPW000006	145.3050	146.0862	145.7308	1.5630e-01	1.1919e+00
118	IPW000001	560.8481	568.6575	563.8937	1.7265e+00	9.2442e+00
119	IPW000002	1284.3107	1296.0183	1289.4233	2.1189e+00	1.3014e+01
120	IPW000003	1311.3748	1317.2247	1314.2997	1.7285e+00	1.3169e+01
121	IPW000004	383.0284	385.9581	384.6886	6.9754e-01	3.6381e+00
122	IPW000005	253.8057	255.7586	254.7920	4.1251e-01	2.8375e+00
123	IPW000006	265.7283	267.6815	266.6366	4.1864e-01	2.9047e+00
124	EMPTY	-0.0293	-0.0098	-0.0187	3.7809e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0127	3.1195e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0155	3.3728e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0173	3.7186e-03	0.0000e+00
128	IHT000001	131.6632	133.6163	132.5655	5.2183e-01	4.3090e+00
129	IHT000002	131.0359	132.9890	131.9071	4.9945e-01	4.3070e+00
130	IHT000003	129.7363	131.8848	130.5840	5.0626e-01	4.3029e+00
131	IHT000004	132.0801	134.0332	133.0098	4.8095e-01	4.3104e+00
132	IHT000005	130.0368	131.9899	131.1696	4.7842e-01	4.3047e+00
133	IHT000006	125.7775	127.7306	126.8712	4.4817e-01	4.2918e+00
134	IHT000007	131.9787	133.9318	133.0568	4.7881e-01	4.3105e+00
135	IHT000008	130.8443	132.9928	131.8091	4.8232e-01	4.3067e+00
136	IHT000009	130.2922	132.4407	131.4992	5.0792e-01	4.3057e+00
137	IHT000010	130.3185	132.8576	131.6310	6.1894e-01	4.3061e+00
138	IHT000011	131.4153	133.7590	132.5793	5.2787e-01	4.3090e+00
139	IHT000012	130.4124	132.9515	131.6429	5.6117e-01	4.3062e+00
140	IHT000013	91.8119	94.1556	92.8784	4.9945e-01	4.2039e+00
141	IHT000014	127.2762	129.6199	128.5145	4.8905e-01	4.2967e+00
142	IHT000015	94.5388	96.6872	95.5856	4.3362e-01	4.2099e+00
143	IHT000016	88.8033	90.9518	89.8541	4.4097e-01	4.1973e+00
144	IHT000017	105.0518	107.9815	106.6690	6.3139e-01	4.2365e+00
145	IHT000018	106.8134	109.3525	107.9697	5.2176e-01	4.2398e+00
146	IHT000019	107.4256	109.5741	108.3085	4.9322e-01	4.2406e+00
147	IHT000020	105.9721	108.3158	106.9799	5.3432e-01	4.2373e+00
148	IHT000021	-2.7907	0.1390	-1.5759	6.5112e-01	4.1000e+00
149	IHT000022	92.8223	95.1660	93.7637	4.8277e-01	4.2058e+00
150	IHT000023	105.3523	107.5008	106.3797	5.2022e-01	4.2358e+00
151	IHT000024	70.6918	72.6450	71.6137	4.8495e-01	4.1621e+00
152	IHT000025	102.6630	104.8114	103.5224	4.9599e-01	4.2287e+00
153	IHT000026	105.2810	107.0388	106.0505	4.6255e-01	4.2349e+00
154	IHT000027	90.2532	92.4016	91.0344	4.7021e-01	4.1998e+00
155	IHT000028	90.9893	93.5284	92.1104	6.6475e-01	4.2022e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	106.0021	108.5412	107.1388	6.4439e-01	4.2377e+00
157	IHT000030	108.5073	111.0464	109.6753	6.0553e-01	4.2442e+00
158	IHT000031	106.3927	109.3224	107.6349	5.6464e-01	4.2389e+00
159	IHT000032	107.6285	110.3628	108.6558	5.6746e-01	4.2415e+00
160	IHT000033	107.4144	110.3440	108.5863	5.8127e-01	4.2414e+00
161	IHT000034	94.1293	96.0825	95.0786	4.8168e-01	4.2088e+00
162	IHT000035	124.1587	125.9165	125.0610	5.0051e-01	4.2865e+00
163	IHT000036	92.8110	94.7641	93.6587	4.8905e-01	4.2056e+00

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	59.3948	60.0051	59.7317	1.2947e-01	7.6472e-01
102	PRV000001	19.1233	19.2453	19.2209	4.9324e-02	7.5154e-01
103	PSR000001	62.5028	62.6249	62.5247	4.7374e-02	7.6612e-01
104	PPH000001	9.4968	9.8630	9.7092	1.0371e-01	5.0059e-01
105	PAN000136	-77.5111	-72.9334	-75.2863	9.5221e-01	4.9236e+00
106	PPH000002	9.6900	9.9249	9.7974	6.0643e-02	2.0149e-01
107	EMPTY	-0.0049	0.0049	-0.0006	3.7745e-03	0.0000e+00
108	EMPTY	-5.7227	-3.4668	-4.1690	5.4218e-01	0.0000e+00
109	EMPTY	-0.0049	0.0049	0.0000	1.3951e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	101.7428	102.9147	102.2544	2.8424e-01	1.0161e+00
113	VPW000002	118.9829	119.9594	119.3813	2.1598e-01	1.0813e+00
114	VPW000003	146.9126	148.0844	147.3774	2.6438e-01	1.1992e+00
115	VPW000004	104.5786	105.7505	105.1294	2.7815e-01	1.0266e+00
116	VPW000005	139.0925	140.2644	139.6200	2.6248e-01	1.1653e+00
117	VPW000006	145.6956	146.4769	146.0160	2.1885e-01	1.1932e+00
118	IPW000001	560.8481	570.6098	564.8309	2.2645e+00	9.2478e+00
119	IPW000002	1276.5056	1288.2131	1280.4862	3.0779e+00	1.2959e+01
120	IPW000003	1307.4747	1321.1248	1313.1299	3.1823e+00	1.3161e+01
121	IPW000004	383.0284	387.4230	384.7668	1.0019e+00	3.6386e+00
122	IPW000005	253.3175	256.2469	254.6357	6.6352e-01	2.8367e+00
123	IPW000006	265.7283	267.6815	266.5194	5.1154e-01	2.9040e+00
124	EMPTY	-0.0342	-0.0146	-0.0247	3.9961e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0161	2.4662e-03	0.0000e+00
126	EMPTY	-0.0293	-0.0146	-0.0216	3.4300e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0176	3.4173e-03	0.0000e+00
128	IHT000001	130.8819	133.2257	132.2491	5.4534e-01	4.3080e+00
129	IHT000002	130.2547	132.5984	131.6844	5.1666e-01	4.3063e+00
130	IHT000003	129.1504	131.4941	130.4238	5.3414e-01	4.3024e+00
131	IHT000004	131.6895	133.8379	132.7910	5.2014e-01	4.3097e+00
132	IHT000005	129.6462	131.7946	130.9235	5.0565e-01	4.3040e+00
133	IHT000006	125.3869	127.7306	126.6837	4.9404e-01	4.2913e+00
134	IHT000007	131.7833	134.3224	132.8888	5.1842e-01	4.3100e+00
135	IHT000008	130.4537	132.6021	131.6294	4.8727e-01	4.3061e+00
136	IHT000009	129.9016	132.2454	131.3117	5.3712e-01	4.3051e+00
137	IHT000010	130.7091	132.4669	131.5060	5.2325e-01	4.3057e+00
138	IHT000011	131.6106	133.3684	132.4777	4.8834e-01	4.3087e+00
139	IHT000012	130.6077	132.7562	131.5609	5.1846e-01	4.3059e+00
140	IHT000013	92.0072	94.5463	92.9487	5.2894e-01	4.2040e+00
141	IHT000014	127.4715	130.2058	128.4442	5.5732e-01	4.2965e+00
142	IHT000015	94.5388	96.6872	95.5739	5.3996e-01	4.2099e+00
143	IHT000016	88.8033	90.7565	89.8150	5.2599e-01	4.1972e+00
144	IHT000017	104.0753	106.0284	105.2041	5.2835e-01	4.2328e+00
145	IHT000018	107.0087	109.3525	107.7900	5.3815e-01	4.2393e+00
146	IHT000019	107.0350	109.5741	108.2655	5.1335e-01	4.2405e+00
147	IHT000020	105.5814	107.9252	106.8081	5.0074e-01	4.2368e+00
148	IHT000021	-3.3767	-0.6423	-1.7673	5.6298e-01	4.1000e+00
149	IHT000022	92.6270	94.7754	93.5762	5.4105e-01	4.2054e+00
150	IHT000023	105.3523	107.1101	106.1844	4.4610e-01	4.2353e+00
151	IHT000024	70.4965	72.4497	71.3403	4.3840e-01	4.1616e+00
152	IHT000025	102.4677	104.2255	103.2021	4.3684e-01	4.2279e+00
153	IHT000026	105.0856	106.8435	105.7927	4.5998e-01	4.2343e+00
154	IHT000027	89.8625	91.8157	90.7961	5.0577e-01	4.1993e+00
155	IHT000028	90.7940	93.3331	91.8877	6.1763e-01	4.2017e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.8068	108.5412	106.8927	6.2410e-01	4.2371e+00
157	IHT000030	108.1167	110.8511	109.4058	6.3748e-01	4.2435e+00
158	IHT000031	106.1974	108.9318	107.4396	6.5049e-01	4.2384e+00
159	IHT000032	107.2378	109.9722	108.3706	6.4356e-01	4.2408e+00
160	IHT000033	107.0237	109.7581	108.3050	6.5335e-01	4.2406e+00
161	IHT000034	93.9340	96.4731	95.0512	5.1906e-01	4.2087e+00
162	IHT000035	123.7680	126.3071	124.9595	5.6393e-01	4.2862e+00
163	IHT000036	92.4204	95.1547	93.6743	5.7058e-01	4.2056e+00

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	59.5168	60.2493	59.9490	1.5443e-01	7.6483e-01
102	PRV0000001	19.6116	19.8557	19.7336	2.4662e-02	7.5162e-01
103	PSR0000001	63.2352	63.3573	63.3304	5.1081e-02	7.6653e-01
104	PFM0000001	7.1164	7.5742	7.3380	1.0640e-01	5.0034e-01
105	PAN000136	-94.9061	-89.4129	-92.3609	1.1957e+00	4.9254e+00
106	PFM0000002	7.3240	7.5590	7.4274	4.7745e-02	2.0086e-01
107	EMPTY	-0.0049	0.0049	-0.0008	4.4512e-03	0.0000e+00
108	EMPTY	-10.0000	-3.5352	-7.8968	2.5538e+00	0.0000e+00
109	EMPTY	-0.0049	0.0049	0.0003	2.6853e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0007	1.7115e-03	0.0000e+00
112	VPW0000001	101.9381	102.5240	102.2505	1.3087e-01	1.0161e+00
113	VPW0000002	119.1782	119.5688	119.3813	1.1133e-01	1.0813e+00
114	VPW0000003	147.1079	147.4985	147.3774	1.3606e-01	1.1992e+00
115	VPW0000004	104.9692	105.3598	105.1958	1.2701e-01	1.0269e+00
116	VPW0000005	139.4832	140.0691	139.7567	1.7647e-01	1.1659e+00
117	VPW0000006	145.8909	146.2816	146.0668	1.1334e-01	1.1934e+00
118	IPW0000001	560.8481	574.5145	567.3298	3.1168e+00	9.2573e+00
119	IPW0000002	1284.3107	1294.0670	1287.9011	2.4095e+00	1.3005e+01
120	IPW0000003	1307.4747	1315.2748	1311.5699	1.8583e+00	1.3152e+01
121	IPW0000004	382.5402	385.9581	384.6593	8.2893e-01	3.6379e+00
122	IPW0000005	254.2939	255.2704	254.7822	3.2714e-01	2.8375e+00
123	IPW0000006	265.7283	267.1932	266.5292	3.3829e-01	2.9040e+00
124	EMPTY	-0.0293	-0.0098	-0.0209	4.1899e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0144	3.3322e-03	0.0000e+00
126	EMPTY	-0.0293	-0.0098	-0.0171	4.2142e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0173	3.4470e-03	0.0000e+00
128	IHT0000001	131.4678	133.4210	132.2491	4.9756e-01	4.3080e+00
129	IHT0000002	130.6453	132.9890	131.6610	5.0992e-01	4.3062e+00
130	IHT0000003	129.3457	131.4941	130.4238	5.1636e-01	4.3024e+00
131	IHT0000004	131.4941	133.8379	132.7051	5.3815e-01	4.3094e+00
132	IHT0000005	129.8415	131.7946	130.9313	5.1462e-01	4.3040e+00
133	IHT0000006	125.3869	127.5353	126.6251	4.9538e-01	4.2911e+00
134	IHT0000007	131.7833	134.1271	132.8927	4.8559e-01	4.3100e+00
135	IHT0000008	130.6490	132.7975	131.7193	4.7061e-01	4.3064e+00
136	IHT0000009	130.2922	132.6360	131.3546	4.5704e-01	4.3053e+00
137	IHT0000010	130.5138	132.4669	131.5333	4.9172e-01	4.3058e+00
138	IHT0000011	131.4153	133.5637	132.4699	5.3959e-01	4.3087e+00
139	IHT0000012	130.4124	132.7562	131.6078	5.2592e-01	4.3060e+00
140	IHT0000013	91.8119	94.1556	93.0073	5.0012e-01	4.2042e+00
141	IHT0000014	127.4715	129.8152	128.6122	5.6684e-01	4.2970e+00
142	IHT0000015	94.5388	96.8825	95.6638	5.1382e-01	4.2101e+00
143	IHT0000016	88.8033	90.9518	89.9322	4.9645e-01	4.1975e+00
144	IHT0000017	104.2706	108.5675	106.2823	9.9844e-01	4.2355e+00
145	IHT0000018	107.0087	109.5478	108.0713	4.7541e-01	4.2400e+00
146	IHT0000019	107.6209	109.7694	108.5311	5.2439e-01	4.2412e+00
147	IHT0000020	105.7767	108.3158	106.9917	5.3712e-01	4.2373e+00
148	IHT0000021	-2.9860	-0.0564	-1.5524	6.5031e-01	4.1000e+00
149	IHT0000022	92.4316	94.9707	93.7246	5.2924e-01	4.2058e+00
150	IHT0000023	105.1570	107.5008	106.3211	5.1593e-01	4.2356e+00
151	IHT0000024	70.4965	72.8403	71.4927	4.6396e-01	4.1619e+00
152	IHT0000025	102.4677	104.8114	103.5459	5.0260e-01	4.2287e+00
153	IHT0000026	105.2810	107.2341	106.0661	4.7759e-01	4.2350e+00
154	IHT0000027	90.2532	92.0110	90.9953	4.6689e-01	4.1998e+00
155	IHT0000028	90.9893	93.9190	92.1182	6.0784e-01	4.2022e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	106.0021	108.9318	107.1076	6.4309e-01	4.2376e+00
157	IHT0000030	108.7027	111.0464	109.6948	6.5416e-01	4.2442e+00
158	IHT0000031	106.5881	109.1271	107.6623	6.5465e-01	4.2390e+00
159	IHT0000032	107.4332	110.1675	108.5542	7.0455e-01	4.2413e+00
160	IHT0000033	107.4144	110.1487	108.4769	7.0494e-01	4.2411e+00
161	IHT0000034	94.1293	96.6684	95.1137	5.3664e-01	4.2089e+00
162	IHT0000035	123.7680	126.5024	125.0142	5.2481e-01	4.2864e+00
163	IHT0000036	92.6157	94.5688	93.7446	4.6403e-01	4.2058e+00

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	60.0051	60.6155	60.3030	1.4414e-01	7.6500e-01
102	PRV000001	19.7336	19.7336	19.7336	7.7069e-06	7.5162e-01
103	PSR000001	64.0897	64.2118	64.1654	5.9853e-02	7.6696e-01
104	PFM000001	5.1938	5.5600	5.3916	8.3460e-02	5.0018e-01
105	PAN000136	-109.5545	-104.5191	-107.1741	1.1735e+00	4.9273e+00
106	PFM000002	5.4112	5.5286	5.4591	3.2518e-02	2.0047e-01
107	EMPTY	-0.0049	0.0000	-0.0046	1.1714e-03	0.0000e+00
108	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
109	EMPTY	-0.0049	0.0000	-0.0021	2.4344e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0016	2.3008e-03	0.0000e+00
112	VPW000001	101.7428	103.5006	102.3560	3.6382e-01	1.0165e+00
113	VPW000002	118.7876	119.9594	119.3462	2.4005e-01	1.0811e+00
114	VPW000003	146.9126	148.2798	147.4634	2.7534e-01	1.1996e+00
115	VPW000004	104.5786	105.9458	105.2700	3.1619e-01	1.0272e+00
116	VPW000005	139.2879	140.8504	139.7723	3.1130e-01	1.1659e+00
117	VPW000006	145.6956	146.8675	146.2074	2.6438e-01	1.1940e+00
118	IPW000001	556.9434	568.6575	561.5900	2.5832e+00	9.2354e+00
119	IPW000002	1286.2620	1299.9208	1292.4280	2.9595e+00	1.3033e+01
120	IPW000003	1309.4248	1325.0248	1316.3280	3.1073e+00	1.3181e+01
121	IPW000004	379.1222	384.4933	381.3488	1.2367e+00	3.6161e+00
122	IPW000005	252.3410	255.2704	254.1182	6.5250e-01	2.8338e+00
123	IPW000006	264.7518	267.1932	265.8065	5.7825e-01	2.8999e+00
124	EMPTY	-0.0293	-0.0146	-0.0215	3.2718e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0148	2.4083e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0146	-0.0174	2.6396e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0146	-0.0187	3.2253e-03	0.0000e+00
128	IHT000001	130.8819	133.0303	132.2139	5.6316e-01	4.3079e+00
129	IHT000002	130.2547	132.5984	131.5829	5.3525e-01	4.3060e+00
130	IHT000003	128.9551	131.2988	130.3887	5.1085e-01	4.3023e+00
131	IHT000004	131.2988	133.6426	132.6543	5.0595e-01	4.3093e+00
132	IHT000005	129.8415	131.9899	130.9118	5.2235e-01	4.3039e+00
133	IHT000006	125.1916	127.5353	126.5822	5.3473e-01	4.2910e+00
134	IHT000007	131.5880	134.1271	132.8732	5.6509e-01	4.3099e+00
135	IHT000008	130.2584	132.6021	131.6333	5.4528e-01	4.3061e+00
136	IHT000009	130.0969	132.2454	131.2961	4.8810e-01	4.3051e+00
137	IHT000010	130.9044	132.6623	131.7950	4.2711e-01	4.3066e+00
138	IHT000011	132.0012	133.7590	132.7941	4.0704e-01	4.3097e+00
139	IHT000012	130.9984	133.1468	131.8499	4.4426e-01	4.3068e+00
140	IHT000013	92.2025	94.3510	93.2612	4.3421e-01	4.2047e+00
141	IHT000014	127.8621	130.4012	128.9286	5.0872e-01	4.2979e+00
142	IHT000015	94.9294	97.4685	95.9255	5.2237e-01	4.2107e+00
143	IHT000016	89.1940	91.9283	90.2564	5.7067e-01	4.1982e+00
144	IHT000017	106.4190	109.1534	107.4346	5.7858e-01	4.2384e+00
145	IHT000018	107.3993	109.7431	108.5205	5.6194e-01	4.2412e+00
146	IHT000019	107.6209	109.7694	108.5975	5.6634e-01	4.2414e+00
147	IHT000020	105.9721	108.3158	107.0502	5.3560e-01	4.2374e+00
148	IHT000021	-2.4001	-0.0564	-1.4782	6.1768e-01	4.1000e+00
149	IHT000022	93.0176	95.3613	93.8574	5.8826e-01	4.2061e+00
150	IHT000023	105.3523	107.6961	106.3875	5.7487e-01	4.2358e+00
151	IHT000024	70.6918	72.8403	71.5630	5.5553e-01	4.1620e+00
152	IHT000025	102.6630	105.0068	103.6709	6.2435e-01	4.2290e+00
153	IHT000026	104.8903	107.4294	106.2145	6.3539e-01	4.2353e+00
154	IHT000027	89.8625	92.7922	91.2453	7.1881e-01	4.2003e+00
155	IHT000028	90.7940	93.7237	92.0557	6.5341e-01	4.2021e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	106.0021	108.7365	107.0763	6.1669e-01	4.2375e+00
157	IHT000030	108.5073	111.2417	109.6675	6.4526e-01	4.2441e+00
158	IHT000031	106.3927	108.9318	107.5646	6.1257e-01	4.2388e+00
159	IHT000032	107.4332	110.1675	108.4761	6.4550e-01	4.2411e+00
160	IHT000033	107.4144	110.1487	108.4183	6.5079e-01	4.2409e+00
161	IHT000034	94.1293	96.0825	94.9966	5.3693e-01	4.2086e+00
162	IHT000035	123.7680	126.1118	124.8892	5.4076e-01	4.2860e+00
163	IHT000036	92.8110	94.5688	93.7017	4.7047e-01	4.2057e+00

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	60.0051	60.4934	60.2273	9.1249e-02	7.6496e-01
102	PRV0000001	19.7336	19.8557	19.7361	1.7263e-02	7.5162e-01
103	PSR0000001	64.4559	64.5780	64.4705	4.0071e-02	7.6712e-01
104	PFH0000001	3.8205	4.1867	3.9853	8.4761e-02	5.0010e-01
105	PAN000136	-119.6253	-115.9632	-117.3640	8.6958e-01	4.9287e+00
106	PFH0000002	3.9681	4.0688	4.0332	2.4828e-02	2.0025e-01
107	EMPTY	-0.0049	-0.0049	-0.0049	0.0000e+00	0.0000e+00
108	EMPTY	-10.0000	-4.0430	-9.2250	1.6250e+00	0.0000e+00
109	EMPTY	-0.0049	0.0000	-0.0031	2.3675e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0033	2.3008e-03	0.0000e+00
112	VPW0000001	101.5475	102.7194	102.0318	2.4080e-01	1.0153e+00
113	VPW0000002	118.9829	119.7641	119.3227	1.6178e-01	1.0810e+00
114	VPW0000003	147.1079	148.0844	147.4673	2.2097e-01	1.1996e+00
115	VPW0000004	104.7739	105.5552	105.1724	1.8907e-01	1.0268e+00
116	VPW0000005	139.2879	140.4597	139.8153	2.5648e-01	1.1661e+00
117	VPW0000006	145.8909	146.6722	146.2465	1.9206e-01	1.1942e+00
118	IPW0000001	545.2294	553.0388	550.1494	1.9015e+00	9.1923e+00
119	IPW0000002	1297.9695	1309.6771	1303.0428	2.4619e+00	1.3099e+01
120	IPW0000003	1321.1248	1332.8248	1327.1702	2.7080e+00	1.3249e+01
121	IPW0000004	378.6339	382.0519	379.9230	7.2999e-01	3.6067e+00
122	IPW0000005	253.3175	255.7586	254.2939	5.5798e-01	2.8347e+00
123	IPW0000006	266.7049	268.6580	267.5546	5.2949e-01	2.9099e+00
124	EMPTY	-0.0293	-0.0146	-0.0221	3.5895e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0156	2.7902e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0146	-0.0183	2.9280e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0146	-0.0185	3.0067e-03	0.0000e+00
128	IHT0000001	131.2725	133.0303	132.1592	4.7713e-01	4.3077e+00
129	IHT0000002	130.6453	132.5984	131.5438	4.5506e-01	4.3059e+00
130	IHT0000003	129.5410	131.2988	130.3613	4.4117e-01	4.3023e+00
131	IHT0000004	131.6895	133.6426	132.6465	4.8848e-01	4.3092e+00
132	IHT0000005	129.8415	131.9899	130.8727	4.3769e-01	4.3038e+00
133	IHT0000006	125.5822	127.5353	126.5431	4.5990e-01	4.2908e+00
134	IHT0000007	131.9787	134.1271	132.8419	4.6032e-01	4.3098e+00
135	IHT0000008	130.8443	132.4068	131.5865	4.3762e-01	4.3060e+00
136	IHT0000009	130.2922	132.2454	131.1515	4.3584e-01	4.3047e+00
137	IHT0000010	130.5138	132.8576	131.4044	5.4413e-01	4.3054e+00
138	IHT0000011	131.2200	133.5637	132.3253	5.0780e-01	4.3082e+00
139	IHT0000012	130.2171	132.5609	131.4398	5.2912e-01	4.3055e+00
140	IHT0000013	91.4213	94.1556	92.7963	5.3954e-01	4.2037e+00
141	IHT0000014	126.8855	129.6199	128.4325	4.9731e-01	4.2965e+00
142	IHT0000015	94.1481	96.2966	95.4606	5.0074e-01	4.2097e+00
143	IHT0000016	88.2174	90.5612	89.5611	4.7946e-01	4.1967e+00
144	IHT0000017	105.8331	108.1768	106.9112	5.1786e-01	4.2371e+00
145	IHT0000018	107.0087	108.9618	108.0322	4.8897e-01	4.2399e+00
146	IHT0000019	107.6209	109.3788	108.4764	4.8470e-01	4.2411e+00
147	IHT0000020	105.9721	107.9252	106.8471	4.8846e-01	4.2369e+00
148	IHT0000021	-2.4001	0.3343	-1.4157	6.1758e-01	4.1000e+00
149	IHT0000022	92.4316	94.5801	93.4629	5.3239e-01	4.2052e+00
150	IHT0000023	105.3523	107.5008	106.2391	4.7221e-01	4.2354e+00
151	IHT0000024	70.6918	72.6450	71.4028	4.5465e-01	4.1617e+00
152	IHT0000025	102.8583	105.0068	103.5810	4.6059e-01	4.2288e+00
153	IHT0000026	105.2810	107.4294	106.0817	4.4860e-01	4.2350e+00
154	IHT0000027	89.8625	91.8157	90.8352	4.5930e-01	4.1994e+00
155	IHT0000028	90.4034	92.7471	91.8252	5.2503e-01	4.2016e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	105.6115	107.9552	107.0333	4.8334e-01	4.2374e+00
157	IHT0000030	108.1167	110.6558	109.6050	5.0823e-01	4.2440e+00
158	IHT0000031	106.1974	108.7365	107.5763	5.1207e-01	4.2388e+00
159	IHT0000032	107.0425	109.7769	108.4800	5.4499e-01	4.2411e+00
160	IHT0000033	107.0237	109.7581	108.4495	5.6393e-01	4.2410e+00
161	IHT0000034	93.5434	95.8872	94.9692	4.6396e-01	4.2086e+00
162	IHT0000035	123.3774	125.9165	124.9282	4.5405e-01	4.2861e+00
163	IHT0000036	92.6157	94.3735	93.6509	4.0095e-01	4.2056e+00

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	59.7610	60.1272	59.9612	8.4573e-02	7.6483e-01
102	PRV0000001	19.6116	19.8557	19.7751	6.3406e-02	7.5163e-01
103	PSR0000001	64.7001	64.8221	64.7244	4.9324e-02	7.6726e-01
104	PFF0000001	2.2641	2.5388	2.4179	7.4996e-02	5.0004e-01
105	PAN000136	-129.6961	-126.4918	-128.2130	6.6407e-01	4.9304e+00
106	PFF0000002	2.3908	2.4747	2.4337	2.1749e-02	2.0009e-01
107	EMPTY	-0.0049	0.0049	0.0002	4.0626e-03	0.0000e+00
108	EMPTY	-10.0000	-3.8574	-7.4200	2.4556e+00	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0009	1.8950e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW0000001	102.3287	102.9147	102.7037	1.4680e-01	1.0178e+00
113	VPW0000002	119.3735	119.7641	119.6313	1.2750e-01	1.0823e+00
114	VPW0000003	147.3032	147.8891	147.6431	1.1712e-01	1.2004e+00
115	VPW0000004	105.3598	105.7505	105.5669	1.3901e-01	1.0282e+00
116	VPW0000005	139.8738	140.4597	140.0692	1.3669e-01	1.1672e+00
117	VPW0000006	146.2816	146.6722	146.4496	1.1168e-01	1.1951e+00
118	IPW0000001	553.0388	560.8481	557.2166	2.0116e+00	9.2189e+00
119	IPW0000002	1284.3107	1296.0183	1292.3109	2.9036e+00	1.3032e+01
120	IPW0000003	1311.3748	1319.1748	1315.3922	1.6438e+00	1.3176e+01
121	IPW0000004	383.5167	385.9581	384.6984	4.8418e-01	3.6382e+00
122	IPW0000005	253.8057	255.2704	254.4111	3.4957e-01	2.8354e+00
123	IPW0000006	265.7283	267.6815	266.8222	3.4961e-01	2.9057e+00
124	EMPTY	-0.0293	-0.0098	-0.0192	4.3461e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0131	2.8659e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0098	-0.0141	3.5072e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0166	3.1195e-03	0.0000e+00
128	IHT0000001	130.4913	133.2257	132.0225	5.3432e-01	4.3073e+00
129	IHT0000002	130.0594	132.4031	131.4071	5.1486e-01	4.3054e+00
130	IHT0000003	129.1504	131.2988	130.2324	4.8200e-01	4.3019e+00
131	IHT0000004	131.4941	133.4473	132.4941	4.6293e-01	4.3088e+00
132	IHT0000005	129.6462	131.5993	130.6735	4.6657e-01	4.3032e+00
133	IHT0000006	125.3869	127.5353	126.4025	4.7351e-01	4.2904e+00
134	IHT0000007	131.5880	133.9318	132.7521	5.2342e-01	4.3096e+00
135	IHT0000008	130.2584	132.7975	131.5513	4.9109e-01	4.3059e+00
136	IHT0000009	129.7063	132.4407	131.1164	5.4289e-01	4.3045e+00
137	IHT0000010	130.5138	132.6623	131.3185	5.3908e-01	4.3052e+00
138	IHT0000011	131.4153	133.5637	132.3957	4.8083e-01	4.3085e+00
139	IHT0000012	130.4124	132.5609	131.4281	4.9126e-01	4.3055e+00
140	IHT0000013	92.0072	93.9603	92.9330	5.0349e-01	4.2040e+00
141	IHT0000014	127.2762	129.4246	128.4793	5.0741e-01	4.2966e+00
142	IHT0000015	94.7341	96.6872	95.5856	4.6314e-01	4.2099e+00
143	IHT0000016	88.9987	91.5377	89.9556	4.8688e-01	4.1975e+00
144	IHT0000017	105.6378	107.7862	106.8370	4.8810e-01	4.2369e+00
145	IHT0000018	107.2040	108.9618	108.0166	4.6078e-01	4.2399e+00
146	IHT0000019	107.0350	109.5741	108.3475	5.4966e-01	4.2407e+00
147	IHT0000020	105.5814	107.7299	106.6831	5.4069e-01	4.2365e+00
148	IHT0000021	-3.1814	-0.0564	-1.5329	6.7677e-01	4.1000e+00
149	IHT0000022	92.4316	94.9707	93.6387	5.6039e-01	4.2056e+00
150	IHT0000023	104.9617	107.5008	106.0945	5.6772e-01	4.2350e+00
151	IHT0000024	70.1059	72.6450	71.2856	5.2044e-01	4.1615e+00
152	IHT0000025	102.2724	104.8114	103.4443	5.3670e-01	4.2285e+00
153	IHT0000026	104.6950	107.2341	105.9255	5.5978e-01	4.2346e+00
154	IHT0000027	89.8625	92.4016	91.0188	5.7023e-01	4.1998e+00
155	IHT0000028	90.7940	93.1378	91.9112	6.3016e-01	4.2018e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	105.6115	108.1505	106.8576	6.1875e-01	4.2370e+00
157	IHT0000030	108.1167	110.6558	109.4526	5.6684e-01	4.2436e+00
158	IHT0000031	106.1974	108.7365	107.4005	5.6409e-01	4.2383e+00
159	IHT0000032	107.0425	109.5816	108.2808	5.5046e-01	4.2406e+00
160	IHT0000033	107.0237	109.3675	108.2113	5.5220e-01	4.2404e+00
161	IHT0000034	93.9340	96.2778	94.9419	4.4531e-01	4.2085e+00
162	IHT0000035	123.7680	125.9165	124.7251	4.4512e-01	4.2855e+00
163	IHT0000036	92.6157	94.9594	93.5376	4.2138e-01	4.2053e+00

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	59.6389	60.1272	59.8733	1.3244e-01	7.6479e-01
102	PRV000001	19.7336	19.8557	19.7800	5.9853e-02	7.5163e-01
103	PSR000001	64.7001	64.9442	64.7855	8.6317e-02	7.6729e-01
104	PFM000001	1.6233	1.8979	1.7917	7.4813e-02	5.0002e-01
105	PAN000136	-136.5626	-129.2384	-133.6329	1.1364e+00	4.9313e+00
106	PFM000002	1.8203	1.8706	1.8471	1.5535e-02	2.0005e-01
107	EMPTY	-0.0049	-0.0049	-0.0049	0.0000e+00	0.0000e+00
108	EMPTY	-10.0000	9.9951	-8.6123	4.8012e+00	0.0000e+00
109	EMPTY	-0.0049	0.0049	-0.0023	2.6543e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0020	2.4164e-03	0.0000e+00
112	VPW000001	101.5475	102.9147	102.4537	3.1754e-01	1.0168e+00
113	VPW000002	118.9829	119.9594	119.5649	1.6023e-01	1.0820e+00
114	VPW000003	147.1079	148.2798	147.8188	2.4566e-01	1.2011e+00
115	VPW000004	104.5786	105.7505	105.3950	2.3241e-01	1.0276e+00
116	VPW000005	139.0925	140.6550	140.0536	2.9749e-01	1.1672e+00
117	VPW000006	145.6956	146.8675	146.4730	2.3836e-01	1.1952e+00
118	IPW000001	545.2294	558.8958	552.8434	3.8897e+00	9.2024e+00
119	IPW000002	1296.0183	1305.7747	1301.7938	1.8890e+00	1.3091e+01
120	IPW000003	1317.2247	1328.9248	1323.3087	2.6905e+00	1.3225e+01
121	IPW000004	376.6808	380.5870	379.1222	6.9053e-01	3.6014e+00
122	IPW000005	252.3410	254.7822	254.1084	5.4822e-01	2.8337e+00
123	IPW000006	265.7283	267.6815	266.9296	5.2395e-01	2.9063e+00
124	EMPTY	-0.0293	-0.0146	-0.0226	4.5088e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0146	2.2058e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0188	3.9471e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0180	3.9998e-03	0.0000e+00
128	IHT000001	130.6866	133.0303	131.9287	5.5909e-01	4.3070e+00
129	IHT000002	129.8640	132.5984	131.3055	5.3363e-01	4.3051e+00
130	IHT000003	128.9551	131.2988	130.1738	5.3896e-01	4.3017e+00
131	IHT000004	131.2988	133.4473	132.4434	5.2201e-01	4.3086e+00
132	IHT000005	129.4509	131.7946	130.6540	5.3722e-01	4.3031e+00
133	IHT000006	125.1916	127.3400	126.3634	5.0839e-01	4.2903e+00
134	IHT000007	131.3927	133.7365	132.7208	5.2645e-01	4.3095e+00
135	IHT000008	130.2584	132.6021	131.5123	5.3100e-01	4.3058e+00
136	IHT000009	129.7063	132.2454	131.0851	5.3585e-01	4.3045e+00
137	IHT000010	129.9279	132.0763	131.1427	5.4717e-01	4.3046e+00
138	IHT000011	131.0246	132.9778	131.9894	4.9033e-01	4.3072e+00
139	IHT000012	129.8265	132.3655	131.0921	5.3705e-01	4.3045e+00
140	IHT000013	91.4213	93.5697	92.5190	5.4375e-01	4.2031e+00
141	IHT000014	126.8855	129.2293	128.1668	5.3257e-01	4.2957e+00
142	IHT000015	93.9528	96.1013	95.2067	4.8503e-01	4.2091e+00
143	IHT000016	88.2174	90.7565	89.5845	5.2940e-01	4.1967e+00
144	IHT000017	103.8800	108.3722	105.9698	1.0930e+00	4.2347e+00
145	IHT000018	106.6181	108.7665	107.7080	4.8663e-01	4.2391e+00
146	IHT000019	106.8397	109.1834	108.2264	5.2087e-01	4.2404e+00
147	IHT000020	105.1908	107.9252	106.5112	5.4040e-01	4.2361e+00
148	IHT000021	-3.1814	-0.4470	-1.7009	6.3022e-01	4.1000e+00
149	IHT000022	92.0410	94.3848	93.3574	5.3788e-01	4.2049e+00
150	IHT000023	104.5711	106.9148	105.9149	5.0477e-01	4.2346e+00
151	IHT000024	70.1059	72.0590	71.1372	4.8815e-01	4.1613e+00
152	IHT000025	102.2724	104.6161	103.3505	4.9794e-01	4.2283e+00
153	IHT000026	104.8903	107.2341	105.8395	5.1450e-01	4.2344e+00
154	IHT000027	89.6672	92.0110	90.7805	4.6396e-01	4.1993e+00
155	IHT000028	90.5987	93.3331	92.0557	5.4990e-01	4.2021e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	106.0021	108.7365	107.0607	5.7194e-01	4.2375e+00
157	IHT000030	108.5073	111.0464	109.6441	5.8085e-01	4.2441e+00
158	IHT000031	106.5881	109.1271	107.6232	5.8693e-01	4.2389e+00
159	IHT000032	107.4332	109.9722	108.4917	5.9984e-01	4.2411e+00
160	IHT000033	107.4144	110.1487	108.4222	6.2060e-01	4.2409e+00
161	IHT000034	94.3247	96.2778	94.9458	5.0020e-01	4.2085e+00
162	IHT000035	123.9633	126.3071	124.8618	5.3815e-01	4.2859e+00
163	IHT000036	92.8110	94.7641	93.5649	4.6018e-01	4.2054e+00

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#	Name	Min	Max	Ave	SD	Uncert
101	PN0000001	59.7610	60.1272	59.9587	1.0719e-01	7.6483e-01
102	PRV000001	19.6116	19.7336	19.6140	1.7263e-02	7.5160e-01
103	PSR000001	64.9442	65.0663	65.0174	6.0409e-02	7.6741e-01
104	PFM000001	1.1655	1.4402	1.2900	6.8612e-02	5.0001e-01
105	PAN000136	-137.0204	-134.7315	-135.9949	5.5149e-01	4.9317e+00
106	PFM000002	1.3001	1.3672	1.3286	2.6961e-02	2.0003e-01
107	EMPTY	-0.0049	0.0049	-0.0034	3.0003e-03	0.0000e+00
108	EMPTY	-10.0000	-6.5771	-9.9257	4.8499e-01	0.0000e+00
109	EMPTY	-0.0049	0.0049	-0.0011	2.6635e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0008	1.8082e-03	0.0000e+00
112	VPW000001	102.1334	104.2819	103.0982	4.2574e-01	1.0192e+00
113	VPW000002	119.1782	120.3501	119.9517	2.6162e-01	1.0836e+00
114	VPW000003	147.4985	148.8657	148.3306	3.3900e-01	1.2034e+00
115	VPW000004	105.1645	106.5317	105.8716	3.2751e-01	1.0294e+00
116	VPW000005	139.6785	141.0457	140.5301	3.9015e-01	1.1692e+00
117	VPW000006	146.0862	147.6487	146.9808	3.4869e-01	1.1974e+00
118	IPW000001	547.1817	558.8958	552.9607	2.6152e+00	9.2029e+00
119	IPW000002	1294.0670	1311.6284	1302.8868	3.6821e+00	1.3098e+01
120	IPW000003	1313.3248	1334.7748	1326.8969	3.9388e+00	1.3247e+01
121	IPW000004	377.6573	384.0050	381.0168	1.3295e+00	3.6139e+00
122	IPW000005	252.3410	256.2469	254.5088	9.4177e-01	2.8359e+00
123	IPW000006	265.7283	269.6346	267.7108	8.1592e-01	2.9108e+00
124	EMPTY	-0.0342	-0.0098	-0.0219	4.4381e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0132	3.0003e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0178	4.2727e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0098	-0.0159	3.2434e-03	0.0000e+00
128	IHT000001	130.8819	133.4210	132.0342	5.7487e-01	4.3074e+00
129	IHT000002	130.4500	132.5984	131.4813	5.7594e-01	4.3057e+00
130	IHT000003	129.3457	131.4941	130.3887	5.6305e-01	4.3023e+00
131	IHT000004	131.2988	133.8379	132.6387	5.7455e-01	4.3092e+00
132	IHT000005	129.4509	132.1852	130.8376	5.5699e-01	4.3037e+00
133	IHT000006	125.3869	127.9259	126.5118	5.1834e-01	4.2907e+00
134	IHT000007	131.9787	134.1271	132.9122	5.0268e-01	4.3101e+00
135	IHT000008	130.6490	132.9928	131.7310	5.6663e-01	4.3064e+00
136	IHT000009	130.0969	132.6360	131.3039	5.7951e-01	4.3051e+00
137	IHT000010	130.3185	132.6623	131.3497	5.3385e-01	4.3053e+00
138	IHT000011	131.6106	133.5637	132.3644	5.3381e-01	4.3084e+00
139	IHT000012	130.4124	132.5609	131.4476	5.1183e-01	4.3056e+00
140	IHT000013	92.0072	94.3510	92.8823	4.9950e-01	4.2039e+00
141	IHT000014	127.4715	130.0105	128.5301	5.3683e-01	4.2967e+00
142	IHT000015	94.5388	97.0778	95.5466	5.1654e-01	4.2099e+00
143	IHT000016	88.9987	91.1471	90.0220	5.4898e-01	4.1977e+00
144	IHT000017	104.4659	107.5909	106.0049	8.4964e-01	4.2348e+00
145	IHT000018	107.0087	109.1572	107.9423	4.9172e-01	4.2397e+00
146	IHT000019	107.0350	109.7694	108.4686	6.3944e-01	4.2411e+00
147	IHT000020	105.1908	108.1205	106.7612	6.3006e-01	4.2367e+00
148	IHT000021	-3.1814	-0.0564	-1.6189	6.5554e-01	4.1000e+00
149	IHT000022	92.2363	94.7754	93.6621	6.1289e-01	4.2056e+00
150	IHT000023	104.5711	107.1101	106.0594	5.4375e-01	4.2350e+00
151	IHT000024	69.7153	72.2543	71.2739	5.4603e-01	4.1615e+00
152	IHT000025	102.2724	104.6161	103.5146	5.2757e-01	4.2287e+00
153	IHT000026	104.6950	107.2341	105.9567	5.3845e-01	4.2347e+00
154	IHT000027	89.6672	92.4016	91.1086	5.8513e-01	4.2000e+00
155	IHT000028	90.7940	93.3331	92.0323	6.0310e-01	4.2020e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.8068	108.3458	106.9044	6.2626e-01	4.2371e+00
157	IHT000030	108.3120	110.8511	109.4800	6.1192e-01	4.2437e+00
158	IHT000031	106.3927	108.9318	107.4318	5.7377e-01	4.2384e+00
159	IHT000032	107.2378	109.7769	108.2964	6.1775e-01	4.2406e+00
160	IHT000033	107.2190	109.7581	108.2386	5.9227e-01	4.2405e+00
161	IHT000034	93.9340	96.0825	94.9067	5.4888e-01	4.2084e+00
162	IHT000035	123.7680	126.1118	124.8071	5.6969e-01	4.2858e+00
163	IHT000036	92.6157	94.5688	93.5962	4.4902e-01	4.2055e+00

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	59.8831	60.3713	60.1101	8.8954e-02	7.6491e-01
102	PRV0000001	19.9778	20.0998	19.9900	3.6993e-02	7.5166e-01
103	PSR0000001	65.1883	65.4325	65.2347	6.4735e-02	7.6753e-01
104	PFM0000001	0.9824	1.2570	1.1179	5.3095e-02	5.0001e-01
105	PAN000136	-139.3092	-135.6471	-136.7915	7.2379e-01	4.9319e+00
106	PFM0000002	1.1659	1.1994	1.1914	1.0305e-02	2.0002e-01
107	EMPTY	-0.0049	0.0000	-0.0045	1.3381e-03	0.0000e+00
108	EMPTY	-10.0000	7.4365	-9.4747	2.5448e+00	0.0000e+00
109	EMPTY	-0.0049	0.0000	-0.0011	2.0432e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0003	1.1714e-03	0.0000e+00
112	VPW0000001	102.5240	103.3053	102.8326	1.5828e-01	1.0182e+00
113	VPW0000002	119.3735	119.9594	119.7173	1.3416e-01	1.0826e+00
114	VPW0000003	147.6938	148.2798	147.9829	1.7308e-01	1.2019e+00
115	VPW0000004	105.1645	105.9458	105.6333	1.5282e-01	1.0285e+00
116	VPW0000005	140.0691	140.6550	140.3973	1.2750e-01	1.1686e+00
117	VPW0000006	146.4769	147.0628	146.8363	1.4423e-01	1.1968e+00
118	IPW0000001	551.0864	558.8958	553.8977	1.9388e+00	9.2064e+00
119	IPW0000002	1288.2131	1296.0183	1291.6086	1.6163e+00	1.3028e+01
120	IPW0000003	1315.2748	1321.1248	1318.7852	1.6714e+00	1.3197e+01
121	IPW0000004	381.5636	384.0050	382.8820	4.8578e-01	3.6262e+00
122	IPW0000005	253.3175	255.2704	254.2939	3.5565e-01	2.8347e+00
123	IPW0000006	266.2166	268.1697	266.9687	4.0924e-01	2.9066e+00
124	EMPTY	-0.0342	-0.0146	-0.0237	4.0685e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0150	2.3839e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0201	3.5072e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0163	3.2133e-03	0.0000e+00
128	IHT0000001	130.2960	132.6397	131.6162	5.1230e-01	4.3061e+00
129	IHT0000002	129.8640	132.2078	131.0789	5.2392e-01	4.3044e+00
130	IHT0000003	128.9551	131.1035	129.9941	5.1816e-01	4.3011e+00
131	IHT0000004	130.9082	133.4473	132.2441	5.7231e-01	4.3080e+00
132	IHT0000005	129.2556	131.5993	130.4704	5.4001e-01	4.3026e+00
133	IHT0000006	124.9963	127.3400	126.1681	4.9284e-01	4.2897e+00
134	IHT0000007	131.5880	133.7365	132.5450	4.6897e-01	4.3089e+00
135	IHT0000008	130.2584	132.4068	131.3482	4.8342e-01	4.3053e+00
136	IHT0000009	129.9016	132.0500	130.9132	5.0020e-01	4.3039e+00
137	IHT0000010	129.9279	131.8810	130.9396	4.4589e-01	4.3040e+00
138	IHT0000011	131.2200	132.7825	132.0285	4.1009e-01	4.3073e+00
139	IHT0000012	130.2171	131.9749	131.0999	3.9309e-01	4.3045e+00
140	IHT0000013	91.4213	93.3744	92.5268	3.9971e-01	4.2031e+00
141	IHT0000014	127.0808	128.8387	128.1317	3.6993e-01	4.2956e+00
142	IHT0000015	93.9528	96.1013	95.2341	4.3074e-01	4.2092e+00
143	IHT0000016	88.2174	90.7565	89.6431	4.5549e-01	4.1969e+00
144	IHT0000017	103.2940	105.8331	104.8135	5.2243e-01	4.2319e+00
145	IHT0000018	106.2275	108.7665	107.6181	5.3327e-01	4.2389e+00
146	IHT0000019	107.2303	109.3788	108.1210	4.8353e-01	4.2402e+00
147	IHT0000020	105.3861	107.9252	106.3549	4.9750e-01	4.2357e+00
148	IHT0000021	-2.9860	0.1390	-1.7634	6.2616e-01	4.1000e+00
149	IHT0000022	92.2363	94.7754	93.2441	5.0124e-01	4.2047e+00
150	IHT0000023	104.7664	107.1101	105.7156	5.0994e-01	4.2341e+00
151	IHT0000024	69.9106	72.2543	70.9302	4.9957e-01	4.1609e+00
152	IHT0000025	102.2724	104.4208	103.2334	5.0198e-01	4.2280e+00
153	IHT0000026	104.3044	106.6481	105.5956	5.2223e-01	4.2338e+00
154	IHT0000027	89.4719	92.0110	90.7375	5.2828e-01	4.1992e+00
155	IHT0000028	90.5987	93.1378	91.6573	5.2658e-01	4.2012e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	105.4162	107.7599	106.5451	5.1492e-01	4.2362e+00
157	IHT0000030	107.9214	110.0698	109.1284	4.8918e-01	4.2427e+00
158	IHT0000031	106.0021	108.1506	107.0802	4.9950e-01	4.2375e+00
159	IHT0000032	107.0425	108.9957	107.9409	4.6186e-01	4.2397e+00
160	IHT0000033	106.8284	108.9769	107.8792	5.0361e-01	4.2396e+00
161	IHT0000034	93.7387	95.8872	94.6020	4.3600e-01	4.2077e+00
162	IHT0000035	123.5727	125.3305	124.4712	4.2864e-01	4.2848e+00
163	IHT0000036	92.4204	94.5688	93.2642	4.1655e-01	4.2047e+00

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Velocity 1 = 2.5930 (ft/sec) (+/- 25.5901 %)
 Velocity 2 = 2.6086 (ft/sec) (+/- 9.6595 %)
 Pressure drop = -4.9508 (psi)
 Tsat in = 292.9621 (deg F) Tsat out = 298.1248 (deg F)
 Phi inner = 100.8755 (kBtu/hr-ft2) (+/- 1.5695 %)
 Phi outer = 100.8874 (kBtu/hr-ft2) (+/- 1.5516 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	76.1408	76.7777	76.4678	1.8304e-01	1.9000e+00
1	TRF000002	76.5637	76.9861	76.8171	1.2801e-01	1.9000e+00
2	TFM000001	85.0056	85.7397	85.3599	1.8477e-01	1.9002e+00
3	TIN000001	84.7457	85.4820	85.1812	1.5766e-01	1.9002e+00
4	TRV000001	85.9515	86.8947	86.5407	2.3557e-01	1.9002e+00
5	TSR000001	158.7048	160.1884	159.4594	3.3207e-01	1.9054e+00
6	EMPTY	37.9974	38.9168	38.4066	2.5130e-01	1.9010e+00
7	TAO050136	249.2192	250.2440	249.8029	1.9181e-01	1.9217e+00
8	TAO070136	261.3034	262.3286	261.8232	2.2506e-01	1.9246e+00
9	TAO080136	265.3304	266.1616	265.8455	1.9816e-01	1.9257e+00
10	TAO090136	237.8018	238.5541	238.1350	1.7631e-01	1.9190e+00
11	TAO100136	294.1096	295.2019	294.6942	2.3627e-01	1.9337e+00
12	TAO105136	298.9090	300.2720	299.5323	3.4576e-01	1.9352e+00
13	EMPTY	-601.0594	-601.0594	-601.0591	3.6993e-04	2.1295e+00
14	TAO115136	315.2415	316.0555	315.6417	1.9758e-01	1.9402e+00
15	EMPTY	31.5371	42.3562	37.3154	3.3349e+00	1.9009e+00
16	TAO125136	323.2169	324.4660	323.9819	2.7312e-01	1.9430e+00
17	EMPTY	44.6423	45.5552	45.2312	2.3093e-01	1.9014e+00
18	EMPTY	41.4403	41.6693	41.5777	1.1336e-01	1.9012e+00
19	TAO130048	307.4890	308.6595	308.1244	3.3121e-01	1.9378e+00
20	TAO120224	312.0861	313.4395	312.6040	2.6152e-01	1.9392e+00
21	EMPTY	39.6057	40.2940	39.9958	1.6874e-01	1.9011e+00
22	TAO120312	322.3650	323.7132	323.1291	2.9910e-01	1.9427e+00
23	TAO130312	310.5746	311.7460	311.2254	2.4177e-01	1.9388e+00
24	EMPTY	39.3761	40.0646	39.6607	1.8293e-01	1.9011e+00
25	TRT070000	266.4053	268.5454	267.5083	4.6412e-01	1.9261e+00
26	TRT100000	317.3715	318.1809	317.7619	2.0272e-01	1.9409e+00
27	TRT120000	321.9555	322.6736	322.3738	1.6085e-01	1.9424e+00
28	TRT125000	319.3412	320.0586	319.6910	1.8576e-01	1.9415e+00
29	EMPTY	39.8352	40.2940	40.1335	1.1587e-01	1.9011e+00
30	EMPTY	39.3761	40.0646	39.6378	1.9680e-01	1.9011e+00
31	TAF050136	162.9104	165.5701	164.0788	6.2026e-01	1.9060e+00
32	TAF070136	188.3343	190.6535	189.0989	4.9807e-01	1.9095e+00
33	TAF080136	198.7062	201.2924	199.9471	5.6414e-01	1.9113e+00
34	TAF090136	213.0159	214.9263	213.9504	5.4778e-01	1.9139e+00
35	TAF100136	230.3293	232.2226	231.3347	4.0382e-01	1.9175e+00
36	TAF105136	241.5051	244.4830	242.8848	5.5063e-01	1.9200e+00
37	TAF110136	254.2991	266.6725	263.1125	3.2778e+00	1.9250e+00
38	TAF115136	262.5781	266.8270	264.3654	7.1900e-01	1.9253e+00
39	TAF120136	271.3962	274.0555	272.7226	5.9747e-01	1.9275e+00
40	TAF125136	281.2301	283.5076	282.2134	5.5910e-01	1.9301e+00
41	TAF130136	290.5972	293.6900	292.0039	7.5763e-01	1.9329e+00
42	TAF120048	267.0941	269.7924	268.3988	6.1464e-01	1.9263e+00
43	TAF130048	278.5759	281.1440	279.8032	4.8036e-01	1.9294e+00
44	TAF120224	264.8774	267.2786	265.9290	5.0258e-01	1.9257e+00
45	TAF130224	276.5108	278.9102	277.5351	5.5432e-01	1.9288e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.0664	2.2874e-01	1.9010e+00
47	EMPTY	39.6057	40.2940	39.9866	1.4371e-01	1.9011e+00
48	TAI130048	321.8732	322.5020	322.2414	1.3246e-01	1.9424e+00
49	TAI130136	323.4288	324.3244	323.8568	1.9337e-01	1.9429e+00
50	TAI130224	309.9729	310.6964	310.3292	1.5009e-01	1.9385e+00
51	TAI130312	320.0510	320.6806	320.3552	1.6041e-01	1.9418e+00
52	TRR130000	151.5421	153.1330	152.3247	3.6209e-01	1.9046e+00
53	TSI000001	43.0308	43.9000	43.5671	1.9308e-01	1.9005e+00
54	TSI000002	87.7937	89.4669	88.7750	3.8137e-01	1.9002e+00
55	TSO000001	40.6108	41.7040	41.1027	2.1103e-01	1.9006e+00
56	TSO000002	59.5588	60.5249	60.1022	2.5411e-01	1.9001e+00
57	TAP020136	115.8137	119.2151	117.3095	7.7063e-01	1.9015e+00
58	EMPTY	42.8139	43.7285	43.2256	2.3100e-01	1.9013e+00
59	TAF130312	291.2907	294.0197	292.2792	5.9082e-01	1.9330e+00
60	EMPTY	5.5469	5.5762	5.5563	7.0338e-03	0.0000e+00
61	EMPTY	5.5225	5.5420	5.5319	5.3498e-03	0.0000e+00
62	EMPTY	5.4980	5.5225	5.5095	5.3679e-03	0.0000e+00
63	EMPTY	5.4834	5.5029	5.4954	5.6849e-03	0.0000e+00
64	EMPTY	2.5293	2.5391	2.5330	2.3261e-03	0.0000e+00
65	EMPTY	2.5342	2.5439	2.5405	3.3087e-03	0.0000e+00
66	EMPTY	2.5391	2.5488	2.5435	3.4527e-03	0.0000e+00
67	EMPTY	2.5439	2.5537	2.5495	3.8219e-03	0.0000e+00
68	EMPTY	2.5439	2.5537	2.5502	3.8257e-03	0.0000e+00
69	EMPTY	2.5488	2.5635	2.5565	3.1335e-03	0.0000e+00
70	EMPTY	2.5537	2.5635	2.5603	3.5030e-03	0.0000e+00
71	EMPTY	2.5684	2.5781	2.5726	3.6924e-03	0.0000e+00
72	EMPTY	2.5684	2.5781	2.5735	3.8725e-03	0.0000e+00
73	EMPTY	2.5732	2.5879	2.5804	3.3029e-03	0.0000e+00
74	EMPTY	2.5781	2.5879	2.5839	3.3728e-03	0.0000e+00
75	EMPTY	2.5830	2.5928	2.5896	2.8946e-03	0.0000e+00
76	EMPTY	2.5879	2.5977	2.5913	3.1583e-03	0.0000e+00
77	EMPTY	2.5977	2.6025	2.6001	2.4662e-03	0.0000e+00
78	EMPTY	2.6074	2.6172	2.6116	3.2733e-03	0.0000e+00
79	EMPTY	2.6221	2.6318	2.6249	2.6267e-03	0.0000e+00
80	PAN020136	-17.8820	-17.4242	-17.6302	1.1764e-01	8.7112e-01
81	PAN050136	-33.9840	-32.7633	-33.2668	2.8795e-01	1.6821e+00
82	PAN070136	-18.9954	-17.6221	-18.4186	3.3244e-01	8.7122e-01
83	PAN080136	-14.0908	-13.4041	-13.8695	1.7926e-01	8.7069e-01
84	PAN090136	-9.0817	-7.5558	-8.2028	3.4267e-01	8.7024e-01
85	PAN100136	-12.0895	-9.4192	-10.9481	5.6507e-01	8.7043e-01
86	PAN105136	-6.1702	-6.0176	-6.0740	4.5750e-02	8.7013e-01
87	PAN110136	-3.1199	-0.6785	-1.9831	4.3220e-01	8.7001e-01
88	PAN115136	-7.4539	-7.2250	-7.3395	4.9348e-02	8.7019e-01
89	PAN120136	-6.9728	-0.7167	-4.5283	1.6431e+00	8.7007e-01
90	PAN125136	-6.0220	-2.9702	-5.0912	8.4171e-01	8.7009e-01
91	PAN130136	-4.4859	-0.4423	-2.5313	9.1577e-01	8.7002e-01
92	PAN120048	-12.0895	-7.5119	-11.0779	1.2098e+00	8.7044e-01
93	PAN130048	-9.8946	-4.9355	-7.8224	1.1487e+00	8.7022e-01
94	PAN120224	-13.6550	-9.0773	-11.2151	1.0493e+00	8.7045e-01
95	PAN130224	-9.1067	-4.7579	-7.6815	9.1960e-01	8.7021e-01
96	PAN120312	-12.7145	-2.4911	-8.2528	2.1373e+00	8.7024e-01
97	PAN130312	-10.3611	-6.2413	-9.0153	9.0361e-01	8.7029e-01
98	PAB000136	60.1820	60.5025	60.3203	8.5008e-02	5.9928e-01
99	PAB100136	63.6593	64.0713	63.8461	9.0538e-02	6.0156e-01
100	PAB125136	64.9534	65.3196	65.1283	8.5610e-02	6.0242e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	59.8831	60.6155	60.2859	1.2874e-01	7.6499e-01
102	PRV000001	19.8557	19.9778	19.9192	6.1605e-02	7.5165e-01
103	PSR000001	65.1883	65.4325	65.2493	6.6404e-02	7.6753e-01
104	PFH000001	0.8908	1.0739	0.9861	6.6587e-02	5.0001e-01
105	PAN000136	-140.6825	-132.4427	-137.0661	2.2583e+00	4.9319e+00
106	PFH000002	0.9645	1.0316	0.9984	2.0196e-02	2.0002e-01
107	EMPTY	-0.0049	0.0000	-0.0044	1.4797e-03	0.0000e+00
108	EMPTY	-10.0000	-7.5684	-9.8353	5.5038e-01	0.0000e+00
109	EMPTY	-0.0049	0.0000	-0.0023	2.4642e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0024	2.4662e-03	0.0000e+00
112	VPW000001	102.5240	103.1100	102.7193	1.4227e-01	1.0178e+00
113	VPW000002	119.5688	119.9594	119.7017	1.0763e-01	1.0826e+00
114	VPW000003	147.6938	148.2798	147.9595	1.0992e-01	1.2018e+00
115	VPW000004	105.3598	105.7505	105.6372	1.1897e-01	1.0285e+00
116	VPW000005	140.0691	140.6550	140.2879	1.4573e-01	1.1682e+00
117	VPW000006	146.4769	147.0628	146.7933	1.4167e-01	1.1966e+00
118	IPW000001	541.3246	547.1817	544.6436	1.5403e+00	9.1719e+00
119	IPW000002	1296.0183	1301.8721	1298.5546	1.2621e+00	1.3071e+01
120	IPW000003	1321.1248	1326.9747	1324.4003	1.4442e+00	1.3232e+01
121	IPW000004	382.0519	384.0050	382.7746	4.2131e-01	3.6255e+00
122	IPW000005	254.2939	255.2704	254.5478	2.9983e-01	2.8362e+00
123	IPW000006	266.2166	268.1697	267.1249	4.0685e-01	2.9075e+00
124	EMPTY	-0.0293	-0.0098	-0.0212	4.0204e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0146	3.6911e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0178	3.9162e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0174	2.9856e-03	0.0000e+00
128	IHT000001	130.4913	132.8350	131.6436	5.0571e-01	4.3062e+00
129	IHT000002	129.8640	132.2078	131.0164	5.1788e-01	4.3042e+00
130	IHT000003	128.9551	131.2988	129.9316	4.8808e-01	4.3010e+00
131	IHT000004	131.1035	133.6426	132.1504	4.8770e-01	4.3077e+00
132	IHT000005	129.4509	131.7946	130.4118	5.0198e-01	4.3024e+00
133	IHT000006	125.1916	127.5353	126.0392	4.9538e-01	4.2894e+00
134	IHT000007	131.3927	133.7365	132.4240	5.1906e-01	4.3086e+00
135	IHT000008	130.2584	132.6021	131.1724	5.1515e-01	4.3047e+00
136	IHT000009	129.9016	132.2454	130.7336	4.6322e-01	4.3034e+00
137	IHT000010	130.1232	132.2716	131.1075	5.0062e-01	4.3045e+00
138	IHT000011	131.0246	133.1731	132.1457	4.7155e-01	4.3077e+00
139	IHT000012	130.2171	132.3655	131.1859	5.3227e-01	4.3048e+00
140	IHT000013	91.8119	93.7650	92.6440	4.5645e-01	4.2034e+00
141	IHT000014	127.4715	129.6199	128.2684	4.8140e-01	4.2960e+00
142	IHT000015	94.5388	96.6872	95.2575	4.2396e-01	4.2092e+00
143	IHT000016	88.9987	90.7565	89.6236	4.0434e-01	4.1968e+00
144	IHT000017	105.6378	107.9815	106.8252	5.4224e-01	4.2369e+00
145	IHT000018	107.0087	108.9618	107.8369	4.7607e-01	4.2394e+00
146	IHT000019	107.0350	109.3788	108.3436	4.9166e-01	4.2407e+00
147	IHT000020	105.3861	107.7299	106.5463	4.7582e-01	4.2362e+00
148	IHT000021	-2.9860	-0.2517	-1.5524	5.5046e-01	4.1000e+00
149	IHT000022	92.2363	94.7754	93.3535	4.9291e-01	4.2049e+00
150	IHT000023	104.9617	107.1101	105.9031	4.4414e-01	4.2346e+00
151	IHT000024	70.1059	72.2543	71.1059	4.4053e-01	4.1612e+00
152	IHT000025	102.4677	104.6161	103.4560	4.9507e-01	4.2285e+00
153	IHT000026	104.8903	107.0388	105.8239	5.0268e-01	4.2344e+00
154	IHT000027	89.8625	92.0110	90.8157	5.0012e-01	4.1994e+00
155	IHT000028	90.7940	93.7237	92.1026	5.7352e-01	4.2022e+00

Test: Feb05_12 suml Date: Mon Feb 5 14:42:45 1990 Page: 4

#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.8068	108.5412	107.2169	5.6122e-01	4.2379e+00
157	IHT000030	108.5073	111.0464	109.8198	5.5669e-01	4.2445e+00
158	IHT000031	106.3927	108.9318	107.6974	5.8319e-01	4.2391e+00
159	IHT000032	107.2378	109.9722	108.5191	5.8681e-01	4.2412e+00
160	IHT000033	107.2190	109.9534	108.4573	5.7265e-01	4.2410e+00
161	IHT000034	93.9340	96.0825	94.9653	4.9448e-01	4.2085e+00
162	IHT000035	123.7680	125.9165	124.7720	5.3816e-01	4.2857e+00
163	IHT000036	92.6157	94.5688	93.6001	5.0986e-01	4.2055e+00

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Velocity 1 - 2.3511 (ft/sec) (+/- 31.2577 %)
 Velocity 2 - 2.4653 (ft/sec) (+/- 10.7131 %)
 Pressure drop - -4.5636 (psi)
 Tsat in - 292.8824 (deg F) Tsat out - 297.7411 (deg F)
 Phi inner - 99.5515 (kBtu/hr-ft2) (+/- 1.5729 %)
 Phi outer - 100.3708 (kBtu/hr-ft2) (+/- 1.5520 %)
 D inner - 0.1973 (ft) D outer - 0.2412 (ft) D hyd - 0.0438 (ft)
 L inner - 12.8330 (ft) L outer - 12.8330 (ft) A flow - 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	76.3531	77.2021	76.7055	2.0390e-01	1.9000e+00
1	TRF0000002	76.7749	77.1973	77.0325	1.3003e-01	1.9000e+00
2	TFH0000001	85.7392	86.4744	86.1719	1.8562e-01	1.9002e+00
3	TIN0000001	86.0075	86.6384	86.3145	1.6154e-01	1.9002e+00
4	TRV0000001	86.3709	87.1039	86.7152	1.6261e-01	1.9002e+00
5	TSR0000001	161.4724	163.7425	162.8666	5.6000e-01	1.9058e+00
6	EMPTY	37.9974	38.9168	38.4572	2.0766e-01	1.9010e+00
7	TAO050136	262.1986	263.3076	262.7087	2.2192e-01	1.9249e+00
8	TAO070136	275.6026	276.8951	276.3525	2.4443e-01	1.9285e+00
9	TAO080136	284.2823	285.3773	284.8336	2.5249e-01	1.9308e+00
10	TAO090136	244.6463	245.5832	245.1147	2.2382e-01	1.9205e+00
11	TAO100136	308.7943	310.2390	309.6682	3.0815e-01	1.9383e+00
12	TAO105136	310.5932	313.1200	311.5936	5.0461e-01	1.9389e+00
13	EMPTY	-601.0594	-601.0594	-601.0591	3.6993e-04	2.1295e+00
14	TAO115136	321.7448	322.5562	322.1668	1.9128e-01	1.9424e+00
15	EMPTY	31.7686	42.8139	38.7090	3.2809e+00	1.9010e+00
16	TAO125136	319.8188	320.8943	320.4533	2.5261e-01	1.9418e+00
17	EMPTY	44.6423	45.5552	45.2723	2.0389e-01	1.9014e+00
18	EMPTY	41.4403	41.8984	41.6006	1.2461e-01	1.9012e+00
19	TAO130048	319.6985	321.4875	320.7540	4.2834e-01	1.9419e+00
20	TAO120224	315.1517	315.9628	315.5051	1.7733e-01	1.9402e+00
21	EMPTY	39.8352	40.2940	39.9775	1.3021e-01	1.9011e+00
22	TAO120312	323.4436	324.7515	324.1660	2.9937e-01	1.9430e+00
23	TAO130312	318.3951	319.7413	319.2672	3.5052e-01	1.9414e+00
24	EMPTY	39.3761	40.0646	39.7158	1.9254e-01	1.9011e+00
25	TRT070000	269.1020	278.0110	273.1935	2.1546e+00	1.9276e+00
26	TRT100000	324.7245	325.8881	325.1364	2.2011e-01	1.9434e+00
27	TRT120000	318.9918	320.2498	319.6608	2.4104e-01	1.9415e+00
28	TRT125000	318.0017	319.3441	318.6255	3.0868e-01	1.9412e+00
29	EMPTY	39.8352	40.5234	40.1335	1.2479e-01	1.9011e+00
30	EMPTY	39.1464	40.0646	39.6745	2.0868e-01	1.9011e+00
31	TAF050136	169.7959	174.0093	171.7021	1.0201e+00	1.9070e+00
32	TAF070136	195.5661	200.7494	198.4100	1.0248e+00	1.9111e+00
33	TAF080136	209.4949	214.1476	212.0272	1.1423e+00	1.9135e+00
34	TAF090136	223.2991	228.3214	225.8211	1.1851e+00	1.9163e+00
35	TAF100136	242.6889	245.4122	243.7639	5.0157e-01	1.9202e+00
36	TAF105136	253.0026	256.0490	254.1656	6.3342e-01	1.9227e+00
37	TAF110136	265.1088	273.4663	267.6208	2.1825e+00	1.9261e+00
38	TAF115136	274.4673	276.9456	275.5841	5.8383e-01	1.9283e+00
39	TAF120136	282.7368	285.3792	284.0057	5.9098e-01	1.9306e+00
40	TAF125136	287.4166	290.0470	288.5403	6.2724e-01	1.9319e+00
41	TAF130136	288.5028	292.1443	289.8588	7.4913e-01	1.9323e+00
42	TAF120048	284.9726	292.6052	287.6817	1.5957e+00	1.9317e+00
43	TAF130048	298.4753	299.1111	298.7371	1.4984e-01	1.9349e+00
44	TAF120224	274.1837	279.5057	276.3546	1.1048e+00	1.9285e+00
45	TAF130224	298.0948	299.6469	298.8438	2.7524e-01	1.9350e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	38.0480	2.2895e-01	1.9010e+00
47	EMPTY	39.8352	40.2940	40.0647	1.2264e-01	1.9011e+00
48	TAI130048	327.1646	328.5078	327.9237	3.3665e-01	1.9443e+00
49	TAI130136	317.3426	318.2404	317.7662	1.6537e-01	1.9409e+00
50	TAI130224	315.4878	317.1125	316.2533	3.7287e-01	1.9404e+00
51	TAI130312	324.9031	326.1590	325.4521	2.9871e-01	1.9435e+00
52	TRR130000	158.3881	160.4650	159.6028	4.0353e-01	1.9054e+00
53	TSI0000001	42.7059	43.4661	43.0319	1.9641e-01	1.9005e+00
54	TSI0000002	91.8663	93.7420	92.9416	4.0775e-01	1.9004e+00
55	TSO0000001	39.9524	40.8281	40.4730	1.9708e-01	1.9006e+00
56	TSO0000002	60.3103	61.3832	60.8510	2.3734e-01	1.9001e+00
57	TAF020136	120.0386	125.0705	122.0161	9.3216e-01	1.9018e+00
58	EMPTY	42.5851	43.7285	43.0929	2.6255e-01	1.9013e+00
59	TAF130312	298.3789	299.5571	298.9119	2.7709e-01	1.9350e+00
60	EMPTY	5.7227	5.7373	5.7281	3.3656e-03	0.0000e+00
61	EMPTY	5.6982	5.7080	5.7032	3.0389e-03	0.0000e+00
62	EMPTY	5.6738	5.6885	5.6810	2.8266e-03	0.0000e+00
63	EMPTY	5.6641	5.6738	5.6671	2.5894e-03	0.0000e+00
64	EMPTY	2.6074	2.6123	2.6093	2.3941e-03	0.0000e+00
65	EMPTY	2.6123	2.6172	2.6166	1.6028e-03	0.0000e+00
66	EMPTY	2.6172	2.6221	2.6189	2.3675e-03	0.0000e+00
67	EMPTY	2.6221	2.6270	2.6243	2.4583e-03	0.0000e+00
68	EMPTY	2.6221	2.6318	2.6265	1.7784e-03	0.0000e+00
69	EMPTY	2.6318	2.6318	2.6318	0.0000e+00	0.0000e+00
70	EMPTY	2.6318	2.6367	2.6361	1.6028e-03	0.0000e+00
71	EMPTY	2.6465	2.6514	2.6468	1.1714e-03	0.0000e+00
72	EMPTY	2.6416	2.6514	2.6488	2.6543e-03	0.0000e+00
73	EMPTY	2.6514	2.6563	2.6556	1.7115e-03	0.0000e+00
74	EMPTY	2.6563	2.6611	2.6597	2.6033e-03	0.0000e+00
75	EMPTY	2.6611	2.6660	2.6646	2.2146e-03	0.0000e+00
76	EMPTY	2.6660	2.6709	2.6661	6.9053e-04	0.0000e+00
77	EMPTY	2.6709	2.6807	2.6756	1.3811e-03	0.0000e+00
78	EMPTY	2.6855	2.6904	2.6858	1.1714e-03	0.0000e+00
79	EMPTY	2.6953	2.7002	2.7001	6.9053e-04	0.0000e+00
80	PAN020136	-19.6367	-16.5087	-18.5213	1.0357e+00	8.7123e-01
81	PAN050136	-36.8832	-30.1693	-34.8232	1.3406e+00	1.6823e+00
82	PAN070136	-25.7092	-13.2733	-22.6376	2.4722e+00	8.7184e-01
83	PAN080136	-14.0145	-1.0445	-9.6230	2.9230e+00	8.7033e-01
84	PAN090136	-13.2016	-7.4795	-11.2469	1.5655e+00	8.7045e-01
85	PAN100136	-12.9287	-8.3511	-10.7772	1.3566e+00	8.7042e-01
86	PAN105136	-6.1702	-0.9059	-4.1942	1.2993e+00	8.7006e-01
87	PAN110136	-5.7139	-1.2125	-4.5298	8.3792e-01	8.7007e-01
88	PAN115136	-4.6310	-3.4103	-4.3076	2.9591e-01	8.7007e-01
89	PAN120136	-3.9973	-3.7684	-3.8813	7.1037e-02	8.7005e-01
90	PAN125136	-1.1392	-0.6814	-0.8974	1.0707e-01	8.7000e-01
91	PAN130136	-0.2898	0.1680	-0.0716	8.7207e-02	8.7000e-01
92	PAN120048	-9.8007	-9.1141	-9.5642	1.4480e-01	8.7033e-01
93	PAN130048	-0.6630	-0.0527	-0.3823	1.1477e-01	8.7000e-01
94	PAN120224	-8.6196	-7.4752	-8.1511	3.1551e-01	8.7024e-01
95	PAN130224	-0.4092	0.0486	-0.1864	1.0549e-01	8.7000e-01
96	PAN120312	-9.3575	-8.5946	-8.9471	1.4695e-01	8.7029e-01
97	PAN130312	-0.5955	0.1674	-0.1439	1.4771e-01	8.7000e-01
98	PAB000136	60.1363	60.4109	60.2480	8.4842e-02	5.9924e-01
99	PAB100136	63.8425	64.1171	63.9871	6.4313e-02	6.0166e-01
100	PAB125136	64.6330	64.8619	64.7621	6.5192e-02	6.0217e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	59.7610	60.2493	60.0100	1.4582e-01	7.6486e-01
102	PRV0000001	19.7336	19.8557	19.7800	5.9853e-02	7.5163e-01
103	PSR0000001	64.3339	64.5780	64.3875	7.0449e-02	7.6708e-01
104	PFM0000001	0.7077	0.9824	0.8048	6.7733e-02	5.0000e-01
105	PAN0000136	-129.2384	-124.2030	-126.3453	8.6973e-01	4.9301e+00
106	PFM0000002	0.8638	0.9142	0.8880	1.0806e-02	2.0001e-01
107	EMPTY	-0.0049	0.0000	-0.0046	1.1714e-03	0.0000e+00
108	EMPTY	-10.0000	-3.7842	-9.8714	8.7895e-01	0.0000e+00
109	EMPTY	-0.0049	0.0049	-0.0026	2.6488e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0022	2.4583e-03	0.0000e+00
112	VPW0000001	102.3287	103.1100	102.5318	1.9714e-01	1.0171e+00
113	VPW0000002	119.3735	119.9594	119.6977	1.3445e-01	1.0825e+00
114	VPW0000003	147.6938	148.2798	147.9595	1.5160e-01	1.2018e+00
115	VPW0000004	105.1645	105.9458	105.6216	1.7022e-01	1.0285e+00
116	VPW0000005	140.0691	140.8504	140.3504	1.7272e-01	1.1684e+00
117	VPW0000006	146.4769	147.2581	146.7543	1.6312e-01	1.1964e+00
118	IPW0000001	558.8958	568.6575	562.9176	1.9084e+00	9.2405e+00
119	IPW0000002	1268.7004	1276.5056	1272.4076	1.7296e+00	1.2909e+01
120	IPW0000003	1303.5748	1309.4248	1305.8760	1.7920e+00	1.3116e+01
121	IPW0000004	381.5636	384.0050	382.9211	4.4435e-01	3.6264e+00
122	IPW0000005	252.8292	254.7822	253.5908	3.8406e-01	2.8308e+00
123	IPW0000006	263.7752	265.7283	264.8398	3.5141e-01	2.8944e+00
124	EMPTY	-0.0293	-0.0195	-0.0229	3.3087e-03	0.0000e+00
125	EMPTY	-0.0244	-0.0098	-0.0164	2.9197e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0146	-0.0200	3.0003e-03	0.0000e+00
127	EMPTY	-0.0293	-0.0146	-0.0185	3.4583e-03	0.0000e+00
128	IHT0000001	130.4913	132.2491	131.4131	4.9133e-01	4.3055e+00
129	IHT0000002	129.8640	132.0125	130.8719	4.7900e-01	4.3038e+00
130	IHT0000003	128.9551	130.9082	129.7949	5.0417e-01	4.3005e+00
131	IHT0000004	131.1035	133.2520	132.0215	5.3851e-01	4.3073e+00
132	IHT0000005	129.4509	131.4040	130.2751	5.0731e-01	4.3020e+00
133	IHT0000006	124.9963	127.1447	125.9533	4.7556e-01	4.2891e+00
134	IHT0000007	131.3927	133.3458	132.3107	4.8528e-01	4.3082e+00
135	IHT0000008	130.0631	132.4068	131.0591	4.9795e-01	4.3044e+00
136	IHT0000009	129.5110	131.8547	130.6086	5.1432e-01	4.3030e+00
137	IHT0000010	129.5373	132.6623	130.9982	5.5557e-01	4.3042e+00
138	IHT0000011	130.4387	133.3684	132.0168	5.8373e-01	4.3073e+00
139	IHT0000012	129.4359	132.5609	131.0531	5.9587e-01	4.3044e+00
140	IHT0000013	91.2260	93.9603	92.5424	5.3205e-01	4.2031e+00
141	IHT0000014	127.0808	129.6199	128.2137	5.7045e-01	4.2958e+00
142	IHT0000015	94.3435	96.4919	95.1950	5.0956e-01	4.2091e+00
143	IHT0000016	88.4127	90.7565	89.4908	5.8293e-01	4.1965e+00
144	IHT0000017	103.4893	107.7862	105.4971	1.0365e+00	4.2336e+00
145	IHT0000018	106.4228	109.1572	107.7627	6.2889e-01	4.2393e+00
146	IHT0000019	107.2303	109.3788	108.2303	5.4482e-01	4.2404e+00
147	IHT0000020	105.3861	107.5346	106.3549	5.0833e-01	4.2357e+00
148	IHT0000021	-2.9860	-0.2517	-1.6189	6.2887e-01	4.1000e+00
149	IHT0000022	92.0410	94.5801	93.0410	5.8612e-01	4.2042e+00
150	IHT0000023	104.7664	106.9148	105.7195	5.4196e-01	4.2341e+00
151	IHT0000024	69.9105	72.0590	70.9067	5.2534e-01	4.1609e+00
152	IHT0000025	102.0771	104.6161	103.2607	5.5861e-01	4.2280e+00
153	IHT0000026	104.3044	106.8435	105.6169	5.5809e-01	4.2339e+00
154	IHT0000027	89.0813	92.0110	90.5461	6.1289e-01	4.1988e+00
155	IHT0000028	89.8175	93.3331	91.3956	6.1490e-01	4.2006e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	105.2208	108.3458	106.5294	5.6531e-01	4.2361e+00
157	IHT0000030	107.7261	110.8511	109.0698	5.8479e-01	4.2426e+00
158	IHT0000031	105.8068	108.9318	107.0216	6.0655e-01	4.2374e+00
159	IHT0000032	106.6519	109.9722	107.8433	6.1795e-01	4.2395e+00
160	IHT0000033	106.6331	109.9534	107.7816	6.1592e-01	4.2393e+00
161	IHT0000034	93.5434	95.8872	94.4380	4.9140e-01	4.2074e+00
162	IHT0000035	123.3774	125.5258	124.3579	4.9519e-01	4.2844e+00
163	IHT0000036	92.2251	94.5688	93.1782	4.5445e-01	4.2045e+00

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Velocity 1 - 10.9983 (ft/sec) (+/- 3.7189 %)
 Velocity 2 - 11.0115 (ft/sec) (+/- 3.5040 %)
 Pressure drop - -0.3986 (psi)
 Tsat in - 292.9328 (deg F) Tsat out - 293.2788 (deg F)
 Phi inner - 99.4245 (kBtu/hr-ft2) (+/- 1.5728 %)
 Phi outer - 100.4578 (kBtu/hr-ft2) (+/- 1.5505 %)
 D inner - 0.1973 (ft) D outer - 0.2412 (ft) D hyd - 0.0438 (ft)
 L inner - 12.8330 (ft) L outer - 12.8330 (ft) A flow - 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	77.4143	77.8385	77.6349	1.5426e-01	1.9000e+00
1	TRF0000002	77.6195	78.0415	77.9234	1.2903e-01	1.9000e+00
2	TRF0000001	85.4277	86.2669	85.8471	2.0766e-01	1.9002e+00
3	TIN0000001	85.2715	86.1124	85.7508	1.6745e-01	1.9002e+00
4	TRV0000001	86.1662	86.7948	86.5179	1.6894e-01	1.9002e+00
5	TSR0000001	126.6801	128.4020	127.6888	4.4354e-01	1.9022e+00
6	EMPTY	37.9974	38.9168	38.4572	2.3217e-01	1.9010e+00
7	TAO050136	138.3402	139.1450	138.7428	1.6256e-01	1.9032e+00
8	TAO070136	142.4424	143.3501	142.8499	2.0064e-01	1.9036e+00
9	TAO080136	144.5221	145.1231	144.8188	1.6782e-01	1.9038e+00
10	TAO090136	174.4032	175.2860	174.8153	1.9207e-01	1.9074e+00
11	TAO100136	150.7138	151.4129	151.1412	1.8598e-01	1.9044e+00
12	TAO105136	151.8422	152.6410	152.2455	2.2178e-01	1.9046e+00
13	EMPTY	-601.0594	-601.0594	-601.0591	3.6993e-04	2.1295e+00
14	TAO115136	160.3447	161.0417	160.6399	1.7290e-01	1.9055e+00
15	EMPTY	36.3865	37.7675	37.2981	4.0253e-01	1.9009e+00
16	TAO125136	163.5934	164.3831	164.0869	1.4797e-01	1.9060e+00
17	EMPTY	44.8706	45.5552	45.2540	2.0326e-01	1.9014e+00
18	EMPTY	41.4403	41.8984	41.6006	1.3292e-01	1.9012e+00
19	TAO130048	152.5278	153.1255	152.8307	1.4914e-01	1.9046e+00
20	TAO120224	156.1706	157.1654	156.6680	1.9999e-01	1.9051e+00
21	EMPTY	39.1464	39.6057	39.3256	1.5587e-01	1.9010e+00
22	TAO120312	159.9655	160.8604	160.3753	2.3377e-01	1.9055e+00
23	TAO130312	153.9663	154.7624	154.5313	1.4966e-01	1.9048e+00
24	EMPTY	38.9168	39.6057	39.3164	2.0648e-01	1.9010e+00
25	TRT070000	142.7259	143.6343	143.2751	1.9475e-01	1.9036e+00
26	TRT100000	154.9735	155.7693	155.3675	1.9887e-01	1.9049e+00
27	TRT120000	156.9277	157.6237	157.2936	1.5874e-01	1.9051e+00
28	TRT125000	158.5254	159.4156	158.9646	1.6973e-01	1.9053e+00
29	EMPTY	39.6057	40.0646	39.8949	1.1175e-01	1.9011e+00
30	EMPTY	39.3761	40.0646	39.7112	2.0324e-01	1.9011e+00
31	TAF050136	104.0478	104.7710	104.3909	1.7631e-01	1.9008e+00
32	TAF070136	110.1091	111.0313	110.5430	2.0240e-01	1.9011e+00
33	TAF080136	112.6008	113.3176	112.8674	1.8018e-01	1.9012e+00
34	TAF090136	115.0490	116.1764	115.6024	2.3615e-01	1.9014e+00
35	TAF100136	119.3683	120.0848	119.7408	1.6643e-01	1.9017e+00
36	TAF105136	121.8497	122.8633	122.4047	2.7100e-01	1.9018e+00
37	TAF110136	124.7496	125.3586	125.0824	1.5368e-01	1.9020e+00
38	TAF115136	126.8087	127.7222	127.3200	2.0511e-01	1.9022e+00
39	TAF120136	129.0345	129.6427	129.2984	1.1775e-01	1.9024e+00
40	TAF125136	130.4915	131.7023	131.2543	2.8163e-01	1.9025e+00
41	TAF130136	132.5556	133.0616	132.8510	1.3838e-01	1.9027e+00
42	TAF120048	128.2702	129.2901	128.8453	2.2670e-01	1.9023e+00
43	TAF130048	130.8898	131.4983	131.1617	1.3025e-01	1.9025e+00
44	TAF120224	128.4856	129.2967	128.8509	1.8667e-01	1.9023e+00
45	TAF130224	131.5040	132.2151	131.9061	1.4216e-01	1.9026e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.0296	1.9713e-01	1.9010e+00
47	EMPTY	39.1464	39.6057	39.3118	1.1401e-01	1.9010e+00
48	TAI130048	161.6079	162.4007	161.8775	1.4026e-01	1.9057e+00
49	TAI130136	161.6983	162.2921	162.0467	1.4720e-01	1.9057e+00
50	TAI130224	161.9160	162.6110	162.2574	1.6674e-01	1.9057e+00
51	TAI130312	160.5329	161.1288	160.7755	1.1888e-01	1.9055e+00
52	TRR130000	121.6809	123.2069	122.4095	3.8122e-01	1.9018e+00
53	TSI0000001	41.7312	42.6014	42.1968	1.8645e-01	1.9005e+00
54	TSI0000002	92.0781	93.8488	92.7615	4.1883e-01	1.9003e+00
55	TSO0000001	40.7150	41.5901	41.1394	1.9847e-01	1.9006e+00
56	TSO0000002	48.6698	49.6440	49.2281	2.0911e-01	1.9003e+00
57	TAF020136	92.8911	93.9394	93.3813	2.0823e-01	1.9004e+00
58	EMPTY	42.8139	43.7285	43.2987	2.5571e-01	1.9013e+00
59	TAF130312	133.3171	134.1258	133.7781	1.7576e-01	1.9027e+00
60	EMPTY	1.5137	1.5234	1.5187	1.9631e-03	0.0000e+00
61	EMPTY	1.5234	1.5283	1.5249	2.2603e-03	0.0000e+00
62	EMPTY	1.5283	1.5332	1.5320	2.1065e-03	0.0000e+00
63	EMPTY	1.5381	1.5430	1.5424	1.6028e-03	0.0000e+00
64	EMPTY	0.7959	0.8057	0.8009	1.2041e-03	0.0000e+00
65	EMPTY	0.8154	0.8203	0.8200	1.1714e-03	0.0000e+00
66	EMPTY	0.8301	0.8350	0.8345	1.4797e-03	0.0000e+00
67	EMPTY	0.8447	0.8496	0.8493	1.1714e-03	0.0000e+00
68	EMPTY	0.8594	0.8643	0.8595	6.9053e-04	0.0000e+00
69	EMPTY	0.8740	0.8789	0.8744	1.3381e-03	0.0000e+00
70	EMPTY	0.8887	0.8887	0.8887	0.0000e+00	0.0000e+00
71	EMPTY	0.9082	0.9131	0.9106	2.4662e-03	0.0000e+00
72	EMPTY	0.9229	0.9277	0.9229	6.9053e-04	0.0000e+00
73	EMPTY	0.9375	0.9424	0.9379	1.3381e-03	0.0000e+00
74	EMPTY	0.9521	0.9521	0.9521	0.0000e+00	0.0000e+00
75	EMPTY	0.9668	0.9717	0.9669	6.9053e-04	0.0000e+00
76	EMPTY	0.9766	0.9814	0.9800	2.2603e-03	0.0000e+00
77	EMPTY	0.9961	1.0010	0.9963	9.6655e-04	0.0000e+00
78	EMPTY	1.0156	1.0205	1.0159	1.1714e-03	0.0000e+00
79	EMPTY	1.0352	1.0449	1.0397	1.5314e-03	0.0000e+00
80	PAN020136	-1.9365	-0.8684	-1.4025	2.5930e-01	8.7001e-01
81	PAN050136	-3.6190	-3.1612	-3.4054	1.5719e-01	1.6800e+00
82	PAN070136	-0.4559	0.1544	-0.2545	1.2211e-01	8.7000e-01
83	PAN080136	-1.2734	-0.9682	-1.1147	8.4199e-02	8.7000e-01
84	PAN090136	-1.9864	-1.6812	-1.8292	7.7698e-02	8.7001e-01
85	PAN100136	-1.3320	-0.9506	-1.1688	7.0651e-02	8.7000e-01
86	PAN105136	1.0015	1.3066	1.1403	7.3422e-02	8.7000e-01
87	PAN110136	0.0845	0.3134	0.1654	6.6135e-02	8.7000e-01
88	PAN115136	-0.6638	-0.3586	-0.5096	7.1454e-02	8.7000e-01
89	PAN120136	-1.5559	-1.4537	-1.4537	7.1653e-02	8.7001e-01
90	PAN125136	-1.1392	-0.9103	-1.0598	6.3478e-02	8.7000e-01
91	PAN130136	-1.5105	-1.3579	-1.4387	5.8511e-02	8.7001e-01
92	PAN120048	-2.7817	-2.4765	-2.5986	8.3005e-02	8.7002e-01
93	PAN130048	-2.6467	-2.3415	-2.4514	8.3234e-02	8.7002e-01
94	PAN120224	-1.6768	-1.4479	-1.5670	7.0903e-02	8.7001e-01
95	PAN130224	-2.6980	-2.3165	-2.4996	8.3005e-02	8.7002e-01
96	PAN120312	-1.4993	-1.1178	-1.3314	9.3758e-02	8.7001e-01
97	PAN130312	-2.8843	-2.5792	-2.7531	9.1241e-02	8.7003e-01
98	PAB000136	60.1820	60.4567	60.2937	6.6792e-02	5.9927e-01
99	PAB100136	60.3634	60.5466	60.4394	4.4937e-02	5.9936e-01
100	PAB125136	60.5131	60.6962	60.6083	5.0519e-02	5.9947e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	59.8831	60.4934	60.1565	1.3180e-01	7.6493e-01
102	PRV0000001	19.7336	19.9778	19.8362	5.1496e-02	7.5164e-01
103	PSR0000001	60.3055	60.4276	60.3299	4.9324e-02	7.6502e-01
104	PFM0000001	18.3774	19.0183	18.7272	1.4290e-01	5.0219e-01
105	PAN0000136	-13.4242	-8.3888	-11.0346	9.8870e-01	4.9201e+00
106	PFM0000002	18.6001	18.9524	18.7726	8.2972e-02	2.0543e-01
107	EMPTY	-0.0049	0.0049	0.0040	2.1364e-03	0.0000e+00
108	EMPTY	-10.0000	-1.7334	-9.6371	1.2617e+00	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0010	1.9730e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW0000001	100.9615	102.1334	101.4654	3.1589e-01	1.0133e+00
113	VPW0000002	118.3969	119.5688	119.0063	2.2544e-01	1.0798e+00
114	VPW0000003	146.5219	147.4985	147.0766	2.7723e-01	1.1978e+00
115	VPW0000004	104.5786	105.5552	104.9966	2.6473e-01	1.0261e+00
116	VPW0000005	138.8972	140.0691	139.4833	2.9528e-01	1.1647e+00
117	VPW0000006	145.3050	146.4769	145.9183	2.8182e-01	1.1927e+00
118	IPW0000001	558.8958	570.6098	566.6271	2.9506e+00	9.2546e+00
119	IPW0000002	1278.4568	1290.1644	1283.6084	2.8634e+00	1.2978e+01
120	IPW0000003	1301.6248	1317.2247	1311.4139	2.7433e+00	1.3151e+01
121	IPW0000004	383.5167	387.9113	385.4601	1.0369e+00	3.6432e+00
122	IPW0000005	253.3175	256.2469	255.1044	7.5514e-01	2.8393e+00
123	IPW0000006	265.2401	267.6815	266.4664	6.8088e-01	2.9047e+00
124	EMPTY	-0.0293	-0.0146	-0.0224	3.5691e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0149	2.8608e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0182	4.0721e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0166	2.9594e-03	0.0000e+00
128	IHT0000001	130.8819	133.8116	132.3897	6.4843e-01	4.3084e+00
129	IHT0000002	130.2547	132.7937	131.7704	6.0304e-01	4.3065e+00
130	IHT0000003	129.1504	131.6894	130.7480	6.1345e-01	4.3034e+00
131	IHT0000004	131.2988	134.2285	132.9434	6.4608e-01	4.3102e+00
132	IHT0000005	129.6462	132.3806	131.2516	6.0010e-01	4.3050e+00
133	IHT0000006	125.1916	128.1213	126.8400	6.2285e-01	4.2917e+00
134	IHT0000007	131.7833	134.5177	133.2482	5.8294e-01	4.3111e+00
135	IHT0000008	130.6490	133.1881	132.0982	5.8805e-01	4.3076e+00
136	IHT0000009	130.4875	132.6360	131.6086	5.7428e-01	4.3061e+00
137	IHT0000010	130.9044	133.0529	131.9122	4.8706e-01	4.3070e+00
138	IHT0000011	131.8059	134.1496	132.8410	4.7719e-01	4.3098e+00
139	IHT0000012	130.8030	133.1468	131.9085	5.0163e-01	4.3070e+00
140	IHT0000013	92.2025	94.5463	93.2573	5.6909e-01	4.2047e+00
141	IHT0000014	127.8621	130.4012	129.0809	5.3022e-01	4.2984e+00
142	IHT0000015	94.9294	97.4685	95.8669	5.2050e-01	4.2106e+00
143	IHT0000016	88.8033	90.7565	89.7252	5.0074e-01	4.1970e+00
144	IHT0000017	104.6612	108.7628	106.8291	9.7317e-01	4.2369e+00
145	IHT0000018	107.2040	109.9384	108.3955	5.9222e-01	4.2409e+00
146	IHT0000019	107.4256	109.7694	108.8475	5.8798e-01	4.2420e+00
147	IHT0000020	105.7767	108.3158	107.1284	6.1364e-01	4.2376e+00
148	IHT0000021	-2.9860	0.3343	-1.4704	6.9426e-01	4.1000e+00
149	IHT0000022	92.0410	94.5801	93.3535	5.9325e-01	4.2049e+00
150	IHT0000023	105.1570	107.8914	106.4734	5.4506e-01	4.2360e+00
151	IHT0000024	70.3012	72.6450	71.4614	5.3874e-01	4.1618e+00
152	IHT0000025	102.6630	105.3974	103.9404	5.6663e-01	4.2297e+00
153	IHT0000026	105.4763	107.8200	106.4802	5.5525e-01	4.2360e+00
154	IHT0000027	89.6672	92.2063	90.8235	6.1237e-01	4.1994e+00
155	IHT0000028	90.7940	92.7471	91.6807	5.3118e-01	4.2013e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	106.1974	108.3458	107.1779	5.0144e-01	4.2378e+00
157	IHT0000030	108.3120	110.8511	109.6089	5.6326e-01	4.2440e+00
158	IHT0000031	106.3927	108.7365	107.5646	5.7858e-01	4.2388e+00
159	IHT0000032	107.2378	110.1675	108.5620	5.9620e-01	4.2413e+00
160	IHT0000033	107.2190	109.9534	108.5198	5.7265e-01	4.2412e+00
161	IHT0000034	94.1293	96.2778	95.1372	5.2104e-01	4.2089e+00
162	IHT0000035	124.1587	126.3071	125.1196	5.6337e-01	4.2867e+00
163	IHT0000036	93.0063	94.9594	93.8462	5.1031e-01	4.2060e+00

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Velocity 1 - 16.9803 (ft/sec) (+/- 3.5154 %)
 Velocity 2 - 13.3260 (ft/sec) (+/- 3.4863 %)
 Pressure drop - 6.1858 (psi)
 Tsat in - 292.7582 (deg F) Tsat out - 285.8310 (deg F)
 Phi inner - 99.6886 (kbtu/hr-ft2) (+/- 1.5721 %)
 Phi outer - 101.0102 (kbtu/hr-ft2) (+/- 1.5486 %)
 D inner - 0.1973 (ft) D outer - 0.2412 (ft) D hyd - 0.0438 (ft)
 L inner - 12.8330 (ft) L outer - 12.8330 (ft) A flow - 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	77.6264	78.0505	77.8342	1.6308e-01	1.9000e+00
1	TRF000002	78.0415	78.4635	78.1301	1.1349e-01	1.9000e+00
2	TFH000001	84.9033	85.8482	85.2898	1.9597e-01	1.9002e+00
3	TIN000001	84.9556	85.4816	85.2712	1.2209e-01	1.9002e+00
4	TRV000001	85.2240	85.8531	85.5682	1.6269e-01	1.9002e+00
5	TSR000001	115.0786	115.6932	115.3490	1.4745e-01	1.9014e+00
6	EMPTY	37.9974	38.9168	38.4020	2.3012e-01	1.9010e+00
7	TAO050136	122.7887	123.3991	123.0895	1.6197e-01	1.9019e+00
8	TAO070136	124.9520	125.6672	125.3445	2.0578e-01	1.9021e+00
9	TAO080136	126.5383	127.2484	126.8509	1.6762e-01	1.9022e+00
10	TAO090136	154.8575	155.7529	155.2317	1.9946e-01	1.9049e+00
11	TAO100136	129.9957	130.7057	130.4176	1.4396e-01	1.9025e+00
12	TAO105136	130.9187	132.0339	131.4095	2.9419e-01	1.9025e+00
13	EMPTY	-601.0594	-601.0594	-601.0591	3.6993e-04	2.1295e+00
14	TAO115136	137.3380	138.1476	137.7106	2.0894e-01	1.9031e+00
15	EMPTY	37.3074	37.5374	37.3810	1.0842e-01	1.9009e+00
16	TAO125136	139.3481	140.0506	139.7011	1.6651e-01	1.9033e+00
17	EMPTY	44.8706	45.5552	45.1992	2.1207e-01	1.9014e+00
18	EMPTY	41.4403	41.8984	41.6189	1.0644e-01	1.9012e+00
19	TAO130048	130.5982	131.3065	130.9503	1.4058e-01	1.9025e+00
20	TAO120224	133.3922	134.1009	133.7486	1.8770e-01	1.9027e+00
21	EMPTY	38.9168	39.6057	39.2291	1.2924e-01	1.9010e+00
22	TAO120312	136.4036	137.4150	136.9618	2.7420e-01	1.9030e+00
23	TAO130312	132.0228	132.6294	132.3385	1.5657e-01	1.9026e+00
24	EMPTY	38.9168	39.8352	39.2888	2.2675e-01	1.9010e+00
25	TNT070000	124.1712	124.9909	124.6466	1.7271e-01	1.9020e+00
26	TNT100000	133.0278	133.9378	133.5213	2.1093e-01	1.9027e+00
27	TNT120000	133.4674	134.3780	133.9127	1.7587e-01	1.9027e+00
28	TNT125000	135.2338	136.3402	135.7610	2.1471e-01	1.9029e+00
29	EMPTY	39.6057	40.0646	39.8581	9.5578e-02	1.9011e+00
30	EMPTY	39.1464	40.0646	39.6607	2.1028e-01	1.9011e+00
31	TAF050136	97.2244	97.9516	97.5735	1.8735e-01	1.9005e+00
32	TAF070136	101.2713	102.0974	101.6147	2.1329e-01	1.9007e+00
33	TAF080136	102.5654	103.2878	102.9327	1.8549e-01	1.9007e+00
34	TAF090136	104.2362	105.2700	104.7903	2.3145e-01	1.9008e+00
35	TAF100136	107.1146	107.8385	107.4042	1.8451e-01	1.9009e+00
36	TAF105136	108.7366	109.6592	109.2285	2.1294e-01	1.9010e+00
37	TAF110136	110.5895	111.1030	110.8646	1.4301e-01	1.9011e+00
38	TAF115136	112.1150	112.8343	112.4767	1.9497e-01	1.9012e+00
39	TAF120136	113.4912	114.0042	113.7293	1.5698e-01	1.9013e+00
40	TAF125136	114.3836	115.5072	114.9801	2.6206e-01	1.9014e+00
41	TAF130136	115.6820	116.1947	115.8913	1.5213e-01	1.9014e+00
42	TAF120048	112.8307	113.6573	113.3478	2.0453e-01	1.9013e+00
43	TAF130048	114.4762	114.9897	114.7350	1.5696e-01	1.9013e+00
44	TAF120224	112.7824	113.7065	113.1851	1.9879e-01	1.9013e+00
45	TAF130224	114.5912	115.2096	114.8960	1.5969e-01	1.9014e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.2273	37.9054	2.2761e-01	1.9010e+00
47	EMPTY	38.9168	39.3761	39.1281	7.8197e-02	1.9010e+00
48	TAI130048	138.2169	138.8223	138.5076	1.6001e-01	1.9032e+00
49	TAI130136	137.8972	138.6018	138.2475	1.4851e-01	1.9031e+00
50	TAI130224	138.1704	138.9789	138.5184	1.7454e-01	1.9032e+00
51	TAI130312	137.0010	137.7080	137.3970	1.6305e-01	1.9031e+00
52	TRR130000	111.8805	114.1334	112.8189	5.5589e-01	1.9012e+00
53	TSI000001	41.6233	42.3849	41.8846	1.8659e-01	1.9005e+00
54	TSI000002	93.1204	94.1618	93.6367	2.6275e-01	1.9004e+00
55	TSO000001	40.7131	41.4795	41.0158	1.9201e-01	1.9006e+00
56	TSO000002	47.4769	48.2365	47.8806	1.8722e-01	1.9003e+00
57	TAF020136	89.6258	90.4680	89.9834	1.7906e-01	1.9003e+00
58	EMPTY	42.5851	43.5000	43.0700	2.5990e-01	1.9012e+00
59	TAF130312	115.9306	116.5457	116.2259	1.6388e-01	1.9014e+00
60	EMPTY	1.0938	1.0986	1.0961	2.4642e-03	0.0000e+00
61	EMPTY	1.1035	1.1133	1.1058	2.6488e-03	0.0000e+00
62	EMPTY	1.1133	1.1182	1.1145	2.1065e-03	0.0000e+00
63	EMPTY	1.1230	1.1328	1.1281	1.9631e-03	0.0000e+00
64	EMPTY	0.6201	0.6250	0.6233	2.3365e-03	0.0000e+00
65	EMPTY	0.6396	0.6494	0.6445	9.8648e-04	0.0000e+00
66	EMPTY	0.6592	0.6641	0.6594	9.6655e-04	0.0000e+00
67	EMPTY	0.6738	0.6787	0.6784	1.1714e-03	0.0000e+00
68	EMPTY	0.6885	0.6934	0.6914	2.4164e-03	0.0000e+00
69	EMPTY	0.7080	0.7129	0.7081	6.9053e-04	0.0000e+00
70	EMPTY	0.7227	0.7275	0.7237	2.0432e-03	0.0000e+00
71	EMPTY	0.7471	0.7471	0.7471	0.0000e+00	0.0000e+00
72	EMPTY	0.7568	0.7617	0.7607	1.9730e-03	0.0000e+00
73	EMPTY	0.7764	0.7813	0.7795	2.3675e-03	0.0000e+00
74	EMPTY	0.7910	0.8008	0.7957	1.6972e-03	0.0000e+00
75	EMPTY	0.8105	0.8154	0.8107	9.6655e-04	0.0000e+00
76	EMPTY	0.8252	0.8252	0.8252	0.0000e+00	0.0000e+00
77	EMPTY	0.8398	0.8447	0.8446	6.9053e-04	0.0000e+00
78	EMPTY	0.8643	0.8691	0.8667	2.4662e-03	0.0000e+00
79	EMPTY	0.8887	0.8936	0.8888	6.9053e-04	0.0000e+00
80	PAN020136	20.4939	22.2486	21.3255	4.3712e-01	8.7163e-01
81	PAN050136	38.6478	40.0211	39.4413	3.0205e-01	1.6829e+00
82	PAN070136	31.2823	32.1979	31.7676	2.2110e-01	8.7362e-01
83	PAN080136	12.9173	13.4513	13.1873	1.2059e-01	8.7062e-01
84	PAN090136	11.8228	12.3569	12.1265	1.0952e-01	8.7053e-01
85	PAN100136	12.6298	13.0875	12.9288	1.1723e-01	8.7060e-01
86	PAN105136	10.2330	10.5382	10.3994	8.5390e-02	8.7039e-01
87	PAN110136	8.1716	8.5531	8.3990	1.0281e-01	8.7025e-01
88	PAN115136	6.1264	6.5079	6.3766	8.9929e-02	8.7015e-01
89	PAN120136	4.0898	4.3950	4.2302	7.4498e-02	8.7006e-01
90	PAN125136	4.8880	5.2695	5.0330	7.7453e-02	8.7009e-01
91	PAN130136	4.1353	4.5168	4.3184	9.1189e-02	8.7007e-01
92	PAN120048	10.1883	10.7224	10.4706	1.2355e-01	8.7039e-01
93	PAN130048	9.4078	10.0944	9.7694	1.2693e-01	8.7034e-01
94	PAN120224	11.4457	12.0561	11.8333	1.2219e-01	8.7050e-01
95	PAN130224	9.3564	9.8142	9.6280	1.1238e-01	8.7033e-01
96	PAN120312	11.8522	12.3862	12.1161	1.4060e-01	8.7053e-01
97	PAN130312	8.4835	9.0175	8.8283	1.1662e-01	8.7028e-01
98	PAB000136	59.9074	60.3652	60.1353	8.5008e-02	5.9917e-01
99	PAB100136	55.0992	55.3280	55.2228	5.7940e-02	5.9620e-01
100	PAB125136	53.9671	54.1960	54.0614	5.5804e-02	5.9554e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	59.6389	60.2493	59.9148	1.7405e-01	7.6481e-01
102	PRV0000001	19.8557	20.0998	19.9607	4.9385e-02	7.5166e-01
103	PSR0000001	52.7372	52.9813	52.8958	6.1655e-02	7.6157e-01
104	PFM0000001	44.3784	45.6601	44.9112	3.6793e-01	5.1245e-01
105	PAN000136	168.3080	176.0900	171.2560	1.8638e+00	4.9386e+00
106	PFM0000002	27.5773	27.5773	27.5773	9.6336e-06	2.1155e-01
107	EMPTY	0.0049	0.0098	0.0066	2.3675e-03	0.0000e+00
108	EMPTY	-10.0000	-8.3008	-9.7087	4.7379e-01	0.0000e+00
109	EMPTY	0.0000	0.0098	0.0050	1.2041e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0002	9.6655e-04	0.0000e+00
112	VPW0000001	101.1569	101.7428	101.4615	1.3182e-01	1.0133e+00
113	VPW0000002	118.7876	119.1782	119.0415	9.8648e-02	1.0799e+00
114	VPW0000003	146.7173	147.3032	147.0102	1.3811e-01	1.1976e+00
115	VPW0000004	104.3833	105.3598	105.0317	1.7840e-01	1.0263e+00
116	VPW0000005	139.0925	139.6785	139.3778	1.2608e-01	1.1642e+00
117	VPW0000006	145.5003	145.8909	145.7582	1.1464e-01	1.1920e+00
118	IPW0000001	560.8481	564.7528	562.8395	1.2775e+00	9.2402e+00
119	IPW0000002	1297.9695	1305.7747	1302.0281	1.7997e+00	1.3092e+01
120	IPW0000003	1313.3248	1321.1248	1316.6400	1.4872e+00	1.3183e+01
121	IPW0000004	381.5636	384.0050	382.9503	6.7167e-01	3.6266e+00
122	IPW0000005	254.2939	255.7586	255.1044	3.2129e-01	2.8393e+00
123	IPW0000006	265.2401	267.6815	266.4901	6.0938e-01	2.9038e+00
124	EMPTY	-0.0293	-0.0146	-0.0220	4.6532e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0144	2.6853e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0177	4.1725e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0170	2.9986e-03	0.0000e+00
128	IHT0000001	131.4678	133.6163	132.4287	5.5220e-01	4.3086e+00
129	IHT0000002	130.8406	133.1844	131.8680	5.5216e-01	4.3068e+00
130	IHT0000003	129.9316	132.0801	130.8730	5.3625e-01	4.3038e+00
131	IHT0000004	131.8848	134.4238	133.0918	5.4632e-01	4.3106e+00
132	IHT0000005	130.0368	132.3806	131.2829	5.1734e-01	4.3051e+00
133	IHT0000006	125.5822	128.3166	126.9884	5.5383e-01	4.2922e+00
134	IHT0000007	132.3693	134.7130	133.4904	5.2022e-01	4.3118e+00
135	IHT0000008	130.8443	133.1881	132.2037	4.7508e-01	4.3079e+00
136	IHT0000009	130.4875	132.6360	131.7296	4.7476e-01	4.3064e+00
137	IHT0000010	131.0998	133.0529	131.8771	4.2771e-01	4.3069e+00
138	IHT0000011	131.8059	133.9543	132.8605	4.4643e-01	4.3099e+00
139	IHT0000012	130.9984	132.9515	131.8773	4.8688e-01	4.3069e+00
140	IHT0000013	92.3978	94.5463	93.3510	5.0477e-01	4.2049e+00
141	IHT0000014	127.6668	130.5965	128.9832	5.3352e-01	4.2981e+00
142	IHT0000015	94.9294	97.4685	95.9333	5.2941e-01	4.2107e+00
143	IHT0000016	88.6080	90.9518	89.6588	5.1280e-01	4.1969e+00
144	IHT0000017	104.6612	107.3956	105.8487	7.2312e-01	4.2344e+00
145	IHT0000018	107.2040	109.7431	108.1923	5.3730e-01	4.2403e+00
146	IHT0000019	107.6209	109.7694	108.6678	5.0495e-01	4.2416e+00
147	IHT0000020	105.9721	108.1205	106.9917	5.0731e-01	4.2373e+00
148	IHT0000021	-2.7907	-0.4470	-1.7087	5.6663e-01	4.1000e+00
149	IHT0000022	92.4316	94.3848	93.2207	4.6179e-01	4.2046e+00
150	IHT0000023	105.3523	107.3054	106.3563	4.6690e-01	4.2357e+00
151	IHT0000024	70.4965	72.6450	71.3677	4.5199e-01	4.1617e+00
152	IHT0000025	102.8583	104.8114	103.7998	4.4238e-01	4.2294e+00
153	IHT0000026	105.4763	107.2341	106.3083	3.9619e-01	4.2356e+00
154	IHT0000027	89.8625	91.6204	90.6946	3.9815e-01	4.1991e+00
155	IHT0000028	90.5987	92.7471	91.5596	5.0815e-01	4.2010e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	106.0021	107.9552	107.0568	4.7679e-01	4.2375e+00
157	IHT0000030	108.3120	110.6558	109.5230	5.4104e-01	4.2438e+00
158	IHT0000031	106.3927	108.5412	107.4904	5.2034e-01	4.2386e+00
159	IHT0000032	107.4332	109.3863	108.5073	5.4712e-01	4.2412e+00
160	IHT0000033	107.4144	109.3675	108.4652	5.4088e-01	4.2410e+00
161	IHT0000034	94.1293	96.2778	95.2075	5.2384e-01	4.2091e+00
162	IHT0000035	124.1587	126.1118	125.0767	5.0262e-01	4.2865e+00
163	IHT0000036	92.8110	95.1547	93.8735	4.9781e-01	4.2061e+00

DEFECTIVE INSTRUMENTS FOR THE NON-RIBBED GEOMETRY TEST SERIES

Series	Tests	Defective Instruments
2	Feb05_01 to Feb05_15	TAO120048 TRT020000 TAI130048 TAO020136 TRT070000 TAI130136 TAO090136 TRT125000 TAI130224 TAO110136 TRT130000 TAI130312 TAO115136 TRR130000 TAO120136 TAF120312 TAO130136 TAO120224 TAO130224 IHT000021 IHT000024 IHT000033

Chapter 4

NUCLEATE BOILING PRESSURE DROP IN AN ANNULUS

Test Geometry: Non-Ribbed (2)
Test Series: 3
Test Date: February 6, 1990

ANNULUS INLET FLOW VELOCITY (ft/s)

□ SERIES 3, 02/06/90 — UNHEATED, 01/31/90

TEST NUMBER	INLET VELOCITY(a) (ft/s)	PRESSURE DROP(b) (psi)
Feb06_01	26.05	21.16
Feb06_02	20.03	10.32
Feb06_03	14.03	2.39
Feb06_04	8.01	-2.75
Feb06_05	6.03	-3.86
Feb06_06	4.00	-4.67
Feb06_07	3.48	-4.80
Feb06_10	3.19	-4.85
Feb06_08	3.02	-4.96

(c)

NOMINAL TEST CONDITIONS	
Annulus geometry	non-ribbed (2)
Inlet temperature	86 °F
Inlet pressure	40 psia
Wall heat flux	100 kBtu/hr-ft ²
Flux distribution	uniform
He saturation pressure	1 psig

NOTES:

- (a) Inlet velocity calculated from PFM000001 and PFM000002 (for V513 ft/s)
- (b) Pressure drop calculated from PAN000136
- (c) Shading notes test at minimum pressure drop

DEMAND CURVE AND DATA FOR SERIES 3 - NON-RIBBED ANNULUS

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Velocity 1 = 26.0481 (ft/sec) (+/- 3.4790 %)
 Velocity 2 = 13.3241 (ft/sec) (+/- 3.4863 %)
 Pressure drop = 21.1628 (psi)
 Tsat in = 267.7616 (deg F) Tsat out = 226.8881 (deg F)
 Phi inner = 100.4399 (kBtu/hr-ft2) (+/- 1.5701 %)
 Phi outer = 100.2244 (kBtu/hr-ft2) (+/- 1.5529 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	73.1137	73.7524	73.4501	1.6708e-01	1.9000e+00
1	TRF000002	73.6639	74.0875	73.9054	1.0488e-01	1.9000e+00
2	TRF000001	84.4277	85.1632	84.8183	1.9783e-01	1.9001e+00
3	TIN000001	84.6257	85.3625	84.9962	1.6909e-01	1.9002e+00
4	TRV000001	84.7525	85.4878	85.0763	1.9747e-01	1.9002e+00
5	TSR000001	104.8399	105.5627	105.1826	1.8475e-01	1.9008e+00
6	EMPTY	37.9974	38.9168	38.4296	2.1600e-01	1.9010e+00
7	TAO050136	114.6715	115.2868	115.0402	1.4922e-01	1.9014e+00
8	TAO070136	113.6026	114.5307	114.0888	2.2056e-01	1.9013e+00
9	TAO080136	114.9449	115.6613	115.2598	1.7284e-01	1.9014e+00
10	TAO090136	136.4211	137.5303	137.0103	1.9475e-01	1.9030e+00
11	TAO100136	115.9087	116.6269	116.2207	1.5217e-01	1.9014e+00
12	TAO105136	116.5175	117.4402	117.0259	2.6834e-01	1.9015e+00
13	EMPTY	-601.0594	-601.0594	-601.0591	3.6993e-04	2.1295e+00
14	TAO115136	121.9566	122.7755	122.3827	1.9989e-01	1.9018e+00
15	EMPTY	37.3074	37.5374	37.3350	7.5526e-02	1.9009e+00
16	TAO125136	123.1140	123.8275	123.4038	1.3239e-01	1.9019e+00
17	EMPTY	44.8706	45.7833	45.2221	2.0724e-01	1.9014e+00
18	EMPTY	41.4403	41.8984	41.5548	1.2461e-01	1.9012e+00
19	TAO130048	116.2165	116.7297	116.4916	1.4246e-01	1.9015e+00
20	TAO120224	118.2430	119.1646	118.7553	2.0165e-01	1.9016e+00
21	EMPTY	39.1464	39.6057	39.1970	1.0670e-01	1.9010e+00
22	TAO120312	120.8308	121.8534	121.2684	2.1680e-01	1.9018e+00
23	TAO130312	117.2048	117.9220	117.6228	1.6133e-01	1.9015e+00
24	EMPTY	38.9168	39.6057	39.2199	1.7630e-01	1.9010e+00
25	TRT070000	111.6177	112.5505	112.0910	1.9975e-01	1.9012e+00
26	TRT100000	118.7195	119.7423	119.2678	2.3254e-01	1.9016e+00
27	TRT120000	118.0436	118.9653	118.5311	1.8567e-01	1.9016e+00
28	TRT125000	120.4472	121.1603	120.7372	1.5719e-01	1.9017e+00
29	EMPTY	39.6057	40.0646	39.7985	1.4185e-01	1.9011e+00
30	EMPTY	39.1464	40.0646	39.5965	2.2223e-01	1.9011e+00
31	TAF050136	92.8191	93.5499	93.1784	1.6475e-01	1.9004e+00
32	TAF070136	95.4734	96.3038	95.9877	2.0324e-01	1.9005e+00
33	TAF080136	96.4020	97.1299	96.7227	1.8954e-01	1.9005e+00
34	TAF090136	97.4328	98.2645	97.9069	2.3589e-01	1.9005e+00
35	TAF100136	99.2347	99.9631	99.5428	1.6279e-01	1.9006e+00
36	TAF105136	100.2483	101.0756	100.7769	2.1105e-01	1.9006e+00
37	TAF110136	101.4822	102.4140	101.9339	1.5896e-01	1.9007e+00
38	TAF115136	102.4620	103.4973	103.0583	2.1070e-01	1.9007e+00
39	TAF120136	103.3834	104.1077	103.7189	1.5144e-01	1.9008e+00
40	TAF125136	104.1733	105.3075	104.6195	2.6665e-01	1.9008e+00
41	TAF130136	104.7842	105.5083	105.1855	1.4558e-01	1.9008e+00
42	TAF120048	103.2175	104.0504	103.6747	2.3901e-01	1.9008e+00
43	TAF130048	103.9614	104.5826	104.3219	1.3270e-01	1.9008e+00
44	TAF120224	102.8570	103.6853	103.4080	1.8405e-01	1.9008e+00
45	TAF130224	104.0247	104.6476	104.3815	1.3783e-01	1.9008e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	37.8962	2.5934e-01	1.9010e+00
47	EMPTY	38.9168	39.3761	39.1143	1.3928e-01	1.9010e+00
48	TAI130048	122.6687	123.2810	122.9913	1.3579e-01	1.9019e+00
49	TAI130136	122.1664	122.7782	122.5216	1.4008e-01	1.9019e+00
50	TAI130224	105.3832	108.9035	107.2851	7.5371e-01	1.9009e+00
51	TAI130312	119.8648	121.9113	121.0030	4.0217e-01	1.9018e+00
52	TRR130000	101.7904	104.6796	102.9422	6.9593e-01	1.9007e+00
53	TSI000001	40.7033	41.3571	40.9915	1.5044e-01	1.9006e+00
54	TSI000002	88.0079	89.8901	88.7911	4.2981e-01	1.9002e+00
55	TSO000001	40.0993	40.7561	40.3973	1.7426e-01	1.9006e+00
56	TSO000002	45.4415	46.2021	45.7675	1.9630e-01	1.9004e+00
57	TAF020136	87.4997	88.3429	88.0311	1.8678e-01	1.9002e+00
58	EMPTY	42.8139	43.5000	43.1386	2.5762e-01	1.9013e+00
59	TAF130312	104.6360	105.4630	105.1449	1.7203e-01	1.9008e+00
60	EMPTY	0.9277	0.9375	0.9334	2.0598e-03	0.0000e+00
61	EMPTY	0.9424	0.9473	0.9435	2.0432e-03	0.0000e+00
62	EMPTY	0.9521	0.9570	0.9536	2.2603e-03	0.0000e+00
63	EMPTY	0.9668	0.9717	0.9679	2.0432e-03	0.0000e+00
64	EMPTY	0.5420	0.5420	0.5420	0.0000e+00	0.0000e+00
65	EMPTY	0.5615	0.5664	0.5616	6.9053e-04	0.0000e+00
66	EMPTY	0.5762	0.5811	0.5763	6.9053e-04	0.0000e+00
67	EMPTY	0.5908	0.5957	0.5917	1.8950e-03	0.0000e+00
68	EMPTY	0.6055	0.6104	0.6056	6.9053e-04	0.0000e+00
69	EMPTY	0.6201	0.6250	0.6211	1.9730e-03	0.0000e+00
70	EMPTY	0.6299	0.6396	0.6387	2.2058e-03	0.0000e+00
71	EMPTY	0.6592	0.6641	0.6595	1.1714e-03	0.0000e+00
72	EMPTY	0.6689	0.6738	0.6737	6.9053e-04	0.0000e+00
73	EMPTY	0.6836	0.6934	0.6903	2.5894e-03	0.0000e+00
74	EMPTY	0.7031	0.7080	0.7041	1.9730e-03	0.0000e+00
75	EMPTY	0.7178	0.7227	0.7211	2.3008e-03	0.0000e+00
76	EMPTY	0.7324	0.7373	0.7341	2.3365e-03	0.0000e+00
77	EMPTY	0.7520	0.7568	0.7523	1.3381e-03	0.0000e+00
78	EMPTY	0.7715	0.7764	0.7753	2.0432e-03	0.0000e+00
79	EMPTY	0.7910	0.7959	0.7958	6.9053e-04	0.0000e+00
80	PAN020136	69.6272	73.8997	71.3942	1.0240e+00	8.8812e-01
81	PAN050136	135.7084	137.3869	136.4500	4.4461e-01	1.7143e+00
82	PAN070136	101.3054	101.3054	101.3055	3.8534e-05	9.0611e-01
83	PAN080136	45.3128	46.4572	45.7782	2.5619e-01	8.7750e-01
84	PAN090136	43.8208	44.6600	44.2984	1.7629e-01	8.7702e-01
85	PAN100136	45.3188	46.2343	45.7872	2.4323e-01	8.7750e-01
86	PAN105136	31.4603	32.1469	31.7777	1.4073e-01	8.7362e-01
87	PAN110136	26.2415	26.6993	26.4353	1.0922e-01	8.7251e-01
88	PAN115136	22.1847	22.7187	22.3922	1.1012e-01	8.7180e-01
89	PAN120136	17.4853	18.0194	17.6944	1.2693e-01	8.7112e-01
90	PAN125136	18.3201	18.7016	18.5154	9.5216e-02	8.7123e-01
91	PAN130136	16.6212	17.0027	16.7814	7.8972e-02	8.7101e-01
92	PAN120048	41.6141	42.8348	42.2305	2.6066e-01	8.7638e-01
93	PAN130048	36.4569	36.9910	36.6598	1.3666e-01	8.7481e-01
94	PAN120224	41.4088	42.0954	41.7063	1.4964e-01	8.7623e-01
95	PAN130224	36.5215	37.2082	36.8084	1.5533e-01	8.7485e-01
96	PAN120312	42.3668	42.9009	42.6094	1.3586e-01	8.7650e-01
97	PAN130312	33.9319	34.5423	34.1318	1.3777e-01	8.7417e-01
98	PAB000136	40.0072	40.4650	40.2645	1.1360e-01	5.8867e-01
99	PAB100136	23.8402	24.0691	23.9180	5.7940e-02	5.8307e-01
100	PAB125136	19.6191	19.7565	19.6915	4.1452e-02	5.8209e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.7346	40.5891	40.1155	2.1163e-01	7.5668e-01
102	PRV0000001	15.4098	15.5319	15.4611	6.0861e-02	7.5100e-01
103	PSR0000001	16.4169	16.6611	16.5512	4.4460e-02	7.5114e-01
104	PFH0000001	105.2750	107.0145	106.1008	4.3041e-01	5.6600e-01
105	PAN000136	582.7075	590.9472	585.9025	1.9953e+00	5.1334e+00
106	PFH0000002	27.5718	27.5718	27.5718	7.7069e-06	2.1154e-01
107	EMPTY	0.0049	0.0098	0.0089	1.8950e-03	0.0000e+00
108	EMPTY	-8.5449	-6.6406	-7.4103	4.8814e-01	0.0000e+00
109	EMPTY	0.0049	0.0098	0.0055	1.6028e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0009	1.8950e-03	0.0000e+00
112	VPW0000001	101.3372	102.7043	101.9777	3.7024e-01	1.0151e+00
113	VPW0000002	118.3481	119.3247	118.8364	2.2058e-01	1.0791e+00
114	VPW0000003	146.2440	147.4159	146.7948	2.1860e-01	1.1966e+00
115	VPW0000004	104.2443	105.2208	104.7951	2.3901e-01	1.0254e+00
116	VPW0000005	138.5517	139.5282	139.0830	2.3022e-01	1.1630e+00
117	VPW0000006	145.1510	146.1275	145.6197	2.2321e-01	1.1914e+00
118	IPW0000001	539.8232	561.2990	550.8733	5.9898e+00	9.1951e+00
119	IPW0000002	1289.3387	1306.9001	1299.6415	3.7614e+00	1.3078e+01
120	IPW0000003	1321.8375	1335.4875	1328.8575	3.3660e+00	1.3260e+01
121	IPW0000004	375.2817	379.1880	376.8831	8.6585e-01	3.5867e+00
122	IPW0000005	253.9841	256.9135	255.4099	5.3882e-01	2.8410e+00
123	IPW0000006	266.7236	270.1416	268.4033	6.1732e-01	2.9148e+00
124	EMPTY	-0.0293	-0.0146	-0.0219	3.8511e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0150	3.5348e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0146	-0.0191	3.5348e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0167	3.1335e-03	0.0000e+00
128	IHT0000001	131.2312	133.7703	132.5516	5.8999e-01	4.3089e+00
129	IHT0000002	130.6265	132.9702	131.8960	5.5278e-01	4.3069e+00
130	IHT0000003	128.9175	131.4566	130.3394	5.1454e-01	4.3022e+00
131	IHT0000004	131.4941	133.8379	132.8887	4.9914e-01	4.3100e+00
132	IHT0000005	129.8340	131.9824	131.1348	5.1691e-01	4.3046e+00
133	IHT0000006	125.7812	127.9297	126.8359	4.9442e-01	4.2917e+00
134	IHT0000007	131.9524	134.2961	133.0929	4.8866e-01	4.3106e+00
135	IHT0000008	130.4199	132.9590	131.8379	5.3932e-01	4.3068e+00
136	IHT0000009	130.0706	132.8050	131.5902	5.7085e-01	4.3060e+00
137	IHT0000010	130.3110	132.6547	131.5884	5.6801e-01	4.3060e+00
138	IHT0000011	131.8021	134.1459	132.8413	5.6695e-01	4.3098e+00
139	IHT0000012	130.9683	133.5074	131.9683	5.6032e-01	4.3072e+00
140	IHT0000013	92.1838	94.5275	93.1252	5.1854e-01	4.2044e+00
141	IHT0000014	127.6630	130.0068	128.7373	5.4995e-01	4.2974e+00
142	IHT0000015	94.9143	97.0628	95.9378	5.3606e-01	4.2107e+00
143	IHT0000016	89.2578	91.9922	90.1758	5.3996e-01	4.1980e+00
144	IHT0000017	104.0753	108.3722	106.2237	9.7776e-01	4.2354e+00
145	IHT0000018	107.1740	109.7131	108.1271	5.6447e-01	4.2402e+00
146	IHT0000019	107.4407	109.3938	108.3508	4.4048e-01	4.2408e+00
147	IHT0000020	106.1899	108.7289	107.2798	4.8823e-01	4.2380e+00
148	IHT0000021	-2.6255	0.1089	-1.6411	5.4385e-01	4.1000e+00
149	IHT0000022	92.7509	95.4853	94.1025	5.5781e-01	4.2066e+00
150	IHT0000023	105.6040	107.9477	106.4946	4.8834e-01	4.2360e+00
151	IHT0000024	70.7482	73.2873	71.7014	4.7946e-01	4.1622e+00
152	IHT0000025	102.4114	105.1457	103.4348	5.0155e-01	4.2285e+00
153	IHT0000026	104.6988	107.6285	106.0972	4.9183e-01	4.2351e+00
154	IHT0000027	89.4193	92.7396	91.2162	5.8925e-01	4.2002e+00
155	IHT0000028	91.1997	93.7387	92.1489	5.8128e-01	4.2023e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	106.2237	108.5675	107.1338	5.6855e-01	4.2377e+00
157	IHT0000030	108.7177	111.6474	109.8193	6.1226e-01	4.2445e+00
158	IHT0000031	106.6031	109.7281	107.8257	6.0850e-01	4.2394e+00
159	IHT0000032	107.4294	110.3591	108.7106	6.1657e-01	4.2417e+00
160	IHT0000033	107.4219	110.3516	108.6484	6.3508e-01	4.2415e+00
161	IHT0000034	94.1106	96.8450	95.2590	4.8751e-01	4.2092e+00
162	IHT0000035	123.9258	127.0508	125.2227	5.2014e-01	4.2870e+00
163	IHT0000036	92.5894	95.5191	93.8550	5.3560e-01	4.2061e+00

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Velocity 1 = 20.0315 (ft/sec) (+/- 3.4939 %)
 Velocity 2 = 13.3253 (ft/sec) (+/- 3.4863 %)
 Pressure drop = 10.3245 (psi)
 Tsat in = 267.3466 (deg F) Tsat out = 250.4015 (deg F)
 Phi inner = 99.0387 (kBtu/hr-ft2) (+/- 1.5737 %)
 Phi outer = 100.3249 (kBtu/hr-ft2) (+/- 1.5514 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	73.3267	73.7524	73.6290	1.6144e-01	1.9000e+00
1	TRF000002	73.8757	74.2992	74.1171	1.2105e-01	1.9000e+00
2	TFH000001	85.3717	86.2114	85.8799	1.8023e-01	1.9002e+00
3	TIN000001	85.6778	86.3085	86.0606	1.3394e-01	1.9002e+00
4	TRV000001	86.3247	87.1624	86.8021	2.1072e-01	1.9002e+00
5	TSR000001	108.9552	110.0862	109.5641	2.8899e-01	1.9011e+00
6	EMPTY	37.9974	38.6870	38.3698	2.4524e-01	1.9010e+00
7	TAO050136	122.2129	122.9258	122.6325	1.7161e-01	1.9019e+00
8	TAO070136	121.2213	121.9397	121.5907	1.7200e-01	1.9018e+00
9	TAO080136	122.4743	123.0855	122.8006	1.3168e-01	1.9019e+00
10	TAO090136	142.0539	142.9579	142.5844	1.9566e-01	1.9035e+00
11	TAO100136	124.6922	125.3034	125.0509	1.5296e-01	1.9020e+00
12	TAO105136	125.2006	126.4225	125.9054	3.2045e-01	1.9021e+00
13	EMPTY	-601.0594	-601.0594	-601.0591	3.6993e-04	2.1295e+00
14	TAO115136	131.5559	132.2674	131.9750	1.9871e-01	1.9026e+00
15	EMPTY	37.3074	37.5374	37.3304	6.9725e-02	1.9009e+00
16	TAO125136	133.1291	133.6342	133.4481	1.2651e-01	1.9027e+00
17	EMPTY	44.8706	45.5552	45.2129	1.9147e-01	1.9014e+00
18	EMPTY	41.4403	41.6693	41.5227	1.1107e-01	1.9012e+00
19	TAO130048	125.1705	125.7808	125.5247	1.5126e-01	1.9021e+00
20	TAO120224	127.8315	128.3400	128.0636	1.5913e-01	1.9023e+00
21	EMPTY	38.9168	39.3761	39.1602	1.0792e-01	1.9010e+00
22	TAO120312	130.3125	131.5307	130.9624	2.4704e-01	1.9025e+00
23	TAO130312	126.3708	126.9808	126.7207	1.5795e-01	1.9022e+00
24	EMPTY	38.9168	39.3761	39.1878	1.5170e-01	1.9010e+00
25	TRT070000	118.7516	119.6783	119.2795	2.3586e-01	1.9016e+00
26	TRT100000	128.1866	128.8974	128.5281	1.6380e-01	1.9023e+00
27	TRT120000	127.9334	128.5435	128.2264	1.4322e-01	1.9023e+00
28	TRT125000	130.0601	130.8682	130.4440	1.8481e-01	1.9025e+00
29	EMPTY	39.6057	40.0646	39.8352	9.2730e-02	1.9011e+00
30	EMPTY	39.1464	40.0646	39.6470	2.2090e-01	1.9011e+00
31	TAF050136	96.2495	96.8734	96.5660	1.7443e-01	1.9005e+00
32	TAF070136	99.5086	100.4385	99.9545	2.3186e-01	1.9006e+00
33	TAF080136	100.7364	101.3577	101.0806	1.5272e-01	1.9007e+00
34	TAF090136	102.1018	103.1378	102.6532	2.3620e-01	1.9007e+00
35	TAF100136	104.4280	105.0496	104.7968	1.6504e-01	1.9008e+00
36	TAF105136	105.9970	106.9215	106.3716	2.3530e-01	1.9009e+00
37	TAF110136	107.4547	108.1755	107.8424	1.6060e-01	1.9010e+00
38	TAF115136	108.7528	109.5767	109.1610	1.9733e-01	1.9010e+00
39	TAF120136	109.7541	110.3714	110.1410	1.5482e-01	1.9011e+00
40	TAF125136	110.8373	111.8612	111.2436	2.4285e-01	1.9011e+00
41	TAF130136	111.7816	112.1934	112.0412	1.1808e-01	1.9012e+00
42	TAF120048	109.4593	110.3915	109.9932	2.4345e-01	1.9011e+00
43	TAF130048	110.5658	111.1838	110.9779	1.4862e-01	1.9011e+00
44	TAF120224	109.2548	110.0789	109.7165	1.6285e-01	1.9011e+00
45	TAF130224	110.6658	111.2850	111.1160	1.4410e-01	1.9011e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	37.9468	2.1934e-01	1.9010e+00
47	EMPTY	38.9168	39.3761	39.1556	7.9824e-02	1.9010e+00
48	TAI130048	132.2230	133.0333	132.7134	1.5502e-01	1.9026e+00
49	TAI130136	132.0962	132.7034	132.4041	1.3248e-01	1.9026e+00
50	TAI130224	106.9371	109.1098	107.9886	5.3795e-01	1.9010e+00
51	TAI130312	113.8098	115.0435	114.5049	2.3368e-01	1.9013e+00
52	TRR130000	102.0995	104.2682	103.2981	6.0540e-01	1.9007e+00
53	TSI000001	41.2477	41.9010	41.5877	1.7126e-01	1.9005e+00
54	TSI000002	85.4954	87.1727	86.2884	3.7643e-01	1.9002e+00
55	TSO000001	40.4274	41.1934	40.8084	1.9684e-01	1.9006e+00
56	TSO000002	46.3101	47.1783	46.6533	1.8783e-01	1.9004e+00
57	TAP020136	89.5040	90.5553	90.1474	1.9550e-01	1.9003e+00
58	EMPTY	42.8139	43.5000	43.1570	2.1794e-01	1.9013e+00
59	TAF130312	111.8446	112.4617	112.2355	1.5545e-01	1.9012e+00
60	EMPTY	1.0938	1.0986	1.0963	2.4642e-03	0.0000e+00
61	EMPTY	1.1035	1.1084	1.1073	2.0432e-03	0.0000e+00
62	EMPTY	1.1133	1.1182	1.1170	2.1065e-03	0.0000e+00
63	EMPTY	1.1279	1.1328	1.1289	1.9730e-03	0.0000e+00
64	EMPTY	0.6006	0.6104	0.6055	1.3951e-03	0.0000e+00
65	EMPTY	0.6201	0.6250	0.6238	2.1065e-03	0.0000e+00
66	EMPTY	0.6348	0.6396	0.6394	1.1714e-03	0.0000e+00
67	EMPTY	0.6494	0.6592	0.6544	1.2041e-03	0.0000e+00
68	EMPTY	0.6641	0.6689	0.6678	2.1065e-03	0.0000e+00
69	EMPTY	0.6787	0.6885	0.6839	1.5314e-03	0.0000e+00
70	EMPTY	0.6982	0.6982	0.6982	0.0000e+00	0.0000e+00
71	EMPTY	0.7178	0.7227	0.7207	2.4164e-03	0.0000e+00
72	EMPTY	0.7324	0.7373	0.7325	6.9053e-04	0.0000e+00
73	EMPTY	0.7471	0.7520	0.7507	2.1635e-03	0.0000e+00
74	EMPTY	0.7617	0.7666	0.7648	2.3675e-03	0.0000e+00
75	EMPTY	0.7764	0.7813	0.7805	1.8082e-03	0.0000e+00
76	EMPTY	0.7910	0.7959	0.7940	2.3941e-03	0.0000e+00
77	EMPTY	0.8105	0.8154	0.8115	1.9730e-03	0.0000e+00
78	EMPTY	0.8301	0.8350	0.8339	2.0432e-03	0.0000e+00
79	EMPTY	0.8545	0.8545	0.8545	0.0000e+00	0.0000e+00
80	PANO20136	32.7010	34.5320	33.3327	4.3761e-01	8.7398e-01
81	PANO50136	67.0439	68.4172	67.6817	4.0861e-01	1.6885e+00
82	PANO70136	50.2648	51.2566	50.8034	2.4048e-01	8.7922e-01
83	PANO80136	22.4246	23.2639	22.7191	1.7371e-01	8.7185e-01
84	PANO90136	21.1615	22.1533	21.5170	2.3710e-01	8.7166e-01
85	PANI00136	20.7521	21.4388	21.0878	1.5794e-01	8.7160e-01
86	PANI05136	15.0571	15.7437	15.3745	1.4893e-01	8.7085e-01
87	PANI10136	14.0345	14.6448	14.3961	1.3509e-01	8.7074e-01
88	PANI15136	12.4953	12.8768	12.7288	1.0613e-01	8.7058e-01
89	PANI20136	6.3464	6.8042	6.6150	1.2354e-01	8.7016e-01
90	PANI25136	8.6308	9.1649	8.8399	9.4779e-02	8.7028e-01
91	PANI30136	8.3051	8.6103	8.5127	8.4481e-02	8.7026e-01
92	PANI20048	20.4043	21.0910	20.7858	1.4127e-01	8.7155e-01
93	PANI30048	18.2989	18.7567	18.5355	1.2919e-01	8.7123e-01
94	PANI20224	20.0464	20.8094	20.3516	1.5414e-01	8.7149e-01
95	PANI30224	17.7532	18.3636	18.0309	1.3679e-01	8.7117e-01
96	PANI20312	20.7756	21.4623	21.1632	1.6081e-01	8.7161e-01
97	PANI30312	16.9184	17.4524	17.1061	1.3718e-01	8.7105e-01
98	PAB000136	39.7783	40.1903	39.9852	1.0225e-01	5.8855e-01
99	PAB100136	31.9426	32.1257	32.0442	5.0051e-02	5.8551e-01
100	PAB125136	29.9188	30.0561	29.9756	4.0902e-02	5.8482e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.3684	40.1008	39.7493	1.8062e-01	7.5655e-01
102	PRV000001	15.7760	15.8981	15.8834	4.0071e-02	7.5105e-01
103	PSR000001	28.0136	28.2578	28.1772	6.3406e-02	7.5330e-01
104	PFH000001	61.8790	63.3439	62.6004	3.3378e-01	5.2392e-01
105	PAN000136	281.4990	290.1965	285.8385	2.0182e+00	4.9716e+00
106	PFH000002	27.5718	27.5718	27.5718	7.7069e-06	2.1154e-01
107	EMPTY	0.0049	0.0098	0.0065	2.3365e-03	0.0000e+00
108	EMPTY	-8.0713	-7.6709	-7.8647	7.2787e-02	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0047	9.6655e-04	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0002	9.6655e-04	0.0000e+00
112	VPW000001	101.7278	102.3137	101.9504	1.3093e-01	1.0150e+00
113	VPW000002	118.7387	119.1293	118.8989	1.2901e-01	1.0794e+00
114	VPW000003	146.4393	147.0252	146.6464	1.3329e-01	1.1959e+00
115	VPW000004	104.4396	105.0255	104.7990	1.4423e-01	1.0254e+00
116	VPW000005	138.7470	139.3329	139.0283	1.3182e-01	1.1627e+00
117	VPW000006	145.3463	145.7369	145.5298	1.2104e-01	1.1910e+00
118	IPW000001	561.2990	571.0607	566.9608	3.1369e+00	9.2559e+00
119	IPW000002	1277.6311	1291.2900	1285.7095	3.3220e+00	1.2991e+01
120	IPW000003	1306.2375	1314.0375	1310.1761	1.8263e+00	1.3143e+01
121	IPW000004	378.2114	382.1177	380.4280	7.8430e-01	3.6100e+00
122	IPW000005	253.9841	255.4488	254.5310	4.0236e-01	2.8361e+00
123	IPW000006	265.7471	267.2119	266.3037	3.8219e-01	2.9028e+00
124	EMPTY	-0.0293	-0.0098	-0.0200	4.6532e-03	0.0000e+00
125	EMPTY	-0.0244	-0.0098	-0.0145	3.2658e-03	0.0000e+00
126	EMPTY	-0.0293	-0.0098	-0.0176	3.9459e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0146	-0.0171	3.1583e-03	0.0000e+00
128	IHT000001	131.2312	133.7703	132.4383	5.8486e-01	4.3086e+00
129	IHT000002	130.6265	132.9702	131.8101	5.3585e-01	4.3067e+00
130	IHT000003	129.1128	131.8472	130.4214	5.4569e-01	4.3024e+00
131	IHT000004	131.6895	134.0332	132.8770	5.2621e-01	4.3099e+00
132	IHT000005	129.8340	132.1777	131.0527	5.2728e-01	4.3044e+00
133	IHT000006	125.5859	128.1250	126.7305	5.3381e-01	4.2914e+00
134	IHT000007	131.7571	134.1008	132.9171	5.4449e-01	4.3101e+00
135	IHT000008	130.6152	132.7637	131.6504	5.0417e-01	4.3062e+00
136	IHT000009	130.4612	132.8050	131.3753	5.5022e-01	4.3053e+00
137	IHT000010	130.1157	132.8501	131.6391	5.1448e-01	4.3061e+00
138	IHT000011	131.2162	133.9506	132.7944	5.0043e-01	4.3097e+00
139	IHT000012	130.1871	132.9214	131.8628	5.2510e-01	4.3068e+00
140	IHT000013	91.7931	94.1369	93.1369	4.4928e-01	4.2045e+00
141	IHT000014	127.2724	129.8114	128.7216	4.8503e-01	4.2973e+00
142	IHT000015	94.5237	96.6722	95.8753	4.5990e-01	4.2106e+00
143	IHT000016	88.6719	90.8203	90.0430	4.4203e-01	4.1977e+00
144	IHT000017	104.6612	108.3722	106.5362	9.5520e-01	4.2362e+00
145	IHT000018	106.3927	109.7131	108.1037	5.8867e-01	4.2401e+00
146	IHT000019	106.6594	109.5891	108.3898	5.4820e-01	4.2409e+00
147	IHT000020	105.6039	108.5336	107.1352	5.7231e-01	4.2377e+00
148	IHT000021	-3.4067	-0.2817	-1.6958	6.9313e-01	4.1000e+00
149	IHT000022	92.5556	95.0947	93.9033	5.6531e-01	4.2062e+00
150	IHT000023	105.0180	107.3618	106.3345	5.5075e-01	4.2356e+00
151	IHT000024	70.3576	72.7013	71.5529	5.0937e-01	4.1620e+00
152	IHT000025	102.2161	104.3645	103.4035	5.1273e-01	4.2284e+00
153	IHT000026	104.8941	107.0425	106.0776	5.3000e-01	4.2350e+00
154	IHT000027	89.8100	92.1537	91.1811	5.0608e-01	4.2002e+00
155	IHT000028	90.8091	93.7387	92.0864	6.8710e-01	4.2021e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.8331	108.7628	107.1299	6.8204e-01	4.2377e+00
157	IHT000030	108.1318	111.2568	109.7255	7.0626e-01	4.2443e+00
158	IHT000031	106.2124	109.1421	107.7046	6.7515e-01	4.2391e+00
159	IHT000032	107.0388	110.1638	108.6637	7.0855e-01	4.2416e+00
160	IHT000033	107.0313	109.9609	108.6055	6.7705e-01	4.2414e+00
161	IHT000034	93.9153	96.4543	95.2824	5.7453e-01	4.2093e+00
162	IHT000035	124.1211	126.2695	125.1797	5.4689e-01	4.2868e+00
163	IHT000036	92.7637	94.9332	93.8706	5.4983e-01	4.2061e+00

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Velocity 1 - 14.0278 (ft/sec) (+/- 3.5660 %)
 Velocity 2 - 13.3245 (ft/sec) (+/- 3.4863 %)
 Pressure drop - 2.3933 (psi)
 Tsat in - 267.5211 (deg F) Tsat out - 263.9876 (deg F)
 Phi inner - 99.0662 (kBtu/hr-ft2) (+/- 1.5736 %)
 Phi outer - 99.6705 (kBtu/hr-ft2) (+/- 1.5540 %)
 D inner - 0.1973 (ft) D outer - 0.2412 (ft) D hyd - 0.0438 (ft)
 L inner - 12.8330 (ft) L outer - 12.8330 (ft) A flow - 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	73.5396	74.1780	73.8120	1.7222e-01	1.9000e+00
1	TRF0000002	73.8757	74.5108	74.2314	1.1666e-01	1.9000e+00
2	TFM0000001	84.7431	85.5832	85.1298	1.9834e-01	1.9002e+00
3	TIN0000001	85.0466	85.6781	85.3539	1.5601e-01	1.9002e+00
4	TRV0000001	85.3828	86.1163	85.7019	2.1073e-01	1.9002e+00
5	TSR0000001	117.2481	120.0020	118.9539	8.0135e-01	1.9016e+00
6	EMPTY	37.7675	38.6870	38.3790	2.3955e-01	1.9010e+00
7	TAO050136	136.9645	137.6694	137.2306	1.6248e-01	1.9030e+00
8	TAO070136	132.2634	132.9747	132.6331	1.9237e-01	1.9026e+00
9	TAO080136	133.7889	134.3954	134.1081	1.3739e-01	1.9028e+00
10	TAO090136	153.3479	154.1453	153.7823	2.1465e-01	1.9047e+00
11	TAO100136	138.0595	138.6645	138.3501	1.5994e-01	1.9031e+00
12	TAO105136	138.9749	139.7811	139.3823	2.1337e-01	1.9032e+00
13	EMPTY	-601.0594	-601.0594	-601.0591	3.6993e-04	2.1295e+00
14	TAO115136	146.2286	147.2332	146.6708	2.1773e-01	1.9040e+00
15	EMPTY	37.5374	37.7675	37.6065	1.0648e-01	1.9010e+00
16	TAO125136	148.8547	149.4547	149.1228	1.5026e-01	1.9042e+00
17	EMPTY	44.8706	45.5552	45.2312	1.6030e-01	1.9014e+00
18	EMPTY	41.4403	41.6693	41.5411	1.1486e-01	1.9012e+00
19	TAO130048	139.2893	139.8936	139.6073	1.5390e-01	1.9033e+00
20	TAO120224	142.0838	142.8881	142.4741	2.0380e-01	1.9035e+00
21	EMPTY	38.9168	39.6057	39.2337	1.5309e-01	1.9010e+00
22	TAO120312	145.4632	146.4673	145.9853	2.4923e-01	1.9039e+00
23	TAO130312	140.5018	141.3060	140.9001	1.6623e-01	1.9034e+00
24	EMPTY	38.9168	39.6057	39.2934	1.7209e-01	1.9010e+00
25	TRT070000	132.7001	133.5146	133.1523	2.0058e-01	1.9027e+00
26	TRT100000	142.6109	143.3140	142.9285	1.7144e-01	1.9036e+00
27	TRT120000	143.1824	143.9854	143.6039	1.6236e-01	1.9036e+00
28	TRT125000	145.3933	146.0929	145.7051	1.8126e-01	1.9039e+00
29	EMPTY	39.6057	40.0646	39.8535	9.0851e-02	1.9011e+00
30	EMPTY	39.1464	40.0646	39.6470	2.1095e-01	1.9011e+00
31	TAF050136	99.6701	100.6028	100.2051	2.0656e-01	1.9006e+00
32	TAF070136	104.3530	105.2794	104.8632	2.1013e-01	1.9008e+00
33	TAF080136	106.3900	107.0073	106.6906	1.6476e-01	1.9009e+00
34	TAF090136	108.3014	109.4349	108.8948	2.9705e-01	1.9010e+00
35	TAF100136	111.5594	112.3841	112.0091	2.0480e-01	1.9012e+00
36	TAF105136	113.4505	114.4701	114.0633	2.2480e-01	1.9013e+00
37	TAF110136	116.0544	116.5665	116.2802	1.5477e-01	1.9014e+00
38	TAF115136	117.6710	118.3872	118.0927	1.7850e-01	1.9016e+00
39	TAF120136	119.1484	120.0659	119.5079	1.5329e-01	1.9017e+00
40	TAF125136	120.5127	121.5285	121.0784	2.5640e-01	1.9018e+00
41	TAF130136	122.0025	122.6151	122.2436	1.3324e-01	1.9018e+00
42	TAF120048	118.9719	119.8972	119.4282	2.2589e-01	1.9016e+00
43	TAF130048	120.7148	121.2265	121.0217	1.3857e-01	1.9018e+00
44	TAF120224	118.5871	119.4053	118.9392	2.0470e-01	1.9016e+00
45	TAF130224	120.7691	121.4867	121.1544	1.5706e-01	1.9018e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	37.9974	2.1790e-01	1.9010e+00
47	EMPTY	38.9168	39.3761	39.2383	1.2275e-01	1.9010e+00
48	TAI130048	147.7275	148.2284	147.9240	1.2305e-01	1.9041e+00
49	TAI130136	147.3504	147.9506	147.6666	1.3000e-01	1.9041e+00
50	TAI130224	107.9718	109.4200	108.7911	3.1184e-01	1.9010e+00
51	TAI130312	119.9672	120.9909	120.5813	2.2365e-01	1.9017e+00
52	TRR130000	102.9264	105.0937	104.2602	4.5938e-01	1.9008e+00
53	TSI0000001	41.0316	41.6844	41.3579	1.7737e-01	1.9006e+00
54	TSI0000002	85.4960	87.1732	86.3267	3.5863e-01	1.9002e+00
55	TSO0000001	40.0974	40.8644	40.5010	1.8564e-01	1.9006e+00
56	TSO0000002	46.6362	47.5039	47.0570	2.0285e-01	1.9004e+00
57	TAF020136	90.9777	91.7130	91.3052	1.9178e-01	1.9003e+00
58	EMPTY	42.8139	43.5000	43.1890	2.5205e-01	1.9013e+00
59	TAF130312	122.3779	123.1935	122.7452	1.9317e-01	1.9019e+00
60	EMPTY	1.3379	1.3428	1.3409	2.3941e-03	0.0000e+00
61	EMPTY	1.3477	1.3525	1.3486	1.9730e-03	0.0000e+00
62	EMPTY	1.3525	1.3623	1.3572	1.3811e-03	0.0000e+00
63	EMPTY	1.3672	1.3721	1.3674	9.6655e-04	0.0000e+00
64	EMPTY	0.7080	0.7129	0.7119	1.9730e-03	0.0000e+00
65	EMPTY	0.7227	0.7324	0.7278	1.5314e-03	0.0000e+00
66	EMPTY	0.7422	0.7471	0.7425	1.1714e-03	0.0000e+00
67	EMPTY	0.7568	0.7617	0.7571	1.1714e-03	0.0000e+00
68	EMPTY	0.7715	0.7715	0.7715	0.0000e+00	0.0000e+00
69	EMPTY	0.7861	0.7910	0.7862	6.9053e-04	0.0000e+00
70	EMPTY	0.8008	0.8008	0.8008	0.0000e+00	0.0000e+00
71	EMPTY	0.8203	0.8252	0.8214	2.0432e-03	0.0000e+00
72	EMPTY	0.8350	0.8350	0.8350	0.0000e+00	0.0000e+00
73	EMPTY	0.8496	0.8545	0.8501	1.4797e-03	0.0000e+00
74	EMPTY	0.8643	0.8643	0.8643	0.0000e+00	0.0000e+00
75	EMPTY	0.8740	0.8789	0.8767	9.6655e-04	0.0000e+00
76	EMPTY	0.8887	0.8936	0.8933	1.1714e-03	0.0000e+00
77	EMPTY	0.9082	0.9131	0.9093	2.0432e-03	0.0000e+00
78	EMPTY	0.9277	0.9326	0.9322	1.3381e-03	0.0000e+00
79	EMPTY	0.9521	0.9570	0.9523	9.6655e-04	0.0000e+00
80	PAN020136	6.4558	7.2951	6.7809	1.8355e-01	8.7017e-01
81	PAN050136	15.7743	16.5373	16.2199	2.0177e-01	1.6805e+00
82	PAN070136	12.6519	13.2622	12.9799	1.4148e-01	8.7060e-01
83	PAN080136	4.3430	4.8007	4.6039	9.7594e-02	8.7008e-01
84	PAN090136	4.9872	5.5212	5.2664	1.0523e-01	8.7010e-01
85	PAN100136	3.5860	3.9674	3.7721	9.8888e-02	8.7005e-01
86	PAN105136	5.7492	6.1307	5.9293	8.9559e-02	8.7013e-01
87	PAN110136	2.7430	3.1245	2.8757	9.9666e-02	8.7003e-01
88	PAN115136	3.2638	3.5690	3.4042	8.0624e-02	8.7004e-01
89	PAN120136	0.2429	0.5481	0.3635	7.2444e-02	8.7000e-01
90	PAN125136	1.1540	1.4592	1.2944	8.0624e-02	8.7001e-01
91	PAN130136	1.3624	1.6676	1.5531	8.0462e-02	8.7001e-01
92	PAN120048	4.7641	5.1455	4.9136	1.1111e-01	8.7009e-01
93	PAN130048	3.3453	3.7268	3.4872	8.7207e-02	8.7004e-01
94	PAN120224	4.0247	4.4062	4.2261	8.9559e-02	8.7006e-01
95	PAN130224	3.1811	3.6388	3.4206	9.6271e-02	8.7004e-01
96	PAN120312	4.7539	5.1354	4.9858	9.4966e-02	8.7009e-01
97	PAN130312	2.8803	3.1855	3.0130	9.2238e-02	8.7003e-01
98	PAB000136	39.9614	40.2361	40.1024	6.4632e-02	5.8860e-01
99	PAB100136	38.1682	38.3055	38.2424	3.9117e-02	5.8783e-01
100	PAB125136	37.7008	37.8381	37.7878	4.0576e-02	5.8764e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIM000001	39.6125	40.1008	39.8884	1.1517e-01	7.5660e-01
102	PRV000001	15.5319	15.5319	15.5319	5.7801e-06	7.5100e-01
103	PSR000001	37.0468	37.1689	37.0810	5.5366e-02	7.5571e-01
104	PPH000001	30.2018	30.9342	30.5808	2.0093e-01	5.0581e-01
105	PAN000136	63.1457	69.0966	66.2585	1.0903e+00	4.9228e+00
106	PTM000002	27.5718	27.5718	27.5718	7.7069e-06	2.1154e-01
107	EMPTY	0.0000	0.0049	0.0048	6.9053e-04	0.0000e+00
108	EMPTY	-8.3105	-6.8652	-7.3036	4.1454e-01	0.0000e+00
109	EMPTY	-0.0049	0.0049	0.0007	2.2080e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0001	6.9053e-04	0.0000e+00
112	VP0000001	101.5325	102.1184	101.7238	1.4493e-01	1.0142e+00
113	VPW000002	118.7387	119.1293	118.8286	1.1975e-01	1.0791e+00
114	VPW000003	146.4393	146.8299	146.6503	1.1732e-01	1.1960e+00
115	VPW000004	104.4396	105.0255	104.7521	1.8508e-01	1.0252e+00
116	VPW000005	138.5517	139.5282	139.0517	2.3728e-01	1.1628e+00
117	VPW000006	145.1510	145.9322	145.5298	1.9092e-01	1.1910e+00
118	IPW000001	561.2990	567.1560	564.3837	1.3135e+00	9.2460e+00
119	IPW000002	1271.7773	1279.5824	1275.2900	1.6254e+00	1.2927e+01
120	IPW000003	1308.1875	1314.0375	1310.9172	1.4741e+00	1.3148e+01
121	IPW000004	379.1880	380.6528	379.7053	3.7447e-01	3.6053e+00
122	IPW000005	253.4959	254.9606	254.1111	3.9220e-01	2.8337e+00
123	IPW000006	264.7705	266.7236	265.9619	4.7474e-01	2.9008e+00
124	EMPTY	-0.0293	-0.0146	-0.0234	3.8206e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0157	2.6635e-03	0.0000e+00
126	EMPTY	-0.0293	-0.0146	-0.0210	3.3087e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0181	3.4527e-03	0.0000e+00
128	IHT000001	131.0359	133.5750	132.2704	5.5725e-01	4.3081e+00
129	IHT000002	130.2359	132.7749	131.6655	5.1966e-01	4.3062e+00
130	IHT000003	129.9175	131.6519	130.4136	5.4763e-01	4.3024e+00
131	IHT000004	131.6895	133.8379	132.8340	5.0841e-01	4.3098e+00
132	IHT000005	129.8340	132.1777	131.0176	4.8070e-01	4.3042e+00
133	IHT000006	125.5859	127.7344	126.6601	4.8368e-01	4.2912e+00
134	IHT000007	131.7571	134.1008	132.8859	4.6570e-01	4.3100e+00
135	IHT000008	130.4199	132.9590	131.5723	4.7556e-01	4.3059e+00
136	IHT000009	129.6800	132.8050	131.2347	5.8787e-01	4.3049e+00
137	IHT000010	130.5063	133.0454	131.5727	5.3555e-01	4.3059e+00
138	IHT000011	131.9975	133.9506	132.7749	4.6604e-01	4.3096e+00
139	IHT000012	130.9683	132.7261	131.8316	4.5863e-01	4.3067e+00
140	IHT000013	92.1838	94.1369	93.1525	4.6010e-01	4.2045e+00
141	IHT000014	127.4677	129.6161	128.7021	4.7259e-01	4.2973e+00
142	IHT000015	94.9143	96.8675	95.7620	4.2427e-01	4.2103e+00
143	IHT000016	88.8672	90.8203	89.8008	4.6737e-01	4.1972e+00
144	IHT000017	104.4659	107.5909	106.0830	6.7317e-01	4.2350e+00
145	IHT000018	106.5881	108.9318	108.0099	4.7357e-01	4.2399e+00
146	IHT000019	107.2454	109.1985	108.3156	4.6562e-01	4.2407e+00
147	IHT000020	105.7993	108.1430	106.9204	4.9096e-01	4.2371e+00
148	IHT000021	-3.0161	-0.2817	-1.7231	6.0988e-01	4.1000e+00
149	IHT000022	92.5556	94.7040	93.5791	4.7443e-01	4.2054e+00
150	IHT000023	105.2133	107.1665	106.1313	4.7556e-01	4.2351e+00
151	IHT000024	70.3576	72.3107	71.3342	4.4468e-01	4.1616e+00
152	IHT000025	102.4114	104.3645	103.2824	4.3977e-01	4.2281e+00
153	IHT000026	104.8941	107.0425	105.9683	4.9007e-01	4.2347e+00
154	IHT000027	89.8100	92.1537	90.8881	5.2235e-01	4.1995e+00
155	IHT000028	90.4184	93.7387	91.8091	6.2843e-01	4.2015e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.6378	108.5675	106.9307	5.9828e-01	4.2371e+00
157	IHT000030	107.9365	110.8661	109.4404	5.6943e-01	4.2436e+00
158	IHT000031	106.4077	108.7515	107.4312	5.5462e-01	4.2384e+00
159	IHT000032	107.2341	109.7731	108.3356	5.8229e-01	4.2407e+00
160	IHT000033	107.0313	109.7656	108.2734	5.9420e-01	4.2406e+00
161	IHT000034	93.9153	96.2590	95.1184	5.5011e-01	4.2089e+00
162	IHT000035	123.9258	126.0742	125.0664	5.6821e-01	4.2865e+00
163	IHT000036	92.7847	94.9332	93.7808	5.3561e-01	4.2059e+00

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Velocity 1 = 7.9900 (ft/sec) (+/- 4.3045 %)
 Velocity 2 = 8.0074 (ft/sec) (+/- 3.5889 %)
 Pressure drop = -2.7509 (psi)
 Tsat in = 267.6122 (deg F) Tsat out = 271.4437 (deg F)
 Phi inner = 100.8490 (kBtu/hr-ft2) (+/- 1.5692 %)
 Phi outer = 100.5888 (kBtu/hr-ft2) (+/- 1.5521 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	73.5396	74.1780	73.8461	1.6742e-01	1.9000e+00
1	TRF0000002	74.0875	74.5108	74.2991	1.2096e-01	1.9000e+00
2	TRF0000001	85.7917	86.5263	86.1362	1.8112e-01	1.9002e+00
3	TRF0000001	85.8881	86.5187	86.2540	1.4124e-01	1.9002e+00
4	TRF0000001	85.8021	87.0585	86.3886	3.1385e-01	1.9002e+00
5	TSR0000001	123.2552	124.3732	123.8529	2.8705e-01	1.9020e+00
6	EMPTY	37.9974	38.6870	38.4296	2.3050e-01	1.9010e+00
7	TAF050136	161.7492	162.6394	162.1923	1.7557e-01	1.9057e+00
8	TAF070136	160.2690	161.1649	160.6915	1.9450e-01	1.9055e+00
9	TAF080136	161.7565	162.5470	162.1237	1.7185e-01	1.9057e+00
10	TAF090136	200.8961	201.5700	201.1965	1.7572e-01	1.9116e+00
11	TAF100136	170.7071	171.2982	171.0262	1.3277e-01	1.9069e+00
12	TAF105136	171.5249	172.7051	172.0916	2.8069e-01	1.9070e+00
13	EMPTY	-601.0594	-601.0594	-601.0591	3.6993e-04	2.1295e+00
14	TAF115136	182.8669	183.7483	183.3135	2.1138e-01	1.9086e+00
15	EMPTY	32.2314	41.6693	37.6404	2.3396e+00	1.9010e+00
16	TAF125136	188.1183	188.7015	188.4100	1.6414e-01	1.9094e+00
17	EMPTY	44.8706	45.5552	45.2129	1.8004e-01	1.9014e+00
18	EMPTY	41.4403	41.6693	41.5502	1.1561e-01	1.9012e+00
19	TAF130048	174.5334	175.3176	174.7927	1.6189e-01	1.9074e+00
20	TAF120224	179.1730	179.8584	179.4472	1.6428e-01	1.9081e+00
21	EMPTY	38.9168	39.6057	39.2521	1.4079e-01	1.9010e+00
22	TAF120312	183.2018	184.2763	183.7213	2.6361e-01	1.9087e+00
23	TAF130312	176.4630	177.1486	176.7372	1.4812e-01	1.9077e+00
24	EMPTY	38.9168	39.6057	39.3210	1.7082e-01	1.9010e+00
25	TRF070000	164.4550	165.4483	164.9077	1.9584e-02	1.9061e+00
26	TRF100000	176.7867	177.5703	177.1905	2.0903e-01	1.9077e+00
27	TRF120000	180.8095	181.5913	181.2397	1.8418e-01	1.9083e+00
28	TRF125000	182.6415	183.4205	183.0739	1.9265e-01	1.9086e+00
29	EMPTY	39.8352	40.0646	39.8903	9.8996e-02	1.9011e+00
30	EMPTY	39.1464	40.0646	39.6286	2.1875e-01	1.9011e+00
31	TAF050136	111.1059	112.4392	111.7631	3.1175e-01	1.9012e+00
32	TAF070136	118.9765	120.1976	119.6605	2.7354e-01	1.9017e+00
33	TAF080136	122.6893	123.6024	123.1560	2.0176e-01	1.9019e+00
34	TAF090136	126.3126	127.4304	126.8817	2.7468e-01	1.9022e+00
35	TAF100136	132.0111	132.7213	132.3641	1.6801e-01	1.9026e+00
36	TAF105136	135.5532	136.5555	136.0467	2.6499e-01	1.9029e+00
37	TAF110136	139.2101	140.1134	139.7359	1.8979e-01	1.9033e+00
38	TAF115136	142.2592	143.0616	142.7046	2.0794e-01	1.9036e+00
39	TAF120136	144.9797	145.6353	145.2666	1.7333e-01	1.9038e+00
40	TAF125136	147.4233	148.5205	148.0415	2.4133e-01	1.9041e+00
41	TAF130136	150.0013	150.6010	150.2813	1.4399e-01	1.9043e+00
42	TAF120048	144.7797	145.6890	145.2283	2.5878e-01	1.9038e+00
43	TAF130048	148.0984	148.8993	148.4348	1.9260e-01	1.9041e+00
44	TAF120224	144.3849	145.0870	144.7542	2.0501e-01	1.9038e+00
45	TAF130224	148.9110	149.6139	149.2047	1.8454e-01	1.9042e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	37.9560	1.9539e-01	1.9010e+00
47	EMPTY	39.1464	39.6057	39.3623	1.0790e-01	1.9010e+00
48	TAF130048	185.0504	185.6357	185.3157	1.3073e-01	1.9089e+00
49	TAF130136	185.5278	186.1122	185.8123	1.3597e-01	1.9090e+00
50	TAF130224	185.3237	186.0066	185.6710	1.6036e-01	1.9090e+00
51	TAF130312	183.9290	184.5150	184.2296	1.4470e-01	1.9088e+00
52	TRF130000	109.9264	112.4907	111.5146	4.8613e-01	1.9012e+00
53	TS1000001	41.3571	42.4449	41.9666	1.9039e-01	1.9005e+00
54	TS1000002	86.7532	88.2202	87.6083	3.6899e-01	1.9002e+00
55	TS0000001	40.2078	41.1924	40.7637	1.9631e-01	1.9006e+00
56	TS0000002	48.8041	49.7782	49.2891	2.1013e-01	1.9003e+00
57	TAF020136	96.1263	97.3816	96.7752	2.5982e-01	1.9005e+00
58	EMPTY	42.8139	43.5000	43.1524	2.5824e-01	1.9013e+00
59	TAF130312	151.3862	152.4828	151.9243	2.2511e-01	1.9045e+00
60	EMPTY	2.0361	2.0459	2.0413	2.4976e-03	0.0000e+00
61	EMPTY	2.0410	2.0459	2.0445	2.2146e-03	0.0000e+00
62	EMPTY	2.0459	2.0508	2.0477	2.3675e-03	0.0000e+00
63	EMPTY	2.0557	2.0605	2.0561	1.3381e-03	0.0000e+00
64	EMPTY	1.0107	1.0156	1.0146	1.9730e-03	0.0000e+00
65	EMPTY	1.0303	1.0352	1.0304	6.9053e-04	0.0000e+00
66	EMPTY	1.0400	1.0449	1.0438	2.0432e-03	0.0000e+00
67	EMPTY	1.0547	1.0596	1.0573	2.4583e-03	0.0000e+00
68	EMPTY	1.0645	1.0693	1.0680	2.2146e-03	0.0000e+00
69	EMPTY	1.0791	1.0840	1.0826	2.2146e-03	0.0000e+00
70	EMPTY	1.0938	1.0986	1.0938	6.9053e-04	0.0000e+00
71	EMPTY	1.1084	1.1182	1.1142	2.1364e-03	0.0000e+00
72	EMPTY	1.1230	1.1279	1.1251	2.4344e-03	0.0000e+00
73	EMPTY	1.1377	1.1426	1.1402	2.4642e-03	0.0000e+00
74	EMPTY	1.1523	1.1523	1.1523	0.0000e+00	0.0000e+00
75	EMPTY	1.1621	1.1670	1.1667	1.1714e-03	0.0000e+00
76	EMPTY	1.1768	1.1768	1.1768	0.0000e+00	0.0000e+00
77	EMPTY	1.1914	1.1963	1.1931	2.3365e-03	0.0000e+00
78	EMPTY	1.2109	1.2158	1.2120	2.0432e-03	0.0000e+00
79	EMPTY	1.2305	1.2354	1.2344	1.9730e-03	0.0000e+00
80	PAN020136	-10.0999	-9.5659	-9.8283	1.0697e-01	8.7035e-01
81	PAN050136	-18.8631	-18.2528	-18.5366	1.6888e-01	1.6806e+00
82	PAN070136	-11.4570	-10.9993	-11.2083	1.1307e-01	8.7045e-01
83	PAN080136	-6.4908	-6.0330	-6.2558	9.6061e-02	8.7014e-01
84	PAN090136	-6.6095	-6.3043	-6.4767	6.6850e-02	8.7015e-01
85	PAN100136	-6.3322	-6.1034	-6.2209	7.7392e-02	8.7014e-01
86	PAN105136	-2.2616	-1.9565	-2.1350	6.4682e-02	8.7002e-01
87	PAN110136	-2.7502	-2.5213	-2.6510	5.6107e-02	8.7003e-01
88	PAN115136	-3.0686	-2.8397	-2.9771	7.7069e-02	8.7003e-01
89	PAN120136	-3.6481	-3.3429	-3.5107	7.7069e-02	8.7004e-01
90	PAN125136	-3.7288	-3.4999	-3.6037	5.2858e-02	8.7005e-01
91	PAN130136	-3.5204	-3.2915	-3.4258	6.6404e-02	8.7004e-01
92	PAN120048	-6.0697	-5.6882	-5.8988	8.2373e-02	8.7012e-01
93	PAN130048	-6.8781	-6.4966	-6.7285	8.9824e-02	8.7016e-01
94	PAN120224	-6.4276	-6.1224	-6.2979	8.3362e-02	8.7014e-01
95	PAN130224	-6.8897	-6.5083	-6.6975	8.1910e-02	8.7016e-01
96	PAN120312	-6.3850	-6.1561	-6.2904	5.6759e-02	8.7014e-01
97	PAN130312	-7.0379	-6.6564	-6.8518	8.4649e-02	8.7017e-01
98	PAB000136	40.0530	40.2819	40.1638	4.8135e-02	5.8863e-01
99	PAB100136	42.1507	42.2881	42.2130	4.2138e-02	5.8952e-01
100	PAB125136	42.7820	42.8735	42.8177	3.3715e-02	5.8980e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIM000001	39.8567	40.2229	40.0325	1.1869e-01	7.5665e-01
102	PRV000001	15.7760	15.8981	15.8883	3.3453e-02	7.5105e-01
103	PSR000001	42.7841	43.0283	42.9038	3.8916e-02	7.5763e-01
104	PFH000001	9.6940	10.0602	9.8203	1.0445e-01	5.0060e-01
105	PAM000136	-77.8455	-74.1834	-76.1609	9.3146e-01	4.9237e+00
106	PFH000002	9.7181	9.9866	9.8637	6.5335e-02	2.0151e-01
107	EMPTY	-0.0049	0.0049	-0.0002	4.4072e-03	0.0000e+00
108	EMPTY	-6.9580	-4.5996	-6.3448	5.9807e-01	0.0000e+00
109	EMPTY	-0.0049	0.0049	0.0001	2.6998e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0002	9.6655e-04	0.0000e+00
112	VPH000001	101.7278	102.1184	101.9270	1.0799e-01	1.0149e+00
113	VPH000002	118.9340	119.3247	119.1020	1.1168e-01	1.0802e+00
114	VPH000003	146.8299	147.4159	147.1112	1.3182e-01	1.1980e+00
115	VPH000004	104.8302	105.2208	104.9787	1.2200e-01	1.0261e+00
116	VPH000005	139.1376	139.5282	139.3720	1.3087e-01	1.1642e+00
117	VPH000006	145.7369	146.1275	145.9322	1.2478e-01	1.1928e+00
118	IPH000001	533.9662	547.6326	542.8688	3.4195e+00	9.1653e+00
119	IPH000002	1308.8514	1316.6565	1312.4031	2.1480e+00	1.3157e+01
120	IPH000003	1327.6875	1337.4375	1332.4845	2.4982e+00	1.3282e+01
121	IPH000004	374.3052	378.2114	376.5022	8.9465e-01	3.5843e+00
122	IPH000005	253.9841	255.4488	254.7947	3.7702e-01	2.8375e+00
123	IPH000006	266.7236	268.6768	267.8271	5.2022e-01	2.9115e+00
124	EMPTY	-0.0293	-0.0146	-0.0219	3.9754e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0144	3.0261e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0187	4.2647e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0164	3.3829e-03	0.0000e+00
128	INT000001	131.2312	133.3797	132.2196	5.0287e-01	4.3079e+00
129	INT000002	130.6265	132.5796	131.6069	4.4027e-01	4.3060e+00
130	INT000003	129.3081	131.2613	130.3745	4.9001e-01	4.3023e+00
131	INT000004	131.6895	133.8379	132.7598	5.3994e-01	4.3096e+00
132	INT000005	130.0293	131.9824	130.9512	4.7848e-01	4.3040e+00
133	INT000006	125.5859	127.9297	126.6719	5.1924e-01	4.2912e+00
134	INT000007	131.9524	134.1008	132.9718	5.1944e-01	4.3102e+00
135	INT000008	130.6152	133.1543	131.7480	5.6082e-01	4.3065e+00
136	INT000009	130.0706	133.0003	131.3949	5.2688e-01	4.3054e+00
137	INT000010	130.5063	133.0454	131.4516	6.1683e-01	4.3056e+00
138	INT000011	131.8021	133.9506	132.6538	5.1260e-01	4.3093e+00
139	INT000012	130.5777	132.9214	131.7886	5.2497e-01	4.3066e+00
140	INT000013	91.7931	93.9416	93.0666	5.1029e-01	4.2043e+00
141	INT000014	127.4677	129.6161	128.6943	4.8334e-01	4.2972e+00
142	INT000015	94.9143	96.6722	95.7190	4.9385e-01	4.2103e+00
143	INT000016	88.8672	90.6250	89.7187	4.5636e-01	4.1970e+00
144	INT000017	103.8800	107.7862	106.0127	9.1935e-01	4.2348e+00
145	INT000018	106.7834	109.3224	107.8888	6.1334e-01	4.2396e+00
146	INT000019	107.2454	109.3938	108.2297	5.1291e-01	4.2404e+00
147	INT000020	105.7993	108.3383	106.8305	5.3239e-01	4.2369e+00
148	INT000021	-3.0161	0.1089	-1.8051	6.6615e-01	4.1000e+00
149	INT000022	92.3603	95.2900	93.4345	5.8427e-01	4.2051e+00
150	INT000023	105.2133	107.7524	106.0884	5.4568e-01	4.2350e+00
151	INT000024	70.5529	72.7013	71.2756	5.3706e-01	4.1615e+00
152	INT000025	102.4114	104.7551	103.2824	5.7074e-01	4.2281e+00
153	INT000026	105.0894	107.4332	105.9995	5.9662e-01	4.2348e+00
154	INT000027	89.8100	92.3490	90.7983	6.2192e-01	4.1993e+00
155	INT000028	90.4184	93.3481	91.7505	6.6109e-01	4.2014e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	INT000029	105.6378	108.7628	106.9698	6.9887e-01	4.2372e+00
157	INT000030	108.3271	111.0615	109.4873	6.3185e-01	4.2437e+00
158	INT000031	106.4077	109.1421	107.4780	6.3777e-01	4.2385e+00
159	INT000032	107.2341	109.9685	108.4059	6.3992e-01	4.2409e+00
160	INT000033	107.2266	109.9609	108.3672	6.2560e-01	4.2408e+00
161	INT000034	94.1106	96.2590	95.0832	5.1371e-01	4.2088e+00
162	INT000035	123.9258	126.2695	125.0938	5.1219e-01	4.2866e+00
163	INT000036	92.7847	94.9332	93.7066	4.9448e-01	4.2057e+00

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Velocity 1 - 6.0235 (ft/sec) (+/- 5.6936 %)
 Velocity 2 - 6.0251 (ft/sec) (+/- 3.8321 %)
 Pressure drop - -3.8627 (psi)
 Tsat in - 267.7820 (deg F) Tsat out - 273.0889 (deg F)
 Phi inner - 99.6830 (kbtu/hr-ft2) (+/- 1.5722 %)
 Phi outer - 100.4128 (kbtu/hr-ft2) (+/- 1.5521 %)
 D inner - 0.1973 (ft) D outer - 0.2412 (ft) D hyd - 0.0438 (ft)
 L inner - 12.8330 (ft) L outer - 12.8330 (ft) A flow - 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRP000001	73.7524	74.3908	73.9780	1.6320e-01	1.9000e+00
1	TRP000002	74.0875	74.7225	74.3965	1.2978e-01	1.9000e+00
2	TFM000001	85.4778	86.4221	85.9941	1.9750e-01	1.9002e+00
3	TIM000001	85.6777	86.4138	86.0395	1.5917e-01	1.9002e+00
4	TRV000001	86.3256	87.3738	86.8871	2.0920e-01	1.9002e+00
5	TSR000001	138.0015	140.2101	139.3868	5.7219e-01	1.9012e+00
6	EMPTY	37.9974	38.6870	38.4480	2.0745e-01	1.9010e+00
7	TAO050136	173.9270	174.7116	174.3073	1.7884e-01	1.9073e+00
8	TAO070136	179.8714	180.8529	180.2797	2.2907e-01	1.9082e+00
9	TAO080136	179.7641	180.5444	180.1623	1.8368e-01	1.9082e+00
10	TAO090136	196.5594	197.7180	197.1774	2.1089e-01	1.9109e+00
11	TAO100136	194.6992	195.4739	195.0633	1.7761e-01	1.9105e+00
12	TAO105136	197.7430	198.8056	198.3070	2.6637e-01	1.9111e+00
13	EMPTY	-601.0594	-601.0594	-601.0591	3.6993e-04	2.1295e+00
14	TAO115136	209.0883	209.7619	209.4383	1.7129e-01	1.9131e+00
15	EMPTY	32.2314	41.8984	37.8163	1.8471e+00	1.9010e+00
16	TAO125136	216.2113	216.8788	216.5696	1.3550e-01	1.9144e+00
17	EMPTY	44.8706	45.5552	45.1627	1.8464e-01	1.9014e+00
18	EMPTY	41.4403	41.6693	41.5502	1.1561e-01	1.9012e+00
19	TAO130048	198.8591	199.5344	199.1946	1.5844e-01	1.9112e+00
20	TAO120224	205.9308	206.7957	206.3307	1.8548e-01	1.9125e+00
21	EMPTY	38.9168	39.3761	39.0729	1.4256e-01	1.9010e+00
22	TAO120312	210.3098	211.2685	210.8121	2.3768e-01	1.9133e+00
23	TAO130312	202.2408	203.2989	202.6872	1.9110e-01	1.9118e+00
24	EMPTY	38.9168	39.8352	39.3852	2.2227e-01	1.9010e+00
25	TRT070000	186.0076	187.1824	186.5522	2.2650e-01	1.9091e+00
26	TRT100000	202.7731	203.6392	203.2618	1.9800e-01	1.9119e+00
27	TRT120000	207.6205	208.1961	207.9426	1.4858e-01	1.9128e+00
28	TRT125000	209.6413	210.5016	209.9932	1.7509e-01	1.9132e+00
29	EMPTY	39.8352	40.0646	39.9499	1.1590e-01	1.9011e+00
30	EMPTY	39.1464	40.0646	39.6653	2.3560e-01	1.9011e+00
31	TAP050136	118.9796	120.4068	119.6571	3.0681e-01	1.9017e+00
32	TAP070136	129.7133	130.7213	130.2848	2.8256e-01	1.9024e+00
33	TAP080136	134.5794	135.5856	135.0629	2.5270e-01	1.9028e+00
34	TAP090136	139.3573	140.7660	139.9854	2.8128e-01	1.9033e+00
35	TAP100136	147.1428	148.4460	147.7362	2.5370e-01	1.9041e+00
36	TAP105136	152.0619	153.4490	152.5347	2.8613e-01	1.9046e+00
37	TAP110136	156.9324	157.8255	157.3610	2.0054e-01	1.9051e+00
38	TAP115136	160.7766	161.5683	161.2242	1.9195e-01	1.9056e+00
39	TAP120136	164.2479	165.2323	164.8970	1.9092e-01	1.9061e+00
40	TAP125136	167.9442	169.0235	168.4781	2.7155e-01	1.9065e+00
41	TAP130136	171.0670	171.9513	171.4870	1.8087e-01	1.9069e+00
42	TAP120048	164.0382	165.1325	164.5596	2.6097e-01	1.9060e+00
43	TAP130048	168.4476	169.5320	168.9010	2.3386e-01	1.9066e+00
44	TAP120224	163.7815	164.9671	164.2915	2.8876e-01	1.9060e+00
45	TAP130224	169.8611	170.9482	170.4221	2.1174e-01	1.9068e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	38.0388	2.5313e-01	1.9010e+00
47	EMPTY	39.3761	39.8352	39.4909	1.2488e-01	1.9011e+00
48	TAP130048	212.2711	212.8457	212.4856	1.4798e-01	1.9136e+00
49	TAP130136	213.4100	213.8877	213.6280	1.2213e-01	1.9138e+00
50	TAP130224	212.8825	213.8564	213.1551	1.7678e-01	1.9138e+00
51	TAP130312	211.1144	211.7854	211.3789	1.4038e-01	1.9134e+00
52	TAP130000	119.4367	122.1863	120.6271	5.7603e-01	1.9017e+00
53	TSI000001	41.4664	42.3369	41.9626	1.7473e-01	1.9005e+00
54	TSI000002	86.6491	88.2202	87.3826	4.1121e-01	1.9002e+00
55	TSO000001	40.3166	41.0826	40.7238	1.7697e-01	1.9006e+00
56	TSO000002	49.9946	51.2930	50.6611	2.6161e-01	1.9003e+00
57	TAP020136	99.5811	100.6245	100.0905	2.2383e-01	1.9006e+00
58	EMPTY	42.8139	43.7285	43.1661	2.5810e-01	1.9013e+00
59	TAP130312	173.3282	174.7008	173.8144	2.6423e-01	1.9072e+00
60	EMPTY	2.5684	2.5781	2.5729	2.8608e-03	0.0000e+00
61	EMPTY	2.5684	2.5781	2.5724	2.7356e-03	0.0000e+00
62	EMPTY	2.5684	2.5781	2.5728	1.7784e-03	0.0000e+00
63	EMPTY	2.5732	2.5781	2.5771	2.0432e-03	0.0000e+00
64	EMPTY	1.2451	1.2500	1.2452	6.9053e-04	0.0000e+00
65	EMPTY	1.2598	1.2646	1.2602	1.3381e-03	0.0000e+00
66	EMPTY	1.2695	1.2744	1.2718	2.4583e-03	0.0000e+00
67	EMPTY	1.2842	1.2891	1.2843	6.9053e-04	0.0000e+00
68	EMPTY	1.2939	1.2939	1.2939	0.0000e+00	0.0000e+00
69	EMPTY	1.3037	1.3135	1.3080	1.8821e-03	0.0000e+00
70	EMPTY	1.3184	1.3184	1.3184	0.0000e+00	0.0000e+00
71	EMPTY	1.3330	1.3379	1.3377	9.6655e-04	0.0000e+00
72	EMPTY	1.3428	1.3477	1.3467	1.9730e-03	0.0000e+00
73	EMPTY	1.3574	1.3623	1.3613	1.9730e-03	0.0000e+00
74	EMPTY	1.3672	1.3721	1.3718	1.1714e-03	0.0000e+00
75	EMPTY	1.3818	1.3867	1.3828	1.9730e-03	0.0000e+00
76	EMPTY	1.3916	1.3965	1.3929	2.1635e-03	0.0000e+00
77	EMPTY	1.4063	1.4160	1.4094	2.5648e-03	0.0000e+00
78	EMPTY	1.4258	1.4307	1.4260	9.6655e-04	0.0000e+00
79	EMPTY	1.4453	1.4502	1.4459	1.6028e-03	0.0000e+00
80	PAN020136	-13.7621	-13.3043	-13.5408	1.0817e-01	8.7066e-01
81	PAN050136	-26.0347	-25.4244	-25.7570	1.3327e-01	1.6812e+00
82	PAN070136	-16.5687	-16.1872	-16.4146	7.1454e-02	8.7097e-01
83	PAN080136	-8.7033	-8.3981	-8.5660	8.1562e-02	8.7026e-01
84	PAN090136	-8.8220	-8.5168	-8.6984	6.3466e-02	8.7027e-01
85	PAN100136	-8.6211	-8.3922	-8.5295	6.5395e-02	8.7026e-01
86	PAN105136	-3.7875	-3.5586	-3.6380	6.7116e-02	8.7005e-01
87	PAN110136	-4.1235	-3.8946	-4.0289	6.8170e-02	8.7006e-01
88	PAN115136	-4.2893	-4.1367	-4.1856	4.2938e-02	8.7006e-01
89	PAN120136	-4.5636	-4.1821	-4.4064	7.7698e-02	8.7007e-01
90	PAN125136	-4.7969	-4.4917	-4.6413	6.5322e-02	8.7008e-01
91	PAN130136	-4.5122	-4.2071	-4.3886	7.8428e-02	8.7007e-01
92	PAN120048	-8.1296	-7.9007	-7.9966e-02	8.7023e-01	
93	PAN130048	-8.8617	-8.6328	-8.7381	6.8742e-02	8.7027e-01
94	PAN120224	-8.6401	-8.3349	-8.4631	7.9257e-02	8.7026e-01
95	PAN130224	-8.7971	-8.5682	-8.6750	6.8932e-02	8.7027e-01
96	PAN120312	-8.5975	-8.2924	-8.4495	6.7908e-02	8.7026e-01
97	PAN130312	-8.9453	-8.6401	-8.7469	7.8595e-02	8.7027e-01
98	PAB000136	40.1903	40.4192	40.2782	5.2185e-02	5.8868e-01
99	PAB100136	43.1120	43.2494	43.1688	4.1934e-02	5.8996e-01
100	PAB125136	43.9264	44.1095	44.0024	4.7707e-02	5.9034e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	40.1008	40.2229	40.1570	6.1457e-02	7.5669e-01
102	PRV0000001	15.7760	15.8981	15.8029	5.1081e-02	7.5104e-01
103	PSR0000001	44.1269	44.2490	44.2124	5.6508e-02	7.5810e-01
104	PFM0000001	5.3910	5.7572	5.5393	9.0406e-02	5.0019e-01
105	PAN0000136	-108.5157	-105.3113	-106.9410	5.5613e-01	4.9273e+00
106	PFM0000002	5.4896	5.6070	5.5423	3.0323e-02	2.0048e-01
107	EMPTY	-0.0049	0.0049	0.0000	3.9459e-03	0.0000e+00
108	EMPTY	-10.0000	-3.6914	-4.9538	1.6324e+00	0.0000e+00
109	EMPTY	-0.0049	0.0049	-0.0001	1.8429e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW0000001	101.9231	102.5090	102.2785	1.2283e-01	1.0162e+00
113	VPW0000002	118.9340	119.3247	119.1177	1.2104e-01	1.0802e+00
114	VPW0000003	146.8299	147.2206	147.0761	9.5112e-02	1.1978e+00
115	VPW0000004	104.8302	105.4162	105.0724	1.5057e-01	1.0264e+00
116	VPW0000005	139.1376	139.7236	139.5049	1.2251e-01	1.1648e+00
117	VPW0000006	145.5416	145.9322	145.8033	1.1578e-01	1.1922e+00
118	IPW0000001	553.4896	559.3466	556.8086	1.3805e+00	9.2173e+00
119	IPW0000002	1289.3387	1295.1926	1292.1096	1.3128e+00	1.3031e+01
120	IPW0000003	1314.0375	1319.8875	1316.0269	1.4996e+00	1.3180e+01
121	IPW0000004	378.6997	380.1646	379.3635	3.7899e-01	3.6030e+00
122	IPW0000005	253.4959	254.9606	254.1405	3.3362e-01	2.8339e+00
123	IPW0000006	265.7471	267.2119	266.3428	3.7291e-01	2.9030e+00
124	EMPTY	-0.0244	-0.0146	-0.0196	3.1950e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0143	2.7621e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0098	-0.0161	3.0003e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0175	3.5691e-03	0.0000e+00
128	IHT0000001	131.4265	133.5750	132.2782	5.6187e-01	4.3081e+00
129	IHT0000002	130.6265	132.7749	131.5913	5.5018e-01	4.3060e+00
130	IHT0000003	129.3081	131.4566	130.3511	5.8075e-01	4.3022e+00
131	IHT0000004	131.4941	133.8379	132.7129	5.9262e-01	4.3094e+00
132	IHT0000005	129.8340	132.1777	130.9355	5.6876e-01	4.3040e+00
133	IHT0000006	125.3906	127.7344	126.5781	5.3063e-01	4.2909e+00
134	IHT0000007	131.7571	133.7102	132.8507	4.5847e-01	4.3099e+00
135	IHT0000008	130.4199	132.3730	131.5801	4.4012e-01	4.3060e+00
136	IHT0000009	130.2659	132.0237	131.2269	4.3376e-01	4.3049e+00
137	IHT0000010	130.3110	132.2641	131.3501	4.1280e-01	4.3053e+00
138	IHT0000011	131.4115	133.3646	132.2983	4.0281e-01	4.3082e+00
139	IHT0000012	130.3824	132.3355	131.4214	4.4545e-01	4.3055e+00
140	IHT0000013	91.9884	94.1369	92.9689	4.6268e-01	4.2041e+00
141	IHT0000014	127.4677	129.6161	128.5810	4.7882e-01	4.2969e+00
142	IHT0000015	94.7190	96.8675	95.6370	4.7062e-01	4.2101e+00
143	IHT0000016	88.8672	91.0156	89.8633	5.0878e-01	4.1973e+00
144	IHT0000017	105.8331	108.1768	107.0166	5.4306e-01	4.2374e+00
145	IHT0000018	106.7834	108.9318	107.9083	5.0310e-01	4.2396e+00
146	IHT0000019	107.2454	109.7844	108.5461	5.9792e-01	4.2413e+00
147	IHT0000020	105.7993	108.5336	107.1157	5.7967e-01	4.2376e+00
148	IHT0000021	-2.8208	0.3042	-1.3637	7.1049e-01	4.1000e+00
149	IHT0000022	92.7509	95.2900	93.8759	5.6574e-01	4.2061e+00
150	IHT0000023	105.2133	107.7524	106.2563	5.8075e-01	4.2355e+00
151	IHT0000024	70.5529	72.8966	71.4240	5.6111e-01	4.1617e+00
152	IHT0000025	102.6067	104.9504	103.4543	5.8873e-01	4.2285e+00
153	IHT0000026	105.4800	107.4332	106.1362	5.4213e-01	4.2351e+00
154	IHT0000027	90.2006	92.5443	91.1772	5.3233e-01	4.2002e+00
155	IHT0000028	90.8091	93.3481	91.9966	5.9036e-01	4.2019e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	106.0284	108.3722	107.0245	6.0264e-01	4.2374e+00
157	IHT0000030	108.5224	111.2568	109.5107	6.1815e-01	4.2437e+00
158	IHT0000031	106.6031	109.3374	107.4741	6.2541e-01	4.2385e+00
159	IHT0000032	107.4294	110.3591	108.3942	6.3431e-01	4.2409e+00
160	IHT0000033	107.4219	110.3516	108.3438	6.2768e-01	4.2407e+00
161	IHT0000034	94.3059	96.4543	95.0715	4.9731e-01	4.2088e+00
162	IHT0000035	124.3164	126.6602	125.0742	5.1090e-01	4.2865e+00
163	IHT0000036	92.9800	94.9332	93.6988	4.5411e-01	4.2057e+00

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Velocity 1 = 3.9653 (ft/sec) (+/- 11.1371 %)
 Velocity 2 = 3.9980 (ft/sec) (+/- 5.1070 %)
 Pressure drop = -4.6669 (psi)
 Tsat in = 267.7643 (deg F) Tsat out = 274.1572 (deg F)
 Phi inner = 99.2647 (kBtu/hr-ft2) (+/- 1.5734 %)
 Phi outer = 99.7965 (kBtu/hr-ft2) (+/- 1.5539 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	73.9652	74.6035	74.2163	1.5905e-01	1.9000e+00
1	TRF0000002	74.5108	74.9340	74.6462	1.3357e-01	1.9000e+00
2	TFH0000001	86.1079	87.0518	86.4830	2.1298e-01	1.9002e+00
3	TIN0000001	86.0982	86.8341	86.4410	1.6693e-01	1.9002e+00
4	TRV0000001	87.2686	88.1065	87.7476	2.0617e-01	1.9002e+00
5	TSR0000001	153.9754	156.0581	155.2908	5.8806e-01	1.9049e+00
6	EMPTY	37.9974	38.9168	38.4939	2.4287e-01	1.9010e+00
7	TAO050136	207.5552	208.4160	207.9058	2.0323e-01	1.9128e+00
8	TAO070136	216.8528	218.1927	217.5136	2.5308e-01	1.9146e+00
9	TAO080136	215.4012	216.4482	215.8598	2.0027e-01	1.9143e+00
10	TAO090136	167.4087	168.2964	167.8722	2.1191e-01	1.9064e+00
11	TAO100136	240.0473	240.7989	240.4515	1.7308e-01	1.9195e+00
12	TAO105136	244.9076	246.2192	245.5692	2.8657e-01	1.9207e+00
13	EMPTY	-601.0594	-601.0594	-601.0591	3.6993e-04	2.1295e+00
14	TAO115136	258.6353	259.6606	259.0509	2.4419e-01	1.9239e+00
15	EMPTY	33.1563	42.8139	38.0054	3.3402e+00	1.9010e+00
16	TAO125136	269.8191	270.9225	270.3467	2.5728e-01	1.9269e+00
17	EMPTY	44.8706	45.5552	45.2266	1.6724e-01	1.9014e+00
18	EMPTY	41.4403	41.6693	41.5731	1.1421e-01	1.9012e+00
19	TAO130048	247.9384	248.6850	248.2764	1.7472e-01	1.9213e+00
20	TAO120224	257.3304	258.3534	257.8643	2.4188e-01	1.9236e+00
21	EMPTY	39.1464	39.6057	39.3118	1.3948e-01	1.9010e+00
22	TAO120312	261.1805	262.5737	261.7027	3.0482e-01	1.9246e+00
23	TAO130312	251.3019	252.3274	251.6991	2.2417e-01	1.9221e+00
24	EMPTY	39.1464	39.8352	39.5368	1.9814e-01	1.9011e+00
25	TRT070000	224.4534	225.4072	224.9408	2.0506e-01	1.9161e+00
26	TRT100000	249.9946	250.8344	250.4258	1.8453e-01	1.9218e+00
27	TRT120000	257.7325	258.5692	258.0618	1.6824e-01	1.9237e+00
28	TRT125000	260.1348	260.9684	260.5438	1.8964e-01	1.9243e+00
29	EMPTY	39.8352	40.2940	40.0555	1.0324e-01	1.9011e+00
30	EMPTY	39.1464	40.0646	39.6883	2.3537e-01	1.9011e+00
31	TAF050136	135.9943	138.1062	137.1749	4.5419e-01	1.9030e+00
32	TAF070136	152.4100	154.5899	153.2604	4.2725e-01	1.9047e+00
33	TAF080136	160.0175	161.6903	160.8898	3.3801e-01	1.9056e+00
34	TAF090136	168.4239	170.0977	169.2175	4.0919e-01	1.9066e+00
35	TAF100136	179.5548	181.0236	180.2542	2.7481e-01	1.9082e+00
36	TAF105136	186.7140	187.9720	187.4157	3.2018e-01	1.9093e+00
37	TAF110136	195.1800	198.5446	196.7626	8.2354e-01	1.9108e+00
38	TAF115136	200.5524	202.8589	201.1658	4.4365e-01	1.9116e+00
39	TAF120136	206.1062	208.1109	206.8036	4.0438e-01	1.9126e+00
40	TAF125136	211.0571	212.9582	212.1122	3.9219e-01	1.9136e+00
41	TAF130136	215.9931	217.7057	216.5779	4.0270e-01	1.9144e+00
42	TAF120048	203.6164	207.1952	205.1391	1.1101e+00	1.9123e+00
43	TAF130048	210.4860	212.0165	211.0471	3.5481e-01	1.9134e+00
44	TAF120224	204.8578	207.0635	205.5966	4.4072e-01	1.9123e+00
45	TAF130224	213.4434	215.7471	214.8505	5.0277e-01	1.9141e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	37.9652	2.1293e-01	1.9010e+00
47	EMPTY	39.3761	39.8352	39.5965	1.5353e-01	1.9011e+00
48	TAF130048	264.5718	265.2204	265.0035	1.5944e-01	1.9254e+00
49	TAF130136	267.8023	268.3568	268.0811	1.3649e-01	1.9263e+00
50	TAF130224	266.4288	267.1702	266.8643	1.6870e-01	1.9259e+00
51	TAF130312	264.0852	264.6414	264.3540	1.2316e-01	1.9253e+00
52	TRR130000	131.7087	135.2366	133.4008	1.0601e+00	1.9027e+00
53	TSI0000001	42.4449	43.2061	42.7823	1.9796e-01	1.9005e+00
54	TSI0000002	85.2876	87.9071	86.8536	5.5473e-01	1.9002e+00
55	TSO0000001	40.5349	41.5198	41.0010	1.9500e-01	1.9006e+00
56	TSO0000002	53.4519	54.2073	53.9116	2.1561e-01	1.9002e+00
57	TAF020136	106.7747	108.9555	107.7489	4.7755e-01	1.9010e+00
58	EMPTY	42.8139	43.5000	43.0929	2.4575e-01	1.9013e+00
59	TAF130312	217.3624	220.5939	218.4637	6.9279e-01	1.9148e+00
60	EMPTY	3.6768	3.7109	3.6864	9.4357e-03	0.0000e+00
61	EMPTY	3.6670	3.6865	3.6772	5.8569e-03	0.0000e+00
62	EMPTY	3.6621	3.6768	3.6691	4.9481e-03	0.0000e+00
63	EMPTY	3.6621	3.6719	3.6677	3.2733e-03	0.0000e+00
64	EMPTY	1.7236	1.7383	1.7272	3.2434e-03	0.0000e+00
65	EMPTY	1.7334	1.7432	1.7390	1.9754e-03	0.0000e+00
66	EMPTY	1.7432	1.7529	1.7478	2.2945e-03	0.0000e+00
67	EMPTY	1.7529	1.7627	1.7571	1.9754e-03	0.0000e+00
68	EMPTY	1.7627	1.7676	1.7633	1.6028e-03	0.0000e+00
69	EMPTY	1.7725	1.7822	1.7743	2.5894e-03	0.0000e+00
70	EMPTY	1.7773	1.7871	1.7824	1.3811e-03	0.0000e+00
71	EMPTY	1.7969	1.8018	1.7983	2.2603e-03	0.0000e+00
72	EMPTY	1.8018	1.8066	1.8048	2.3941e-03	0.0000e+00
73	EMPTY	1.8115	1.8213	1.8161	1.5314e-03	0.0000e+00
74	EMPTY	1.8213	1.8262	1.8247	2.2603e-03	0.0000e+00
75	EMPTY	1.8311	1.8359	1.8344	2.3008e-03	0.0000e+00
76	EMPTY	1.8408	1.8457	1.8413	1.4797e-03	0.0000e+00
77	EMPTY	1.8506	1.8555	1.8543	2.1065e-03	0.0000e+00
78	EMPTY	1.8652	1.8750	1.8699	1.3811e-03	0.0000e+00
79	EMPTY	1.8848	1.8896	1.8887	1.9730e-03	0.0000e+00
80	PAN020136	-18.6449	-11.1681	-15.8846	1.2237e+00	8.7091e-01
81	PAN050136	-36.5633	-30.9175	-31.4760	9.2565e-01	1.6818e+00
82	PAN070136	-20.6123	-13.1355	-19.8646	1.4088e+00	8.7142e-01
83	PAN080136	-14.0439	-9.4662	-10.0415	1.0387e+00	8.7036e-01
84	PAN090136	-11.7975	-8.5931	-10.9705	5.3269e-01	8.7043e-01
85	PAN100136	-12.8935	-9.1551	-10.0035	6.0814e-01	8.7036e-01
86	PAN105136	-5.0845	-4.6267	-4.8068	8.9559e-02	8.7008e-01
87	PAN110136	-5.8782	-2.0563	-4.9978	1.2647e+00	8.7009e-01
88	PAN115136	-7.6463	-4.7471	-5.5299	6.3474e-01	8.7011e-01
89	PAN120136	-6.0895	-4.5636	-5.3143	3.4063e-01	8.7010e-01
90	PAN125136	-6.0176	-4.4917	-5.1875	3.3545e-01	8.7010e-01
91	PAN130136	-5.3515	-4.1308	-4.8418	2.7592e-01	8.7008e-01
92	PAN120048	-10.7999	-3.9334	-10.1102	9.7789e-01	8.7037e-01
93	PAN130048	-12.9053	-8.0617	-9.5712	7.5042e-01	8.7033e-01
94	PAN120224	-13.0651	-10.0134	-10.7549	7.0078e-01	8.7042e-01
95	PAN130224	-10.3230	-8.6445	-9.7248	3.2819e-01	8.7034e-01
96	PAN120312	-11.1915	-9.8945	-10.2730	2.8168e-01	8.7038e-01
97	PAN130312	-10.6237	-9.2504	-9.8623	2.7160e-01	8.7035e-01
98	PAB000136	40.0988	40.3734	40.2663	5.6717e-02	5.8867e-01
99	PAB100136	43.7071	43.8445	43.7831	4.2992e-02	5.9024e-01
100	PAB125136	44.7046	44.8877	44.7861	5.1732e-02	5.9071e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.8567	40.2229	40.0349	9.6182e-02	7.5665e-01
102	PRV000001	15.5319	15.6539	15.5343	1.7263e-02	7.5100e-01
103	PSR000001	44.9814	45.1035	45.0473	6.1457e-02	7.5841e-01
104	PFM000001	2.2782	2.4613	2.3624	6.8811e-02	5.0003e-01
105	PAN000136	-132.3194	-128.1995	-129.2066	8.3746e-01	4.9306e+00
106	PFM000002	2.3685	2.4524	2.4024	2.5479e-02	2.0009e-01
107	EMPTY	-0.0049	0.0049	-0.0042	1.9754e-03	0.0000e+00
108	EMPTY	-10.0000	-3.8086	-6.4010	2.4722e+00	0.0000e+00
109	EMPTY	-0.0049	0.0000	-0.0025	2.4642e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0014	2.2146e-03	0.0000e+00
112	VPW000001	101.9231	102.5090	102.0910	1.7204e-01	1.0155e+00
113	VPW000002	119.1293	119.5200	119.3286	1.3945e-01	1.0811e+00
114	VPW000003	147.2206	147.6112	147.3925	1.4029e-01	1.1992e+00
115	VPW000004	104.8302	105.4162	105.1076	1.4276e-01	1.0266e+00
116	VPW000005	139.3329	139.9189	139.6963	1.5789e-01	1.1656e+00
117	VPW000006	145.9322	146.5182	146.2290	1.3805e-01	1.1941e+00
118	IPW000001	555.4420	567.1560	561.5722	2.7330e+00	9.2354e+00
119	IPW000002	1267.8748	1277.6311	1273.1045	2.5682e+00	1.2914e+01
120	IPW000003	1304.2875	1310.1375	1307.0178	1.6714e+00	1.3123e+01
121	IPW000004	377.7231	379.1880	378.3479	4.7351e-01	3.5964e+00
122	IPW000005	252.5194	254.4724	253.4374	4.2586e-01	2.8300e+00
123	IPW000006	264.2822	266.2354	265.1318	4.9136e-01	2.8960e+00
124	EMPTY	-0.0342	-0.0146	-0.0227	3.6593e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0158	2.8862e-03	0.0000e+00
126	EMPTY	-0.0293	-0.0098	-0.0187	3.7809e-03	0.0000e+00
127	EMPTY	-0.0293	-0.0098	-0.0181	4.0971e-03	0.0000e+00
128	IHT000001	130.8406	133.5750	131.9500	6.2320e-01	4.3071e+00
129	IHT000002	130.2359	133.1655	131.3609	5.8999e-01	4.3053e+00
130	IHT000003	129.1128	131.8472	130.1792	5.6526e-01	4.3017e+00
131	IHT000004	131.4941	133.8379	132.4785	5.7583e-01	4.3087e+00
132	IHT000005	129.6387	132.3730	130.7090	5.8293e-01	4.3033e+00
133	IHT000006	125.1953	127.7344	126.3867	5.1335e-01	4.2904e+00
134	IHT000007	131.5618	134.1008	132.6789	5.6087e-01	4.3093e+00
135	IHT000008	130.4199	132.5683	131.4355	5.2793e-01	4.3055e+00
136	IHT000009	130.0706	132.2190	131.0355	5.0441e-01	4.3043e+00
137	IHT000010	130.3110	131.8735	131.1274	3.9398e-01	4.3046e+00
138	IHT000011	131.4115	132.9740	132.1928	3.8460e-01	4.3078e+00
139	IHT000012	130.5777	132.3355	131.3198	4.3045e-01	4.3052e+00
140	IHT000013	91.9884	93.5509	92.7111	4.1244e-01	4.2035e+00
141	IHT000014	127.6630	129.6161	128.3974	4.5431e-01	4.2963e+00
142	IHT000015	94.7190	96.4768	95.3948	4.4679e-01	4.2095e+00
143	IHT000016	88.6719	90.4297	89.4570	4.3313e-01	4.1965e+00
144	IHT000017	104.4659	107.5909	105.8057	7.4869e-01	4.2343e+00
145	IHT000018	106.7834	108.7365	107.8419	4.9613e-01	4.2395e+00
146	IHT000019	107.0500	109.5891	108.2609	4.9284e-01	4.2405e+00
147	IHT000020	105.4086	107.9477	106.6548	4.8470e-01	4.2365e+00
148	IHT000021	-3.0161	0.1089	-1.7114	6.1944e-01	4.1000e+00
149	IHT000022	91.9697	95.0947	93.1923	5.5777e-01	4.2046e+00
150	IHT000023	105.0180	107.7524	105.9438	5.0349e-01	4.2347e+00
151	IHT000024	70.1623	72.7013	71.0959	4.6903e-01	4.1612e+00
152	IHT000025	102.4114	104.9504	103.2043	4.7745e-01	4.2279e+00
153	IHT000026	105.0894	107.6285	105.9292	4.9795e-01	4.2346e+00
154	IHT000027	89.8100	92.3490	90.6733	5.2213e-01	4.1991e+00
155	IHT000028	89.8325	92.7622	91.4497	6.3263e-01	4.2008e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.4425	107.9815	106.8096	6.1002e-01	4.2368e+00
157	IHT000030	107.9365	110.4755	109.2920	6.0155e-01	4.2432e+00
158	IHT000031	105.8218	108.3609	107.2749	6.0767e-01	4.2380e+00
159	IHT000032	107.0388	109.5778	108.2692	6.3779e-01	4.2405e+00
160	IHT000033	107.0313	109.3750	108.2266	6.2095e-01	4.2404e+00
161	IHT000034	93.7200	95.6731	94.8137	5.3525e-01	4.2082e+00
162	IHT000035	123.7305	125.6836	124.8633	5.2645e-01	4.2859e+00
163	IHT000036	92.1988	94.3472	93.5034	4.8237e-01	4.2053e+00

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Velocity 1 = 3.4646 (ft/sec) (+/- 14.3828 %)
 Velocity 2 = 3.4843 (ft/sec) (+/- 6.0592 %)
 Pressure drop = -4.8038 (psi)
 Tsat in = 267.7453 (deg F) Tsat out = 274.3489 (deg F)
 Phi inner = 99.8805 (kBtu/hr-ft2) (+/- 1.5719 %)
 Phi outer = 100.6084 (kBtu/hr-ft2) (+/- 1.5515 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	74.8162	75.2415	74.9650	1.7842e-01	1.9000e+00
1	TRF0000002	75.1456	75.7801	75.4544	1.4306e-01	1.9000e+00
2	TFM0000001	87.1571	88.1002	87.4967	1.9236e-01	1.9002e+00
3	TIN0000001	87.2542	87.8841	87.5941	1.6373e-01	1.9002e+00
4	TRV0000001	88.5256	89.3624	88.8895	2.0395e-01	1.9002e+00
5	TSR0000001	162.7824	165.7388	164.0403	9.9651e-01	1.9059e+00
6	EMPTY	37.9974	38.9168	38.3882	2.3791e-01	1.9010e+00
7	TAO050136	220.9688	221.7281	221.3674	2.0193e-01	1.9154e+00
8	TAO070136	232.7777	234.1994	233.5817	3.0351e-01	1.9179e+00
9	TAO080136	239.7014	240.7311	240.2067	2.1403e-01	1.9194e+00
10	TAO090136	204.7426	205.7990	205.2227	2.7018e-01	1.9123e+00
11	TAO100136	258.4421	259.5562	259.0473	2.9259e-01	1.9239e+00
12	TAO105136	263.9094	265.7609	264.7166	4.3345e-01	1.9254e+00
13	EMPTY	-601.0594	-601.0594	-601.0591	3.6993e-04	2.1295e+00
14	TAO115136	279.5910	280.6042	280.1510	2.8528e-01	1.9295e+00
15	EMPTY	31.3055	42.8139	39.1419	2.9666e+00	1.9010e+00
16	TAO125136	293.6471	294.6461	294.1736	2.2616e-01	1.9336e+00
17	EMPTY	44.8706	45.5552	45.2540	2.0325e-01	1.9014e+00
18	EMPTY	41.4403	41.8984	41.5960	1.1744e-01	1.9012e+00
19	TAO130048	269.8645	270.4177	270.1484	1.6741e-01	1.9268e+00
20	TAO120224	278.4955	279.3220	279.0208	2.0162e-01	1.9292e+00
21	EMPTY	39.1464	39.8352	39.5414	1.6749e-01	1.9011e+00
22	TAO120312	284.3476	285.3562	284.8907	2.6436e-01	1.9309e+00
23	TAO130312	273.2230	273.9592	273.6682	1.7868e-01	1.9277e+00
24	EMPTY	39.1464	39.8352	39.4633	1.7287e-01	1.9010e+00
25	TRT0700003	224.5447	230.9364	227.8177	1.5577e+00	1.9167e+00
26	TRT1009000	271.3984	272.3193	271.8254	2.2162e-01	1.9272e+00
27	TRT1200000	279.9833	280.9012	280.4643	2.1268e-01	1.9296e+00
28	TRT1250000	282.6825	283.3220	283.0839	1.7976e-01	1.9303e+00
29	EMPTY	39.8352	40.2940	40.0876	9.5554e-02	1.9011e+00
30	EMPTY	39.3761	40.0646	39.6745	1.8109e-01	1.9011e+00
31	TAF050136	145.1220	147.3194	146.1925	5.4704e-01	1.9039e+00
32	TAF070136	162.8827	166.8124	164.9714	7.2687e-01	1.9061e+00
33	TAF080136	172.9556	175.8796	174.8108	6.0256e-01	1.9074e+00
34	TAF090136	181.8544	185.2643	184.0099	7.2380e-01	1.9087e+00
35	TAF100136	196.0167	200.8518	197.8672	1.3607e+00	1.9110e+00
36	TAF105136	203.7825	207.4975	205.0828	6.9017e-01	1.9123e+00
37	TAF110136	212.8850	221.8018	217.1245	2.2883e+00	1.9145e+00
38	TAF115136	219.1873	222.9820	220.4331	7.8423e-01	1.9152e+00
39	TAF120136	225.5638	228.1081	226.4770	5.3345e-01	1.9164e+00
40	TAF125136	231.4552	233.4236	232.2652	4.3452e-01	1.9177e+00
41	TAF130136	236.3213	238.2934	237.2382	3.9916e-01	1.9187e+00
42	TAF120048	222.3855	225.0613	223.5750	6.5576e-01	1.9158e+00
43	TAF130048	230.3598	233.2863	231.3687	5.1694e-01	1.9175e+00
44	TAF120224	223.1736	225.4480	224.0724	5.2200e-01	1.9159e+00
45	TAF130224	232.9158	235.4739	234.6065	4.8069e-01	1.9183e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	37.9928	2.2030e-01	1.9010e+00
47	EMPTY	39.3761	40.0646	39.7158	1.4839e-01	1.9011e+00
48	TAI130048	286.4692	287.2925	286.8826	1.6553e-01	1.9314e+00
49	TAI130136	289.6788	290.3169	289.9958	1.4066e-01	1.9323e+00
50	TAI130224	285.8847	286.5267	286.2697	1.5925e-01	1.9313e+00
51	TAI130312	285.8362	286.3861	286.1369	1.3477e-01	1.9312e+00
52	TRR130000	140.3629	142.4685	141.3657	4.5216e-01	1.9034e+00
53	TSI0000001	42.6655	43.8599	43.2602	2.3463e-01	1.9005e+00
54	TSI0000002	86.1287	87.2819	86.7199	2.8228e-01	1.9002e+00
55	TSO0000001	40.9694	41.8456	41.3282	2.1434e-01	1.9006e+00
56	TSO0000002	55.2852	55.1469	55.7245	2.4218e-01	1.9001e+00
57	TAF020136	111.0263	114.1309	112.2023	6.1689e-01	1.9012e+00
58	EMPTY	42.5851	43.7285	43.1707	2.4949e-01	1.9013e+00
59	TAF130312	237.9684	240.5965	239.1627	5.1135e-01	1.9192e+00
60	EMPTY	4.1895	4.2090	4.1991	5.0772e-03	0.0000e+00
61	EMPTY	4.1797	4.1895	4.1859	3.2777e-03	0.0000e+00
62	EMPTY	4.1699	4.1797	4.1743	2.2603e-03	0.0000e+00
63	EMPTY	4.1650	4.1748	4.1693	2.3428e-03	0.0000e+00
64	EMPTY	1.9482	1.9531	1.9491	1.8950e-03	0.0000e+00
65	EMPTY	1.9580	1.9629	1.9612	2.3365e-03	0.0000e+00
66	EMPTY	1.9629	1.9678	1.9677	6.9053e-04	0.0000e+00
67	EMPTY	1.9727	1.9775	1.9772	1.1714e-03	0.0000e+00
68	EMPTY	1.9775	1.9824	1.9822	9.6655e-04	0.0000e+00
69	EMPTY	1.9873	1.9922	1.9920	9.6655e-04	0.0000e+00
70	EMPTY	1.9971	2.0020	1.9981	2.0432e-03	0.0000e+00
71	EMPTY	2.0068	2.0166	2.0147	2.5894e-03	0.0000e+00
72	EMPTY	2.0166	2.0264	2.0206	2.1364e-03	0.0000e+00
73	EMPTY	2.0264	2.0313	2.0310	1.1714e-03	0.0000e+00
74	EMPTY	2.0361	2.0410	2.0362	6.9053e-04	0.0000e+00
75	EMPTY	2.0459	2.0508	2.0460	6.9053e-04	0.0000e+00
76	EMPTY	2.0508	2.0557	2.0513	1.4797e-03	0.0000e+00
77	EMPTY	2.0605	2.0654	2.0650	1.3381e-03	0.0000e+00
78	EMPTY	2.0752	2.0801	2.0786	2.2603e-03	0.0000e+00
79	EMPTY	2.0947	2.0996	2.0948	6.9053e-04	0.0000e+00
80	PAN020136	-18.1108	-13.9146	-17.2533	7.7798e-01	8.7107e-01
81	PAN050136	-36.4107	-29.8494	-32.2725	9.8389e-01	1.6819e+00
82	PAN070136	-22.3671	-14.5851	-20.7420	1.1233e+00	8.7154e-01
83	PAN080136	-14.1202	-4.3545	-10.4916	1.6660e+00	8.7040e-01
84	PAN090136	-13.3997	-5.3125	-10.0488	1.5881e+00	8.7036e-01
85	PAN100136	-12.9698	-5.1878	-10.8107	1.2058e+00	8.7042e-01
86	PAN105136	-6.2289	-3.9401	-4.8739	5.1366e-01	8.7009e-01
87	PAN110136	-6.0308	2.4378	-4.6758	1.3135e+00	8.7008e-01
88	PAN115136	-7.5700	-4.1367	-5.0584	5.8386e-01	8.7009e-01
89	PAN120136	-6.6235	-4.2584	-5.2930	4.6039e-01	8.7010e-01
90	PAN125136	-6.0176	-3.8814	-5.1158	4.9509e-01	8.7009e-01
91	PAN130136	-5.3515	-4.2071	-4.8983	2.6131e-01	8.7009e-01
92	PAN120048	-11.4102	-9.2740	-9.9408	4.0365e-01	8.7035e-01
93	PAN130048	-10.5402	-9.7772	-10.2365	2.0419e-01	8.7038e-01
94	PAN120224	-10.8526	-9.7082	-10.2499	2.9619e-01	8.7038e-01
95	PAN130224	-10.4755	-9.1023	-9.9064	3.3352e-01	8.7035e-01
96	PAN120312	-11.1915	-9.7419	-10.3111	3.0797e-01	8.7038e-01
97	PAN130312	-10.5474	-9.4030	-10.0729	2.8807e-01	8.7036e-01
98	PAB000136	40.1903	40.3734	40.2535	4.5203e-02	5.8867e-01
99	PAB100136	43.5240	43.9818	43.8948	6.8742e-02	5.9029e-01
100	PAB125136	44.8419	45.0250	44.9280	4.6829e-02	5.9078e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.9787	40.2229	40.0984	9.0580e-02	7.5667e-01
102	PRV000001	15.4098	15.5319	15.5026	5.2663e-02	7.5100e-01
103	PSR000001	45.2255	45.2255	45.2256	3.0827e-05	7.5847e-01
104	PFM000001	1.6373	1.9120	1.7911	6.7809e-02	5.0002e-01
105	PAN000136	-133.6927	-132.3194	-132.9969	4.2622e-01	4.9312e+00
106	PFM000002	1.7813	1.8484	1.8121	2.0442e-02	2.0005e-01
107	EMPTY	-0.0049	0.0049	-0.0025	3.5895e-03	0.0000e+00
108	EMPTY	-10.0000	-3.8184	-5.2699	1.6511e+00	0.0000e+00
109	EMPTY	-0.0049	0.0049	-0.0011	3.0067e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0013	2.1635e-03	0.0000e+00
112	VPW000001	102.1184	102.5090	102.4348	1.0358e-01	1.0168e+00
113	VPW000002	119.1293	119.7153	119.4614	1.0625e-01	1.0816e+00
114	VPW000003	147.2206	147.6112	147.4628	1.2823e-01	1.1996e+00
115	VPW000004	105.0255	105.6115	105.2833	1.5505e-01	1.0272e+00
116	VPW000005	139.7236	140.1142	139.7978	1.0358e-01	1.1660e+00
117	VPW000006	145.9322	146.5182	146.1900	1.2750e-01	1.1939e+00
118	IPW000001	551.5372	559.3466	554.9734	1.9145e+00	9.2104e+00
119	IPW000002	1287.3875	1302.9977	1294.8418	4.8070e+00	1.3048e+01
120	IPW000003	1312.0875	1317.9375	1315.7928	1.4872e+00	1.3178e+01
121	IPW000004	375.7700	379.1880	377.3127	9.9805e-01	3.5896e+00
122	IPW000005	253.4959	254.4724	253.7792	2.8056e-01	2.8319e+00
123	IPW000006	264.7705	266.2354	265.5420	3.1335e-01	2.8984e+00
124	EMPTY	-0.0293	-0.0146	-0.0209	4.0721e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0141	2.8996e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0176	3.8206e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0173	3.4470e-03	0.0000e+00
128	IHT000001	130.8406	133.3797	131.8329	5.8506e-01	4.3067e+00
129	IHT000002	130.0405	132.5796	131.2163	5.3596e-01	4.3049e+00
130	IHT000003	128.9175	131.8472	130.1480	6.1921e-01	4.3016e+00
131	IHT000004	131.1035	133.6426	132.2988	6.0056e-01	4.3082e+00
132	IHT000005	129.4433	131.7871	130.5058	6.1404e-01	4.3027e+00
133	IHT000006	125.0000	127.3437	126.1641	5.7312e-01	4.2897e+00
134	IHT000007	131.5618	133.7102	132.5226	5.3936e-01	4.3089e+00
135	IHT000008	130.2246	132.5683	131.3457	5.2022e-01	4.3052e+00
136	IHT000009	129.8753	132.2190	130.9027	5.3205e-01	4.3039e+00
137	IHT000010	130.1157	132.2641	131.2720	5.7432e-01	4.3050e+00
138	IHT000011	131.0209	133.1693	132.2827	5.2676e-01	4.3081e+00
139	IHT000012	130.1871	132.5308	131.3550	5.1522e-01	4.3053e+00
140	IHT000013	91.7931	93.9416	92.9533	4.8874e-01	4.2040e+00
141	IHT000014	127.4677	129.8114	128.5888	4.8297e-01	4.2969e+00
142	IHT000015	94.7190	96.6722	95.5276	4.4294e-01	4.2098e+00
143	IHT000016	88.8672	90.8203	89.6641	4.5308e-01	4.1969e+00
144	IHT000017	104.8565	107.7862	106.4854	7.6168e-01	4.2360e+00
145	IHT000018	106.9787	109.5177	107.9357	5.0571e-01	4.2397e+00
146	IHT000019	107.2454	109.5891	108.5383	4.8631e-01	4.2412e+00
147	IHT000020	105.4086	107.5571	106.7485	4.4118e-01	4.2367e+00
148	IHT000021	-3.0161	-0.6723	-1.5708	5.7453e-01	4.1000e+00
149	IHT000022	92.3603	94.1181	93.3486	4.3119e-01	4.2049e+00
150	IHT000023	105.0180	106.7758	105.9868	4.6682e-01	4.2348e+00
151	IHT000024	69.9670	71.9201	71.0568	4.5006e-01	4.1611e+00
152	IHT000025	102.4114	104.1692	103.3176	4.6981e-01	4.2282e+00
153	IHT000026	105.0894	106.8472	106.0112	4.7193e-01	4.2348e+00
154	IHT000027	90.0053	91.9584	90.8256	4.6354e-01	4.1994e+00
155	IHT000028	90.8091	93.5434	91.8091	6.1338e-01	4.2015e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	106.0284	108.5675	107.0752	6.2734e-01	4.2375e+00
157	IHT000030	108.5224	111.0615	109.4873	5.9896e-01	4.2437e+00
158	IHT000031	106.4077	109.1421	107.3921	6.0356e-01	4.2383e+00
159	IHT000032	107.4294	109.9685	108.4684	5.9509e-01	4.2411e+00
160	IHT000033	107.4219	109.9609	108.4258	6.0233e-01	4.2409e+00
161	IHT000034	93.9153	96.2590	94.9777	5.7203e-01	4.2086e+00
162	IHT000035	124.1211	126.2695	124.9336	5.8840e-01	4.2861e+00
163	IHT000036	92.3941	95.1285	93.6402	5.9958e-01	4.2056e+00

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Velocity 1 = 3.0227 (ft/sec) (+/- 18.7939 %)
 Velocity 2 = 3.0226 (ft/sec) (+/- 7.5014 %)
 Pressure drop = -4.9636 (psi)
 Tsat in = 267.6204 (deg F) Tsat out = 274.5119 (deg F)
 Phi inner = 99.0216 (kBtu/hr-ft2) (+/- 1.5741 %)
 Phi outer = 100.0921 (kBtu/hr-ft2) (+/- 1.5529 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	74.8162	75.4540	75.3052	1.6773e-01	1.9000e+00
1	TRF0000002	75.5686	75.9915	75.7377	1.4797e-01	1.9000e+00
2	TFH0000001	84.7480	85.4828	85.1111	1.9465e-01	1.9002e+00
3	TIN0000001	84.7306	85.4667	85.0945	1.5359e-01	1.9002e+00
4	TRV0000001	86.0171	86.9603	86.5014	2.1366e-01	1.9002e+00
5	TSR0000001	152.6887	164.7559	157.9741	3.3524e+00	1.9052e+00
6	EMPTY	37.9974	38.9168	38.4664	2.4108e-01	1.9010e+00
7	TAO050136	230.7858	231.6352	231.2412	1.9673e-01	1.9174e+00
8	TAO070136	242.8036	243.7451	243.2012	2.2365e-01	1.9201e+00
9	TAO080136	250.5081	251.2514	250.8661	1.8889e-01	1.9219e+00
10	TAO090136	210.1083	211.1609	210.5813	2.2320e-01	1.9133e+00
11	TAO100136	271.0229	272.2217	271.7959	2.5115e-01	1.9272e+00
12	TAO105136	275.9076	277.0116	276.4617	2.7272e-01	1.9285e+00
13	EMPTY	-601.0594	-601.0594	-601.0591	3.6993e-04	2.1295e+00
14	TAO115136	291.1682	292.4489	291.7300	2.4602e-01	1.9328e+00
15	EMPTY	31.7686	43.0426	39.7690	3.5406e+00	1.9011e+00
16	TAO125136	301.1608	302.4259	301.9432	2.5615e-01	1.9359e+00
17	EMPTY	44.8706	45.5552	45.2312	1.9608e-01	1.9014e+00
18	EMPTY	41.4403	41.8984	41.5914	1.2766e-01	1.9012e+00
19	TAO130048	282.3216	283.7822	282.9917	3.639e-01	1.9303e+00
20	TAO120224	289.1199	291.1285	290.4914	3.6395e-01	1.9325e+00
21	EMPTY	39.3761	40.0646	39.6148	1.4635e-01	1.9011e+00
22	TAO120312	297.0505	298.4158	297.7804	3.0298e-01	1.9346e+00
23	TAO130312	285.3129	286.5914	285.7753	2.7941e-01	1.9311e+00
24	EMPTY	39.1464	39.8352	39.5230	1.6568e-01	1.9011e+00
25	TRT070000	233.9808	238.8186	235.9078	1.2068e+00	1.9185e+00
26	TRT100000	289.5350	290.7208	290.2341	2.5829e-01	1.9324e+00
27	TRT120000	295.4218	296.1499	295.8860	1.7754e-01	1.9341e+00
28	TRT125000	295.5677	296.3834	296.0483	1.9323e-01	1.9341e+00
29	EMPTY	39.8352	40.2940	40.1105	1.0364e-01	1.9011e+00
30	EMPTY	39.3761	40.0646	39.6607	1.8871e-01	1.9011e+00
31	TAF050136	152.5965	155.2776	153.8143	5.5966e-01	1.9047e+00
32	TAF070136	173.7640	177.1768	175.2363	6.5749e-01	1.9074e+00
33	TAF080136	185.4810	187.5103	186.5188	5.4025e-01	1.9091e+00
34	TAF090136	196.4139	198.6334	197.8749	4.8112e-01	1.9110e+00
35	TAF100136	212.1049	214.2112	213.2215	5.1707e-01	1.9138e+00
36	TAF105136	221.7818	223.5731	222.6142	4.1984e-01	1.9156e+00
37	TAF110136	232.3591	234.7995	233.4466	5.5927e-01	1.9179e+00
38	TAF115136	239.9422	242.6591	241.2863	6.8566e-01	1.9197e+00
39	TAF120136	246.2689	249.0595	247.4516	6.1645e-01	1.9211e+00
40	TAF125136	254.5500	256.7692	255.7060	4.2079e-01	1.9231e+00
41	TAF130136	262.5981	264.6310	263.4760	4.7355e-01	1.9251e+00
42	TAF120048	239.8915	242.4438	241.0137	6.1020e-01	1.9196e+00
43	TAF130048	249.1454	252.0379	250.5249	5.3596e-01	1.9218e+00
44	TAF120224	240.8056	242.9618	241.8916	4.9916e-01	1.9198e+00
45	TAF130224	251.4962	253.3714	252.6568	4.2242e-01	1.9223e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.2273	38.0020	1.8284e-01	1.9010e+00
47	EMPTY	39.6057	40.0646	39.8168	9.0861e-02	1.9011e+00
48	TAI130048	298.3185	299.0456	298.6622	1.6658e-01	1.9349e+00
49	TAI130136	301.1973	301.9205	301.5610	1.5902e-01	1.9358e+00
50	TAI130224	295.2155	295.9447	295.6404	1.6533e-01	1.9340e+00
51	TAI130312	297.2519	297.9799	297.6725	1.7815e-01	1.9346e+00
52	TRR130000	143.8697	146.3673	145.3109	5.2456e-01	1.9038e+00
53	TSI0000001	42.2320	42.9927	42.6383	1.9625e-01	1.9005e+00
54	TSI0000002	92.6081	94.3799	93.5987	3.4668e-01	1.9004e+00
55	TSO0000001	39.9811	40.9665	40.5313	2.3960e-01	1.9006e+00
56	TSO0000002	55.7163	56.5775	56.1533	2.2959e-01	1.9001e+00
57	TAF020136	113.0949	115.5769	114.2676	5.8353e-01	1.9013e+00
58	EMPTY	42.8139	43.5000	43.1158	2.4203e-01	1.9013e+00
59	TAF130312	258.3114	259.9810	259.1859	4.7280e-01	1.9240e+00
60	EMPTY	4.6973	4.7217	4.7105	6.6204e-03	0.0000e+00
61	EMPTY	4.6826	4.7021	4.6925	6.0401e-03	0.0000e+00
62	EMPTY	4.6680	4.6875	4.6765	6.0658e-03	0.0000e+00
63	EMPTY	4.6582	4.6777	4.6675	5.1496e-03	0.0000e+00
64	EMPTY	2.1631	2.1777	2.1697	3.2359e-03	0.0000e+00
65	EMPTY	2.1729	2.1826	2.1793	2.6908e-03	0.0000e+00
66	EMPTY	2.1777	2.1924	2.1851	3.3087e-03	0.0000e+00
67	EMPTY	2.1875	2.1973	2.1920	3.3944e-03	0.0000e+00
68	EMPTY	2.1924	2.2021	2.1952	3.5691e-03	0.0000e+00
69	EMPTY	2.2021	2.2070	2.2036	2.2603e-03	0.0000e+00
70	EMPTY	2.2070	2.2168	2.2090	2.7902e-03	0.0000e+00
71	EMPTY	2.2217	2.2314	2.2233	2.5362e-03	0.0000e+00
72	EMPTY	2.2266	2.2363	2.2277	2.3261e-03	0.0000e+00
73	EMPTY	2.2363	2.2412	2.2372	1.8950e-03	0.0000e+00
74	EMPTY	2.2412	2.2461	2.2422	1.9730e-03	0.0000e+00
75	EMPTY	2.2461	2.2559	2.2495	2.4662e-03	0.0000e+00
76	EMPTY	2.2510	2.2607	2.2548	2.2689e-03	0.0000e+00
77	EMPTY	2.2607	2.2705	2.2652	1.6624e-03	0.0000e+00
78	EMPTY	2.2754	2.2803	2.2779	2.4642e-03	0.0000e+00
79	EMPTY	2.2900	2.2998	2.2941	2.0598e-03	0.0000e+00
80	PAN020136	-17.3479	-14.7539	-16.7238	6.2719e-01	8.7100e-01
81	PAN050136	-32.9012	-31.5279	-32.2848	3.1432e-01	1.6819e+00
82	PAN070136	-18.9338	-17.7131	-18.3616	3.3104e-01	8.7121e-01
83	PAN080136	-12.2891	-10.9921	-11.6635	3.1626e-01	8.7049e-01
84	PAN090136	-11.4923	-10.0427	-10.7401	3.7535e-01	8.7041e-01
85	PAN100136	-10.7573	-7.3241	-8.7233	7.6132e-01	8.7027e-01
86	PAN105136	-6.3052	-6.0000	-6.1358	5.1791e-02	8.7014e-01
87	PAN110136	-2.0635	-0.0799	-0.9649	4.4965e-01	8.7000e-01
88	PAN115136	-7.6463	-7.4937	-7.5486	5.3484e-02	8.7020e-01
89	PAN120136	-7.0050	-0.7489	-4.0234	1.4155e+00	8.7006e-01
90	PAN125136	-6.0939	-3.4999	-5.5538	6.4034e-01	8.7011e-01
91	PAN130136	-5.8855	-0.1635	-3.0047	1.4415e+00	8.7003e-01
92	PAN120048	-11.9443	-0.9580	-7.8046	3.0119e+00	8.7022e-01
93	PAN130048	-10.0824	-5.8099	-8.1934	9.7333e-01	8.7024e-01
94	PAN120224	-13.0651	-7.0379	-9.6990	1.4887e+00	8.7034e-01
95	PAN130224	-10.6281	-5.6690	-8.6475	1.2734e+00	8.7027e-01
96	PAN120312	-11.3441	-3.4095	-7.6317	1.9477e+00	8.7021e-01
97	PAN130312	-12.6074	-8.8690	-10.4986	9.2876e-01	8.7040e-01
98	PAB000136	40.0530	40.3276	40.1693	5.7167e-02	5.8863e-01
99	PAB100136	43.5240	43.8445	43.6843	6.0821e-02	5.9019e-01
100	PAB125136	44.9335	45.2081	45.0488	7.4699e-02	5.9083e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.7346	40.1008	39.9641	1.0929e-01	7.5663e-01
102	PRV0000001	15.5319	15.6539	15.5416	3.3453e-02	7.5101e-01
103	PSR0000001	45.2255	45.3476	45.2280	1.7263e-02	7.5848e-01
104	PFM0000001	1.2711	1.4542	1.3535	7.2231e-02	5.0001e-01
105	PAN000136	-140.5591	-132.3194	-137.4189	1.9575e+00	4.9320e+00
106	PFM0000002	1.3282	1.4121	1.3534	2.4969e-02	2.0003e-01
107	EMPTY	-0.0049	0.0049	-0.0034	3.0003e-03	0.0000e+00
108	EMPTY	-10.0000	-3.9063	-5.3395	1.3586e+00	0.0000e+00
109	EMPTY	-0.0049	0.0049	-0.0022	2.6488e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0016	2.3008e-03	0.0000e+00
112	VPW0000001	102.1184	102.7043	102.4074	1.8185e-01	1.0167e+00
113	VPW0000002	119.1293	119.7153	119.4380	1.1897e-01	1.0815e+00
114	VPW0000003	147.2206	147.8065	147.4862	1.3532e-01	1.1997e+00
115	VPW0000004	105.0255	105.4162	105.2833	1.2750e-01	1.0272e+00
116	VPW0000005	139.5282	140.1142	139.7783	1.5303e-01	1.1660e+00
117	VPW0000006	146.1275	146.7135	146.3658	1.8207e-01	1.1947e+00
118	IPW0000001	561.2990	569.1083	563.7198	1.9941e+00	9.2435e+00
119	IPW0000002	1267.8748	1283.4850	1275.3291	4.8392e+00	1.2927e+01
120	IPW0000003	1298.4375	1306.2375	1302.9222	2.0939e+00	1.3098e+01
121	IPW0000004	376.7466	379.6763	378.3381	7.6926e-01	3.5963e+00
122	IPW0000005	252.0312	253.9841	253.1054	4.2996e-01	2.8281e+00
123	IPW0000006	263.3057	265.2588	264.3018	4.7269e-01	2.8913e+00
124	EMPTY	-0.0293	-0.0098	-0.0203	3.8662e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0144	3.0261e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0165	3.8066e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0174	3.7121e-03	0.0000e+00
128	IHT0000001	130.8406	133.1843	131.7469	5.8095e-01	4.3065e+00
129	IHT0000002	130.2359	132.5796	131.1734	5.7453e-01	4.3047e+00
130	IHT0000003	128.9175	131.6519	130.1402	5.7156e-01	4.3016e+00
131	IHT0000004	130.9082	133.8379	132.3105	5.8486e-01	4.3082e+00
132	IHT0000005	129.2480	131.9824	130.5176	5.7079e-01	4.3027e+00
133	IHT0000006	125.0000	127.5390	126.1719	5.5524e-01	4.2897e+00
134	IHT0000007	131.5618	134.1008	132.5578	6.0650e-01	4.3090e+00
135	IHT0000008	130.2246	132.9590	131.3105	6.0510e-01	4.3051e+00
136	IHT0000009	129.6800	132.2190	130.8558	5.8858e-01	4.3038e+00
137	IHT0000010	129.7251	132.0688	131.2134	5.1884e-01	4.3048e+00
138	IHT0000011	130.6303	133.1693	132.2749	4.9299e-01	4.3081e+00
139	IHT0000012	129.6011	132.3355	131.3316	5.2201e-01	4.3052e+00
140	IHT0000013	91.0119	93.7463	92.7736	5.0144e-01	4.2037e+00
141	IHT0000014	126.6865	129.2255	128.4091	4.9707e-01	4.2964e+00
142	IHT0000015	93.9378	96.2815	95.4417	4.6059e-01	4.2096e+00
143	IHT0000016	88.0859	90.6250	89.6133	5.0485e-01	4.1968e+00
144	IHT0000017	104.6612	108.1768	106.6221	8.4994e-01	4.2364e+00
145	IHT0000018	106.1974	109.3224	107.8849	5.7013e-01	4.2396e+00
146	IHT0000019	107.4407	109.3938	108.4172	4.8327e-01	4.2409e+00
147	IHT0000020	105.7993	107.7524	106.6118	4.6246e-01	4.2363e+00
148	IHT0000021	-2.6255	-0.4770	-1.5669	5.8273e-01	4.1000e+00
149	IHT0000022	92.3603	94.5087	93.2822	5.2056e-01	4.2048e+00
150	IHT0000023	104.8227	106.7758	105.8813	4.7693e-01	4.2345e+00
151	IHT0000024	69.9670	71.7248	70.9709	4.4118e-01	4.1610e+00
152	IHT0000025	102.4114	103.9739	103.2394	4.4566e-01	4.2280e+00
153	IHT0000026	105.0894	106.8472	105.9097	4.2315e-01	4.2346e+00
154	IHT0000027	89.8100	92.1537	90.7866	4.9126e-01	4.1993e+00
155	IHT0000028	90.4184	93.1528	91.7231	6.7363e-01	4.2013e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	105.6378	108.3722	107.0010	6.9976e-01	4.2373e+00
157	IHT0000030	107.9365	110.8661	109.4052	6.3041e-01	4.2435e+00
158	IHT0000031	106.0171	108.5562	107.3413	6.0784e-01	4.2382e+00
159	IHT0000032	107.0388	109.9685	108.3903	6.4215e-01	4.2409e+00
160	IHT0000033	107.0313	109.9609	108.3203	6.4718e-01	4.2407e+00
161	IHT0000034	93.7200	96.4543	94.9387	5.4471e-01	4.2085e+00
162	IHT0000035	123.7305	126.4648	124.8359	5.6305e-01	4.2858e+00
163	IHT0000036	92.3941	95.1285	93.6050	5.0378e-01	4.2055e+00

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Velocity 1 = 3.2150 (ft/sec) (+/- 16.6357 %)
 Velocity 2 = 3.1886 (ft/sec) (+/- 6.8947 %)
 Pressure drop = -4.8498 (psi)
 Tsat in = 267.6571 (deg F) Tsat out = 274.3959 (deg F)
 Phi inner = 100.5703 (kBtu/hr-ft2) (+/- 1.5701 %)
 Phi outer = 100.2721 (kBtu/hr-ft2) (+/- 1.5541 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	75.8791	76.5163	76.2105	2.0203e-01	1.9000e+00
1	TRF000002	76.4142	77.0480	76.7015	1.6944e-01	1.9000e+00
2	TFM000001	85.0653	85.9046	85.4179	1.7836e-01	1.9002e+00
3	TIN000001	84.9402	85.6767	85.2519	1.7129e-01	1.9002e+00
4	TRV000001	86.2304	87.2768	86.8337	2.0575e-01	1.9002e+00
5	TSR000001	162.2943	165.6463	164.4439	8.4559e-01	1.9060e+00
6	EMPTY	37.9974	38.9168	38.4664	2.3197e-01	1.9010e+00
7	TAO050136	231.8252	233.0489	232.3344	2.4953e-01	1.9177e+00
8	TAO070136	237.6050	238.9273	238.1228	2.9507e-01	1.9189e+00
9	TAO080136	245.2119	246.1454	245.6305	1.9075e-01	1.9207e+00
10	TAO090136	218.8838	219.7402	219.3023	1.9698e-01	1.9150e+00
11	TAO100136	268.2570	269.2729	268.7301	2.5210e-01	1.9264e+00
12	TAO105136	271.8569	273.6077	272.6570	3.9869e-01	1.9275e+00
13	EMPTY	-601.0594	-601.0594	-601.0591	3.6993e-04	2.1295e+00
14	TAO115136	287.6818	288.7814	288.2644	2.6815e-01	1.9318e+00
15	EMPTY	31.5371	42.8139	38.5467	3.6951e+00	1.9010e+00
16	TAO125136	296.6424	297.4593	297.0420	1.8517e-01	1.9344e+00
17	EMPTY	44.8706	45.5552	45.2723	1.9319e-01	1.9014e+00
18	EMPTY	41.4403	41.8984	41.5914	1.1898e-01	1.9012e+00
19	TAO130048	278.8535	280.2272	279.6300	2.8653e-01	1.9294e+00
20	TAO120224	284.9147	286.4706	285.5996	3.2925e-01	1.9311e+00
21	EMPTY	39.3761	40.2940	39.6102	1.5718e-01	1.9011e+00
22	TAO120312	293.4941	294.5889	293.9723	2.4833e-01	1.9335e+00
23	TAO130312	282.1178	283.6733	283.0913	2.8203e-01	1.9303e+00
24	EMPTY	39.1464	39.8352	39.6056	1.8551e-01	1.9011e+00
25	TRT070000	232.4528	234.6391	233.7992	4.1395e-01	1.9180e+00
26	TRT100000	282.0482	283.0559	282.6492	2.5245e-01	1.9302e+00
27	TRT120000	290.0477	290.8694	290.3182	2.0779e-01	1.9324e+00
28	TRT125000	290.3214	291.0506	290.7006	1.8607e-01	1.9325e+00
29	EMPTY	39.8352	40.2940	40.0968	9.2814e-02	1.9011e+00
30	EMPTY	39.3761	40.0646	39.6929	2.3595e-01	1.9011e+00
31	TAP050136	150.0132	152.4032	151.1888	5.4988e-01	1.9044e+00
32	TAP070136	170.4448	173.7704	171.9796	6.5081e-01	1.9070e+00
33	TAP080136	180.9373	183.1679	181.7412	4.4999e-01	1.9084e+00
34	TAP090136	191.6746	193.9021	192.8683	4.8530e-01	1.9101e+00
35	TAP100136	206.3438	209.8030	208.1240	8.5103e-01	1.9128e+00
36	TAP105136	215.2816	218.8704	217.4168	8.6684e-01	1.9146e+00
37	TAP110136	227.1884	234.2427	231.0475	1.7986e+00	1.9174e+00
38	TAP115136	232.6196	235.0645	233.9664	5.5156e-01	1.9180e+00
39	TAP120136	239.2790	241.8014	240.3482	5.4712e-01	1.9194e+00
40	TAP125136	245.4711	247.7025	246.6715	4.8111e-01	1.9209e+00
41	TAP130136	251.3783	253.3313	252.2636	4.4997e-01	1.9222e+00
42	TAP120048	232.5839	235.2429	234.2290	5.7322e-01	1.9181e+00
43	TAP130048	241.8459	244.3772	242.7916	6.1547e-01	1.9200e+00
44	TAP120224	234.5128	236.3954	235.3530	4.4297e-01	1.9183e+00
45	TAP130224	244.9144	246.7967	246.0134	4.2397e-01	1.9208e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	38.0112	2.2477e-01	1.9010e+00
47	EMPTY	39.3761	40.0646	39.7204	1.4845e-01	1.9011e+00
48	TAI130048	294.7722	295.4099	295.1003	1.5613e-01	1.9338e+00
49	TAI130136	297.0366	297.8542	297.3928	1.7591e-01	1.9345e+00
50	TAI130224	296.4912	297.3112	296.9358	1.7998e-01	1.9344e+00
51	TAI130312	293.6062	294.5179	294.0219	1.9597e-01	1.9335e+00
52	TRR130000	139.7658	145.6729	142.6043	1.4551e+00	1.9035e+00
53	TSI000001	42.4526	43.3212	42.9041	2.0647e-01	1.9005e+00
54	TSI000002	87.2851	89.6908	88.7159	4.8904e-01	1.9002e+00
55	TSO000001	40.4158	41.4008	40.8448	2.4586e-01	1.9006e+00
56	TSO000002	55.6090	56.6849	56.1000	2.2087e-01	1.9001e+00
57	TAF020136	111.8472	114.9500	113.2838	8.8142e-01	1.9013e+00
58	EMPTY	42.8139	43.5000	43.1341	2.4008e-01	1.9013e+00
59	TAF130312	249.6663	252.0895	250.9456	4.3110e-01	1.9219e+00
60	EMPTY	4.4678	4.4922	4.4753	5.5110e-03	0.0000e+00
61	EMPTY	4.4531	4.4678	4.4598	4.0385e-03	0.0000e+00
62	EMPTY	4.4434	4.4531	4.4467	3.0309e-03	0.0000e+00
63	EMPTY	4.4385	4.4434	4.4398	2.2146e-03	0.0000e+00
64	EMPTY	2.0703	2.0752	2.0716	2.1635e-03	0.0000e+00
65	EMPTY	2.0752	2.0850	2.0822	2.6396e-03	0.0000e+00
66	EMPTY	2.0850	2.0947	2.0894	1.7784e-03	0.0000e+00
67	EMPTY	2.0947	2.0996	2.0964	2.3365e-03	0.0000e+00
68	EMPTY	2.0996	2.1045	2.1006	1.9730e-03	0.0000e+00
69	EMPTY	2.1094	2.1143	2.1096	9.6655e-04	0.0000e+00
70	EMPTY	2.1143	2.1191	2.1159	2.3365e-03	0.0000e+00
71	EMPTY	2.1289	2.1338	2.1310	2.4344e-03	0.0000e+00
72	EMPTY	2.1338	2.1387	2.1351	2.1635e-03	0.0000e+00
73	EMPTY	2.1436	2.1533	2.1456	2.6267e-03	0.0000e+00
74	EMPTY	2.1484	2.1533	2.1512	2.4484e-03	0.0000e+00
75	EMPTY	2.1582	2.1631	2.1599	2.3365e-03	0.0000e+00
76	EMPTY	2.1631	2.1680	2.1648	2.3675e-03	0.0000e+00
77	EMPTY	2.1729	2.1777	2.1758	2.4164e-03	0.0000e+00
78	EMPTY	2.1875	2.1973	2.1896	2.6267e-03	0.0000e+00
79	EMPTY	2.2021	2.2070	2.2047	2.4642e-03	0.0000e+00
80	PAN020136	-20.2470	-14.7539	-16.8718	1.4784e+00	8.7102e-01
81	PAN050136	-37.6314	-30.7650	-35.0161	1.6024e+00	1.6823e+00
82	PAN070136	-20.2308	-15.5769	-17.1074	1.3345e+00	8.7105e-01
83	PAN080136	-11.9839	-10.8395	-11.2591	2.4866e-01	8.7046e-01
84	PAN090136	-11.4160	-9.5087	-10.4074	4.8847e-01	8.7039e-01
85	PAN100136	-13.0461	-7.7055	-12.3045	1.0659e+00	8.7054e-01
86	PAN105136	-6.2289	-3.8638	-5.7086	5.9492e-01	8.7012e-01
87	PAN110136	-6.7938	-3.0554	-5.1290	1.1821e+00	8.7009e-01
88	PAN115136	-6.6544	-2.2294	-4.0467	9.1002e-01	8.7006e-01
89	PAN120136	-7.0050	-3.1140	-6.2421	9.0705e-01	8.7014e-01
90	PAN125136	-6.0939	-1.2874	-4.2064	1.2555e+00	8.7006e-01
91	PAN130136	-5.6566	-2.4523	-3.8866	9.3186e-01	8.7005e-01
92	PAN120048	-11.9443	-6.9852	-9.3656	1.1751e+00	8.7032e-01
93	PAN130048	-11.0742	-7.6410	-9.4797	8.6965e-01	8.7032e-01
94	PAN120224	-13.0651	-7.4194	-10.2163	1.5628e+00	8.7037e-01
95	PAN130224	-11.3148	-4.8298	-8.3668	1.3860e+00	8.7025e-01
96	PAN120312	-12.4122	-6.8428	-9.1804	1.2939e+00	8.7030e-01
97	PAN130312	-10.3948	-6.6564	-9.0826	1.0402e+00	8.7030e-01
98	PAB000136	40.0072	40.3276	40.1940	5.9821e-02	5.8864e-01
99	PAB100136	43.5240	44.0276	43.8756	8.6480e-02	5.9028e-01
100	PAB125136	44.8877	45.1623	44.9628	5.2933e-02	5.9079e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.8567	40.2229	40.0520	7.3986e-02	7.5665e-01
102	PRV000001	15.4098	15.5319	15.5294	1.7263e-02	7.5106e-01
103	PSR000001	45.1035	45.3476	45.2256	3.4877e-02	7.5847e-01
104	PFH000001	1.3627	1.6373	1.5366	7.4562e-02	5.0001e-01
105	PAN000136	-139.1859	-131.8616	-134.2695	1.6744e+00	4.9314e+00
106	PFH000002	1.4792	1.5463	1.5108	1.8456e-02	2.0004e-01
107	EMPTY	-0.0049	0.0049	-0.0007	4.1864e-03	0.0000e+00
108	EMPTY	-10.0000	-3.9111	-5.9986	2.0996e+00	0.0000e+00
109	EMPTY	-0.0049	0.0049	-0.0002	2.4083e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	101.9231	102.8997	102.5480	2.0504e-01	1.0172e+00
113	VPW000002	119.1293	119.7153	119.4028	1.4764e-01	1.0814e+00
114	VPW000003	147.2206	147.8065	147.5214	1.5887e-01	1.1998e+00
115	VPW000004	105.0255	105.6115	105.3537	1.5505e-01	1.0275e+00
116	VPW000005	139.5282	140.1142	139.8486	1.8407e-01	1.1663e+00
117	VPW000006	145.7369	146.7135	146.1626	2.6962e-01	1.1938e+00
118	IPW000001	535.9185	545.6802	540.3699	2.3013e+00	9.1561e+00
119	IPW000002	1293.2413	1310.8027	1302.6854	5.2352e+00	1.3097e+01
120	IPW000003	1321.8375	1329.6375	1325.6207	1.6904e+00	1.3239e+01
121	IPW000004	372.8403	375.7700	374.1584	6.8523e-01	3.5689e+00
122	IPW000005	252.5194	253.9841	253.1249	4.0140e-01	2.8282e+00
123	IPW000006	265.2588	267.2119	266.1475	5.9753e-01	2.9019e+00
124	EMPTY	-0.0293	-0.0146	-0.0204	4.1491e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0126	3.1335e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0098	-0.0165	3.4016e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0155	3.5141e-03	0.0000e+00
128	IHT000001	130.4500	132.7937	131.8836	5.7536e-01	4.3069e+00
129	IHT000002	129.8452	132.3843	131.3491	6.0135e-01	4.3053e+00
130	IHT000003	128.9175	131.4566	130.3472	6.2195e-01	4.3022e+00
131	IHT000004	131.1035	133.6426	132.4980	6.4236e-01	4.3088e+00
132	IHT000005	129.4433	131.7871	130.7129	6.3779e-01	4.3033e+00
133	IHT000006	125.1953	127.5390	126.4180	6.1487e-01	4.2905e+00
134	IHT000007	131.5618	134.1008	132.8351	5.7621e-01	4.3098e+00
135	IHT000008	130.4199	132.9590	131.5683	6.0056e-01	4.3059e+00
136	IHT000009	129.8753	132.6097	131.0863	5.7724e-01	4.3045e+00
137	IHT000010	130.5063	132.4594	131.4946	5.2409e-01	4.3057e+00
138	IHT000011	131.2162	133.3646	132.3335	5.7998e-01	4.3083e+00
139	IHT000012	130.1871	132.3355	131.3081	5.6194e-01	4.3051e+00
140	IHT000013	91.9884	93.9416	92.9728	4.9750e-01	4.2041e+00
141	IHT000014	127.4677	129.8114	128.5966	4.7889e-01	4.2969e+00
142	IHT000015	94.5237	96.6722	95.6058	4.5713e-01	4.2100e+00
143	IHT000016	88.8672	90.8203	89.7891	4.6528e-01	4.1972e+00
144	IHT000017	105.0518	107.9815	106.4424	7.0326e-01	4.2359e+00
145	IHT000018	106.5881	108.9318	107.8302	5.1108e-01	4.2394e+00
146	IHT000019	107.2454	109.5891	108.4563	4.6354e-01	4.2410e+00
147	IHT000020	105.2133	107.5571	106.5259	4.6528e-01	4.2361e+00
148	IHT000021	-3.0161	-0.4770	-1.5590	4.9159e-01	4.1000e+00
149	IHT000022	92.1650	94.3134	93.3525	4.5820e-01	4.2049e+00
150	IHT000023	104.4321	106.5805	105.6899	4.1603e-01	4.2340e+00
151	IHT000024	69.7716	71.7248	70.9240	3.9508e-01	4.1609e+00
152	IHT000025	102.2161	103.9739	103.3019	4.1789e-01	4.2281e+00
153	IHT000026	104.6988	106.6519	105.8237	4.1864e-01	4.2344e+00
154	IHT000027	89.6146	91.9584	90.8959	4.7541e-01	4.1995e+00
155	IHT000028	90.6137	92.9575	91.5513	5.9451e-01	4.2010e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.6378	107.7862	106.6612	5.5462e-01	4.2365e+00
157	IHT000030	107.9365	110.4755	109.1748	6.1461e-01	4.2429e+00
158	IHT000031	106.0171	108.1656	107.0874	5.5277e-01	4.2375e+00
159	IHT000032	106.8435	109.1872	108.0387	5.6032e-01	4.2400e+00
160	IHT000033	106.8359	108.9844	107.9805	5.4535e-01	4.2398e+00
161	IHT000034	93.9153	95.8684	94.8762	4.4265e-01	4.2083e+00
162	IHT000035	123.5352	125.8789	124.7461	4.9284e-01	4.2856e+00
163	IHT000036	92.5894	94.5425	93.5816	4.1916e-01	4.2854e+00

DEFECTIVE INSTRUMENTS FOR THE NON-RIBBED GEOMETRY TEST SERIES

Series	Tests	Defective Instruments
3	Feb06_01 to Feb06_10	TAO120048 TRT020000 TAI130048 TAO020136 TRT070000 TAI130136 TAO090136 TRT125000 TAI130224 TAO110136 TRT130000 TAI130312 TAO115136 TRR130000 TAO120136 TAF120312 TAO130136 TAO120224 TAO130224 IHT000021 IHT000024 IHT000033

Chapter 5

NUCLEATE BOILING PRESSURE DROP IN AN ANNULUS

Test Geometry: Non-Ribbed (2)
Test Series: 4
Test Date: February 8, 1990

TEST NUMBER	INLET VELOCITY(a) (ft/s)	PRESSURE DROP(b) (psf)
Feb06_01	25.88	21.03
Feb08_02	19.89	10.29
Feb08_03	13.93	2.48
Feb08_04	9.99	-1.38
Feb08_05	9.04	-2.07
Feb08_06	8.06	-2.61
Feb08_07	7.09	-3.02
Feb08_11	6.41	-3.22
Feb08_10	6.22	-3.26
Feb08_08	6.06	-3.19
Feb08_09	5.86	-2.79

(c)

NOMINAL TEST CONDITIONS	
Annulus geometry	non-ribbed (2)
Inlet temperature	86 °F
Inlet pressure	40 psia
Wall heat flux	200 kBtu/hr-ft ²
Flux distribution	uniform
He saturation pressure	5 psig

NOTES:

(a) Inlet velocity calculated from PFM000001 and PFM000002 (for $V \leq 13$ ft/s)

(b) Pressure drop calculated from PAN000136

(c) Shading notes test at minimum pressure drop

DEMAND CURVE AND DATA FOR SERIES 4 - NON-RIBBED ANNULUS

SERIES 4, FEB08_03

NON-RIBBED (2)

$\phi = 200,700 \text{ Btu/hr-ft}^2$

$V_i = 13.93 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 40.00 \text{ psia}$

$T = 86.18 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

NON-RIBBED (2)

$\phi = 200,700 \text{ Btu/hr-ft}^2$

$V_i = 13.93 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 40.00 \text{ psia}$

$T = 86.18 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

SERIES 4. FEB08_06

NON-RIBBED (2)

$\phi = 201,100 \text{ Btu/hr-ft}^2$

$V_f = 8.06 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 40.02 \text{ psia}$

$T = 84.63 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

NON-RIBBED (2)

$\phi = 201,100 \text{ Btu/hr-ft}^2$

$V_f = 8.06 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 40.02 \text{ psia}$

$T = 84.63 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

SERIES 4, FEB08_10

NON-RIBBED (2)

$\Phi = 201,500 \text{ Btu/hr-ft}^2$

$V_f = 6.22 \text{ ft/sec}$

$P_{\text{He}} = 5 \text{ psig}$

$P = 39.95 \text{ psia}$

$T = 86.50 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

SERIES 4, FEB08_08

NON-RIBBED (2)

$\Phi = 201,100 \text{ Btu/hr-ft}^2$

$V_f = 6.06 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 40.50 \text{ psia}$

$T = 84.77 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

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Velocity 1 = 25.8801 (ft/sec) (+/- 3.4792 %)
 Velocity 2 = 13.3285 (ft/sec) (+/- 3.4863 %)
 Pressure drop = 21.0278 (psi)
 Tsat in = 267.7656 (deg F) Tsat out = 227.1521 (deg F)
 Phi inner = 199.9376 (kBtu/hr-ft2) (+/- 1.4541 %)
 Phi outer = 201.7099 (kBtu/hr-ft2) (+/- 1.3482 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	80.1127	80.7477	80.4302	2.0620e-01	1.9001e+00
1	TRF0000002	80.6087	81.0299	80.8867	1.4391e-01	1.9001e+00
2	TFM0000001	84.8711	85.7116	85.1928	2.0051e-01	1.9002e+00
3	TIN0000001	84.9386	85.7800	85.3738	1.7134e-01	1.9002e+00
4	TRV0000001	85.0727	85.8082	85.4699	1.9923e-01	1.9002e+00
5	TSR0000001	122.8807	125.8258	125.1943	7.0936e-01	1.9021e+00
6	EMPTY	38.2273	38.9168	38.4847	2.1599e-01	1.9010e+00
7	TAO050136	140.0435	140.8462	140.4549	2.2341e-01	1.9033e+00
8	TAO070136	138.8360	139.8475	139.3798	2.7245e-01	1.9032e+00
9	TAO080136	139.4258	140.3303	139.9063	2.0331e-01	1.9033e+00
10	TAO090136	162.4195	163.1128	162.8651	1.8024e-01	1.9058e+00
11	TAO100136	142.5873	143.7920	143.0316	2.7456e-01	1.9036e+00
12	TAO105136	142.9382	144.4440	143.6832	3.2277e-01	1.9037e+00
13	EMPTY	-1.2025	3.5783	1.5056	1.2427e+00	1.9000e+00
14	TAO115136	151.0719	152.0734	151.5308	2.4201e-01	1.9045e+00
15	EMPTY	37.7675	37.9974	37.8503	1.1151e-01	1.9010e+00
16	TAO125136	155.5250	156.5175	155.9874	2.3782e-01	1.9050e+00
17	EMPTY	44.8706	45.7833	45.2814	1.7248e-01	1.9014e+00
18	EMPTY	41.4403	41.8984	41.6739	1.0842e-01	1.9012e+00
19	TAO130048	148.6000	149.7968	149.1405	2.2737e-01	1.9042e+00
20	TAO120224	148.4560	149.9565	149.0744	3.1877e-01	1.9042e+00
21	EMPTY	39.1464	39.6057	39.3623	1.4230e-01	1.9010e+00
22	TAO120312	158.0870	159.1810	158.6103	2.9916e-01	1.9053e+00
23	TAO130312	152.0654	152.9628	152.5898	2.1667e-01	1.9046e+00
24	EMPTY	38.9168	39.6057	39.3118	2.0243e-01	1.9010e+00
25	TRF070000	136.9219	138.5471	137.7579	4.0522e-01	1.9031e+00
26	TRT100000	151.7975	152.8938	152.3494	2.7038e-01	1.9046e+00
27	TRT120000	151.3097	152.1087	151.7870	1.9173e-01	1.9045e+00
28	TRT125000	156.4895	157.1839	156.8092	2.1970e-01	1.9051e+00
29	EMPTY	39.8352	40.0646	40.0004	1.0408e-01	1.9011e+00
30	EMPTY	39.3761	40.0646	39.7939	2.0046e-01	1.9011e+00
31	TAF050136	100.5722	101.5042	101.0753	2.2451e-01	1.9007e+00
32	TAF070136	105.5687	106.4957	106.0153	2.4857e-01	1.9009e+00
33	TAF080136	107.4384	108.2612	107.8883	2.0129e-01	1.9010e+00
34	TAF090136	109.3652	110.4987	109.9280	2.3745e-01	1.9011e+00
35	TAF100136	112.2896	113.0105	112.6337	1.8443e-01	1.9012e+00
36	TAF105136	113.9380	115.1633	114.6625	2.7904e-01	1.9013e+00
37	TAF110136	116.0718	116.9931	116.5367	2.2481e-01	1.9015e+00
38	TAF115136	118.1664	119.0865	118.7085	2.2935e-01	1.9016e+00
39	TAF120136	119.7671	120.3797	120.0842	1.8132e-01	1.9017e+00
40	TAF125136	120.9660	122.1863	121.7444	2.9509e-01	1.9018e+00
41	TAF130136	122.5858	123.2999	122.9999	1.9917e-01	1.9019e+00
42	TAF120048	123.0716	124.0964	123.6391	2.2886e-01	1.9019e+00
43	TAF130048	125.2489	125.9620	125.6258	1.7371e-01	1.9021e+00
44	TAF120224	119.6054	120.6274	120.0736	2.2152e-01	1.9017e+00
45	TAF130224	121.6307	122.2450	121.9441	1.6720e-01	1.9018e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	37.9238	2.1513e-01	1.9010e+00
47	EMPTY	39.1464	39.3761	39.2245	1.0988e-01	1.9010e+00
48	TAI130048	84.6096	89.4363	87.4842	1.3802e+00	1.9002e+00
49	TAI130136	154.9034	155.6003	155.2995	1.7470e-01	1.9049e+00
50	TAI130224	155.0542	155.7521	155.3991	1.7353e-01	1.9049e+00
51	TAI130312	262.2829	266.6405	264.4850	1.0850e+00	1.9253e+00
52	TRR130000	127.8420	130.1691	129.2002	6.2641e-01	1.9024e+00
53	TSI0000001	42.4039	43.2735	42.8498	2.0760e-01	1.9005e+00
54	TSI0000002	99.0102	101.8076	100.6090	7.2176e-01	1.9006e+00
55	TSO0000001	41.0628	41.9377	41.4500	2.2760e-01	1.9005e+00
56	TSO0000002	48.5550	49.3140	48.9172	2.2181e-01	1.9003e+00
57	TAF020136	90.6337	91.5797	91.0394	2.2560e-01	1.9003e+00
58	EMPTY	42.8139	43.5000	43.2118	2.6058e-01	1.9013e+00
59	TAF130312	128.6545	129.4666	129.1518	2.0632e-01	1.9024e+00
60	EMPTY	1.3379	1.3428	1.3410	2.3675e-03	0.0000e+00
61	EMPTY	1.3428	1.3525	1.3475	1.3811e-03	0.0000e+00
62	EMPTY	1.3525	1.3574	1.3534	1.8950e-03	0.0000e+00
63	EMPTY	1.3623	1.3672	1.3641	2.3675e-03	0.0000e+00
64	EMPTY	0.7520	0.7568	0.7535	2.3008e-03	0.0000e+00
65	EMPTY	0.7715	0.7764	0.7721	1.6028e-03	0.0000e+00
66	EMPTY	0.7861	0.7910	0.7862	6.9053e-04	0.0000e+00
67	EMPTY	0.8008	0.8057	0.8042	2.2603e-03	0.0000e+00
68	EMPTY	0.8105	0.8203	0.8154	9.8648e-04	0.0000e+00
69	EMPTY	0.8301	0.8350	0.8310	1.8950e-03	0.0000e+00
70	EMPTY	0.8447	0.8496	0.8449	9.6655e-04	0.0000e+00
71	EMPTY	0.8643	0.8691	0.8669	2.4583e-03	0.0000e+00
72	EMPTY	0.8740	0.8789	0.8788	6.9053e-04	0.0000e+00
73	EMPTY	0.8936	0.8984	0.8979	1.6028e-03	0.0000e+00
74	EMPTY	0.9082	0.9131	0.9104	2.4484e-03	0.0000e+00
75	EMPTY	0.9229	0.9277	0.9272	1.4797e-03	0.0000e+00
76	EMPTY	0.9375	0.9424	0.9376	6.9053e-04	0.0000e+00
77	EMPTY	0.9570	0.9570	0.9570	0.0000e+00	0.0000e+00
78	EMPTY	0.9766	0.9814	0.9768	9.6655e-04	0.0000e+00
79	EMPTY	0.9961	0.9961	0.9961	0.0000e+00	0.0000e+00
80	PAN020136	68.7482	82.4811	73.2068	3.6760e+00	8.8904e-01
81	PAN050136	130.8843	135.1567	133.2341	9.8696e-01	1.7127e+00
82	PAN070136	101.0356	101.0356	101.0356	3.8534e-05	9.0593e-01
83	PAN080136	42.0455	46.4705	44.0108	1.1468e+00	8.7693e-01
84	PAN090136	40.3905	43.9763	42.1971	8.8417e-01	8.7637e-01
85	PAN100136	37.5719	45.5065	42.2594	2.0095e+00	8.7639e-01
86	PAN105136	30.4215	38.8901	34.2392	2.3050e+00	8.7420e-01
87	PAN110136	24.6336	34.3229	28.7717	2.1694e+00	8.7297e-01
88	PAN115136	16.7135	28.3865	22.6996	3.0936e+00	8.7185e-01
89	PAN120136	10.9138	22.8919	16.6892	3.3722e+00	8.7100e-01
90	PAN125136	9.7576	23.0327	15.7238	3.4942e+00	8.7089e-01
91	PAN130136	14.5759	25.4097	21.3371	2.6723e+00	8.7163e-01
92	PAN120048	34.8033	46.7052	41.2700	3.0670e+00	8.7610e-01
93	PAN130048	32.6158	43.0680	37.3155	2.4779e+00	8.7499e-01
94	PAN120224	34.8078	44.8786	40.2948	2.7435e+00	8.7581e-01
95	PAN130224	34.7477	47.4125	41.6157	3.2405e+00	8.7620e-01
96	PAN120312	34.9546	48.2297	41.5281	3.5767e+00	8.7617e-01
97	PAN130312	27.7022	41.6640	36.6378	3.3141e+00	8.7481e-01
98	PAB000136	39.9696	40.8851	40.2672	2.2940e-01	5.8867e-01
99	PAB100136	23.9417	24.2163	24.0726	7.5706e-02	5.8311e-01
100	PAB125136	19.5744	19.9864	19.7895	1.1960e-01	5.8211e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.3043	40.7692	40.1491	3.1082e-01	7.5669e-01
102	PRV000001	19.4351	19.5572	19.5206	5.6508e-02	7.5159e-01
103	PSR000001	16.5430	16.6651	16.6334	5.4088e-02	7.5115e-01
104	PFM000001	102.5020	105.5232	104.7249	6.5160e-01	5.6440e-01
105	PAN000136	574.2737	591.6687	582.1655	3.9891e+00	5.1308e+00
106	PFM000002	27.5882	27.5882	27.5882	7.7069e-06	2.1156e-01
107	EMPTY	0.0098	0.0146	0.0099	6.9053e-04	0.0000e+00
108	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
109	EMPTY	0.0049	0.0098	0.0063	2.2603e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0026	2.4583e-03	0.0000e+00
112	VPW000001	144.1106	145.0872	144.7355	2.0880e-01	1.1875e+00
113	VPW000002	168.5397	168.9303	168.7310	1.2156e-01	1.2965e+00
114	VPW000003	208.1393	208.7252	208.4674	1.3917e-01	1.4902e+00
115	VPW000004	147.9567	149.1286	148.5817	2.2668e-01	1.2045e+00
116	VPW000005	197.1154	198.0919	197.6622	2.6174e-01	1.4362e+00
117	VPW000006	206.8209	207.6022	207.2155	1.5530e-01	1.4839e+00
118	IPW000001	771.9266	779.7360	776.1827	1.9599e+00	1.0159e+01
119	IPW000002	1835.8821	1855.3948	1844.6624	5.2632e+00	1.6673e+01
120	IPW000003	1857.4501	1867.2001	1861.9739	2.5053e+00	1.6792e+01
121	IPW000004	538.4240	542.8185	540.3282	1.0216e+00	4.7139e+00
122	IPW000005	357.8556	360.2967	359.1934	7.0998e-01	3.4716e+00
123	IPW000006	375.4413	377.3944	376.1836	5.3343e-01	3.5822e+00
124	EMPTY	-0.0293	-0.0146	-0.0212	3.7706e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0139	2.8523e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0169	3.4470e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0166	2.9594e-03	0.0000e+00
128	IHT000001	184.9384	187.6728	186.1220	6.4163e-01	4.5027e+00
129	IHT000002	184.3374	186.6812	185.3570	5.7085e-01	4.4995e+00
130	IHT000003	183.9994	186.3431	184.9330	5.3276e-01	4.4978e+00
131	IHT000004	186.1215	188.8559	187.3363	5.5001e-01	4.5077e+00
132	IHT000005	183.9017	186.6361	184.9604	5.0700e-01	4.4979e+00
133	IHT000006	179.2706	182.2003	180.4658	5.1696e-01	4.4796e+00
134	IHT000007	187.2183	190.1480	188.2887	4.9480e-01	4.5117e+00
135	IHT000008	185.8699	188.4090	186.7450	5.1181e-01	4.5053e+00
136	IHT000009	184.7694	187.5038	185.6913	5.0998e-01	4.5009e+00
137	IHT000010	185.1638	186.9216	185.9997	4.6192e-01	4.5022e+00
138	IHT000011	186.4746	188.4277	187.4121	4.4293e-01	4.5080e+00
139	IHT000012	184.8708	186.8239	185.9450	4.9951e-01	4.5019e+00
140	IHT000013	131.6556	133.4135	132.5151	4.5163e-01	4.3088e+00
141	IHT000014	180.9382	183.6726	182.6024	5.2828e-01	4.4882e+00
142	IHT000015	134.3525	136.5009	135.5010	4.1128e-01	4.3181e+00
143	IHT000016	125.9653	128.1137	127.0630	4.2479e-01	4.2924e+00
144	IHT000017	150.1540	153.4743	151.6266	6.8823e-01	4.3714e+00
145	IHT000018	152.0621	154.6011	153.3784	5.2765e-01	4.3775e+00
146	IHT000019	152.9334	155.0819	153.8515	4.7392e-01	4.3792e+00
147	IHT000020	151.1230	153.4668	152.1738	5.1432e-01	4.3733e+00
148	IHT000021	-3.6133	-0.4883	-1.9336	6.1511e-01	4.1000e+00
149	IHT000022	130.8519	133.1956	131.9613	5.0291e-01	4.3071e+00
150	IHT000023	149.1399	151.2883	150.2687	4.8695e-01	4.3667e+00
151	IHT000024	113.8034	115.9518	114.7760	4.8245e-01	4.2576e+00
152	IHT000025	146.6534	148.6065	147.7159	4.3968e-01	4.3580e+00
153	IHT000026	150.0113	152.1597	151.0230	4.7135e-01	4.3693e+00
154	IHT000027	127.8997	130.0481	128.8683	4.7835e-01	4.2978e+00
155	IHT000028	128.1175	131.0472	129.7581	7.0807e-01	4.3004e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	149.7258	152.8508	151.3312	6.8150e-01	4.3704e+00
157	IHT000030	152.9935	156.3138	154.5522	6.9976e-01	4.3816e+00
158	IHT000031	149.9136	153.2339	151.4409	7.0552e-01	4.3707e+00
159	IHT000032	151.1494	154.8603	152.7080	7.5746e-01	4.3752e+00
160	IHT000033	151.1343	154.8453	152.6577	7.4764e-01	4.3750e+00
161	IHT000034	133.3120	135.8511	134.3394	6.3969e-01	4.3145e+00
162	IHT000035	175.3005	178.2302	176.6246	6.5470e-01	4.4643e+00
163	IHT000036	131.6331	134.5628	132.8480	6.7921e-01	4.3099e+00

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Velocity 1 - 19.8856 (ft/sec) (+/- 3.4946 %)
 Velocity 2 - 13.3285 (ft/sec) (+/- 3.4863 %)
 Pressure drop - 10.2943 (psi)
 Tsat in - 267.5822 (deg F) Tsat out - 250.6281 (deg F)
 Phi inner - 198.4065 (kBtu/hr-ft2) (+/- 1.4552 %)
 Phi outer - 200.8666 (kBtu/hr-ft2) (+/- 1.3484 %)
 D inner - 0.1973 (ft) D outer - 0.2412 (ft) D hyd - 0.0438 (ft)
 L inner - 12.8330 (ft) L outer - 12.8330 (ft) A flow - 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	80.5361	81.1709	80.7731	1.7956e-01	1.9001e+00
1	TRF0000002	81.0299	81.4509	81.2699	1.4739e-01	1.9001e+00
2	TFM0000001	84.6625	85.7123	85.1813	2.1572e-01	1.9002e+00
3	TIN0000001	84.9380	85.6750	85.3232	1.7861e-01	1.9002e+00
4	TRV0000001	85.1792	86.0184	85.6472	2.0565e-01	1.9002e+00
5	TSR0000001	137.0313	137.9373	137.4522	2.1581e-01	1.9031e+00
6	EMPTY	38.2273	38.9168	38.4296	2.0046e-01	1.9010e+00
7	TAO050136	150.6266	152.4174	151.2819	3.8912e-01	1.9044e+00
8	TAO070136	151.1318	152.7369	151.8487	4.1271e-01	1.9045e+00
9	TAO080136	151.2926	151.9900	151.6768	1.8330e-01	1.9045e+00
10	TAO090136	171.3873	172.0762	171.7041	2.0277e-01	1.9070e+00
11	TAO100136	157.3669	158.4593	157.7903	2.7200e-01	1.9052e+00
12	TAO105136	157.7215	159.3107	158.3991	3.8109e-01	1.9053e+00
13	EMPTY	12.8323	15.4262	13.9224	5.8135e-01	1.9001e+00
14	TAO115136	170.9796	172.1644	171.5426	2.9538e-01	1.9069e+00
15	EMPTY	31.5371	40.9819	36.1850	2.5686e+00	1.9009e+00
16	TAO125136	173.1476	174.1254	173.5721	2.3275e-01	1.9072e+00
17	EMPTY	44.8706	45.7833	45.2951	2.0620e-01	1.9014e+00
18	EMPTY	41.6693	41.8984	41.7014	8.0275e-02	1.9012e+00
19	TAO130048	165.5275	166.4144	165.9004	1.9544e-01	1.9062e+00
20	TAO120224	166.0511	167.5323	166.7165	3.1653e-01	1.9063e+00
21	EMPTY	39.1464	39.8352	39.4128	1.6955e-01	1.9010e+00
22	TAO120312	176.3679	177.6436	177.0489	3.1312e-01	1.9077e+00
23	TAO130312	169.5701	170.2590	169.9692	1.6802e-01	1.9067e+00
24	EMPTY	39.1464	39.6057	39.3715	1.7038e-01	1.9010e+00
25	TRT070000	146.8491	148.0584	147.4923	2.6837e-01	1.9040e+00
26	TRT100000	168.3323	169.0216	168.6808	1.8031e-01	1.9065e+00
27	TRT120000	169.5472	170.2361	169.8756	1.4970e-01	1.9067e+00
28	TRT125000	174.6530	175.4358	175.0739	1.7151e-01	1.9074e+00
29	EMPTY	39.8352	40.2940	40.0142	1.0662e-01	1.9011e+00
30	EMPTY	39.3761	40.0646	39.8122	2.1871e-01	1.9011e+00
31	TAF050136	105.2180	106.6614	105.9626	2.6699e-01	1.9009e+00
32	TAF070136	111.8246	112.6444	112.1958	2.5510e-01	1.9012e+00
33	TAF080136	114.2855	115.2051	114.7745	2.0053e-01	1.9014e+00
34	TAF090136	116.8617	117.7841	117.3883	2.3853e-01	1.9015e+00
35	TAF100136	120.6053	121.4240	120.9510	1.6782e-01	1.9017e+00
36	TAF105136	122.9672	124.0817	123.5373	2.3846e-01	1.9019e+00
37	TAF110136	125.7332	126.5444	126.1008	1.7615e-01	1.9021e+00
38	TAF115136	128.3410	129.1521	128.7570	2.0412e-01	1.9023e+00
39	TAF120136	130.2007	131.0091	130.6959	1.9298e-01	1.9025e+00
40	TAF125136	132.1803	133.2871	132.7415	2.8845e-01	1.9027e+00
41	TAF130136	133.9343	134.6411	134.3164	1.5852e-01	1.9028e+00
42	TAF120048	134.6228	135.8425	135.1974	2.4168e-01	1.9029e+00
43	TAF130048	137.7048	138.3097	138.0338	1.2859e-01	1.9031e+00
44	TAF120224	130.3828	131.1935	130.8308	2.1568e-01	1.9025e+00
45	TAF130224	132.7690	133.3781	133.1240	1.5244e-01	1.9027e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.3074	38.4572	37.9744	2.4252e-01	1.9010e+00
47	EMPTY	39.1464	39.6057	39.3026	1.2654e-01	1.9010e+00
48	TAI130048	89.8550	94.1403	91.4181	8.7517e-01	1.9003e+00
49	TAI130136	171.6716	172.1626	171.9019	1.2342e-01	1.9070e+00
50	TAI130224	171.4210	172.1104	171.8050	1.5831e-01	1.9070e+00
51	TAI130312	277.3482	279.3722	278.2776	4.8144e-01	1.9290e+00
52	TRR130000	130.6745	132.5937	131.5581	5.6225e-01	1.9026e+00
53	TSI0000001	42.4051	43.4925	42.8815	2.1725e-01	1.9005e+00
54	TSI0000002	99.9450	101.7061	100.8049	4.4256e-01	1.9006e+00
55	TSO0000001	41.0608	41.8269	41.4351	2.0861e-01	1.9005e+00
56	TSO0000002	50.8282	51.6937	51.2716	1.9931e-01	1.9002e+00
57	TAF020136	92.8418	93.5771	93.3092	2.0130e-01	1.9004e+00
58	EMPTY	42.5851	43.5000	43.0792	2.7475e-01	1.9012e+00
59	TAF130312	142.1659	142.9692	142.5416	1.8569e-01	1.9035e+00
60	EMPTY	1.6504	1.6602	1.6533	2.6100e-03	0.0000e+00
61	EMPTY	1.6553	1.6602	1.6575	2.4583e-03	0.0000e+00
62	EMPTY	1.6602	1.6650	1.6622	2.4344e-03	0.0000e+00
63	EMPTY	1.6699	1.6748	1.6713	2.2146e-03	0.0000e+00
64	EMPTY	0.8838	0.8887	0.8853	2.2603e-03	0.0000e+00
65	EMPTY	0.9033	0.9082	0.9037	1.3381e-03	0.0000e+00
66	EMPTY	0.9180	0.9229	0.9181	6.9053e-04	0.0000e+00
67	EMPTY	0.9277	0.9375	0.9327	1.2041e-03	0.0000e+00
68	EMPTY	0.9424	0.9473	0.9442	2.3941e-03	0.0000e+00
69	EMPTY	0.9570	0.9619	0.9613	1.6028e-03	0.0000e+00
70	EMPTY	0.9717	0.9766	0.9722	1.4797e-03	0.0000e+00
71	EMPTY	0.9912	0.9961	0.9955	1.6028e-03	0.0000e+00
72	EMPTY	1.0059	1.0059	1.0059	0.0000e+00	0.0000e+00
73	EMPTY	1.0205	1.0254	1.0215	1.9730e-03	0.0000e+00
74	EMPTY	1.0352	1.0400	1.0354	1.1714e-03	0.0000e+00
75	EMPTY	1.0498	1.0547	1.0500	9.6655e-04	0.0000e+00
76	EMPTY	1.0596	1.0645	1.0641	1.3381e-03	0.0000e+00
77	EMPTY	1.0791	1.0840	1.0795	1.3381e-03	0.0000e+00
78	EMPTY	1.0986	1.1035	1.0990	1.3381e-03	0.0000e+00
79	EMPTY	1.1182	1.1230	1.1209	2.4484e-03	0.0000e+00
80	PAN020136	32.9663	49.0644	40.5713	5.1186e+00	8.7589e-01
81	PAN050136	60.0835	66.3396	63.1292	1.2613e+00	1.6874e+00
82	PAN070136	48.3928	53.8859	51.4155	1.4046e+00	8.7944e-01
83	PAN080136	19.9965	24.0401	21.5605	1.0234e+00	8.7167e-01
84	PAN090136	18.0364	20.7830	19.3837	6.3038e-01	8.7135e-01
85	PAN100136	16.2859	21.4739	19.5681	1.4906e+00	8.7137e-01
86	PAN105136	13.4842	21.5714	17.7628	2.1870e+00	8.7113e-01
87	PAN110136	6.2467	18.6826	13.6854	3.0638e+00	8.7067e-01
88	PAN115136	4.2013	18.7735	10.6482	3.4634e+00	8.7041e-01
89	PAN120136	-4.1161	10.1508	1.6990	3.8072e+00	8.7001e-01
90	PAN125136	0.7549	17.3870	10.7433	3.9469e+00	8.7041e-01
91	PAN130136	8.4724	17.5514	13.6039	2.6838e+00	8.7066e-01
92	PAN120048	12.8307	23.8170	18.8076	3.1265e+00	8.7127e-01
93	PAN130048	15.3733	23.7657	19.1301	2.5832e+00	8.7131e-01
94	PAN120224	7.4183	23.4400	12.6764	4.1942e+00	8.7058e-01
95	PAN130224	18.5734	31.6959	27.4754	3.4087e+00	8.7271e-01
96	PAN120312	14.0500	25.3415	19.1144	3.0462e+00	8.7131e-01
97	PAN130312	12.9012	23.8875	18.8064	2.9791e+00	8.7127e-01
98	PAB000136	39.5576	40.6105	40.1436	2.5428e-01	5.8862e-01
99	PAB100136	31.9068	32.1814	32.0633	7.2873e-02	5.8551e-01
100	PAB125136	29.8283	30.2861	30.0929	1.1635e-01	5.8486e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	38.9381	40.4030	39.7975	3.6825e-01	7.5657e-01
102	PRV0000001	20.0455	20.1676	20.0504	2.4164e-02	7.5167e-01
103	PSR0000001	28.2618	28.3838	28.3423	5.8413e-02	7.5334e-01
104	PFM0000001	60.7539	62.3103	61.6951	3.5532e-01	5.2325e-01
105	PAN000136	272.6074	296.4111	285.0036	6.8567e+00	4.9713e+00
106	PFM0000002	27.5882	27.5882	27.5882	7.7069e-06	2.1156e-01
107	EMPTY	0.0049	0.0098	0.0092	1.6028e-03	0.0000e+00
108	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
109	EMPTY	0.0049	0.0049	0.0049	0.0000e+00	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0006	1.6028e-03	0.0000e+00
112	VPW0000001	144.3059	145.0872	144.7316	2.0764e-01	1.1875e+00
113	VPW0000002	168.5397	168.9303	168.7974	1.1464e-01	1.2969e+00
114	VPW0000003	208.3346	208.9205	208.6198	1.2608e-01	1.4909e+00
115	VPW0000004	148.5427	149.1286	148.7067	1.5465e-01	1.2051e+00
116	VPW0000005	197.7013	199.2638	198.3302	4.1440e-01	1.4395e+00
117	VPW0000006	207.0162	207.6022	207.3366	1.3532e-01	1.4845e+00
118	IPW0000001	791.4500	797.3071	794.2223	1.4806e+00	1.0246e+01
119	IPW0000002	1808.5643	1816.3694	1812.3501	1.4965e+00	1.6450e+01
120	IPW0000003	1843.8000	1849.6501	1845.9448	1.3789e+00	1.6682e+01
121	IPW0000004	540.3771	542.8185	541.6270	5.3270e-01	4.7232e+00
122	IPW0000005	356.8791	359.8085	358.2852	7.8688e-01	3.4658e+00
123	IPW0000006	372.5116	374.4647	373.5078	4.7269e-01	3.5646e+00
124	EMPTY	-0.0293	-0.0098	-0.0193	3.9410e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0137	3.5568e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0098	-0.0152	3.6433e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0098	-0.0163	3.0581e-03	0.0000e+00
128	IHT0000001	184.5478	186.8915	185.9384	5.6171e-01	4.5019e+00
129	IHT0000002	184.1421	186.4859	185.2164	5.8826e-01	4.4989e+00
130	IHT0000003	183.8041	185.9525	184.8041	5.4196e-01	4.4972e+00
131	IHT0000004	186.3168	188.4653	187.2387	5.0692e-01	4.5073e+00
132	IHT0000005	183.9017	186.2455	184.8822	5.2717e-01	4.4976e+00
133	IHT0000006	179.2706	181.4190	180.3565	5.1624e-01	4.4792e+00
134	IHT0000007	187.2183	189.3667	188.2222	5.0994e-01	4.5114e+00
135	IHT0000008	185.6746	187.6277	186.6786	5.4249e-01	4.5050e+00
136	IHT0000009	184.5741	186.7225	185.5780	5.2350e-01	4.5004e+00
137	IHT0000010	184.3825	187.1169	185.9098	5.9148e-01	4.5018e+00
138	IHT0000011	185.8887	188.6230	187.2910	6.2973e-01	4.5075e+00
139	IHT0000012	184.2849	187.2146	185.7848	6.8962e-01	4.5013e+00
140	IHT0000013	130.8744	133.8041	132.4135	6.5512e-01	4.3085e+00
141	IHT0000014	181.1336	184.8445	182.9344	7.6544e-01	4.4896e+00
142	IHT0000015	134.3525	136.6962	135.3955	6.2839e-01	4.3178e+00
143	IHT0000016	125.5747	128.1137	126.8755	6.4671e-01	4.2918e+00
144	IHT0000017	149.3727	152.6931	150.9156	6.8146e-01	4.3689e+00
145	IHT0000018	151.2808	154.7964	152.8589	6.9120e-01	4.3757e+00
146	IHT0000019	152.3475	155.4725	153.8398	6.5288e-01	4.3791e+00
147	IHT0000020	150.7324	153.4668	152.0488	6.2864e-01	4.3729e+00
148	IHT0000021	-3.4180	0.0976	-1.7500	7.8840e-01	4.1000e+00
149	IHT0000022	130.8519	133.1956	131.9066	5.4960e-01	4.3070e+00
150	IHT0000023	148.9446	151.4836	150.1320	5.9952e-01	4.3662e+00
151	IHT0000024	113.2174	115.9518	114.6315	5.6160e-01	4.2572e+00
152	IHT0000025	146.4581	148.9971	147.6729	6.0784e-01	4.3578e+00
153	IHT0000026	149.8160	152.1597	150.9097	6.0232e-01	4.3689e+00
154	IHT0000027	127.8997	130.0481	128.8566	6.0135e-01	4.2977e+00
155	IHT0000028	128.1175	131.0472	129.4105	7.1451e-01	4.2994e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	149.7258	152.4602	150.9249	6.7198e-01	4.3690e+00
157	IHT0000030	152.7982	155.5326	154.1811	6.5297e-01	4.3803e+00
158	IHT0000031	149.7183	152.4527	151.0386	6.8067e-01	4.3694e+00
159	IHT0000032	150.9540	153.8837	152.3994	7.1463e-01	4.3741e+00
160	IHT0000033	150.7437	154.0640	152.3179	7.2803e-01	4.3738e+00
161	IHT0000034	132.9214	135.4605	134.2495	5.7453e-01	4.3142e+00
162	IHT0000035	175.4958	178.2302	176.9371	6.6485e-01	4.4655e+00
163	IHT0000036	131.6331	134.1722	132.7972	5.9837e-01	4.3097e+00

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Velocity 1 = 13.9303 (ft/sec) (+/- 3.5687 %)
 Velocity 2 = 13.3294 (ft/sec) (+/- 3.4863 %)
 Pressure drop = 2.4841 (psi)
 Tsat in = 267.5469 (deg F) Tsat out = 263.9705 (deg F)
 Phi inner = 199.9203 (kBtu/hr-ft2) (+/- 1.4542 %)
 Phi outer = 201.4021 (kBtu/hr-ft2) (+/- 1.3487 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	80.7477	81.3824	81.0693	1.7225e-01	1.9001e+00
1	TRF000002	81.2404	81.6614	81.4930	1.3447e-01	1.9001e+00
2	TFM000001	85.5026	86.6560	86.0312	2.5157e-01	1.9002e+00
3	TIN000001	85.7799	86.6207	86.1750	1.5969e-01	1.9002e+00
4	TRV000001	85.9131	87.0666	86.6344	2.6739e-01	1.9002e+00
5	TSR000001	145.4495	150.2374	148.1676	1.4336e+00	1.9041e+00
6	EMPTY	37.9974	38.9168	38.4250	2.4575e-01	1.9010e+00
7	TAF050136	171.4496	172.6270	171.8503	2.6424e-01	1.9070e+00
8	TAF070136	173.1310	175.3020	174.3074	5.0613e-01	1.9073e+00
9	TAF080136	177.4467	178.9078	178.1514	3.4160e-01	1.9079e+00
10	TAF090136	186.2390	187.1145	186.6397	2.0197e-01	1.9091e+00
11	TAF100136	183.6339	185.1928	184.4330	3.9657e-01	1.9088e+00
12	TAF105136	184.8734	186.4319	185.4773	3.5801e-01	1.9090e+00
13	EMPTY	9.0467	14.4838	11.9002	1.5493e+00	1.9001e+00
14	TAF115136	197.1242	198.4815	197.7178	2.8826e-01	1.9110e+00
15	EMPTY	31.3055	43.0426	39.1268	3.3542e+00	1.9010e+00
16	TAF125136	201.8105	202.6750	202.1418	1.8333e-01	1.9117e+00
17	EMPTY	44.8706	45.7833	45.3316	1.9822e-01	1.9014e+00
18	EMPTY	41.4403	41.8984	41.6968	9.9673e-02	1.9012e+00
19	TAF130048	194.0617	195.2202	194.5135	2.1045e-01	1.9104e+00
20	TAF120224	192.0813	193.2445	192.5427	2.5807e-01	1.9101e+00
21	EMPTY	39.1464	39.6057	39.2567	1.4845e-01	1.9010e+00
22	TAF120312	205.7131	206.6748	206.0902	1.9896e-01	1.9124e+00
23	TAF130312	198.8423	199.6136	199.1706	1.8875e-01	1.9112e+00
24	EMPTY	39.1464	39.8352	39.4174	1.9510e-01	1.9010e+00
25	TRT070000	168.4773	170.0633	169.1910	2.9848e-01	1.9066e+00
26	TRT100000	196.9735	197.7465	197.3871	1.7454e-01	1.9109e+00
27	TRT120000	199.5522	200.3239	199.9610	1.8125e-01	1.9113e+00
28	TRT125000	205.1467	205.9133	205.4962	1.9511e-01	1.9123e+00
29	EMPTY	39.8352	40.2940	40.0601	8.6596e-02	1.9011e+00
30	EMPTY	39.3761	40.0646	39.7663	2.1872e-01	1.9011e+00
31	TAF050136	115.2753	116.2990	115.7836	2.8029e-01	1.9014e+00
32	TAF070136	124.1427	126.0664	124.8521	3.7837e-01	1.9020e+00
33	TAF080136	128.2734	129.6854	129.0680	3.4947e-01	1.9023e+00
34	TAF090136	131.8253	133.0400	132.4977	3.1856e-01	1.9026e+00
35	TAF100136	137.3810	138.3913	137.8782	2.6979e-01	1.9031e+00
36	TAF105136	140.7362	142.3350	141.6034	3.4596e-01	1.9035e+00
37	TAF110136	144.4407	145.9403	145.2247	3.7832e-01	1.9038e+00
38	TAF115136	148.2560	149.4529	148.8066	2.8685e-01	1.9042e+00
39	TAF120136	151.1156	152.0124	151.5939	1.9392e-01	1.9045e+00
40	TAF125136	153.8251	155.6080	154.6730	3.3611e-01	1.9048e+00
41	TAF130136	156.4407	157.2359	156.9097	1.8064e-01	1.9051e+00
42	TAF120048	156.0273	157.4291	156.8241	3.0182e-01	1.9051e+00
43	TAF130048	160.5886	161.4805	160.9772	1.9087e-01	1.9056e+00
44	TAF120224	150.2798	151.6765	150.9262	2.6753e-01	1.9044e+00
45	TAF130224	154.2677	155.1675	154.7438	2.4701e-01	1.9048e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.6870	38.2043	2.8725e-01	1.9010e+00
47	EMPTY	39.3761	39.8352	39.5873	1.0203e-01	1.9011e+00
48	TAF130048	97.5779	103.3914	99.7313	1.5965e+00	1.9006e+00
49	TAF130136	202.5108	203.1838	202.8067	1.7137e-01	1.9118e+00
50	TAF130224	201.2802	202.0520	201.7085	1.7780e-01	1.9117e+00
51	TAF130312	193.1440	193.9198	193.4969	1.8670e-01	1.9102e+00
52	TRR130000	128.3515	131.9897	130.3208	9.2561e-01	1.9024e+00
53	TSI000001	42.5151	43.4932	42.9541	2.0592e-01	1.9005e+00
54	TSI000002	100.9816	103.8774	102.7158	7.3859e-01	1.9007e+00
55	TSO000001	40.7308	41.4976	41.1688	1.8091e-01	1.9006e+00
56	TSO000002	52.4495	53.4208	52.9114	2.3088e-01	1.9002e+00
57	TAF020136	97.3525	99.0250	98.2267	3.9125e-01	1.9005e+00
58	EMPTY	42.8139	43.5000	43.1570	2.3672e-01	1.9013e+00
59	TAF130312	166.6197	167.8025	167.1682	2.5126e-01	1.9064e+00
60	EMPTY	2.2412	2.2510	2.2458	2.0716e-03	0.0000e+00
61	EMPTY	2.2412	2.2461	2.2452	1.8950e-03	0.0000e+00
62	EMPTY	2.2412	2.2461	2.2457	1.3381e-03	0.0000e+00
63	EMPTY	2.2461	2.2559	2.2511	1.5566e-03	0.0000e+00
64	EMPTY	1.1377	1.1377	1.1377	0.0000e+00	0.0000e+00
65	EMPTY	1.1523	1.1572	1.1540	2.3365e-03	0.0000e+00
66	EMPTY	1.1670	1.1670	1.1670	0.0000e+00	0.0000e+00
67	EMPTY	1.1768	1.1816	1.1813	1.1714e-03	0.0000e+00
68	EMPTY	1.1865	1.1914	1.1909	1.4797e-03	0.0000e+00
69	EMPTY	1.2012	1.2061	1.2057	1.3381e-03	0.0000e+00
70	EMPTY	1.2158	1.2207	1.2159	6.9053e-04	0.0000e+00
71	EMPTY	1.2354	1.2354	1.2354	0.0000e+00	0.0000e+00
72	EMPTY	1.2451	1.2451	1.2451	0.0000e+00	0.0000e+00
73	EMPTY	1.2598	1.2646	1.2600	9.6655e-04	0.0000e+00
74	EMPTY	1.2695	1.2744	1.2721	2.4642e-03	0.0000e+00
75	EMPTY	1.2842	1.2891	1.2845	1.1714e-03	0.0000e+00
76	EMPTY	1.2939	1.2988	1.2955	2.3008e-03	0.0000e+00
77	EMPTY	1.3086	1.3135	1.3131	1.3381e-03	0.0000e+00
78	EMPTY	1.3281	1.3330	1.3315	2.2603e-03	0.0000e+00
79	EMPTY	1.3477	1.3525	1.3508	2.3675e-03	0.0000e+00
80	PAN020136	2.7539	23.2007	13.8318	5.1938e+00	8.7069e-01
81	PAN050136	8.9666	19.3425	12.9033	2.3789e+00	1.6803e+00
82	PAN070136	10.0932	17.5700	14.2054	1.8704e+00	8.7072e-01
83	PAN080136	-0.4503	7.8658	4.7591	1.7496e+00	8.7008e-01
84	PAN090136	-1.8763	7.5078	1.8239	1.7108e+00	8.7001e-01
85	PAN100136	-2.5587	9.4195	3.8760	3.1179e+00	8.7005e-01
86	PAN105136	-2.9953	10.8902	3.7354	3.1727e+00	8.7005e-01
87	PAN110136	-0.4671	14.8679	8.0549	3.9237e+00	8.7023e-01
88	PAN115136	-5.6406	8.2449	0.1837	3.3697e+00	8.7000e-01
89	PAN120136	-6.9390	7.4805	-2.5598	3.2622e+00	8.7002e-01
90	PAN125136	-6.0353	10.1390	0.3765	3.0075e+00	8.7000e-01
91	PAN130136	1.4534	12.2871	8.1962	2.1226e+00	8.7024e-01
92	PAN120048	-5.0221	12.5255	2.5920	3.9110e+00	8.7002e-01
93	PAN130048	-2.4795	11.0246	5.8198	3.4298e+00	8.7012e-01
94	PAN120224	-4.9414	11.6907	1.0981	3.7865e+00	8.7000e-01
95	PAN130224	1.7124	15.7505	10.0498	3.3615e+00	8.7036e-01
96	PAN120312	-2.8109	9.5487	2.4289	3.0414e+00	8.7002e-01
97	PAN130312	-4.4938	11.4516	5.8913	2.7189e+00	8.7012e-01
98	PAB000136	39.6949	50.5189	40.1198	2.5513e-01	5.8861e-01
99	PAB100136	37.9035	38.3155	38.0380	1.0682e-01	5.8774e-01
100	PAB125136	37.4272	37.9307	37.7769	9.0500e-02	5.8764e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	38.9381	40.5251	40.0026	3.6500e-01	7.5664e-01
102	PRV000001	19.0689	19.1910	19.1861	2.4164e-02	7.5153e-01
103	PSR000001	36.8067	37.0508	36.9165	4.4460e-02	7.5566e-01
104	PFH000001	29.5345	30.5415	30.1497	2.3762e-01	5.0565e-01
105	PAN000136	54.7119	79.8889	68.7744	6.9003e+00	4.9230e+00
106	PFH000002	27.5882	27.5882	27.5882	7.7069e-06	2.1156e-01
107	EMPTY	0.0049	0.0098	0.0054	1.4797e-03	0.0000e+00
108	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0047	9.6655e-04	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	144.6965	145.6731	145.0089	1.6269e-01	1.1887e+00
113	VPW000002	168.5397	169.1256	168.8716	1.2001e-01	1.2972e+00
114	VPW000003	208.7252	209.3112	208.8776	1.2658e-01	1.4922e+00
115	VPW000004	148.5427	149.1286	148.8512	1.5328e-01	1.7057e+00
116	VPW000005	197.3107	199.0685	197.9747	3.8257e-01	1.4377e+00
117	VPW000006	207.2115	207.9928	207.6100	1.4743e-01	1.4859e+00
118	IPW000001	771.9266	779.7360	774.9331	2.0193e+00	1.0153e+01
119	IPW000002	1831.9795	1847.5897	1837.7942	3.3564e+00	1.6625e+01
120	IPW000003	1855.5001	1861.3501	1858.0350	1.6362e+00	1.6765e+01
121	IPW000004	538.9123	541.3537	539.4395	5.5664e-01	4.7075e+00
122	IPW000005	356.8791	360.7849	358.5195	7.9988e-01	3.4673e+00
123	IPW000006	374.9530	376.4178	375.5586	3.8913e-01	3.5781e+00
124	EMPTY	-0.0293	-0.0146	-0.0206	3.5962e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0138	2.5515e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0175	3.4300e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0160	3.9508e-03	0.0000e+00
128	IHT000001	183.7665	187.2822	185.7119	6.8568e-01	4.5010e+00
129	IHT000002	182.9702	186.6812	184.9625	6.6263e-01	4.4979e+00
130	IHT000003	182.8275	186.3431	184.5737	6.4405e-01	4.4963e+00
131	IHT000004	185.1450	189.0512	186.9653	6.9636e-01	4.5062e+00
132	IHT000005	182.9252	186.6361	184.5932	6.8027e-01	4.4964e+00
133	IHT000006	178.2940	182.2003	180.0947	7.6136e-01	4.4781e+00
134	IHT000007	186.4370	189.7574	187.9605	6.7080e-01	4.5103e+00
135	IHT000008	184.8933	187.8230	186.4677	6.1815e-01	4.5041e+00
136	IHT000009	183.5975	186.9178	185.4062	6.5769e-01	4.4997e+00
137	IHT000010	184.3825	187.1169	185.6872	5.6557e-01	4.5009e+00
138	IHT000011	186.0840	188.2324	187.0918	5.1654e-01	4.5067e+00
139	IHT000012	184.6755	186.8239	185.6129	5.5664e-01	4.5006e+00
140	IHT000013	131.0697	133.6088	132.2299	5.9374e-01	4.3080e+00
141	IHT000014	181.1336	183.8679	182.1805	6.3351e-01	4.4865e+00
142	IHT000015	133.9619	136.3056	135.1924	5.7352e-01	4.3171e+00
143	IHT000016	125.3793	127.9184	126.7739	5.7183e-01	4.2915e+00
144	IHT000017	149.5681	152.4977	150.8180	7.0476e-01	4.3686e+00
145	IHT000018	151.4761	154.2105	152.8902	6.5976e-01	4.3758e+00
146	IHT000019	152.3475	155.2772	153.9062	6.8059e-01	4.3794e+00
147	IHT000020	150.3418	153.2715	151.8691	6.4801e-01	4.3722e+00
148	IHT000021	-3.6133	-0.0977	-1.7344	7.6706e-01	4.1000e+00
149	IHT000022	130.4612	133.1956	131.8831	6.2270e-01	4.3069e+00
150	IHT000023	148.5539	151.2883	149.9757	5.9587e-01	4.3657e+00
151	IHT000024	113.2174	115.9518	114.5924	5.7718e-01	4.2571e+00
152	IHT000025	146.2628	148.9971	147.6885	5.8427e-01	4.3579e+00
153	IHT000026	149.2300	151.9644	150.7573	5.4632e-01	4.3684e+00
154	IHT000027	127.5090	130.0481	128.8410	5.2599e-01	4.2977e+00
155	IHT000028	127.7269	130.6566	129.4222	6.1313e-01	4.2994e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	149.1399	152.0696	150.9523	6.6268e-01	4.3691e+00
157	IHT000030	152.4076	155.3373	154.2318	6.5389e-01	4.3805e+00
158	IHT000031	149.3277	152.4527	150.9800	6.1916e-01	4.3692e+00
159	IHT000032	150.5634	153.6884	152.2705	7.1224e-01	4.3736e+00
160	IHT000033	150.3531	153.6734	152.1851	7.0353e-01	4.3733e+00
161	IHT000034	132.7261	135.0699	134.1323	5.3815e-01	4.3138e+00
162	IHT000035	174.3239	177.6442	176.2926	6.5297e-01	4.6299e+00
163	IHT000036	131.4378	133.7815	132.6019	5.3373e-01	4.3091e+00

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Velocity 1 = 9.9754 (ft/sec) (+/- 3.8328 %)
 Velocity 2 = 9.9934 (ft/sec) (+/- 3.5197 %)
 Pressure drop = -1.3849 (psi)
 Tsat in = 267.5183 (deg F) Tsat out = 269.3369 (deg F)
 Phi inner = 198.4558 (kBtu/hr-ft2) (+/- 1.4553 %)
 Phi outer = 199.8451 (kBtu/hr-ft2) (+/- 1.3499 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	81.3824	82.0168	81.6870	1.8205e-01	1.9001e+00
1	TRF000002	81.8719	82.2926	82.1286	1.4281e-01	1.9001e+00
2	TRF000001	85.5045	86.6579	86.0310	2.1767e-01	1.9002e+00
3	TIN000001	85.8846	86.5153	86.1643	1.6259e-01	1.9002e+00
4	TRV000001	86.9622	88.0096	87.4507	2.3048e-01	1.9002e+00
5	TSR000001	177.6312	178.9012	178.2195	3.4687e-01	1.9079e+00
6	EMPTY	37.9974	38.9168	38.4756	2.2670e-01	1.9010e+00
7	TA050136	194.5728	195.6343	195.0384	2.5466e-01	1.9105e+00
8	TA070136	198.0916	203.5158	199.6253	1.2052e+00	1.9113e+00
9	TA080136	203.7937	206.2811	205.0133	5.2485e-01	1.9122e+00
10	TA090136	213.3952	214.3501	213.8629	2.2094e-01	1.9139e+00
11	TA0100136	214.3983	216.0203	214.9538	2.7587e-01	1.9141e+00
12	TA0105136	215.5328	216.9645	216.2870	2.9062e-01	1.9144e+00
13	EMPTY	-4.0825	3.1013	0.5136	2.3868e+00	1.9000e+00
14	TA0115136	229.3781	230.4222	229.9649	2.4471e-01	1.9172e+00
15	EMPTY	31.5371	43.0426	38.4526	4.2074e+00	1.9010e+00
16	TA0125136	237.2583	238.0088	237.6054	1.6454e-01	1.9188e+00
17	EMPTY	44.8706	45.5552	45.2768	1.9715e-01	1.9014e+00
18	EMPTY	41.4403	41.8984	41.6968	1.3602e-01	1.9012e+00
19	TA0130048	228.9430	229.8858	229.3628	2.2072e-01	1.9170e+00
20	TA0120224	224.9751	226.1138	225.4894	2.5071e-01	1.9162e+00
21	EMPTY	39.1464	39.6057	39.2659	1.4101e-01	1.9010e+00
22	TA0120312	241.9342	242.9678	242.5409	2.4468e-01	1.9200e+00
23	TA0130312	234.5203	235.4622	234.9969	2.2776e-01	1.9183e+00
24	EMPTY	39.1464	39.8352	39.4909	2.0351e-01	1.9011e+00
25	TRT070000	191.0418	194.0689	192.5131	6.7366e-01	1.9101e+00
26	TRT100000	231.6806	232.7188	232.2789	2.2763e-01	1.9177e+00
27	TRT120000	236.5064	237.1656	236.8358	1.6281e-01	1.9187e+00
28	TRT125000	243.3461	244.0945	243.6363	1.7830e-01	1.9202e+00
29	EMPTY	40.0646	40.2940	40.1427	1.0978e-01	1.9011e+00
30	EMPTY	39.3761	40.0646	39.7847	2.1891e-01	1.9011e+00
31	TA050136	126.5750	128.7023	127.7119	4.4657e-01	1.9022e+00
32	TA070136	139.7542	141.9574	140.7097	5.0045e-01	1.9034e+00
33	TA080136	145.6987	148.0856	146.4865	5.7298e-01	1.9039e+00
34	TA090136	151.0180	152.7136	151.7581	3.2432e-01	1.9045e+00
35	TA0100136	158.6284	160.6161	159.6882	3.7271e-01	1.9054e+00
36	TA0105136	163.9714	165.8330	164.5933	3.9070e-01	1.9060e+00
37	TA0110136	169.7717	171.7331	170.6877	4.3155e-01	1.9068e+00
38	TA0115136	173.5761	175.0453	174.3810	3.4415e-01	1.9073e+00
39	TA0120136	177.5714	179.1307	178.3419	3.5830e-01	1.9079e+00
40	TA0125136	181.2597	183.1984	182.3045	4.8075e-01	1.9085e+00
41	TA0130136	185.3031	186.3723	185.7407	2.6135e-01	1.9090e+00
42	TA0120048	184.0869	185.9508	184.8662	4.3654e-01	1.9089e+00
43	TA0130048	190.4886	191.8466	191.0686	3.1321e-01	1.9098e+00
44	TA0120224	176.0683	178.2217	177.0651	4.2144e-01	1.9077e+00
45	TA0130224	182.0211	183.6890	182.8163	3.6486e-01	1.9086e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.9168	38.2917	2.8642e-01	1.9010e+00
47	EMPTY	39.6057	40.0646	39.8765	1.1059e-01	1.9011e+00
48	TA0130048	92.9929	94.8715	93.9510	3.7878e-01	1.9004e+00
49	TA0130136	241.2597	241.9160	241.5731	1.4989e-01	1.9197e+00
50	TA0130224	142.9232	143.8289	143.3481	2.3203e-01	1.9036e+00
51	TA0130312	219.1104	220.1585	219.6382	2.1799e-01	1.9150e+00
52	TR0130000	140.2405	142.2462	141.3342	3.4570e-01	1.9034e+00
53	TSI000001	43.3851	44.2547	43.7527	1.8358e-01	1.9005e+00
54	TSI000002	102.4327	104.1902	103.2946	4.0843e-01	1.9007e+00
55	TSO000001	41.4940	42.3696	41.8515	2.3970e-01	1.9005e+00
56	TSO000002	55.5770	56.3311	55.8936	2.0581e-01	1.9001e+00
57	TA020136	102.1570	104.4506	103.4606	5.3729e-01	1.9008e+00
58	EMPTY	42.8139	43.5000	43.1478	2.6626e-01	1.9013e+00
59	TA0130312	198.3789	200.4019	199.3447	5.1092e-01	1.9112e+00
60	EMPTY	3.0176	3.0469	3.0309	6.6204e-03	0.0000e+00
61	EMPTY	3.0127	3.0322	3.0238	4.7351e-03	0.0000e+00
62	EMPTY	3.0127	3.0225	3.0184	3.6057e-03	0.0000e+00
63	EMPTY	3.0127	3.0225	3.0199	2.8317e-03	0.0000e+00
64	EMPTY	1.4746	1.4795	1.4781	2.2146e-03	0.0000e+00
65	EMPTY	1.4893	1.4941	1.4928	2.2146e-03	0.0000e+00
66	EMPTY	1.4990	1.5039	1.5030	1.8950e-03	0.0000e+00
67	EMPTY	1.5137	1.5186	1.5144	1.7115e-03	0.0000e+00
68	EMPTY	1.5234	1.5283	1.5235	6.9053e-04	0.0000e+00
69	EMPTY	1.5332	1.5381	1.5354	2.4484e-03	0.0000e+00
70	EMPTY	1.5430	1.5527	1.5458	2.6267e-03	0.0000e+00
71	EMPTY	1.5625	1.5674	1.5626	6.9053e-04	0.0000e+00
72	EMPTY	1.5674	1.5723	1.5716	1.7115e-03	0.0000e+00
73	EMPTY	1.5820	1.5918	1.5845	2.6562e-03	0.0000e+00
74	EMPTY	1.5918	1.5967	1.5949	2.3675e-03	0.0000e+00
75	EMPTY	1.6064	1.6064	1.6064	0.0000e+00	0.0000e+00
76	EMPTY	1.6113	1.6162	1.6161	6.9053e-04	0.0000e+00
77	EMPTY	1.6260	1.6309	1.6300	1.8950e-03	0.0000e+00
78	EMPTY	1.6455	1.6455	1.6455	0.0000e+00	0.0000e+00
79	EMPTY	1.6650	1.6699	1.6651	6.9053e-04	0.0000e+00
80	PAN020136	-13.1152	10.0781	-0.6091	6.1958e+00	8.7000e-01
81	PAN050136	-16.8208	-2.3250	-10.7509	3.6943e+00	1.6802e+00
82	PAN070136	-15.0075	1.3194	-8.1090	4.3528e+00	8.7024e-01
83	PAN080136	-12.5047	9.0102	-2.3942	5.7391e+00	8.7002e-01
84	PAN090136	-13.3204	5.3716	-5.5858	4.9684e+00	8.7011e-01
85	PAN100136	-11.8665	3.3923	-5.0520	3.1928e+00	8.7009e-01
86	PAN105136	-6.2759	9.2118	0.7187	4.5065e+00	8.7000e-01
87	PAN110136	-6.6469	12.4265	1.9819	4.3493e+00	8.7001e-01
88	PAN115136	-7.5479	6.1850	-2.3828	3.2454e+00	8.7002e-01
89	PAN120136	-6.9390	4.1999	-3.2906	2.6745e+00	8.7004e-01
90	PAN125136	-6.0353	3.2726	-2.1153	2.8030e+00	8.7002e-01
91	PAN130136	-3.2769	8.6250	1.0215	2.8488e+00	8.7000e-01
92	PAN120048	-12.4989	4.8198	-4.7429	3.8226e+00	8.7008e-01
93	PAN130048	-5.9127	5.7603	-0.5797	2.9712e+00	8.7000e-01
94	PAN120224	-12.7996	1.3147	-6.9555	3.5736e+00	8.7017e-01
95	PAN130224	-9.8080	8.2737	-0.5032	3.4450e+00	8.7000e-01
96	PAN120312	-9.2959	0.0120	-4.2895	2.6556e+00	8.7007e-01
97	PAN130312	-6.1723	3.8222	-3.4684	1.7565e+00	8.7004e-01
98	PAB000136	39.6034	40.4731	40.1005	2.5429e-01	5.8860e-01
99	PAB100136	40.6500	41.2451	41.0501	1.5442e-01	5.8901e-01
100	PAB125136	40.9977	41.5928	41.3401	1.0715e-01	5.8914e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.0602	40.4030	39.9122	3.7845e-01	7.5661e-01
102	PRV000001	19.3131	19.4351	19.4254	3.3453e-02	7.5157e-01
103	PSR000001	40.8350	40.9571	40.9253	5.4088e-02	7.5695e-01
104	PFM000001	15.1607	15.6185	15.3786	1.0280e-01	5.0148e-01
105	PAN000136	-54.2358	-16.6992	-38.3423	8.5485e+00	4.9209e+00
106	PFM000002	15.2886	15.5739	15.4346	6.4789e-02	2.0369e-01
107	EMPTY	0.0000	0.0049	0.0046	1.1714e-03	0.0000e+00
108	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0011	2.0432e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	144.8918	145.2825	145.0831	1.1497e-01	1.1891e+00
113	VPW000002	168.7350	169.3209	169.0123	1.2534e-01	1.2979e+00
114	VPW000003	208.9205	209.5065	209.1198	1.4493e-01	1.4935e+00
115	VPW000004	148.7380	149.3239	149.1246	1.2780e-01	1.2069e+00
116	VPW000005	196.9201	199.0685	198.1309	4.6689e-01	1.4385e+00
117	VPW000006	207.6022	208.1881	207.8405	1.2027e-01	1.4870e+00
118	IPW000001	785.5930	791.4500	789.1074	1.4221e+00	1.0221e+01
119	IPW000002	1794.9054	1800.7592	1798.3394	1.3971e+00	1.6354e+01
120	IPW000003	1839.9001	1845.7501	1842.1233	1.3072e+00	1.6655e+01
121	IPW000004	539.4006	540.8654	539.9669	3.6057e-01	4.7113e+00
122	IPW000005	353.9497	357.8556	356.3810	9.2788e-01	3.4535e+00
123	IPW000006	371.5350	373.4882	372.5605	4.2142e-01	3.5585e+00
124	EMPTY	-0.0244	-0.0146	-0.0205	3.2718e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0150	3.0945e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0146	-0.0177	2.7709e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0170	3.1567e-03	0.0000e+00
128	IHT000001	184.1572	187.4775	185.5048	6.8714e-01	4.5001e+00
129	IHT000002	183.5562	186.8765	184.7828	6.3016e-01	4.4972e+00
130	IHT000003	183.4135	186.5385	184.4760	6.7446e-01	4.4959e+00
131	IHT000004	185.7309	188.6606	186.7778	6.5168e-01	4.5054e+00
132	IHT000005	183.3158	185.6595	184.3666	6.2998e-01	4.4955e+00
133	IHT000006	178.6846	181.4190	179.8330	6.0700e-01	4.4771e+00
134	IHT000007	186.4370	188.7808	187.6715	6.0418e-01	4.5091e+00
135	IHT000008	184.8933	187.2371	186.0848	5.5419e-01	4.5025e+00
136	IHT000009	183.9881	186.3319	185.0624	6.0005e-01	4.4983e+00
137	IHT000010	184.5778	187.5075	185.5856	6.0536e-01	4.5005e+00
138	IHT000011	185.8887	188.8183	186.8457	5.8160e-01	4.5057e+00
139	IHT000012	184.4802	187.2146	185.2731	5.6828e-01	4.4992e+00
140	IHT000013	131.0697	133.8041	132.0776	5.5152e-01	4.3075e+00
141	IHT000014	180.5476	183.6726	181.9110	6.7137e-01	4.4854e+00
142	IHT000015	133.9619	136.6962	135.0244	5.0864e-01	4.3166e+00
143	IHT000016	125.7700	127.7231	126.5786	5.0225e-01	4.2909e+00
144	IHT000017	149.5681	152.3024	150.6617	6.5435e-01	4.3681e+00
145	IHT000018	151.8667	154.2105	152.8198	5.7540e-01	4.3755e+00
146	IHT000019	152.7381	155.2772	154.0741	6.4157e-01	4.3799e+00
147	IHT000020	150.5371	153.2715	151.7558	6.3938e-01	4.3718e+00
148	IHT000021	-3.2227	-0.0977	-1.7070	7.4301e-01	4.1000e+00
149	IHT000022	130.6565	133.1956	131.7621	5.6855e-01	4.3065e+00
150	IHT000023	148.5539	151.2883	149.8468	5.8910e-01	4.3652e+00
151	IHT000024	113.4127	115.9518	114.4948	5.8289e-01	4.2569e+00
152	IHT000025	146.4581	148.9971	147.6065	5.6032e-01	4.3576e+00
153	IHT000026	149.2300	151.9644	150.6284	5.7367e-01	4.3679e+00
154	IHT000027	127.3137	130.2434	128.7238	5.6537e-01	4.2973e+00
155	IHT000028	127.9222	130.6566	129.2894	6.8799e-01	4.2990e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	149.9211	152.6555	151.0421	7.0896e-01	4.3694e+00
157	IHT000030	153.1888	155.9232	154.3217	6.7543e-01	4.3808e+00
158	IHT000031	149.7183	152.6480	151.0191	6.6569e-01	4.3693e+00
159	IHT000032	150.9540	153.6884	152.2822	6.3011e-01	4.3737e+00
160	IHT000033	150.7437	153.4781	152.2202	6.6399e-01	4.3735e+00
161	IHT000034	132.9214	135.6558	134.1597	5.8075e-01	4.3139e+00
162	IHT000035	174.1286	177.6442	176.2223	7.0370e-01	4.4627e+00
163	IHT000036	131.6331	133.7815	132.5902	5.1183e-01	4.3091e+00

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Velocity 1 = 9.0108 (ft/sec) (+/- 4.0041 %)
 Velocity 2 = 9.0438 (ft/sec) (+/- 3.5436 %)
 Pressure drop = -2.0651 (psi)
 Tsat in = 267.4352 (deg F) Tsat out = 270.2271 (deg F)
 Phi inner = 199.4709 (kBtu/hr-ft2) (+/- 1.4546 %)
 Phi outer = 200.9884 (kBtu/hr-ft2) (+/- 1.3489 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	81.5939	82.2281	81.9153	1.8242e-01	1.9001e+00
1	TRF000002	82.0823	82.7132	82.3810	1.5950e-01	1.9001e+00
2	TRF000001	85.1901	86.0299	85.6251	1.0962e-01	1.9002e+00
3	TRF000001	85.4639	86.0948	85.7563	1.4913e-01	1.9002e+00
4	TRV000001	86.6501	87.4883	87.1337	2.0835e-01	1.9002e+00
5	TSR000001	180.7524	182.9901	181.6222	6.4312e-01	1.9004e+00
6	BNFTY	38.2273	38.9168	38.5123	2.4812e-01	1.9010e+00
7	TAF050136	202.1668	203.9900	202.8028	3.8485e-01	1.9118e+00
8	TAF070136	205.8347	213.6353	207.9155	1.5281e+00	1.9128e+00
9	TAF080136	213.6136	214.9445	214.2060	3.1640e-01	1.9140e+00
10	TAF090136	223.0028	223.9517	223.3311	1.7898e-01	1.9158e+00
11	TAF100136	225.1459	226.5675	225.6789	2.7144e-01	1.9163e+00
12	TAF105136	226.0893	227.5108	226.8912	2.9728e-01	1.9165e+00
13	BNFTY	14.2480	16.6029	15.6191	5.8006e-01	1.9002e+00
14	TAF115136	240.4539	241.7729	240.9304	2.7880e-01	1.9196e+00
15	BNFTY	31.5371	43.0426	38.3225	3.4011e+00	1.9010e+00
16	TAF125136	250.1388	251.3471	250.6537	2.4467e-01	1.9219e+00
17	BNFTY	44.8706	45.7833	45.3590	1.8444e-01	1.9014e+00
18	BNFTY	41.4403	41.8984	41.6831	1.2596e-01	1.9012e+00
19	TAF130048	241.3304	242.3611	241.7746	2.3219e-01	1.9198e+00
20	TAF120224	236.4125	237.6368	236.9683	2.7973e-01	1.9187e+00
21	BNFTY	39.1464	39.6057	39.4128	1.3412e-01	1.9010e+00
22	TAF120312	255.4118	256.7162	256.0770	3.1833e-01	1.9232e+00
23	TAF130312	247.5405	248.7547	248.0806	2.6221e-01	1.9212e+00
24	BNFTY	39.1464	39.8352	39.5368	1.7508e-01	1.9011e+00
25	TRT070000	198.6462	202.3393	200.7250	7.2773e-01	1.9115e+00
26	TRT100000	243.9844	245.2947	244.5852	2.5099e-01	1.9204e+00
27	TRT120000	250.0026	250.8431	250.4154	2.0152e-01	1.9218e+00
28	TRT125000	256.8020	257.9147	257.2494	2.2897e-01	1.9215e+00
29	BNFTY	40.0646	40.5234	40.1839	1.2471e-01	1.9011e+00
30	BNFTY	39.3761	40.2940	39.7984	2.2885e-01	1.9011e+00
31	TAF050136	130.3198	132.6432	131.5583	4.4262e-01	1.9026e+00
32	TAF070136	145.5497	147.7424	146.2971	4.3934e-01	1.9039e+00
33	TAF080136	151.7568	154.0318	152.8556	5.6638e-01	1.9046e+00
34	TAF090136	157.2886	159.6692	158.6087	4.4105e-01	1.9053e+00
35	TAF100136	166.6596	168.6356	167.4246	5.1611e-01	1.9064e+00
36	TAF105136	171.8902	173.8373	172.8075	4.4437e-01	1.9071e+00
37	TAF110136	178.6654	180.4188	179.4741	4.0632e-01	1.9081e+00
38	TAF115136	182.2711	184.3162	183.4066	4.3959e-01	1.9086e+00
39	TAF120136	186.7955	188.7310	187.7628	4.2413e-01	1.9093e+00
40	TAF125136	191.0227	193.2391	191.9745	4.4899e-01	1.9100e+00
41	TAF130136	195.2766	197.1100	196.0280	4.4752e-01	1.9107e+00
42	TAF120048	193.5783	195.8191	194.7184	4.5314e-01	1.9105e+00
43	TAF130048	200.7355	203.0455	201.7232	4.9233e-01	1.9117e+00
44	TAF120224	185.2407	187.6706	186.3438	5.1265e-01	1.9091e+00
45	TAF130224	192.1914	193.8493	192.8570	4.5458e-01	1.9101e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	BNFTY	37.7675	38.9168	38.2503	3.1584e-01	1.9010e+00
47	BNFTY	39.8352	40.0646	39.8994	1.0408e-01	1.9011e+00
48	TAF130048	81.0312	83.6646	82.6226	5.7574e-01	1.9001e+00
49	TAF130136	254.5870	255.4243	254.9167	1.8131e-01	1.9229e+00
50	TAF130224	158.4400	160.4294	159.3618	4.8015e-01	1.9054e+00
51	TAF130312	222.4431	224.0603	223.1873	3.6841e-01	1.9157e+00
52	TAF130000	148.0422	150.4335	149.0928	5.7966e-01	1.9042e+00
53	TSI000001	43.4949	44.4723	43.9704	2.3105e-01	1.9005e+00
54	TSI000002	106.3566	108.2123	107.3236	4.3813e-01	1.9003e+00
55	TSO000001	41.3852	42.1496	41.7715	1.9651e-01	1.9005e+00
56	TSO000002	56.0077	56.9768	56.4578	2.2985e-01	1.9001e+00
57	TAF020136	103.8255	106.9463	105.2092	6.1298e-01	1.9008e+00
58	BNFTY	42.8139	43.5000	43.1844	2.7679e-01	1.9013e+00
59	TAF130312	209.9921	212.1909	211.0230	5.4647e-01	1.9134e+00
60	BNFTY	3.3057	3.3350	3.3186	7.7525e-03	0.0000e+00
61	BNFTY	3.2959	3.3203	3.3101	5.9394e-03	0.0000e+00
62	BNFTY	3.2959	3.3105	3.3018	4.9324e-03	0.0000e+00
63	BNFTY	3.2959	3.3057	3.3002	4.2590e-03	0.0000e+00
64	BNFTY	1.5967	1.6064	1.6005	2.4741e-03	0.0000e+00
65	BNFTY	1.6113	1.6211	1.6146	2.5362e-03	0.0000e+00
66	BNFTY	1.6211	1.6260	1.6234	2.4642e-03	0.0000e+00
67	BNFTY	1.6357	1.6406	1.6358	6.9053e-04	0.0000e+00
68	BNFTY	1.6406	1.6455	1.6425	2.3941e-03	0.0000e+00
69	BNFTY	1.6504	1.6553	1.6544	1.8950e-03	0.0000e+00
70	BNFTY	1.6602	1.6699	1.6637	2.6174e-03	0.0000e+00
71	BNFTY	1.6797	1.6846	1.6801	1.3381e-03	0.0000e+00
72	BNFTY	1.6846	1.6895	1.6877	2.3675e-03	0.0000e+00
73	BNFTY	1.6992	1.7041	1.6999	1.7115e-03	0.0000e+00
74	BNFTY	1.7090	1.7139	1.7098	1.8082e-03	0.0000e+00
75	BNFTY	1.7188	1.7236	1.7207	2.4164e-03	0.0000e+00
76	BNFTY	1.7285	1.7334	1.7291	1.6028e-03	0.0000e+00
77	BNFTY	1.7432	1.7480	1.7434	9.6655e-04	0.0000e+00
78	BNFTY	1.7578	1.7676	1.7591	2.3778e-03	0.0000e+00
79	BNFTY	1.7725	1.7822	1.7773	9.8648e-04	0.0000e+00
80	PAN020136	-19.0661	3.8220	-6.2259	5.3028e+00	8.7014e-01
81	PAN050136	-22.6191	-5.3767	-15.1576	4.1372e+00	1.6804e+00
82	PAN070136	-21.5688	-0.5117	-14.0203	5.2397e+00	8.7071e-01
83	PAN080136	-13.9543	9.4679	-2.1806	6.3471e+00	8.7002e-01
84	PAN090136	-13.3204	5.2953	-4.6824	5.1867e+00	8.7008e-01
85	PAN100136	-12.9347	1.0271	-6.7075	3.5247e+00	8.7016e-01
86	PAN105136	-6.2759	7.0755	-0.6576	3.9315e+00	8.7000e-01
87	PAN110136	-6.7995	9.9088	-1.8542	3.9683e+00	8.7001e-01
88	PAN115136	-7.5479	4.9643	-0.5731	3.1730e+00	8.7000e-01
89	PAN120136	-7.0153	-0.3015	-3.3151	1.8665e+00	8.7004e-01
90	PAN125136	-6.0353	2.6622	-1.7415	2.7345e+00	8.7001e-01
91	PAN130136	-3.8872	8.0909	0.9910	2.8333e+00	8.7000e-01
92	PAN120048	-12.2700	1.9969	-6.4717	2.9827e+00	8.7015e-01
93	PAN130048	-7.4386	4.9211	-2.4673	2.4547e+00	8.7002e-01
94	PAN120224	-11.2738	0.2466	-5.1275	3.0175e+00	8.7009e-01
95	PAN130224	-7.5954	5.1456	-0.9243	2.4770e+00	8.7000e-01
96	PAN120312	-11.5847	-0.8273	-4.7076	2.4180e+00	8.7008e-01
97	PAN130312	-6.7826	2.5252	-3.6973	1.5113e+00	8.7005e-01
98	PAB000136	39.5576	40.4274	40.0447	2.6576e-01	5.8858e-01
99	PAB100136	41.1994	41.8860	41.5921	1.6777e-01	5.8925e-01
100	PAB125136	41.8217	42.2795	41.9590	1.0003e-01	5.8941e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	38.8161	40.4030	39.8854	4.0864e-01	7.5660e-01
102	PRV000001	20.9455	20.1676	20.0772	5.4088e-02	7.5168e-01
103	PSR000001	41.5674	41.6895	41.6700	4.5206e-02	7.5720e-01
104	PFH000001	12.3226	12.6888	12.5240	9.6110e-02	5.0098e-01
105	PAN000136	-71.6309	-45.9961	-57.1747	7.4574e+00	4.9221e+00
106	PFH000002	12.4528	12.7717	12.6170	6.6283e-02	2.0247e-01
107	EMPTY	-0.0049	0.0098	0.0042	2.6118e-03	0.0000e+00
108	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0013	2.1635e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	144.6965	145.6731	145.2081	2.0839e-01	1.1896e+00
113	VPW000002	168.7350	169.3209	169.0435	1.3141e-01	1.2980e+00
114	VPW000003	208.9205	209.5065	209.2213	1.2608e-01	1.4940e+00
115	VPW000004	148.7380	149.5192	149.1949	1.9969e-01	1.2072e+00
116	VPW000005	197.3107	199.0685	198.2911	4.1100e-01	1.4393e+00
117	VPW000006	207.7975	208.1881	207.9655	1.3093e-01	1.4876e+00
118	IPW000001	777.7836	787.5453	781.8052	2.0270e+00	1.0186e+01
119	IPW000002	1818.3207	1826.1257	1822.6921	1.8724e+00	1.6521e+01
120	IPW000003	1847.7001	1853.5500	1851.2878	1.7334e+00	1.6718e+01
121	IPW000004	535.9826	539.8889	538.2969	8.3595e-01	4.6994e+00
122	IPW000005	355.4144	359.8085	357.3965	1.0779e+00	3.4600e+00
123	IPW000006	372.9999	374.4647	373.5957	4.3326e-01	3.5652e+00
124	EMPTY	-0.0293	-0.0146	-0.0203	4.1102e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0147	2.3114e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0168	3.1444e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0168	3.9656e-03	0.0000e+00
128	IHT000001	183.9618	187.0868	185.3994	6.4448e-01	4.4997e+00
129	IHT000002	183.3609	186.4859	184.6578	6.3351e-01	4.4966e+00
130	IHT000003	183.0228	186.1478	184.4213	6.4157e-01	4.4957e+00
131	IHT000004	185.3403	188.4653	186.7504	6.7921e-01	4.5053e+00
132	IHT000005	183.1205	186.2455	184.3315	6.8912e-01	4.4953e+00
133	IHT000006	178.6846	181.4190	179.8330	6.6103e-01	4.4771e+00
134	IHT000007	186.4370	189.1714	187.7105	6.1793e-01	4.5093e+00
135	IHT000008	184.5027	187.6277	186.1239	5.8294e-01	4.5027e+00
136	IHT000009	183.5975	186.3319	185.0312	5.6718e-01	4.4982e+00
137	IHT000010	184.5778	186.7263	185.5661	5.5300e-01	4.5004e+00
138	IHT000011	185.8887	188.0371	186.8418	5.4909e-01	4.5057e+00
139	IHT000012	184.2849	186.4333	185.2926	5.6821e-01	4.4993e+00
140	IHT000013	131.0697	133.2181	132.0307	5.7432e-01	4.3073e+00
141	IHT000014	180.7429	183.4773	181.9540	6.6028e-01	4.4856e+00
142	IHT000015	133.7665	136.1103	134.9853	5.4184e-01	4.3165e+00
143	IHT000016	125.5747	127.7231	126.6645	5.2064e-01	4.2912e+00
144	IHT000017	149.3727	152.1071	150.6071	7.0635e-01	4.3679e+00
145	IHT000018	151.2808	153.8199	152.7652	5.7453e-01	4.3754e+00
146	IHT000019	152.5428	155.6678	154.1640	5.2682e-01	4.3803e+00
147	IHT000020	150.3418	153.0762	151.8691	5.0638e-01	4.3722e+00
148	IHT000021	-3.2227	0.0976	-1.4063	6.1921e-01	4.1000e+00
149	IHT000022	130.4612	133.1956	131.9261	5.3270e-01	4.3070e+00
150	IHT000023	148.9446	151.0930	150.0070	4.7541e-01	4.3658e+00
151	IHT000024	113.6080	115.7565	114.5885	4.8083e-01	4.2571e+00
152	IHT000025	146.6534	148.9971	147.8213	4.7267e-01	4.3583e+00
153	IHT000026	149.6207	151.9644	150.6675	4.9875e-01	4.3681e+00
154	IHT000027	127.7043	129.8528	128.8214	5.4109e-01	4.2976e+00
155	IHT000028	127.9222	130.0706	129.1136	6.1416e-01	4.2985e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	149.7258	151.8743	150.8038	6.1287e-01	4.3685e+00
157	IHT000030	152.7982	155.3373	154.0756	6.3652e-01	4.3799e+00
158	IHT000031	149.3277	152.2573	150.7183	6.9993e-01	4.3682e+00
159	IHT000032	150.7587	153.8837	152.0517	6.6368e-01	4.3729e+00
160	IHT000033	150.7437	153.8687	151.9624	6.5976e-01	4.3726e+00
161	IHT000034	133.1167	135.2652	133.9448	5.1684e-01	4.3132e+00
162	IHT000035	175.1052	177.2536	176.0582	5.5753e-01	4.4628e+00
163	IHT000036	131.4378	133.5862	132.3910	4.7292e-01	4.3084e+00

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Velocity 1 = 8.0400 (ft/sec) (+/- 4.2853 %)
 Velocity 2 = 8.0619 (ft/sec) (+/- 3.5857 %)
 Pressure drop = -2.6114 (psi)
 Tsat in = 267.6026 (deg F) Tsat out = 271.0027 (deg F)
 Phi inner = 200.0507 (kBtu/hr-ft2) (+/- 1.4542 %)
 Phi outer = 201.8917 (kBtu/hr-ft2) (+/- 1.3482 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	82.0168	82.4395	82.2619	1.6182e-01	1.9001e+00
1	TRF0000002	82.5029	82.9235	82.7216	1.1986e-01	1.9001e+00
2	TRF0000001	84.2473	85.0877	84.5921	1.9676e-01	1.9001e+00
3	TIN0000001	84.3061	84.9381	84.6347	1.5284e-01	1.9001e+00
4	TRV0000001	86.0228	86.7570	86.3879	1.7490e-01	1.9002e+00
5	TSR0000001	187.9393	190.5540	189.3884	7.1105e-01	1.9096e+00
6	EMPTY	37.9974	38.9168	38.4939	2.2441e-01	1.9010e+00
7	TAO050136	211.1535	212.0126	211.7415	1.5595e-01	1.9135e+00
8	TAO070136	215.2650	223.6846	217.4844	1.6386e+00	1.9146e+00
9	TAO080136	224.0321	224.9772	224.4671	2.9418e-01	1.9160e+00
10	TAO090136	230.0049	235.5642	232.8339	1.2836e+00	1.9178e+00
11	TAO100136	237.1381	238.9247	238.0974	3.7036e-01	1.9189e+00
12	TAO105136	238.3627	240.0549	239.3633	3.1194e-01	1.9192e+00
13	EMPTY	6.6730	14.2480	10.3147	1.8965e+00	1.9001e+00
14	TAO115136	253.4190	254.7289	254.1751	3.4475e-01	1.9227e+00
15	EMPTY	32.9252	43.0426	39.1430	2.5637e+00	1.9010e+00
16	TAO125136	266.8813	268.2621	267.5815	3.0498e-01	1.9261e+00
17	EMPTY	44.8706	45.5552	45.3133	1.9779e-01	1.9014e+00
18	EMPTY	41.4403	41.8984	41.6968	1.0989e-01	1.9012e+00
19	TAO130048	257.2404	258.1680	257.7451	2.0176e-01	1.9236e+00
20	TAO120224	250.8521	252.6251	251.6588	3.5911e-01	1.9221e+00
21	EMPTY	39.3761	39.8352	39.5506	1.1879e-01	1.9011e+00
22	TAO120312	272.2924	273.4920	272.7725	2.6034e-01	1.9275e+00
23	TAO130312	263.6959	264.5285	264.2066	1.6737e-01	1.9252e+00
24	EMPTY	39.1464	39.8352	39.4863	2.0867e-01	1.9011e+00
25	TRT070000	207.5684	213.4533	210.8620	1.2901e+00	1.9133e+00
26	TRT100000	258.7937	259.8144	259.2504	2.2635e-01	1.9240e+00
27	TRT120000	266.4430	267.1827	266.7831	1.7661e-01	1.9259e+00
28	TRT125000	272.9931	273.7281	273.3205	1.9715e-01	1.9276e+00
29	EMPTY	40.0646	40.5234	40.1885	1.3279e-01	1.9011e+00
30	EMPTY	39.6057	40.0646	39.8306	1.8248e-01	1.9011e+00
31	TAP050136	135.0615	136.6722	135.9595	3.6024e-01	1.9029e+00
32	TAP070136	151.6180	153.7004	152.5702	5.5717e-01	1.9046e+00
33	TAP080136	158.6743	162.1193	160.1467	8.6304e-01	1.9055e+00
34	TAP090136	165.6048	167.8733	166.6115	5.2611e-01	1.9063e+00
35	TAP100136	175.1360	177.7868	176.1417	5.2802e-01	1.9076e+00
36	TAP105136	181.1200	183.7327	182.2621	5.7555e-01	1.9085e+00
37	TAP110136	188.8593	190.7927	189.8143	4.6487e-01	1.9096e+00
38	TAP115136	193.1397	195.0717	194.0365	4.6717e-01	1.9103e+00
39	TAP120136	198.1727	200.2848	199.0724	4.7574e-01	1.9112e+00
40	TAP125136	202.9256	205.3139	203.8085	4.2350e-01	1.9120e+00
41	TAP130136	207.6741	209.6824	208.6194	4.7829e-01	1.9129e+00
42	TAP120048	204.9440	208.0373	206.7194	6.7423e-01	1.9126e+00
43	TAP130048	213.7786	216.4504	214.6839	5.8735e-01	1.9141e+00
44	TAP120224	195.9013	198.3125	197.1134	4.5880e-01	1.9109e+00
45	TAP130224	203.6468	206.3521	205.1237	6.9768e-01	1.9123e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.6870	38.2227	2.7276e-01	1.9010e+00
47	EMPTY	39.8352	40.0646	39.9362	1.1506e-01	1.9011e+00
48	TAI130048	89.0189	92.3670	90.5724	7.6313e-01	1.9003e+00
49	TAI130136	270.9385	271.5833	271.2371	1.4944e-01	1.9271e+00
50	TAI130224	161.4229	164.1022	162.9714	6.3899e-01	1.9058e+00
51	TAI130312	231.3613	232.9683	231.9362	3.3949e-01	1.9176e+00
52	TR130000	146.2472	149.2404	148.0876	6.5237e-01	1.9041e+00
53	TSI0000001	43.3872	44.2562	43.8262	1.7135e-01	1.9005e+00
54	TSI0000002	105.7398	106.9770	106.3498	3.2056e-01	1.9005e+00
55	TSO0000001	41.3832	42.2573	41.8246	1.7955e-01	1.9005e+00
56	TSO0000002	57.0841	57.8372	57.4929	2.1623e-01	1.9001e+00
57	TAP020136	105.4877	107.7758	106.5161	6.1925e-01	1.9009e+00
58	EMPTY	42.8139	43.5000	43.1615	2.7814e-01	1.9013e+00
59	TAP130312	224.2659	226.6330	225.1376	4.4281e-01	1.9161e+00
60	EMPTY	3.6621	3.6865	3.6690	5.1344e-03	0.0000e+00
61	EMPTY	3.6475	3.6670	3.6567	3.7239e-03	0.0000e+00
62	EMPTY	3.6426	3.6523	3.6457	3.0819e-03	0.0000e+00
63	EMPTY	3.6377	3.6475	3.6426	1.3951e-03	0.0000e+00
64	EMPTY	1.7480	1.7529	1.7524	1.4797e-03	0.0000e+00
65	EMPTY	1.7627	1.7676	1.7642	2.2603e-03	0.0000e+00
66	EMPTY	1.7725	1.7773	1.7727	9.6655e-04	0.0000e+00
67	EMPTY	1.7822	1.7871	1.7830	1.8082e-03	0.0000e+00
68	EMPTY	1.7871	1.7920	1.7912	1.8082e-03	0.0000e+00
69	EMPTY	1.8018	1.8018	1.8018	0.0000e+00	0.0000e+00
70	EMPTY	1.8066	1.8115	1.8090	2.4642e-03	0.0000e+00
71	EMPTY	1.8213	1.8262	1.8259	1.1714e-03	0.0000e+00
72	EMPTY	1.8311	1.8359	1.8312	9.6655e-04	0.0000e+00
73	EMPTY	1.8408	1.8457	1.8447	1.9730e-03	0.0000e+00
74	EMPTY	1.8506	1.8555	1.8513	1.7115e-03	0.0000e+00
75	EMPTY	1.8604	1.8652	1.8632	2.4344e-03	0.0000e+00
76	EMPTY	1.8701	1.8701	1.8701	0.0000e+00	0.0000e+00
77	EMPTY	1.8799	1.8848	1.8843	1.4797e-03	0.0000e+00
78	EMPTY	1.8945	1.8994	1.8993	6.9053e-04	0.0000e+00
79	EMPTY	1.9141	1.9189	1.9158	2.3675e-03	0.0000e+00
80	PAN020136	-20.2105	6.1872	-8.2934	6.0819e+00	8.7025e-01
81	PAN050136	-30.7063	-12.0906	-21.3801	4.7129e+00	1.6809e+00
82	PAN070136	-24.0865	-4.7078	-14.3911	4.5518e+00	8.7074e-01
83	PAN080136	-14.0306	11.6805	-3.3159	5.8451e+00	8.7004e-01
84	PAN090136	-13.3204	3.3879	-6.9438	4.8251e+00	8.7017e-01
85	PAN100136	-12.9347	-0.9565	-9.2573	3.1540e+00	8.7031e-01
86	PAN105136	-6.2759	5.3208	-0.9948	2.8041e+00	8.7000e-01
87	PAN110136	-5.7314	10.6718	0.9550	3.1681e+00	8.7000e-01
88	PAN115136	-7.5479	7.0242	-1.2277	3.2710e+00	8.7001e-01
89	PAN120136	-7.0153	3.4370	-3.5226	2.9791e+00	8.7004e-01
90	PAN125136	-5.1198	9.9102	0.8876	4.1059e+00	8.7000e-01
91	PAN130136	-6.0234	1.1482	-2.2530	1.7623e+00	8.7002e-01
92	PAN120048	-12.4226	0.6999	-4.5460	2.9616e+00	8.7007e-01
93	PAN130048	-7.3623	3.4715	-4.1656	2.4725e+00	8.7006e-01
94	PAN120224	-12.7996	0.8570	-4.6636	3.2776e+00	8.7008e-01
95	PAN130224	-10.0368	7.8922	-2.8316	3.8480e+00	8.7003e-01
96	PAN120312	-6.7019	0.6223	-2.9544	1.7267e+00	8.7003e-01
97	PAN130312	-8.0033	-3.2731	-6.1921	1.0432e+00	8.7014e-01
98	PAB000136	39.7407	40.5647	40.1573	2.3889e-01	5.8862e-01
99	PAB100136	42.0691	42.5269	42.2815	1.1907e-01	5.8955e-01
100	PAB125136	42.3253	42.7372	42.5047	8.5184e-02	5.8965e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.3043	40.7692	40.0172	3.6443e-01	7.5664e-01
102	PRV000001	19.9234	20.0455	19.9625	5.7521e-02	7.5166e-01
103	PSR000001	42.4219	42.5440	42.4536	5.4088e-02	7.5747e-01
104	PFH000001	9.7591	10.1253	9.9477	9.5054e-02	5.0062e-01
105	PAM000136	-86.7371	-57.8979	-72.2992	7.6856e+00	4.9233e+00
106	PFH000002	9.8855	10.1372	10.0027	5.4714e-02	2.0156e-01
107	EMPTY	-0.0049	0.0049	0.0035	2.7971e-03	0.0000e+00
108	EMPTY	-10.0000	-9.6484	-9.9928	4.9709e-02	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0014	2.2146e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	144.6965	145.6731	145.1261	2.2321e-01	1.1893e+00
113	VPW000002	168.9303	169.5162	169.1998	1.2409e-01	1.2987e+00
114	VPW000003	209.1158	209.7018	209.3815	1.2327e-01	1.4948e+00
115	VPW000004	148.9333	149.9099	149.3004	1.9980e-01	1.2077e+00
116	VPW000005	197.8966	199.8498	199.2833	5.7487e-01	1.4442e+00
117	VPW000006	207.7975	208.5787	208.1920	1.8713e-01	1.4888e+00
118	IPW000001	769.9742	775.8313	773.4495	1.6401e+00	1.0146e+01
119	IPW000002	1831.9795	1843.6871	1838.4181	2.7098e+00	1.6630e+01
120	IPW000003	1849.6501	1857.4501	1854.5641	1.7280e+00	1.6741e+01
121	IPW000004	537.9357	540.3771	538.9219	5.7934e-01	4.7038e+00
122	IPW000005	356.8791	360.7849	359.4082	1.0881e+00	3.4730e+00
123	IPW000006	373.9764	375.9296	374.9629	4.2419e-01	3.5742e+00
124	EMPTY	-0.0293	-0.0146	-0.0205	3.9459e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0128	2.7709e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0175	3.8321e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0098	-0.0152	3.0628e-03	0.0000e+00
128	IHT000001	184.1572	186.8915	185.3681	6.2887e-01	4.4996e+00
129	IHT000002	183.5562	185.8999	184.6890	5.7045e-01	4.4968e+00
130	IHT000003	183.2181	185.5619	184.4330	5.5284e-01	4.4957e+00
131	IHT000004	185.3403	188.0746	186.7778	5.7961e-01	4.5054e+00
132	IHT000005	182.9252	185.4642	184.3705	5.5664e-01	4.4955e+00
133	IHT000006	178.2940	181.0284	179.9190	5.7513e-01	4.4774e+00
134	IHT000007	186.2417	189.1714	187.7808	5.4482e-01	4.5096e+00
135	IHT000008	184.8933	187.2371	186.2333	5.0841e-01	4.5031e+00
136	IHT000009	183.7928	186.3319	185.1054	5.2354e-01	4.4985e+00
137	IHT000010	184.1872	186.9216	185.5231	6.3425e-01	4.5002e+00
138	IHT000011	185.4980	188.2324	186.8301	6.0321e-01	4.5056e+00
139	IHT000012	183.6989	186.6286	185.2809	6.1669e-01	4.4992e+00
140	IHT000013	130.8744	133.8041	132.1167	6.2360e-01	4.3076e+00
141	IHT000014	180.5476	184.6492	182.8055	7.9524e-01	4.4891e+00
142	IHT000015	133.7665	136.8915	135.0400	5.9352e-01	4.3167e+00
143	IHT000016	125.5747	128.3090	126.5786	5.8395e-01	4.2909e+00
144	IHT000017	149.1774	151.9118	150.4625	6.3022e-01	4.3674e+00
145	IHT000018	151.2808	154.2105	152.7652	6.3503e-01	4.3754e+00
146	IHT000019	152.3475	154.8866	153.8046	5.5272e-01	4.3790e+00
147	IHT000020	150.1465	152.6855	151.4980	5.4937e-01	4.3709e+00
148	IHT000021	-3.6133	-0.6836	-1.9102	6.3139e-01	4.1000e+00
149	IHT000022	130.0706	132.4144	131.3363	5.3705e-01	4.3052e+00
150	IHT000023	148.5539	150.5071	149.6163	4.6882e-01	4.3645e+00
151	IHT000024	113.0221	115.1705	114.2604	4.4923e-01	4.2562e+00
152	IHT000025	146.2628	148.2159	147.4541	4.5720e-01	4.3571e+00
153	IHT000026	149.6207	151.3785	150.4448	4.3814e-01	4.3673e+00
154	IHT000027	127.5090	129.4621	128.4152	5.0802e-01	4.2964e+00
155	IHT000028	127.7269	130.2659	128.9730	5.7167e-01	4.2981e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	149.9211	152.4602	150.9288	5.7502e-01	4.3690e+00
157	IHT000030	153.1888	155.9232	154.2357	6.2858e-01	4.3805e+00
158	IHT000031	149.9136	152.8433	150.8862	6.4173e-01	4.3688e+00
159	IHT000032	151.1494	153.8837	152.1885	6.1186e-01	4.3733e+00
160	IHT000033	151.1343	154.0640	152.1421	6.4278e-01	4.3732e+00
161	IHT000034	132.9214	135.4605	134.0464	5.3896e-01	4.3136e+00
162	IHT000035	175.3005	178.8161	176.8787	7.3181e-01	4.4652e+00
163	IHT000036	131.4378	134.1722	132.5589	5.7563e-01	4.3090e+00

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Velocity 1 = 7.0575 (ft/sec) (+/- 4.7707 %)
 Velocity 2 = 7.0858 (ft/sec) (+/- 3.6625 %)
 Pressure drop = -3.0232 (psi)
 Tsat in = 267.4911 (deg F) Tsat out = 271.4747 (deg F)
 Phi inner = 200.3410 (kBtu/hr-ft2) (+/- 1.4540 %)
 Phi outer = 201.9294 (kBtu/hr-ft2) (+/- 1.3482 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	82.2281	82.8621	82.5113	1.7400e-01	1.9001e+00
1	TRF000002	82.7132	83.1337	82.9824	1.4738e-01	1.9001e+00
2	TFM000001	85.5066	86.3461	85.9329	1.9702e-01	1.9002e+00
3	TIN000001	85.5687	86.3049	85.8823	1.6246e-01	1.9002e+00
4	TRV000001	86.8618	88.2219	87.3912	3.0513e-01	1.9002e+00
5	TSR000001	180.9494	192.9709	185.5531	3.8152e+00	1.9090e+00
6	EMPTY	37.9974	38.9168	38.4939	2.4726e-01	1.9010e+00
7	TA0050136	223.7770	224.7228	224.2557	2.0982e-01	1.9160e+00
8	TA0070136	228.1628	239.4438	230.7562	2.0855e+00	1.9173e+00
9	TA0080136	237.8457	239.8098	238.4652	4.3384e-01	1.9190e+00
10	TA0090136	240.5425	241.4810	240.9689	2.4363e-01	1.9196e+00
11	TA0100136	255.5644	257.5165	256.7673	3.9770e-01	1.9234e+00
12	TA0105136	257.0641	258.6443	258.1108	3.5563e-01	1.9237e+00
13	EMPTY	18.0130	20.5928	18.9518	5.1693e-01	1.9002e+00
14	TA0115136	273.6085	275.1790	274.4343	3.9104e-01	1.9279e+00
15	EMPTY	31.5371	43.0426	38.4061	3.1520e+00	1.9010e+00
16	TA0125136	288.4710	289.4732	289.1031	2.2248e-01	1.9321e+00
17	EMPTY	45.0988	45.7833	45.3590	1.7253e-01	1.9014e+00
18	EMPTY	41.4403	41.8984	41.6693	1.0347e-01	1.9012e+00
19	TA0130048	279.8678	280.6917	280.2583	1.7037e-01	1.9296e+00
20	TA0120224	272.9243	273.9381	273.5936	2.1292e-01	1.9277e+00
21	EMPTY	39.6057	39.8352	39.7480	1.1254e-01	1.9011e+00
22	TA0120312	294.2168	295.3111	294.8390	2.4414e-01	1.9338e+00
23	TA0130312	286.8267	287.5573	287.1430	1.7610e-01	1.9315e+00
24	EMPTY	39.1464	39.8352	39.5873	1.9032e-01	1.9011e+00
25	TRT070000	216.7227	222.2872	219.1674	1.5030e+00	1.9149e+00
26	TRT100000	278.7078	279.7158	279.2262	2.4820e-01	1.9293e+00
27	TRT120000	287.3922	288.3057	287.8763	2.0070e-01	1.9317e+00
28	TRT125000	291.3022	292.2113	291.7330	1.8058e-01	1.9328e+00
29	EMPTY	39.8352	40.5234	40.1977	1.3973e-01	1.9011e+00
30	EMPTY	39.3761	40.0646	39.8306	2.2472e-01	1.9011e+00
31	TAF050136	143.5916	145.3922	144.4102	5.0288e-01	1.9037e+00
32	TAF070136	161.8029	164.7527	163.0470	6.9024e-01	1.9058e+00
33	TAF080136	170.1561	173.4742	171.6605	8.5538e-01	1.9069e+00
34	TAF090136	177.9862	180.3320	179.1893	5.5722e-01	1.9080e+00
35	TAF100136	188.7290	190.8690	189.9375	4.7487e-01	1.9097e+00
36	TAF105136	195.7622	197.9659	196.8031	5.7008e-01	1.9108e+00
37	TAF110136	203.9658	208.2680	205.8045	1.0534e+00	1.9124e+00
38	TAF115136	209.2904	211.4891	210.1648	4.8158e-01	1.9132e+00
39	TAF120136	214.6935	216.4036	215.3878	3.7714e-01	1.9142e+00
40	TAF125136	220.5978	222.0139	221.3107	3.7367e-01	1.9154e+00
41	TAF130136	225.6535	227.1665	226.3590	3.8446e-01	1.9164e+00
42	TAF120048	232.2201	225.4184	224.2396	4.5415e-01	1.9160e+00
43	TAF130048	232.5709	234.1745	233.3051	4.4655e-01	1.9179e+00
44	TAF120224	212.0332	214.1334	212.9671	4.0044e-01	1.9137e+00
45	TAF130224	220.8578	223.0543	221.7197	4.2039e-01	1.9154e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.6870	38.1767	2.6393e-01	1.9010e+00
47	EMPTY	39.8352	40.2940	40.0325	1.4666e-01	1.9011e+00
48	TAI130048	71.8251	74.6895	73.7802	5.2243e-01	1.9000e+00
49	TAI130136	290.9600	291.7787	291.3293	1.8610e-01	1.9327e+00
50	TAI130224	168.5561	169.6418	169.1424	2.1704e-01	1.9066e+00
51	TAI130312	243.9880	245.1134	244.5825	2.8216e-01	1.9204e+00
52	TRR130000	154.5096	155.7997	154.9608	2.8294e-01	1.9049e+00
53	TSI000001	43.6050	44.3654	44.0679	1.8206e-01	1.9005e+00
54	TSI000002	112.9405	114.9898	114.2011	4.5280e-01	1.9013e+00
55	TSO000001	41.1631	42.1476	41.6898	2.0221e-01	1.9005e+00
56	TSO000002	58.6969	59.5561	59.1242	2.0413e-01	1.9001e+00
57	TAF020136	109.0201	112.2331	110.6239	7.3992e-01	1.9011e+00
58	EMPTY	42.5851	43.5000	43.0700	2.3397e-01	1.9012e+00
59	TAF130312	245.4344	246.8363	246.0495	3.5615e-01	1.9208e+00
60	EMPTY	4.1895	4.2090	4.1990	4.4072e-03	0.0000e+00
61	EMPTY	4.1797	4.1895	4.1815	2.5894e-03	0.0000e+00
62	EMPTY	4.1650	4.1748	4.1673	2.6488e-03	0.0000e+00
63	EMPTY	4.1553	4.1650	4.1606	1.7784e-03	0.0000e+00
64	EMPTY	1.9775	1.9824	1.9818	1.6028e-03	0.0000e+00
65	EMPTY	1.9922	1.9971	1.9924	9.6655e-04	0.0000e+00
66	EMPTY	1.9971	2.0020	2.0005	2.2603e-03	0.0000e+00
67	EMPTY	2.0068	2.0117	2.0097	2.4344e-03	0.0000e+00
68	EMPTY	2.0117	2.0166	2.0146	2.4344e-03	0.0000e+00
69	EMPTY	2.0215	2.0264	2.0242	2.4484e-03	0.0000e+00
70	EMPTY	2.0264	2.0313	2.0311	9.6655e-04	0.0000e+00
71	EMPTY	2.0410	2.0459	2.0458	6.9053e-04	0.0000e+00
72	EMPTY	2.0459	2.0557	2.0508	1.3951e-03	0.0000e+00
73	EMPTY	2.0605	2.0654	2.0623	2.3675e-03	0.0000e+00
74	EMPTY	2.0654	2.0703	2.0698	1.4797e-03	0.0000e+00
75	EMPTY	2.0752	2.0801	2.0784	2.3365e-03	0.0000e+00
76	EMPTY	2.0850	2.0850	2.0850	0.0000e+00	0.0000e+00
77	EMPTY	2.0947	2.0996	2.0951	1.3381e-03	0.0000e+00
78	EMPTY	2.1094	2.1143	2.1100	1.6028e-03	0.0000e+00
79	EMPTY	2.1240	2.1289	2.1262	2.4484e-03	0.0000e+00
80	PAN020136	-20.3631	-3.1970	-12.6300	5.0769e+00	8.7057e-01
81	PAN050136	-33.1477	-14.5320	-23.7147	4.9252e+00	1.6810e+00
82	PAN070136	-21.8740	-6.7678	-16.4281	3.2642e+00	8.7097e-01
83	PAN080136	-14.0306	8.7050	-4.8601	4.8345e+00	8.7008e-01
84	PAN090136	-13.3204	2.6250	-8.6345	3.9511e+00	8.7027e-01
85	PAN100136	-12.9347	0.0353	-7.3606	3.4423e+00	8.7019e-01
86	PAN105136	-6.3522	6.2363	-0.8712	3.5296e+00	8.7000e-01
87	PAN110136	-5.9603	11.5110	1.1610	4.0840e+00	8.7000e-01
88	PAN115136	-4.3436	4.3539	0.5789	2.1375e+00	8.7000e-01
89	PAN120136	-6.9390	0.3852	-3.0511	1.7825e+00	8.7003e-01
90	PAN125136	-6.1116	1.5941	-2.6173	2.0481e+00	8.7002e-01
91	PAN130136	-6.8627	1.4534	-3.3638	1.9956e+00	8.7004e-01
92	PAN120048	-7.3109	-1.9704	-4.3492	1.2260e+00	8.7007e-01
93	PAN130048	-8.5067	-1.7165	-6.3003	1.4699e+00	8.7014e-01
94	PAN120224	-8.3746	5.0532	-4.7094	2.5326e+00	8.7008e-01
95	PAN130224	-7.9769	-3.2467	-5.5416	1.1573e+00	8.7011e-01
96	PAN120312	-11.2795	-3.7264	-6.5081	1.4845e+00	8.7015e-01
97	PAN130312	-6.6300	-1.4421	-4.8478	1.0742e+00	8.7008e-01
98	PAB000136	39.6949	40.5189	40.0822	2.5432e-01	5.8859e-01
99	PAB100136	42.3895	42.9846	42.5928	1.5031e-01	5.8969e-01
100	PAB125136	42.7372	43.1035	42.8398	7.8778e-02	5.8981e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.3043	40.6471	39.9879	3.7075e-01	7.5663e-01
102	PRV000001	19.6793	19.8013	19.7183	5.7521e-02	7.5162e-01
103	PSR000001	42.9102	43.0323	43.0249	2.9284e-02	7.5767e-01
104	PFM000001	7.4703	7.8365	7.6387	8.9397e-02	5.0036e-01
105	PAN000136	-95.4346	-70.2576	-83.6975	7.5845e+00	4.9244e+00
106	PFM000002	7.5531	7.8384	7.7008	5.8127e-02	2.0092e-01
107	EMPTY	-0.0049	0.0049	0.0025	3.7226e-03	0.0000e+00
108	EMPTY	-10.0000	-9.7705	-9.9904	4.2026e-02	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0019	2.3941e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	145.0872	145.6731	145.3214	1.1161e-01	1.1901e+00
113	VPW000002	169.1256	169.5162	169.3208	1.0440e-01	1.2993e+00
114	VPW000003	209.3112	209.7018	209.4440	1.0014e-01	1.4951e+00
115	VPW000004	149.1286	149.5192	149.3043	9.8648e-02	1.2077e+00
116	VPW000005	198.2873	199.0685	198.6427	2.4225e-01	1.4410e+00
117	VPW000006	208.1881	208.5787	208.3405	1.2658e-01	1.4895e+00
118	IPW000001	766.0696	777.7836	773.8007	2.7030e+00	1.0148e+01
119	IPW000002	1833.9308	1847.5897	1842.2432	3.1980e+00	1.6656e+01
120	IPW000003	1851.6001	1863.3000	1857.9181	3.8511e+00	1.6764e+01
121	IPW000004	533.0529	537.4474	536.2852	9.1954e-01	4.6850e+00
122	IPW000005	356.8791	358.8320	357.6797	5.1970e-01	3.4619e+00
123	IPW000006	372.9999	374.9530	374.0156	4.6101e-01	3.5680e+00
124	EMPTY	-0.0293	-0.0146	-0.0207	4.0144e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0136	3.3146e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0167	3.5691e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0098	-0.0159	2.7568e-03	0.0000e+00
128	IHT000001	183.7665	186.6962	185.1142	6.6644e-01	4.4985e+00
129	IHT000002	183.3609	185.8999	184.4000	6.0418e-01	4.4956e+00
130	IHT000003	183.0228	185.5619	184.1479	6.0045e-01	4.4946e+00
131	IHT000004	185.3403	187.8793	186.4731	5.8793e-01	4.5041e+00
132	IHT000005	182.7299	185.6595	184.0658	6.1176e-01	4.4942e+00
133	IHT000006	178.6846	181.2237	179.5908	6.1733e-01	4.4761e+00
134	IHT000007	186.4370	188.7808	187.5269	5.6647e-01	4.5085e+00
135	IHT000008	184.6980	187.2371	185.9716	6.1793e-01	4.5021e+00
136	IHT000009	183.5975	186.1366	184.8358	5.6443e-01	4.4974e+00
137	IHT000010	184.1872	186.3356	185.3004	5.2830e-01	4.4993e+00
138	IHT000011	185.6933	187.6465	186.6504	5.2682e-01	4.5049e+00
139	IHT000012	184.0896	185.8474	185.0544	5.1359e-01	4.4983e+00
140	IHT000013	130.8744	133.0228	131.9565	4.8038e-01	4.3071e+00
141	IHT000014	180.7429	183.2820	182.0165	5.1636e-01	4.4859e+00
142	IHT000015	133.9619	136.1103	134.8721	4.4400e-01	4.3161e+00
143	IHT000016	125.7700	127.9184	126.5552	4.4554e-01	4.2909e+00
144	IHT000017	149.5681	151.7165	150.7164	4.8108e-01	4.3682e+00
145	IHT000018	151.8667	154.2105	152.9370	5.4852e-01	4.3760e+00
146	IHT000019	152.9334	155.0819	153.9530	5.5284e-01	4.3795e+00
147	IHT000020	150.3418	152.6855	151.6308	6.1257e-01	4.3714e+00
148	IHT000021	-3.2227	-0.4883	-1.6836	6.7502e-01	4.1000e+00
149	IHT000022	130.2659	132.4144	131.5238	5.4841e-01	4.3058e+00
150	IHT000023	148.5539	150.8977	149.7843	5.2977e-01	4.3650e+00
151	IHT000024	113.2174	115.1705	114.3659	4.9385e-01	4.2565e+00
152	IHT000025	146.4581	148.8018	147.6416	5.2706e-01	4.3577e+00
153	IHT000026	149.6207	151.7691	150.5698	5.0994e-01	4.3677e+00
154	IHT000027	127.5090	129.8528	128.5597	5.4660e-01	4.2968e+00
155	IHT000028	127.5316	130.2659	129.0160	6.1002e-01	4.2982e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	149.5305	152.2649	150.9562	6.4627e-01	4.3691e+00
157	IHT000030	152.7982	155.5326	154.2748	6.4133e-01	4.3806e+00
158	IHT000031	149.5230	152.0620	150.9097	5.8427e-01	4.3689e+00
159	IHT000032	150.7587	153.2978	152.2353	5.4841e-01	4.3735e+00
160	IHT000033	150.7437	153.2828	152.1773	5.4905e-01	4.3733e+00
161	IHT000034	132.7261	135.0699	133.9566	4.7062e-01	4.3133e+00
162	IHT000035	174.7146	177.0583	176.2457	4.9025e-01	4.4628e+00
163	IHT000036	131.4378	133.5862	132.4730	4.3807e-01	4.3087e+00

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Velocity 1 = 6.0323 (ft/sec) (+/- 5.6823 %)
 Velocity 2 = 6.0610 (ft/sec) (+/- 3.8238 %)
 Pressure drop = -3.1892 (psi)
 Tsat in = 268.1362 (deg F) Tsat out = 272.4705 (deg F)
 Phi inner = 200.0884 (kBtu/hr-ft2) (+/- 1.4542 %)
 Phi outer = 201.8879 (kBtu/hr-ft2) (+/- 1.3483 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	82.4395	83.0733	82.8409	1.8234e-01	1.9001e+00
1	TRF000002	83.1337	83.5540	83.3733	1.4089e-01	1.9001e+00
2	TFM000001	84.2492	85.2988	84.7324	2.2548e-01	1.9001e+00
3	TIN000001	84.5165	85.2533	84.7735	1.7162e-01	1.9001e+00
4	TRV000001	86.2347	87.0732	86.7334	1.9581e-01	1.9002e+00
5	TSR000001	193.3570	197.8870	195.3667	1.1332e+00	1.9106e+00
6	EMPTY	37.9974	38.9168	38.4893	2.4131e-01	1.9010e+00
7	TAO050136	239.2957	240.3266	239.8132	2.0849e-01	1.9193e+00
8	TAO070136	241.7085	256.7333	246.0066	2.5664e+00	1.9208e+00
9	TAO080136	251.5425	261.3454	255.7097	1.9208e+00	1.9231e+00
10	TAO090136	253.3405	254.4572	253.8470	2.2423e-01	1.9226e+00
11	TAO100136	276.1809	277.6510	276.9158	3.7586e-01	1.9286e+00
12	TAO105136	279.3268	280.9787	280.2117	4.5441e-01	1.9295e+00
13	EMPTY	26.1972	35.0035	28.3109	2.2690e+00	1.9005e+00
14	TAO115136	294.2983	295.9434	295.2453	3.5353e-01	1.9339e+00
15	EMPTY	31.5371	41.6693	36.5987	2.8534e+00	1.9009e+00
16	TAO125136	304.4083	305.4913	305.0363	2.7578e-01	1.9369e+00
17	EMPTY	44.8706	45.7833	45.3498	1.9145e-01	1.9014e+00
18	EMPTY	41.4403	41.8984	41.7243	1.3538e-01	1.9012e+00
19	TAO130048	298.3263	299.1429	298.6319	1.8475e-01	1.9349e+00
20	TAO120224	290.7121	292.0806	291.3983	2.5954e-01	1.9327e+00
21	EMPTY	39.8352	40.2940	40.0142	1.5575e-01	1.9011e+00
22	TAO120312	307.9360	309.0221	308.3997	2.8598e-01	1.9379e+00
23	TAO130312	302.3561	303.2620	302.7841	2.1087e-01	1.9362e+00
24	EMPTY	39.1464	39.8352	39.5827	1.8112e-01	1.9011e+00
25	TRT070000	224.9632	235.1581	229.5140	2.0342e+00	1.9171e+00
26	TRT100000	297.4927	298.5822	298.1141	2.3651e-01	1.9347e+00
27	TRT120000	300.2279	300.9533	300.6160	1.6200e-01	1.9355e+00
28	TRT125000	305.3890	306.3804	305.8899	2.3395e-01	1.9371e+00
29	EMPTY	40.0646	40.2940	40.2207	1.0810e-01	1.9011e+00
30	EMPTY	39.3761	40.0646	39.8306	1.9937e-01	1.9011e+00
31	TAF050136	152.2686	154.6512	153.4876	5.3611e-01	1.9047e+00
32	TAF070136	173.9603	176.8877	175.5415	8.4175e-01	1.9075e+00
33	TAF080136	183.6726	187.5405	185.5303	7.6996e-01	1.9090e+00
34	TAF090136	193.4576	195.9721	194.5762	5.0914e-01	1.9104e+00
35	TAF100136	206.9138	209.2186	208.0357	5.8838e-01	1.9128e+00
36	TAF105136	213.5783	216.4184	214.9646	5.3349e-01	1.9141e+00
37	TAF110136	222.7076	225.6366	224.1560	6.1801e-01	1.9159e+00
38	TAF115136	229.8996	231.7859	230.4779	4.4265e-01	1.9173e+00
39	TAF120136	235.9156	238.5393	236.8536	5.3623e-01	1.9187e+00
40	TAF125136	242.2704	244.5049	243.3986	4.8546e-01	1.9201e+00
41	TAF130136	247.8166	249.4026	248.5599	3.4491e-01	1.9214e+00
42	TAF120948	246.4751	249.7704	247.6737	6.7021e-01	1.9211e+00
43	TAF130048	255.4273	257.3806	256.1309	4.2968e-01	1.9232e+00
44	TAF120224	232.0540	234.1276	233.1739	3.9920e-01	1.9179e+00
45	TAF130224	247.3089	250.6902	248.7143	6.6846e-01	1.9214e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.6870	38.2779	3.0203e-01	1.9010e+00
47	EMPTY	39.8352	40.2940	40.1656	1.2402e-01	1.9011e+00
48	TAI130048	87.1320	89.6478	88.3697	7.2704e-01	1.9002e+00
49	TAI130136	302.7422	303.4663	303.1983	1.6147e-01	1.9363e+00
50	TAI130224	173.5854	174.7664	174.2272	2.8198e-01	1.9073e+00
51	TAI130312	247.2690	248.2991	247.8309	2.3170e-01	1.9212e+00
52	TRR130000	156.4951	157.7833	157.1329	2.8738e-01	1.9051e+00
53	TSI000001	44.0403	44.9087	44.5396	1.9253e-01	1.9004e+00
54	TSI000002	110.0655	113.5566	112.2433	7.7879e-01	1.9012e+00
55	TSO0000001	41.4900	42.3645	42.0187	2.1676e-01	1.9005e+00
56	TSO0000002	60.8430	62.2367	61.4994	2.7541e-01	1.9000e+00
57	TAF020136	112.5421	115.9522	114.2962	8.1225e-01	1.9013e+00
58	EMPTY	42.8139	43.5000	43.1752	2.5762e-01	1.9013e+00
59	TAF130312	272.5962	273.6086	273.1195	2.2649e-01	1.9276e+00
60	EMPTY	4.8877	4.9072	4.8972	4.5645e-03	0.0000e+00
61	EMPTY	4.8682	4.8828	4.8742	4.2499e-03	0.0000e+00
62	EMPTY	4.8438	4.8584	4.8542	4.1864e-03	0.0000e+00
63	EMPTY	4.8340	4.8486	4.8427	3.7291e-03	0.0000e+00
64	EMPTY	2.2803	2.2852	2.2805	9.6655e-04	0.0000e+00
65	EMPTY	2.2852	2.2949	2.2905	1.7784e-03	0.0000e+00
66	EMPTY	2.2949	2.2998	2.2963	2.2146e-03	0.0000e+00
67	EMPTY	2.2998	2.3047	2.3043	1.3381e-03	0.0000e+00
68	EMPTY	2.3047	2.3096	2.3069	2.4583e-03	0.0000e+00
69	EMPTY	2.3096	2.3145	2.3143	9.6655e-04	0.0000e+00
70	EMPTY	2.3193	2.3193	2.3193	0.0000e+00	0.0000e+00
71	EMPTY	2.3291	2.3340	2.3338	9.6655e-04	0.0000e+00
72	EMPTY	2.3340	2.3389	2.3378	2.0432e-03	0.0000e+00
73	EMPTY	2.3438	2.3486	2.3466	2.4344e-03	0.0000e+00
74	EMPTY	2.3486	2.3535	2.3510	2.4642e-03	0.0000e+00
75	EMPTY	2.3584	2.3584	2.3584	0.0000e+00	0.0000e+00
76	EMPTY	2.3633	2.3633	2.3633	0.0000e+00	0.0000e+00
77	EMPTY	2.3682	2.3779	2.3732	1.3811e-03	0.0000e+00
78	EMPTY	2.3828	2.3877	2.3867	1.9730e-03	0.0000e+00
79	EMPTY	2.3975	2.4023	2.4015	1.8950e-03	0.0000e+00
80	PAN020136	-20.2868	-3.6548	-14.4153	5.3746e+00	8.7075e-01
81	PAN050136	-34.3684	-21.2458	-26.6169	3.5660e+00	1.6813e+00
82	PAN070136	-23.5524	-8.2174	-17.1636	3.1636e+00	8.7106e-01
83	PAN080136	-14.0306	-2.8917	-8.1025	3.3283e+00	8.7024e-01
84	PAN090136	-13.3204	-0.3505	-7.9707	3.9845e+00	8.7023e-01
85	PAN100136	-13.0109	13.0816	-6.6633	6.1571e+00	8.7016e-01
86	PAN105136	-4.4448	20.3507	4.6997	5.8977e+00	8.7008e-01
87	PAN110136	-6.4944	2.2794	-1.6772	1.7922e+00	8.7001e-01
88	PAN115136	-7.5479	0.5392	-3.7989	2.4188e+00	8.7005e-01
89	PAN120136	-7.0153	6.5650	-2.6803	3.9539e+00	8.7003e-01
90	PAN125136	-2.6783	5.8666	0.0865	2.7953e+00	8.7000e-01
91	PAN130136	-0.7592	0.2327	-0.3594	2.0248e-01	8.7000e-01
92	PAN120048	-6.2428	-1.4363	-4.6040	1.1388e+00	8.7008e-01
93	PAN130048	-3.0898	-2.4032	-2.7190	1.8238e-01	8.7003e-01
94	PAN120224	-6.9250	0.6281	-3.9846	1.5959e+00	8.7006e-01
95	PAN130224	-3.3230	-0.8053	-2.3357	5.2484e-01	8.7002e-01
96	PAN120312	-7.4649	-3.1924	-6.4501	7.4406e-01	8.7015e-01
97	PAN130312	-1.8235	-1.0606	-1.3749	2.0544e-01	8.7001e-01
98	PAB000136	39.9696	41.1140	40.5180	2.9486e-01	5.8878e-01
99	PAB100136	43.0304	44.0375	43.3179	2.4954e-01	5.9002e-01
100	PAB125136	43.4239	43.6528	43.5539	6.0898e-02	5.9013e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.3043	41.2575	40.5031	4.4780e-01	7.5680e-01
102	PRV0000001	19.8013	19.9234	19.8282	5.1081e-02	7.5164e-01
103	PSR0000001	43.2764	43.5206	43.4034	6.5063e-02	7.5781e-01
104	PFM0000001	5.4561	5.7308	5.5568	8.5264e-02	5.0019e-01
105	PAN000136	-101.3855	-72.5464	-88.2935	8.4296e+00	4.9249e+00
106	PFM0000002	5.4892	5.6906	5.6107	4.2146e-02	2.0049e-01
107	EMPTY	-0.0049	0.0049	-0.0010	3.6911e-03	0.0000e+00
108	EMPTY	-10.0000	-9.8682	-9.9953	2.3385e-02	0.0000e+00
109	EMPTY	-0.0049	0.0049	0.0004	2.1703e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0001	6.9053e-04	0.0000e+00
112	VPW0000001	145.2825	145.6731	145.4269	1.0297e-01	1.1906e+00
113	VPW0000002	169.1256	169.5162	169.2505	1.0259e-01	1.2990e+00
114	VPW0000003	209.3112	210.0924	209.5963	1.3788e-01	1.4959e+00
115	VPW0000004	149.1286	149.5192	149.4098	1.0559e-01	1.2082e+00
116	VPW0000005	198.6779	199.0685	198.7911	1.1223e-01	1.4418e+00
117	VPW0000006	208.3834	208.5787	208.5123	9.3461e-02	1.4904e+00
118	IPW0000001	771.9266	775.8313	773.9179	1.2151e+00	1.0148e+01
119	IPW0000002	1837.8334	1843.6871	1840.8376	1.1296e+00	1.6646e+01
120	IPW0000003	1851.6001	1855.5001	1853.2382	1.2053e+00	1.6732e+01
121	IPW0000004	535.9826	537.4474	536.8712	4.0301e-01	4.6892e+00
122	IPW0000005	356.8791	357.8556	357.4453	3.0178e-01	3.4603e+00
123	IPW0000006	373.4882	374.9530	374.2304	3.4513e-01	3.5694e+00
124	EMPTY	-0.0293	-0.0146	-0.0214	3.6765e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0149	1.8216e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0098	-0.0167	2.6267e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0167	3.1335e-03	0.0000e+00
128	IHT0000001	183.7665	186.1103	184.8876	6.0722e-01	4.4976e+00
129	IHT0000002	182.9702	185.5093	184.1461	5.8059e-01	4.4945e+00
130	IHT0000003	182.8275	185.3666	183.9526	6.0690e-01	4.4938e+00
131	IHT0000004	185.1450	187.2934	186.2465	5.5909e-01	4.5032e+00
132	IHT0000005	182.7299	185.0736	183.8744	5.8926e-01	4.4934e+00
133	IHT0000006	178.0987	180.4424	179.3721	5.5837e-01	4.4752e+00
134	IHT0000007	186.2417	188.3902	187.3512	5.9378e-01	4.5078e+00
135	IHT0000008	184.5027	187.0418	185.7762	6.5464e-01	4.5013e+00
136	IHT0000009	183.4022	185.7459	184.6562	6.2402e-01	4.4966e+00
137	IHT0000010	183.9919	186.5309	185.1520	5.4306e-01	4.4987e+00
138	IHT0000011	185.3027	187.6465	186.4512	5.3327e-01	4.5040e+00
139	IHT0000012	183.8942	186.2380	184.9098	5.4960e-01	4.4977e+00
140	IHT0000013	130.8744	133.2181	131.8823	5.5574e-01	4.3069e+00
141	IHT0000014	180.7429	183.0867	181.8329	5.7058e-01	4.4851e+00
142	IHT0000015	133.5712	135.9150	134.7471	5.4603e-01	4.3157e+00
143	IHT0000016	125.1840	127.3325	126.4731	5.3379e-01	4.2906e+00
144	IHT0000017	149.5681	152.1071	150.9977	6.7479e-01	4.3692e+00
145	IHT0000018	151.2808	153.8199	152.7495	6.0263e-01	4.3753e+00
146	IHT0000019	152.5428	155.0819	153.7538	5.9451e-01	4.3788e+00
147	IHT0000020	150.3418	152.6855	151.3301	5.6139e-01	4.3704e+00
148	IHT0000021	-3.2227	-0.0977	-1.6992	7.1026e-01	4.1000e+00
149	IHT0000022	130.2659	133.0003	131.4847	5.9655e-01	4.3057e+00
150	IHT0000023	148.3586	151.0930	149.5265	5.6426e-01	4.3642e+00
151	IHT0000024	113.0221	115.3659	114.0807	5.1006e-01	4.2558e+00
152	IHT0000025	146.2628	148.6065	147.3526	5.3246e-01	4.3568e+00
153	IHT0000026	149.0347	151.3785	150.2847	5.1448e-01	4.3668e+00
154	IHT0000027	127.1184	129.4621	128.3878	5.0107e-01	4.2963e+00
155	IHT0000028	127.7269	130.0706	129.0238	5.7421e-01	4.2982e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	149.5305	152.0696	150.7921	5.9609e-01	4.3685e+00
157	IHT0000030	152.7982	155.3373	154.0287	5.9090e-01	4.3798e+00
158	IHT0000031	149.3277	152.2573	150.6245	6.0201e-01	4.3679e+00
159	IHT0000032	150.5634	153.4931	151.9892	6.0264e-01	4.3727e+00
160	IHT0000033	150.5484	153.4781	151.8960	5.8427e-01	4.3723e+00
161	IHT0000034	132.7261	134.8745	133.8472	4.9096e-01	4.3129e+00
162	IHT0000035	174.9099	176.8630	176.0426	4.6522e-01	4.4620e+00
163	IHT0000036	131.4378	133.0003	132.3441	4.1715e-01	4.3083e+00

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Velocity 1 = 5.8399 (ft/sec) (+/- 5.9286 %)
 Velocity 2 = 5.8619 (ft/sec) (+/- 3.8725 %)
 Pressure drop = -2.7877 (psi)
 Tsat in = 268.1524 (deg F) Tsat out = 272.1642 (deg F)
 Phi inner = 198.6584 (kBtu/hr-ft2) (+/- 1.4552 %)
 Phi outer = 200.3672 (kBtu/hr-ft2) (+/- 1.3496 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	82.8621	83.4957	83.1704	1.7180e-01	1.9001e+00
1	TRF000002	83.3439	83.9742	83.6339	1.4009e-01	1.9001e+00
2	TFM000001	85.5090	86.3480	85.9915	2.0108e-01	1.9002e+00
3	TIN000001	85.9892	86.8299	86.3678	1.7892e-01	1.9002e+00
4	TRV000001	87.3871	88.4333	87.8935	2.5035e-01	1.9002e+00
5	TSR000001	199.4265	204.4162	202.2674	1.4349e+00	1.9117e+00
6	EMPTY	37.9974	38.9168	38.4847	2.5700e-01	1.9010e+00
7	TAO050136	244.0629	245.2777	244.8141	2.5652e-01	1.9205e+00
8	TAO070136	247.8277	266.1488	251.6403	3.2254e+00	1.9221e+00
9	TAO080136	257.0082	268.6173	261.4019	1.9132e+00	1.9245e+00
10	TAO090136	262.1572	263.0839	262.6169	2.1575e-01	1.9248e+00
11	TAO100136	284.0672	285.5313	284.8761	3.4252e-01	1.9309e+00
12	TAO105136	284.9181	288.7572	286.9114	9.8186e-01	1.9314e+00
13	EMPTY	39.6057	41.6693	40.8580	5.5629e-01	1.9011e+00
14	TAO115136	300.5060	301.7804	301.2197	2.7920e-01	1.9357e+00
15	EMPTY	31.0739	43.2713	35.9424	3.4924e+00	1.9009e+00
16	TAO125136	302.3351	303.6902	303.1729	2.6995e-01	1.9363e+00
17	EMPTY	44.8706	45.7833	45.3316	1.7547e-01	1.9014e+00
18	EMPTY	41.4403	41.8984	41.7014	1.2251e-01	1.9012e+00
19	TAO130048	298.6900	299.6864	299.1867	2.3312e-01	1.9351e+00
20	TAO120224	294.3583	295.1785	294.7592	1.9732e-01	1.9337e+00
21	EMPTY	39.8352	40.5234	40.0647	1.3110e-01	1.9011e+00
22	TAO120312	308.2077	309.7461	308.9028	3.5323e-01	1.9381e+00
23	TAO130312	298.6470	299.6440	299.1432	2.3112e-01	1.9350e+00
24	EMPTY	39.1464	40.0646	39.5643	1.8946e-01	1.9011e+00
25	TRT070000	232.4965	240.8453	236.1589	2.0968e+00	1.9185e+00
26	TRT100000	301.1194	301.8452	301.4931	1.7436e-01	1.9358e+00
27	TRT120000	302.4042	303.1295	302.7521	1.6004e-01	1.9362e+00
28	TRT125000	302.4206	303.2334	302.8355	1.9915e-01	1.9362e+00
29	EMPTY	40.0646	40.5234	40.2115	1.5202e-01	1.9011e+00
30	EMPTY	39.3761	40.0646	39.7939	2.3040e-01	1.9011e+00
31	TAF050136	156.2381	159.3080	157.4786	5.3458e-01	1.9051e+00
32	TAF070136	177.7646	181.5574	179.8198	7.1764e-01	1.9081e+00
33	TAF080136	188.8923	192.2642	190.5074	6.2775e-01	1.9098e+00
34	TAF090136	198.7716	201.2770	199.8667	6.5782e-01	1.9113e+00
35	TAF100136	211.5208	214.9666	212.9038	5.9676e-01	1.9137e+00
36	TAF105136	218.8733	221.4222	220.2298	4.2705e-01	1.9151e+00
37	TAF110136	228.1839	231.2896	229.6153	6.0481e-01	1.9171e+00
38	TAF115136	235.4583	237.3368	236.3414	4.2071e-01	1.9185e+00
39	TAF120136	241.9027	243.4901	242.7988	3.9902e-01	1.9200e+00
40	TAF125136	246.8302	248.5017	247.4142	3.4312e-01	1.9211e+00
41	TAF130136	251.2652	252.4763	251.9099	2.8752e-01	1.9222e+00
42	TAF120048	250.5215	252.8693	251.7092	4.6825e-01	1.9221e+00
43	TAF130048	267.7554	269.6938	268.8965	5.0482e-01	1.9265e+00
44	TAF120224	237.7958	239.6734	238.6031	3.9015e-01	1.9191e+00
45	TAF130224	268.3322	270.2815	269.3901	4.4326e-01	1.9266e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.6870	38.2043	2.6781e-01	1.9010e+00
47	EMPTY	40.0646	40.2940	40.1977	1.1438e-01	1.9011e+00
48	TAI130048	70.1249	76.4910	72.7290	1.9715e+00	1.9000e+00
49	TAI130136	300.6641	301.3895	301.0231	1.7461e-01	1.9356e+00
50	TAI130224	172.9942	176.9289	174.4942	9.5741e-01	1.9073e+00
51	TAI130312	244.4562	246.0508	245.1995	3.5692e-01	1.9206e+00
52	TRR130000	157.7828	160.6521	159.0424	6.1842e-01	1.9053e+00
53	TSI000001	43.8246	44.4761	44.2111	1.6150e-01	1.9004e+00
54	TSI000002	112.9413	115.5035	114.2461	5.1143e-01	1.9013e+00
55	TSO000001	41.2689	42.1436	41.7765	1.9094e-01	1.9005e+00
56	TSO000002	61.2726	62.2369	61.7483	2.0559e-01	1.9000e+00
57	TAF020136	115.0232	119.2511	116.7850	1.1231e+00	1.9015e+00
58	EMPTY	42.5851	43.5000	43.1432	2.4079e-01	1.9013e+00
59	TAF130312	272.3217	273.1500	272.8187	1.8039e-01	1.9275e+00
60	EMPTY	4.8779	4.8877	4.8833	2.2603e-03	0.0000e+00
61	EMPTY	4.8584	4.8633	4.8601	2.3365e-03	0.0000e+00
62	EMPTY	4.8340	4.8438	4.8400	2.3261e-03	0.0000e+00
63	EMPTY	4.8242	4.8340	4.8289	2.1970e-03	0.0000e+00
64	EMPTY	2.2705	2.2803	2.2754	1.3951e-03	0.0000e+00
65	EMPTY	2.2852	2.2900	2.2853	6.9053e-04	0.0000e+00
66	EMPTY	2.2900	2.2949	2.2904	1.3381e-03	0.0000e+00
67	EMPTY	2.2949	2.2998	2.2983	2.2603e-03	0.0000e+00
68	EMPTY	2.2998	2.3047	2.3000	9.6655e-04	0.0000e+00
69	EMPTY	2.3096	2.3096	2.3096	0.0000e+00	0.0000e+00
70	EMPTY	2.3096	2.3145	2.3144	6.9053e-04	0.0000e+00
71	EMPTY	2.3242	2.3291	2.3283	1.8082e-03	0.0000e+00
72	EMPTY	2.3291	2.3340	2.3310	2.3941e-03	0.0000e+00
73	EMPTY	2.3389	2.3438	2.3398	1.9730e-03	0.0000e+00
74	EMPTY	2.3438	2.3486	2.3458	2.4344e-03	0.0000e+00
75	EMPTY	2.3535	2.3535	2.3535	0.0000e+00	0.0000e+00
76	EMPTY	2.3535	2.3584	2.3583	6.9053e-04	0.0000e+00
77	EMPTY	2.3633	2.3730	2.3682	9.8648e-04	0.0000e+00
78	EMPTY	2.3779	2.3828	2.3809	2.4164e-03	0.0000e+00
79	EMPTY	2.3926	2.3975	2.3964	2.0432e-03	0.0000e+00
80	PAN020136	-20.2868	-2.8918	-13.8629	5.3549e+00	8.7069e-01
81	PAN050136	-34.3684	-17.7363	-26.6047	3.9846e+00	1.6813e+00
82	PAN070136	-24.6968	-11.5743	-19.1747	3.5346e+00	8.7132e-01
83	PAN080136	-14.1069	1.3045	-8.8334	4.4379e+00	8.7028e-01
84	PAN090136	-13.3204	5.9819	-2.3005	4.4301e+00	8.7002e-01
85	PAN100136	-8.4333	8.5039	-4.7117	3.6392e+00	8.7008e-01
86	PAN105136	-5.3604	1.7350	-1.8173	1.5391e+00	8.7001e-01
87	PAN110136	-5.8840	4.1868	-1.9991	1.9543e+00	8.7001e-01
88	PAN115136	-3.7332	0.9970	-1.7160	1.1295e+00	8.7001e-01
89	PAN120136	-3.3532	-1.6747	-2.8100	3.5271e-01	8.7003e-01
90	PAN125136	1.8230	2.8148	2.3952	2.4961e-01	8.7002e-01
91	PAN130136	5.1155	6.0310	5.5931	2.4264e-01	8.7011e-01
92	PAN120048	-5.8613	-5.2510	-5.5501	1.5011e-01	8.7011e-01
93	PAN130048	6.1418	7.9728	7.0985	4.7388e-01	8.7018e-01
94	PAN120224	-6.1621	-2.1185	-4.2379	1.0152e+00	8.7006e-01
95	PAN130224	7.5871	9.2655	8.3195	3.9116e-01	8.7025e-01
96	PAN120312	-5.6338	-4.8709	-5.1943	1.8339e-01	8.7010e-01
97	PAN130312	7.0266	8.4762	7.6659	3.5648e-01	8.7021e-01
98	PAB000136	40.0612	40.9767	40.5290	2.7579e-01	5.8878e-01
99	PAB100136	42.8931	43.2135	43.0194	6.8935e-02	5.8989e-01
100	PAB125136	43.2408	43.4239	43.3332	5.0222e-02	5.9003e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.1823	40.8913	40.2540	4.6551e-01	7.5672e-01
102	PRV0000001	19.5572	19.6793	19.5621	2.4164e-02	7.5159e-01
103	PSR0000001	42.6661	42.7881	42.7246	6.1605e-02	7.5757e-01
104	PFM0000001	4.9983	5.4561	5.2016	9.8380e-02	5.0017e-01
105	PAN000136	-88.1104	-63.8489	-77.1790	7.8982e+00	4.9238e+00
106	PFM0000002	5.1704	5.3718	5.2416	4.5553e-02	2.0043e-01
107	EMPTY	-0.0049	0.0049	0.0026	3.1521e-03	0.0000e+00
108	EMPTY	-10.0000	-8.2959	-9.9551	2.5140e-01	0.0000e+00
109	EMPTY	-0.0049	0.0049	0.0018	2.5648e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW0000001	145.0872	145.8684	145.4503	1.7204e-01	1.1907e+00
113	VPW0000002	168.9303	169.7115	169.4068	1.6815e-01	1.2997e+00
114	VPW0000003	209.3112	209.8971	209.5534	1.4530e-01	1.4956e+00
115	VPW0000004	149.1286	149.7145	149.4449	1.7598e-01	1.2084e+00
116	VPW0000005	198.4826	199.0685	198.7325	1.7218e-01	1.4415e+00
117	VPW0000006	208.1881	208.5787	208.3756	1.4743e-01	1.4897e+00
118	IPW0000001	781.6883	787.5453	783.9921	1.5624e+00	1.0197e+01
119	IPW0000002	1804.6617	1812.4668	1809.1885	1.9883e+00	1.6428e+01
120	IPW0000003	1837.9501	1843.8000	1841.1088	1.8432e+00	1.6648e+01
121	IPW0000004	533.0529	536.9592	535.1817	9.0820e-01	4.6771e+00
122	IPW0000005	353.9497	355.9026	354.9846	4.7959e-01	3.4445e+00
123	IPW0000006	370.0702	372.0233	371.0566	4.1256e-01	3.5486e+00
124	EMPTY	-0.0293	-0.0098	-0.0198	4.3461e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0128	3.4016e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0049	-0.0157	3.4583e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0098	-0.0154	2.8523e-03	0.0000e+00
128	IHT0000001	183.5712	186.3056	184.7978	6.1768e-01	4.4972e+00
129	IHT0000002	182.7749	186.2905	184.1304	6.4163e-01	4.4945e+00
130	IHT0000003	182.8275	185.1713	183.9330	5.6718e-01	4.4937e+00
131	IHT0000004	185.1450	187.2934	186.2309	5.9341e-01	4.5031e+00
132	IHT0000005	182.7299	184.8783	183.8158	5.6243e-01	4.4932e+00
133	IHT0000006	178.0987	180.4424	179.3252	5.7323e-01	4.4750e+00
134	IHT0000007	186.0464	188.5855	187.2535	5.6454e-01	4.5074e+00
135	IHT0000008	184.5027	186.8465	185.6786	5.3596e-01	4.5009e+00
136	IHT0000009	183.2069	185.7459	184.5468	5.7725e-01	4.4962e+00
137	IHT0000010	184.1872	186.3356	185.1051	4.9324e-01	4.4985e+00
138	IHT0000011	185.3027	187.6465	186.3848	5.4706e-01	4.5038e+00
139	IHT0000012	183.8942	185.8474	184.8747	5.6011e-01	4.4975e+00
140	IHT0000013	130.8744	133.0228	131.8393	4.8874e-01	4.3068e+00
141	IHT0000014	180.9382	182.6961	181.7938	4.7333e-01	4.4850e+00
142	IHT0000015	133.7665	135.7197	134.7314	4.3835e-01	4.3157e+00
143	IHT0000016	125.7700	127.5278	126.5005	4.7484e-01	4.2907e+00
144	IHT0000017	149.3727	151.7165	150.5055	5.8660e-01	4.3675e+00
145	IHT0000018	151.2808	154.2105	152.6948	5.8734e-01	4.3751e+00
146	IHT0000019	152.7381	154.8866	153.9608	5.5637e-01	4.3795e+00
147	IHT0000020	150.3418	152.4902	151.5254	5.1359e-01	4.3710e+00
148	IHT0000021	-3.2227	-0.0977	-1.4688	6.6672e-01	4.1000e+00
149	IHT0000022	130.0706	132.4144	131.5433	5.2528e-01	4.3059e+00
150	IHT0000023	148.5539	150.7024	149.7882	5.1364e-01	4.3650e+00
151	IHT0000024	113.2174	115.1705	114.3307	5.1637e-01	4.2564e+00
152	IHT0000025	146.4581	148.8018	147.7393	4.8993e-01	4.3581e+00
153	IHT0000026	149.4253	151.5738	150.5894	4.2308e-01	4.3678e+00
154	IHT0000027	127.1184	130.0481	128.6300	4.9096e-01	4.2970e+00
155	IHT0000028	126.7503	130.0706	128.8402	7.3636e-01	4.2977e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	148.9446	152.0696	150.7491	6.7377e-01	4.3684e+00
157	IHT0000030	152.6029	155.5326	154.0170	6.6797e-01	4.3797e+00
158	IHT0000031	149.1323	152.0620	150.5933	6.7455e-01	4.3678e+00
159	IHT0000032	150.5634	153.2978	151.9658	6.7160e-01	4.3726e+00
160	IHT0000033	150.5484	153.2828	151.9038	6.6546e-01	4.3724e+00
161	IHT0000034	132.3355	134.4839	133.7066	5.2123e-01	4.3125e+00
162	IHT0000035	174.5192	176.6677	175.8239	4.9981e-01	4.4611e+00
163	IHT0000036	131.0472	133.1956	132.2152	5.1522e-01	4.3079e+00

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Velocity 1 - 6.1935 (ft/sec) (+/- 5.4994 %)
 Velocity 2 - 6.2242 (ft/sec) (+/- 3.7894 %)
 Pressure drop - -3.2474 (psi)
 Tsat in - 267.4243 (deg F) Tsat out - 271.7685 (deg F)
 Phi inner - 201.2964 (kBtu/hr-ft2) (+/- 1.4534 %)
 Phi outer - 201.6161 (kBtu/hr-ft2) (+/- 1.3491 %)
 D inner - 0.1973 (ft) D outer - 0.2412 (ft) D hyd - 0.0438 (ft)
 L inner - 12.8330 (ft) L outer - 12.8330 (ft) A flow - 0.0151 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	83.0733	83.7068	83.4830	1.6746e-01	1.9001e+00
1	TRF000002	83.7642	84.1843	83.9154	1.2034e-01	1.9001e+00
2	TFM000001	86.0338	86.8724	86.4597	1.9807e-01	1.9002e+00
3	TIN000001	86.1994	86.8304	86.5002	1.5165e-01	1.9002e+00
4	TRV000001	87.8062	88.7482	88.3525	2.1171e-01	1.9002e+00
5	TSR000001	197.8888	208.4342	203.7525	2.9727e+00	1.9120e+00
6	EMPTY	37.7675	38.9168	38.4801	2.4680e-01	1.9010e+00
7	TAO050136	236.9577	237.8961	237.3874	2.4062e-01	1.9188e+00
8	TAO070136	240.9515	255.2350	244.1344	2.7885e+00	1.9203e+00
9	TAO080136	248.3880	260.4262	254.1071	2.5627e+00	1.9227e+00
10	TAO090136	261.6957	262.6218	262.1493	2.2705e-01	1.9247e+00
11	TAO100136	276.2729	277.1924	276.7386	2.1768e-01	1.9286e+00
12	TAO105136	276.8475	278.6849	277.7537	4.1385e-01	1.9289e+00
13	EMPTY	24.7992	30.1470	27.4853	1.2395e+00	1.9005e+00
14	TAO115136	291.8258	293.1993	292.5674	3.8132e-01	1.9331e+00
15	EMPTY	31.3055	43.0426	37.4996	3.2859e+00	1.9009e+00
16	TAO125136	302.8785	303.6912	303.2952	1.8779e-01	1.9363e+00
17	EMPTY	44.8706	45.7833	45.3179	2.0072e-01	1.9014e+00
18	EMPTY	41.4403	41.8984	41.6876	1.2102e-01	1.9012e+00
19	TAO130048	295.3419	296.4309	295.8772	1.7900e-01	1.9341e+00
20	TAO120224	288.5219	289.2527	288.9146	1.9985e-01	1.9320e+00
21	EMPTY	39.8352	40.0646	39.9362	1.1506e-01	1.9011e+00
22	TAO120312	303.4044	304.9462	304.2406	3.1435e-01	1.9366e+00
23	TAO130312	300.4580	301.8170	300.9387	2.6343e-01	1.9356e+00
24	EMPTY	39.1464	39.8352	39.5368	1.7508e-01	1.9011e+00
25	TRT070000	224.2895	234.6801	228.1161	2.1406e+00	1.9168e+00
26	TRT100000	294.4982	295.2256	294.8967	1.9071e-01	1.9338e+00
27	TRT120000	298.4135	299.1401	298.7857	1.5492e-01	1.9349e+00
28	TRT125000	300.4389	301.0723	300.7736	1.6275e-01	1.9355e+00
29	EMPTY	40.0646	40.5234	40.2390	1.1870e-01	1.9011e+00
30	EMPTY	39.3761	40.2940	39.7984	2.2410e-01	1.9011e+00
31	TAF050136	151.9716	154.3547	153.1587	5.1222e-01	1.9047e+00
32	TAF070136	173.0850	176.5006	174.5953	7.7033e-01	1.9074e+00
33	TAF080136	182.8058	185.5163	184.4505	5.3317e-01	1.9088e+00
34	TAF090136	191.6191	194.1369	193.0931	4.8165e-01	1.9102e+00
35	TAF100136	203.8340	206.2405	205.2991	5.0792e-01	1.9123e+00
36	TAF105136	211.7846	213.3966	212.5785	3.8781e-01	1.9136e+00
37	TAF110136	220.5344	223.3744	221.5745	6.0678e-01	1.9154e+00
38	TAF115136	227.1643	229.2415	228.1638	4.0977e-01	1.9168e+00
39	TAF120136	233.5768	234.8893	234.2917	3.4204e-01	1.9181e+00
40	TAF125136	239.9420	241.3419	240.7809	3.1842e-01	1.9195e+00
41	TAF130136	244.7388	246.6073	245.7272	3.4138e-01	1.9207e+00
42	TAF120048	243.2659	246.5660	245.0750	7.3866e-01	1.9205e+00
43	TAF130048	252.3559	254.9636	253.3940	6.2214e-01	1.9225e+00
44	TAF120224	229.6963	231.5844	230.9260	4.1749e-01	1.9174e+00
45	TAF130224	243.7289	246.2712	244.7406	5.6878e-01	1.9205e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.6870	38.2687	2.6554e-01	1.9010e+00
47	EMPTY	40.0646	40.2940	40.1427	1.0978e-01	1.9011e+00
48	TAI130048	82.9297	85.1382	84.0174	5.5275e-01	1.9001e+00
49	TAI130136	302.0216	302.4749	302.1939	1.1746e-01	1.9360e+00
50	TAI130224	172.6985	174.2734	173.4960	4.2064e-01	1.9072e+00
51	TAI130312	241.4512	242.9542	242.3325	3.3089e-01	1.9199e+00
52	TRR130000	155.0105	157.7860	156.3132	6.8766e-01	1.9050e+00
53	TSI000001	44.1508	45.0194	44.6046	2.0653e-01	1.9004e+00
54	TSI000002	109.7589	113.5589	111.5615	8.0738e-01	1.9012e+00
55	TSO000001	41.7051	42.4712	42.1540	1.6115e-01	1.9005e+00
56	TSO000002	61.0579	61.9159	61.4892	2.4457e-01	1.9000e+00
57	TAF020136	113.2644	116.6714	114.8076	9.0024e-01	1.9014e+00
58	EMPTY	42.5851	43.5000	43.1661	2.5395e-01	1.9013e+00
59	TAF130312	271.2192	272.5074	271.7211	2.8704e-01	1.9272e+00
60	EMPTY	4.8389	4.8535	4.8477	3.1195e-03	0.0000e+00
61	EMPTY	4.8193	4.8291	4.8249	2.4184e-03	0.0000e+00
62	EMPTY	4.7998	4.8096	4.8048	1.5566e-03	0.0000e+00
63	EMPTY	4.7900	4.7998	4.7947	1.6972e-03	0.0000e+00
64	EMPTY	2.2607	2.2656	2.2608	6.9053e-04	0.0000e+00
65	EMPTY	2.2705	2.2754	2.2730	6.9053e-04	0.0000e+00
66	EMPTY	2.2754	2.2803	2.2759	1.4797e-03	0.0000e+00
67	EMPTY	2.2803	2.2852	2.2843	1.8950e-03	0.0000e+00
68	EMPTY	2.2852	2.2900	2.2868	2.3365e-03	0.0000e+00
69	EMPTY	2.2949	2.2998	2.2950	6.9053e-04	0.0000e+00
70	EMPTY	2.2998	2.3047	2.3002	1.3381e-03	0.0000e+00
71	EMPTY	2.3096	2.3145	2.3143	9.6655e-04	0.0000e+00
72	EMPTY	2.3145	2.3193	2.3183	2.0432e-03	0.0000e+00
73	EMPTY	2.3242	2.3291	2.3271	2.4344e-03	0.0000e+00
74	EMPTY	2.3291	2.3340	2.3327	2.1635e-03	0.0000e+00
75	EMPTY	2.3389	2.3438	2.3393	1.3381e-03	0.0000e+00
76	EMPTY	2.3438	2.3535	2.3440	1.5314e-03	0.0000e+00
77	EMPTY	2.3535	2.3633	2.3541	1.8821e-03	0.0000e+00
78	EMPTY	2.3633	2.3730	2.3678	1.6624e-03	0.0000e+00
79	EMPTY	2.3779	2.3828	2.3624	1.3381e-03	0.0000e+00
80	PAN020136	-20.3631	-0.2978	-14.4534	6.0689e+00	8.7075e-01
81	PAN050136	-33.1477	-18.6519	-26.0798	4.2086e+00	1.6813e+00
82	PAN070136	-23.5524	-12.6424	-17.3589	2.2319e+00	8.7108e-01
83	PAN080136	-13.9543	-0.2214	-7.7440	3.8226e+00	8.7022e-01
84	PAN090136	-13.3204	2.3198	-7.3710	4.1760e+00	8.7020e-01
85	PAN100136	-11.9428	7.8173	-1.4570	4.5413e+00	8.7001e-01
86	PAN105136	-4.3686	4.7104	-1.1734	1.7632e+00	8.7000e-01
87	PAN110136	-5.6551	0.3721	-2.6141	1.2488e+00	8.7002e-01
88	PAN115136	-7.5479	0.3103	-3.4174	2.5558e+00	8.7004e-01
89	PAN120136	-4.7265	4.7339	-1.7297	2.6038e+00	8.7001e-01
90	PAN125136	-3.3650	-0.6184	-2.1107	6.2728e-01	8.7002e-01
91	PAN130136	-1.3695	-0.3014	-0.9362	2.3297e-01	8.7000e-01
92	PAN120048	-6.9295	-3.4199	-5.9804	7.2709e-01	8.7013e-01
93	PAN130048	-4.0053	-2.8609	-3.5369	2.3780e-01	8.7004e-01
94	PAN120224	-7.4591	-0.2874	-3.8351	1.7723e+00	8.7005e-01
95	PAN130224	-3.7044	-1.4156	-2.9095	4.8623e-01	8.7003e-01
96	PAN120312	-7.5411	-6.2441	-7.0010	2.5831e-01	8.7018e-01
97	PAN130312	-3.1205	-1.8235	-2.4705	2.8138e-01	8.7002e-01
98	PAB000136	39.6492	40.5647	40.0374	2.8479e-01	5.8857e-01
99	PAB100136	42.3895	42.7558	42.5552	8.0566e-02	5.8968e-01
100	PAB125136	42.9661	43.1035	43.0494	4.7779e-02	5.8990e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.0602	40.6471	39.9513	4.5357e-01	7.5662e-01
102	PRV000001	19.4351	19.4351	19.4351	5.7801e-06	7.5157e-01
103	PSR000001	42.9102	43.0323	42.9956	5.6508e-02	7.5766e-01
104	PFM000001	5.7308	6.0054	5.8608	8.4943e-02	5.0021e-01
105	PAN000136	-100.4700	-75.2930	-89.9048	7.8222e+00	4.9251e+00
106	PFM000002	5.8584	5.9758	5.9198	3.1366e-02	2.0055e-01
107	EMPTY	-0.0049	0.0098	0.0040	2.5515e-03	0.0000e+00
108	EMPTY	-10.0000	-8.7354	-9.8369	3.5915e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0029	2.4164e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	145.0872	145.8684	145.4542	1.7036e-01	1.1907e+00
113	VPW000002	169.1256	169.7115	169.3287	1.2453e-01	1.2993e+00
114	VPW000003	209.3112	210.0924	209.6666	1.5630e-01	1.4962e+00
115	VPW000004	149.3239	149.9099	149.5035	1.4680e-01	1.2086e+00
116	VPW000005	198.6779	199.2638	198.9083	1.5630e-01	1.4424e+00
117	VPW000006	208.1881	208.9694	208.5631	1.8441e-01	1.4907e+00
118	IPW000001	756.3079	766.0696	761.4620	2.1876e+00	1.0089e+01
119	IPW000002	1843.6871	1853.4435	1849.2675	2.6448e+00	1.6704e+01
120	IPW000003	1861.3501	1869.1501	1864.6650	1.4341e+00	1.6811e+01
121	IPW000004	530.6115	535.4943	533.5020	1.2394e+00	4.6651e+00
122	IPW000005	355.9026	357.8556	356.7227	4.1192e-01	3.4557e+00
123	IPW000006	374.9530	376.9061	375.5293	3.9075e-01	3.5779e+00
124	EMPTY	-0.0293	-0.0098	-0.0195	4.0673e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0133	3.1257e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0098	-0.0147	3.3439e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0163	3.3613e-03	0.0000e+00
128	IHT000001	183.7665	186.5009	185.1025	5.8175e-01	4.4985e+00
129	IHT000002	183.1655	185.5093	184.3843	5.4328e-01	4.4955e+00
130	IHT000003	183.0228	185.5619	184.1947	5.4676e-01	4.4947e+00
131	IHT000004	185.3403	187.4887	186.4731	5.3233e-01	4.5041e+00
132	IHT000005	182.9252	185.4642	184.0463	5.1420e-01	4.4941e+00
133	IHT000006	178.4893	181.0284	179.5283	5.0600e-01	4.4758e+00
134	IHT000007	186.6324	188.7808	187.5426	4.7287e-01	4.5086e+00
135	IHT000008	185.2840	187.0418	185.9637	4.4685e-01	4.5020e+00
136	IHT000009	183.9881	185.9413	184.8202	4.6322e-01	4.4973e+00
137	IHT000010	183.9919	186.7263	185.2692	5.3410e-01	4.4992e+00
138	IHT000011	185.4980	187.8418	186.5957	4.8791e-01	4.5046e+00
139	IHT000012	184.0896	186.4333	185.0348	5.5854e-01	4.4982e+00
140	IHT000013	131.0697	133.0228	131.9995	4.8897e-01	4.3072e+00
141	IHT000014	181.1336	183.0867	182.0790	4.9656e-01	4.4861e+00
142	IHT000015	133.9619	136.3056	134.9267	5.0749e-01	4.3163e+00
143	IHT000016	125.3793	127.9184	126.6020	5.3352e-01	4.2910e+00
144	IHT000017	149.9587	152.8884	151.2242	6.1541e-01	4.3700e+00
145	IHT000018	151.4761	154.7964	152.9136	6.8432e-01	4.3759e+00
146	IHT000019	152.9334	155.0819	154.1288	5.4482e-01	4.3801e+00
147	IHT000020	150.3418	152.8808	151.6387	5.6187e-01	4.3714e+00
148	IHT000021	-3.2227	0.0976	-1.4922	7.6005e-01	4.1000e+00
149	IHT000022	130.4612	132.6097	131.6605	5.3088e-01	4.3062e+00
150	IHT000023	148.7493	150.8977	149.8976	5.4052e-01	4.3654e+00
151	IHT000024	113.4127	115.3659	114.4284	4.9284e-01	4.2567e+00
152	IHT000025	146.6534	148.9971	147.8487	5.5051e-01	4.3584e+00
153	IHT000026	149.4253	151.7691	150.7534	5.3815e-01	4.3684e+00
154	IHT000027	127.3137	129.6575	128.6886	5.0526e-01	4.2972e+00
155	IHT000028	127.7269	130.6566	128.9847	6.5097e-01	4.2981e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	149.5305	152.2649	150.9484	6.2116e-01	4.3690e+00
157	IHT000030	152.9935	155.7279	154.2397	6.4704e-01	4.3805e+00
158	IHT000031	149.5230	152.0620	150.7808	6.0639e-01	4.3685e+00
159	IHT000032	150.7587	153.2978	152.1494	5.9009e-01	4.3732e+00
160	IHT000033	150.7437	153.2828	152.0757	6.0578e-01	4.3730e+00
161	IHT000034	132.9214	135.2652	133.9683	4.9246e-01	4.3133e+00
162	IHT000035	175.1052	177.4489	176.1989	5.1297e-01	4.4626e+00
163	IHT000036	131.2425	133.7815	132.4847	4.9875e-01	4.3087e+00

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Velocity 1 = 6.3779 (ft/sec) (+/- 5.3108 %)
 Velocity 2 = 6.4081 (ft/sec) (+/- 3.7553 %)
 Pressure drop = -3.2193 (psi)
 Tsat in = 267.3588 (deg F) Tsat out = 271.6378 (deg F)
 Phi inner = 200.5748 (kBtu/hr-ft²) (+/- 1.4539 %)
 Phi outer = 200.5809 (kBtu/hr-ft²) (+/- 1.3499 %)
 D inner = 0.1973 (ft) D outer = 0.2412 (ft) D hyd = 0.0438 (ft)
 L inner = 12.8330 (ft) L outer = 12.8330 (ft) A flow = 0.0151 (ft²)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	83.4957	84.1290	83.7659	1.5981e-01	1.9001e+00
1	TRF000002	83.9742	84.6043	84.2725	1.3476e-01	1.9001e+00
2	TFH000001	86.4535	87.5018	87.0638	2.1765e-01	1.9002e+00
3	TFO000001	86.9351	87.5653	87.1893	1.6171e-01	1.9002e+00
4	TRV000001	88.5388	89.4803	89.0641	2.3576e-01	1.9002e+00
5	TSR000001	202.4040	207.2883	204.0705	1.3014e+00	1.9121e+00
6	EMPTY	37.9974	38.6870	38.4756	2.1197e-01	1.9010e+00
7	TAO050136	235.2707	236.1167	235.7352	2.1514e-01	1.9184e+00
8	TAO070136	238.2103	253.2683	242.4620	3.3456e+00	1.9199e+00
9	TAO080136	247.6451	258.4894	251.7109	2.0066e+00	1.9221e+00
10	TAO090136	257.8959	259.5659	258.4137	3.1489e-01	1.9238e+00
11	TAO100136	273.6989	274.9872	274.3118	2.8540e-01	1.9279e+00
12	TAO105136	274.1799	275.9286	275.0804	3.3946e-01	1.9281e+00
13	EMPTY	12.5961	14.7195	13.7479	5.1693e-01	1.9001e+00
14	TAO115136	289.3513	290.6343	290.0532	2.9705e-01	1.9323e+00
15	EMPTY	31.0739	43.0426	37.3563	3.4955e+00	1.9009e+00
16	TAO125136	301.0740	301.9785	301.6000	2.3378e-01	1.9358e+00
17	EMPTY	44.8706	45.7833	45.3818	2.1894e-01	1.9014e+00
18	EMPTY	41.6693	41.8984	41.7335	1.0388e-01	1.9012e+00
19	TAO130048	294.5278	295.3447	294.9037	1.5357e-01	1.9338e+00
20	TAO120224	285.7791	286.7856	286.2788	2.1330e-01	1.9313e+00
21	EMPTY	39.6057	40.0646	39.8903	1.0932e-01	1.9011e+00
22	TAO120312	302.4052	303.6762	303.0464	2.5828e-01	1.9362e+00
23	TAO130312	298.7383	299.7364	299.2590	2.0949e-01	1.9351e+00
24	EMPTY	39.1464	39.8352	39.5460	1.6599e-01	1.9011e+00
25	TRT070000	222.5671	231.9204	225.3834	1.9736e+00	1.9162e+00
26	TRT100000	287.6707	288.5836	288.1837	2.2648e-01	1.9318e+00
27	TRT120000	296.4145	297.2331	296.8094	1.8151e-01	1.9343e+00
28	TRT125000	299.0875	299.9017	299.5092	1.7871e-01	1.9352e+00
29	EMPTY	40.0646	40.5234	40.2252	1.1587e-01	1.9011e+00
30	EMPTY	39.3761	40.2940	39.8122	2.0343e-01	1.9011e+00
31	TAF050136	150.9801	153.3644	152.1864	5.5592e-01	1.9045e+00
32	TAF070136	171.5253	174.4546	172.9219	6.7680e-01	1.9071e+00
33	TAF080136	180.9688	184.2616	182.5520	6.7711e-01	1.9085e+00
34	TAF090136	189.8742	192.0074	190.9313	5.1756e-01	1.9098e+00
35	TAF100136	201.7125	204.1225	202.9103	4.9881e-01	1.9119e+00
36	TAF105136	208.2740	210.7445	209.7626	4.3099e-01	1.9131e+00
37	TAF110136	217.0302	220.1589	218.4695	6.8527e-01	1.9148e+00
38	TAF115136	224.0426	225.7472	224.8366	4.2467e-01	1.9161e+00
39	TAF120136	230.1035	231.8897	231.1096	3.3237e-01	1.9174e+00
40	TAF125136	236.8636	238.5469	237.6691	4.4473e-01	1.9188e+00
41	TAF130136	242.4018	244.2723	243.2608	4.2420e-01	1.9201e+00
42	TAF120048	240.0499	242.6970	241.2808	5.9066e-01	1.9197e+00
43	TAF130048	250.3982	253.4745	252.0451	6.8152e-01	1.9222e+00
44	TAF120224	226.5789	228.8473	227.6968	4.8006e-01	1.9167e+00
45	TAF130224	239.0096	241.7468	240.3294	5.6149e-01	1.9194e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.6870	38.2457	2.7803e-01	1.9010e+00
47	EMPTY	39.8352	40.2940	40.0922	1.2812e-01	1.9011e+00
48	TAI130048	83.9818	86.8184	85.2244	7.8849e-01	1.9002e+00
49	TAI130136	301.5706	302.3854	301.9854	1.7561e-01	1.9359e+00
50	TAI130224	174.1750	176.3381	175.3218	5.1171e-01	1.9075e+00
51	TAI130312	250.0766	252.0394	251.1177	5.8070e-01	1.9220e+00
52	TRR130000	156.2007	158.2820	157.0041	5.3333e-01	1.9051e+00
53	TSI000001	44.2601	45.1286	44.6013	2.0342e-01	1.9004e+00
54	TSI000002	108.1139	111.7129	109.9512	9.7560e-01	1.9011e+00
55	TSO000001	41.5953	42.5779	42.0823	2.0391e-01	1.9005e+00
56	TSO000002	60.3077	61.4871	60.8675	2.8522e-01	1.9001e+00
57	TAF020136	112.9514	116.7731	114.7190	9.0626e-01	1.9013e+00
58	EMPTY	42.8139	43.5000	43.0975	2.5542e-01	1.9013e+00
59	TAF130312	267.0730	270.0233	268.3508	5.9897e-01	1.9263e+00
60	EMPTY	4.7363	4.7705	4.7521	9.4907e-03	0.0000e+00
61	EMPTY	4.7168	4.7412	4.7307	7.4712e-03	0.0000e+00
62	EMPTY	4.6973	4.7217	4.7126	6.6913e-03	0.0000e+00
63	EMPTY	4.6875	4.7119	4.7036	5.9394e-03	0.0000e+00
64	EMPTY	2.2119	2.2217	2.2200	2.5362e-03	0.0000e+00
65	EMPTY	2.2266	2.2314	2.2305	1.9730e-03	0.0000e+00
66	EMPTY	2.2314	2.2363	2.2354	1.8950e-03	0.0000e+00
67	EMPTY	2.2363	2.2461	2.2447	2.4244e-03	0.0000e+00
68	EMPTY	2.2412	2.2510	2.2473	2.2610e-03	0.0000e+00
69	EMPTY	2.2510	2.2607	2.2559	1.7086e-03	0.0000e+00
70	EMPTY	2.2607	2.2656	2.2609	9.6655e-04	0.0000e+00
71	EMPTY	2.2705	2.2754	2.2752	9.6655e-04	0.0000e+00
72	EMPTY	2.2754	2.2803	2.2799	1.3381e-03	0.0000e+00
73	EMPTY	2.2852	2.2900	2.2895	1.6028e-03	0.0000e+00
74	EMPTY	2.2949	2.2998	2.2949	0.0000e+00	0.0000e+00
75	EMPTY	2.2998	2.3047	2.3029	2.3675e-03	0.0000e+00
76	EMPTY	2.3047	2.3096	2.3070	2.4642e-03	0.0000e+00
77	EMPTY	2.3145	2.3193	2.3183	2.0432e-03	0.0000e+00
78	EMPTY	2.3291	2.3340	2.3297	1.6028e-03	0.0000e+00
79	EMPTY	2.3438	2.3486	2.3449	2.1065e-03	0.0000e+00
80	PAN020136	-20.2868	-2.2052	-12.4667	4.0778e+00	8.7056e-01
81	PAN050136	-33.9106	-16.6682	-25.7136	4.5642e+00	1.6812e+00
82	PAN070136	-24.5443	-10.6588	-17.5267	3.5636e+00	8.7110e-01
83	PAN080136	-13.5728	0.4653	-6.4165	3.7517e+00	8.7015e-01
84	PAN090136	-13.3204	-2.4104	-9.6751	3.3000e+00	8.7034e-01
85	PAN100136	-6.9837	6.5966	-0.8878	3.2008e+00	8.7000e-01
86	PAN105136	-6.2759	1.3535	-1.9333	1.5433e+00	8.7001e-01
87	PAN110136	-3.7478	1.9743	-0.7998	1.4058e+00	8.7000e-01
88	PAN115136	-6.6324	0.6155	-3.1473	1.6828e+00	8.7004e-01
89	PAN120136	-4.4213	1.3007	-2.1874	1.3470e+00	8.7002e-01
90	PAN125136	-4.0516	-1.8391	-3.0018	4.4099e-01	8.7003e-01
91	PAN130136	-3.9635	-2.2850	-3.1746	3.8244e-01	8.7004e-01
92	PAN120048	-6.7006	-4.1829	-6.0643	4.8976e-01	8.7013e-01
93	PAN130048	-6.5993	-5.4549	-6.1370	2.3849e-01	8.7014e-01
94	PAN120224	-7.1539	-0.8215	-4.4714	1.4076e+00	8.7007e-01
95	PAN130224	-6.2984	-4.4674	-5.4562	4.7432e-01	8.7011e-01
96	PAN120312	-7.6174	-6.2441	-6.8957	2.6795e-01	8.7017e-01
97	PAN130312	-5.7908	-5.1042	-5.3834	1.7950e-01	8.7010e-01
98	PAB000136	39.6034	40.4731	39.9934	2.5026e-01	5.8855e-01
99	PAB100136	42.2980	42.6642	42.4774	7.8930e-02	5.8964e-01
100	PAB125136	42.8746	43.0577	42.9560	4.9190e-02	5.8986e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.3043	40.4030	39.9000	3.5537e-01	7.5660e-01
102	PRV000001	19.5572	19.6793	19.6597	4.5206e-02	7.5161e-01
103	PSR000001	43.1543	43.2764	43.2617	4.0071e-02	7.5776e-01
104	PFH000001	6.0054	6.3716	6.2196	9.3604e-02	5.0024e-01
105	PAN000136	-100.4700	-73.0042	-89.1266	7.4792e+00	4.9250e+00
106	PFH000002	6.2108	6.3450	6.2796	3.6864e-02	2.0062e-01
107	EMPTY	-0.0049	0.0049	0.0010	4.4117e-03	0.0000e+00
108	EMPTY	-10.0000	-7.4951	-9.4471	6.8096e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0034	2.2603e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	145.0872	146.0637	145.3527	1.8825e-01	1.1902e+00
113	VPW000002	169.1256	169.5162	169.2310	1.0595e-01	1.2989e+00
114	VPW000003	209.3112	209.8971	209.5846	1.4227e-01	1.4958e+00
115	VPW000004	149.1286	150.1052	149.5543	2.0764e-01	1.2088e+00
116	VPW000005	198.2873	199.0685	198.7325	1.7664e-01	1.4415e+00
117	VPW000006	208.1881	208.9694	208.4772	1.6384e-01	1.4902e+00
118	IPW000001	760.2125	777.7836	769.5835	4.1556e+00	1.0128e+01
119	IPW000002	1822.2231	1831.9795	1826.0085	1.9872e+00	1.6544e+01
120	IPW000003	1853.5500	1863.3000	1858.6587	2.5192e+00	1.6769e+01
121	IPW000004	533.0529	536.9592	534.9278	8.6765e-01	4.6753e+00
122	IPW000005	354.9261	357.3673	356.1466	6.2579e-01	3.4520e+00
123	IPW000006	373.4882	375.4413	374.3867	3.9901e-01	3.5704e+00
124	EMPTY	-0.0293	-0.0146	-0.0201	3.6433e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0139	3.3249e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0159	3.2434e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0157	3.5962e-03	0.0000e+00
128	IHT000001	183.7665	186.1103	185.0908	5.1944e-01	4.4984e+00
129	IHT000002	183.1655	185.5093	184.3804	5.2835e-01	4.4955e+00
130	IHT000003	183.0228	185.3666	184.2221	5.3235e-01	4.4949e+00
131	IHT000004	185.3403	187.4887	186.4457	5.0780e-01	4.5040e+00
132	IHT000005	182.9252	185.0736	184.0502	4.6782e-01	4.4942e+00
133	IHT000006	178.2940	180.6378	179.5401	4.8310e-01	4.4759e+00
134	IHT000007	186.4370	188.7808	187.5465	5.1364e-01	4.5086e+00
135	IHT000008	184.8933	187.2371	185.9833	4.8982e-01	4.5021e+00
136	IHT000009	183.9881	186.1366	184.8515	5.3972e-01	4.4974e+00
137	IHT000010	183.6013	186.7263	185.2497	5.9210e-01	4.4991e+00
138	IHT000011	184.7168	187.6465	186.5644	5.5553e-01	4.5045e+00
139	IHT000012	183.3083	186.2380	185.0231	5.7085e-01	4.4981e+00
140	IHT000013	130.6791	133.2181	132.0542	5.4098e-01	4.3074e+00
141	IHT000014	180.5476	183.2820	181.9423	5.3235e-01	4.4856e+00
142	IHT000015	133.5712	136.3056	135.0166	5.8394e-01	4.3166e+00
143	IHT000016	125.1840	127.5278	126.6099	5.0878e-01	4.2910e+00
144	IHT000017	149.3727	152.3024	150.7321	5.9837e-01	4.3683e+00
145	IHT000018	151.6714	154.0152	152.9409	5.7757e-01	4.3760e+00
146	IHT000019	152.7381	155.0819	153.8515	5.5559e-01	4.3792e+00
147	IHT000020	150.1465	152.4902	151.3730	5.7051e-01	4.3705e+00
148	IHT000021	-3.2227	-0.2930	-1.7383	6.7312e-01	4.1000e+00
149	IHT000022	130.2659	132.6097	131.3949	5.1643e-01	4.3054e+00
150	IHT000023	148.5539	150.7024	149.6124	5.2953e-01	4.3644e+00
151	IHT000024	113.2174	115.3659	114.1705	5.1090e-01	4.2560e+00
152	IHT000025	146.4581	148.8018	147.4932	5.1183e-01	4.3572e+00
153	IHT000026	149.4253	151.7691	150.4136	5.1055e-01	4.3672e+00
154	IHT000027	127.3137	129.4621	128.4074	5.2792e-01	4.2964e+00
155	IHT000028	127.7269	130.6566	128.9457	5.6711e-01	4.2980e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	149.7258	152.2649	150.9132	5.4368e-01	4.3689e+00
157	IHT000030	152.9935	155.3373	154.1850	5.5137e-01	4.3803e+00
158	IHT000031	149.5230	151.8667	150.7105	5.5501e-01	4.3682e+00
159	IHT000032	150.7587	153.4931	152.0478	6.0361e-01	4.3729e+00
160	IHT000033	150.7437	153.4781	151.9585	5.9750e-01	4.3725e+00
161	IHT000034	132.9214	135.0699	133.9956	5.0571e-01	4.3134e+00
162	IHT000035	175.1052	177.4489	176.0270	5.2354e-01	4.4619e+00
163	IHT000036	131.4378	134.1722	132.5160	5.0260e-01	4.3088e+00

DEFECTIVE INSTRUMENTS FOR THE NON-RIBBED GEOMETRY TEST SERIES

Series	Tests	Defective Instruments
4	Feb08_01 to Feb08_11	TAO120048 TRT020000 TAI130048 TAO020136 TRT070000 TAI130136 TAO090136 TRT125000 TAI130224 TAO110136 TRT130000 TAI130312 TAO115136 TRR130000 TAO120136 TAF120312 TAO130136 TAO120224 TAO130224 IHT000021 IHT000024 IHT000033

Chapter 6

NUCLEATE BOILING PRESSURE DROP IN AN ANNULUS

Test Geometry: Ribbed (3)
Test Series: 1
Test Date: May 3, 1990

TOTAL PRESSURE DROP (psf)

□ SERIES 1, 05/03/90 — UNHEATED, 05/01/90

TEST NUMBER	INLET VELOCITY(a) (ft/s)	PRESSURE DROP(b) (psi)
May03_11	26.00	18.11
May03_12	20.00	8.98
May03_13	14.05	2.05
May03_14	8.00	-2.82
May03_15	6.07	-3.85
May03_16	5.08	-4.30
May03_17	4.07	-4.67
May03_18	3.52	-4.82
May03_19	3.50	-4.80
May03_20	3.33	-4.86
May03_21	3.20	-4.87 (c)

NOMINAL TEST CONDITIONS	
Annulus geometry	ribbed (3)
Inlet temperature	86 °F
Inlet pressure	40 psia
Wall heat flux	100 kBtu/hr-ft ²
Flux distribution	uniform
He saturation pressure	5 psig

NOTES:

- (a) Inlet velocity calculated from PFM000001 and PFM000002 (for $V \leq 13$ ft/s)
- (b) Pressure drop calculated from PAN000136
- (c) Shading notes test at minimum pressure drop

DEMAND CURVE AND DATA FOR SERIES 1 - RIBBED ANNULUS

SERIES 1, MAY03_12

RIBBED (3)

$\phi = 101,700 \text{ Btu/hr-ft}^2$

$V_f = 20.00 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 39.64 \text{ psia}$

$T = 85.12 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

RIBBED (3)

$\phi = 101,700 \text{ Btu/hr-ft}^2$

$V_f = 20.00 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 39.64 \text{ psia}$

$T = 85.12 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

MAY03_12

SERIES 1, MAY03_13

RIBBED (3)

$\phi = 101,400 \text{ Btu/hr-ft}^2$

$V_f = 14.05 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 39.69 \text{ psia}$

$T = 85.47 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

RIBBED (3)

$\phi = 101,400 \text{ Btu/hr-ft}^2$

$V_f = 14.05 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 39.69 \text{ psia}$

$T = 85.47 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

SERIES 1, MAY03_14

RIBBED (3)

$\Phi = 101,300 \text{ Btu/hr-ft}^2$

$V_f = 8.00 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 39.69 \text{ psia}$

$T = 85.49 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

RIBBED (3)

$\Phi = 101,300 \text{ Btu/hr-ft}^2$

$V_f = 8.00 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 40.22 \text{ psia}$

$T = 85.49 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

MAY03_14

MAY03_16

SERIES 1, MAY03_17

RIBBED (3)

$\Phi = 100,800 \text{ Btu/hr-ft}^2$

$V_t = 4.07 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 39.86 \text{ psia}$

$T = 87.75 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

RIBBED (3)

$\Phi = 100,800 \text{ Btu/hr-ft}^2$

$V_t = 4.07 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 39.86 \text{ psia}$

$T = 87.75 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

MAY03_17

SERIES 1, MAY03_19

RIBBED (3)

$\phi = 100,600 \text{ Btu/hr-ft}^2$

$V_f = 3.50 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 40.36 \text{ psia}$

$T = 87.70 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

RIBBED (3)

$\phi = 100,600 \text{ Btu/hr-ft}^2$

$V_f = 3.50 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 40.36 \text{ psia}$

$T = 87.70 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

MAY03_19

SERIES 1, MAY03_21

RIBBED (3)

$\phi = 101,300 \text{ Btu/hr-ft}^2$

$V_t = 3.20 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 40.18 \text{ psia}$

$T = 85.51 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

RIBBED (3)

$\phi = 101,300 \text{ Btu/hr-ft}^2$

$V_t = 3.20 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 40.18 \text{ psia}$

$T = 85.51 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

MAY03_21

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Velocity 1 = 25.9997 (ft/sec) (+/- 1.6888 %)
 Velocity 2 = 13.4159 (ft/sec) (+/- 1.7032 %)
 Pressure drop = 18.1064 (psi)
 Tsat in = 267.7006 (deg F) Tsat out = 234.7158 (deg F)
 Phi inner = 101.6722 (kBtu/hr-ft2) (+/- 1.4099 %)
 Phi outer = 101.5592 (kBtu/hr-ft2) (+/- 1.6177 %)
 D inner = 0.1962 (ft) D outer = 0.2413 (ft) D hyd = 0.0389 (ft)
 L inner = 12.8550 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	72.3476	72.9870	72.8037	1.7227e-01	1.9000e+00
1	TRF0000002	72.7964	73.4321	73.0846	1.3374e-01	1.9000e+00
2	TFM0000001	85.4036	86.3476	85.8802	1.9793e-01	1.9002e+00
3	TIN0000001	85.4167	86.0477	85.8268	1.4135e-01	1.9002e+00
4	TRV0000001	85.2346	86.1771	85.8154	2.0438e-01	1.9002e+00
5	TSR0000001	103.7591	106.0252	105.0183	6.4172e-01	1.9008e+00
6	TMO020136	108.0250	109.0581	108.6758	2.4184e-01	1.9010e+00
7	TMO050136	109.7747	110.3926	110.1068	1.6263e-01	1.9011e+00
8	TMO070136	117.1384	118.1659	117.8312	2.1052e-01	1.9015e+00
9	TMO080136	116.1669	116.8824	116.5248	1.6572e-01	1.9015e+00
10	TMO090136	117.6696	118.4883	118.0566	2.0184e-01	1.9016e+00
11	TMO100136	113.9782	114.9015	114.4403	1.9481e-01	1.9013e+00
12	TMO105136	115.3273	116.2519	115.7322	2.0798e-01	1.9014e+00
13	TMO110136	117.3252	117.9381	117.6869	1.6651e-01	1.9015e+00
14	TMO115136	116.2666	117.2952	116.7993	2.3655e-01	1.9015e+00
15	TMO120136	121.1248	121.9385	121.5544	1.7845e-01	1.9018e+00
16	TMO125136	116.2182	117.0384	116.5858	2.0710e-01	1.9015e+00
17	TMO130136	116.1510	116.9651	116.6255	1.8362e-01	1.9015e+00
18	TMO120048	122.1635	122.9803	122.5539	1.7703e-01	1.9019e+00
19	TMO130048	118.1294	118.7432	118.4426	1.6328e-01	1.9016e+00
20	TMO120224	120.1889	121.1089	120.6736	1.9465e-01	1.9017e+00
21	TMO130224	115.0363	115.8539	115.4761	1.8045e-01	1.9014e+00
22	TMO120312	120.2408	121.1609	120.7624	2.1100e-01	1.9017e+00
23	TMO130312	119.4045	120.0184	119.8240	1.7063e-01	1.9017e+00
24	TMT0200000	106.0108	106.9434	106.5104	1.9375e-01	1.9009e+00
25	TMT0700000	114.4559	115.2803	114.8332	1.9037e-01	1.9014e+00
26	TMT1000000	119.7589	120.4731	120.1158	1.8014e-01	1.9017e+00
27	TMT1200000	118.1796	118.7938	118.5379	1.3760e-01	1.9016e+00
28	TMT1250000	121.6552	122.4693	122.1863	1.8535e-01	1.9018e+00
29	TMT1300000	120.1727	120.8873	120.4934	1.5715e-01	1.9017e+00
30	EMPTY	39.1464	39.8352	39.4771	1.9214e-01	1.9010e+00
31	TAF050136	92.9724	93.8067	93.4627	1.8398e-01	1.9004e+00
32	TAF070136	95.9030	96.7333	96.3374	2.0090e-01	1.9005e+00
33	TAF080136	117.4717	118.7926	118.0361	3.1241e-01	1.9016e+00
34	TAF090136	105.3480	106.2780	105.8792	2.6885e-01	1.9009e+00
35	TAF100136	99.0859	99.9185	99.5001	2.0649e-01	1.9006e+00
36	TAF105136	99.8712	100.8005	100.2504	2.5348e-01	1.9006e+00
37	TAF110136	105.0298	105.6506	105.3263	1.7214e-01	1.9008e+00
38	TAF115136	101.7392	102.5683	102.2056	2.2186e-01	1.9007e+00
39	TAF120136	109.3751	110.0955	109.7231	1.7509e-01	1.9011e+00
40	TAF125136	103.0801	104.1117	103.6518	3.0819e-01	1.9008e+00
41	TAF130136	103.9949	104.6164	104.3371	1.5402e-01	1.9008e+00
42	TAF120048	105.0258	106.0648	105.6262	2.4790e-01	1.9009e+00
43	TAF130048	106.3932	107.1163	106.7631	1.8200e-01	1.9009e+00
44	TAF120224	102.7191	103.5489	103.1985	1.9298e-01	1.9007e+00
45	TAF130224	103.8178	104.6487	104.2684	1.7763e-01	1.9008e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.0020	1.9975e-01	1.9010e+00
47	EMPTY	39.1464	39.3761	39.2108	1.0415e-01	1.9010e+00
48	TAI130138	113.3407	114.5741	114.0418	3.0777e-01	1.9013e+00
49	TAI130226	112.9019	113.6209	113.2579	1.5685e-01	1.9013e+00
50	TAI130314	116.1100	117.3425	116.6666	2.7387e-01	1.9015e+00
51	TAI130042	114.3155	115.2403	114.7819	1.8239e-01	1.9014e+00
52	TRR130090	109.3592	111.6199	110.5737	6.2144e-01	1.9011e+00
53	TSI0000001	46.8279	47.6939	47.3111	1.8988e-01	1.9003e+00
54	TSI0000002	123.2705	124.4913	123.8997	3.4255e-01	1.9020e+00
55	TSO0000001	46.1721	47.0425	46.6006	1.8978e-01	1.9004e+00
56	TSO0000002	52.9656	54.0443	53.6239	2.2669e-01	1.9002e+00
57	TAF020136	86.6390	87.4817	87.1131	1.9531e-01	1.9002e+00
58	TAF120312	104.2263	105.2606	104.7622	2.4690e-01	1.9008e+00
59	TAF130312	107.4792	108.3040	107.9227	1.6441e-01	1.9010e+00
60	EMPTY	1.0156	1.0205	1.0161	1.4797e-03	0.0000e+00
61	EMPTY	1.0254	1.0303	1.0273	2.4164e-03	0.0000e+00
62	EMPTY	1.0352	1.0400	1.0375	2.4642e-03	0.0000e+00
63	EMPTY	1.0498	1.0547	1.0504	1.6028e-03	0.0000e+00
64	EMPTY	0.5811	0.5859	0.5816	1.6028e-03	0.0000e+00
65	EMPTY	0.6006	0.6055	0.6010	1.3381e-03	0.0000e+00
66	EMPTY	0.6104	0.6201	0.6155	1.5314e-03	0.0000e+00
67	EMPTY	0.6299	0.6348	0.6345	1.1714e-03	0.0000e+00
68	EMPTY	0.6445	0.6494	0.6452	1.7115e-03	0.0000e+00
69	EMPTY	0.6592	0.6641	0.6640	6.9053e-04	0.0000e+00
70	EMPTY	0.6738	0.6787	0.6786	6.9053e-04	0.0000e+00
71	EMPTY	0.6982	0.7031	0.6989	1.7115e-03	0.0000e+00
72	EMPTY	0.7080	0.7129	0.7128	6.9053e-04	0.0000e+00
73	EMPTY	0.7275	0.7324	0.7314	1.9730e-03	0.0000e+00
74	EMPTY	0.7422	0.7471	0.7452	2.3941e-03	0.0000e+00
75	EMPTY	0.7568	0.7666	0.7616	1.5566e-03	0.0000e+00
76	EMPTY	0.7715	0.7764	0.7756	1.8082e-03	0.0000e+00
77	EMPTY	0.7910	0.7959	0.7935	2.4662e-03	0.0000e+00
78	EMPTY	0.8105	0.8154	0.8153	6.9053e-04	0.0000e+00
79	EMPTY	0.8350	0.8350	0.8350	0.0000e+00	0.0000e+00
80	PAN020136	63.6058	66.7338	64.9989	7.7649e-01	8.8505e-01
81	PAN050136	116.9928	118.9765	117.9816	5.1606e-01	1.7057e+00
82	PAN070136	79.4590	80.9086	80.3303	3.4607e-01	8.9288e-01
83	PAN080136	38.2527	39.8549	39.1453	3.5359e-01	8.7549e-01
84	PAN090136	36.5655	37.8625	37.1225	3.2378e-01	8.7494e-01
85	PAN100136	39.6158	40.7602	40.1590	2.7384e-01	8.7577e-01
86	PAN105136	19.7977	20.5606	20.1013	1.9096e-01	8.7145e-01
87	PAN110136	19.3883	20.3801	19.8826	2.2508e-01	8.7142e-01
88	PAN115136	21.2986	22.4430	21.8510	2.8859e-01	8.7171e-01
89	PAN120136	18.2894	18.6709	18.4893	8.4269e-02	8.7123e-01
90	PAN125136	20.1146	20.7250	20.3771	1.4056e-01	8.7149e-01
91	PAN130136	17.9606	18.5710	18.2414	1.4164e-01	8.7119e-01
92	PAN120048	33.0691	33.7558	33.3300	1.7445e-01	8.7398e-01
93	PAN130048	42.8510	43.5377	43.1516	1.5522e-01	8.7666e-01
94	PAN120224	40.3993	41.3148	40.8723	2.3729e-01	8.7598e-01
95	PAN130224	46.6759	47.5151	47.0680	1.6886e-01	8.7792e-01
96	PAN120312	37.0731	38.1412	37.6422	2.3989e-01	8.7507e-01
97	PAN130312	41.9061	42.5928	42.2784	1.5842e-01	8.7640e-01
98	PAB000136	39.9935	40.5886	40.2233	1.4695e-01	5.8865e-01
99	PAB100136	26.2500	26.5247	26.3635	6.1513e-02	5.8373e-01
100	PAB125136	22.6724	22.8097	22.7474	3.8974e-02	5.8278e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.5721	40.7928	40.0579	2.3846e-01	7.5666e-01
102	PRVU00001	19.7263	19.9704	19.8117	6.1655e-02	7.5163e-01
103	PSR000001	19.5245	19.6465	19.6368	3.3453e-02	7.5160e-01
104	PFM000001	103.1183	105.0409	104.2866	5.3944e-01	5.6389e-01
105	PAN000136	496.7267	507.7130	501.2860	2.2690e+00	5.0771e+00
106	PFM000002	27.5792	27.5792	27.5792	3.8534e-06	2.1155e-01
107	EMPTY	0.0049	0.0098	0.0096	9.6655e-04	0.0000e+00
108	EMPTY	-8.5498	-7.6270	-8.0571	1.5527e-01	0.0000e+00
109	EMPTY	0.0049	0.0098	0.0087	2.0432e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0007	1.7115e-03	0.0000e+00
112	VPW000001	101.9644	102.5503	102.2730	1.2534e-01	1.0162e+00
113	VPW000002	119.5650	119.9557	119.7837	9.3710e-02	1.0829e+00
114	VPW000003	147.2581	147.6487	147.3910	1.0014e-01	1.1992e+00
115	VPW000004	104.9429	105.5288	105.2007	1.3917e-01	1.0269e+00
116	VPW000005	139.5545	140.1405	139.8397	1.3211e-01	1.1662e+00
117	VPW000006	146.2553	146.8412	146.5600	1.7717e-01	1.1956e+00
118	IPW000001	545.8301	559.4966	551.5701	4.0688e+00	9.1977e+00
119	IPW000002	1297.3693	1309.0769	1302.7159	3.4324e+00	1.3097e+01
120	IPW000003	1330.2749	1340.0249	1334.7209	2.6731e+00	1.3296e+01
121	IPW000004	386.3526	387.8174	386.7726	3.9471e-01	3.6519e+00
122	IPW000005	255.3925	256.8572	256.2519	4.0140e-01	2.8457e+00
123	IPW000006	268.0382	269.5031	268.7217	3.8206e-01	2.9166e+00
124	EMPTY	-0.0293	-0.0146	-0.0219	3.5895e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0137	3.2718e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0177	3.8066e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0164	3.3829e-03	0.0000e+00
128	IHT000001	131.8923	134.4313	133.2711	6.0026e-01	4.3112e+00
129	IHT000002	132.4069	134.5553	133.6685	5.5833e-01	4.3124e+00
130	IHT000003	131.4153	133.5637	132.6066	5.4569e-01	4.3091e+00
131	IHT000004	132.0838	134.4276	133.4393	5.5721e-01	4.3117e+00
132	IHT000005	129.8377	132.1815	130.9120	5.4426e-01	4.3039e+00
133	IHT000006	125.8977	128.4368	127.0304	5.5102e-01	4.2923e+00
134	IHT000007	130.3936	132.9327	131.4444	5.9306e-01	4.3056e+00
135	IHT000008	130.4199	132.9590	131.4785	5.6233e-01	4.3057e+00
136	IHT000009	131.1110	133.6501	132.4391	5.3959e-01	4.3086e+00
137	IHT000010	130.3260	133.6463	131.4550	5.6261e-01	4.3056e+00
138	IHT000011	134.7468	137.8718	135.7743	5.6194e-01	4.3190e+00
139	IHT000012	128.6433	131.3777	129.5926	5.5665e-01	4.2999e+00
140	IHT000013	92.2776	94.8167	93.1644	5.1329e-01	4.2045e+00
141	IHT000014	128.2189	130.5627	129.1759	5.2237e-01	4.2987e+00
142	IHT000015	96.3079	98.4563	97.1164	4.8810e-01	4.2134e+00
143	IHT000016	89.2390	91.5828	90.1570	4.6228e-01	4.1980e+00
144	IHT000017	105.6641	109.1797	107.0391	8.4994e-01	4.2374e+00
145	IHT000018	108.0266	110.7610	109.2844	6.0123e-01	4.2431e+00
146	IHT000019	103.3767	106.3063	104.7790	6.2101e-01	4.2318e+00
147	IHT000020	106.5956	109.3299	107.9081	5.8132e-01	4.2396e+00
148	IHT000021	-3.1513	0.3644	-1.3466	7.2390e-01	4.1000e+00
149	IHT000022	92.9725	95.5116	94.1678	5.7540e-01	4.2068e+00
150	IHT000023	105.7993	108.3383	106.9946	5.3181e-01	4.2373e+00
151	IHT000024	71.4693	74.0084	72.5084	5.0907e-01	4.1636e+00
152	IHT000025	103.7748	106.1185	104.6303	4.8950e-01	4.2314e+00
153	IHT000026	105.2622	107.0200	105.9692	4.3205e-01	4.2347e+00
154	IHT000027	90.0503	92.5894	91.1831	5.3379e-01	4.2002e+00
155	IHT000028	91.6091	94.9294	93.2966	6.4809e-01	4.2048e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.0631	107.9928	106.6412	6.3972e-01	4.2364e+00
157	IHT000030	107.0838	110.4042	108.8026	6.4235e-01	4.2419e+00
158	IHT000031	106.3702	109.2999	107.7412	5.8990e-01	4.2392e+00
159	IHT000032	107.6285	110.1675	108.8316	6.2932e-01	4.2420e+00
160	IHT000033	107.6097	110.1487	108.7894	6.1884e-01	4.2419e+00
161	IHT000034	94.7754	96.5332	95.4590	4.4161e-01	4.2097e+00
162	IHT000035	124.7897	126.9381	125.6685	4.9481e-01	4.2883e+00
163	IHT000036	93.1979	94.9557	93.9751	4.3133e-01	4.2063e+00

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Velocity 1 = 20.0041 (ft/sec) (+/- 1.7202 %)
 Velocity 2 = 13.4151 (ft/sec) (+/- 1.7032 %)
 Pressure drop = 8.9844 (psi)
 Tsat in = 267.0910 (deg F) Tsat out = 252.4889 (deg F)
 Phi inner = 101.5205 (kBtu/hr-ft2) (+/- 1.4103 %)
 Phi outer = 101.8354 (kBtu/hr-ft2) (+/- 1.6163 %)
 D inner = 0.1962 (ft) D outer = 0.2413 (ft) I hyd = 0.0389 (ft)
 L inner = 12.8550 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	72.7739	73.2000	73.0211	1.5734e-01	1.9000e+00
1	TRF000002	73.0083	73.4321	73.3262	1.1525e-01	1.9000e+00
2	TFM000001	84.6700	85.7200	85.1428	2.5554e-01	1.9002e+00
3	TIN000001	84.5743	85.8372	85.1153	2.2401e-01	1.9002e+00
4	TRV000001	84.5042	85.4473	85.0552	2.0055e-01	1.9002e+00
5	TSR000001	105.9221	106.7463	106.3034	2.1529e-01	1.9009e+00
6	TNO020136	112.9775	113.8011	113.4736	2.0452e-01	1.9013e+00
7	TNO050136	115.1963	116.1167	115.6037	1.8886e-01	1.9014e+00
8	TNO070136	121.1436	122.2698	121.8172	2.1413e-01	1.9018e+00
9	TNO080136	123.1801	123.9920	123.5676	1.8670e-01	1.9019e+00
10	TNO090136	124.9071	125.6196	125.3204	1.7616e-01	1.9021e+00
11	TNO100136	120.9352	121.6497	121.2678	1.6741e-01	1.9018e+00
12	TNO105136	122.2956	123.4195	122.7351	2.3462e-01	1.9019e+00
13	TNO110136	124.9116	125.8223	125.3027	1.7489e-01	1.9021e+00
14	TNO115136	123.8585	124.9822	124.3630	1.9957e-01	1.9020e+00
15	TNO120136	129.5039	130.1073	129.7049	1.4354e-01	1.9024e+00
16	TNO125136	124.2783	124.7878	124.5372	1.5700e-01	1.9020e+00
17	TNO130136	123.9048	124.4117	124.2348	1.4459e-01	1.9020e+00
18	TNO120048	131.0047	131.7142	131.3313	1.7169e-01	1.9025e+00
19	TNO130048	126.3633	127.0742	126.6784	1.8264e-01	1.9022e+00
20	TNO120224	128.6417	129.2509	128.9320	1.4658e-01	1.9023e+00
21	TNO130224	122.5457	123.1543	122.8233	1.3286e-01	1.9019e+00
22	TNO120312	129.1095	129.8208	129.4937	1.6709e-01	1.9024e+00
23	TNO130312	127.6406	128.2493	127.9677	1.4841e-01	1.9023e+00
24	TRT020000	110.4622	111.4948	110.9475	2.2777e-01	1.9011e+00
25	TRT070000	121.5678	122.2858	121.9967	1.8149e-01	1.9018e+00
26	TRT100000	127.9914	128.9044	128.4846	1.8889e-01	1.9023e+00
27	TRT120000	126.7398	127.3495	127.0506	1.4719e-01	1.9022e+00
28	TRT125000	130.9516	131.5576	131.2888	1.7856e-01	1.9025e+00
29	TRT130000	128.5010	129.0086	128.7347	1.5782e-01	1.9023e+00
30	EMPTY	39.1464	39.8352	39.5505	2.2512e-01	1.9011e+00
31	TAF050136	94.5341	95.4711	94.9820	1.8008e-01	1.9004e+00
32	TAF070136	98.1827	99.1158	98.7322	2.3436e-01	1.9006e+00
33	TAF080136	123.9601	124.8727	124.3196	2.6538e-01	1.9020e+00
34	TAF090136	107.8242	108.7524	108.3296	2.3492e-01	1.9010e+00
35	TAF100136	102.7249	103.5551	103.0385	1.8219e-01	1.9007e+00
36	TAF105136	103.3719	104.4013	104.0488	2.2115e-01	1.9008e+00
37	TAF110136	109.9702	110.5870	110.3051	1.7104e-01	1.9011e+00
38	TAF115136	105.9783	106.9073	106.4881	1.9050e-01	1.9009e+00
39	TAF120136	115.6260	116.2400	115.9144	1.6384e-01	1.9014e+00
40	TAF125136	107.8067	108.8328	108.3051	2.8340e-01	1.9010e+00
41	TAF130136	108.9451	109.4601	109.1866	1.2939e-01	1.9010e+00
42	TAF120048	110.4299	111.4664	110.8470	2.4896e-01	1.9011e+00
43	TAF130048	112.0567	112.7762	112.4538	1.5687e-01	1.9012e+00
44	TAF120224	107.3751	108.4075	107.8194	1.9930e-01	1.9010e+00
45	TAF130224	108.9094	109.6341	109.2925	2.0203e-01	1.9010e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	38.0434	2.1288e-01	1.9010e+00
47	EMPTY	39.1464	39.6057	39.2337	1.2177e-01	1.9010e+00
48	TAI130138	120.8245	121.9489	121.4113	3.1430e-01	1.9018e+00
49	TAI130226	120.1533	121.0712	120.6124	2.3044e-01	1.9017e+00
50	TAI130314	124.1041	125.0233	124.5637	2.5548e-01	1.9020e+00
51	TAI130042	122.1015	122.9184	122.4915	1.7599e-01	1.9019e+00
52	TRR130090	99.4475	102.4494	100.8909	7.5524e-01	1.9006e+00
53	TSI000001	46.8286	47.6952	47.3378	1.9240e-01	1.9003e+00
54	TSI000002	113.6731	121.5420	117.5427	1.9480e+00	1.9015e+00
55	TSO000001	46.0616	47.0417	46.6238	2.1405e-01	1.9004e+00
56	TSO000002	53.5053	54.4754	54.0767	2.1242e-01	1.9002e+00
57	TAF020136	86.5323	87.9026	87.2682	2.7233e-01	1.9002e+00
58	TAF120312	109.4887	110.4160	110.0760	2.2908e-01	1.9011e+00
59	TAF130312	113.5390	114.2574	113.9352	1.4805e-01	1.9013e+00
60	EMPTY	1.1523	1.1572	1.1533	1.9730e-03	0.0000e+00
61	EMPTY	1.1621	1.1670	1.1636	2.2603e-03	0.0000e+00
62	EMPTY	1.1719	1.1768	1.1729	2.0432e-03	0.0000e+00
63	EMPTY	1.1816	1.1914	1.1854	2.5266e-03	0.0000e+00
64	EMPTY	0.6348	0.6445	0.6396	9.8648e-04	0.0000e+00
65	EMPTY	0.6592	0.6592	0.6592	0.0000e+00	0.0000e+00
66	EMPTY	0.6689	0.6738	0.6737	6.9053e-04	0.0000e+00
67	EMPTY	0.6885	0.6934	0.6888	1.1714e-03	0.0000e+00
68	EMPTY	0.6982	0.7031	0.7029	9.6655e-04	0.0000e+00
69	EMPTY	0.7178	0.7227	0.7180	9.6655e-04	0.0000e+00
70	EMPTY	0.7324	0.7324	0.7324	0.0000e+00	0.0000e+00
71	EMPTY	0.7520	0.7568	0.7556	2.1635e-03	0.0000e+00
72	EMPTY	0.7666	0.7715	0.7670	1.3381e-03	0.0000e+00
73	EMPTY	0.7813	0.7861	0.7860	6.9053e-04	0.0000e+00
74	EMPTY	0.7959	0.8008	0.7995	2.1635e-03	0.0000e+00
75	EMPTY	0.8105	0.8154	0.8152	9.6655e-04	0.0000e+00
76	EMPTY	0.8252	0.8301	0.8283	2.3675e-03	0.0000e+00
77	EMPTY	0.8447	0.8496	0.8450	1.1714e-03	0.0000e+00
78	EMPTY	0.8643	0.8691	0.8678	2.2146e-03	0.0000e+00
79	EMPTY	0.8887	0.8936	0.8889	9.6655e-04	0.0000e+00
80	PAN020136	31.8675	34.3852	33.1141	6.1183e-01	8.7393e-01
81	PAN050136	58.0939	59.7724	59.0491	3.9815e-01	1.6865e+00
82	PAN070136	38.3366	40.1677	39.3253	3.4396e-01	8.7554e-01
83	PAN080136	19.7896	20.8577	20.2855	2.3641e-01	8.7148e-01
84	PAN090136	17.8735	18.5602	18.1940	1.4043e-01	8.7119e-01
85	PAN100136	18.4061	19.0164	18.6823	1.7294e-01	8.7125e-01
86	PAN105136	9.6506	10.5661	10.1252	2.2085e-01	8.7037e-01
87	PAN110136	11.1485	12.2929	11.7726	2.5961e-01	8.7050e-01
88	PAN115136	8.9390	10.0834	9.4044	2.0112e-01	8.7032e-01
89	PAN120136	8.9815	9.2867	9.1295	9.3007e-02	8.7030e-01
90	PAN125136	9.8912	10.5016	10.2361	1.3101e-01	8.7038e-01
91	PAN130136	8.1187	8.6528	8.3720	1.3119e-01	8.7025e-01
92	PAN120048	15.5215	16.2082	15.9686	1.5260e-01	8.7092e-01
93	PAN130048	21.5650	22.4805	21.9282	1.9713e-01	8.7173e-01
94	PAN120224	18.4266	19.2659	18.7913	1.7862e-01	8.7127e-01
95	PAN130224	24.2455	24.8558	24.5095	1.5040e-01	8.7216e-01
96	PAN120312	18.2285	18.9151	18.5428	1.7346e-01	8.7123e-01
97	PAN130312	21.4594	22.1460	21.7889	1.4331e-01	8.7170e-01
98	PAB000136	39.5357	40.0393	39.8141	1.1619e-01	5.8848e-01
99	PAB100136	32.7960	33.0249	32.8976	6.2239e-02	5.8580e-01
100	PAB125136	31.0037	31.1410	31.0714	4.7374e-02	5.8518e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.2059	39.9383	39.6404	1.9908e-01	7.5652e-01
102	PRV0000001	19.7263	19.9704	19.8605	5.0842e-02	7.5164e-01
103	PSR0000001	29.1680	29.4122	29.3072	6.5296e-02	7.5357e-01
104	PFM0000001	60.8209	62.2858	61.6083	3.6151e-01	5.2318e-01
105	PAN000136	244.0411	252.7386	248.7378	1.9329e+00	4.9591e+00
106	PFM0000002	27.5792	27.5792	27.5792	3.8534e-06	2.1155e-01
107	EMPTY	-0.0049	0.0098	0.0048	1.5566e-03	0.0000e+00
108	EMPTY	-8.8867	-8.0225	-8.3304	1.9985e-01	0.0000e+00
109	EMPTY	0.0049	0.0098	0.0051	9.6655e-04	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0001	6.9053e-04	0.0000e+00
112	VPW0000001	101.5738	103.5269	102.4487	3.7276e-01	1.0168e+00
113	VPW0000002	119.1744	120.3463	119.8228	2.1771e-01	1.0830e+00
114	VPW0000003	146.8675	148.0394	147.5082	2.8737e-01	1.1998e+00
115	VPW0000004	104.3570	106.3101	105.2241	4.3613e-01	1.0270e+00
116	VPW0000005	138.7733	141.1170	139.8163	5.4191e-01	1.1661e+00
117	VPW0000006	145.8646	147.8178	146.7163	3.9609e-01	1.1963e+00
118	IPW0000001	551.6872	567.3060	558.1298	3.9295e+00	9.2223e+00
119	IPW0000002	1299.3206	1318.8333	1307.5551	4.1023e+00	1.3127e+01
120	IPW0000003	1318.5748	1343.9249	1331.4059	5.7374e+00	1.3276e+01
121	IPW0000004	377.0752	385.8643	382.3878	1.8734e+00	3.6229e+00
122	IPW0000005	252.4632	257.8337	255.1387	1.2369e+00	2.8395e+00
123	IPW0000006	266.0851	270.4796	268.3018	1.0542e+00	2.9142e+00
124	EMPTY	-0.0293	-0.0195	-0.0229	3.0309e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0154	2.8523e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0173	2.9938e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0179	3.5030e-03	0.0000e+00
128	IHT0000001	132.0876	135.4079	133.3649	6.6288e-01	4.3115e+00
129	IHT0000002	132.6022	135.5319	133.7466	6.4599e-01	4.3126e+00
130	IHT0000003	131.6106	134.9309	132.8019	6.8601e-01	4.3097e+00
131	IHT0000004	132.4745	135.0135	133.5057	5.9587e-01	4.3119e+00
132	IHT0000005	129.8377	132.7674	131.0409	6.0019e-01	4.3043e+00
133	IHT0000006	125.8977	128.4368	127.1320	5.6695e-01	4.2926e+00
134	IHT0000007	130.1983	132.9327	131.6514	5.4413e-01	4.3062e+00
135	IHT0000008	130.6152	132.9590	131.6973	5.1480e-01	4.3063e+00
136	IHT0000009	131.3064	134.0407	132.6305	5.8166e-01	4.3092e+00
137	IHT0000010	130.7167	132.8651	131.5839	5.7610e-01	4.3060e+00
138	IHT0000011	134.7468	137.0906	135.9266	6.0613e-01	4.3194e+00
139	IHT0000012	128.6433	130.9871	129.7176	5.9222e-01	4.3003e+00
140	IHT0000013	91.8870	94.2308	93.1644	5.9870e-01	4.2045e+00
141	IHT0000014	128.0236	130.7580	129.2072	6.7475e-01	4.2988e+00
142	IHT0000015	95.7219	98.6516	97.0539	5.7682e-01	4.2133e+00
143	IHT0000016	88.8484	92.1687	90.2351	5.5137e-01	4.1981e+00
144	IHT0000017	105.4688	108.5938	107.1602	8.3296e-01	4.2377e+00
145	IHT0000018	108.0266	111.1516	109.3390	5.7323e-01	4.2433e+00
146	IHT0000019	103.7673	105.7204	104.9313	5.1291e-01	4.2321e+00
147	IHT0000020	106.7909	108.9393	107.9432	5.1788e-01	4.2397e+00
148	IHT0000021	-2.9560	-0.2216	-1.3896	5.6150e-01	4.1000e+00
149	IHT0000022	92.9725	95.3163	94.2342	5.3990e-01	4.2069e+00
150	IHT0000023	105.7993	108.1430	107.0415	5.1108e-01	4.2374e+00
151	IHT0000024	71.2740	73.4225	72.5435	4.8368e-01	4.1637e+00
152	IHT0000025	103.3842	105.7279	104.7827	5.0279e-01	4.2318e+00
153	IHT0000026	104.8715	107.2153	106.1216	5.2199e-01	4.2351e+00
154	IHT0000027	89.8550	92.3941	91.3589	5.8427e-01	4.2006e+00
155	IHT0000028	92.1950	94.9294	93.2966	6.2360e-01	4.2048e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	105.6490	107.9928	106.5943	5.5714e-01	4.2363e+00
157	IHT0000030	107.8651	110.0135	108.7128	5.7129e-01	4.2417e+00
158	IHT0000031	106.7608	108.9092	107.7139	5.2146e-01	4.2391e+00
159	IHT0000032	107.8238	109.7769	108.8120	5.0749e-01	4.2419e+00
160	IHT0000033	107.8050	109.7581	108.7738	5.2193e-01	4.2418e+00
161	IHT0000034	94.3848	96.9238	95.3848	5.4909e-01	4.2095e+00
162	IHT0000035	124.3990	127.3287	125.5787	5.8787e-01	4.2880e+00
163	IHT0000036	92.8072	95.5416	93.8814	5.5559e-01	4.2061e+00

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Velocity 1 = 14.0531 (ft/sec) (+/- 1.8644 %)
 Velocity 2 = 13.4155 (ft/sec) (+/- 1.7032 %)
 Pressure drop = 2.0548 (psi)
 Tsat in = 267.1143 (deg F) Tsat out = 264.0808 (deg F)
 Phi inner = 101.0201 (kBtu/hr-ft2) (+/- 1.4117 %)
 Phi outer = 101.6716 (kBtu/hr-ft2) (+/- 1.6168 %)
 D inner = 0.1962 (ft) D outer = 0.2413 (ft) D hyd = 0.0389 (ft)
 L inner = 12.8550 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	72.9870	73.6260	73.3150	1.6222e-01	1.9000e+00
1	TRF0000002	73.4321	73.8557	73.5973	1.2320e-01	1.9000e+00
2	TFM0000001	84.9860	85.8255	85.4520	1.8018e-01	1.9002e+00
3	TIN0000001	85.2058	85.7321	85.4667	1.4915e-01	1.9002e+00
4	TRV0000001	84.9246	85.6576	85.2430	1.8085e-01	1.9002e+00
5	TSR0000001	107.2610	108.4944	107.9920	3.0844e-01	1.9010e+00
6	TAO020136	122.6215	123.5414	123.1610	2.2808e-01	1.9019e+00
7	TAO050136	126.0705	126.8810	126.4517	1.8280e-01	1.9021e+00
8	TAO070136	130.0328	131.0502	130.5740	2.3021e-01	1.9025e+00
9	TAO080136	136.6895	137.5943	137.0675	1.7899e-01	1.9030e+00
10	TAO090136	138.7597	139.4647	139.1543	1.6626e-01	1.9032e+00
11	TAO100136	134.6362	135.4440	135.0800	1.8925e-01	1.9029e+00
12	TAO105136	136.4248	137.2334	136.7845	2.0643e-01	1.9030e+00
13	TAO110136	139.8511	140.5522	140.1993	1.7424e-01	1.9033e+00
14	TAO115136	138.8087	139.9202	139.3866	2.2457e-01	1.9032e+00
15	TAO120136	145.0081	145.7071	145.3752	1.4046e-01	1.9038e+00
16	TAO125136	139.3446	140.2498	139.7912	1.8421e-01	1.9033e+00
17	TAO130136	138.3782	139.1752	138.8526	1.6242e-01	1.9032e+00
18	TAO120048	147.6102	148.3109	148.0503	1.4995e-01	1.9041e+00
19	TAO130048	142.1759	142.8783	142.5448	1.4111e-01	1.9035e+00
20	TAO120224	144.3817	145.1842	144.7790	1.8011e-01	1.9038e+00
21	TAO130224	136.8294	137.5327	137.1907	1.5843e-01	1.9030e+00
22	TAO120312	145.9673	146.5697	146.2487	1.7553e-01	1.9039e+00
23	TAO130312	143.4564	144.3587	143.7778	1.5034e-01	1.9037e+00
24	TRT020000	119.5244	120.4466	119.9179	2.0117e-01	1.9017e+00
25	TRT070000	135.3721	136.1844	135.7008	1.7214e-01	1.9029e+00
26	TRT100000	144.2035	144.9058	144.5727	2.0090e-01	1.9037e+00
27	TRT120000	143.4913	144.0939	143.8049	1.6682e-01	1.9037e+00
28	TRT125000	148.4548	149.2499	148.8748	1.8049e-01	1.9042e+00
29	TRT130000	144.4997	145.0018	144.7608	1.3125e-01	1.9038e+00
30	EMPTY	39.1464	40.0646	39.5046	2.0825e-01	1.9011e+00
31	TAF050136	98.9981	99.7253	99.3555	2.1085e-01	1.9006e+00
32	TAF070136	104.0684	104.9977	104.5022	1.9315e-01	1.9008e+00
33	TAF080136	136.5390	137.7419	137.0372	2.6545e-01	1.9030e+00
34	TAF090136	113.4805	114.6096	114.0264	3.0568e-01	1.9013e+00
35	TAF100136	110.6949	111.5199	111.0496	1.8065e-01	1.9011e+00
36	TAF105136	111.9736	112.7921	112.3753	2.0332e-01	1.9012e+00
37	TAF110136	120.6049	121.3192	121.0616	1.6894e-01	1.9018e+00
38	TAF115136	115.4375	116.2578	115.8311	2.2812e-01	1.9014e+00
39	TAF120136	128.2369	128.9474	128.5861	1.4934e-01	1.9023e+00
40	TAF125136	117.8128	118.9315	118.4076	2.5202e-01	1.9016e+00
41	TAF130136	119.3989	120.1144	119.6856	1.6125e-01	1.9017e+00
42	TAF120048	121.0726	122.3050	121.7675	2.5711e-01	1.9018e+00
43	TAF130048	123.9204	124.6337	124.2707	2.0075e-01	1.9020e+00
44	TAF120224	117.3533	118.0708	117.7754	1.9707e-01	1.9015e+00
45	TAF130224	119.5490	120.2671	119.9021	1.5120e-01	1.9017e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	38.0572	2.1191e-01	1.9010e+00
47	EMPTY	39.1464	39.3761	39.2980	1.0988e-01	1.9010e+00
48	TAI130138	135.7650	136.8771	136.3070	3.1279e-01	1.9030e+00
49	TAI130226	135.0366	136.0444	135.4765	1.9511e-01	1.9029e+00
50	TAI130314	139.6444	140.8558	140.2503	2.7957e-01	1.9033e+00
51	TAI130042	137.5347	138.3420	137.9464	1.9219e-01	1.9031e+00
52	TRR130090	101.6232	106.0650	103.8680	1.1681e+00	1.9008e+00
53	TSI0000001	47.1540	47.6967	47.4102	1.9794e-01	1.9003e+00
54	TSI0000002	117.1544	123.0704	121.5865	1.3068e+00	1.9018e+00
55	TSO0000001	45.9517	47.0409	46.5267	2.0877e-01	1.9004e+00
56	TSO0000002	54.6901	55.4448	55.1385	1.8763e-01	1.9001e+00
57	TAP020136	88.7452	89.6925	89.0695	2.0147e-01	1.9002e+00
58	TAP120312	120.6638	121.6845	121.1783	2.4222e-01	1.9018e+00
59	TAP130312	126.2829	127.1970	126.5760	2.1481e-01	1.9022e+00
60	EMPTY	1.4404	1.4502	1.4465	2.3261e-03	0.0000e+00
61	EMPTY	1.4502	1.4600	1.4549	1.6972e-03	0.0000e+00
62	EMPTY	1.4600	1.4648	1.4625	2.4642e-03	0.0000e+00
63	EMPTY	1.4697	1.4746	1.4733	2.1635e-03	0.0000e+00
64	EMPTY	0.7617	0.7666	0.7661	1.4797e-03	0.0000e+00
65	EMPTY	0.7813	0.7861	0.7842	2.4164e-03	0.0000e+00
66	EMPTY	0.7959	0.8008	0.7970	2.0432e-03	0.0000e+00
67	EMPTY	0.8105	0.8154	0.8143	2.1065e-03	0.0000e+00
68	EMPTY	0.8203	0.8252	0.8251	6.9053e-04	0.0000e+00
69	EMPTY	0.8398	0.8447	0.8408	1.9730e-03	0.0000e+00
70	EMPTY	0.8545	0.8594	0.8546	6.9053e-04	0.0000e+00
71	EMPTY	0.8740	0.8789	0.8757	2.3365e-03	0.0000e+00
72	EMPTY	0.8838	0.8887	0.8886	6.9053e-04	0.0000e+00
73	EMPTY	0.9033	0.9082	0.9034	6.9053e-04	0.0000e+00
74	EMPTY	0.9180	0.9229	0.9181	6.9053e-04	0.0000e+00
75	EMPTY	0.9277	0.9375	0.9326	9.8648e-04	0.0000e+00
76	EMPTY	0.9424	0.9473	0.9466	1.7115e-03	0.0000e+00
77	EMPTY	0.9619	0.9668	0.9621	9.6655e-04	0.0000e+00
78	EMPTY	0.9766	0.9863	0.9829	2.4662e-03	0.0000e+00
79	EMPTY	1.0010	1.0059	1.0057	9.6655e-04	0.0000e+00
80	PAN020136	8.5978	9.8948	9.1975	3.0789e-01	8.7030e-01
81	PAN050136	12.7753	14.3012	13.4253	3.0643e-01	1.6803e+00
82	PAN070136	8.6583	9.4212	8.9985	1.6616e-01	8.7029e-01
83	PAN080136	3.9967	4.6834	4.3523	1.3491e-01	8.7007e-01
84	PAN090136	3.6828	4.1406	3.9148	1.0220e-01	8.7006e-01
85	PAN100136	4.1391	4.4443	4.2887	9.8648e-02	8.7007e-01
86	PAN105136	1.1057	1.8686	1.4597	1.6001e-01	8.7001e-01
87	PAN110136	3.4428	3.9769	3.7022	1.4541e-01	8.7005e-01
88	PAN115136	1.2333	1.7674	1.5156	1.1248e-01	8.7001e-01
89	PAN120136	1.7336	2.1914	1.9411	1.0112e-01	8.7001e-01
90	PAN125136	1.9567	2.3381	2.1810	7.2967e-02	8.7002e-01
91	PAN130136	1.4811	1.9389	1.6993	1.1840e-01	8.7001e-01
92	PAN120048	2.0175	2.5516	2.2601	1.2775e-01	8.7002e-01
93	PAN130048	5.7722	6.2299	6.0239	1.1560e-01	8.7013e-01
94	PAN120224	3.6256	4.1597	3.8804	9.7008e-02	8.7005e-01
95	PAN130224	6.3164	6.7742	6.5544	9.7045e-02	8.7015e-01
96	PAN120312	3.5037	3.9615	3.8059	1.1111e-01	8.7005e-01
97	PAN130312	5.2087	5.6665	5.4010	1.1141e-01	8.7010e-01
98	PAB0000136	39.6730	39.9935	39.8296	7.6872e-02	5.8849e-01
99	PAB100136	38.1061	38.2892	38.1720	4.9940e-02	5.8780e-01
100	PAB125136	37.7786	37.9159	37.8472	4.1617e-02	5.8767e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.3279	39.9383	39.6868	1.5677e-01	7.5653e-01
102	PRV000001	19.7263	19.9704	19.7849	6.6358e-02	7.5163e-01
103	PSR000001	37.1026	37.2247	37.1465	5.9189e-02	7.5573e-01
104	PFH000001	29.6930	30.7916	30.2826	2.3986e-01	5.0570e-01
105	PAN000136	53.6114	60.9356	56.8890	1.3853e+00	4.9221e+00
106	PFH000002	27.5792	27.5792	27.5792	3.8534e-06	2.1155e-01
107	EMPTY	0.0049	0.0049	0.0049	0.0000e+00	0.0000e+00
108	EMPTY	-8.8867	-8.1104	-8.5258	1.8955e-01	0.0000e+00
109	EMPTY	0.0000	0.0098	0.0052	1.5314e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	102.3550	103.3316	102.5855	1.5124e-01	1.0173e+00
113	VPW000002	119.5650	120.1510	119.8267	1.0885e-01	1.0831e+00
114	VPW000003	147.2581	147.6487	147.4769	1.0168e-01	1.1996e+00
115	VPW000004	104.9429	105.5288	105.2671	1.4012e-01	1.0271e+00
116	VPW000005	139.7498	140.1405	139.9608	1.2378e-01	1.1667e+00
117	VPW000006	146.4506	146.8412	146.7124	1.0885e-01	1.1962e+00
118	IPW000001	559.4966	565.3536	561.6830	1.5092e+00	9.2358e+00
119	IPW000002	1293.4667	1303.2230	1298.6575	2.3192e+00	1.3072e+01
120	IPW000003	1322.4749	1328.3248	1324.8933	1.3395e+00	1.3235e+01
121	IPW000004	382.9346	384.8877	383.7746	6.2421e-01	3.6321e+00
122	IPW000005	254.4161	255.3925	254.8164	3.3725e-01	2.8377e+00
123	IPW000006	266.5734	268.0382	267.2178	3.7486e-01	2.9080e+00
124	EMPTY	-0.0244	-0.0146	-0.0194	2.5131e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0140	2.9611e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0098	-0.0146	3.1195e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0170	3.5895e-03	0.0000e+00
128	IHT000001	132.0876	134.4313	133.3649	4.9632e-01	4.3115e+00
129	IHT000002	132.6022	134.7506	133.7505	4.5273e-01	4.3126e+00
130	IHT000003	132.0012	133.9543	132.8371	4.3052e-01	4.3098e+00
131	IHT000004	132.6698	135.0135	133.5604	4.6044e-01	4.3121e+00
132	IHT000005	130.2283	132.3768	131.0956	4.6548e-01	4.3045e+00
133	IHT000006	126.2883	128.2415	127.2218	4.5897e-01	4.2928e+00
134	IHT000007	130.7843	132.7374	131.7842	4.8269e-01	4.3066e+00
135	IHT000008	130.8105	132.7637	131.8496	5.0754e-01	4.3068e+00
136	IHT000009	131.5017	133.6501	132.7204	5.3896e-01	4.3095e+00
137	IHT000010	130.7167	132.8651	131.6268	5.7671e-01	4.3061e+00
138	IHT000011	134.9421	137.2859	135.9071	5.2853e-01	4.3194e+00
139	IHT000012	128.8386	130.7917	129.7372	4.8488e-01	4.3004e+00
140	IHT000013	92.2776	94.2308	93.2112	4.8051e-01	4.2046e+00
141	IHT000014	128.2189	130.5627	129.3673	4.6629e-01	4.2993e+00
142	IHT000015	96.3079	98.2610	97.1594	4.9246e-01	4.2135e+00
143	IHT000016	89.4343	91.3875	90.3601	4.6490e-01	4.1984e+00
144	IHT000017	106.6406	109.1797	107.9219	5.9472e-01	4.2397e+00
145	IHT000018	108.2219	110.5657	109.4289	5.7003e-01	4.2435e+00
146	IHT000019	103.7673	106.6970	104.8845	4.9448e-01	4.2320e+00
147	IHT000020	106.5956	109.3299	107.8026	4.7628e-01	4.2394e+00
148	IHT000021	-2.5653	0.7550	-1.3075	5.8814e-01	4.1000e+00
149	IHT000022	93.1678	95.9022	94.2459	4.7881e-01	4.2069e+00
150	IHT000023	105.9946	108.5336	107.0337	4.8075e-01	4.2374e+00
151	IHT000024	71.4693	73.8131	72.4771	4.6915e-01	4.1636e+00
152	IHT000025	103.7748	106.1185	104.8491	5.1637e-01	4.2319e+00
153	IHT000026	104.8715	107.9965	106.1724	5.0780e-01	4.2352e+00
154	IHT000027	90.2457	93.3707	91.4956	5.6082e-01	4.2009e+00
155	IHT000028	92.1950	95.1247	93.5466	6.0982e-01	4.2054e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.6490	108.3834	106.8052	6.0469e-01	4.2368e+00
157	IHT000030	107.8651	110.4042	108.8690	5.8529e-01	4.2421e+00
158	IHT000031	106.9561	109.2999	107.8077	5.9681e-01	4.2394e+00
159	IHT000032	108.2144	110.5582	108.9800	5.6750e-01	4.2424e+00
160	IHT000033	108.0003	110.3440	108.9300	5.6711e-01	4.2422e+00
161	IHT000034	94.3848	96.9238	95.5527	5.5030e-01	4.2099e+00
162	IHT000035	124.7897	127.3287	125.7583	5.4528e-01	4.2885e+00
163	IHT000036	93.0025	95.7369	94.0025	5.4909e-01	4.2064e+00

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Velocity 1 - 7.9519 (ft/sec) (+/- 3.0952 %)
 Velocity 2 - 7.9955 (ft/sec) (+/- 1.9117 %)
 Pressure drop - -2.8185 (psi)
 Tsat in - 267.8660 (deg F) Tsat out - 271.6735 (deg F)
 Phi inner - 101.0085 (kBtu/hr-ft2) (+/- 1.4118 %)
 Phi outer - 101.4659 (kBtu/hr-ft2) (+/- 1.6181 %)
 D inner - 0.1962 (ft) D outer - 0.2413 (ft) D hyd - 0.0389 (ft)
 L inner - 12.8550 (ft) L outer - 12.8070 (ft) A flow - 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	73.2000	73.8390	73.4812	1.8972e-01	1.9000e+00
1	TRF0000002	73.6439	74.0674	73.8048	1.0958e-01	1.9000e+00
2	TFH0000001	84.9861	85.8261	85.4063	2.0234e-01	1.9002e+00
3	FIN0000001	85.2052	85.8370	85.4918	1.6751e-01	1.9002e+00
4	WV0000001	84.6115	85.5551	85.1184	2.0884e-01	1.9002e+00
5	TSR0000001	110.7483	111.6721	111.2496	2.1801e-01	1.9011e+00
6	TAO020136	144.4151	145.7214	145.0462	2.4197e-01	1.9038e+00
7	TAO050136	150.8282	151.7240	151.3381	2.0554e-01	1.9045e+00
8	TAO070136	150.5458	151.6478	151.1549	2.4444e-01	1.9044e+00
9	TAO080136	171.5366	172.1249	171.8505	1.7600e-01	1.9070e+00
10	TAO090136	171.5476	172.4326	171.9410	1.8737e-01	1.9070e+00
11	TAO100136	166.7539	167.7408	167.2789	2.1501e-01	1.9064e+00
12	TAO105136	169.5777	170.5643	170.1462	2.2682e-01	1.9067e+00
13	TAO110136	177.0146	178.0848	177.5709	2.1825e-01	1.9078e+00
14	TAO115136	177.0960	178.3733	177.7955	2.7050e-01	1.9078e+00
15	TAO120136	185.4664	186.2430	185.8354	1.8881e-01	1.9090e+00
16	TAO125136	178.5814	179.5591	179.0939	2.5789e-01	1.9080e+00
17	TAO130136	173.6399	174.3223	173.9321	1.7629e-01	1.9073e+00
18	TAO120048	188.4020	189.2772	188.9425	1.9057e-01	1.9095e+00
19	TAO130048	180.1819	180.8636	180.4853	1.6096e-01	1.9082e+00
20	TAO120224	186.1630	187.1369	186.5993	2.0085e-01	1.9091e+00
21	TAO130224	172.0752	172.8592	172.4555	1.6268e-01	1.9071e+00
22	TAO120312	182.0982	182.7824	182.4150	1.6934e-01	1.9085e+00
23	TAO130312	182.0569	182.6431	182.4162	1.4147e-01	1.9085e+00
24	TRT020000	140.6958	141.8062	141.3340	2.4329e-01	1.9034e+00
25	TRT070000	168.9249	169.8163	169.3170	1.0438e-01	1.9066e+00
26	TRT100000	181.8100	182.7850	182.2588	1.6832e-01	1.9085e+00
27	TRT120000	184.4854	185.3617	184.9333	2.1470e-01	1.9089e+00
28	TRT125000	191.7731	192.6422	192.1633	1.9599e-01	1.9100e+00
29	TRT130000	183.9298	184.6115	184.1950	1.5751e-01	1.9088e+00
30	EMPTY	39.1464	39.8352	39.5092	2.1300e-01	1.9011e+00
31	TAF050136	108.8034	110.1407	109.4334	2.9068e-01	1.9010e+00
32	TAF070136	118.2039	119.4268	118.8317	2.8432e-01	1.9016e+00
33	TAF080136	154.6413	159.6220	173.1948	1.2110e+01	1.9072e+00
34	TAF090136	126.8508	127.9683	127.2819	2.8775e-01	1.9022e+00
35	TAF100136	130.3548	131.6753	130.9723	2.6665e-01	1.9025e+00
36	TAF105136	132.5229	133.7318	133.0110	2.6848e-01	1.9027e+00
37	TAF110136	147.6139	148.9118	148.0896	2.8283e-01	1.9041e+00
38	TAF115136	137.9803	138.9872	138.5769	2.3357e-01	1.9032e+00
39	TAF120136	159.3453	164.3794	161.1629	1.2824e+00	1.9056e+00
40	TAF125136	142.7917	144.0913	143.5191	3.2410e-01	1.9036e+00
41	TAF130136	145.1702	145.9719	145.5713	1.9205e-01	1.9038e+00
42	TAF120048	148.5661	149.7750	149.1788	2.9878e-01	1.9042e+00
43	TAF130048	153.3138	154.4095	153.8041	2.6829e-01	1.9047e+00
44	TAF120224	142.4190	143.4234	142.9050	2.5394e-01	1.9036e+00
45	TAF130224	146.2281	147.1345	146.6917	1.8188e-01	1.9040e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	38.0756	2.1089e-01	1.9010e+00
47	EMPTY	39.1464	40.0646	39.5001	1.6856e-01	1.9011e+00
48	TAI130138	171.3676	172.9425	171.9347	3.4130e-01	1.9070e+00
49	TAI130226	170.6980	171.6806	171.1893	2.0707e-01	1.9069e+00
50	TAI130314	178.1699	179.1510	178.7192	2.3037e-01	1.9079e+00
51	TAI130042	174.8653	175.7493	175.2740	1.8968e-01	1.9075e+00
52	TRR130090	113.9800	117.9705	115.6313	9.9436e-01	1.9014e+00
53	TSI0000001	47.3716	48.1299	47.8001	1.9451e-01	1.9003e+00
54	TSI0000002	116.3364	124.5957	122.1560	2.3379e+00	1.9018e+00
55	TSO0000001	46.0600	47.1489	46.6785	2.4637e-01	1.9004e+00
56	TSO0000002	57.4852	58.3449	57.9324	2.1967e-01	1.9001e+00
57	TAF020136	92.2170	93.5810	92.8968	2.7000e-01	1.9004e+00
58	TAF120312	149.0365	150.3350	149.6639	2.9103e-01	1.9043e+00
59	TAF130312	158.1566	159.2463	158.7185	2.7040e-01	1.9053e+00
60	EMPTY	2.2168	2.2266	2.2197	2.7902e-03	0.0000e+00
61	EMPTY	2.2217	2.2266	2.2225	1.8082e-03	0.0000e+00
62	EMPTY	2.2217	2.2266	2.2251	2.2603e-03	0.0000e+00
63	EMPTY	2.2266	2.2363	2.2314	9.8648e-04	0.0000e+00
64	EMPTY	1.0938	1.0986	1.0971	2.3008e-03	0.0000e+00
65	EMPTY	1.1133	1.1182	1.1134	6.9053e-04	0.0000e+00
66	EMPTY	1.1230	1.1279	1.1248	2.3675e-03	0.0000e+00
67	EMPTY	1.1328	1.1426	1.1378	1.2041e-03	0.0000e+00
68	EMPTY	1.1475	1.1523	1.1478	1.1714e-03	0.0000e+00
69	EMPTY	1.1621	1.1670	1.1626	1.4797e-03	0.0000e+00
70	EMPTY	1.1719	1.1768	1.1748	2.4164e-03	0.0000e+00
71	EMPTY	1.1914	1.1963	1.1950	2.1635e-03	0.0000e+00
72	EMPTY	1.2012	1.2109	1.2056	1.7784e-03	0.0000e+00
73	EMPTY	1.2158	1.2207	1.2202	1.4797e-03	0.0000e+00
74	EMPTY	1.2305	1.2354	1.2306	6.9053e-04	0.0000e+00
75	EMPTY	1.2402	1.2451	1.2450	6.9053e-04	0.0000e+00
76	EMPTY	1.2500	1.2549	1.2547	9.6655e-04	0.0000e+00
77	EMPTY	1.2646	1.2695	1.2694	6.9053e-04	0.0000e+00
78	EMPTY	1.2842	1.2891	1.2890	6.9053e-04	0.0000e+00
79	EMPTY	1.3086	1.3135	1.3088	9.6655e-04	0.0000e+00
80	PAN020136	-8.7972	-7.5765	-8.2860	2.1866e-01	8.7025e-01
81	PAN050136	-18.9630	-18.3526	-18.6822	1.4577e-01	1.6806e+00
82	PAN070136	-12.7041	-12.1700	-12.4660	1.1289e-01	8.7056e-01
83	PAN080136	-6.9133	-5.8452	-6.6417	2.0689e-01	8.7016e-01
84	PAN090136	-6.8457	-6.1591	-6.4643	1.4377e-01	8.7015e-01
85	PAN100136	-6.0080	-5.7028	-5.8798	8.3633e-02	8.7012e-01
86	PAN105136	-3.3957	-3.0905	-3.2461	7.7007e-02	8.7004e-01
87	PAN110136	-2.8133	-2.5081	-2.6637	7.0567e-02	8.7003e-01
88	PAN115136	-4.1073	-3.1154	-3.7350	2.7985e-01	8.7005e-01
89	PAN120136	-4.2936	-3.1492	-3.5704	2.8306e-01	8.7005e-01
90	PAN125136	-2.7736	-1.9343	-2.4348	1.7381e-01	8.7002e-01
91	PAN130136	-3.7068	-3.0965	-3.3635	1.5122e-01	8.7004e-01
92	PAN120048	-7.4430	-7.1378	-7.2843	7.3664e-02	8.7019e-01
93	PAN130048	-5.8245	-5.4430	-5.6750	8.0033e-02	8.7012e-01
94	PAN120224	-6.8267	-6.5215	-6.6756	8.0815e-02	8.7016e-01
95	PAN130224	-5.1277	-4.8225	-4.9934	7.6387e-02	8.7009e-01
96	PAN120312	-6.2619	-5.9567	-6.1230	7.5022e-02	8.7013e-01
97	PAN130312	-5.9302	-5.7013	-5.8508	6.7116e-02	8.7012e-01
98	PAB000136	40.1308	40.5886	40.3350	9.0240e-02	5.8870e-01
99	PAB100136	42.3175	42.4548	42.3770	4.1617e-02	5.8960e-01
100	PAB125136	42.9055	43.0886	42.9815	4.2992e-02	5.8987e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.8162	40.5486	40.2190	1.5451e-01	7.5671e-01
102	PRV000001	19.7263	19.8484	19.7605	5.5366e-02	7.5163e-01
103	PSR000001	42.9620	43.2061	43.0254	6.6358e-02	7.5767e-01
104	PFH000001	9.2768	9.8261	9.5972	1.1439e-01	5.0058e-01
105	PAN000136	-80.5133	-75.4779	-78.0323	1.0629e+00	4.9239e+00
106	PFH000002	9.5745	9.8094	9.7040	6.0836e-02	2.0147e-01
107	EMPTY	-0.0049	0.0049	0.0016	3.1874e-03	0.0000e+00
108	EMPTY	-9.0820	-8.2764	-8.7218	1.9621e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0039	1.9730e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0002	9.6655e-04	0.0000e+00
112	VPW000001	102.1597	102.9410	102.6245	1.8879e-01	1.0175e+00
113	VPW000002	119.9557	120.5416	120.1001	1.6178e-01	1.9841e+00
114	VPW000003	147.0628	148.0394	147.5551	1.9022e-01	1.2000e+00
115	VPW000004	104.9429	105.7241	105.3569	1.7487e-01	1.0275e+00
116	VPW000005	139.7498	140.5311	140.0233	1.9331e-01	1.1670e+00
117	VPW000006	146.4506	147.4271	146.7632	1.8082e-01	1.1965e+00
118	IPW000001	549.7349	559.4966	555.2014	1.9323e+00	9.2113e+00
119	IPW000002	1283.7103	1299.3206	1293.8569	3.2983e+00	1.3042e+01
120	IPW000003	1318.5748	1328.3248	1323.4113	2.0936e+00	1.3226e+01
121	IPW000004	384.8877	387.8174	386.0793	6.6292e-01	3.6473e+00
122	IPW000005	253.9278	256.3690	254.7188	5.2092e-01	2.8371e+00
123	IPW000006	266.5734	268.5265	267.7256	4.6017e-01	2.9109e+00
124	EMPTY	-0.0293	-0.0146	-0.0201	3.3656e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0131	2.8659e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0155	3.5141e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0146	-0.0169	2.4583e-03	0.0000e+00
128	IHT000001	132.0876	133.8454	132.9938	5.0031e-01	4.3103e+00
129	IHT000002	132.6022	134.3600	133.3833	4.7186e-01	4.3115e+00
130	IHT000003	131.2199	133.3684	132.4543	4.5239e-01	4.3086e+00
131	IHT000004	131.6932	134.2323	133.2167	5.1297e-01	4.3110e+00
132	IHT000005	129.2518	131.7908	130.7792	4.9864e-01	4.3035e+00
133	IHT000006	125.5071	127.6555	126.8742	4.5506e-01	4.2918e+00
134	IHT000007	130.1983	132.3468	131.4756	4.4853e-01	4.3056e+00
135	IHT000008	130.2246	132.3730	131.5058	4.7213e-01	4.3057e+00
136	IHT000009	131.3064	133.4548	132.3766	5.1333e-01	4.3084e+00
137	IHT000010	130.3260	132.6698	131.4667	5.4155e-01	4.3056e+00
138	IHT000011	134.5515	136.8953	135.7508	5.4820e-01	4.3189e+00
139	IHT000012	128.4480	130.7917	129.6122	5.1894e-01	4.3000e+00
140	IHT000013	92.0823	94.4261	93.1253	5.0780e-01	4.2044e+00
141	IHT000014	128.2189	130.3674	129.2423	4.9215e-01	4.2989e+00
142	IHT000015	96.1125	97.8704	97.0500	4.8327e-01	4.2133e+00
143	IHT000016	89.0437	91.1921	90.1882	4.7843e-01	4.1980e+00
144	IHT000017	106.8359	109.1797	107.7930	5.4854e-01	4.2393e+00
145	IHT000018	108.0266	110.7610	109.1789	6.2795e-01	4.2429e+00
146	IHT000019	103.5720	105.9157	104.8532	4.5534e-01	4.2320e+00
147	IHT000020	106.5956	108.7440	107.7752	4.5328e-01	4.2393e+00
148	IHT000021	-2.3700	0.1690	-1.1474	5.7833e-01	4.1000e+00
149	IHT000022	92.9725	95.3163	94.0467	5.0571e-01	4.2065e+00
150	IHT000023	105.9946	107.9477	106.9829	4.6086e-01	4.2373e+00
151	IHT000024	71.2740	73.0318	72.3013	4.5474e-01	4.1633e+00
152	IHT000025	103.5795	105.7279	104.6772	4.5488e-01	4.2315e+00
153	IHT000026	104.8715	107.2153	106.1411	4.8848e-01	4.2352e+00
154	IHT000027	89.8550	92.3941	91.2964	4.8148e-01	4.2004e+00
155	IHT000028	92.3903	94.7341	93.2224	6.1865e-01	4.2046e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.6490	108.3834	106.6880	6.1313e-01	4.2365e+00
157	IHT000030	107.4745	110.2088	108.6151	5.8041e-01	4.2414e+00
158	IHT000031	106.5655	109.1046	107.5342	5.7987e-01	4.2387e+00
159	IHT000032	107.8238	110.1675	108.7691	5.5152e-01	4.2418e+00
160	IHT000033	107.8050	110.1487	108.7230	5.5278e-01	4.2417e+00
161	IHT000034	94.3848	96.5332	95.4199	4.6059e-01	4.2096e+00
162	IHT000035	124.5943	126.5475	125.5435	4.4118e-01	4.2879e+00
163	IHT000036	93.0025	94.7604	93.9048	3.8640e-01	4.2062e+00

AIM

Association for Information and Image Management

1100 Wayne Avenue, Suite 1100
Silver Spring, Maryland 20910
301/587-8202

Centimeter

Inches

MANUFACTURED TO AIM STANDARDS
BY APPLIED IMAGE, INC.

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Velocity 1 = 6.0147 (ft/sec) (+/- 4.8838 %)
 Velocity 2 = 6.0677 (ft/sec) (+/- 2.3298 %)
 Pressure drop = -3.8529 (psi)
 Tsat in = 267.6408 (deg F) Tsat out = 272.8584 (deg F)
 Phi inner = 101.5045 (kBtu/hr-ft2) (+/- 1.4105 %)
 Phi outer = 101.2200 (kBtu/hr-ft2) (+/- 1.6182 %)
 D inner = 0.1962 (ft) D outer = 0.2413 (ft) D hyd = 0.0389 (ft)
 L inner = 12.8550 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	73.4130	74.0519	73.8517	1.9435e-01	1.9000e+00
1	TRF0000002	73.8557	74.2791	74.1351	1.2426e-01	1.9000e+00
2	TFM0000001	86.2460	87.3987	86.8557	2.3073e-01	1.9002e+00
3	TIN0000001	86.5734	87.2039	86.8609	1.5283e-01	1.9002e+00
4	TRV0000001	86.4945	87.2284	86.8412	1.8362e-01	1.9002e+00
5	TSR0000001	123.5948	124.5089	124.1084	2.4226e-01	1.9020e+00
6	TAO020136	160.1075	161.2992	160.7014	2.5348e-01	1.9055e+00
7	TAO050136	165.4500	166.3357	165.9201	2.0889e-01	1.9062e+00
8	TAO070136	164.9088	165.9994	165.3947	2.3121e-01	1.9061e+00
9	TAO080136	184.6734	185.5471	185.2149	1.9337e-01	1.9089e+00
10	TAO090136	191.0494	191.8251	191.4199	1.7592e-01	1.9099e+00
11	TAO100136	187.8879	188.9567	188.3759	2.3348e-01	1.9094e+00
12	TAO105136	193.3506	194.6116	193.8378	2.5511e-01	1.9103e+00
13	TAO110136	198.5843	199.5417	199.0796	2.2326e-01	1.9112e+00
14	TAO115136	197.1134	198.2767	197.7240	2.9518e-01	1.9110e+00
15	TAO120136	206.1783	207.1324	206.7375	2.3069e-01	1.9126e+00
16	TAO125136	201.5506	202.7050	202.1875	2.8683e-01	1.9117e+00
17	TAO130136	197.8043	198.5717	198.1832	1.8305e-01	1.9110e+00
18	TAO120048	214.2010	214.9657	214.5321	2.0802e-01	1.9140e+00
19	TAO130048	207.0963	208.0544	207.6083	1.7804e-01	1.9127e+00
20	TAO120224	206.2654	207.1297	206.6132	1.9776e-01	1.9125e+00
21	TAO130224	195.8583	196.5298	196.2312	1.8363e-01	1.9107e+00
22	TAO120312	194.1647	195.0364	194.6624	2.2410e-01	1.9104e+00
23	TAO130312	207.7286	208.3995	208.0488	1.7606e-01	1.9128e+00
24	TRT020000	159.0479	160.0437	159.5358	2.4239e-01	1.9054e+00
25	TRT070000	187.6529	188.4344	188.0848	1.7557e-01	1.9094e+00
26	TRT100000	206.4325	207.5830	206.9680	2.2683e-01	1.9126e+00
27	TRT120000	210.5338	211.8730	211.2857	2.4365e-01	1.9134e+00
28	TRT125000	218.4960	219.2561	218.8822	1.8121e-01	1.9149e+00
29	TRT130000	209.7479	210.3230	210.0263	1.6104e-01	1.9132e+00
30	EMPTY	39.1464	39.8352	39.6240	1.7254e-01	1.9011e+00
31	TAF050136	116.9004	118.2299	117.5004	3.3857e-01	1.9015e+00
32	TAF070136	128.7543	130.1710	129.4855	3.0446e-01	1.9024e+00
33	TAF080136	183.6788	185.1299	184.3337	2.8086e-01	1.9008e+00
34	TAF090136	138.5782	139.5847	139.2039	2.8496e-01	1.9032e+00
35	TAF100136	145.6110	146.9164	146.2398	3.2944e-01	1.9039e+00
36	TAF105136	148.4981	149.3939	148.9341	2.5230e-01	1.9042e+00
37	TAF110136	166.1432	167.3251	166.8032	2.8784e-01	1.9063e+00
38	TAF115136	156.1797	157.5700	156.8693	3.6534e-01	1.9051e+00
39	TAF120136	180.9302	183.1688	182.2364	5.1311e-01	1.9085e+00
40	TAF125136	162.3067	164.1765	163.0453	3.7038e-01	1.9058e+00
41	TAF130136	165.1404	166.1269	165.7538	2.1497e-01	1.9062e+00
42	TAF120048	169.7655	171.2530	170.5446	3.6543e-01	1.9068e+00
43	TAF130048	176.3189	178.1791	177.3511	3.6375e-01	1.9077e+00
44	TAF120224	160.7881	162.0771	161.3773	3.0473e-01	1.9056e+00
45	TAF130224	166.3401	167.1346	166.7473	2.2424e-01	1.9063e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.0756	2.1594e-01	1.9010e+00
47	EMPTY	39.1464	39.6057	39.5644	1.0045e-01	1.9011e+00
48	TAI130138	198.6673	199.9227	199.2990	3.1827e-01	1.9112e+00
49	TAI130226	197.7945	198.9500	198.5252	2.3263e-01	1.9111e+00
50	TAI130314	205.9769	207.1319	206.5410	2.5879e-01	1.9125e+00
51	TAI130042	202.9707	204.1261	203.5581	2.4857e-01	1.9120e+00
52	TRR130090	124.6976	127.2366	126.1988	5.3684e-01	1.9021e+00
53	TSI0000001	47.9131	48.4549	48.1884	1.5190e-01	1.9003e+00
54	TSI0000002	113.9839	123.7838	118.7423	2.0370e+00	1.9016e+00
55	TSO0000001	46.3856	47.0387	46.7579	1.9057e-01	1.9004e+00
56	TSO0000002	59.7387	60.7033	60.1614	2.1389e-01	1.9001e+00
57	TAF020136	96.3067	97.4565	96.9149	2.8558e-01	1.9005e+00
58	TAF120312	168.6742	170.7415	169.7358	4.1923e-01	1.9067e+00
59	TAF130312	180.3625	181.9212	181.3233	3.2048e-01	1.9083e+00
60	EMPTY	2.7637	2.7734	2.7690	3.5908e-03	0.0000e+00
61	EMPTY	2.7637	2.7734	2.7680	2.3428e-03	0.0000e+00
62	EMPTY	2.7637	2.7686	2.7669	2.3365e-03	0.0000e+00
63	EMPTY	2.7686	2.7734	2.7705	2.4164e-03	0.0000e+00
64	EMPTY	1.3330	1.3330	1.3330	0.0000e+00	0.0000e+00
65	EMPTY	1.3477	1.3525	1.3480	1.3381e-03	0.0000e+00
66	EMPTY	1.3574	1.3623	1.3595	2.4344e-03	0.0000e+00
67	EMPTY	1.3721	1.3721	1.3721	0.0000e+00	0.0000e+00
68	EMPTY	1.3770	1.3818	1.3815	1.1714e-03	0.0000e+00
69	EMPTY	1.3916	1.3965	1.3931	2.2603e-03	0.0000e+00
70	EMPTY	1.4014	1.4111	1.4046	2.5362e-03	0.0000e+00
71	EMPTY	1.4209	1.4258	1.4217	1.8082e-03	0.0000e+00
72	EMPTY	1.4307	1.4355	1.4308	6.9053e-04	0.0000e+00
73	EMPTY	1.4453	1.4502	1.4456	1.1714e-03	0.0000e+00
74	EMPTY	1.4551	1.4551	1.4551	0.0000e+00	0.0000e+00
75	EMPTY	1.4648	1.4697	1.4691	1.6028e-03	0.0000e+00
76	EMPTY	1.4746	1.4795	1.4793	9.6655e-04	0.0000e+00
77	EMPTY	1.4893	1.4941	1.4923	2.3941e-03	0.0000e+00
78	EMPTY	1.5088	1.5137	1.5091	1.1714e-03	0.0000e+00
79	EMPTY	1.5283	1.5332	1.5284	6.9053e-04	0.0000e+00
80	PAN020136	-12.6119	-11.7727	-12.1313	1.7387e-01	8.7053e-01
81	PAN050136	-25.8294	-25.2191	-25.5273	1.3954e-01	1.6812e+00
82	PAN070136	-17.1291	-16.7476	-16.9735	9.6209e-02	8.7103e-01
83	PAN080136	-8.7444	-8.3629	-8.5460	8.7193e-02	8.7026e-01
84	PAN090136	-8.9820	-8.7531	-8.8874	6.0801e-02	8.7028e-01
85	PAN100136	-8.3731	-8.1442	-8.2846	5.1951e-02	8.7025e-01
86	PAN105136	-4.7690	-4.0823	-4.4867	1.9634e-01	8.7007e-01
87	PAN110136	-4.1103	-3.4236	-3.6937	1.6829e-01	8.7005e-01
88	PAN115136	-4.0310	-3.7258	-3.8982	7.5212e-02	8.7005e-01
89	PAN120136	-5.3617	-4.8277	-5.1252	1.2919e-01	8.7009e-01
90	PAN125136	-4.1469	-3.6128	-3.8630	1.1641e-01	8.7005e-01
91	PAN130136	-4.3172	-3.9357	-4.0837	9.1721e-02	8.7006e-01
92	PAN120048	-10.0369	-8.8925	-9.3610	3.5785e-01	8.7031e-01
93	PAN130048	-8.2659	-7.4267	-7.8845	3.0750e-01	8.7022e-01
94	PAN120224	-8.4288	-7.5133	-8.0229	2.7245e-01	8.7023e-01
95	PAN130224	-7.9506	-7.1876	-7.5111	2.1500e-01	8.7020e-01
96	PAN120312	-9.0085	-8.7033	-8.8711	8.7193e-02	8.7028e-01
97	PAN130312	-7.6849	-7.3798	-7.5018	8.5820e-02	8.7020e-01
98	PAB000136	40.0393	40.3139	40.1830	6.6696e-02	5.8864e-01
99	PAB100136	42.9126	43.0957	43.0225	4.5307e-02	5.8989e-01
100	PAB125136	43.7753	43.9584	43.8348	5.0865e-02	5.9026e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.9383	40.3045	40.1702	9.9415e-02	7.5669e-01
102	PRV0000001	19.8484	19.9704	19.8728	4.9324e-02	7.5164e-01
103	PSR0000001	44.0606	44.1827	44.1070	5.9853e-02	7.5806e-01
104	PFM0000001	5.2484	5.6146	5.4480	9.9073e-02	5.0019e-01
105	PAN000136	-108.4369	-105.2326	-106.6700	6.9214e-01	4.9272e+00
106	PFM0000002	5.4466	5.6144	5.5460	4.5965e-02	2.0048e-01
107	EMPTY	-0.0049	0.0000	-0.0044	1.4797e-03	0.0000e+00
108	EMPTY	-9.2188	-8.7305	-9.0272	1.0431e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0014	2.2146e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0005	1.4797e-03	0.0000e+00
112	VPW0000001	101.1832	101.7691	101.4917	1.1223e-01	1.0134e+00
113	VPW0000002	119.5650	120.3463	119.9751	1.8613e-01	1.0836e+00
114	VPW0000003	147.4534	148.4300	147.8558	2.3481e-01	1.2013e+00
115	VPW0000004	104.9429	106.1148	105.4429	2.7098e-01	1.0278e+00
116	VPW0000005	139.5545	141.3123	140.2694	3.2922e-01	1.1681e+00
117	VPW0000006	146.4506	147.8178	146.9624	2.5539e-01	1.1973e+00
118	IPW0000001	547.7825	553.6395	549.9301	1.5403e+00	9.1915e+00
119	IPW0000002	1291.5154	1303.2230	1298.7352	2.6810e+00	1.3072e+01
120	IPW0000003	1320.5249	1334.1749	1328.2080	3.0109e+00	1.3256e+01
121	IPW0000004	381.9580	387.8174	384.7121	1.1366e+00	3.6383e+00
122	IPW0000005	253.4396	257.3455	255.3535	8.4184e-01	2.8407e+00
123	IPW0000006	266.5734	269.5031	267.6670	5.9647e-01	2.9106e+00
124	EMPTY	-0.0293	-0.0195	-0.0229	2.6908e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0159	2.3778e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0146	-0.0188	2.4878e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0173	3.4470e-03	0.0000e+00
128	IHT0000001	131.8923	134.0407	132.9274	5.1637e-01	4.3101e+00
129	IHT0000002	132.4069	134.5553	133.3990	4.9259e-01	4.3116e+00
130	IHT0000003	131.8059	133.5637	132.5714	4.6994e-01	4.3090e+00
131	IHT0000004	132.4745	134.4276	133.2714	5.2026e-01	4.3112e+00
132	IHT0000005	130.0330	131.9862	130.8807	4.9064e-01	4.3038e+00
133	IHT0000006	126.0930	128.0461	126.9523	5.1599e-01	4.2920e+00
134	IHT0000007	130.5889	132.5421	131.5537	5.7237e-01	4.3059e+00
135	IHT0000008	130.4199	132.7637	131.5918	5.4534e-01	4.3060e+00
136	IHT0000009	131.5017	133.8454	132.4039	5.4803e-01	4.3085e+00
137	IHT0000010	130.3260	133.4510	131.4120	5.9472e-01	4.3055e+00
138	IHT0000011	134.7468	137.4812	135.5868	5.4712e-01	4.3184e+00
139	IHT0000012	128.6433	131.5730	129.4207	5.6288e-01	4.2994e+00
140	IHT0000013	91.8870	95.4026	92.9417	6.0875e-01	4.2040e+00
141	IHT0000014	128.0236	131.5392	129.0353	6.0963e-01	4.2983e+00
142	IHT0000015	95.7219	99.0422	96.8117	5.7736e-01	4.2127e+00
143	IHT0000016	88.0671	90.0203	88.9031	4.4824e-01	4.1953e+00
144	IHT0000017	106.0547	108.5938	106.8516	5.2916e-01	4.2369e+00
145	IHT0000018	107.8313	110.3703	109.1633	5.2451e-01	4.2428e+00
146	IHT0000019	103.9626	106.3063	104.9548	5.3502e-01	4.2322e+00
147	IHT0000020	106.7909	109.3299	107.7323	5.5340e-01	4.2392e+00
148	IHT0000021	-2.5653	0.5597	-1.5224	6.5389e-01	4.1000e+00
149	IHT0000022	91.9959	94.5350	92.8084	5.1954e-01	4.2037e+00
150	IHT0000023	105.9946	107.9477	106.8345	4.7882e-01	4.2369e+00
151	IHT0000024	71.2740	73.4225	72.1880	4.7913e-01	4.1631e+00
152	IHT0000025	103.7748	106.1185	104.6733	4.7021e-01	4.2315e+00
153	IHT0000026	105.2622	107.6059	106.0317	4.8070e-01	4.2349e+00
154	IHT0000027	89.4644	91.8082	90.1245	4.8310e-01	4.1979e+00
155	IHT0000028	90.8278	93.3669	92.1169	7.2006e-01	4.2022e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	105.2584	107.9928	106.6646	6.8345e-01	4.2365e+00
157	IHT0000030	107.2792	110.2088	108.5995	6.7261e-01	4.2414e+00
158	IHT0000031	106.1749	109.1046	107.4522	6.7105e-01	4.2385e+00
159	IHT0000032	107.2378	110.1675	108.5972	6.5073e-01	4.2414e+00
160	IHT0000033	107.2190	110.1487	108.5198	6.5270e-01	4.2412e+00
161	IHT0000034	93.9941	96.5332	95.0449	5.6344e-01	4.2087e+00
162	IHT0000035	124.2037	126.7428	125.2037	5.6996e-01	4.2869e+00
163	IHT0000036	92.8072	94.5650	93.6001	4.8232e-01	4.2055e+00

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Velocity 1 = 5.0255 (ft/sec) (+/- 6.8219 %)
 Velocity 2 = 5.0775 (ft/sec) (+/- 2.8690 %)
 Pressure drop = -4.2987 (psi)
 Tsat in = 267.9093 (deg F) Tsat out = 273.8554 (deg F)
 Phi inner = 102.0085 (kBtu/hr-ft2) (+/- 1.4092 %)
 Phi outer = 101.6040 (kBtu/hr-ft2) (+/- 1.6170 %)
 D inner = 0.1962 (ft) D outer = 0.2413 (ft) D hyd = 0.0389 (ft)
 L inner = 12.8550 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	73.8390	74.4776	74.1881	1.8123e-01	1.9000e+00
1	TRF0000002	74.2791	74.7024	74.4992	1.2064e-01	1.9000e+00
2	TFM0000001	87.0846	87.9234	87.3866	1.8549e-01	1.9002e+00
3	TIN0000001	87.0979	87.7286	87.3588	1.5636e-01	1.9002e+00
4	TRV0000001	87.1237	88.1706	87.6097	2.5346e-01	1.9002e+00
5	TSR0000001	127.6475	131.3854	129.9550	1.0177e+00	1.9024e+00
6	TAO020136	169.8119	170.7982	170.3760	2.5369e-01	1.9068e+00
7	TAO050136	177.7769	178.8500	178.3266	2.1735e-01	1.9079e+00
8	TAO070136	177.0598	178.2392	177.6695	2.8286e-01	1.9078e+00
9	TAO080136	200.1840	201.1447	200.5951	2.0371e-01	1.9115e+00
10	TAO090136	207.4219	208.1890	207.8819	1.7323e-01	1.9128e+00
11	TAO100136	205.5533	206.7052	206.1330	2.5870e-01	1.9124e+00
12	TAO105136	210.4242	212.5331	211.0804	4.0732e-01	1.9134e+00
13	TAO110136	217.4831	218.5242	218.1443	2.5651e-01	1.9147e+00
14	TAO115136	215.5207	217.0521	216.2561	3.3346e-01	1.9144e+00
15	TAO120136	224.6323	225.8552	225.1453	2.7081e-01	1.9161e+00
16	TAO125136	219.4249	222.6532	221.1155	6.3353e-01	1.9153e+00
17	TAO130136	217.6448	218.4021	218.0381	1.8267e-01	1.9147e+00
18	TAO120048	234.8683	235.6223	235.2790	1.9855e-01	1.9183e+00
19	TAO130048	228.5494	229.3058	228.8786	1.6995e-01	1.9169e+00
20	TAO120224	226.1956	227.6160	226.7149	2.6740e-01	1.9165e+00
21	TAO130224	216.1377	217.2759	216.6082	2.3225e-01	1.9144e+00
22	TAO120312	210.6416	211.4087	210.9870	1.8574e-01	1.9133e+00
23	TAO130312	229.7647	230.4260	230.0215	1.6871e-01	1.9172e+00
24	TRT020000	169.5654	170.4548	170.0081	2.2690e-01	1.9067e+00
25	TRT070000	203.6234	204.3975	204.0993	2.0375e-01	1.9121e+00
26	TRT100000	226.2209	227.1672	226.5616	2.3877e-01	1.9164e+00
27	TRT120000	231.9016	233.0339	232.5016	2.7409e-01	1.9177e+00
28	TRT125000	242.0634	243.0907	242.5411	2.3984e-01	1.9200e+00
29	TRT130000	231.9340	232.5009	232.1987	1.7049e-01	1.9176e+00
30	EMPTY	39.1464	40.0646	39.6102	2.4755e-01	1.9011e+00
31	TAF050136	122.8151	124.6451	123.6321	3.8656e-01	1.9019e+00
32	TAF070136	137.0151	138.4230	137.8516	3.0481e-01	1.9031e+00
33	TAF080136	199.0772	200.7065	199.7670	3.1270e-01	1.9113e+00
34	TAF090136	148.1050	149.4033	148.7406	2.7444e-01	1.9042e+00
35	TAF100136	157.3139	158.7071	157.9787	3.7428e-01	1.9052e+00
36	TAF105136	160.7503	162.6204	161.8166	4.0013e-01	1.9057e+00
37	TAF110136	181.8028	183.4570	182.4648	3.9080e-01	1.9085e+00
38	TAF115136	169.8188	171.6871	170.6095	3.9180e-01	1.9068e+00
39	TAF120136	198.6379	201.7131	199.5730	5.8702e-01	1.9113e+00
40	TAF125136	177.6629	180.5815	178.8467	6.4654e-01	1.9080e+00
41	TAF130136	180.0321	181.9045	181.2693	2.5258e-01	1.9083e+00
42	TAF120048	186.1408	188.0030	187.0544	3.5934e-01	1.9092e+00
43	TAF130048	194.2238	196.0610	195.1946	5.1038e-01	1.9105e+00
44	TAF120224	175.6818	177.8386	176.7054	4.9280e-01	1.9077e+00
45	TAF130224	182.3393	183.4190	182.8537	2.6624e-01	1.9086e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	38.0526	2.3021e-01	1.9010e+00
47	EMPTY	39.3761	39.8352	39.6194	7.1990e-02	1.9011e+00
48	TAI130138	218.5275	219.8614	219.2211	3.1343e-01	1.9149e+00
49	TAI130226	218.2442	219.3850	218.6895	2.6761e-01	1.9148e+00
50	TAI130314	227.4930	229.1064	228.3247	3.6707e-01	1.9168e+00
51	TAI130042	224.3926	225.5319	224.9318	2.9431e-01	1.9161e+00
52	TRR130090	135.8302	140.4577	138.5201	1.1159e+00	1.9032e+00
53	TSI0000001	47.5901	48.5643	48.0577	1.9004e-01	1.9003e+00
54	TSI0000002	107.3071	115.9301	111.4432	2.5170e+00	1.9012e+00
55	TSO0000001	46.0568	47.0369	46.5277	2.1148e-01	1.9004e+00
56	TSO0000002	61.2390	62.2029	61.6374	2.4005e-01	1.9000e+00
57	TAF020136	98.8157	100.3817	99.5294	3.4430e-01	1.9006e+00
58	TAF120312	185.9976	187.7483	186.7719	3.5578e-01	1.9092e+00
59	TAF130312	199.8241	201.4595	200.6398	3.8229e-01	1.9115e+00
60	EMPTY	3.2373	3.2520	3.2441	4.3000e-03	0.0000e+00
61	EMPTY	3.2275	3.2471	3.2391	3.9162e-03	0.0000e+00
62	EMPTY	3.2275	3.2422	3.2344	3.8206e-03	0.0000e+00
63	EMPTY	3.2275	3.2422	3.2345	4.0781e-03	0.0000e+00
64	EMPTY	1.5332	1.5430	1.5398	2.9197e-03	0.0000e+00
65	EMPTY	1.5479	1.5576	1.5539	2.7124e-03	0.0000e+00
66	EMPTY	1.5576	1.5674	1.5632	2.4184e-03	0.0000e+00
67	EMPTY	1.5723	1.5771	1.5737	2.2603e-03	0.0000e+00
68	EMPTY	1.5771	1.5869	1.5812	2.5515e-03	0.0000e+00
69	EMPTY	1.5918	1.5967	1.5929	2.0432e-03	0.0000e+00
70	EMPTY	1.6016	1.6064	1.6025	1.9730e-03	0.0000e+00
71	EMPTY	1.6162	1.6211	1.6190	2.4344e-03	0.0000e+00
72	EMPTY	1.6211	1.6309	1.6265	1.7784e-03	0.0000e+00
73	EMPTY	1.6357	1.6406	1.6396	1.9730e-03	0.0000e+00
74	EMPTY	1.6455	1.6504	1.6480	2.4642e-03	0.0000e+00
75	EMPTY	1.6553	1.6602	1.6599	1.1714e-03	0.0000e+00
76	EMPTY	1.6650	1.6699	1.6677	2.4583e-03	0.0000e+00
77	EMPTY	1.6797	1.6846	1.6805	1.8082e-03	0.0000e+00
78	EMPTY	1.6943	1.6992	1.6982	1.9730e-03	0.0000e+00
79	EMPTY	1.7139	1.7188	1.7161	2.4583e-03	0.0000e+00
80	PAN020136	-14.1378	-13.3748	-13.7517	1.5674e-01	8.7058e-01
81	PAN050136	-28.7286	-28.1182	-28.4326	1.5842e-01	1.6815e+00
82	PAN070136	-19.4179	-18.8076	-19.0746	1.6037e-01	8.7131e-01
83	PAN080136	-9.6599	-8.8970	-9.3059	2.0201e-01	8.7031e-01
84	PAN090136	-10.8130	-10.5841	-10.7215	7.8595e-02	8.7041e-01
85	PAN100136	-8.6783	-8.0679	-8.2815	1.3613e-01	8.7025e-01
86	PAN105136	-6.6000	-2.4801	-6.0293	9.9107e-01	8.7013e-01
87	PAN110136	-6.0176	-1.3637	-2.4852	1.3432e+00	8.7002e-01
88	PAN115136	-5.0991	-4.6413	-4.7649	1.1523e-01	8.7008e-01
89	PAN120136	-6.9639	-0.1738	-6.2498	1.6080e+00	8.7014e-01
90	PAN125136	-6.2831	2.7196	-4.8121	1.4787e+00	8.7008e-01
91	PAN130136	-5.6905	1.4048	-1.4714	1.3612e+00	8.7001e-01
92	PAN120048	-12.0206	-7.5192	-8.4851	1.0865e+00	8.7026e-01
93	PAN130048	-8.8763	-8.3422	-8.6504	1.0785e-01	8.7027e-01
94	PAN120224	-13.3116	-5.2245	-8.2030	2.2597e+00	8.7024e-01
95	PAN130224	-13.6726	-5.6618	-8.2252	1.5083e+00	8.7024e-01
96	PAN120312	-12.4417	-8.9322	-10.1574	1.0137e+00	8.7037e-01
97	PAN130312	-6.8457	-5.6250	-6.2735	3.2120e-01	8.7014e-01
98	PAB000136	40.2224	40.5428	40.3643	8.1809e-02	5.8871e-01
99	PAB100136	43.4619	43.5993	43.5434	3.3663e-02	5.9013e-01
100	PAB125136	44.0957	44.6908	44.5635	9.4445e-02	5.9060e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.9383	40.5486	40.2386	1.6398e-01	7.5672e-01
102	PRV0000001	19.7263	19.8484	19.7995	6.0409e-02	7.5163e-01
103	PSR0000001	44.6710	44.7930	44.7222	6.0861e-02	7.5829e-01
104	PFM0000001	3.6920	3.8751	3.7799	7.8387e-02	5.0009e-01
105	PAN000136	-120.7965	-117.1344	-119.0113	7.9152e-01	4.9290e+00
106	PFM0000002	3.8190	3.9029	3.8599	1.8617e-02	2.0023e-01
107	EMPTY	-0.0049	0.0049	-0.0035	2.4244e-03	0.0000e+00
108	EMPTY	-9.4434	-9.0869	-9.2490	8.9351e-02	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0019	2.3941e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0010	1.9730e-03	0.0000e+00
112	VPW0000001	100.7925	101.1832	100.9605	1.1844e-01	1.0115e+00
113	VPW0000002	119.7604	120.3463	120.0923	1.4363e-01	1.0841e+00
114	VPW0000003	147.6487	148.4300	147.8871	1.5926e-01	1.2014e+00
115	VPW0000004	105.3335	106.1148	105.7398	1.6193e-01	1.0289e+00
116	VPW0000005	140.1405	140.7264	140.4491	1.2534e-01	1.1689e+00
117	VPW0000006	147.0365	147.4271	147.2163	1.2992e-01	1.1985e+00
118	IPW0000001	536.0684	541.9255	539.5827	1.9323e+00	9.1532e+00
119	IPW0000002	1307.1256	1322.7357	1315.9453	2.9825e+00	1.3179e+01
120	IPW0000003	1330.2749	1338.0748	1334.6433	1.9524e+00	1.3296e+01
121	IPW0000004	382.9346	387.8174	384.7218	1.5365e+00	3.6383e+00
122	IPW0000005	254.9043	256.3690	255.7051	3.3826e-01	2.8427e+00
123	IPW0000006	267.5499	269.5031	268.4092	3.8913e-01	2.9148e+00
124	EMPTY	-0.0293	-0.0146	-0.0223	4.3180e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0138	2.5515e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0185	3.8574e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0171	3.5908e-03	0.0000e+00
128	IHT0000001	131.6970	134.2360	132.7125	5.6772e-01	4.3094e+00
129	IHT0000002	132.4069	134.5553	133.1568	5.0588e-01	4.3108e+00
130	IHT0000003	131.6106	133.7590	132.3761	5.3210e-01	4.3084e+00
131	IHT0000004	132.0838	134.4276	132.9745	5.5265e-01	4.3102e+00
132	IHT0000005	129.6424	131.7908	130.5526	5.0933e-01	4.3028e+00
133	IHT0000006	125.7024	127.8508	126.6867	5.0372e-01	4.2913e+00
134	IHT0000007	130.3936	132.1514	131.3076	4.7423e-01	4.3051e+00
135	IHT0000008	130.4199	132.5683	131.4043	4.8961e-01	4.3054e+00
136	IHT0000009	131.1110	133.4548	132.2243	5.2087e-01	4.3079e+00
137	IHT0000010	130.7167	132.6698	131.3925	4.5713e-01	4.3054e+00
138	IHT0000011	134.9421	136.7000	135.8094	4.1603e-01	4.3191e+00
139	IHT0000012	128.6433	130.5964	129.6668	4.4039e-01	4.3002e+00
140	IHT0000013	92.0823	94.2308	93.1878	4.4048e-01	4.2046e+00
141	IHT0000014	128.4142	130.5627	129.2579	4.7750e-01	4.2989e+00
142	IHT0000015	96.3079	98.4563	97.1281	4.8488e-01	4.2135e+00
143	IHT0000016	87.8718	90.0203	88.5711	4.6870e-01	4.1946e+00
144	IHT0000017	105.2734	108.9844	107.2227	1.0331e+00	4.2379e+00
145	IHT0000018	108.2219	110.5657	109.3117	5.4546e-01	4.2432e+00
146	IHT0000019	104.1579	106.3063	105.1618	5.5103e-01	4.2327e+00
147	IHT0000020	106.7909	108.9393	107.9159	5.5322e-01	4.2396e+00
148	IHT0000021	-2.5653	-0.0263	-1.2724	6.4221e-01	4.1000e+00
149	IHT0000022	91.2147	93.3631	92.3045	4.9456e-01	4.2026e+00
150	IHT0000023	105.7993	107.9477	106.9399	4.9499e-01	4.2372e+00
151	IHT0000024	71.2740	73.2271	72.2701	4.9639e-01	4.1632e+00
152	IHT0000025	103.9701	106.1185	104.8530	5.1029e-01	4.2320e+00
153	IHT0000026	105.2622	107.2153	106.1763	4.7094e-01	4.2352e+00
154	IHT0000027	88.6832	90.4410	89.6870	4.1575e-01	4.1969e+00
155	IHT0000028	90.4372	93.1716	91.5622	5.5181e-01	4.2010e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	105.6490	107.9928	106.6880	5.7242e-01	4.2365e+00
157	IHT0000030	107.4745	109.8182	108.6151	5.9498e-01	4.2414e+00
158	IHT0000031	106.3702	108.7139	107.5147	5.7590e-01	4.2386e+00
159	IHT0000032	107.6285	109.9722	108.6948	5.8422e-01	4.2416e+00
160	IHT0000033	107.6097	109.9534	108.6214	5.8619e-01	4.2414e+00
161	IHT0000034	94.1895	96.3379	95.3496	4.7582e-01	4.2094e+00
162	IHT0000035	124.2037	126.3522	125.3951	4.9324e-01	4.2875e+00
163	IHT0000036	92.6119	94.7604	93.8697	4.5191e-01	4.2061e+00

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Velocity 1 = 3.9696 (ft/sec) (+/- 10.8353 %)
 Velocity 2 = 4.0712 (ft/sec) (+/- 4.0235 %)
 Pressure drop = -4.6740 (psi)
 Tsat in = 267.6924 (deg F) Tsat out = 274.0393 (deg F)
 Phi inner = 100.4433 (kBtu/hr-ft2) (+/- 1.4136 %)
 Phi outer = 101.0083 (kBtu/hr-ft2) (+/- 1.6177 %)
 D inner = 0.1962 (ft) D outer = 0.2413 (ft) D hyd = 0.0389 (ft)
 L inner = 12.8550 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	74.4776	74.9031	74.7329	1.5499e-01	1.9000e+00
1	TRF000002	74.7024	75.3371	75.0579	1.3132e-01	1.9000e+00
2	TRF000001	87.4001	88.1339	87.7860	1.6467e-01	1.9002e+00
3	TIN000001	87.4131	88.0431	87.7493	1.5738e-01	1.9002e+00
4	TRV000001	87.8578	88.4863	88.0887	1.4935e-01	1.9002e+00
5	TSR000001	133.6028	137.4233	135.3249	1.0028e+00	1.9029e+00
6	TAO020136	185.1219	186.2928	185.7113	2.4930e-01	1.9090e+00
7	TAO050136	194.2413	195.4933	194.8228	2.4529e-01	1.9105e+00
8	TAO070136	192.8084	195.2388	193.7345	4.7832e-01	1.9103e+00
9	TAO080136	221.5922	222.4435	221.9332	1.7403e-01	1.9155e+00
10	TAO090136	230.0481	231.3693	230.6521	2.3974e-01	1.9173e+00
11	TAO100136	228.9766	231.5258	230.1102	4.4735e-01	1.9172e+00
12	TAO105136	236.3873	237.3302	236.8967	2.3943e-01	1.9187e+00
13	TAO110136	244.2461	245.8238	245.0104	3.0342e-01	1.9205e+00
14	TAO115136	243.9002	245.6867	244.6791	4.4099e-01	1.9204e+00
15	TAO120136	252.8821	253.9944	253.4938	2.2292e-01	1.9225e+00
16	TAO125136	247.0220	249.7283	248.5905	5.9279e-01	1.9214e+00
17	TAO130136	241.8614	242.6945	242.3283	2.0796e-01	1.9199e+00
18	TAO120048	265.0073	265.8402	265.4257	2.1003e-01	1.9256e+00
19	TAO130048	256.1202	257.1410	256.4585	2.0514e-01	1.9233e+00
20	TAO120224	255.0195	256.0436	255.3959	2.4151e-01	1.9230e+00
21	TAO130224	240.9099	241.8428	241.3615	2.3999e-01	1.9197e+00
22	TAO120312	263.7791	264.8918	264.3727	2.2625e-01	1.9253e+00
23	TAO130312	256.8839	258.2758	257.4188	2.5532e-01	1.9235e+00
24	TRT020000	184.9013	185.8788	185.4176	2.8065e-01	1.9090e+00
25	TRT070000	226.0244	227.1677	226.5612	2.4485e-01	1.9164e+00
26	TRT100000	254.9784	255.6295	255.2912	1.7494e-01	1.9230e+00
27	TRT120000	263.1936	264.5820	263.6604	2.9912e-01	1.9251e+00
28	TRT125000	273.2682	274.2766	273.7124	2.2476e-01	1.9278e+00
29	TRT130000	259.6543	260.3035	259.9772	1.6775e-01	1.9242e+00
30	EMPTY	39.1464	40.0646	39.6470	2.0049e-01	1.9011e+00
31	TAF050136	132.6438	134.3591	133.4510	4.6520e-01	1.9027e+00
32	TAF070136	149.9075	153.0867	151.0252	6.7965e-01	1.9044e+00
33	TAF080136	220.5594	222.7312	221.6252	4.1346e-01	1.9154e+00
34	TAF090136	161.3310	163.8031	162.4548	3.7202e-01	1.9057e+00
35	TAF100136	175.9109	178.4634	177.1286	5.4248e-01	1.9077e+00
36	TAF105136	180.2847	183.1890	181.1880	6.4874e-01	1.9083e+00
37	TAF110136	204.4011	209.0891	206.7822	1.2966e+00	1.9126e+00
38	TAF115136	191.5816	194.7746	193.0529	7.8032e-01	1.9102e+00
39	TAF120136	225.6127	229.1994	227.5123	7.7868e-01	1.9166e+00
40	TAF125136	201.0140	206.1735	203.1033	1.2001e+00	1.9119e+00
41	TAF130136	204.5317	206.7375	205.5638	5.8199e-01	1.9123e+00
42	TAF120048	211.6141	215.9461	213.0056	9.0782e-01	1.9137e+00
43	TAF130048	221.0578	223.8105	222.3073	5.5490e-01	1.9156e+00
44	TAF120224	198.9391	201.6389	200.3125	5.7579e-01	1.9114e+00
45	TAF130224	206.8766	208.0350	207.4020	2.8057e-01	1.9127e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.1124	1.6908e-01	1.9010e+00
47	EMPTY	39.6057	39.8352	39.7388	1.1443e-01	1.9011e+00
48	TAI130138	247.7059	249.4832	248.5555	3.3796e-01	1.9214e+00
49	TAI130226	247.6742	248.7003	248.2452	2.6405e-01	1.9213e+00
50	TAI130314	259.2737	260.5771	259.9252	3.1572e-01	1.9241e+00
51	TAI130042	255.6133	257.1957	256.5220	3.6305e-01	1.9233e+00
52	TRR130090	137.0403	138.9531	137.9066	4.2160e-01	1.9031e+00
53	TSI000001	48.3484	49.2141	48.7166	1.8808e-01	1.9003e+00
54	TSI000002	121.2406	123.8877	122.9071	5.5097e-01	1.9019e+00
55	TSO000001	46.3822	47.2532	46.9440	2.2031e-01	1.9004e+00
56	TSO000002	63.9127	64.7678	64.3575	2.2575e-01	1.9000e+00
57	TAF020136	102.1520	104.0269	103.1485	3.8733e-01	1.9007e+00
58	TAF120312	211.5509	213.9395	212.4913	6.0672e-01	1.9136e+00
59	TAF130312	226.0448	231.7060	227.5592	1.1535e+00	1.9167e+00
60	EMPTY	3.8916	3.9746	3.9117	1.5586e-02	0.0000e+00
61	EMPTY	3.8818	3.9355	3.9008	8.4077e-03	0.0000e+00
62	EMPTY	3.8770	3.9111	3.8907	5.6402e-03	0.0000e+00
63	EMPTY	3.8770	3.9014	3.8875	4.1102e-03	0.0000e+00
64	EMPTY	1.8262	1.8311	1.8282	2.4344e-03	0.0000e+00
65	EMPTY	1.8359	1.8457	1.8404	1.9331e-03	0.0000e+00
66	EMPTY	1.8457	1.8506	1.8487	2.3941e-03	0.0000e+00
67	EMPTY	1.8555	1.8652	1.8587	2.8946e-03	0.0000e+00
68	EMPTY	1.8604	1.8750	1.8648	3.0945e-03	0.0000e+00
69	EMPTY	1.8701	1.8848	1.8752	3.4116e-03	0.0000e+00
70	EMPTY	1.8799	1.8945	1.8836	4.0144e-03	0.0000e+00
71	EMPTY	1.8945	1.9092	1.9004	3.8206e-03	0.0000e+00
72	EMPTY	1.9043	1.9141	1.9067	3.8523e-03	0.0000e+00
73	EMPTY	1.9141	1.9287	1.9174	4.3495e-03	0.0000e+00
74	EMPTY	1.9189	1.9336	1.9261	4.2096e-03	0.0000e+00
75	EMPTY	1.9287	1.9434	1.9362	4.3237e-03	0.0000e+00
76	EMPTY	1.9385	1.9482	1.9428	4.3718e-03	0.0000e+00
77	EMPTY	1.9482	1.9629	1.9555	2.9986e-03	0.0000e+00
78	EMPTY	1.9678	1.9775	1.9706	3.1335e-03	0.0000e+00
79	EMPTY	1.9824	1.9922	1.9880	3.9471e-03	0.0000e+00
80	PAN020136	-15.5111	-14.9007	-15.1754	1.3613e-01	8.7083e-01
81	PAN050136	-31.3226	-30.8648	-31.0998	1.3511e-01	1.6818e+00
82	PAN070136	-23.2326	-18.6550	-20.7607	1.3212e+00	8.7155e-01
83	PAN080136	-13.9324	-8.5918	-11.3582	1.6113e+00	8.7046e-01
84	PAN090136	-12.1100	-6.2354	-11.6507	1.2208e+00	8.7049e-01
85	PAN100136	-12.2641	-2.6510	-8.3304	1.5769e+00	8.7025e-01
86	PAN105136	-6.6000	-3.0905	-5.4037	1.1441e+00	8.7010e-01
87	PAN110136	-6.0939	4.8161	-2.8728	1.7912e+00	8.7003e-01
88	PAN115136	-7.2353	-3.4206	-5.1250	8.2885e-01	8.7009e-01
89	PAN120136	-6.8113	3.1069	-4.6156	1.2735e+00	8.7008e-01
90	PAN125136	-6.3594	-0.7899	-4.3345	1.0954e+00	8.7007e-01
91	PAN130136	-6.7586	-2.9439	-4.9993	8.4557e-01	8.7009e-01
92	PAN120048	-11.9443	-7.7481	-9.7348	8.0136e-01	8.7034e-01
93	PAN130048	-12.8436	-8.8763	-9.9673	7.1607e-01	8.7036e-01
94	PAN120224	-10.4125	-6.3689	-8.1176	7.3919e-01	8.7024e-01
95	PAN130224	-10.1631	-7.6454	-9.3162	5.0848e-01	8.7031e-01
96	PAN120312	-12.3654	-7.3300	-8.8772	9.2006e-01	8.7028e-01
97	PAN130312	-10.5841	-4.5569	-9.4443	1.0847e+00	8.7032e-01
98	PAB000136	40.1308	40.3597	40.2178	6.2211e-02	5.8865e-01
99	PAB100136	43.5077	43.9197	43.7897	7.9211e-02	5.9024e-01
100	PAB125136	44.5993	44.8281	44.6990	5.3680e-02	5.9067e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.6941	40.1824	39.8650	1.0168e-01	7.5659e-01
102	PRV0000001	19.7263	19.9704	19.8581	4.1561e-02	7.5164e-01
103	PSR0000001	44.9151	45.0372	44.9468	5.4088e-02	7.5837e-01
104	PFM0000001	2.2272	2.4103	2.3352	6.8437e-02	5.0003e-01
105	PAN000136	-132.2406	-128.1208	-129.4025	8.9665e-01	4.9306e+00
106	PFM0000002	2.4263	2.4934	2.4592	1.7926e-02	2.0009e-01
107	EMPTY	-0.0049	0.0049	-0.0039	2.2058e-03	0.0000e+00
108	EMPTY	-9.6289	-9.1455	-9.3600	1.2113e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0022	2.4583e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0005	1.4797e-03	0.0000e+00
112	VPW0000001	100.5972	101.1832	100.8238	1.0705e-01	1.0110e+00
113	VPW0000002	119.9557	120.3463	120.1626	9.9902e-02	1.0844e+00
114	VPW0000003	147.6487	148.2347	147.9886	1.4123e-01	1.2019e+00
115	VPW0000004	105.5288	105.9195	105.7124	1.0741e-01	1.0288e+00
116	VPW0000005	140.3358	140.7264	140.4921	1.0440e-01	1.1690e+00
117	VPW0000006	146.8412	147.2318	147.0991	1.0014e-01	1.1979e+00
118	IPW0000001	557.5443	561.4489	559.4183	1.1128e+00	9.2272e+00
119	IPW0000002	1281.7590	1287.6129	1284.6077	1.6823e+00	1.2985e+01
120	IPW0000003	1308.8248	1314.6749	1311.1646	1.3066e+00	1.3149e+01
121	IPW0000004	386.3526	387.3291	386.7140	3.0897e-01	3.6515e+00
122	IPW0000005	253.9278	254.9043	254.5723	2.5032e-01	2.8363e+00
123	IPW0000006	266.0851	267.0616	266.6123	3.5348e-01	2.9045e+00
124	EMPTY	-0.0293	-0.0146	-0.0217	4.3180e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0146	3.1950e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0176	3.5568e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0176	3.2718e-03	0.0000e+00
128	IHT0000001	131.8923	133.8454	132.7789	5.0565e-01	4.3096e+00
129	IHT0000002	132.2115	134.1647	133.2779	4.9159e-01	4.3112e+00
130	IHT0000003	131.8059	133.3684	132.5636	4.4405e-01	4.3090e+00
131	IHT0000004	132.4745	134.2323	133.1542	4.2907e-01	4.3108e+00
132	IHT0000005	129.8377	131.7908	130.6815	4.4018e-01	4.3032e+00
133	IHT0000006	126.0930	127.6555	126.8468	4.1575e-01	4.2917e+00
134	IHT0000007	130.7843	132.5421	131.4678	4.0864e-01	4.3056e+00
135	IHT0000008	130.8105	132.5683	131.5996	4.0618e-01	4.3060e+00
136	IHT0000009	131.3064	133.0642	132.3571	4.2295e-01	4.3083e+00
137	IHT0000010	130.3260	132.4745	131.3339	5.1503e-01	4.3052e+00
138	IHT0000011	134.5515	136.5046	135.4579	4.5294e-01	4.3180e+00
139	IHT0000012	128.2527	130.2058	129.2606	4.6749e-01	4.2989e+00
140	IHT0000013	91.8870	93.8401	92.9300	4.8264e-01	4.2040e+00
141	IHT0000014	128.0236	129.9767	129.0275	4.6690e-01	4.2982e+00
142	IHT0000015	95.9172	97.8704	96.8742	4.2727e-01	4.2129e+00
143	IHT0000016	87.4812	89.4343	88.2781	4.3734e-01	4.1940e+00
144	IHT0000017	105.2734	107.8125	106.4688	6.1465e-01	4.2360e+00
145	IHT0000018	108.0266	110.3703	109.0187	4.8942e-01	4.2425e+00
146	IHT0000019	103.7673	106.3063	104.9079	5.2550e-01	4.2321e+00
147	IHT0000020	106.5956	109.1346	107.6073	5.3915e-01	4.2389e+00
148	IHT0000021	-2.9560	0.3644	-1.5341	6.8804e-01	4.1000e+00
149	IHT0000022	90.8241	93.5584	91.8397	5.7589e-01	4.2016e+00
150	IHT0000023	105.6040	107.9477	106.6977	5.5383e-01	4.2366e+00
151	IHT0000024	70.8834	73.0318	71.9732	4.8982e-01	4.1627e+00
152	IHT0000025	103.5795	105.5326	104.6499	5.0723e-01	4.2314e+00
153	IHT0000026	104.6762	107.0200	105.9770	5.0472e-01	4.2348e+00
154	IHT0000027	88.2925	90.4410	89.3550	4.8674e-01	4.1962e+00
155	IHT0000028	90.2419	92.1950	91.1130	5.0256e-01	4.2000e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	105.4537	107.7975	106.4107	5.6117e-01	4.2358e+00
157	IHT0000030	107.2792	109.4276	108.2831	5.5244e-01	4.2406e+00
158	IHT0000031	106.1749	108.1280	107.1905	5.1900e-01	4.2378e+00
159	IHT0000032	107.2378	109.5816	108.4136	5.4030e-01	4.2409e+00
160	IHT0000033	107.2190	109.5628	108.3597	5.2253e-01	4.2408e+00
161	IHT0000034	93.9941	96.1426	95.0723	4.5547e-01	4.2088e+00
162	IHT0000035	124.2037	126.3522	125.2349	4.5170e-01	4.2870e+00
163	IHT0000036	92.8072	94.3697	93.6158	3.9658e-01	4.2055e+00

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Velocity 1 = 3.4600 (ft/sec) (+/- 14.2857 %)
 Velocity 2 = 3.5221 (ft/sec) (+/- 5.2006 %)
 Pressure drop = -4.8242 (psi)
 Tsat in = 267.8430 (deg F) Tsat out = 274.3229 (deg F)
 Phi inner = 101.1123 (kBtu/hr-ft2) (+/- 1.4117 %)
 Phi outer = 100.9510 (kBtu/hr-ft2) (+/- 1.6187 %)
 D inner = 0.1962 (ft) D outer = 0.2413 (ft) D hyd = 0.0389 (ft)
 L inner = 12.8550 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	75.1158	75.5411	75.2732	1.4127e-01	1.9000e+00
1	TRF0000002	75.3371	75.7600	75.6459	1.2241e-01	1.9000e+00
2	TFH0000001	87.0879	87.9266	87.5029	2.0843e-01	1.9002e+00
3	TIN0000001	87.0979	87.8329	87.4969	1.6706e-01	1.9002e+00
4	TRV0000001	87.3390	88.0713	87.6325	2.0375e-01	1.9002e+00
5	TSR0000001	135.1146	140.3334	137.8664	1.4756e+00	1.9031e+00
6	TAO020136	194.7533	195.8197	195.3078	2.7421e-01	1.9105e+00
7	TAO050136	207.2808	208.5218	207.9329	2.9398e-01	1.9128e+00
8	TAO070136	203.6640	205.4978	204.6330	3.4869e-01	1.9122e+00
9	TAO080136	236.8245	237.6687	237.2407	1.9044e-01	1.9188e+00
10	TAO090136	247.5066	249.2793	248.3128	4.0900e-01	1.9213e+00
11	TAO100136	247.9519	249.6319	248.8778	3.7661e-01	1.9214e+00
12	TAO105136	253.7429	255.3283	254.5972	3.3252e-01	1.9228e+00
13	TAO110136	263.0706	265.1784	264.4122	5.1789e-01	1.9253e+00
14	TAO115136	263.0735	264.3745	263.6683	3.3858e-01	1.9251e+00
15	TAO120136	272.5511	273.9202	273.4053	3.1864e-01	1.9277e+00
16	TAO125136	267.7185	270.0230	268.8470	5.4986e-01	1.9265e+00
17	TAO130136	261.7050	262.8028	262.1281	2.1585e-01	1.9247e+00
18	TAO120048	283.4054	284.0467	283.8047	1.5561e-01	1.9306e+00
19	TAO130048	276.9390	277.6722	277.2399	1.7278e-01	1.9287e+00
20	TAO120224	273.5319	274.4526	273.9887	2.0622e-01	1.9278e+00
21	TAO130224	260.7160	262.3702	261.4773	3.6283e-01	1.9245e+00
22	TAO120312	256.3475	257.2784	256.8053	1.9713e-01	1.9234e+00
23	TAO130312	277.7184	278.7273	278.2209	1.9720e-01	1.9290e+00
24	TRT020000	196.3932	197.4595	197.0099	2.3569e-01	1.9108e+00
25	TRT070000	242.7302	243.7697	243.1802	2.1701e-01	1.9201e+00
26	TRT100000	274.7348	275.7454	275.1133	2.1286e-01	1.9281e+00
27	TRT120000	282.0618	283.6173	282.7206	3.6179e-01	1.9302e+00
28	TRT125000	287.5769	288.3047	287.9766	1.8465e-01	1.9317e+00
29	TRT130000	280.2638	280.9054	280.5754	1.5151e-01	1.9296e+00
30	EMPTY	39.1464	40.0646	39.5919	2.1459e-01	1.9011e+00
31	TAF050136	138.9893	141.3986	139.9008	5.4869e-01	1.9033e+00
32	TAF070136	159.7195	162.4803	160.7022	5.1627e-01	1.9055e+00
33	TAF080136	234.3747	237.0856	236.0740	6.9953e-01	1.9185e+00
34	TAF090136	172.5668	175.2154	173.7012	7.4689e-01	1.9072e+00
35	TAF100136	189.9908	195.4294	192.0822	1.4272e+00	1.9100e+00
36	TAF105136	194.4733	199.4595	196.2501	1.1152e+00	1.9107e+00
37	TAF110136	222.2147	226.1879	223.8092	8.6647e-01	1.9159e+00
38	TAF115136	207.5720	210.1559	208.8856	5.8619e-01	1.9130e+00
39	TAF120136	247.5686	251.4776	249.7584	7.2112e-01	1.9216e+00
40	TAF125136	217.6729	221.4541	219.2478	8.0790e-01	1.9149e+00
41	TAF130136	221.6103	227.1037	223.2716	1.2045e+00	1.9158e+00
42	TAF120048	229.9160	232.0093	230.8261	4.7591e-01	1.9173e+00
43	TAF130048	241.1610	244.1602	242.4699	6.2645e-01	1.9199e+00
44	TAF120224	215.1642	218.2170	216.5345	5.5657e-01	1.9144e+00
45	TAF130224	223.9680	226.3528	225.1511	4.9365e-01	1.9161e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.1629	2.0793e-01	1.9010e+00
47	EMPTY	39.6057	40.0646	39.8903	1.1874e-01	1.9011e+00
48	TAI130138	268.4438	270.1073	269.1317	3.5670e-01	1.9265e+00
49	TAI130226	266.6664	268.5091	267.8969	3.6491e-01	1.9262e+00
50	TAI130314	277.7976	279.1789	278.5713	2.8937e-01	1.9291e+00
51	TAI130042	275.1540	276.4429	275.9790	2.7269e-01	1.9284e+00
52	TRR130090	148.1716	154.5464	150.5283	1.9277e+00	1.9044e+00
53	TSI0000001	48.3506	49.2155	48.7876	1.7474e-01	1.9003e+00
54	TSI0000002	124.1940	127.6465	125.6492	8.6556e-01	1.9021e+00
55	TSO0000001	46.1625	47.1427	46.7719	1.8526e-01	1.9004e+00
56	TSO0000002	65.7283	66.5816	66.1935	1.8882e-01	1.9000e+00
57	TAF020136	105.0649	107.4544	106.1337	4.3270e-01	1.9009e+00
58	TAF120312	229.1363	232.6293	230.6476	6.5993e-01	1.9173e+00
59	TAF130312	248.2912	250.9938	249.5478	6.5285e-01	1.9216e+00
60	EMPTY	4.4531	4.4922	4.4708	8.1281e-03	0.0000e+00
61	EMPTY	4.4482	4.4727	4.4580	5.3123e-03	0.0000e+00
62	EMPTY	4.4385	4.4580	4.4458	4.0971e-03	0.0000e+00
63	EMPTY	4.4336	4.4482	4.4403	4.0542e-03	0.0000e+00
64	EMPTY	2.0703	2.0752	2.0735	2.3365e-03	0.0000e+00
65	EMPTY	2.0801	2.0850	2.0846	1.3381e-03	0.0000e+00
66	EMPTY	2.0850	2.0947	2.0903	1.7784e-03	0.0000e+00
67	EMPTY	2.0947	2.1094	2.0996	1.7086e-03	0.0000e+00
68	EMPTY	2.0996	2.1045	2.1040	1.4797e-03	0.0000e+00
69	EMPTY	2.1094	2.1143	2.1119	2.4642e-03	0.0000e+00
70	EMPTY	2.1143	2.1191	2.1188	1.1714e-03	0.0000e+00
71	EMPTY	2.1289	2.1338	2.1329	1.8950e-03	0.0000e+00
72	EMPTY	2.1338	2.1436	2.1381	1.8821e-03	0.0000e+00
73	EMPTY	2.1436	2.1484	2.1479	1.6028e-03	0.0000e+00
74	EMPTY	2.1484	2.1582	2.1534	1.2041e-03	0.0000e+00
75	EMPTY	2.1533	2.1631	2.1617	2.4244e-03	0.0000e+00
76	EMPTY	2.1631	2.1680	2.1675	1.4797e-03	0.0000e+00
77	EMPTY	2.1729	2.1826	2.1777	9.8648e-04	0.0000e+00
78	EMPTY	2.1875	2.1924	2.1919	1.4797e-03	0.0000e+00
79	EMPTY	2.2070	2.2119	2.2071	6.9053e-04	0.0000e+00
80	PAN020136	-17.0369	-15.0533	-15.9581	3.7345e-01	8.7091e-01
81	PAN050136	-32.6959	-31.7803	-32.2686	2.0908e-01	1.6819e+00
82	PAN070136	-25.2163	-19.7231	-24.5296	1.5043e+00	8.7216e-01
83	PAN080136	-13.8561	-2.4120	-10.0124	2.7320e+00	8.7036e-01
84	PAN090136	-12.1100	-0.3607	-9.0491	2.7851e+00	8.7029e-01
85	PAN100136	-13.3322	-3.1851	-9.6823	2.1449e+00	8.7034e-01
86	PAN105136	-6.5237	0.1139	-4.6408	1.1302e+00	8.7008e-01
87	PAN110136	-6.0176	-2.6607	-4.7298	8.9527e-01	8.7008e-01
88	PAN115136	-7.2353	-1.5133	-4.4582	1.0208e+00	8.7007e-01
89	PAN120136	-6.9639	-1.6996	-4.9131	9.4032e-01	8.7009e-01
90	PAN125136	-5.7490	3.6351	-3.9546	2.1000e+00	8.7006e-01
91	PAN130136	-6.7586	-4.3172	-5.5715	5.6742e-01	8.7011e-01
92	PAN120048	-10.7236	-9.5792	-10.2796	2.7081e-01	8.7038e-01
93	PAN130048	-11.1651	-9.5629	-10.1260	2.9524e-01	8.7077e-01
94	PAN120224	-12.0909	-6.9792	-9.0529	9.7408e-01	8.7029e-01
95	PAN130224	-10.5446	-8.1795	-9.8350	4.7439e-01	8.7035e-01
96	PAN120312	-11.2973	-2.7524	-8.7948	1.5645e+00	8.7028e-01
97	PAN130312	-10.2026	-8.3716	-9.4550	4.2043e-01	8.7032e-01
98	PAB000136	40.1766	40.4512	40.3194	6.0390e-02	5.8869e-01
99	PAB100136	43.6908	44.1028	43.9819	7.9427e-02	5.9033e-01
100	PAB125136	44.8281	45.0112	44.9087	4.7662e-02	5.9077e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.8162	40.1824	40.0310	8.7402e-02	7.5665e-01
102	PRV0000001	19.7263	19.7263	19.7263	1.1560e-05	7.5162e-01
103	PSR0000001	45.1592	45.4034	45.2227	6.6358e-02	7.5847e-01
104	PFM0000001	1.5863	1.8610	1.7621	7.1253e-02	5.0002e-01
105	PAN000136	-137.7338	-131.7829	-133.5590	1.3326e+00	4.9313e+00
106	PFM0000002	1.8054	1.8893	1.8276	1.9308e-02	2.0005e-01
107	EMPTY	-0.0049	0.0049	-0.0034	2.4662e-03	0.0000e+00
108	EMPTY	-9.6387	-9.1016	-9.3287	1.2625e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0021	2.4484e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0001	6.9053e-04	0.0000e+00
112	VPW0000001	100.0113	101.3785	100.6870	3.3063e-01	1.0105e+00
113	VPW0000002	119.7604	120.5416	120.1236	1.6746e-01	1.0842e+00
114	VPW0000003	147.4534	148.4300	147.8988	2.3689e-01	1.2015e+00
115	VPW0000004	104.9429	106.3101	105.5991	3.3426e-01	1.0284e+00
116	VPW0000005	139.5545	141.1170	140.3007	3.8599e-01	1.1682e+00
117	VPW0000006	146.2553	147.6225	146.9897	3.2673e-01	1.1975e+00
118	IPW0000001	539.9731	549.7349	544.6978	2.5284e+00	9.1721e+00
119	IPW0000002	1301.2717	1311.0281	1305.0574	2.2786e+00	1.3111e+01
120	IPW0000003	1318.5748	1328.3248	1323.0211	2.5238e+00	1.3223e+01
121	IPW0000004	376.5869	382.9346	379.7316	1.2716e+00	3.6055e+00
122	IPW0000005	251.4867	254.9043	253.2833	7.6684e-01	2.8291e+00
123	IPW0000006	265.1085	267.5499	266.2510	5.8867e-01	2.9025e+00
124	EMPTY	-0.0293	-0.0098	-0.0198	3.8725e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0130	2.8946e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0098	-0.0148	2.7832e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0161	3.5908e-03	0.0000e+00
128	IHT0000001	131.3063	134.0407	132.6227	5.3788e-01	4.3092e+00
129	IHT0000002	131.6256	134.1647	133.0943	5.2975e-01	4.3106e+00
130	IHT0000003	131.0246	133.5637	132.4855	5.3994e-01	4.3087e+00
131	IHT0000004	131.6932	134.2323	133.0878	5.7590e-01	4.3106e+00
132	IHT0000005	129.2518	131.9862	130.6503	5.7637e-01	4.3031e+00
133	IHT0000006	125.5071	128.0461	126.7570	6.0618e-01	4.2915e+00
134	IHT0000007	130.1983	132.7374	131.4287	5.4712e-01	4.3055e+00
135	IHT0000008	130.0293	132.9590	131.4863	5.6388e-01	4.3057e+00
136	IHT0000009	131.1110	133.8454	132.2086	5.6205e-01	4.3079e+00
137	IHT0000010	130.1307	132.4745	131.2948	5.4813e-01	4.3051e+00
138	IHT0000011	134.1609	136.5046	135.3524	5.5978e-01	4.3176e+00
139	IHT0000012	127.8621	130.4011	129.1200	5.7880e-01	4.2985e+00
140	IHT0000013	91.4964	93.8401	92.7386	5.3635e-01	4.2036e+00
141	IHT0000014	127.2423	130.1720	128.8790	6.1875e-01	4.2978e+00
142	IHT0000015	95.3313	97.8704	96.6789	5.3416e-01	4.2124e+00
143	IHT0000016	87.0906	89.2390	88.0750	5.1139e-01	4.1935e+00
144	IHT0000017	105.6641	108.7891	107.3320	6.3406e-01	4.2382e+00
145	IHT0000018	108.0266	109.9797	108.9875	5.1424e-01	4.2424e+00
146	IHT0000019	103.3767	105.7204	104.8649	4.3743e-01	4.2320e+00
147	IHT0000020	106.2049	108.3534	107.5682	4.7267e-01	4.2388e+00
148	IHT0000021	-3.1513	-0.4169	-1.3935	5.4247e-01	4.1000e+00
149	IHT0000022	90.6288	92.3866	91.6795	4.7986e-01	4.2013e+00
150	IHT0000023	105.6040	107.5571	106.7134	4.5239e-01	4.2366e+00
151	IHT0000024	70.6881	72.6412	71.9029	4.4693e-01	4.1626e+00
152	IHT0000025	103.5795	105.5326	104.6342	4.7186e-01	4.2314e+00
153	IHT0000026	105.0668	106.8247	106.0317	4.7418e-01	4.2349e+00
154	IHT0000027	87.9019	90.0503	89.1948	5.4375e-01	4.1959e+00
155	IHT0000028	90.0466	92.5856	91.1052	6.2026e-01	4.2000e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	105.4537	108.3834	106.6294	6.4656e-01	4.2364e+00
157	IHT0000030	107.2792	110.4042	108.5096	6.8487e-01	4.2412e+00
158	IHT0000031	106.1749	108.9092	107.3311	6.0982e-01	4.2382e+00
159	IHT0000032	107.6285	110.3628	108.6011	6.4897e-01	4.2414e+00
160	IHT0000033	107.6097	110.1487	108.5550	6.3302e-01	4.2413e+00
161	IHT0000034	93.7988	96.7285	95.0410	5.7691e-01	4.2087e+00
162	IHT0000035	123.8131	126.9381	125.1412	5.8394e-01	4.2867e+00
163	IHT0000036	92.2213	94.9557	93.5611	5.2201e-01	4.2054e+00

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Velocity 1 = 3.4407 (ft/sec) (+/- 14.4487 %)
 Velocity 2 = 3.5003 (ft/sec) (+/- 5.2604 %)
 Pressure drop = -4.7954 (psi)
 Tsat in = 268.0648 (deg F) Tsat out = 274.5106 (deg F)
 Phi inner = 100.6048 (kBtu/hr-ft2) (+/- 1.4132 %)
 Phi outer = 100.5474 (kBtu/hr-ft2) (+/- 1.6198 %)
 D inner = 0.1962 (ft) D outer = 0.2413 (ft) D hyd = 0.0389 (ft)
 L inner = 12.8550 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	75.9663	76.6038	76.2214	1.5480e-01	1.9000e+00
1	TRF000002	76.3942	76.8167	76.5548	1.4514e-01	1.9000e+00
2	TRF000001	86.9857	88.0338	87.5518	2.1173e-01	1.9002e+00
3	TIN000001	87.4124	87.9377	87.6981	1.5596e-01	1.9002e+00
4	TRV000001	86.5086	87.5561	86.9651	2.3608e-01	1.9002e+00
5	TSR000001	129.1754	133.3099	131.3590	1.1053e+00	1.9025e+00
6	TAO020136	195.7224	196.8841	196.2568	2.7057e-01	1.9107e+00
7	TAO050136	209.2895	211.3860	210.2603	4.8044e-01	1.9132e+00
8	TAO070136	204.9162	207.2298	206.0777	5.2192e-01	1.9124e+00
9	TAO080136	240.9411	241.6903	241.3158	1.7633e-01	1.9197e+00
10	TAO090136	251.0523	252.5431	251.8235	2.4110e-01	1.9221e+00
11	TAO100136	252.3372	253.7337	253.0221	3.2187e-01	1.9224e+00
12	TAO105136	257.8431	259.5183	258.4875	2.9541e-01	1.9238e+00
13	TAO110136	265.5552	267.6614	266.8687	4.0569e-01	1.9259e+00
14	TAO115136	265.1159	266.5087	265.8516	3.0814e-01	1.9257e+00
15	TAO120136	276.6638	277.6685	277.1274	2.1433e-01	1.9287e+00
16	TAO125136	271.4068	273.1542	272.2566	4.3176e-01	1.9274e+00
17	TAO130136	267.4606	268.6475	268.1042	2.2567e-01	1.9263e+00
18	TAO120048	279.1925	280.0190	279.6442	1.7184e-01	1.9294e+00
19	TAO130048	274.7440	275.3882	275.0678	1.5886e-01	1.9281e+00
20	TAO120224	278.0383	279.0488	278.4758	2.4444e-01	1.9291e+00
21	TAO130224	265.3159	266.7848	265.9659	3.1185e-01	1.9257e+00
22	TAO120312	257.4641	258.5809	258.0636	1.9996e-01	1.9237e+00
23	TAO130312	274.9702	275.7057	275.3527	1.6645e-01	1.9282e+00
24	TRT020000	193.8668	195.3234	194.6204	3.0998e-01	1.9104e+00
25	TRT070000	239.9846	241.3081	240.6996	2.9515e-01	1.9195e+00
26	TRT100000	267.0107	267.6573	267.4098	1.4500e-01	1.9261e+00
27	TRT120000	274.8167	275.6446	275.1186	1.8399e-01	1.9281e+00
28	TRT125000	286.2207	286.7684	286.4910	1.4951e-01	1.9313e+00
29	TRT130000	278.6200	279.5368	279.0237	1.6042e-01	1.9292e+00
30	EMPTY	39.1464	40.0646	39.6011	2.0474e-01	1.9011e+00
31	TAF050136	139.5952	143.2063	141.2287	8.2745e-01	1.9034e+00
32	TAF070136	162.3887	166.6178	163.9235	7.7623e-01	1.9059e+00
33	TAF080136	238.4953	241.3856	240.2509	5.8073e-01	1.9194e+00
34	TAF090136	174.9225	176.2947	175.6715	3.5283e-01	1.9075e+00
35	TAF100136	195.1376	198.7208	196.3043	6.9102e-01	1.9107e+00
36	TAF105136	199.4648	204.2433	201.2554	1.0771e+00	1.9116e+00
37	TAF110136	225.8143	230.1544	227.8681	8.6939e-01	1.9167e+00
38	TAF115136	212.4514	215.4087	213.5363	6.7296e-01	1.9138e+00
39	TAF120136	256.6788	259.1789	257.7757	5.5453e-01	1.9236e+00
40	TAF125136	224.2901	227.1148	225.3958	5.5319e-01	1.9162e+00
41	TAF130136	229.6559	231.8259	230.9245	5.1595e-01	1.9174e+00
42	TAF120048	225.9040	228.0995	226.8013	4.2739e-01	1.9165e+00
43	TAF130048	236.9370	239.7558	237.9902	5.7366e-01	1.9189e+00
44	TAF120224	223.2597	226.1071	224.5511	6.6836e-01	1.9160e+00
45	TAF130224	231.3942	233.5780	232.1735	5.0837e-01	1.9176e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	38.0342	2.2452e-01	1.9010e+00
47	EMPTY	39.6057	40.0646	39.8627	1.1947e-01	1.9011e+00
48	TAI130138	274.3503	275.5473	274.9543	2.9423e-01	1.9281e+00
49	TAI130226	272.7393	274.2083	273.4114	3.2041e-01	1.9277e+00
50	TAI130314	276.5061	277.7961	277.0958	3.0424e-01	1.9287e+00
51	TAI130042	274.3255	275.6145	274.9813	3.0836e-01	1.9281e+00
52	TRR130090	147.0761	152.2621	149.5751	9.2036e-01	1.9043e+00
53	TSI000001	48.4617	49.3279	48.8168	2.1307e-01	1.9003e+00
54	TSI000002	137.4465	140.4633	139.0763	7.1118e-01	1.9032e+00
55	TSO000001	46.3760	47.0297	46.6463	2.2233e-01	1.9004e+00
56	TSO000002	66.1567	66.9037	66.5666	1.8829e-01	1.9000e+00
57	TAF020136	105.4777	107.7620	106.6617	4.9588e-01	1.9009e+00
58	TAF120312	225.8264	228.1929	227.0988	5.5851e-01	1.9166e+00
59	TAF130312	244.9348	247.8294	246.1644	6.7251e-01	1.9208e+00
60	EMPTY	4.3457	4.3799	4.3622	6.6094e-03	0.0000e+00
61	EMPTY	4.3408	4.3604	4.3502	4.1666e-03	0.0000e+00
62	EMPTY	4.3311	4.3457	4.3376	2.8946e-03	0.0000e+00
63	EMPTY	4.3262	4.3359	4.3322	2.8862e-03	0.0000e+00
64	EMPTY	2.0264	2.0313	2.0274	2.0432e-03	0.0000e+00
65	EMPTY	2.0361	2.0410	2.0396	2.2603e-03	0.0000e+00
66	EMPTY	2.0410	2.0508	2.0455	1.9331e-03	0.0000e+00
67	EMPTY	2.0508	2.0557	2.0544	2.1635e-03	0.0000e+00
68	EMPTY	2.0557	2.0605	2.0593	2.1635e-03	0.0000e+00
69	EMPTY	2.0654	2.0703	2.0687	2.3365e-03	0.0000e+00
70	EMPTY	2.0703	2.0801	2.0741	2.2689e-03	0.0000e+00
71	EMPTY	2.0850	2.0898	2.0889	1.9730e-03	0.0000e+00
72	EMPTY	2.0898	2.0996	2.0938	2.4164e-03	0.0000e+00
73	EMPTY	2.0996	2.1094	2.1043	3.1133e-03	0.0000e+00
74	EMPTY	2.1045	2.1143	2.1114	2.6267e-03	0.0000e+00
75	EMPTY	2.1143	2.1240	2.1189	3.1133e-03	0.0000e+00
76	EMPTY	2.1191	2.1289	2.1252	2.5266e-03	0.0000e+00
77	EMPTY	2.1338	2.1387	2.1359	2.4484e-03	0.0000e+00
78	EMPTY	2.1436	2.1533	2.1502	2.5648e-03	0.0000e+00
79	EMPTY	2.1631	2.1680	2.1657	2.4583e-03	0.0000e+00
80	PAN020136	-18.0288	-14.5955	-15.6240	6.2786e-01	8.7088e-01
81	PAN050136	-33.7640	-31.3226	-32.4060	6.6921e-01	1.6820e+00
82	PAN070136	-25.1400	-17.8920	-22.0272	1.8370e+00	8.7174e-01
83	PAN080136	-13.9324	-5.0823	-12.5713	2.2208e+00	8.7057e-01
84	PAN090136	-12.0337	-9.0583	-10.6818	6.9431e-01	8.7041e-01
85	PAN100136	-10.7382	-7.5339	-8.8400	7.2929e-01	8.7028e-01
86	PAN105136	-6.2948	-0.0387	-4.4149	9.1355e-01	8.7007e-01
87	PAN110136	-6.0939	0.4674	-4.3529	1.0990e+00	8.7007e-01
88	PAN115136	-7.2353	-3.0392	-4.5727	6.6122e-01	8.7008e-01
89	PAN120136	-5.6669	-3.6070	-4.6217	3.8418e-01	8.7008e-01
90	PAN125136	-5.2150	-3.6128	-4.6489	3.2954e-01	8.7008e-01
91	PAN130136	-5.9194	-4.8513	-5.4082	2.6033e-01	8.7011e-01
92	PAN120048	-10.7236	-8.1296	-9.8874	5.8307e-01	8.7035e-01
93	PAN130048	-10.4784	-9.4866	-10.0329	2.4631e-01	8.7036e-01
94	PAN120224	-10.2599	-7.4370	-9.0682	6.0603e-01	8.7030e-01
95	PAN130224	-10.4683	-9.1713	-9.9388	2.6849e-01	8.7035e-01
96	PAN120312	-10.0003	-6.8722	-9.1000	7.6232e-01	8.7030e-01
97	PAN130312	-10.3552	-8.6005	-9.6823	3.1237e-01	8.7034e-01
98	PAB000136	40.3139	40.5886	40.4696	6.0645e-02	5.8876e-01
99	PAB100136	44.0112	44.1943	44.1229	4.2542e-02	5.9040e-01
100	PAB125136	44.9655	45.1486	45.0479	4.7157e-02	5.9083e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	40.0604	40.5486	40.3582	8.9465e-02	7.5676e-01
102	PRV0000001	19.4821	19.6042	19.5969	2.9284e-02	7.5160e-01
103	PSR0000001	45.2813	45.4034	45.3765	5.1081e-02	7.5853e-01
104	PFM0000001	1.5863	1.8610	1.7420	7.4562e-02	5.0002e-01
105	PAN000136	-135.4450	-131.3251	-132.7625	7.9022e-01	4.9312e+00
106	PFM0000002	1.7719	1.8390	1.8044	1.3733e-02	2.0005e-01
107	EMPTY	-0.0049	0.0049	-0.0035	2.4244e-03	0.0000e+00
108	EMPTY	-9.8828	-9.3066	-9.7096	1.3685e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0012	2.1065e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0002	9.6655e-04	0.0000e+00
112	VPW0000001	100.4019	100.9878	100.7105	1.1223e-01	1.0106e+00
113	VPW0000002	119.9557	120.3463	120.1314	8.1347e-02	1.0843e+00
114	VPW0000003	147.8440	148.2347	148.0082	1.2701e-01	1.2020e+00
115	VPW0000004	105.5288	105.9195	105.6733	1.1712e-01	1.0286e+00
116	VPW0000005	140.1405	140.7264	140.5272	1.5020e-01	1.1692e+00
117	VPW0000006	147.0365	147.4271	147.2436	1.0741e-01	1.1986e+00
118	IPW0000001	551.6872	557.5443	553.3660	1.3088e+00	9.2044e+00
119	IPW0000002	1277.8566	1283.7103	1280.3152	1.3547e+00	1.2958e+01
120	IPW0000003	1310.7749	1316.6249	1313.9343	1.3585e+00	1.3166e+01
121	IPW0000004	385.3760	386.8409	386.1964	3.3366e-01	3.6481e+00
122	IPW0000005	253.4396	255.3925	254.4160	3.4169e-01	2.8354e+00
123	IPW0000006	265.1085	267.0616	265.9385	4.3282e-01	2.9007e+00
124	EMPTY	-0.0293	-0.0098	-0.0206	3.7291e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0132	2.6562e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0161	2.8334e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0171	3.7239e-03	0.0000e+00
128	IHT0000001	131.6970	134.2360	132.8610	6.0869e-01	4.3099e+00
129	IHT0000002	132.2115	134.3600	133.2544	5.6167e-01	4.3111e+00
130	IHT0000003	131.6106	133.9543	132.6808	5.5837e-01	4.3093e+00
131	IHT0000004	132.0838	134.6229	133.1229	5.6004e-01	4.3107e+00
132	IHT0000005	129.8377	131.7908	130.6542	5.8353e-01	4.3031e+00
133	IHT0000006	125.8977	128.0461	126.6671	5.3147e-01	4.2912e+00
134	IHT0000007	130.5889	132.9327	131.3701	4.9912e-01	4.3053e+00
135	IHT0000008	130.6152	133.1543	131.4707	5.2481e-01	4.3056e+00
136	IHT0000009	131.3064	133.6501	132.1969	4.7705e-01	4.3079e+00
137	IHT0000010	129.7401	132.8651	131.3182	6.0598e-01	4.3052e+00
138	IHT0000011	133.7703	137.0906	135.4305	6.3288e-01	4.3179e+00
139	IHT0000012	127.6668	130.7917	129.2215	6.6023e-01	4.2988e+00
140	IHT0000013	91.4964	93.8401	92.8128	5.5357e-01	4.2037e+00
141	IHT0000014	127.8283	130.1720	129.0548	5.6640e-01	4.2983e+00
142	IHT0000015	95.7219	97.4797	96.7492	4.8297e-01	4.2126e+00
143	IHT0000016	87.0906	89.0437	88.1140	4.9373e-01	4.1936e+00
144	IHT0000017	107.0313	109.1797	108.1328	5.5068e-01	4.2402e+00
145	IHT0000018	108.2219	110.5657	109.2922	5.7756e-01	4.2432e+00
146	IHT0000019	104.3532	106.8923	105.2399	5.5272e-01	4.2329e+00
147	IHT0000020	106.9862	109.7206	107.8885	5.7574e-01	4.2396e+00
148	IHT0000021	-2.3700	0.5597	-1.2450	7.0868e-01	4.1000e+00
149	IHT0000022	90.8241	93.1678	91.8201	5.3123e-01	4.2016e+00
150	IHT0000023	106.1899	108.3383	106.9829	5.4449e-01	4.2373e+00
151	IHT0000024	70.8834	73.2271	71.8716	5.1510e-01	4.1625e+00
152	IHT0000025	103.7748	105.7279	104.7358	5.2916e-01	4.2317e+00
153	IHT0000026	105.4575	107.4106	106.3520	4.7693e-01	4.2357e+00
154	IHT0000027	88.4878	90.6363	89.3433	4.9739e-01	4.1962e+00
155	IHT0000028	90.0466	92.3903	91.3396	5.4375e-01	4.2005e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	105.8443	107.6021	106.8638	5.1037e-01	4.2370e+00
157	IHT0000030	107.4745	109.8182	108.6932	5.4471e-01	4.2416e+00
158	IHT0000031	106.1749	108.3233	107.4952	5.3896e-01	4.2386e+00
159	IHT0000032	108.0191	110.1675	108.9214	5.1734e-01	4.2422e+00
160	IHT0000033	107.8050	109.9534	108.8402	5.2830e-01	4.2420e+00
161	IHT0000034	94.5801	96.1426	95.1973	4.1827e-01	4.2091e+00
162	IHT0000035	124.5943	126.3522	125.3638	4.7418e-01	4.2874e+00
163	IHT0000036	93.0025	94.7604	93.7681	4.3734e-01	4.2059e+00

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Velocity 1 = 3.2166 (ft/sec) (+/- 16.5672 %)
 Velocity 2 = 3.3292 (ft/sec) (+/- 5.7758 %)
 Pressure drop = -4.8628 (psi)
 Tsat in = 268.0729 (deg F) Tsat out = 274.5673 (deg F)
 Phi inner = 101.0978 (kBtu/hr-ft2) (+/- 1.4119 %)
 Phi outer = 101.0171 (kBtu/hr-ft2) (+/- 1.6181 %)
 D inner = 0.1962 (ft) D outer = 0.2413 (ft) D hyd = 0.0389 (ft)
 L inner = 12.8550 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	76.3914	77.0286	76.6887	1.6058e-01	1.9000e+00
1	TRF0000002	76.8167	77.2392	76.9942	1.0762e-01	1.9000e+00
2	TFM0000001	87.1964	88.0357	87.6412	1.9916e-01	1.9002e+00
3	TIN0000001	87.2019	87.9375	87.6265	1.8252e-01	1.9002e+00
4	TRV0000001	87.2431	88.0783	87.6819	1.9012e-01	1.9002e+00
5	TSR0000001	135.4245	137.7364	136.5583	5.8887e-01	1.9030e+00
6	TAO020136	200.0756	201.3318	200.7984	2.5309e-01	1.9115e+00
7	TAO050136	214.0479	215.3791	214.6835	3.5686e-01	1.9141e+00
8	TAO070136	210.4054	212.0389	210.9821	3.5044e-01	1.9133e+00
9	TAO080136	247.8358	248.5809	248.2783	1.7800e-01	1.9213e+00
10	TAO090136	258.3954	259.6949	259.2417	2.1251e-01	1.9240e+00
11	TAO100136	258.9376	260.8846	260.0093	3.8756e-01	1.9242e+00
12	TAO105136	265.2744	266.2935	265.8081	2.7736e-01	1.9257e+00
13	TAO110136	274.3279	275.6060	274.9929	2.9369e-01	1.9281e+00
14	TAO115136	272.3453	273.8247	273.2110	3.1405e-01	1.9276e+00
15	TAO120136	282.5824	283.5802	283.0332	2.0040e-01	1.9303e+00
16	TAO125136	277.6550	279.3057	278.5795	3.6341e-01	1.9291e+00
17	TAO130136	274.2795	275.3698	274.7669	2.0517e-01	1.9280e+00
18	TAO120048	283.7737	284.5067	284.1218	1.8028e-01	1.9306e+00
19	TAO130048	281.1512	281.8842	281.4154	1.5537e-01	1.9299e+00
20	TAO120224	283.8151	285.0969	284.2546	2.3247e-01	1.9307e+00
21	TAO130224	272.8268	273.9225	273.3593	2.3688e-01	1.9277e+00
22	TAO120312	265.8183	266.6517	266.1812	1.6611e-01	1.9258e+00
23	TAO130312	281.3840	282.3002	281.7873	1.7341e-01	1.9300e+00
24	TRT020000	198.8133	200.3622	199.6344	3.6016e-01	1.9113e+00
25	TRT070000	247.4395	248.3815	247.9781	2.5799e-01	1.9212e+00
26	TRT100000	273.8222	274.9233	274.4830	2.0997e-01	1.9280e+00
27	TRT120000	280.5992	281.1493	280.9035	1.4519e-01	1.9297e+00
28	TRT125000	288.9475	289.4920	289.1944	1.3610e-01	1.9321e+00
29	TRT130000	283.3763	284.1078	283.7160	1.4776e-01	1.9305e+00
30	EMPTY	39.1464	40.0646	39.6332	2.3020e-01	1.9011e+00
31	TAF050136	143.3065	146.8068	144.7275	7.9471e-01	1.9038e+00
32	TAF070136	167.6014	170.7400	168.6263	6.3354e-01	1.9065e+00
33	TAF080136	242.3183	245.1087	243.7736	6.5643e-01	1.9202e+00
34	TAF090136	180.0102	183.0338	181.2204	7.4316e-01	1.9083e+00
35	TAF100136	202.1976	206.5338	204.5116	1.2057e+00	1.9122e+00
36	TAF105136	207.8652	213.1860	209.8131	1.3150e+00	1.9131e+00
37	TAF110136	237.2062	240.1113	238.5339	7.2196e-01	1.9190e+00
38	TAF115136	220.5485	223.1110	221.6685	7.0718e-01	1.9154e+00
39	TAF120136	262.7863	264.4476	263.6021	3.7131e-01	1.9251e+00
40	TAF125136	233.5038	235.6577	234.5001	5.9114e-01	1.9181e+00
41	TAF130136	237.9422	240.1003	239.0569	4.7277e-01	1.9192e+00
42	TAF120048	233.8096	235.9931	235.2074	5.2070e-01	1.9183e+00
43	TAF130048	246.2209	247.8100	246.9982	3.6537e-01	1.9210e+00
44	TAF120224	231.4078	234.0521	232.6547	6.1869e-01	1.9177e+00
45	TAF130224	240.0177	242.0961	240.8307	4.3440e-01	1.9196e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.1124	1.8139e-01	1.9010e+00
47	EMPTY	39.8352	40.0646	39.9040	1.0622e-01	1.9011e+00
48	TAI130138	277.1118	278.3075	277.7186	3.0638e-01	1.9288e+00
49	TAI130226	276.4085	277.7841	277.1861	2.5745e-01	1.9287e+00
50	TAI130314	280.6493	281.5692	281.0984	2.4339e-01	1.9298e+00
51	TAI130042	279.0180	280.2124	279.6061	2.5177e-01	1.9294e+00
52	TRR130090	143.9762	149.1730	146.7727	1.2789e+00	1.9040e+00
53	TSI000001	48.7872	49.5446	49.1511	1.5720e-01	1.9003e+00
54	TSI000002	143.3733	145.4761	144.3743	5.2239e-01	1.9037e+00
55	TSO000001	46.5924	47.3548	46.9324	1.9878e-01	1.9004e+00
56	TSO000002	66.7976	67.8636	67.3943	2.1528e-01	1.9000e+00
57	TAF020136	106.5142	109.0048	107.7893	5.0450e-01	1.9010e+00
58	TAF120312	234.4225	236.7756	235.3830	4.7202e-01	1.9183e+00
59	TAF130312	257.5001	260.0007	258.8044	5.8549e-01	1.9239e+00
60	EMPTY	4.6631	4.6924	4.6803	6.9922e-03	0.0000e+00
61	EMPTY	4.6533	4.6680	4.6646	4.4599e-03	0.0000e+00
62	EMPTY	4.6436	4.6582	4.6506	3.5786e-03	0.0000e+00
63	EMPTY	4.6338	4.6533	4.6436	3.8206e-03	0.0000e+00
64	EMPTY	2.1631	2.1680	2.1655	2.4662e-03	0.0000e+00
65	EMPTY	2.1729	2.1826	2.1761	2.5362e-03	0.0000e+00
66	EMPTY	2.1777	2.1875	2.1821	2.6562e-03	0.0000e+00
67	EMPTY	2.1875	2.1924	2.1906	2.3675e-03	0.0000e+00
68	EMPTY	2.1924	2.1973	2.1947	2.4642e-03	0.0000e+00
69	EMPTY	2.1973	2.2070	2.2025	2.3839e-03	0.0000e+00
70	EMPTY	2.2070	2.2119	2.2097	2.4583e-03	0.0000e+00
71	EMPTY	2.2217	2.2266	2.2235	2.3941e-03	0.0000e+00
72	EMPTY	2.2217	2.2314	2.2271	2.2603e-03	0.0000e+00
73	EMPTY	2.2314	2.2412	2.2367	1.6624e-03	0.0000e+00
74	EMPTY	2.2412	2.2461	2.2430	2.3675e-03	0.0000e+00
75	EMPTY	2.2510	2.2510	2.2510	0.0000e+00	0.0000e+00
76	EMPTY	2.2510	2.2607	2.2558	1.2041e-03	0.0000e+00
77	EMPTY	2.2656	2.2754	2.2661	1.7784e-03	0.0000e+00
78	EMPTY	2.2754	2.2803	2.2800	1.1714e-03	0.0000e+00
79	EMPTY	2.2949	2.2998	2.2950	6.9053e-04	0.0000e+00
80	PAN020136	-18.2577	-14.9007	-16.0436	5.0290e-01	8.7092e-01
81	PAN050136	-34.9847	-32.3907	-32.8485	6.1346e-01	1.6820e+00
82	PAN070136	-25.2163	-20.0283	-23.3287	1.8883e+00	8.7195e-01
83	PAN080136	-13.9324	-3.3275	-10.9218	2.5910e+00	8.7043e-01
84	PAN090136	-12.0337	-7.7613	-10.2332	1.1799e+00	8.7038e-01
85	PAN100136	-12.7218	-4.6347	-9.3573	1.3791e+00	8.7031e-01
86	PAN105136	-6.6000	-2.4038	-4.9276	9.3082e-01	8.7009e-01
87	PAN110136	-6.0176	-2.8133	-4.2796	8.3409e-01	8.7007e-01
88	PAN115136	-5.7094	-3.8021	-4.7405	4.4918e-01	8.7008e-01
89	PAN120136	-6.8876	-3.8359	-5.0779	7.4083e-01	8.7009e-01
90	PAN125136	-4.5283	-1.8580	-3.7074	6.3075e-01	8.7005e-01
91	PAN130136	-6.5297	-5.3090	-5.9453	3.0966e-01	8.7013e-01
92	PAN120048	-10.3421	-7.2904	-9.7104	5.3284e-01	8.7034e-01
93	PAN130048	-10.8599	-9.5629	-10.1656	2.3133e-01	8.7037e-01
94	PAN120224	-10.1073	-7.4370	-9.0544	6.0918e-01	8.7029e-01
95	PAN130224	-10.4683	-8.9424	-9.9327	2.6135e-01	8.7035e-01
96	PAN120312	-10.7632	-7.7878	-9.4220	5.7323e-01	8.7032e-01
97	PAN130312	-10.1263	-8.1427	-9.3359	3.9078e-01	8.7031e-01
98	PAB000136	40.3597	40.5886	40.4751	5.1691e-02	5.8876e-01
99	PAB100136	43.8281	44.2859	44.1486	8.1153e-02	5.9041e-01
100	PAB125136	45.0112	45.1943	45.0900	4.8972e-02	5.9085e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	40.0604	40.4266	40.2776	8.6458e-02	7.5673e-01
102	PRV0000001	19.7263	19.8484	19.8337	4.0071e-02	7.5164e-01
103	PSR0000001	45.4034	45.5254	45.4107	2.9284e-02	7.5854e-01
104	PFH0000001	1.4032	1.6779	1.5167	6.5552e-02	5.0001e-01
105	PAN000136	-138.1916	-133.1562	-134.6302	8.0247e-01	4.9315e+00
106	PFH0000002	1.6041	1.6544	1.6379	1.2725e-02	2.0004e-01
107	EMPTY	-0.0049	0.0000	-0.0046	1.1714e-03	0.0000e+00
108	EMPTY	-9.9707	-9.3945	-9.7473	1.0833e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0006	1.6028e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0013	2.1635e-03	0.0000e+00
112	VPW0000001	100.0113	101.5738	100.7183	3.9634e-01	1.0106e+00
113	VPW0000002	119.5650	120.7369	120.1900	2.6762e-01	1.0845e+00
114	VPW0000003	147.4534	149.0159	148.1996	3.5882e-01	1.2028e+00
115	VPW0000004	104.5523	106.5054	105.6030	4.4273e-01	1.0284e+00
116	VPW0000005	139.1639	141.5076	140.3905	5.7323e-01	1.1686e+00
117	VPW0000006	146.4506	148.2084	147.4155	4.0512e-01	1.1993e+00
118	IPW0000001	543.8778	557.5443	550.5547	3.0320e+00	9.1939e+00
119	IPW0000002	1291.5154	1307.1256	1299.0084	3.2831e+00	1.3074e+01
120	IPW0000003	1310.7749	1328.3248	1318.9258	3.8938e+00	1.3198e+01
121	IPW0000004	376.5869	384.3994	380.9230	1.9721e+00	3.6133e+00
122	IPW0000005	250.9984	256.8572	253.7911	1.2862e+00	2.8319e+00
123	IPW0000006	264.1320	269.0148	266.6709	9.3064e-01	2.9049e+00
124	EMPTY	-0.0293	-0.0195	-0.0232	3.0501e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0160	2.6174e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0187	3.3728e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0176	3.6911e-03	0.0000e+00
128	IHT0000001	131.3063	134.0407	132.5329	5.9848e-01	4.3089e+00
129	IHT0000002	132.0162	134.5553	133.0005	6.3253e-01	4.3103e+00
130	IHT0000003	131.2199	133.7590	132.3918	6.2639e-01	4.3085e+00
131	IHT0000004	131.6932	134.2323	132.8964	6.5716e-01	4.3100e+00
132	IHT0000005	129.2518	131.5955	130.4432	6.0393e-01	4.3025e+00
133	IHT0000006	125.3118	127.6555	126.4718	5.9111e-01	4.2906e+00
134	IHT0000007	130.0030	132.5421	131.2530	6.0618e-01	4.3050e+00
135	IHT0000008	130.2246	132.7637	131.3730	5.9535e-01	4.3053e+00
136	IHT0000009	130.9157	133.4548	132.1344	5.7799e-01	4.3077e+00
137	IHT0000010	129.9354	132.6698	131.1932	6.4375e-01	4.3048e+00
138	IHT0000011	134.1609	137.0906	135.4266	6.5701e-01	4.3179e+00
139	IHT0000012	128.0574	131.1824	129.2762	6.7952e-01	4.2990e+00
140	IHT0000013	91.1058	94.8167	92.7581	6.8027e-01	4.2036e+00
141	IHT0000014	127.4377	130.5627	128.8673	7.9159e-01	4.2978e+00
142	IHT0000015	95.1360	98.2610	96.6281	6.7631e-01	4.2123e+00
143	IHT0000016	86.8953	89.4343	88.0398	5.9583e-01	4.1935e+00
144	IHT0000017	104.8828	108.3984	106.8828	8.2067e-01	4.2370e+00
145	IHT0000018	107.6360	110.3703	109.2336	6.7044e-01	4.2430e+00
146	IHT0000019	103.9626	106.3063	105.1579	5.3181e-01	4.2327e+00
147	IHT0000020	106.4002	108.9393	107.7596	5.1593e-01	4.2392e+00
148	IHT0000021	-2.7606	0.1690	-1.4169	5.9926e-01	4.1000e+00
149	IHT0000022	90.2381	93.3631	91.7616	6.0875e-01	4.2014e+00
150	IHT0000023	105.6040	108.5336	106.9556	5.9692e-01	4.2372e+00
151	IHT0000024	70.6881	73.4225	71.8560	5.8192e-01	4.1625e+00
152	IHT0000025	103.3842	106.1185	104.7280	5.9535e-01	4.2316e+00
153	IHT0000026	105.0668	107.9965	106.3052	6.1080e-01	4.2356e+00
154	IHT0000027	88.0972	91.2222	89.2925	6.6338e-01	4.1961e+00
155	IHT0000028	89.8513	92.1950	91.1325	6.0123e-01	4.2001e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	105.4537	107.7975	106.6099	5.6612e-01	4.2363e+00
157	IHT0000030	107.2792	109.4276	108.4159	5.6866e-01	4.2409e+00
158	IHT0000031	106.1749	108.3233	107.2569	5.5693e-01	4.2380e+00
159	IHT0000032	107.6285	109.9722	108.6636	5.4426e-01	4.2416e+00
160	IHT0000033	107.6097	109.9534	108.6097	5.6171e-01	4.2414e+00
161	IHT0000034	93.6035	95.7520	94.8652	6.0129e-01	4.2083e+00
162	IHT0000035	123.6178	126.5475	125.0435	7.0944e-01	4.2864e+00
163	IHT0000036	92.0260	94.9557	93.5533	6.4318e-01	4.2054e+00

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Velocity 1 = 3.1260 (ft/sec) (+/- 17.5540 %)
 Velocity 2 = 3.2025 (ft/sec) (+/- 6.2142 %)
 Pressure drop = -4.8704 (psi)
 Tsat in = 267.9026 (deg F) Tsat out = 274.5328 (deg F)
 Phi inner = 101.3582 (kBtu/hr-ft2) (+/- 1.4111 %)
 Phi outer = 101.2520 (kBtu/hr-ft2) (+/- 1.6178 %)
 D inner = 0.1962 (ft) D outer = 0.2413 (ft) D hyd = 0.0389 (ft)
 L inner = 12.8550 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	77.0286	77.6656	77.3514	1.8814e-01	1.9000e+00
1	TRF000002	77.4503	77.8725	77.7543	1.2907e-01	1.9000e+00
2	TRF000001	84.9976	85.7329	85.3551	1.9093e-01	1.9002e+00
3	TIN000001	85.2031	85.8350	85.5107	1.6309e-01	1.9002e+00
4	TRV000001	85.2605	86.0993	85.7089	1.8213e-01	1.9002e+00
5	TSR000001	131.8043	133.8215	133.0388	5.2723e-01	1.9027e+00
6	TAO020136	201.0408	202.2957	201.6126	2.7433e-01	1.9116e+00
7	TAO050136	215.4770	217.0918	216.2139	4.1835e-01	1.9143e+00
8	TAO070136	210.4999	212.0373	211.2262	3.6060e-01	1.9134e+00
9	TAO080136	249.6035	250.4410	250.0061	2.2190e-01	1.9217e+00
10	TAO090136	260.0667	261.2712	260.6666	2.7084e-01	1.9243e+00
11	TAO100136	261.4413	262.6446	261.9935	2.8919e-01	1.9247e+00
12	TAO105136	267.0341	269.3475	268.5519	4.0995e-01	1.9264e+00
13	TAO110136	275.9743	277.2501	276.5951	2.6069e-01	1.9285e+00
14	TAO115136	274.4697	275.9473	275.1349	3.5052e-01	1.9281e+00
15	TAO120136	284.3117	285.0417	284.7166	1.9211e-01	1.9308e+00
16	TAO125136	278.2986	279.8570	279.0982	4.0322e-01	1.9292e+00
17	TAO130136	276.1030	277.0117	276.6029	2.0478e-01	1.9285e+00
18	TAO120048	285.0556	285.8791	285.4032	1.6740e-01	1.9310e+00
19	TAO130048	282.2508	283.0738	282.6748	1.8359e-01	1.9302e+00
20	TAO120224	285.3715	286.2864	285.8653	2.0988e-01	1.9311e+00
21	TAO130224	275.2030	276.3013	275.7377	2.4181e-01	1.9283e+00
22	TAO120312	283.8723	284.7891	284.3417	2.1485e-01	1.9307e+00
23	TAO130312	282.9401	283.5809	283.2152	1.6852e-01	1.9304e+00
24	TRT020000	199.0051	200.9407	199.7257	3.6585e-01	1.9113e+00
25	TRT070000	249.1306	250.4472	249.7283	3.0841e-01	1.9216e+00
26	TRT100000	276.5767	277.5863	277.0354	1.8737e-01	1.9287e+00
27	TRT120000	283.4384	284.2624	283.8666	1.8074e-01	1.9306e+00
28	TRT125000	289.6772	290.3140	289.9969	1.6966e-01	1.9323e+00
29	TRT130000	284.2914	285.1140	284.7371	1.5641e-01	1.9308e+00
30	EMPTY	39.1464	40.0646	39.6194	2.2913e-01	1.9011e+00
31	TAF050136	142.6082	146.2100	144.1900	8.2574e-01	1.9037e+00
32	TAF070136	167.6045	171.1365	168.8459	7.8181e-01	1.9066e+00
33	TAF080136	243.3475	269.1924	250.8683	8.7423e+00	1.9219e+00
34	TAF090136	178.3510	181.6711	179.9532	7.1677e-01	1.9081e+00
35	TAF100136	203.1618	207.8796	205.3084	1.2019e+00	1.9123e+00
36	TAF105136	208.6328	213.4746	210.5144	1.1775e+00	1.9133e+00
37	TAF110136	239.2706	241.8000	240.3428	5.8953e-01	1.9194e+00
38	TAF115136	222.0685	224.7237	223.2486	6.7326e-01	1.9158e+00
39	TAF120136	264.5427	266.2018	265.3023	4.2171e-01	1.9255e+00
40	TAF125136	235.7548	239.0285	236.8365	6.7071e-01	1.9187e+00
41	TAF130136	240.1953	242.4446	241.1404	5.5162e-01	1.9196e+00
42	TAF120048	235.7984	238.0749	237.0670	5.9276e-01	1.9187e+00
43	TAF130048	249.0241	252.0089	250.0058	5.0610e-01	1.9217e+00
44	TAF120224	233.5805	235.9377	234.8215	5.5551e-01	1.9182e+00
45	TAF130224	242.6600	244.5451	243.5802	4.3630e-01	1.9202e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.0618	1.9730e-01	1.9010e+00
47	EMPTY	39.6057	40.5234	39.8719	1.9315e-01	1.9011e+00
48	TAI130138	277.9394	278.9508	278.5277	2.6067e-01	1.9291e+00
49	TAI130226	277.8772	278.9765	278.4191	2.3389e-01	1.9290e+00
50	TAI130314	281.2003	282.4871	281.8806	3.0907e-01	1.9300e+00
51	TAI130042	280.1205	281.3143	280.7450	2.8072e-01	1.9297e+00
52	TRR130090	143.2763	145.1802	144.3825	4.5158e-01	1.9037e+00
53	TSI000001	48.2493	49.1156	48.8208	1.8436e-01	1.9003e+00
54	TSI000002	140.6669	142.3738	141.5384	3.5204e-01	1.9034e+00
55	TSO000001	46.2629	47.2428	46.7465	2.3497e-01	1.9004e+00
56	TSO000002	67.1182	67.9715	67.4980	2.2298e-01	1.9000e+00
57	TAF020136	104.7445	107.1337	105.7754	5.6201e-01	1.9009e+00
58	TAF120312	236.4945	238.8451	237.6871	4.9411e-01	1.9188e+00
59	TAF130312	261.2978	263.7945	262.4896	5.9234e-01	1.9248e+00
60	EMPTY	4.7510	4.7754	4.7611	5.2050e-03	0.0000e+00
61	EMPTY	4.7412	4.7510	4.7462	3.0389e-03	0.0000e+00
62	EMPTY	4.7266	4.7363	4.7316	2.6025e-03	0.0000e+00
63	EMPTY	4.7168	4.7314	4.7244	2.8179e-03	0.0000e+00
64	EMPTY	2.1875	2.1924	2.1914	1.9730e-03	0.0000e+00
65	EMPTY	2.1973	2.2021	2.2012	1.9730e-03	0.0000e+00
66	EMPTY	2.2021	2.2119	2.2070	1.3951e-03	0.0000e+00
67	EMPTY	2.2119	2.2168	2.2135	2.3008e-03	0.0000e+00
68	EMPTY	2.2168	2.2217	2.2172	1.3381e-03	0.0000e+00
69	EMPTY	2.2266	2.2266	2.2266	0.0000e+00	0.0000e+00
70	EMPTY	2.2314	2.2363	2.2316	9.6655e-04	0.0000e+00
71	EMPTY	2.2461	2.2461	2.2461	0.0000e+00	0.0000e+00
72	EMPTY	2.2461	2.2510	2.2507	1.1714e-03	0.0000e+00
73	EMPTY	2.2559	2.2607	2.2603	1.4797e-03	0.0000e+00
74	EMPTY	2.2607	2.2656	2.2655	6.9053e-04	0.0000e+00
75	EMPTY	2.2705	2.2754	2.2706	6.9053e-04	0.0000e+00
76	EMPTY	2.2754	2.2803	2.2757	1.1714e-03	0.0000e+00
77	EMPTY	2.2852	2.2900	2.2855	1.3381e-03	0.0000e+00
78	EMPTY	2.2949	2.3047	2.2998	9.8648e-04	0.0000e+00
79	EMPTY	2.3145	2.3193	2.3148	1.3381e-03	0.0000e+00
80	PAN020136	-17.4184	-15.7400	-16.3076	2.7277e-01	8.7095e-01
81	PAN050136	-35.4425	-32.3907	-33.1506	7.0869e-01	1.6820e+00
82	PAN070136	-25.2163	-19.2653	-22.7733	2.0229e+00	8.7186e-01
83	PAN080136	-13.9324	-5.1586	-11.7244	2.3032e+00	8.7049e-01
84	PAN090136	-12.1100	-4.7858	-10.2057	1.5196e+00	8.7037e-01
85	PAN100136	-13.2559	-7.7627	-9.9493	1.0298e+00	8.7036e-01
86	PAN105136	-6.6000	-3.2431	-4.8956	8.4066e-01	8.7009e-01
87	PAN110136	-6.0176	-1.8978	-4.8168	7.9494e-01	8.7008e-01
88	PAN115136	-6.5487	-2.6577	-4.4231	7.9092e-01	8.7007e-01
89	PAN120136	-6.9639	-3.5307	-5.1451	7.7627e-01	8.7010e-01
90	PAN125136	-6.3594	-3.1550	-5.3065	8.0624e-01	8.7010e-01
91	PAN130136	-5.3090	-2.1047	-4.2180	8.3537e-01	8.7006e-01
92	PAN120048	-10.5710	-8.0533	-9.8386	5.1191e-01	8.7035e-01
93	PAN130048	-11.1651	-9.6392	-10.0710	2.8655e-01	8.7036e-01
94	PAN120224	-10.1073	-7.5896	-9.2101	7.0171e-01	8.7030e-01
95	PAN130224	-10.0105	-8.7135	-9.5772	3.2164e-01	8.7033e-01
96	PAN120312	-10.4580	-7.9403	-9.3258	5.3380e-01	8.7031e-01
97	PAN130312	-9.9738	-8.9819	-9.5358	2.5271e-01	8.7033e-01
98	PAB000136	40.1766	40.5886	40.3597	9.5216e-02	5.8871e-01
99	PAB100136	43.9197	44.2401	44.0643	6.8186e-02	5.9037e-01
100	PAB125136	44.9197	45.2401	45.0643	6.8186e-02	5.9084e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.9383	40.5486	40.1824	1.6172e-01	7.5670e-01
102	PRV0000001	19.7263	19.8484	19.7824	6.1457e-02	7.5163e-01
103	PSR0000001	45.2813	45.4034	45.3350	6.1209e-02	7.5852e-01
104	PFM0000001	1.3117	1.5863	1.4307	8.1153e-02	5.0001e-01
105	PAN000136	-136.8183	-133.1562	-134.8408	7.9255e-01	4.9315e+00
106	PFM0000002	1.4530	1.5537	1.5037	2.3362e-02	2.0004e-01
107	EMPTY	-0.0049	0.0049	-0.0039	2.4164e-03	0.0000e+00
108	EMPTY	-8.9648	-8.0420	-8.4175	1.9276e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0009	1.8950e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0012	2.1065e-03	0.0000e+00
112	VPW0000001	100.5972	101.1832	100.8941	1.3805e-01	1.0112e+00
113	VPW0000002	119.9557	120.3463	120.1861	1.2283e-01	1.0845e+00
114	VPW0000003	147.8440	148.4300	148.1840	1.6652e-01	1.2027e+00
115	VPW0000004	105.3335	106.1148	105.6890	1.6120e-01	1.0287e+00
116	VPW0000005	140.1405	140.7264	140.5272	1.5020e-01	1.1692e+00
117	VPW0000006	147.0365	147.6225	147.3882	1.4764e-01	1.1992e+00
118	IPW0000001	541.9255	549.7349	546.2988	1.8735e+00	9.1780e+00
119	IPW0000002	1297.3693	1309.0769	1302.6766	3.1547e+00	1.3096e+01
120	IPW0000003	1318.5748	1326.3749	1322.9435	1.6032e+00	1.3223e+01
121	IPW0000004	383.4229	385.8643	384.8293	6.5910e-01	3.6390e+00
122	IPW0000005	253.4396	255.3925	254.3965	4.0622e-01	2.8353e+00
123	IPW0000006	266.0851	268.0382	266.9248	4.3045e-01	2.9063e+00
124	EMPTY	-0.0293	-0.0146	-0.0224	3.8321e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0139	3.0180e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0176	4.1853e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0169	3.1521e-03	0.0000e+00
128	IHT0000001	131.3063	134.2360	132.6891	6.8327e-01	4.3094e+00
129	IHT0000002	132.0162	134.5553	133.1958	6.3006e-01	4.3109e+00
130	IHT0000003	131.2159	134.1496	132.6066	6.5465e-01	4.3091e+00
131	IHT0000004	131.8885	134.4276	133.1542	6.2295e-01	4.3108e+00
132	IHT0000005	129.4471	131.9862	130.6620	6.1167e-01	4.3032e+00
133	IHT0000006	125.5071	128.0461	126.7609	5.8937e-01	4.2915e+00
134	IHT0000007	130.3936	132.7374	131.4991	5.6718e-01	4.3057e+00
135	IHT0000008	130.6152	132.5683	131.6191	5.6083e-01	4.3061e+00
136	IHT0000009	131.3064	134.0407	132.2985	5.9692e-01	4.3082e+00
137	IHT0000010	130.1307	132.4745	131.1659	4.7882e-01	4.3047e+00
138	IHT0000011	134.5515	136.3093	135.4344	4.5888e-01	4.3179e+00
139	IHT0000012	127.8621	130.2058	129.2059	4.6293e-01	4.2988e+00
140	IHT0000013	91.6917	94.0354	92.7737	4.3083e-01	4.2037e+00
141	IHT0000014	127.6330	130.1720	129.0001	4.6354e-01	4.2982e+00
142	IHT0000015	95.3313	97.8704	96.7297	4.6246e-01	4.2126e+00
143	IHT0000016	86.8953	89.4343	88.1882	4.4798e-01	4.1938e+00
144	IHT0000017	105.2734	108.9844	107.1406	9.5778e-01	4.2377e+00
145	IHT0000018	107.8313	110.1750	109.0344	5.1654e-01	4.2425e+00
146	IHT0000019	103.9626	106.1110	104.9235	4.8302e-01	4.2321e+00
147	IHT0000020	106.7909	108.7440	107.6737	4.5718e-01	4.2390e+00
148	IHT0000021	-2.7606	0.1690	-1.4325	6.6028e-01	4.1000e+00
149	IHT0000022	90.8241	92.9725	91.7498	5.0963e-01	4.2014e+00
150	IHT0000023	105.7993	107.9477	106.8579	5.0546e-01	4.2370e+00
151	IHT0000024	70.6881	72.6412	71.7037	4.6522e-01	4.1622e+00
152	IHT0000025	103.5795	105.5326	104.6616	4.9318e-01	4.2315e+00
153	IHT0000026	105.2622	107.2153	106.2661	4.8329e-01	4.2355e+00
154	IHT0000027	88.2925	90.6363	89.3550	5.1321e-01	4.1962e+00
155	IHT0000028	90.0466	92.7809	91.2810	5.8052e-01	4.2004e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	105.0631	107.6021	106.5826	5.8433e-01	4.2363e+00
157	IHT0000030	106.8885	109.6229	108.4315	5.7079e-01	4.2410e+00
158	IHT0000031	105.7842	108.7139	107.3389	5.5096e-01	4.2382e+00
159	IHT0000032	106.8472	110.3628	108.7339	5.9137e-01	4.2417e+00
160	IHT0000033	106.8284	110.1487	108.6917	5.7752e-01	4.2416e+00
161	IHT0000034	93.6035	96.3379	95.1270	4.7842e-01	4.2089e+00
162	IHT0000035	123.8131	126.7428	125.2388	4.9795e-01	4.2870e+00
163	IHT0000036	92.4166	95.3463	93.7173	4.7778e-01	4.2057e+00

DEFECTIVE INSTRUMENTS FOR THE RIBBED GEOMETRY TEST SERIES

Series	Tests	Defective Instruments
1	May03_11 to May03_21	TAO070136 TAF020136 TRR130090 TAO120136 TAF080136 TAF090136 TAF110136 TAF120136 TAF130312 IHT000021 IHT000024 IHT000033

Chapter 7

NUCLEATE BOILING PRESSURE DROP IN AN ANNULUS

Test Geometry: Ribbed (3)
Test Series: 2
Test Date: May 7, 1990

TOTAL PRESSURE DROP (psi)

□ SERIES 2, 05/07/90 — UNHEATED, 05/01/90

TEST NUMBER	INLET VELOCITY(a) (ft/s)	PRESSURE DROP(b) (psi)
May07_01	26.01	18.46
May07_02	19.78	8.93
May07_03	14.02	2.16
May07_04	8.09	-2.71
May07_05	6.14	-3.77
May07_06	4.02	-4.64
May07_07	3.08	-4.89
May07_08	2.94	-4.92
May07_09	2.93	-4.92

(c)

NOMINAL TEST CONDITIONS	
Annulus geometry	ribbed (3)
Inlet temperature	86 °F
Inlet pressure	60 psia
Wall heat flux	100 kBtu/hr-ft ²
Flux distribution	uniform
He saturation pressure	5 psig

NOTES:

(a) Inlet velocity calculated from PFM000001 and PFM000002 (for $V \leq 13$ ft/s)

(b) Pressure drop calculated from PAN000136

(c) Shading notes test at minimum pressure drop

DEMAND CURVE AND DATA FOR SERIES 2 - RIBBED ANNULUS

SERIES 2, MAY07_02
 RIBBED (3)
 $\phi = 101,800 \text{ Btu/hr-ft}^2$
 $V_t = 19.78 \text{ ft/sec}$

$P_{\text{He}} = 5 \text{ psig}$
 $P = 59.91 \text{ psia}$
 $T = 87.10 \text{ }^\circ\text{F}$
 $L = 12.83 \text{ ft}$

RIBBED (3)
 $\phi = 101,800 \text{ Btu/hr-ft}^2$
 $V_t = 19.78 \text{ ft/sec}$

$P_{\text{He}} = 5 \text{ psig}$
 $P = 59.91 \text{ psia}$
 $T = 87.10 \text{ }^\circ\text{F}$
 $L = 12.83 \text{ ft}$

MAY07_02

SERIES 2, MAY07_03

RIBBED (3)

$\Phi = 101,300 \text{ Btu/hr-ft}^2$

$V_f = 14.02 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 60.21 \text{ psia}$

$T = 86.12 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

RIBBED (3)

$\Phi = 101,300 \text{ Btu/hr-ft}^2$

$V_f = 14.02 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 60.21 \text{ psia}$

$T = 86.12 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

SERIES 2, MAY07_04

RIBBED (3)

$\phi = 101,700 \text{ Btu/hr-ft}^2$

$V_t = 8.09 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 59.99 \text{ psia}$

$T = 85.81 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

RIBBED (3)

$\phi = 101,700 \text{ Btu/hr-ft}^2$

$V_t = 8.09 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 59.99 \text{ psia}$

$T = 85.81 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

MAY07_04

SERIES 2, MAY07_06
 RIBBED (3)
 $\phi = 101,200 \text{ Btu/hr-ft}^2$
 $V_t = 4.01 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$
 $P = 60.10 \text{ psia}$
 $T = 87.09 \text{ }^\circ\text{F}$
 $L = 12.83 \text{ ft}$

RIBBED (3)
 $\phi = 101,200 \text{ Btu/hr-ft}^2$
 $V_t = 4.01 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$
 $P = 60.10 \text{ psia}$
 $T = 87.09 \text{ }^\circ\text{F}$
 $L = 12.83 \text{ ft}$

MAY07_06

SERIES 2, MAY07_07

RIBBED (3)

$\phi = 101,800 \text{ Btu/hr-ft}^2$

$V_f = 3.08 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 60.42 \text{ psia}$

$T = 87.25 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

RIBBED (3)

$\phi = 101,800 \text{ Btu/hr-ft}^2$

$V_f = 3.08 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 60.42 \text{ psia}$

$T = 87.25 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

MAY07_07

SERIES 2, MAY07_08

RIBBED (3)

$\phi = 101,800 \text{ Btu/hr-ft}^2$

$V_i = 2.94 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 60.42 \text{ psia}$

$T = 87.22 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

RIBBED (3)

$\phi = 101,800 \text{ Btu/hr-ft}^2$

$V_i = 2.94 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 60.42 \text{ psia}$

$T = 87.22 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

MAY07_08

SERIES 2, MAY07_09

RIBBED (3)

$\phi = 100,900 \text{ Btu/hr-ft}^2$

$V_t = 2.93 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P_{He} = 59.96 \text{ psia}$

$T = 87.17 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

RIBBED (3)

$\phi = 100,900 \text{ Btu/hr-ft}^2$

$V_t = 2.93 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 59.96 \text{ psia}$

$T = 87.17 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

MAY07_09

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Velocity 1 = 26.0120 (ft/sec) (+/- 1.6888 %)
 Velocity 2 = 13.4278 (ft/sec) (+/- 1.7031 %)
 Pressure drop = 18.4551 (psi)
 Tsat in = 292.6398 (deg F) Tsat out = 270.8284 (deg F)
 Phi inner = 102.1363 (kBtu/hr-ft2) (+/- 1.4086 %)
 Phi outer = 102.0675 (kBtu/hr-ft2) (+/- 1.6160 %)
 D inner = 0.1962 (ft) D outer = 0.2413 (ft) D hyd = 0.0389 (ft)
 L inner = 12.8550 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	73.0539	73.6925	73.4201	1.6679e-01	1.9000e+00
1	TRF000002	72.9394	73.5746	73.3459	1.5328e-01	1.9000e+00
2	TFM000001	85.8191	86.6571	86.2050	1.8878e-01	1.9002e+00
3	TIN000001	85.2460	85.9828	85.5956	1.5672e-01	1.9002e+00
4	TRV000001	85.2411	86.0789	85.6807	2.0930e-01	1.9002e+00
5	TSR000001	103.1167	104.1489	103.6293	2.6616e-01	1.9008e+00
6	TAO020136	107.0163	107.9476	107.3559	2.1004e-01	1.9009e+00
7	TAO050136	107.2193	107.8384	107.4343	1.6629e-01	1.9009e+00
8	TAO070136	112.1202	112.9442	112.5199	1.9490e-01	1.9012e+00
9	TAO080136	114.2046	114.8187	114.4910	1.6161e-01	1.9013e+00
10	TAO090136	115.6581	116.4771	116.0509	1.7590e-01	1.9014e+00
11	TAO100136	112.1711	112.8902	112.5981	1.5449e-01	1.9012e+00
12	TAO105136	114.1768	115.1019	114.6947	2.1871e-01	1.9013e+00
13	TAO110136	115.7748	116.4891	116.1949	1.6198e-01	1.9014e+00
14	TAO115136	114.3251	115.1488	114.7700	1.9546e-01	1.9013e+00
15	TAO120136	119.1925	119.6019	119.3725	1.2112e-01	1.9016e+00
16	TAO125136	115.0991	115.8166	115.5253	1.8203e-01	1.9014e+00
17	TAO130136	114.6872	115.2999	114.9849	1.6328e-01	1.9014e+00
18	TAO120048	118.9306	119.6465	119.3599	1.6126e-01	1.9016e+00
19	TAO130048	115.7734	116.4900	116.1541	1.4928e-01	1.9014e+00
20	TAO120224	118.3353	119.0524	118.6592	1.7343e-01	1.9016e+00
21	TAO130224	113.7113	114.4266	114.0835	1.6888e-01	1.9013e+00
22	TAO120312	117.6029	118.4227	118.0415	1.8974e-01	1.9016e+00
23	TAO130312	118.0468	118.6606	118.3822	1.4174e-01	1.9016e+00
24	TRT020000	105.6921	106.4181	106.0199	1.8536e-01	1.9009e+00
25	TRT070000	112.3589	112.9792	112.6610	1.7677e-01	1.9012e+00
26	TRT100000	120.1092	120.9247	120.5862	1.7544e-01	1.9017e+00
27	TRT120000	117.2469	117.8614	117.5950	1.5342e-01	1.9015e+00
28	TRT125000	120.5584	121.4737	121.0059	1.9059e-01	1.9018e+00
29	TRT130000	119.3490	119.8607	119.5948	1.4882e-01	1.9017e+00
30	EMPTY	39.1464	39.8352	39.5460	2.2631e-01	1.9011e+00
31	TAF050136	93.1474	93.7730	93.4850	1.5262e-01	1.9004e+00
32	TAF070136	96.3941	97.0174	96.7064	1.5259e-01	1.9005e+00
33	TAF080136	114.4470	115.0597	114.8068	1.5202e-01	1.9014e+00
34	TAF090136	99.4941	100.5313	99.9590	2.2884e-01	1.9006e+00
35	TAF100136	99.5550	100.3875	100.0003	1.9724e-01	1.9006e+00
36	TAF105136	100.4707	101.2965	100.8056	2.0347e-01	1.9006e+00
37	TAF110136	104.8083	105.3251	105.0934	1.2433e-01	1.9008e+00
38	TAF115136	102.3450	103.0708	102.6812	1.6413e-01	1.9007e+00
39	TAF120136	108.2608	108.9814	108.6639	1.3465e-01	1.9010e+00
40	TAF125136	103.5811	104.7147	104.2528	2.5251e-01	1.9008e+00
41	TAF130136	104.6779	105.2983	104.9508	1.7183e-01	1.9008e+00
42	TAF120048	103.9497	104.9894	104.5491	1.9996e-01	1.9008e+00
43	TAF130048	105.0888	105.8123	105.5186	1.7003e-01	1.9008e+00
44	TAF120224	103.6367	104.3615	104.0962	1.7638e-01	1.9008e+00
45	TAF130224	104.3452	105.1769	104.7613	1.8644e-01	1.9008e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.0388	1.9538e-01	1.9010e+00
47	EMPTY	38.9168	39.3761	39.2016	1.0940e-01	1.9010e+00
48	TAI130138	114.5727	115.9067	115.2501	3.4928e-01	1.9014e+00
49	TAI130226	112.8121	113.7346	113.3897	1.7526e-01	1.9013e+00
50	TAI130314	115.2465	116.0691	115.6700	2.2447e-01	1.9014e+00
51	TAI130042	112.9721	113.5896	113.2644	1.7307e-01	1.9013e+00
52	TRR130090	122.3220	124.7624	123.7131	5.4780e-01	1.9019e+00
53	TSI0000001	46.1929	46.8440	46.4796	1.5750e-01	1.9004e+00
54	TSI0000002	108.9262	110.1593	109.6490	3.0159e-01	1.9011e+00
55	TSO0000001	45.2423	46.1136	45.5869	1.9957e-01	1.9004e+00
56	TSO0000002	51.4228	52.2864	51.7899	2.2547e-01	1.9002e+00
57	TAF020136	86.6516	87.3895	87.0482	1.8601e-01	1.9002e+00
58	TAF120312	103.3791	104.5158	103.8999	3.0741e-01	1.9008e+00
59	TAF130312	106.9240	107.7494	107.2833	1.8550e-01	1.9009e+00
60	EMPTY	0.9912	1.0010	0.9931	2.5894e-03	0.0000e+00
61	EMPTY	1.0010	1.0059	1.0041	2.3675e-03	0.0000e+00
62	EMPTY	1.0107	1.0205	1.0152	1.9331e-03	0.0000e+00
63	EMPTY	1.0254	1.0352	1.0285	2.5648e-03	0.0000e+00
64	EMPTY	0.5762	0.5811	0.5771	1.9730e-03	0.0000e+00
65	EMPTY	0.5957	0.6006	0.5975	2.3675e-03	0.0000e+00
66	EMPTY	0.6104	0.6201	0.6126	2.6488e-03	0.0000e+00
67	EMPTY	0.6299	0.6348	0.6300	6.9053e-04	0.0000e+00
68	EMPTY	0.6396	0.6494	0.6436	2.2058e-03	0.0000e+00
69	EMPTY	0.6592	0.6641	0.6593	6.9053e-04	0.0000e+00
70	EMPTY	0.6738	0.6787	0.6739	6.9053e-04	0.0000e+00
71	EMPTY	0.6934	0.6982	0.6981	6.9053e-04	0.0000e+00
72	EMPTY	0.7080	0.7129	0.7086	1.6028e-03	0.0000e+00
73	EMPTY	0.7275	0.7324	0.7277	9.6655e-04	0.0000e+00
74	EMPTY	0.7373	0.7471	0.7423	1.2041e-03	0.0000e+00
75	EMPTY	0.7568	0.7617	0.7577	1.8950e-03	0.0000e+00
76	EMPTY	0.7715	0.7764	0.7719	1.3381e-03	0.0000e+00
77	EMPTY	0.7910	0.7910	0.7910	0.0000e+00	0.0000e+00
78	EMPTY	0.8105	0.8154	0.8126	2.4344e-03	0.0000e+00
79	EMPTY	0.8350	0.8350	0.8350	0.0000e+00	0.0000e+00
80	PAN020136	62.7871	66.6018	64.8440	1.1420e+00	8.8497e-01
81	PAN050136	116.3590	117.7323	117.0487	2.9446e-01	1.7053e+00
82	PAN070136	82.8835	84.2568	83.4755	2.7511e-01	8.9468e-01
83	PAN080136	42.1218	43.0373	42.6147	1.9931e-01	8.7650e-01
84	PAN090136	36.7871	37.4737	37.2052	1.6690e-01	8.7496e-01
85	PAN100136	39.8299	40.3640	40.0710	1.2556e-01	8.7575e-01
86	PAN105136	19.5790	19.9604	19.7544	1.0926e-01	8.7140e-01
87	PAN110136	22.9829	23.5932	23.3109	1.4148e-01	8.7195e-01
88	PAN115136	19.9458	20.4798	20.2113	1.2258e-01	8.7147e-01
89	PAN120136	16.0402	16.4216	16.2187	7.9511e-02	8.7094e-01
90	PAN125136	22.0585	22.5926	22.3759	1.2744e-01	8.7180e-01
91	PAN130136	20.7865	21.1680	20.9544	1.2038e-01	8.7158e-01
92	PAN120048	45.9614	46.4955	46.2315	1.2636e-01	8.7764e-01
93	PAN130048	37.2712	37.7290	37.4772	1.0595e-01	8.7503e-01
94	PAN120224	36.3043	36.7621	36.5225	1.1222e-01	8.7478e-01
95	PAN130224	40.1923	40.7264	40.4807	1.2262e-01	8.7587e-01
96	PAN120312	40.5958	41.2062	40.8644	1.3978e-01	8.7598e-01
97	PAN130312	43.1268	43.7372	43.4030	1.4775e-01	8.7674e-01
98	PAB000136	59.8322	60.2442	60.0281	9.3877e-02	5.9910e-01
99	PAB100136	45.9303	46.1134	46.0182	4.5156e-02	5.9130e-01
100	PAB125136	42.3147	42.4521	42.3815	4.9120e-02	5.8960e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	59.5208	60.3753	59.9309	1.6683e-01	7.6482e-01
102	PRV000001	19.3854	19.6296	19.5490	6.3406e-02	7.5159e-01
103	PSR000001	39.0906	39.2127	39.1248	5.5366e-02	7.5635e-01
104	PFM000001	103.2644	105.2786	104.3795	4.9758e-01	5.6400e-01
105	PAN000136	507.3693	513.7780	510.9399	1.5558e+00	5.0831e+00
106	PFM000002	27.6269	27.6269	27.6270	7.7069e-06	2.1159e-01
107	EMPTY	0.0049	0.0098	0.0091	1.7115e-03	0.0000e+00
108	EMPTY	-9.0723	-8.3008	-8.7347	1.5775e-01	0.0000e+00
109	EMPTY	0.0049	0.0098	0.0083	2.2603e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0004	1.3381e-03	0.0000e+00
112	VPW000001	101.7728	102.5541	102.1751	2.0659e-01	1.0158e+00
113	VPW000002	119.3322	119.7228	119.5118	1.5201e-01	1.0818e+00
114	VPW000003	147.2881	147.8741	147.5381	1.5303e-01	1.1999e+00
115	VPW000004	104.5974	105.7692	105.2653	2.4031e-01	1.0271e+00
116	VPW000005	139.2240	140.2006	139.8686	2.2408e-01	1.1664e+00
117	VPW000006	146.2365	147.0177	146.5646	1.5505e-01	1.1956e+00
118	IPW000001	543.5775	551.3869	547.7556	1.8505e+00	9.1834e+00
119	IPW000002	1321.4598	1327.3136	1324.4261	1.9805e+00	1.3232e+01
120	IPW000003	1334.2500	1344.0000	1340.1385	2.9871e+00	1.3330e+01
121	IPW000004	380.9439	384.8501	383.1217	8.5551e-01	3.6278e+00
122	IPW000005	255.3831	257.8243	256.2618	5.4026e-01	2.8458e+00
123	IPW000006	268.4045	270.3576	269.2735	4.6574e-01	2.9198e+00
124	EMPTY	-0.0342	-0.0146	-0.0234	4.1853e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0146	3.2718e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0195	4.0673e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0161	3.1583e-03	0.0000e+00
128	IHT000001	131.8885	134.6229	133.3260	6.2858e-01	4.3113e+00
129	IHT000002	132.4557	134.9947	133.6033	5.9615e-01	4.3128e+00
130	IHT000003	131.4153	133.9543	132.8293	6.0304e-01	4.3098e+00
131	IHT000004	131.9035	134.8332	133.4777	5.9505e-01	4.3118e+00
132	IHT000005	129.6725	132.4069	130.9693	6.1733e-01	4.3041e+00
133	IHT000006	125.9089	128.4480	127.0301	5.8635e-01	4.2923e+00
134	IHT000007	130.4124	132.9514	131.5218	5.4454e-01	4.3058e+00
135	IHT000008	130.6303	133.1693	131.6342	5.4820e-01	4.3061e+00
136	IHT000009	131.4829	134.2172	132.5884	5.7265e-01	4.3091e+00
137	IHT000010	130.5025	132.2604	131.4400	4.1007e-01	4.3055e+00
138	IHT000011	134.7356	136.8840	135.7668	4.2506e-01	4.3189e+00
139	IHT000012	128.6358	130.9796	129.6397	5.0534e-01	4.3001e+00
140	IHT000013	92.0523	94.7867	93.2515	5.0534e-01	4.2047e+00
141	IHT000014	128.2039	130.3523	129.3563	5.3561e-01	4.2992e+00
142	IHT000015	96.3003	98.4488	97.1870	5.1329e-01	4.2136e+00
143	IHT000016	89.2052	91.1583	90.2482	4.7287e-01	4.1982e+00
144	IHT000017	105.2434	108.7590	106.8449	7.5798e-01	4.2369e+00
145	IHT000018	108.2294	110.7685	109.3818	5.9745e-01	4.2434e+00
146	IHT000019	103.3541	106.2838	105.0337	5.9582e-01	4.2324e+00
147	IHT000020	106.4153	109.5403	108.0715	6.0133e-01	4.2400e+00
148	IHT000021	-3.7522	-0.4319	-1.6741	6.6587e-01	4.1000e+00
149	IHT000022	92.1537	95.0834	94.0092	5.4854e-01	4.2064e+00
150	IHT000023	105.5965	108.5262	107.3504	5.2421e-01	4.2382e+00
151	IHT000024	70.9172	73.4563	72.5578	4.9756e-01	4.1637e+00
152	IHT000025	102.8921	105.4312	104.5562	5.0723e-01	4.2312e+00
153	IHT000026	104.8753	107.4144	106.4691	5.1351e-01	4.2360e+00
154	IHT000027	89.6334	92.3678	91.2701	5.5648e-01	4.2004e+00
155	IHT000028	92.1049	94.6439	93.1870	5.9216e-01	4.2046e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.6265	107.7749	106.6538	5.9426e-01	4.2364e+00
157	IHT000030	107.6435	110.1825	108.8584	6.1674e-01	4.2421e+00
158	IHT000031	106.7233	108.8717	107.7740	5.4945e-01	4.2393e+00
159	IHT000032	107.9890	110.5281	109.0672	5.8293e-01	4.2426e+00
160	IHT000033	107.7787	110.3178	108.9897	5.8793e-01	4.2424e+00
161	IHT000034	94.5425	96.3003	95.4019	4.1946e-01	4.2095e+00
162	IHT000035	124.7859	126.7390	125.6649	4.7882e-01	4.2883e+00
163	IHT000036	93.1866	94.9444	93.9756	4.5500e-01	4.2063e+00

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Velocity 1 = 19.7837 (ft/sec) (+/- 1.7225 %)
 Velocity 2 = 13.4296 (ft/sec) (+/- 1.7031 %)
 Pressure drop = 8.9287 (psi)
 Tsat in = 292.5740 (deg F) Tsat out = 282.6700 (deg F)
 Phi inner = 102.3051 (kBtu/hr-ft2) (+/- 1.4082 %)
 Phi outer = 101.3479 (kBtu/hr-ft2) (+/- 1.6178 %)
 D inner = 0.1962 (ft) D outer = 0.2413 (ft) D hyd = 0.0389 (ft)
 L inner = 12.8550 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	74.1181	74.9688	74.5392	1.8476e-01	1.9000e+00
1	TRF000002	74.2095	74.6326	74.4761	1.2685e-01	1.9000e+00
2	TRF000001	87.2882	88.1263	87.7324	2.0242e-01	1.9002e+00
3	TIN000001	86.7177	87.5578	87.1041	1.6767e-01	1.9002e+00
4	TRV000001	86.5014	87.6511	87.1616	2.4759e-01	1.9002e+00
5	TSR000001	103.9477	105.0829	104.5210	2.7649e-01	1.9008e+00
6	TAO020136	113.4134	114.2372	113.8914	2.3219e-01	1.9013e+00
7	TAO050136	114.2967	115.0137	114.6245	1.7077e-01	1.9013e+00
8	TAO070136	118.1891	118.9071	118.5011	1.7941e-01	1.9016e+00
9	TAO080136	123.0572	123.8710	123.3673	1.7669e-01	1.9019e+00
10	TAO090136	124.9391	125.6524	125.2450	1.6698e-01	1.9021e+00
11	TAO100136	121.2817	121.8948	121.5227	1.6081e-01	1.9018e+00
12	TAO105136	123.3974	124.2135	123.8258	1.9558e-01	1.9020e+00
13	TAO110136	125.5003	126.2112	125.8170	1.7330e-01	1.9021e+00
14	TAO115136	123.7624	124.7839	124.3142	2.2510e-01	1.9020e+00
15	TAO120136	129.3042	129.9121	129.5442	1.4429e-01	1.9024e+00
16	TAO125136	124.9919	125.8060	125.3580	1.9275e-01	1.9021e+00
17	TAO130136	124.2679	124.9750	124.5911	1.7099e-01	1.9020e+00
18	TAO120048	129.5157	130.1252	129.7959	1.4288e-01	1.9024e+00
19	TAO130048	125.8525	126.5635	126.2343	1.7961e-01	1.9021e+00
20	TAO120224	128.4273	129.2400	128.8702	1.9110e-01	1.9023e+00
21	TAO130224	123.1600	123.7690	123.5011	1.4195e-01	1.9019e+00
22	TAO120312	128.1181	129.0331	128.5371	1.9871e-01	1.9023e+00
23	TAO130312	128.2178	128.8273	128.5310	1.5864e-01	1.9023e+00
24	TRT020000	112.3127	113.1376	112.6883	2.2018e-01	1.9012e+00
25	TRT070000	120.8151	121.6365	121.2953	1.9495e-01	1.9018e+00
26	TRT100000	130.1679	130.8778	130.5206	1.8223e-01	1.9025e+00
27	TRT120000	127.7477	128.4589	128.1459	1.6145e-01	1.9023e+00
28	TRT125000	131.8773	132.8857	132.3214	2.3126e-01	1.9026e+00
29	TRT130000	129.7140	130.3223	130.0829	1.5569e-01	1.9024e+00
30	EMPTY	39.1464	40.0646	39.5781	2.1575e-01	1.9011e+00
31	TAF050136	96.8924	97.6200	97.2666	1.7571e-01	1.9005e+00
32	TAF070136	100.9513	101.7792	101.3489	2.0921e-01	1.9007e+00
33	TAF080136	123.0857	123.7966	123.4430	1.8151e-01	1.9019e+00
34	TAF090136	104.2584	105.6012	104.9234	3.2003e-01	1.9008e+00
35	TAF100136	105.7861	106.4080	106.0062	1.5463e-01	1.9009e+00
36	TAF105136	106.4394	107.4632	106.9928	2.4878e-01	1.9009e+00
37	TAF110136	112.0050	112.7236	112.3829	1.6913e-01	1.9012e+00
38	TAF115136	108.9552	109.6766	109.3710	1.8023e-01	1.9010e+00
39	TAF120136	116.8729	117.4877	117.1030	1.3029e-01	1.9015e+00
40	TAF125136	110.6677	111.8948	111.2947	2.6455e-01	1.9011e+00
41	TAF130136	111.8858	112.7084	112.3220	1.6817e-01	1.9012e+00
42	TAF120048	111.1175	112.0487	111.5523	2.1620e-01	1.9012e+00
43	TAF130048	112.8111	113.6334	113.0912	1.7121e-01	1.9013e+00
44	TAF120224	110.9634	111.7865	111.2477	1.8313e-01	1.9011e+00
45	TAF130224	111.8093	112.7386	112.2432	2.1568e-01	1.9012e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.0894	2.0774e-01	1.9010e+00
47	EMPTY	39.1464	39.3761	39.2613	1.1598e-01	1.9010e+00
48	TAI130138	124.5921	125.8138	125.2033	3.3423e-01	1.9021e+00
49	TAI130226	122.8072	123.8239	123.2670	2.0676e-01	1.9019e+00
50	TAI130314	125.0870	126.4137	125.7480	3.1009e-01	1.9021e+00
51	TAI130042	122.6036	123.5223	123.1060	1.8994e-01	1.9019e+00
52	TRR130090	129.8312	131.8536	131.1538	4.0931e-01	1.9025e+00
53	TSI000001	46.4129	47.0639	46.7041	1.5400e-01	1.9004e+00
54	TSI000002	113.5466	114.9774	114.1345	3.2342e-01	1.9013e+00
55	TSO000001	45.2384	46.3275	45.8311	2.2126e-01	1.9004e+00
56	TSO000002	52.2873	53.2589	52.7236	2.0787e-01	1.9002e+00
57	TAF020136	88.8601	89.8062	89.3186	2.0455e-01	1.9003e+00
58	TAF120312	110.3841	111.6177	111.0588	2.6831e-01	1.9011e+00
59	TAF130312	115.2412	116.0614	115.6306	2.0171e-01	1.9014e+00
60	EMPTY	1.1621	1.1670	1.1628	1.7115e-03	0.0000e+00
61	EMPTY	1.1719	1.1768	1.1722	1.1714e-03	0.0000e+00
62	EMPTY	1.1768	1.1865	1.1817	1.2041e-03	0.0000e+00
63	EMPTY	1.1914	1.1963	1.1947	2.3008e-03	0.0000e+00
64	EMPTY	0.6543	0.6543	0.6543	0.0000e+00	0.0000e+00
65	EMPTY	0.6738	0.6787	0.6739	6.9053e-04	0.0000e+00
66	EMPTY	0.6885	0.6934	0.6887	9.6655e-04	0.0000e+00
67	EMPTY	0.7031	0.7080	0.7060	2.4344e-03	0.0000e+00
68	EMPTY	0.7178	0.7178	0.7178	0.0000e+00	0.0000e+00
69	EMPTY	0.7324	0.7373	0.7355	2.3675e-03	0.0000e+00
70	EMPTY	0.7471	0.7520	0.7487	2.3365e-03	0.0000e+00
71	EMPTY	0.7715	0.7715	0.7715	0.0000e+00	0.0000e+00
72	EMPTY	0.7813	0.7861	0.7854	1.7115e-03	0.0000e+00
73	EMPTY	0.8008	0.8057	0.8010	9.6655e-04	0.0000e+00
74	EMPTY	0.8154	0.8203	0.8156	9.6655e-04	0.0000e+00
75	EMPTY	0.8301	0.8350	0.8332	2.3675e-03	0.0000e+00
76	EMPTY	0.8398	0.8496	0.8450	1.5314e-03	0.0000e+00
77	EMPTY	0.8643	0.8643	0.8643	0.0000e+00	0.0000e+00
78	EMPTY	0.8838	0.8936	0.8846	2.0598e-03	0.0000e+00
79	EMPTY	0.9033	0.9082	0.9078	1.3381e-03	0.0000e+00
80	PAN020136	30.5147	33.0324	31.6729	5.4183e-01	8.7360e-01
81	PAN050136	55.7816	57.3075	56.6635	3.2228e-01	1.6860e+00
82	PAN070136	39.7011	40.6166	40.0886	1.8227e-01	8.7575e-01
83	PAN080136	20.6069	21.2172	20.8846	1.5851e-01	8.7157e-01
84	PAN090136	16.7218	17.4084	17.0956	1.6184e-01	8.7105e-01
85	PAN100136	18.9254	19.6883	19.2580	1.4603e-01	8.7133e-01
86	PAN105136	8.5926	9.1267	8.8459	1.3388e-01	8.7028e-01
87	PAN110136	11.8440	12.5306	12.1797	1.5023e-01	8.7053e-01
88	PAN115136	9.6461	10.4853	9.9696	1.4749e-01	8.7036e-01
89	PAN120136	6.8086	7.4189	7.1428	1.1626e-01	8.7018e-01
90	PAN125136	10.9196	11.3011	11.1638	1.0224e-01	8.7045e-01
91	PAN130136	9.8765	10.4106	10.2046	1.2258e-01	8.7037e-01
92	PAN120048	22.6155	23.3021	22.9298	1.4675e-01	8.7189e-01
93	PAN130048	16.5956	17.3585	16.9648	1.4571e-01	8.7103e-01
94	PAN120224	16.3153	16.9257	16.5945	1.2674e-01	8.7099e-01
95	PAN130224	19.8981	20.7374	20.2964	1.6764e-01	8.7148e-01
96	PAN120312	20.6068	21.1409	20.8937	1.1896e-01	8.7157e-01
97	PAN130312	20.3149	21.0016	20.7117	1.4704e-01	8.7154e-01
98	PAB000136	59.7406	60.1984	59.9686	1.0194e-01	5.9906e-01
99	PAB100136	53.0714	53.2545	53.1455	4.5203e-02	5.9502e-01
100	PAB125136	51.3327	51.5158	51.4260	4.6204e-02	5.9408e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	59.5208	60.3753	59.9114	1.8290e-01	7.6481e-01
102	PRV000001	19.5075	19.6296	19.5563	6.0409e-02	7.5159e-01
103	PSR000001	49.5886	49.8328	49.6936	4.9385e-02	7.6022e-01
104	PFM000001	59.6853	60.6924	60.2255	2.4416e-01	5.2218e-01
105	PAN000136	242.7819	251.9372	247.1947	2.0066e+00	4.9587e+00
106	PFM000002	27.6269	27.6269	27.6270	7.7069e-06	2.1159e-01
107	EMPTY	0.0049	0.0098	0.0063	2.2603e-03	0.0000e+00
108	EMPTY	-9.7754	-9.1211	-9.5754	1.4895e-01	0.0000e+00
109	EMPTY	0.0049	0.0098	0.0060	2.0432e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0002	9.6655e-04	0.0000e+00
112	VPW000001	100.2103	100.7963	100.4759	1.4095e-01	1.0097e+00
113	VPW000002	119.3322	119.7228	119.5353	1.1811e-01	1.0819e+00
114	VPW000003	147.2881	147.8741	147.5381	1.5303e-01	1.1999e+00
115	VPW000004	104.9880	105.3786	105.2302	1.2200e-01	1.0270e+00
116	VPW000005	139.6146	140.2006	139.8374	1.1844e-01	1.1662e+00
117	VPW000006	146.2365	146.8224	146.5450	1.2534e-01	1.1955e+00
118	IPW000001	529.9111	541.6252	536.3538	3.3758e+00	9.1413e+00
119	IPW000002	1321.4598	1331.2162	1325.5966	2.0725e+00	1.3239e+01
120	IPW000003	1338.1499	1347.8999	1343.0251	2.9547e+00	1.3348e+01
121	IPW000004	381.4322	383.8736	382.5846	5.0068e-01	3.6242e+00
122	IPW000005	254.8949	256.3596	255.8030	3.8215e-01	2.8432e+00
123	IPW000006	268.4045	269.8693	269.0782	4.1725e-01	2.9187e+00
124	EMPTY	-0.0293	-0.0146	-0.0217	3.5786e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0140	3.1211e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0180	3.9998e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0162	3.6165e-03	0.0000e+00
128	IHT000001	132.2791	134.6229	133.2089	5.3751e-01	4.3110e+00
129	IHT000002	132.6510	134.9947	133.7330	5.3845e-01	4.3126e+00
130	IHT000003	131.8059	133.9543	132.9308	5.2134e-01	4.3101e+00
131	IHT000004	132.4895	135.0285	133.5363	5.7421e-01	4.3120e+00
132	IHT000005	129.8678	132.2115	131.0748	5.5058e-01	4.3044e+00
133	IHT000006	125.9089	128.4480	127.1473	5.5888e-01	4.2926e+00
134	IHT000007	130.6077	132.7561	131.7406	5.5524e-01	4.3065e+00
135	IHT000008	130.6303	132.7787	131.8725	5.3198e-01	4.3069e+00
136	IHT000009	131.6782	133.6313	132.6743	5.2386e-01	4.3093e+00
137	IHT000010	130.5025	132.8463	131.6392	4.8599e-01	4.3061e+00
138	IHT000011	134.9309	136.6887	135.7863	4.6503e-01	4.3190e+00
139	IHT000012	128.6358	130.7842	129.6162	4.7759e-01	4.3000e+00
140	IHT000013	92.4429	94.0054	93.2398	4.1916e-01	4.2047e+00
141	IHT000014	128.7898	130.3523	129.4930	3.9459e-01	4.2996e+00
142	IHT000015	96.4957	98.0582	97.2183	3.4681e-01	4.2137e+00
143	IHT000016	88.0333	89.5958	88.7678	3.7550e-01	4.1950e+00
144	IHT000017	106.2200	108.9543	107.5012	7.0273e-01	4.2386e+00
145	IHT000018	108.2294	110.5732	109.4638	4.2579e-01	4.2436e+00
146	IHT000019	104.1353	106.4791	105.1705	5.0262e-01	4.2327e+00
147	IHT000020	107.0012	109.1497	108.0129	5.2599e-01	4.2399e+00
148	IHT000021	-2.9710	-0.2366	-1.4827	6.3490e-01	4.1000e+00
149	IHT000022	91.3724	93.5209	92.4155	5.0780e-01	4.2029e+00
150	IHT000023	106.3777	108.3308	107.3856	4.5053e-01	4.2383e+00
151	IHT000024	71.3078	73.6516	72.5110	4.2747e-01	4.1636e+00
152	IHT000025	103.8687	106.0171	104.8062	4.1007e-01	4.2318e+00
153	IHT000026	105.8519	107.6097	106.6878	3.8061e-01	4.2365e+00
154	IHT000027	89.0475	90.8053	89.8521	4.0557e-01	4.1973e+00
155	IHT000028	90.7377	93.2768	91.7495	5.4203e-01	4.2014e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	106.0171	108.1656	106.8296	5.5574e-01	4.2369e+00
157	IHT000030	108.2294	110.5732	109.0263	5.6612e-01	4.2425e+00
158	IHT000031	106.9186	108.8717	107.8521	5.2392e-01	4.2395e+00
159	IHT000032	108.1843	110.5281	109.2156	5.4253e-01	4.2430e+00
160	IHT000033	108.1693	110.5131	109.1460	5.3815e-01	4.2428e+00
161	IHT000034	94.7378	96.3003	95.4605	4.2177e-01	4.2097e+00
162	IHT000035	124.7859	126.3484	125.7157	4.1302e-01	4.2884e+00
163	IHT000036	93.3819	94.7491	94.0186	3.8825e-01	4.2064e+00

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Velocity 1 = 14.0229 (ft/sec) (+/- 1.8661 %)
 Velocity 2 = 13.4285 (ft/sec) (+/- 1.7031 %)
 Pressure drop = 2.1611 (psi)
 Tsat in = 293.0506 (deg F) Tsat out = 290.7736 (deg F)
 Phi inner = 101.4517 (kBtu/hr-ft2) (+/- 1.4105 %)
 Phi outer = 101.1496 (kBtu/hr-ft2) (+/- 1.6175 %)
 D inner = 0.1962 (ft) D outer = 0.2413 (ft) D hyd = 0.0389 (ft)
 L inner = 12.8550 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	74.5435	74.9688	74.7051	1.5820e-01	1.9000e+00
1	TRF000002	74.4210	74.8440	74.6833	1.3212e-01	1.9000e+00
2	TFM000001	86.4512	87.0806	86.7532	1.7282e-01	1.9002e+00
3	TIN000001	85.8768	86.4020	86.1163	1.2744e-01	1.9002e+00
4	TRV000001	85.7705	86.7127	86.2772	2.2417e-01	1.9002e+00
5	TSR000001	104.9781	106.2150	105.5513	2.9958e-01	1.9009e+00
6	TAO020136	121.2142	122.3386	121.7826	2.4196e-01	1.9018e+00
7	TAO050136	123.0569	123.7691	123.4635	1.6055e-01	1.9019e+00
8	TAO070136	124.8456	125.7635	125.3188	2.1198e-01	1.9021e+00
9	TAO080136	134.7616	135.3668	135.0239	1.4833e-01	1.9028e+00
10	TAO090136	136.8750	137.7814	137.3748	2.1432e-01	1.9031e+00
11	TAO100136	132.9585	133.6666	133.3023	1.5964e-01	1.9027e+00
12	TAO105136	135.4900	136.4001	135.9229	2.0122e-01	1.9029e+00
13	TAO110136	138.3441	139.0461	138.7174	1.7200e-01	1.9032e+00
14	TAO115136	136.7826	137.6934	137.2076	2.2195e-01	1.9030e+00
15	TAO120136	143.0230	143.7230	143.3307	1.3397e-01	1.9036e+00
16	TAO125136	138.5318	139.1360	138.8057	1.6280e-01	1.9032e+00
17	TAO130136	136.9449	137.6451	137.3373	1.4027e-01	1.9031e+00
18	TAO120048	143.4291	144.1318	143.8425	1.5659e-01	1.9037e+00
19	TAO130048	139.5672	140.0703	139.8487	1.3014e-01	1.9033e+00
20	TAO120224	142.6665	143.2693	142.9316	1.6462e-01	1.9036e+00
21	TAO130224	135.6418	136.5454	136.0629	1.8391e-01	1.9029e+00
22	TAO120312	142.4785	143.1825	142.7803	1.9277e-01	1.9036e+00
23	TAO130312	141.9219	142.5246	142.1710	1.4663e-01	1.9035e+00
24	TRT020000	120.0314	120.8514	120.4498	1.9730e-01	1.9017e+00
25	TRT070000	132.0781	132.5882	132.3230	1.5510e-01	1.9026e+00
26	TRT100000	143.1576	143.9601	143.5748	2.0398e-01	1.9036e+00
27	TRT120000	141.9857	142.6893	142.3715	1.8755e-01	1.9035e+00
28	TRT125000	147.2743	148.1706	147.7209	2.0555e-01	1.9041e+00
29	TRT130000	143.6035	144.4055	143.9483	1.5710e-01	1.9037e+00
30	EMPTY	39.1464	40.0646	39.6102	2.1993e-01	1.9011e+00
31	TAF050136	99.6919	100.4177	100.0195	1.7568e-01	1.9006e+00
32	TAF070136	105.2811	106.3119	105.7306	2.3254e-01	1.9009e+00
33	TAF080136	134.4710	134.9747	134.7093	1.5585e-01	1.9028e+00
34	TAF090136	110.1336	111.1625	110.6233	2.5072e-01	1.9011e+00
35	TAF100136	112.2996	113.0208	112.6377	1.9966e-01	1.9012e+00
36	TAF105136	113.4918	114.3086	113.8596	2.2115e-01	1.9013e+00
37	TAF110136	120.9902	121.7039	121.4182	1.4996e-01	1.9018e+00
38	TAF115136	116.7570	117.6786	117.1052	2.1196e-01	1.9015e+00
39	TAF120136	127.4543	128.2661	127.8641	1.7634e-01	1.9023e+00
40	TAF125136	119.3356	120.4553	119.9383	2.6624e-01	1.9017e+00
41	TAF130136	120.9901	121.7045	121.3573	1.8325e-01	1.9018e+00
42	TAF120048	119.4900	120.7230	120.0777	2.4223e-01	1.9017e+00
43	TAF130048	122.0159	122.7299	122.4726	1.7507e-01	1.9019e+00
44	TAF120224	119.3723	120.2925	119.8018	2.2055e-01	1.9017e+00
45	TAF130224	120.9817	121.8021	121.4283	1.9502e-01	1.9018e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.0618	2.1307e-01	1.9010e+00
47	EMPTY	39.1464	39.6057	39.3393	1.0740e-01	1.9010e+00
48	TAI130138	138.0665	139.1752	138.5265	2.9797e-01	1.9032e+00
49	TAI130226	136.0430	136.9492	136.4660	1.7617e-01	1.9030e+00
50	TAI130314	138.5000	139.6112	139.0821	2.8397e-01	1.9032e+00
51	TAI130042	135.7064	136.5147	136.0862	1.9849e-01	1.9029e+00
52	TR130090	131.7519	133.6706	132.7699	4.3492e-01	1.9027e+00
53	TSI000001	46.4142	47.1726	46.8042	1.9083e-01	1.9004e+00
54	TSI000002	114.6705	116.1032	115.4850	2.9365e-01	1.9014e+00
55	TSO000001	45.5646	46.2184	45.8521	1.7699e-01	1.9004e+00
56	TSO000002	53.0424	53.9042	53.4908	1.9999e-01	1.9002e+00
57	TAP020136	89.2802	90.0156	89.6251	1.8510e-01	1.9003e+00
58	TAP120312	119.2881	120.3087	119.7984	2.7346e-01	1.9017e+00
59	TAP130312	125.7356	126.6486	126.1664	1.9947e-01	1.9021e+00
60	EMPTY	1.4063	1.4160	1.4095	2.7213e-03	0.0000e+00
61	EMPTY	1.4160	1.4209	1.4163	1.1714e-03	0.0000e+00
62	EMPTY	1.4209	1.4258	1.4246	2.1065e-03	0.0000e+00
63	EMPTY	1.4355	1.4355	1.4355	0.0000e+00	0.0000e+00
64	EMPTY	0.7520	0.7617	0.7568	9.8648e-04	0.0000e+00
65	EMPTY	0.7764	0.7764	0.7764	0.0000e+00	0.0000e+00
66	EMPTY	0.7861	0.7910	0.7908	9.6655e-04	0.0000e+00
67	EMPTY	0.8057	0.8105	0.8061	1.3381e-03	0.0000e+00
68	EMPTY	0.8154	0.8203	0.8192	2.0432e-03	0.0000e+00
69	EMPTY	0.8350	0.8350	0.8350	0.0000e+00	0.0000e+00
70	EMPTY	0.8496	0.8496	0.8496	0.0000e+00	0.0000e+00
71	EMPTY	0.8643	0.8691	0.8690	6.9053e-04	0.0000e+00
72	EMPTY	0.8789	0.8838	0.8833	1.4797e-03	0.0000e+00
73	EMPTY	0.8984	0.9033	0.8985	6.9053e-04	0.0000e+00
74	EMPTY	0.9131	0.9131	0.9131	0.0000e+00	0.0000e+00
75	EMPTY	0.9277	0.9326	0.9278	6.9053e-04	0.0000e+00
76	EMPTY	0.9375	0.9424	0.9421	1.1714e-03	0.0000e+00
77	EMPTY	0.9570	0.9619	0.9572	9.6655e-04	0.0000e+00
78	EMPTY	0.9766	0.9814	0.9791	2.4642e-03	0.0000e+00
79	EMPTY	1.0010	1.0010	1.0010	0.0000e+00	0.0000e+00
80	PAN020136	7.3977	8.8473	8.1408	3.5210e-01	8.7024e-01
81	PAN050136	12.9044	13.8199	13.4690	2.2914e-01	1.6803e+00
82	PAN070136	9.2598	10.0227	9.7588	1.5659e-01	8.7034e-01
83	PAN080136	5.1955	5.5007	5.3786	8.3005e-02	8.7010e-01
84	PAN090136	2.7600	3.2940	3.0667	1.1585e-01	8.7003e-01
85	PAN100136	4.2007	4.7347	4.4814	1.3651e-01	8.7007e-01
86	PAN105136	1.8788	2.3365	2.1244	9.9044e-02	8.7002e-01
87	PAN110136	2.9176	3.6805	3.3036	1.5056e-01	8.7004e-01
88	PAN115136	2.6270	3.1611	2.9139	1.3039e-01	8.7003e-01
89	PAN120136	0.3236	0.8577	0.6074	1.0572e-01	8.7000e-01
90	PAN125136	2.9851	3.3665	3.2094	9.7983e-02	8.7004e-01
91	PAN130136	2.2471	2.6286	2.4104	9.1202e-02	8.7002e-01
92	PAN120048	5.9071	6.3648	6.0780	1.0741e-01	8.7013e-01
93	PAN130048	2.4812	3.0915	2.7330	1.2355e-01	8.7003e-01
94	PAN120224	3.1927	3.9557	3.5422	1.4302e-01	8.7005e-01
95	PAN130224	4.6393	5.2497	4.9644	1.3332e-01	8.7009e-01
96	PAN120312	5.6532	6.1110	5.8943	1.2929e-01	8.7012e-01
97	PAN130312	5.0562	5.4376	5.2469	1.0019e-01	8.7010e-01
98	PAB000136	60.1069	60.5646	60.4007	8.3280e-02	5.9933e-01
99	PAB100136	58.6103	58.7934	58.6799	5.0009e-02	5.9826e-01
100	PAB125136	58.2449	58.4280	58.3539	4.1245e-02	5.9807e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	59.8870	60.6194	60.2068	1.5181e-01	7.6495e-01
102	PRV000001	19.6296	19.6296	19.6296	5.7801e-06	7.5160e-01
103	PSR000001	57.4011	57.5232	57.4207	4.5206e-02	7.6361e-01
104	PFM000001	29.7476	30.6631	30.1449	2.1855e-01	5.0565e-01
105	PAN000136	55.5566	63.3386	59.8321	1.7143e+00	4.9223e+00
106	PFM000002	27.6269	27.6269	27.6270	7.7069e-06	2.1159e-01
107	EMPTY	0.0000	0.0049	0.0048	6.9053e-04	0.0000e+00
108	EMPTY	-9.7510	-9.0918	-9.4072	1.7359e-01	0.0000e+00
109	EMPTY	0.0049	0.0049	0.0049	0.0000e+00	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	100.2103	100.6009	100.3548	1.1027e-01	1.0093e+00
113	VPW000002	119.3322	119.7228	119.6095	1.0507e-01	1.0822e+00
114	VPW000003	147.2881	147.6788	147.5498	1.1578e-01	1.1999e+00
115	VPW000004	104.9880	105.7692	105.2848	1.5902e-01	1.0272e+00
116	VPW000005	139.6146	140.2006	139.9467	1.5906e-01	1.1667e+00
117	VPW000006	146.4318	147.0177	146.6896	1.2750e-01	1.1961e+00
118	IPW000001	545.5299	551.3869	548.2242	1.3601e+00	9.1852e+00
119	IPW000002	1309.7522	1313.6548	1311.2742	1.1351e+00	1.3150e+01
120	IPW000003	1326.4500	1332.2999	1330.1946	1.4656e+00	1.3268e+01
121	IPW000004	380.9439	382.8970	381.8424	4.8688e-01	3.6193e+00
122	IPW000005	254.8949	256.3596	255.4710	3.3725e-01	2.8413e+00
123	IPW000006	267.4279	268.8928	268.1017	3.6765e-01	2.9131e+00
124	EMPTY	-0.0293	-0.0146	-0.0223	3.2955e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0150	3.5348e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0146	-0.0191	3.0945e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0174	3.2955e-03	0.0000e+00
128	IHT000001	132.0838	134.2323	133.1385	4.7679e-01	4.3108e+00
129	IHT000002	132.2603	134.6041	133.6431	4.6327e-01	4.3123e+00
130	IHT000003	131.6106	133.7590	132.6683	4.7377e-01	4.3099e+00
131	IHT000004	132.0968	134.6379	133.5207	5.1756e-01	4.3119e+00
132	IHT000005	129.6725	132.0162	130.9732	4.9381e-01	4.3041e+00
133	IHT000006	125.9089	127.8621	127.1122	4.6414e-01	4.2925e+00
134	IHT000007	130.6077	132.5608	131.6976	5.0853e-01	4.3063e+00
135	IHT000008	131.0209	132.7787	131.9077	4.7056e-01	4.3070e+00
136	IHT000009	131.6782	133.6313	132.6587	4.6436e-01	4.3093e+00
137	IHT000010	130.6979	132.6510	131.5689	4.9318e-01	4.3059e+00
138	IHT000011	134.9309	137.0793	135.8136	4.9006e-01	4.3191e+00
139	IHT000012	128.6358	130.9796	129.6631	4.9883e-01	4.3001e+00
140	IHT000013	92.2476	94.0054	93.2241	4.0626e-01	4.2046e+00
141	IHT000014	128.5945	130.1570	129.4461	3.8613e-01	4.2995e+00
142	IHT000015	96.3003	97.8628	97.1323	3.9025e-01	4.2135e+00
143	IHT000016	87.6427	89.7912	88.5842	4.2807e-01	4.1946e+00
144	IHT000017	105.8293	108.1731	106.8019	4.9833e-01	4.2368e+00
145	IHT000018	108.4247	110.1825	109.2529	4.8095e-01	4.2431e+00
146	IHT000019	104.1353	106.4791	105.0415	5.2461e-01	4.2324e+00
147	IHT000020	106.8059	109.3450	107.8098	5.0380e-01	4.2394e+00
148	IHT000021	-2.7757	-0.0413	-1.6741	6.1480e-01	4.1000e+00
149	IHT000022	90.9818	93.5209	92.1264	5.0841e-01	4.2022e+00
150	IHT000023	106.1824	108.9168	107.2723	5.4546e-01	4.2380e+00
151	IHT000024	71.3078	74.0422	72.3899	5.6526e-01	4.1634e+00
152	IHT000025	103.4781	106.4078	104.6733	5.6859e-01	4.2315e+00
153	IHT000026	105.2659	108.0003	106.5277	5.4848e-01	4.2361e+00
154	IHT000027	88.2662	90.8053	89.5709	5.6557e-01	4.1967e+00
155	IHT000028	90.3471	92.8861	91.5580	5.8793e-01	4.2010e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.6265	107.5796	106.7241	5.1734e-01	4.2366e+00
157	IHT000030	108.0341	109.7919	108.9052	4.8200e-01	4.2422e+00
158	IHT000031	106.7233	108.6764	107.8052	5.0410e-01	4.2394e+00
159	IHT000032	107.9890	110.1375	109.1570	5.1067e-01	4.2428e+00
160	IHT000033	107.9740	110.1225	109.0835	5.0754e-01	4.2426e+00
161	IHT000034	94.5425	96.4957	95.4448	4.5998e-01	4.2096e+00
162	IHT000035	124.7859	126.7390	125.7352	4.8969e-01	4.2885e+00
163	IHT000036	93.1866	95.1397	94.0420	5.0051e-01	4.2065e+00

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	59.6429	60.2532	59.9871	1.5537e-01	7.6485e-01
102	PRV000001	19.6296	19.6296	19.6296	5.7801e-06	7.5160e-01
103	PSR000001	62.2839	62.4060	62.4036	1.7263e-02	7.6605e-01
104	PFM000001	9.6060	10.0637	9.8129	1.0595e-01	5.0060e-01
105	PAN000136	-78.1104	-72.1595	-75.0708	1.3234e+00	4.9236e+00
106	PFM000002	9.8236	10.0585	9.9387	5.2410e-02	2.0154e-01
107	EMPTY	-0.0049	0.0049	-0.0028	3.1335e-03	0.0000e+00
108	EMPTY	-9.6875	-9.1406	-9.3890	1.3959e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0016	2.3008e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0049	-0.0002	1.3811e-03	0.0000e+00
112	VPW000001	100.2103	100.6009	100.3041	1.0617e-01	1.0091e+00
113	VPW000002	119.5275	119.9181	119.6915	9.9512e-02	1.0825e+00
114	VPW000003	147.4835	147.8741	147.6983	1.1334e-01	1.2006e+00
115	VPW000004	105.1833	105.7692	105.3864	1.1811e-01	1.0276e+00
116	VPW000005	139.8100	140.3959	140.0952	1.2608e-01	1.1673e+00
117	VPW000006	146.4318	147.0177	146.7716	1.3560e-01	1.1965e+00
118	IPW000001	529.9111	535.7682	533.1130	1.0988e+00	9.1295e+00
119	IPW000002	1319.5085	1325.3624	1322.7866	1.3904e+00	1.3222e+01
120	IPW000003	1340.1000	1344.0000	1342.5571	1.2953e+00	1.3345e+01
121	IPW000004	380.9439	382.4087	381.6862	2.9986e-01	3.6183e+00
122	IPW000005	254.8949	255.8714	255.5100	2.5740e-01	2.8416e+00
123	IPW000006	267.9162	269.3810	268.7462	3.4527e-01	2.9168e+00
124	EMPTY	-0.0293	-0.0146	-0.0226	3.8066e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0146	3.0389e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0184	3.3540e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0146	-0.0178	3.2359e-03	0.0000e+00
128	IHT000001	132.0838	134.4276	133.0135	5.5322e-01	4.3104e+00
129	IHT000002	132.4557	134.6041	133.4673	5.3625e-01	4.3118e+00
130	IHT000003	131.6106	133.9543	132.6964	5.8415e-01	4.3094e+00
131	IHT000004	132.0988	134.8332	133.2668	6.7021e-01	4.3111e+00
132	IHT000005	129.6725	132.2115	130.7818	6.0931e-01	4.3035e+00
133	IHT000006	125.7136	128.0574	126.8309	5.4539e-01	4.2917e+00
134	IHT000007	130.2171	132.5608	131.4164	5.2941e-01	4.3055e+00
135	IHT000008	130.6303	132.9740	131.5756	5.0895e-01	4.3060e+00
136	IHT000009	131.4829	133.6313	132.4048	4.9291e-01	4.3085e+00
137	IHT000010	130.5025	132.8463	131.4634	5.7160e-01	4.3056e+00
138	IHT000011	134.7356	136.8840	135.5441	5.6222e-01	4.3182e+00
139	IHT000012	128.4405	130.7842	129.4404	6.1084e-01	4.2995e+00
140	IHT000013	91.8570	94.5913	93.0015	5.9452e-01	4.2042e+00
141	IHT000014	128.0086	130.5476	129.1414	6.0102e-01	4.2986e+00
142	IHT000015	95.9097	98.4488	96.9409	5.7998e-01	4.2130e+00
143	IHT000016	87.2521	89.5958	88.2951	5.5046e-01	4.1940e+00
144	IHT000017	106.2200	108.7590	107.3644	5.6498e-01	4.2382e+00
145	IHT000018	108.2294	110.3779	109.3271	5.9174e-01	4.2433e+00
146	IHT000019	104.3307	105.8932	105.0455	3.8178e-01	4.2324e+00
147	IHT000020	107.1965	108.7590	107.8449	3.9348e-01	4.2395e+00
148	IHT000021	-2.5804	-0.2366	-1.5062	5.2977e-01	4.1000e+00
149	IHT000022	91.1771	93.1303	92.0483	4.0666e-01	4.2021e+00
150	IHT000023	106.5730	108.3308	107.2684	4.0847e-01	4.2380e+00
151	IHT000024	71.6984	73.4563	72.3703	3.9094e-01	4.1634e+00
152	IHT000025	103.6734	105.4312	104.6968	3.7963e-01	4.2316e+00
153	IHT000026	105.4612	107.4144	106.5316	4.2543e-01	4.2361e+00
154	IHT000027	88.4615	90.2193	89.5279	4.1799e-01	4.1966e+00
155	IHT000028	89.9564	92.6908	91.3627	5.9320e-01	4.2006e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.4312	108.1656	106.5952	5.5937e-01	4.2363e+00
157	IHT000030	107.6435	110.1825	108.8232	5.7718e-01	4.2420e+00
158	IHT000031	106.5279	108.6764	107.6646	5.2302e-01	4.2390e+00
159	IHT000032	107.5984	110.3328	109.0242	5.6117e-01	4.2425e+00
160	IHT000033	107.5834	110.3178	108.9780	5.6360e-01	4.2424e+00
161	IHT000034	93.9566	96.1050	95.1363	4.6515e-01	4.2089e+00
162	IHT000035	124.2000	126.1531	125.3407	4.7080e-01	4.2873e+00
163	IHT000036	92.7960	94.9444	93.7686	4.3493e-01	4.2059e+00

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	59.7649	60.2532	60.0213	1.2874e-01	7.6486e-01
102	PRV000001	19.5075	19.6296	19.5100	1.7263e-02	7.5158e-01
103	PSR000001	63.7488	63.9929	63.8709	3.4877e-02	7.6681e-01
104	PFH000001	5.4861	5.7608	5.5850	7.5903e-02	5.0019e-01
105	PAN000136	-106.9495	-102.3719	-104.4959	1.1979e+00	4.9269e+00
106	PFH000002	5.5951	5.7797	5.6760	4.0637e-02	2.0050e-01
107	EMPTY	-0.0049	0.0049	0.0002	3.8155e-03	0.0000e+00
108	EMPTY	-9.7705	-9.0967	-9.4063	1.7356e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0039	1.9730e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	99.8197	101.1869	100.4837	3.1567e-01	1.0097e+00
113	VPW000002	119.5275	120.3087	119.9298	2.1032e-01	1.0835e+00
114	VPW000003	147.4835	148.2647	147.8389	2.1135e-01	1.2012e+00
115	VPW000004	104.5974	106.3552	105.5192	4.0441e-01	1.0281e+00
116	VPW000005	139.4193	140.7865	140.1420	3.3540e-01	1.1675e+00
117	VPW000006	146.4318	147.6037	147.0216	2.5417e-01	1.1976e+00
118	IPW000001	541.6252	557.2440	548.6536	3.2286e+00	9.1868e+00
119	IPW000002	1282.4344	1301.9471	1290.3954	5.1977e+00	1.3020e+01
120	IPW000003	1316.7000	1328.3999	1321.7700	2.7009e+00	1.3215e+01
121	IPW000004	382.8970	389.2447	386.0319	1.6627e+00	3.6470e+00
122	IPW000005	253.4302	256.8478	254.8851	7.6079e-01	2.8381e+00
123	IPW000006	266.4514	268.4045	267.4278	5.3123e-01	2.9092e+00
124	EMPTY	-0.0293	-0.0146	-0.0198	3.1828e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0137	3.1195e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0098	-0.0163	3.3613e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0098	-0.0161	2.4662e-03	0.0000e+00
128	IHT000001	131.3026	134.8182	133.0292	5.8840e-01	4.3104e+00
129	IHT000002	131.8697	135.1900	133.4830	5.5916e-01	4.3118e+00
130	IHT000003	131.2199	134.1496	132.6730	5.5826e-01	4.3093e+00
131	IHT000004	131.9035	134.8332	133.3644	5.6115e-01	4.3115e+00
132	IHT000005	129.2819	132.6022	130.7857	5.4712e-01	4.3035e+00
133	IHT000006	125.5183	128.8386	126.8973	5.4449e-01	4.2919e+00
134	IHT000007	130.0218	132.5608	131.4164	4.8650e-01	4.3055e+00
135	IHT000008	130.2396	132.9740	131.5678	5.2645e-01	4.3059e+00
136	IHT000009	130.8969	133.8266	132.4243	5.1553e-01	4.3086e+00
137	IHT000010	130.3072	132.8463	131.5767	6.2046e-01	4.3060e+00
138	IHT000011	134.5403	137.0793	135.7199	6.0869e-01	4.3188e+00
139	IHT000012	128.2452	130.7842	129.5615	6.2616e-01	4.2998e+00
140	IHT000013	91.6617	94.2007	93.0132	6.3484e-01	4.2042e+00
141	IHT000014	128.0086	130.5476	129.1414	6.2515e-01	4.2986e+00
142	IHT000015	95.7144	98.6441	96.9839	6.0005e-01	4.2131e+00
143	IHT000016	87.2521	89.7912	88.3303	5.7078e-01	4.1941e+00
144	IHT000017	106.2200	109.1497	107.4621	6.0459e-01	4.2385e+00
145	IHT000018	108.0341	110.5732	109.1865	5.5559e-01	4.2429e+00
146	IHT000019	103.7447	106.0885	105.0259	4.7868e-01	4.2324e+00
147	IHT000020	106.6106	108.7590	107.7941	4.7418e-01	4.2393e+00
148	IHT000021	-2.5804	-0.6273	-1.4905	5.3392e-01	4.1000e+00
149	IHT000022	90.7865	93.1303	91.9506	4.8802e-01	4.2018e+00
150	IHT000023	105.9871	108.3308	107.1668	4.7835e-01	4.2377e+00
151	IHT000024	71.1125	73.2609	72.2766	4.3218e-01	4.1632e+00
152	IHT000025	103.4781	106.0171	104.5718	4.4643e-01	4.2313e+00
153	IHT000026	105.2659	107.4144	106.3909	4.6280e-01	4.2358e+00
154	IHT000027	88.0709	90.4146	89.3599	5.4818e-01	4.1963e+00
155	IHT000028	90.3471	92.4955	91.3940	6.0587e-01	4.2006e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.8218	107.7749	106.7046	5.2384e-01	4.2366e+00
157	IHT000030	108.0341	110.1825	108.8740	5.5419e-01	4.2421e+00
158	IHT000031	106.9186	109.2623	107.7544	5.7323e-01	4.2392e+00
159	IHT000032	107.9890	110.5281	109.1219	5.7182e-01	4.2427e+00
160	IHT000033	107.9740	110.3178	109.0327	5.8937e-01	4.2425e+00
161	IHT000034	94.3472	96.3003	95.2691	5.8266e-01	4.2092e+00
162	IHT000035	124.5906	126.7390	125.4266	5.8266e-01	4.2876e+00
163	IHT000036	92.7960	94.9444	93.8272	5.4109e-01	4.2860e+00

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	59.7649	60.3753	60.1043	1.4014e-01	7.6490e-01
102	PRV000001	19.3054	19.5075	19.4050	4.5206e-02	7.5157e-01
103	PSR000001	64.0474	65.0916	64.9695	7.7900e-02	7.6739e-01
104	PFH000001	2.1902	2.4649	2.3147	7.5723e-02	5.0003e-01
105	PAN000136	-130.7532	-126.6334	-128.5468	7.9926e-01	4.9305e+00
106	PFH000002	2.3390	2.4405	2.3901	2.1970e-02	2.0009e-01
107	EMPTY	-0.0049	0.0049	-0.0016	3.4793e-03	0.0000e+00
108	EMPTY	-9.7021	-9.1992	-9.4796	1.4376e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0030	2.3941e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0001	6.9053e-04	0.0000e+00
112	VPW000001	100.6009	100.9916	100.7611	1.2901e-01	1.0107e+00
113	VPW000002	119.9181	120.3087	120.1400	1.1044e-01	1.0043e+00
114	VPW000003	147.0741	148.2647	148.0654	1.3945e-01	1.2022e+00
115	VPW000004	105.5739	105.9645	105.8083	1.1030e-01	1.0291e+00
116	VPW000005	140.2006	140.5912	140.3725	1.2251e-01	1.1605e+00
117	VPW000006	147.0177	147.4083	147.1505	1.0763e-01	1.1982e+00
118	IPW000001	551.3069	555.2916	552.9079	1.2270e+00	9.2030e+00
119	IPW000002	1299.9950	1305.0497	1302.1029	1.5690e+00	1.3093e+01
120	IPW000003	1314.7500	1322.5499	1318.5715	2.0073e+00	1.3195e+01
121	IPW000004	302.4007	304.3618	303.3054	3.9459e-01	3.6295e+00
122	IPW000005	253.4302	254.4067	254.0640	3.1500e-01	2.8335e+00
123	IPW000006	264.9065	266.4514	265.6212	3.7239e-01	2.0900e+00
124	EMPTY	-0.0293	-0.0146	-0.0195	3.4173e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0090	-0.0135	2.7124e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0090	-0.0152	3.0620e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0090	-0.0172	2.9906e-03	0.0000e+00
128	INT000001	131.3026	134.0370	132.8339	5.2550e-01	4.3090e+00
129	INT000002	131.0697	134.2135	133.2790	5.3276e-01	4.3112e+00
130	INT000003	131.2199	133.5637	132.4074	5.3210e-01	4.3005e+00
131	INT000004	132.0900	134.2473	133.0714	4.7102e-01	4.3105e+00
132	INT000005	129.2019	131.6256	130.4537	4.5506e-01	4.3025e+00
133	INT000006	125.5103	127.6668	126.6004	4.0522e-01	4.2910e+00
134	INT000007	129.0264	132.1702	131.1156	4.7515e-01	4.3045e+00
135	INT000008	130.0443	132.1920	131.2066	4.5122e-01	4.3051e+00
136	INT000009	131.0922	133.4360	132.1626	4.5547e-01	4.3077e+00
137	INT000010	130.1119	132.6510	131.2447	5.2645e-01	4.3049e+00
138	INT000011	134.3450	136.6087	135.3527	5.0741e-01	4.3176e+00
139	INT000012	120.2452	130.7042	129.1904	5.1654e-01	4.2907e+00
140	INT000013	92.0523	94.3960	92.0569	5.2146e-01	4.2030e+00
141	INT000014	120.0006	130.1570	120.7930	5.3012e-01	4.2975e+00
142	INT000015	95.9097	98.2535	96.0277	4.7002e-01	4.2120e+00
143	INT000016	87.4474	89.4005	88.2326	4.7595e-01	4.1939e+00
144	INT000017	105.0293	108.3604	106.9340	6.2715e-01	4.2372e+00
145	INT000018	107.0300	110.1025	109.0107	5.3233e-01	4.2424e+00
146	INT000019	103.1500	106.0005	104.7525	5.7907e-01	4.2317e+00
147	INT000020	106.2200	108.9543	107.6103	5.6950e-01	4.2309e+00
148	INT000021	-3.3616	-0.2366	-1.4350	6.5310e-01	4.1000e+00
149	INT000022	90.3959	92.7396	91.0042	5.0669e-01	4.2017e+00
150	INT000023	105.4012	107.9402	106.9715	4.9750e-01	4.2373e+00
151	INT000024	70.5266	73.0656	72.0930	4.9045e-01	4.1629e+00
152	INT000025	102.6960	105.4312	104.4030	5.3700e-01	4.2300e+00
153	INT000026	104.4047	107.2190	106.2034	5.5524e-01	4.2353e+00
154	INT000027	87.0756	90.6100	89.3795	5.3051e-01	4.1963e+00
155	INT000028	90.1510	92.1049	90.9440	4.4540e-01	4.1997e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	INT000029	105.2359	107.1090	106.1107	4.0046e-01	4.2351e+00
157	INT000030	107.2520	109.4013	108.2646	4.6004e-01	4.2405e+00
158	INT000031	106.1373	108.4011	107.2662	5.3567e-01	4.2300e+00
159	INT000032	107.5904	109.9421	108.6297	5.5240e-01	4.2415e+00
160	INT000033	107.5034	109.9271	108.5600	5.6221e-01	4.2413e+00
161	INT000034	94.3472	96.4957	94.9000	4.0733e-01	4.2006e+00
162	INT000035	124.2000	126.3404	125.0204	4.6609e-01	4.2064e+00
163	INT000036	92.9913	95.1397	93.5576	4.0064e-01	4.2054e+00

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	60.0091	60.4974	60.2605	1.1932e-01	7.6498e-01
102	PRV0000001	19.3854	19.5075	19.5026	2.4164e-02	7.5158e-01
103	PSR0000001	65.2136	65.4578	65.3308	3.4527e-02	7.6758e-01
104	PFH0000001	1.1831	1.3662	1.2985	6.8736e-02	5.0001e-01
105	PAN000136	-138.5352	-133.4998	-135.4773	1.0192e+00	4.9316e+00
106	PFH0000002	1.3498	1.4337	1.3874	2.0498e-02	2.0003e-01
107	EMPTY	-0.0049	0.0049	-0.0033	3.0309e-03	0.0000e+00
108	EMPTY	-9.7021	-9.1699	-9.4317	1.3413e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0020	2.4164e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0010	1.9730e-03	0.0000e+00
112	VPW0000001	100.6009	100.9916	100.8158	1.1334e-01	1.0109e+00
113	VPW0000002	120.1134	120.5040	120.2345	1.0358e-01	1.0847e+00
114	VPW0000003	148.0694	148.6553	148.2959	1.1409e-01	1.2032e+00
115	VPW0000004	105.7692	106.1599	105.9177	1.1545e-01	1.0295e+00
116	VPW0000005	140.3959	140.9818	140.6772	1.3760e-01	1.1698e+00
117	VPW0000006	147.2130	147.7990	147.4083	1.4227e-01	1.1993e+00
118	IPW0000001	531.8635	537.7205	534.9871	1.4759e+00	9.1363e+00
119	IPW0000002	1311.7035	1317.5573	1316.1134	1.5171e+00	1.3180e+01
120	IPW0000003	1330.3500	1338.1499	1333.7434	2.6372e+00	1.3290e+01
121	IPW0000004	380.4556	382.4087	381.5983	3.8975e-01	3.6177e+00
122	IPW0000005	253.9184	255.3831	254.6409	3.9750e-01	2.8367e+00
123	IPW0000006	265.9631	267.9162	267.1056	4.2556e-01	2.9073e+00
124	EMPTY	-0.0293	-0.0098	-0.0216	4.3101e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0152	2.8996e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0176	4.1853e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0098	-0.0164	2.5648e-03	0.0000e+00
128	IHT0000001	131.3026	134.2323	132.5839	5.8946e-01	4.3090e+00
129	IHT0000002	131.8697	134.2135	133.0298	5.5721e-01	4.3104e+00
130	IHT0000003	131.2199	133.3684	132.1769	5.3851e-01	4.3078e+00
131	IHT0000004	131.7082	133.8567	132.8253	5.1303e-01	4.3098e+00
132	IHT0000005	129.0865	131.4303	130.2388	5.3123e-01	4.3019e+00
133	IHT0000006	125.3230	128.0574	126.4481	5.7529e-01	4.2906e+00
134	IHT0000007	129.8264	132.3655	130.9710	6.1385e-01	4.3041e+00
135	IHT0000008	130.0443	132.5834	131.1186	5.9090e-01	4.3046e+00
136	IHT0000009	130.8969	133.6313	131.9712	5.9353e-01	4.3072e+00
137	IHT0000010	130.1119	132.4557	130.9048	5.3439e-01	4.3039e+00
138	IHT0000011	133.9543	136.4934	135.1027	5.7675e-01	4.3169e+00
139	IHT0000012	127.8545	130.1983	129.0108	5.7971e-01	4.2982e+00
140	IHT0000013	91.6617	93.8101	92.6499	5.1055e-01	4.2034e+00
141	IHT0000014	127.2273	129.9617	128.5946	5.5102e-01	4.2969e+00
142	IHT0000015	95.3238	97.6675	96.6050	5.1017e-01	4.2123e+00
143	IHT0000016	86.6662	89.2052	88.0138	5.3123e-01	4.1934e+00
144	IHT0000017	105.0481	107.7825	106.2629	5.8831e-01	4.2355e+00
145	IHT0000018	107.6435	109.9872	108.7998	5.2325e-01	4.2419e+00
146	IHT0000019	103.7447	105.8932	104.5884	4.5582e-01	4.2313e+00
147	IHT0000020	106.6106	108.7590	107.3918	5.0223e-01	4.2383e+00
148	IHT0000021	-2.7757	-0.2366	-1.4671	5.8026e-01	4.1000e+00
149	IHT0000022	90.5912	92.5443	91.6733	4.7549e-01	4.2012e+00
150	IHT0000023	105.5965	107.7449	106.7606	4.7344e-01	4.2367e+00
151	IHT0000024	70.9172	72.8703	71.8977	4.4902e-01	4.1626e+00
152	IHT0000025	103.0875	105.2359	104.1851	4.7333e-01	4.2303e+00
153	IHT0000026	104.6800	106.8284	105.8792	5.0534e-01	4.2345e+00
154	IHT0000027	87.4850	90.0240	89.0513	5.0299e-01	4.1956e+00
155	IHT0000028	89.9564	91.7143	90.8784	4.7522e-01	4.1995e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	105.0406	107.1890	106.0757	5.0417e-01	4.2350e+00
157	IHT0000030	107.0575	109.4013	108.2060	4.7292e-01	4.2404e+00
158	IHT0000031	106.1373	108.2858	107.1529	4.7186e-01	4.2377e+00
159	IHT0000032	107.5984	109.3562	108.4461	4.4048e-01	4.2410e+00
160	IHT0000033	107.5834	109.3412	108.4038	4.5163e-01	4.2409e+00
161	IHT0000034	94.1519	95.5191	94.8003	3.4724e-01	4.2082e+00
162	IHT0000035	124.0046	125.9578	124.9344	3.8774e-01	4.2861e+00
163	IHT0000036	92.6006	94.5538	93.3389	3.6227e-01	4.2049e+00

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Velocity 1 = 2.9022 (ft/sec) (+/- 20.4423 %)
 Velocity 2 = 2.9403 (ft/sec) (+/- 7.3329 %)
 Pressure drop = 4.9189 (psi)
 Tsat in = 293.2148 (deg F) Tsat out = 298.2229 (deg F)
 Phi inner = 102.4051 (kBtu/hr-ft2) (+/- 1.4083 %)
 Phi outer = 101.2259 (kBtu/hr-ft2) (+/- 1.6191 %)
 D inner = 0.1962 (ft) D outer = 0.2413 (ft) D hyd = 0.0389 (ft)
 L inner = 12.8550 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	75.6065	76.2438	75.8699	1.6931e-01	1.9000e+00
1	TRF000002	75.4783	75.9009	75.7868	1.2232e-01	1.9000e+00
2	TFM000001	87.5010	88.3391	87.8679	1.9865e-01	1.9002e+00
3	TIN000001	87.0319	87.5577	87.2232	1.3028e-01	1.9002e+00
4	TRV000001	87.6571	88.4926	88.0934	1.7851e-01	1.9002e+00
5	TSR000001	141.0211	144.1205	142.9355	6.8036e-01	1.9036e+00
6	TAO020136	212.6060	213.9475	213.1907	3.3419e-01	1.9138e+00
7	TAO050136	230.1208	231.8162	231.0985	3.7395e-01	1.9174e+00
8	TAO070136	225.2560	227.4423	226.2394	5.4028e-01	1.9164e+00
9	TAO080136	269.5863	270.5045	270.0287	2.3298e-01	1.9268e+00
10	TAO090136	280.0256	280.8500	280.3901	2.1934e-01	1.9296e+00
11	TAO100136	279.8992	282.3722	281.0294	5.5204e-01	1.9298e+00
12	TAO105136	288.7039	290.2583	289.4265	4.0053e-01	1.9322e+00
13	TAO110136	297.5554	299.2657	298.4908	3.0701e-01	1.9349e+00
14	TAO115136	295.1369	297.0529	295.9525	4.0655e-01	1.9341e+00
15	TAO120136	302.7536	303.6554	303.2381	1.9332e-01	1.9363e+00
16	TAO125136	301.5827	302.9402	302.1712	3.1976e-01	1.9360e+00
17	TAO130136	297.2370	298.3140	297.7198	2.2698e-01	1.9346e+00
18	TAO120048	308.0121	308.7350	308.3828	1.5301e-01	1.9379e+00
19	TAO130048	303.0397	303.6722	303.3846	1.5248e-01	1.9363e+00
20	TAO120224	306.0266	306.9316	306.4485	2.1904e-01	1.9373e+00
21	TAO130224	294.4874	296.1134	295.4438	3.4043e-01	1.9339e+00
22	TAO120312	307.2285	308.2242	307.6828	2.5631e-01	1.9377e+00
23	TAO130312	304.2290	305.2223	304.8450	1.8594e-01	1.9368e+00
24	TRT020000	208.7837	210.4176	209.5543	4.1782e-01	1.9131e+00
25	TRT070000	257.7359	258.8579	258.3853	2.5528e-01	1.9238e+00
26	TRT100000	297.1013	297.9185	297.4810	1.9888e-01	1.9345e+00
27	TRT120000	306.5873	307.3108	306.9220	1.9518e-01	1.9374e+00
28	TRT125000	314.0210	314.6495	314.3283	1.7754e-01	1.9398e+00
29	TRT130000	306.4785	307.2013	306.7769	1.6141e-01	1.9374e+00
30	EMPTY	39.1464	40.0646	39.5781	2.0553e-01	1.9011e+00
31	TAF050136	153.0356	156.2116	155.1191	6.6223e-01	1.9049e+00
32	TAF070136	180.6555	184.4437	181.9760	8.9725e-01	1.9084e+00
33	TAF080136	260.4999	292.5253	268.3788	1.1191e+01	1.9263e+00
34	TAF090136	194.4011	197.6826	195.5158	7.8342e-01	1.9106e+00
35	TAF100136	219.2096	225.8785	221.2799	1.0699e+00	1.9154e+00
36	TAF105136	225.0600	231.2581	227.0630	1.6025e+00	1.9165e+00
37	TAF110136	257.2412	261.5882	259.0571	9.1859e-01	1.9239e+00
38	TAF115136	239.9028	243.6524	241.4352	7.5168e-01	1.9197e+00
39	TAF120136	284.9889	286.9054	286.1478	3.6394e-01	1.9312e+00
40	TAF125136	254.4946	257.6378	255.8796	6.5045e-01	1.9231e+00
41	TAF130136	259.3272	262.1058	260.0893	5.4012e-01	1.9242e+00
42	TAF120048	251.4561	253.6165	252.4799	5.3082e-01	1.9223e+00
43	TAF130048	265.0536	267.0863	265.9835	4.1239e-01	1.9257e+00
44	TAF120224	248.2825	251.5495	250.1369	6.5156e-01	1.9217e+00
45	TAF130224	259.1967	261.9022	260.2769	6.1430e-01	1.9242e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.0940	2.2799e-01	1.9010e+00
47	EMPTY	39.6057	40.7527	39.9912	2.1463e-01	1.9011e+00
48	TAI130138	301.5289	302.6169	302.0711	2.5143e-01	1.9359e+00
49	TAI130226	300.2304	301.3149	300.7092	2.5315e-01	1.9355e+00
50	TAI130314	304.6279	305.6274	305.0804	2.6870e-01	1.9369e+00
51	TAI130042	302.1765	303.3549	302.7224	2.5161e-01	1.9361e+00
52	TRR130090	149.9086	151.9007	150.6521	4.3295e-01	1.9044e+00
53	TSI000001	48.1475	48.7975	48.4919	1.5712e-01	1.9003e+00
54	TSI000002	137.1818	138.7908	137.8481	3.1520e-01	1.9031e+00
55	TSO000001	45.7785	46.7583	46.2554	1.9033e-01	1.9004e+00
56	TSO000002	65.1545	66.1147	65.5831	2.0727e-01	1.9000e+00
57	TAF020136	108.4923	111.0817	110.1603	5.8796e-01	1.9011e+00
58	TAF120312	251.5484	254.5224	252.7481	6.6446e-01	1.9224e+00
59	TAF130312	277.4308	280.8188	279.3673	7.5535e-01	1.9293e+00
60	EMPTY	5.2295	5.2588	5.2447	7.8696e-03	0.0000e+00
61	EMPTY	5.2197	5.2344	5.2255	4.5943e-03	0.0000e+00
62	EMPTY	5.2002	5.2100	5.2062	3.5962e-03	0.0000e+00
63	EMPTY	5.1855	5.2002	5.1945	2.6762e-03	0.0000e+00
64	EMPTY	2.3975	2.4072	2.4038	2.4662e-03	0.0000e+00
65	EMPTY	2.4072	2.4170	2.4123	2.4083e-03	0.0000e+00
66	EMPTY	2.4121	2.4219	2.4165	2.4662e-03	0.0000e+00
67	EMPTY	2.4170	2.4268	2.4234	2.5034e-03	0.0000e+00
68	EMPTY	2.4219	2.4316	2.4255	2.5743e-03	0.0000e+00
69	EMPTY	2.4268	2.4365	2.4326	2.7902e-03	0.0000e+00
70	EMPTY	2.4316	2.4414	2.4373	2.2839e-03	0.0000e+00
71	EMPTY	2.4463	2.4561	2.4494	2.5648e-03	0.0000e+00
72	EMPTY	2.4512	2.4561	2.4526	2.2603e-03	0.0000e+00
73	EMPTY	2.4561	2.4658	2.4601	2.5515e-03	0.0000e+00
74	EMPTY	2.4609	2.4707	2.4642	2.7213e-03	0.0000e+00
75	EMPTY	2.4658	2.4756	2.4710	2.0716e-03	0.0000e+00
76	EMPTY	2.4707	2.4756	2.4739	2.3365e-03	0.0000e+00
77	EMPTY	2.4805	2.4854	2.4831	2.4583e-03	0.0000e+00
78	EMPTY	2.4902	2.5000	2.4951	9.8648e-04	0.0000e+00
79	EMPTY	2.5049	2.5195	2.5097	2.5131e-03	0.0000e+00
80	PAN020136	-17.8556	-17.0927	-17.4253	1.2404e-01	8.7109e-01
81	PAN050136	-33.0246	-32.5668	-32.8353	1.2545e-01	1.6820e+00
82	PAN070136	-25.3776	-19.3504	-23.0629	1.6471e+00	8.7191e-01
83	PAN080136	-13.9543	-10.4448	-12.8541	1.0668e+00	8.7059e-01
84	PAN090136	-11.9648	-9.0656	-10.6556	7.0185e-01	8.7041e-01
85	PAN100136	-10.6767	-8.6930	-9.6726	5.3602e-01	8.7034e-01
86	PAN105136	-5.9795	0.7344	-4.8229	9.5433e-01	8.7008e-01
87	PAN110136	-6.0851	-3.4911	-4.9239	5.9083e-01	8.7009e-01
88	PAN115136	-6.4519	-3.9342	-5.1580	5.4517e-01	8.7010e-01
89	PAN120136	-5.3221	-3.4148	-4.6447	4.4929e-01	8.7008e-01
90	PAN125136	-5.3310	-3.6525	-4.6504	3.1620e-01	8.7008e-01
91	PAN130136	-5.8400	-5.1534	-5.4403	1.5457e-01	8.7011e-01
92	PAN120048	-10.8013	-9.8858	-10.3100	2.1199e-01	8.7038e-01
93	PAN130048	-11.3280	-10.7177	-10.9832	1.3191e-01	8.7043e-01
94	PAN120224	-10.0061	-8.6328	-9.4781	2.5413e-01	8.7032e-01
95	PAN130224	-10.4669	-9.8565	-10.1937	1.2047e-01	8.7037e-01
96	PAN120312	-9.8345	-8.5375	-9.3660	3.2296e-01	8.7032e-01
97	PAN130312	-10.3552	-9.6686	-10.0638	1.4999e-01	8.7036e-01
98	PAB000136	60.4273	60.6562	60.5500	6.5682e-02	5.9943e-01
99	PAB100136	64.1493	64.3781	64.2463	5.8227e-02	6.0183e-01
100	PAB125136	65.1114	65.3402	65.2221	5.6323e-02	6.0248e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	60.1312	60.8636	60.4192	1.3898e-01	7.6506e-01
102	PRV0000001	19.3854	19.6296	19.5075	2.4662e-02	7.5158e-01
103	PSR0000001	65.2136	65.5798	65.4456	5.6508e-02	7.6764e-01
104	PFM0000001	1.0916	1.3662	1.2271	6.4711e-02	5.0001e-01
105	PAN0000136	-138.0775	-133.9576	-136.1823	9.2487e-01	4.9318e+00
106	PFM0000002	1.2323	1.2995	1.2605	1.7099e-02	2.0002e-01
107	EMPTY	-0.0049	0.0049	-0.0035	2.7971e-03	0.0000e+00
108	EMPTY	-9.5557	-8.3887	-9.2492	1.6987e-01	0.0070e+00
109	EMPTY	0.0000	0.0049	0.0021	2.4484e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0007	1.7115e-03	0.0000e+00
112	VPW0000001	100.6009	101.1869	100.8744	1.1161e-01	1.0111e+00
113	VPW0000002	120.1134	120.5040	120.2892	1.2633e-01	1.0849e+00
114	VPW0000003	148.0694	148.4600	148.2256	1.2478e-01	1.2029e+00
115	VPW0000004	105.5739	106.1599	105.8473	1.6269e-01	1.0293e+00
116	VPW0000005	140.3959	140.9818	140.6381	1.2200e-01	1.1697e+00
117	VPW0000006	147.0177	147.6037	147.3732	1.1632e-01	1.1992e+00
118	IPW0000001	526.0065	531.8635	528.1931	1.2866e+00	9.1116e+00
119	IPW0000002	1315.6061	1325.3624	1320.5231	2.6221e+00	1.3208e+01
120	IPW0000003	1336.2000	1340.1000	1338.1887	1.1479e+00	1.3318e+01
121	IPW0000004	378.0142	380.9439	379.4792	8.3122e-01	3.6038e+00
122	IPW0000005	253.4302	254.8949	254.1039	2.9410e-01	2.8337e+00
123	IPW0000006	266.9396	268.4045	267.7403	3.5238e-01	2.9110e+00
124	EMPTY	-0.0293	-0.0146	-0.0209	4.0721e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0123	2.9986e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0161	3.3087e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0159	2.9280e-03	0.0000e+00
128	IHT0000001	131.1073	133.6463	132.5253	5.5497e-01	4.3089e+00
129	IHT0000002	131.6744	134.4088	132.9869	5.7594e-01	4.3103e+00
130	IHT0000003	130.8293	133.1731	132.0207	5.1335e-01	4.3073e+00
131	IHT0000004	131.5129	134.0520	132.7394	5.5248e-01	4.3095e+00
132	IHT0000005	129.0865	131.4303	130.1685	5.2676e-01	4.3017e+00
133	IHT0000006	125.1277	127.4714	126.2957	5.2865e-01	4.2901e+00
134	IHT0000007	129.6311	131.7796	130.7757	5.2201e-01	4.3035e+00
135	IHT0000008	129.6537	131.9975	130.8725	5.2875e-01	4.3038e+00
136	IHT0000009	130.7016	132.8501	131.7602	5.2362e-01	4.3065e+00
137	IHT0000010	129.7213	132.4557	130.7720	5.7167e-01	4.3035e+00
138	IHT0000011	133.9543	136.1028	134.9503	5.4996e-01	4.3164e+00
139	IHT0000012	127.6592	130.0030	128.8233	5.6076e-01	4.2976e+00
140	IHT0000013	91.2710	93.6148	92.5210	5.3087e-01	4.2031e+00
141	IHT0000014	127.2273	129.7664	128.5711	5.2146e-01	4.2969e+00
142	IHT0000015	95.3238	97.6675	96.5464	4.8778e-01	4.2121e+00
143	IHT0000016	87.0568	89.2052	88.0412	4.9436e-01	4.1935e+00
144	IHT0000017	106.0247	109.3450	107.3801	7.2374e-01	4.2383e+00
145	IHT0000018	107.8388	109.7919	108.8466	4.9025e-01	4.2420e+00
146	IHT0000019	103.5494	105.5025	104.6470	4.6335e-01	4.2314e+00
147	IHT0000020	106.4153	108.3684	107.5168	4.2271e-01	4.2386e+00
148	IHT0000021	-2.7757	-0.4319	-1.5374	5.6028e-01	4.1000e+00
149	IHT0000022	90.7865	92.7396	91.6381	4.6649e-01	4.2012e+00
150	IHT0000023	105.5965	107.5496	106.6668	4.5204e-01	4.2365e+00
151	IHT0000024	70.7219	72.6750	71.7844	4.2160e-01	4.1624e+00
152	IHT0000025	103.2828	105.0406	104.2749	4.0403e-01	4.2305e+00
153	IHT0000026	104.8753	107.0237	106.0394	4.6010e-01	4.2349e+00
154	IHT0000027	88.0709	90.0240	89.1802	4.4370e-01	4.1959e+00
155	IHT0000028	90.1518	92.4955	91.3471	5.7675e-01	4.2005e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	105.2359	107.7749	106.6069	5.7384e-01	4.2363e+00
157	IHT0000030	107.8388	109.7919	108.9443	4.8586e-01	4.2423e+00
158	IHT0000031	106.5279	108.6764	107.6216	5.0068e-01	4.2389e+00
159	IHT0000032	107.9890	110.1375	109.0047	4.7842e-01	4.2424e+00
160	IHT0000033	108.1693	109.9271	108.9585	4.7672e-01	4.2423e+00
161	IHT0000034	94.1519	96.1050	95.1909	4.3484e-01	4.2091e+00
162	IHT0000035	124.3953	126.3484	125.2782	4.3627e-01	4.2871e+00
163	IHT0000036	92.7960	94.5538	93.6748	4.0095e-01	4.2057e+00

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Velocity 1 = 2.8016 (ft/sec) (+/- 21.9742 %)
 Velocity 2 = 2.9284 (ft/sec) (+/- 7.3908 %)
 Pressure drop = -4.9102 (psi)
 Tsat in = 292.7267 (deg F) Tsat out = 297.8434 (deg F)
 Phi inner = 100.9722 (kBtu/hr-ft2) (+/- 1.4122 %)
 Phi outer = 100.8623 (kBtu/hr-ft2) (+/- 1.6189 %)
 D inner = 0.1962 (ft) D outer = 0.2413 (ft) D hyd = 0.0389 (ft)
 L inner = 12.8550 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	75.6065	76.2438	76.0695	1.6999e-01	1.9000e+00
1	TRF000002	75.6896	76.1122	76.0276	1.1292e-01	1.9000e+00
2	TRF000001	86.7695	87.6069	87.1653	2.0102e-01	1.9002e+00
3	TIN000001	86.0859	86.7168	86.5213	1.4864e-01	1.9002e+00
4	TRV000001	87.2403	88.2853	87.7859	2.3156e-01	1.9002e+00
5	TSR000001	144.5211	149.2066	146.7739	1.0935e+00	1.9040e+00
6	TAO020136	213.9467	215.5736	214.6033	3.3984e-01	1.9140e+00
7	TAO050136	231.6262	233.8834	232.7012	4.9840e-01	1.9178e+00
8	TAO070136	228.2020	229.6255	228.7921	3.3111e-01	1.9169e+00
9	TAO080136	272.1527	272.8861	272.5482	1.7703e-01	1.9274e+00
10	TAO090136	282.9542	283.8681	283.3687	2.2337e-01	1.9304e+00
11	TAO100136	283.6527	285.3905	284.4120	4.0273e-01	1.9307e+00
12	TAO105136	291.7193	293.5446	292.4077	3.9038e-01	1.9330e+00
13	TAO110136	300.7043	301.8749	301.4131	2.3907e-01	1.9357e+00
14	TAO115136	297.5088	300.0589	298.5014	5.3631e-01	1.9349e+00
15	TAO120136	304.5536	305.7211	305.1941	2.7132e-01	1.9369e+00
16	TAO125136	301.9450	304.0253	302.6131	4.7500e-01	1.9361e+00
17	TAO130136	299.2051	300.6407	299.9865	3.0015e-01	1.9353e+00
18	TAO120048	309.0957	310.0883	309.6211	2.2233e-01	1.9383e+00
19	TAO130048	305.6553	306.4680	306.0878	1.7705e-01	1.9372e+00
20	TAO120224	307.5648	308.7394	308.2061	2.8244e-01	1.9378e+00
21	TAO130224	297.1043	298.9998	298.0605	4.1661e-01	1.9347e+00
22	TAO120312	308.8571	309.9421	309.3544	2.6049e-01	1.9382e+00
23	TAO130312	305.8539	306.5769	306.2679	1.6628e-01	1.9372e+00
24	TRT020000	209.8402	212.1463	211.1111	4.6270e-01	1.9134e+00
25	TRT070000	260.1668	261.4742	260.8857	3.0946e-01	1.9244e+00
26	TRT100000	299.4581	300.3653	299.8958	2.2777e-01	1.9353e+00
27	TRT120000	307.6717	308.6655	308.1220	1.8387e-01	1.9378e+00
28	TRT125000	314.4692	315.4547	315.0273	1.8999e-01	1.9400e+00
29	TRT130000	306.2085	307.5626	306.9290	2.8805e-01	1.9374e+00
30	EMPTY	39.3761	40.0646	39.6332	1.9478e-01	1.9011e+00
31	TAP050136	154.0285	157.4029	155.6118	7.4934e-01	1.9049e+00
32	TAP070136	182.3101	184.8327	183.3445	5.4507e-01	1.9086e+00
33	TAP080136	267.1199	270.1431	268.4152	6.7132e-01	1.9263e+00
34	TAP090136	197.2018	201.4391	198.8727	9.0398e-01	1.9112e+00
35	TAP100136	222.3567	224.6417	223.3035	5.9329e-01	1.9158e+00
36	TAP105136	227.4131	230.0415	228.5607	5.8652e-01	1.9169e+00
37	TAP110136	260.5728	263.1588	261.7129	6.1175e-01	1.9246e+00
38	TAP115136	242.0599	245.8045	243.5791	8.3444e-01	1.9202e+00
39	TAP120136	286.4491	288.7270	287.6320	4.8613e-01	1.9316e+00
40	TAP125136	256.5299	261.3296	258.5119	1.0135e+00	1.9238e+00
41	TAP130136	260.7176	263.3086	262.0966	7.0818e-01	1.9247e+00
42	TAP120048	253.8029	257.0844	255.4184	6.1965e-01	1.9230e+00
43	TAP130048	271.6953	277.3010	273.6542	1.1516e+00	1.9277e+00
44	TAP120224	251.7355	254.3446	253.0163	6.7336e-01	1.9224e+00
45	TAP130224	261.6214	264.9748	263.3524	8.7642e-01	1.9250e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	38.0848	2.0190e-01	1.9010e+00
47	EMPTY	39.8352	40.2940	40.0142	1.0662e-01	1.9011e+00
48	TAI130138	301.8913	303.1607	302.5207	2.9153e-01	1.9361e+00
49	TAI130226	300.7725	301.9466	301.4688	2.3324e-01	1.9358e+00
50	TAI130314	305.2636	306.4434	305.9080	2.5618e-01	1.9371e+00
51	TAI130042	303.5368	304.8051	304.1331	2.9131e-01	1.9366e+00
52	TRR130090	151.9007	153.6906	152.7022	4.5957e-01	1.9046e+00
53	TSI000001	48.1476	48.9056	48.5617	1.8107e-01	1.9003e+00
54	TSI000002	138.1869	139.4941	138.8894	2.9931e-01	1.9032e+00
55	TSO000001	45.8860	46.5396	46.2458	1.8034e-01	1.9004e+00
56	TSO000002	65.3677	66.3278	66.0056	1.8472e-01	1.9000e+00
57	TAP020136	108.6987	111.2868	109.8984	6.1161e-01	1.9011e+00
58	TAP120312	253.3156	256.6579	255.0671	7.4715e-01	1.9229e+00
59	TAP130312	279.2631	281.5605	280.4864	8.8373e-01	1.9299e+00
60	EMPTY	5.2686	5.3174	5.2959	1.1419e-02	0.0000e+00
61	EMPTY	5.2588	5.2881	5.2757	8.4406e-03	0.0000e+00
62	EMPTY	5.2393	5.2686	5.2561	7.1245e-03	0.0000e+00
63	EMPTY	5.2295	5.2539	5.2450	5.8102e-03	0.0000e+00
64	EMPTY	2.4170	2.4268	2.4219	2.6100e-03	0.0000e+00
65	EMPTY	2.4268	2.4365	2.4303	2.4244e-03	0.0000e+00
66	EMPTY	2.4316	2.4365	2.4348	2.3675e-03	0.0000e+00
67	EMPTY	2.4365	2.4463	2.4408	2.3428e-03	0.0000e+00
68	EMPTY	2.4414	2.4463	2.4440	2.4583e-03	0.0000e+00
69	EMPTY	2.4463	2.4561	2.4502	2.2058e-03	0.0000e+00
70	EMPTY	2.4512	2.4609	2.4555	2.1249e-03	0.0000e+00
71	EMPTY	2.4658	2.4707	2.4680	2.4484e-03	0.0000e+00
72	EMPTY	2.4658	2.4756	2.4707	1.7086e-03	0.0000e+00
73	EMPTY	2.4756	2.4805	2.4787	2.3675e-03	0.0000e+00
74	EMPTY	2.4805	2.4854	2.4832	2.4484e-03	0.0000e+00
75	EMPTY	2.4854	2.4951	2.4899	2.0716e-03	0.0000e+00
76	EMPTY	2.4902	2.4951	2.4933	2.3941e-03	0.0000e+00
77	EMPTY	2.5000	2.5049	2.5013	2.1635e-03	0.0000e+00
78	EMPTY	2.5098	2.5195	2.5138	2.1364e-03	0.0000e+00
79	EMPTY	2.5244	2.5342	2.5278	2.4662e-03	0.0000e+00
80	PAN020136	-18.1608	-17.7030	-17.9060	1.1901e-01	8.7115e-01
81	PAN050136	-33.1772	-32.5668	-32.9177	1.6385e-01	1.6820e+00
82	PAN070136	-24.7673	-23.7755	-24.2470	2.4982e-01	8.7211e-01
83	PAN080136	-11.8943	-9.5292	-10.9147	5.3846e-01	8.7043e-01
84	PAN090136	-11.6596	-2.3517	-10.1566	1.4788e+00	8.7037e-01
85	PAN100136	-12.3551	-8.5404	-10.2693	6.8666e-01	8.7038e-01
86	PAN105136	-6.5899	-3.8433	-5.1220	4.6435e-01	8.7009e-01
87	PAN110136	-5.4748	-3.3385	-4.7500	3.8170e-01	8.7008e-01
88	PAN115136	-6.2231	-4.0105	-4.9810	4.3159e-01	8.7009e-01
89	PAN120136	-5.3221	-3.5674	-4.7835	3.9790e-01	8.7008e-01
90	PAN125136	-6.0939	-5.3310	-5.8925	2.2056e-01	8.7012e-01
91	PAN130136	-4.6956	-1.1861	-3.5177	9.9274e-01	8.7004e-01
92	PAN120048	-11.1828	-10.1909	-10.7586	2.2504e-01	8.7042e-01
93	PAN130048	-10.7177	-10.2599	-10.5880	1.1248e-01	8.7040e-01
94	PAN120224	-10.1587	-9.4720	-9.8306	1.6037e-01	8.7035e-01
95	PAN130224	-10.0854	-9.4750	-9.8367	1.3332e-01	8.7035e-01
96	PAN120312	-10.1397	-8.5375	-9.6025	4.1673e-01	8.7033e-01
97	PAN130312	-10.2026	-9.6686	-9.9203	1.0369e-01	8.7035e-01
98	PAB000136	59.9238	60.2442	60.1068	6.8587e-02	5.9915e-01
99	PAB100136	63.6915	64.0119	63.8334	8.1284e-02	6.0155e-01
100	PAB125136	64.6536	65.0656	64.8596	1.0676e-01	6.0224e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	59.6429	60.2532	59.9578	1.3751e-01	7.6483e-01
102	PRV000001	19.5075	19.6296	19.6125	4.2787e-02	7.5160e-01
103	PSR000001	64.8474	65.0916	65.0256	6.6221e-02	7.6742e-01
104	PFM000001	1.0000	1.2747	1.1410	7.2136e-02	5.0001e-01
105	PAN000136	-138.0775	-133.4998	-136.1640	1.0075e+00	4.9318e+00
106	PFM000002	1.1988	1.2827	1.2501	1.6402e-02	2.0002e-01
107	EMPTY	-0.0049	0.0000	-0.0048	6.9053e-04	0.0000e+00
108	EMPTY	-8.8818	-7.9736	-8.4694	2.3715e-01	0.0000e+00
109	EMPTY	-0.0049	0.0049	0.0000	1.3951e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0026	2.4583e-03	0.0000e+00
112	VPW000001	100.4056	100.9916	100.7572	1.4764e-01	1.0107e+00
113	VPW000002	119.9181	120.3087	120.0861	1.3675e-01	1.0841e+00
114	VPW000003	147.8741	148.6553	148.2647	1.8508e-01	1.2031e+00
115	VPW000004	105.3786	106.1599	105.7497	1.9828e-01	1.0289e+00
116	VPW000005	140.2006	140.9818	140.5405	2.2944e-01	1.1693e+00
117	VPW000006	146.8224	147.7990	147.3302	2.0504e-01	1.1990e+00
118	IPW000001	541.6252	555.2916	548.4584	3.5772e+00	9.1860e+00
119	IPW000002	1294.1421	1301.9471	1297.6932	2.0366e+00	1.3066e+01
120	IPW000003	1310.8500	1322.5499	1317.3629	3.0671e+00	1.3188e+01
121	IPW000004	378.9908	382.4087	380.7194	7.4614e-01	3.6119e+00
122	IPW000005	252.4538	254.8949	253.5767	4.9565e-01	2.8307e+00
123	IPW000006	264.9865	266.9396	265.8360	4.7114e-01	2.9001e+00
124	EMPTY	-0.0342	-0.0146	-0.0227	3.6593e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0156	3.2718e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0146	-0.0198	3.0261e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0189	3.6433e-03	0.0000e+00
128	IHT000001	130.9120	133.2557	132.3573	5.4104e-01	4.3083e+00
129	IHT000002	131.2838	133.6275	132.7447	4.8366e-01	4.3095e+00
130	IHT000003	130.2434	132.7824	131.9582	5.2391e-01	4.3071e+00
131	IHT000004	131.1223	133.8567	132.5793	5.4134e-01	4.3090e+00
132	IHT000005	128.6959	131.0397	130.0982	5.4632e-01	4.3015e+00
133	IHT000006	124.9324	127.2761	126.2176	5.0700e-01	4.2899e+00
134	IHT000007	129.6311	131.9749	130.7210	5.0546e-01	4.3033e+00
135	IHT000008	129.8490	131.9975	130.7749	4.9412e-01	4.3035e+00
136	IHT000009	130.7016	133.0454	131.6548	5.0477e-01	4.3062e+00
137	IHT000010	129.7213	131.8697	130.7642	4.8425e-01	4.3035e+00
138	IHT000011	133.9543	135.9075	134.8683	4.8075e-01	4.3161e+00
139	IHT000012	127.8545	130.0030	128.7608	5.1864e-01	4.2974e+00
140	IHT000013	91.4663	93.6148	92.4429	4.8808e-01	4.2029e+00
141	IHT000014	127.4226	129.5711	128.3914	5.2787e-01	4.2963e+00
142	IHT000015	95.3238	97.4722	96.3706	4.6649e-01	4.2117e+00
143	IHT000016	87.0568	89.0099	87.8888	4.6657e-01	4.1931e+00
144	IHT000017	104.6575	108.7590	106.5949	1.1047e+00	4.2363e+00
145	IHT000018	107.4482	110.1825	108.7216	5.9220e-01	4.2417e+00
146	IHT000019	103.1588	105.5025	104.4947	5.6546e-01	4.2311e+00
147	IHT000020	105.8293	108.3684	107.2668	5.9551e-01	4.2380e+00
148	IHT000021	-3.1663	-0.2366	-1.6155	7.2374e-01	4.1000e+00
149	IHT000022	90.2006	92.5443	91.5639	5.6150e-01	4.2010e+00
150	IHT000023	105.4012	107.7449	106.4832	6.0000e-01	4.2360e+00
151	IHT000024	70.5266	72.6750	71.6203	5.5943e-01	4.1621e+00
152	IHT000025	102.6968	105.4312	104.0483	5.6750e-01	4.2300e+00
153	IHT000026	104.4847	107.0237	105.8011	5.6471e-01	4.2343e+00
154	IHT000027	87.6803	90.0240	88.9927	5.6087e-01	4.1955e+00
155	IHT000028	89.9564	92.1049	90.8666	5.7536e-01	4.1995e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.0406	107.5796	106.0483	5.9236e-01	4.2349e+00
157	IHT000030	107.0575	109.7919	108.2060	6.0828e-01	4.2404e+00
158	IHT000031	105.9420	108.2858	107.0240	5.7752e-01	4.2374e+00
159	IHT000032	107.2078	109.9421	108.3875	5.9446e-01	4.2408e+00
160	IHT000033	106.9975	109.9271	108.3178	6.1708e-01	4.2407e+00
161	IHT000034	93.7613	95.9097	94.6011	4.9166e-01	4.2077e+00
162	IHT000035	123.8093	125.7625	124.7079	4.6855e-01	4.2855e+00
163	IHT000036	92.4053	94.1631	93.1787	4.4110e-01	4.2045e+00

DEFECTIVE INSTRUMENTS FOR THE RIBBED GEOMETRY TEST SERIES

Series	Tests	Defective Instruments
2	May07_01 to May07_09	TAO070136 TAF020136 TRR130090 TAO120136 TAF080136 TAF090136 TAF110136 TAF120136 TAF130312 IHT000021 IHT000024 IHT000033

Chapter 8**NUCLEATE BOILING PRESSURE DROP IN AN ANNULUS**

Test Geometry: Ribbed (3)
Test Series: 3
Test Date: May 8, 1990

□ SERIES 3, 05/08/90 — UNHEATED, 05/01/90

TEST NUMBER	INLET VELOCITY(a) (ft/s)	PRESSURE DROP(b) (psi)
May08_01	26.01	18.44
May08_02	19.98	9.21
May08_03	14.05	2.22
May08_04	8.05	-2.74
May08_05	5.88	-3.85
May08_06	3.99	-4.62
May08_07	3.50	-4.75
May08_08	3.33	-4.75

(c)

NOMINAL TEST CONDITIONS	
Annulus geometry	ribbed (3)
Inlet temperature	86 °F
Inlet pressure	40 psia
Wall heat flux	100 kBtu/hr-ft ²
Flux distribution	uniform
He saturation pressure	1 psig

NOTES:

(a) Inlet velocity calculated from PFM000001 and PFM000002 (for V513 ft/s)

(b) Pressure drop calculated from PAN000136

(c) Shading notes test at minimum pressure drop

DEMAND CURVE AND DATA FOR SERIES 3 - RIBBED ANNULUS

SERIES 3, MAY08_08
 RIBBED (3)
 $\phi = 101,500 \text{ Btu/hr-ft}^2$
 $V_t = 3.33 \text{ ft/sec}$

$P_{He} = 1 \text{ psig}$
 $P = 40.13 \text{ psia}$
 $T = 87.33 \text{ }^\circ\text{F}$
 $L = 12.83 \text{ ft}$

RIBBED (3)
 $\phi = 101,500 \text{ Btu/hr-ft}^2$
 $V_t = 3.33 \text{ ft/sec}$

$P_{He} = 1 \text{ psig}$
 $P = 40.13 \text{ psia}$
 $T = 87.33 \text{ }^\circ\text{F}$
 $L = 12.83 \text{ ft}$

MAY08_08

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Velocity 1 = 26.0080 (ft/sec) (+/- 1.6888 %)
 Velocity 2 = 13.4147 (ft/sec) (+/- 1.7033 %)
 Pressure drop = 18.4407 (psi)
 Tsat in = 267.7314 (deg F) Tsat out = 234.3379 (deg F)
 Phi inner = 101.7056 (kbtu/hr-ft2) (+/- 1.4099 %)
 Phi outer = 101.7048 (kbtu/hr-ft2) (+/- 1.6168 %)
 D inner = 0.1962 (ft) D outer = 0.2411 (ft) D hyd = 0.0389 (ft)
 L inner = 12.8550 (ft) L outer = 12.8011 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	70.8686	71.5087	71.1631	1.6632e-01	1.9000e+00
1	TRF0000002	71.0830	71.7196	71.3843	1.2194e-01	1.9000e+00
2	TFM0000001	86.4214	87.2605	86.6988	2.1365e-01	1.9002e+00
3	TIN0000001	86.1836	87.1294	86.6000	1.8992e-01	1.9002e+00
4	TRV0000001	86.4261	87.2647	86.7910	2.0098e-01	1.9002e+00
5	TSR0000001	107.3613	108.2876	107.8383	2.2561e-01	1.9010e+00
6	TAO020136	110.2018	111.2338	110.6644	2.5118e-01	1.9011e+00
7	TAO050136	107.7918	108.5123	108.1709	1.5352e-01	1.9010e+00
8	TAO070136	110.1371	111.0667	110.5876	1.8981e-01	1.9011e+00
9	TAO080136	115.0996	115.9186	115.5008	1.7397e-01	1.9014e+00
10	TAO090136	116.1207	116.8379	116.5062	2.0646e-01	1.9015e+00
11	TAO100136	112.9453	113.7672	113.2867	1.8625e-01	1.9013e+00
12	TAO105136	114.5054	115.4304	115.0236	1.9909e-01	1.9014e+00
13	TAO110136	116.4345	117.0477	116.6883	1.5607e-01	1.9015e+00
14	TAO115136	114.5466	115.3699	114.9213	1.8453e-01	1.9014e+00
15	TAO120136	119.1077	119.7200	119.4552	1.4130e-01	1.9016e+00
16	TAO125136	115.3666	116.1861	115.7886	1.5166e-01	1.9014e+00
17	TAO130136	115.0822	115.6951	115.4264	1.5119e-01	1.9014e+00
18	TAO120048	120.1186	120.7319	120.3153	1.7743e-01	1.9017e+00
19	TAO130048	117.3060	118.0222	117.6053	1.3850e-01	1.9015e+00
20	TAO120224	118.6433	119.3602	118.9096	1.5618e-01	1.9016e+00
21	TAO130224	114.1963	114.9139	114.5777	1.3410e-01	1.9013e+00
22	TAO120312	118.4043	119.1215	118.8631	1.7826e-01	1.9016e+00
23	TAO130312	118.9921	119.6057	119.3115	1.4409e-01	1.9016e+00
24	TRT020000	109.0172	109.9471	109.5668	1.8961e-01	1.9011e+00
25	TRT070000	113.0247	113.7462	113.3335	1.4581e-01	1.9013e+00
26	TRT100000	120.9300	121.5427	121.2774	1.6865e-01	1.9018e+00
27	TRT120000	119.4058	120.0195	119.7047	1.4439e-01	1.9017e+00
28	TRT125000	122.0448	122.7584	122.3267	1.8327e-01	1.9018e+00
29	TRT130000	120.4406	121.1559	120.7962	1.6147e-01	1.9017e+00
30	EMPTY	39.1464	39.8352	39.5459	2.4459e-01	1.9011e+00
31	TAF050136	93.8058	94.4316	94.1315	1.6401e-01	1.9004e+00
32	TAF070136	97.0437	97.7718	97.3727	2.0365e-01	1.9005e+00
33	TAF080136	114.6112	115.2263	114.9308	1.5132e-01	1.9014e+00
34	TAF090136	100.4401	101.3737	100.8885	2.5175e-01	1.9006e+00
35	TAF100136	100.4489	101.2812	100.8402	1.7525e-01	1.9006e+00
36	TAF105136	101.1230	102.0539	101.4920	2.6612e-01	1.9007e+00
37	TAF110136	105.4476	106.1707	105.8157	1.4623e-01	1.9009e+00
38	TAF115136	102.9597	103.6846	103.3570	1.7920e-01	1.9007e+00
39	TAF120136	108.6496	109.5767	109.2180	1.6681e-01	1.9010e+00
40	TAF125136	104.3121	105.4448	104.9415	2.8482e-01	1.9008e+00
41	TAF130136	105.0835	105.9109	105.4972	1.6838e-01	1.9008e+00
42	TAF120048	105.1965	106.2368	105.6710	2.3405e-01	1.9009e+00
43	TAF130048	106.4285	107.0490	106.7924	1.7113e-01	1.9009e+00
44	TAF120224	104.4384	105.0601	104.6995	1.5970e-01	1.9008e+00
45	TAF130224	105.3140	105.8344	105.5430	1.6384e-01	1.9009e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	38.0572	2.1694e-01	1.9010e+00
47	EMPTY	39.1464	39.3761	39.2567	1.1589e-01	1.9010e+00
48	TAI130138	114.7927	116.0245	115.4580	3.2676e-01	1.9014e+00
49	TAI130226	113.3087	114.2314	113.8945	1.8983e-01	1.9013e+00
50	TAI130314	115.9239	116.9517	116.4545	3.1158e-01	1.9015e+00
51	TAI130042	113.7292	114.6544	114.2430	2.1275e-01	1.9013e+00
52	TR130090	93.1133	97.5831	95.8093	1.1190e+00	1.9004e+00
53	TS1000001	46.5201	47.2795	46.8544	2.0400e-01	1.9004e+00
54	TS1000002	107.1272	108.7759	108.0711	3.8434e-01	1.9010e+00
55	TS0000001	46.1091	46.7624	46.5273	1.5615e-01	1.9004e+00
56	TS0000002	52.2828	53.2539	52.7530	2.3752e-01	1.9002e+00
57	TAF020136	87.6855	88.6317	88.1102	2.2698e-01	1.9002e+00
58	TAF120312	104.6620	105.5930	105.0511	2.7105e-01	1.9008e+00
59	TAF130312	108.1038	108.7226	108.3765	1.6098e-01	1.9010e+00
60	EMPTY	1.0596	1.0693	1.0653	2.1364e-03	0.0000e+00
61	EMPTY	1.0742	1.0791	1.0765	2.4583e-03	0.0000e+00
62	EMPTY	1.0840	1.0889	1.0867	2.4484e-03	0.0000e+00
63	EMPTY	1.0986	1.1035	1.0989	1.1714e-03	0.0000e+00
64	EMPTY	0.5957	0.6055	0.6008	1.3811e-03	0.0000e+00
65	EMPTY	0.6201	0.6250	0.6203	9.6655e-04	0.0000e+00
66	EMPTY	0.6348	0.6396	0.6355	1.8082e-03	0.0000e+00
67	EMPTY	0.6494	0.6592	0.6536	1.9754e-03	0.0000e+00
68	EMPTY	0.6641	0.6689	0.6646	1.4797e-03	0.0000e+00
69	EMPTY	0.6787	0.6836	0.6830	1.6028e-03	0.0000e+00
70	EMPTY	0.6934	0.7031	0.6980	1.3811e-03	0.0000e+00
71	EMPTY	0.7178	0.7227	0.7180	9.6655e-04	0.0000e+00
72	EMPTY	0.7275	0.7324	0.7322	9.6655e-04	0.0000e+00
73	EMPTY	0.7471	0.7520	0.7487	2.3365e-03	0.0000e+00
74	EMPTY	0.7617	0.7666	0.7631	2.2146e-03	0.0000e+00
75	EMPTY	0.7764	0.7813	0.7804	1.8950e-03	0.0000e+00
76	EMPTY	0.7910	0.7959	0.7931	2.4344e-03	0.0000e+00
77	EMPTY	0.8105	0.8154	0.8110	1.4797e-03	0.0000e+00
78	EMPTY	0.8301	0.8350	0.8346	1.3381e-03	0.0000e+00
79	EMPTY	0.8496	0.8545	0.8543	9.6655e-04	0.0000e+00
80	PAN020136	60.7594	65.1845	63.4679	1.0130e+00	8.8435e-01
81	PAN050136	116.3093	118.2929	117.1363	5.1960e-01	1.7053e+00
82	PAN070136	84.6777	85.8222	85.2546	3.1368e-01	8.9573e-01
83	PAN080136	39.9342	40.9260	40.4652	2.3976e-01	8.7586e-01
84	PAN090136	38.4230	39.6437	39.1844	3.1532e-01	8.7550e-01
85	PAN100136	39.5702	40.6383	40.1272	2.5245e-01	8.7576e-01
86	PAN105136	19.6098	20.3727	20.0111	1.8355e-01	8.7144e-01
87	PAN110136	22.3579	22.8156	22.6066	1.0987e-01	8.7183e-01
88	PAN115136	18.6385	19.1726	18.9544	1.3170e-01	8.7129e-01
89	PAN120136	16.5448	16.9263	16.7249	9.3453e-02	8.7100e-01
90	PAN125136	21.4438	22.0542	21.7292	1.3684e-01	8.7169e-01
91	PAN130136	20.6559	21.4188	20.9626	1.5451e-01	8.7158e-01
92	PAN120048	45.8146	46.5012	46.1381	1.7133e-01	8.7761e-01
93	PAN130048	36.4833	37.1699	36.8342	1.7164e-01	8.7486e-01
94	PAN120224	35.5091	36.2720	35.8860	1.5900e-01	8.7461e-01
95	PAN130224	41.5598	42.4754	41.8803	2.1190e-01	8.7628e-01
96	PAN120312	41.6009	42.2113	41.9717	1.5414e-01	8.7630e-01
97	PAN130312	41.0022	41.6126	41.2448	1.6217e-01	8.7609e-01
98	PAB000136	39.9942	40.4519	40.2441	1.1522e-01	5.8866e-01
99	PAB100136	26.0976	26.2807	26.1827	5.2324e-02	5.8368e-01
100	PAB125136	22.4908	22.6739	22.5925	4.5580e-02	5.8274e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIM000001	39.8474	40.5799	40.0842	1.7335e-01	7.5667e-01
102	PRV000001	15.3654	15.4875	15.4851	1.7263e-02	7.5100e-01
103	PSR000001	19.3163	19.4383	19.4335	2.4164e-02	7.5157e-01
104	PFM000001	102.7187	105.8315	104.3392	7.1952e-01	5.6395e-01
105	PAM000136	506.6476	515.3451	510.5385	1.9991e+00	5.0829e+00
106	PFM000002	27.5702	27.5702	27.5702	9.6336e-06	2.1154e-01
107	EMPTY	0.0049	0.0098	0.0067	2.3941e-03	0.0000e+00
108	EMPTY	-7.9441	-7.2070	-7.5355	1.8323e-01	0.0000e+00
109	EMPTY	0.0049	0.0098	0.0059	1.9730e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0001	6.9053e-04	0.0000e+00
112	VPW000001	101.5587	103.3166	102.3634	4.1692e-01	1.0165e+00
113	VPW000002	119.3209	120.1022	119.5905	1.9686e-01	1.0821e+00
114	VPW000003	147.1567	148.5239	147.7661	2.6658e-01	1.2009e+00
115	VPW000004	104.5147	106.2725	105.2881	3.6371e-01	1.0272e+00
116	VPW000005	139.2127	141.1659	140.0214	4.0049e-01	1.1670e+00
117	VPW000006	145.9586	147.5211	146.6538	3.5767e-01	1.1960e+00
118	IPW000001	552.3633	566.0297	558.0059	3.0104e+00	9.2249e+00
119	IPW000002	1295.4180	1307.1256	1301.3890	2.7428e+00	1.3088e+01
120	IPW000003	1325.3251	1338.9750	1331.8381	2.9113e+00	1.3278e+01
121	IPW000004	384.1458	390.0052	386.6458	1.3185e+00	3.6510e+00
122	IPW000005	254.6413	258.0590	256.0182	8.0552e-01	2.8444e+00
123	IPW000006	266.9677	269.8974	268.5693	7.3848e-01	2.9158e+00
124	EMPTY	-0.0342	-0.0195	-0.0251	3.8219e-03	0.0000e+00
125	EMPTY	-0.0244	-0.0098	-0.0163	3.0581e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0146	-0.0215	3.1195e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0180	3.4793e-03	0.0000e+00
128	IHT000001	132.2378	134.1909	133.1909	4.7127e-01	4.3109e+00
129	IHT000002	132.6397	134.7882	133.5499	4.6956e-01	4.3120e+00
130	IHT000003	131.1824	133.3308	132.1707	4.9820e-01	4.3078e+00
131	IHT000004	131.8735	134.2172	132.9868	5.4140e-01	4.3103e+00
132	IHT000005	129.4546	131.6031	130.4898	4.9639e-01	4.3026e+00
133	IHT000006	125.5521	127.8959	126.6420	4.6032e-01	4.2911e+00
134	IHT000007	130.0068	132.1552	131.0107	4.6857e-01	4.3042e+00
135	IHT000008	130.2171	132.1702	131.1117	4.1590e-01	4.3045e+00
136	IHT000009	131.2726	133.2257	132.3506	4.2543e-01	4.3083e+00
137	IHT000010	130.1307	132.2792	131.2792	5.9796e-01	4.3050e+00
138	IHT000011	134.3562	137.0906	135.6141	6.2035e-01	4.3185e+00
139	IHT000012	128.2489	130.9833	129.5185	6.2172e-01	4.2997e+00
140	IHT000013	92.0936	94.4373	93.2108	5.8798e-01	4.2046e+00
141	IHT000014	127.8132	130.3523	129.0633	6.0232e-01	4.2983e+00
142	IHT000015	96.0937	98.2422	97.1406	5.7421e-01	4.2135e+00
143	IHT000016	89.2015	91.7405	90.3850	6.1815e-01	4.1984e+00
144	IHT000017	105.2246	108.1543	106.6074	7.0789e-01	4.2363e+00
145	IHT000018	107.8163	110.5507	109.3241	6.9142e-01	4.2433e+00
146	IHT000019	103.7973	106.3364	104.7856	5.7509e-01	4.2318e+00
147	IHT000020	107.3843	109.7281	108.2593	5.7350e-01	4.2405e+00
148	IHT000021	-2.7532	-0.0188	-1.5110	6.3719e-01	4.1000e+00
149	IHT000022	92.9500	95.8797	94.5125	6.2140e-01	4.2075e+00
150	IHT000023	106.2012	108.5449	107.4824	5.4556e-01	4.2385e+00
151	IHT000024	71.5144	73.6629	72.7449	5.3851e-01	4.1640e+00
152	IHT000025	103.5081	105.8519	104.6292	5.3643e-01	4.2314e+00
153	IHT000026	105.4763	107.8200	106.5661	5.5676e-01	4.2362e+00
154	IHT000027	89.8550	92.7847	91.5464	6.6217e-01	4.2010e+00
155	IHT000028	91.9171	95.2374	93.3897	6.7797e-01	4.2050e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.6415	108.3759	106.7783	6.1598e-01	4.2368e+00
157	IHT000030	107.8275	110.5619	108.9526	6.0818e-01	4.2423e+00
158	IHT000031	106.9674	109.3111	107.9908	6.2085e-01	4.2398e+00
159	IHT000032	107.9665	110.5056	109.1969	6.2046e-01	4.2429e+00
160	IHT000033	107.7749	110.5093	109.1538	6.5246e-01	4.2428e+00
161	IHT000034	94.1632	97.0929	95.5459	5.8639e-01	4.2099e+00
162	IHT000035	124.1850	127.1146	125.7085	5.9712e-01	4.2804e+00
163	IHT000036	92.9725	95.1209	93.9998	5.3352e-01	4.2064e+00

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Velocity 1 - 19.9805 (ft/sec) (+/- 1.7205 %)
 Velocity 2 - 13.4148 (ft/sec) (+/- 1.7033 %)
 Pressure drop - 9.2062 (psi)
 Tsat in - 267.3409 (deg F) Tsat out - 252.7454 (deg F)
 Phi inner - 100.7076 (kBtu/hr-ft2) (+/- 1.4126 %)
 Phi outer - 101.5178 (kBtu/hr-ft2) (+/- 1.6170 %)
 D inner - 0.1962 (ft) D outer - 0.2413 (ft) D hyd - 0.0389 (ft)
 L inner - 12.8550 (ft) L outer - 12.8070 (ft) A flow - 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	70.8686	71.5087	71.1716	1.8333e-01	1.9000e+00
1	TRF000002	71.2952	71.7196	71.4649	1.2126e-01	1.9000e+00
2	TRF000001	86.2124	87.2605	86.7973	1.9531e-01	1.9002e+00
3	TIN000001	86.4988	86.9197	86.7029	1.3990e-01	1.9002e+00
4	TRV000001	86.4261	87.0558	86.7724	1.6835e-01	1.9002e+00
5	TSR000001	107.2577	108.6962	108.0664	3.3124e-01	1.9002e+00
6	TAO020136	115.9685	116.7905	116.3939	2.1469e-01	1.9014e+00
7	TAO050136	113.4250	114.3466	113.8492	1.7685e-01	1.9013e+00
8	TAO070136	116.5302	117.6612	117.1699	2.3150e-01	1.9015e+00
9	TAO080136	122.5228	123.2348	122.8986	1.4723e-01	1.9019e+00
10	TAO090136	123.6693	124.5856	124.1278	2.0283e-01	1.9020e+00
11	TAO100136	120.1107	120.8266	120.4932	1.7495e-01	1.9017e+00
12	TAO105136	122.0897	123.1117	122.5414	2.1363e-01	1.9019e+00
13	TAO110136	124.3245	124.9346	124.6237	1.4119e-01	1.9020e+00
14	TAO115136	122.3512	123.2719	122.7869	2.2992e-01	1.9019e+00
15	TAO120136	127.6985	128.3073	127.9769	1.3244e-01	1.9023e+00
16	TAO125136	123.6329	124.2444	123.9206	1.6297e-01	1.9020e+00
17	TAO130136	123.0400	123.6495	123.3751	1.5760e-01	1.9019e+00
18	TAO130048	128.9684	129.4762	129.2266	1.3015e-01	1.9024e+00
19	TAO130048	125.9469	126.5574	126.2381	1.3774e-01	1.9021e+00
20	TAO120224	127.3097	128.0216	127.6130	1.9213e-01	1.9022e+00
21	TAO130224	122.2115	122.8228	122.4708	1.4563e-01	1.9019e+00
22	TAO120312	127.3847	127.9954	127.7289	1.5087e-01	1.9022e+00
23	TAO130312	127.6347	128.2447	128.0511	1.2854e-01	1.9023e+00
24	TRT020000	114.6946	115.5184	115.2236	1.8245e-01	1.9014e+00
25	TRT070000	119.7334	120.5549	120.1996	1.6357e-01	1.9017e+00
26	TRT100000	129.2590	130.1712	129.6668	1.9588e-01	1.9024e+00
27	TRT120000	128.6673	129.2766	128.9620	1.3179e-01	1.9023e+00
28	TRT125000	131.4358	132.3438	132.0071	1.8082e-01	1.9026e+00
29	TRT130000	129.4750	129.9823	129.7492	1.3483e-01	1.9024e+00
30	EMPTY	39.1464	40.0646	39.5322	2.3849e-01	1.9011e+00
31	TAP050136	95.9886	96.7168	96.3407	1.7577e-01	1.9005e+00
32	TAP070136	100.0426	101.0782	100.4222	1.9905e-01	1.9006e+00
33	TAP080136	121.9217	122.5334	122.1973	1.4718e-01	1.9018e+00
34	TAP090136	105.4057	106.2330	105.7966	2.0267e-01	1.9009e+00
35	TAP100136	104.6034	105.5356	105.1568	1.9484e-01	1.9008e+00
36	TAP105136	105.6444	106.5700	106.0658	2.4137e-01	1.9009e+00
37	TAP110136	111.4106	111.9255	111.6023	1.3934e-01	1.9012e+00
38	TAP115136	108.0176	108.6372	108.2717	1.6169e-01	1.9010e+00
39	TAP120136	115.6174	116.1305	115.8861	1.4031e-01	1.9014e+00
40	TAP125136	109.7460	110.7711	110.4212	2.1993e-01	1.9011e+00
41	TAP130136	110.8509	111.5712	111.2648	1.6304e-01	1.9011e+00
42	TAP120048	110.7077	111.7427	111.3599	2.2249e-01	1.9012e+00
43	TAP130048	112.6045	113.2219	112.9563	1.5416e-01	1.9012e+00
44	TAP120224	109.8106	110.6352	110.2328	2.0113e-01	1.9011e+00
45	TAP130224	111.0241	111.8508	111.4352	1.9974e-01	1.9012e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.0572	2.0675e-01	1.9010e+00
47	EMPTY	39.1464	39.6057	39.2659	1.2483e-01	1.9010e+00
48	TAP130136	123.2863	124.3062	123.7904	2.5511e-01	1.9019e+00
49	TAP130226	121.7756	122.4889	122.1245	1.7343e-01	1.9018e+00
50	TAP130314	124.4279	125.6525	125.0137	3.0012e-01	1.9020e+00
51	TAP130042	121.8234	122.9469	122.5446	2.0576e-01	1.9019e+00
52	TRT130090	106.6805	111.0019	108.4702	1.1190e+00	1.9010e+00
53	TSI000001	46.4120	47.2790	46.7484	1.7416e-01	1.9004e+00
54	TSI000002	108.2604	110.0094	109.3690	4.3988e-01	1.9010e+00
55	TSO000001	45.8910	46.8712	46.3853	2.0897e-01	1.9004e+00
56	TSO000002	52.8213	53.4694	53.0915	1.9155e-01	1.9002e+00
57	TAP020136	88.6326	89.2652	88.9593	1.8188e-01	1.9002e+00
58	TAP120312	110.2283	111.2574	110.7576	3.0472e-01	1.9011e+00
59	TAP130312	114.9786	115.4917	115.2273	1.4514e-01	1.9014e+00
60	EMPTY	1.2287	1.2305	1.2257	1.8429e-03	0.0000e+00
61	EMPTY	1.2305	1.2402	1.2354	9.8648e-04	0.0000e+00
62	EMPTY	1.2402	1.2451	1.2446	1.4797e-03	0.0000e+00
63	EMPTY	1.2549	1.2598	1.2554	1.4797e-03	0.0000e+00
64	EMPTY	0.6689	0.6689	0.6689	0.0000e+00	0.0000e+00
65	EMPTY	0.6836	0.6885	0.6884	6.9053e-04	0.0000e+00
66	EMPTY	0.6982	0.7031	0.7023	1.0082e-03	0.0000e+00
67	EMPTY	0.7178	0.7227	0.7180	9.6655e-04	0.0000e+00
68	EMPTY	0.7275	0.7324	0.7306	2.3941e-03	0.0000e+00
69	EMPTY	0.7471	0.7471	0.7471	0.0000e+00	0.0000e+00
70	EMPTY	0.7568	0.7617	0.7615	9.6655e-04	0.0000e+00
71	EMPTY	0.7813	0.7861	0.7827	2.2603e-03	0.0000e+00
72	EMPTY	0.7959	0.7959	0.7959	0.0000e+00	0.0000e+00
73	EMPTY	0.8105	0.8154	0.8140	2.2603e-03	0.0000e+00
74	EMPTY	0.8252	0.8301	0.8259	1.7115e-03	0.0000e+00
75	EMPTY	0.8398	0.8447	0.8442	1.4797e-03	0.0000e+00
76	EMPTY	0.8545	0.8594	0.8554	1.8950e-03	0.0000e+00
77	EMPTY	0.8740	0.8740	0.8740	0.0000e+00	0.0000e+00
78	EMPTY	0.8936	0.8984	0.8941	1.6028e-03	0.0000e+00
79	EMPTY	0.9131	0.9180	0.9176	1.3381e-03	0.0000e+00
80	PAN020136	29.9367	32.4544	31.0490	6.0508e-01	8.7346e-01
81	PAN050136	56.9526	58.4785	57.7461	3.4189e-01	1.6862e+00
82	PAN070136	43.4027	44.3946	43.8529	2.0579e-01	8.7688e-01
83	PAN080136	18.2667	18.8771	18.5841	1.4813e-01	8.7124e-01
84	PAN090136	18.1288	18.5865	18.3546	1.2518e-01	8.7121e-01
85	PAN100136	19.9627	20.4967	20.2740	1.3334e-01	8.7148e-01
86	PAN105136	9.1575	9.6153	9.3574	1.0667e-01	8.7031e-01
87	PAN110136	11.3715	11.8293	11.6035	9.8648e-02	8.7048e-01
88	PAN115136	10.7803	11.3143	11.1144	1.1728e-01	8.7044e-01
89	PAN120136	5.3296	7.6185	7.3713	3.6494e-01	8.7020e-01
90	PAN125136	11.2204	13.6618	11.4692	3.3551e-01	8.7047e-01
91	PAN130136	10.9665	11.6532	11.3053	1.3451e-01	8.7046e-01
92	PAN120048	23.8419	24.4523	24.1929	1.3437e-01	8.7210e-01
93	PAN130048	18.1727	18.8594	18.5054	1.1613e-01	8.7123e-01
94	PAN120224	18.8007	19.3348	19.0357	1.2507e-01	8.7130e-01
95	PAN130224	21.7997	22.3338	22.1247	1.2786e-01	8.7176e-01
96	PAN120312	21.6119	22.7563	21.9720	2.1136e-01	8.7173e-01
97	PAN130312	21.4710	22.4628	21.7701	1.5631e-01	8.7170e-01
98	PAN000136	39.8111	40.2231	39.9813	8.0113e-02	5.8855e-01
99	PAN100136	32.9183	33.1014	33.0116	4.3339e-02	5.8584e-01
100	PAN125136	31.1426	31.2799	31.2085	4.0481e-02	5.8522e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.3592	40.0916	39.7864	1.2874e-01	7.5657e-01
102	PRV0000001	15.2434	15.3654	15.2849	5.8413e-02	7.5097e-01
103	PSR0000001	29.2039	29.3260	29.2943	5.4088e-02	7.5357e-01
104	PPH0000001	60.3297	62.5270	61.4449	4.7363e-01	5.2306e-01
105	PAN0000136	250.7577	259.4552	254.8776	1.9311e+00	4.9611e+00
106	PTM0000002	27.5702	27.5702	27.5702	9.6336e-06	2.1154e-01
107	EMPTY	0.0049	0.0098	0.0061	2.1065e-03	0.0000e+00
108	EMPTY	-8.0273	-7.3389	-7.6175	1.5787e-01	0.0000e+00
109	EMPTY	0.0049	0.0098	0.0058	1.8950e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW0000001	101.9494	102.7306	102.3712	1.9071e-01	1.0166e+00
113	VPW0000002	119.3209	119.7116	119.5004	1.1811e-01	1.0818e+00
114	VPW0000003	147.3520	147.7426	147.6098	1.1464e-01	1.2002e+00
115	VPW0000004	104.9053	105.2960	105.1280	1.4233e-01	1.0266e+00
116	VPW0000005	139.6034	140.1893	139.8456	1.3984e-01	1.1663e+00
117	VPW0000006	146.1539	146.7398	146.4859	1.2001e-01	1.1952e+00
118	IPW0000001	562.1250	569.9343	566.0687	1.7854e+00	9.2525e+00
119	IPW0000002	1289.5642	1295.4180	1293.0371	1.4902e+00	1.3037e+01
120	IPW0000003	1317.5250	1321.4250	1318.9290	1.2483e+00	1.3198e+01
121	IPW0000004	386.5872	387.5638	386.9193	2.8659e-01	3.6528e+00
122	IPW0000005	254.6413	256.1060	255.3249	3.2714e-01	2.8405e+00
123	IPW0000006	266.9677	267.9443	267.4853	3.1828e-01	2.9095e+00
124	EMPTY	-0.0293	-0.0098	-0.0204	4.1491e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0133	2.6174e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0098	-0.0158	3.2057e-03	0.0000e+00
127	EMPTY	-0.0293	-0.0098	-0.0183	3.7963e-03	0.0000e+00
128	INT0000001	132.2378	134.3863	133.2847	5.0649e-01	4.3112e+00
129	INT0000002	132.4444	134.5929	133.6319	5.0815e-01	4.3123e+00
130	INT0000003	131.5730	133.3308	132.4403	5.0403e-01	4.3086e+00
131	INT0000004	132.0608	134.4126	133.1431	5.1938e-01	4.3108e+00
132	INT0000005	129.6499	131.6031	130.6421	4.8623e-01	4.3031e+00
133	INT0000006	125.9427	128.0912	126.8842	5.0639e-01	4.2918e+00
134	INT0000007	130.2021	132.3505	131.2216	5.1492e-01	4.3049e+00
135	INT0000008	130.2171	132.5608	131.2718	4.8327e-01	4.3050e+00
136	INT0000009	131.2726	133.4210	132.4522	5.0526e-01	4.3086e+00
137	INT0000010	130.1307	133.0604	131.3846	5.6094e-01	4.3054e+00
138	INT0000011	134.5515	137.2859	135.6102	5.2953e-01	4.3184e+00
139	INT0000012	128.4442	130.9833	129.4560	5.1553e-01	4.2995e+00
140	INT0000013	92.0936	95.2186	93.1522	5.6233e-01	4.2045e+00
141	INT0000014	128.2039	130.3523	129.1102	4.9404e-01	4.2985e+00
142	INT0000015	96.2891	98.2422	97.0508	4.8688e-01	4.2133e+00
143	INT0000016	89.3968	91.3499	90.3655	4.6515e-01	4.1984e+00
144	INT0000017	106.7871	108.9355	107.7246	4.9756e-01	4.2392e+00
145	INT0000018	108.4022	110.3553	109.3085	4.4949e-01	4.2432e+00
146	INT0000019	103.9926	106.1411	104.7309	4.2552e-01	4.2316e+00
147	INT0000020	107.1890	109.1421	108.0210	3.8624e-01	4.2399e+00
148	INT0000021	-2.5579	-0.0188	-1.4758	4.9159e-01	4.1000e+00
149	INT0000022	93.1453	95.4890	94.3758	4.5549e-01	4.2072e+00
150	INT0000023	106.3965	107.9590	107.2793	4.1242e-01	4.2380e+00
151	INT0000024	71.7097	73.2722	72.4832	3.9055e-01	4.1636e+00
152	INT0000025	103.7034	105.2659	104.4769	4.0809e-01	4.2310e+00
153	INT0000026	105.6716	107.4294	106.4841	3.9134e-01	4.2360e+00
154	INT0000027	90.6363	92.1988	91.4058	3.8945e-01	4.2007e+00
155	INT0000028	92.1124	94.8467	93.3467	5.9115e-01	4.2049e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	INT0000029	105.6415	108.1806	106.7510	5.6420e-01	4.2367e+00
157	INT0000030	107.8275	110.1713	108.8315	5.4535e-01	4.2420e+00
158	INT0000031	106.7721	109.1158	107.7955	5.3751e-01	4.2393e+00
159	INT0000032	107.9665	110.3102	109.0719	5.4621e-01	4.2426e+00
160	INT0000033	107.9703	110.3140	109.0288	5.4546e-01	4.2425e+00
161	INT0000034	94.3585	96.7022	95.2881	4.7933e-01	4.2093e+00
162	INT0000035	124.5756	127.1146	125.4936	5.3996e-01	4.2878e+00
163	INT0000036	92.9725	95.3163	93.7459	4.7835e-01	4.2058e+00

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Velocity 1 = 14.0501 (ft/sec) (+/- 1.8646 %)
 Velocity 2 = 13.4133 (ft/sec) (+/- 1.7033 %)
 Pressure drop = 2.2240 (psi)
 Tsat in = 267.2958 (deg F) Tsat out = 264.1692 (deg F)
 Phi inner = 101.0286 (kBtu/hr-ft2) (+/- 1.4118 %)
 Phi outer = 101.7691 (kBtu/hr-ft2) (+/- 1.6162 %)
 D inner = 0.1962 (ft) D outer = 0.2413 (ft) D hyd = 0.0389 (ft)
 L inner = 12.8550 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	71.0820	71.7220	71.4788	1.8789e-01	1.9000e+00
1	TRF000002	71.5074	71.9317	71.7492	1.2130e-01	1.9000e+00
2	TRF000001	85.1653	85.8993	85.4966	1.8287e-01	1.9002e+00
3	TRF000001	84.9205	85.8673	85.3961	1.9400e-01	1.9002e+00
4	TRF000001	85.1748	86.1173	85.6769	2.2681e-01	1.9002e+00
5	TSR000001	106.6438	108.6988	107.8155	6.4898e-01	1.9010e+00
6	TAF020136	124.7742	125.5906	125.2354	1.9796e-01	1.9021e+00
7	TAF050136	122.2857	123.1000	122.5720	1.8276e-01	1.9019e+00
8	TAF070136	124.8350	125.9583	125.3908	2.3263e-01	1.9021e+00
9	TAF080136	134.1303	134.9374	134.5627	1.6685e-01	1.9028e+00
10	TAF090136	135.8185	136.7270	136.1985	1.7489e-01	1.9029e+00
11	TAF100136	131.7975	132.5070	132.2030	1.5716e-01	1.9026e+00
12	TAF105136	134.1941	135.1053	134.6759	2.1405e-01	1.9028e+00
13	TAF110136	137.1718	137.8766	137.5188	1.7604e-01	1.9031e+00
14	TAF115136	134.9847	135.8960	135.5113	2.0867e-01	1.9029e+00
15	TAF120136	141.3283	142.0312	141.7023	1.5032e-01	1.9035e+00
16	TAF125136	136.7924	137.7004	137.2366	2.1654e-01	1.9030e+00
17	TAF130136	135.6331	136.3376	136.0638	1.5331e-01	1.9029e+00
18	TAF120048	143.0856	143.9895	143.5318	1.7475e-01	1.9036e+00
19	TAF130048	139.8557	140.3598	140.1341	1.3268e-01	1.9033e+00
20	TAF120224	141.0581	141.9638	141.5775	2.0664e-01	1.9034e+00
21	TAF130224	134.6941	135.4005	134.9658	1.6451e-01	1.9028e+00
22	TAF120312	141.4460	142.4526	142.0540	2.1217e-01	1.9035e+00
23	TAF130312	141.5462	142.1498	141.8243	1.4161e-01	1.9035e+00
24	TAF120000	123.3171	124.3394	123.8776	2.3205e-01	1.9028e+00
25	TAF170000	130.5998	131.5157	131.0841	1.7514e-01	1.9025e+00
26	TAF100000	142.4565	143.1601	142.8547	1.7321e-01	1.9036e+00
27	TAF120000	142.6896	143.4930	143.1836	1.4756e-01	1.9036e+00
28	TAF125000	147.0403	147.9376	147.5917	1.8616e-01	1.9041e+00
29	TAF130000	143.3621	144.0650	143.7720	1.3278e-01	1.9037e+00
30	EMPTY	39.1464	39.8352	39.4817	2.1859e-01	1.9010e+00
31	TAF050136	98.3757	99.2069	98.7584	1.7731e-01	1.9006e+00
32	TAF070136	103.8603	104.8922	104.4668	2.2990e-01	1.9008e+00
33	TAF080136	133.2142	134.2218	133.7430	1.9990e-01	1.9027e+00
34	TAF090136	110.4558	111.4848	110.9826	2.7464e-01	1.9011e+00
35	TAF100136	111.0152	111.8406	111.4279	1.9435e-01	1.9012e+00
36	TAF105136	112.3974	113.4188	112.8297	2.0913e-01	1.9012e+00
37	TAF110136	119.9994	120.8142	120.3742	1.9278e-01	1.9017e+00
38	TAF115136	115.4146	116.1330	115.7638	2.0295e-01	1.9014e+00
39	TAF120136	126.1002	126.8123	126.4870	1.6173e-01	1.9021e+00
40	TAF125136	118.2140	119.1313	118.6587	2.7652e-01	1.9016e+00
41	TAF130136	119.5561	120.1701	119.8715	1.5578e-01	1.9017e+00
42	TAF120048	119.4942	120.4201	119.9425	2.3387e-01	1.9017e+00
43	TAF130048	122.0173	122.9358	122.3851	1.8789e-01	1.9018e+00
44	TAF120224	118.1325	118.9523	118.5016	2.0899e-01	1.9016e+00
45	TAF130224	119.8984	120.8225	120.4246	2.0275e-01	1.9017e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	38.0940	2.0822e-01	1.9010e+00
47	EMPTY	39.1464	39.3761	39.3256	9.6891e-02	1.9010e+00
48	TAF130136	136.2774	137.5903	136.3675	3.0697e-01	1.9030e+00
49	TAF130226	134.6272	135.6362	135.1199	2.2082e-01	1.9029e+00
50	TAF130314	137.9388	139.0499	138.4400	2.6913e-01	1.9032e+00
51	TAF130042	135.2368	136.0455	135.6617	1.0491e-01	1.9029e+00
52	TAF130090	116.0229	119.5966	117.9805	8.0191e-01	1.9016e+00
53	TSI000001	46.7380	47.3885	47.0330	1.5955e-01	1.9004e+00
54	TSI000002	111.0359	112.6788	111.8985	3.7849e-01	1.9012e+00
55	TSO000001	45.9992	46.0696	46.0605	1.8987e-01	1.9004e+00
56	TSO000002	53.6843	54.5467	54.1284	1.9558e-01	1.9002e+00
57	TAF020136	88.6317	89.5785	89.9938	2.1378e-01	1.9002e+00
58	TAF120312	118.9415	120.0664	119.4083	3.0565e-01	1.9016e+00
59	TAF130312	125.3752	126.1379	125.7623	1.9694e-01	1.9021e+00
60	EMPTY	1.4648	1.4746	1.4689	2.0598e-03	0.0000e+00
61	EMPTY	1.4746	1.4795	1.4775	2.4164e-03	0.0000e+00
62	EMPTY	1.4844	1.4893	1.4845	6.9053e-04	0.0000e+00
63	EMPTY	1.4941	1.4990	1.4949	1.8882e-03	0.0000e+00
64	EMPTY	0.7715	0.7715	0.7715	0.0000e+00	0.0000e+00
65	EMPTY	0.7861	0.7910	0.7907	1.1714e-03	0.0000e+00
66	EMPTY	0.8008	0.8057	0.8049	1.8882e-03	0.0000e+00
67	EMPTY	0.8154	0.8203	0.8198	1.4797e-03	0.0000e+00
68	EMPTY	0.8301	0.8350	0.8306	1.4797e-03	0.0000e+00
69	EMPTY	0.8447	0.8496	0.8468	2.4344e-03	0.0000e+00
70	EMPTY	0.8594	0.8643	0.8599	1.4797e-03	0.0000e+00
71	EMPTY	0.8789	0.8838	0.8828	1.9738e-03	0.0000e+00
72	EMPTY	0.8936	0.8936	0.8936	0.0000e+00	0.0000e+00
73	EMPTY	0.9082	0.9131	0.9110	2.4344e-03	0.0000e+00
74	EMPTY	0.9229	0.9277	0.9230	9.6655e-04	0.0000e+00
75	EMPTY	0.9375	0.9424	0.9381	1.6828e-03	0.0000e+00
76	EMPTY	0.9473	0.9521	0.9520	9.6655e-04	0.0000e+00
77	EMPTY	0.9668	0.9717	0.9682	2.2146e-03	0.0000e+00
78	EMPTY	0.9863	0.9912	0.9903	1.8958e-03	0.0000e+00
79	EMPTY	1.0107	1.0107	1.0107	0.0000e+00	0.0000e+00
80	PAM020136	6.2856	8.5744	7.2148	5.1646e-01	8.7019e-01
81	PAM050136	12.3969	13.9228	13.1690	3.4660e-01	1.6803e+00
82	PAM070136	10.8252	11.6644	11.2464	2.1091e-01	8.7045e-01
83	PAM080136	3.6946	4.3050	3.9708	1.2224e-01	8.7006e-01
84	PAM090136	3.3277	3.7855	3.5551	1.4500e-01	8.7005e-01
85	PAM100136	5.2380	5.7720	5.4302	1.1456e-01	8.7011e-01
86	PAM105136	1.3755	1.9096	1.6380	1.0472e-01	8.7001e-01
87	PAM110136	3.3607	3.8184	3.6879	8.5209e-02	8.7005e-01
88	PAM115136	2.6931	3.2272	2.9800	1.1068e-01	8.7003e-01
89	PAM120136	0.8283	1.2861	1.1030	8.8545e-02	8.7000e-01
90	PAM125136	2.8281	3.2096	2.9837	8.7139e-02	8.7003e-01
91	PAM130136	2.7268	3.0320	2.9297	9.0679e-02	8.7003e-01
92	PAM120048	6.0654	6.6758	6.3722	1.2282e-01	8.7015e-01
93	PAM130048	3.1428	3.7532	3.4236	1.4658e-01	8.7004e-01
94	PAM120224	4.1523	4.5338	4.3629	1.1280e-01	8.7007e-01
95	PAM130224	5.2439	5.7780	5.4728	1.2331e-01	8.7011e-01
96	PAM120312	5.7428	6.3531	6.0021	1.3958e-01	8.7013e-01
97	PAM130312	4.7626	5.3730	5.1700	1.2580e-01	8.7010e-01
98	PAB000136	39.6737	40.1773	39.9511	1.0800e-01	5.8854e-01
99	PAB100136	38.4114	38.2750	38.3432	5.6626e-02	5.8784e-01
100	PAB125136	37.8259	37.9633	37.9037	4.3624e-02	5.8769e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.3592	40.0916	39.7595	2.0640e-01	7.5656e-01
102	PRV0000001	15.6096	15.7316	15.6242	4.0071e-02	7.5102e-01
103	PSB0000001	37.0164	37.1385	37.0751	6.1605e-02	7.5571e-01
104	PFM0000001	29.8427	30.7582	30.2693	2.2775e-01	5.0569e-01
105	PAM000136	57.1237	66.7367	61.5732	2.5311e+00	4.9224e+00
106	PFM0000002	27.5702	27.5702	27.5702	9.6336e-06	2.1154e-01
107	EMPTY	0.0049	0.0049	0.0049	0.0000e+00	0.0000e+00
108	EMPTY	-8.0469	-7.3535	-7.6078	1.5369e-01	0.0000e+00
109	EMPTY	0.0049	0.0049	0.0049	0.0000e+00	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW0000001	101.7541	102.7306	102.3009	2.3008e-01	1.0163e+00
113	VPW0000002	119.3209	119.9069	119.5905	1.3021e-01	1.0821e+00
114	VPW0000003	147.5473	147.9380	147.7661	1.1599e-01	1.2009e+00
115	VPW0000004	104.9053	105.4913	105.2100	1.6815e-01	1.0269e+00
116	VPW0000005	139.4081	140.1893	139.8222	1.6096e-01	1.1662e+00
117	VPW0000006	146.3492	146.9351	146.6109	1.4012e-01	1.1958e+00
118	IPW0000001	556.2679	566.0297	561.9299	2.5333e+00	9.2367e+00
119	IPW0000002	1303.2230	1307.1256	1305.7206	1.3679e+00	1.3115e+01
120	IPW0000003	1319.4750	1329.2250	1322.4784	2.2703e+00	1.3220e+01
121	IPW0000004	381.2162	385.1224	383.2767	8.2705e-01	3.6288e+00
122	IPW0000005	254.1531	255.6178	254.7000	3.9008e-01	2.8370e+00
123	IPW0000006	266.4795	268.4326	267.3584	4.8327e-01	2.9088e+00
124	EMPTY	-0.0342	-0.0146	-0.0221	4.4381e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0147	2.6998e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0192	4.1161e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0169	2.9938e-03	0.0000e+00
128	IHT0000001	132.0425	133.9956	133.1753	4.4293e-01	4.3109e+00
129	IHT0000002	132.6397	134.3976	133.5655	4.4435e-01	4.3121e+00
130	IHT0000003	131.5730	133.3308	132.4481	4.2725e-01	4.3086e+00
131	IHT0000004	132.2641	134.4126	133.0141	4.3648e-01	4.3104e+00
132	IHT0000005	129.6499	131.6031	130.5015	4.1715e-01	4.3027e+00
133	IHT0000006	125.7474	128.0912	126.7162	4.5156e-01	4.2914e+00
134	IHT0000007	130.2021	132.7411	131.1865	4.9750e-01	4.3048e+00
135	IHT0000008	130.2171	132.7561	131.2914	4.9481e-01	4.3051e+00
136	IHT0000009	131.2726	133.6163	132.4053	5.0839e-01	4.3085e+00
137	IHT0000010	130.5213	132.8651	131.3534	5.3932e-01	4.3053e+00
138	IHT0000011	134.7468	137.0906	135.5594	5.3432e-01	4.3183e+00
139	IHT0000012	128.6396	131.3739	129.4287	5.4528e-01	4.2994e+00
140	IHT0000013	92.2889	94.2420	93.0623	4.6179e-01	4.2043e+00
141	IHT0000014	128.2039	129.9617	129.0008	4.3016e-01	4.2982e+00
142	IHT0000015	96.2891	97.8516	96.9609	4.0464e-01	4.2131e+00
143	IHT0000016	89.2015	91.1546	90.1897	4.5061e-01	4.1980e+00
144	IHT0000017	105.6152	108.1543	106.7715	6.1995e-01	4.2367e+00
145	IHT0000018	108.2069	110.1600	109.1678	5.2473e-01	4.2428e+00
146	IHT0000019	103.6020	105.7505	104.7388	4.9235e-01	4.2317e+00
147	IHT0000020	106.6031	109.1421	107.8726	4.6563e-01	4.2395e+00
148	IHT0000021	-2.9485	-0.2141	-1.6633	6.2152e-01	4.1000e+00
149	IHT0000022	93.1453	95.2937	94.0594	5.0600e-01	4.2065e+00
150	IHT0000023	106.2012	108.3496	107.1348	5.2243e-01	4.2377e+00
151	IHT0000024	71.1238	73.2722	72.3191	4.8751e-01	4.1633e+00
152	IHT0000025	103.1175	105.4613	104.3480	4.9639e-01	4.2307e+00
153	IHT0000026	105.0856	107.4294	106.3981	5.3239e-01	4.2358e+00
154	IHT0000027	90.0503	92.3941	91.2339	5.2558e-01	4.2003e+00
155	IHT0000028	92.1124	94.4561	93.2412	6.0269e-01	4.2047e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	105.8369	107.7900	106.7470	5.2290e-01	4.2367e+00
157	IHT0000030	107.8275	110.1713	108.8042	5.3670e-01	4.2419e+00
158	IHT0000031	106.7721	108.9205	107.7642	5.3502e-01	4.2393e+00
159	IHT0000032	107.9665	110.1149	109.0016	5.3706e-01	4.2424e+00
160	IHT0000033	107.9703	110.1187	108.9585	5.2261e-01	4.2423e+00
161	IHT0000034	94.1632	96.3116	95.2999	4.6302e-01	4.2093e+00
162	IHT0000035	124.3803	126.5287	125.4546	4.0864e-01	4.2876e+00
163	IHT0000036	92.7772	94.9256	93.8280	4.6670e-01	4.2060e+00

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Velocity 1 = 8.0303 (ft/sec) (+/- 3.0524 %)
 Velocity 2 = 8.0464 (ft/sec) (+/- 1.9060 %)
 Pressure drop = -2.7366 (psi)
 Tsat in = 267.7626 (deg F) Tsat out = 271.5641 (deg F)
 Phi inner = 102.2509 (kBtu/hr-ft2) (+/- 1.4085 %)
 Phi outer = 101.4301 (kBtu/hr-ft2) (+/- 1.6192 %)
 D inner = 0.1962 (ft) D outer = 0.2413 (ft) D hyd = 0.0389 (ft)
 L inner = 12.8550 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	71.2954	71.9352	71.5641	1.8688e-01	1.9000e+00
1	TRF000002	71.5074	71.9317	71.8256	1.1540e-01	1.9000e+00
2	TFH000001	85.3744	86.3197	85.7149	2.2884e-01	1.9002e+00
3	TIN000001	85.3417	85.9727	85.6697	1.4044e-01	1.9002e+00
4	TRV000001	85.4889	86.1173	85.8614	1.4075e-01	1.9002e+00
5	TSR000001	112.2843	113.9215	113.0456	4.1403e-01	1.9012e+00
6	TNO20136	147.9370	148.9397	148.3464	2.4874e-01	1.9041e+00
7	TNO50136	146.2211	147.0212	146.6290	2.0160e-01	1.9040e+00
8	TNO70136	144.9169	146.0238	145.3922	2.4974e-01	1.9038e+00
9	TNO80136	164.8258	165.7134	165.1382	1.7296e-01	1.9061e+00
10	TNO90136	167.8809	168.6698	168.2910	2.0232e-01	1.9065e+00
11	TNO100136	163.7843	164.7733	164.2392	1.9259e-01	1.9060e+00
12	TNO105136	167.6892	168.4796	168.0173	2.1527e-01	1.9065e+00
13	TNO110136	171.9709	172.6579	172.2892	1.8603e-01	1.9070e+00
14	TNO115136	169.8144	170.7030	170.2172	2.2822e-01	1.9068e+00
15	TNO120136	177.8190	178.7932	178.3223	1.8630e-01	1.9079e+00
16	TNO125136	173.1598	174.1417	173.6507	2.3042e-01	1.9072e+00
17	TNO130136	170.5785	171.2619	170.9343	1.5149e-01	1.9069e+00
18	TNO120048	180.6755	181.3595	180.9689	1.5170e-01	1.9083e+00
19	TNO130048	176.7425	177.5250	177.1146	1.6538e-01	1.9077e+00
20	TNO120224	178.0598	179.4298	178.7370	2.6964e-01	1.9079e+00
21	TNO130224	169.0120	169.8959	169.4404	2.2724e-01	1.9066e+00
22	TNO120312	179.6437	180.4265	180.0351	1.9876e-01	1.9081e+00
23	TNO130312	178.3453	178.9329	178.6272	1.4882e-01	1.9079e+00
24	TRT020000	145.7363	146.7418	146.2475	2.5023e-01	1.9039e+00
25	TRT070000	160.1808	160.8787	160.5243	1.7451e-01	1.9055e+00
26	TRT100000	176.8019	177.7805	177.4009	2.0030e-01	1.9078e+00
27	TRT120000	179.9037	180.7838	180.3065	2.1690e-01	1.9082e+00
28	TRT125000	187.4089	188.0874	187.7967	1.7043e-01	1.9093e+00
29	TRT130000	180.8791	181.4656	181.2228	1.4271e-01	1.9083e+00
30	EMPTY	39.1464	39.8352	39.5368	1.9264e-01	1.9011e+00
31	TAP050136	108.4927	109.5222	109.0777	2.3004e-01	1.9010e+00
32	TAP070136	118.1951	119.3168	118.7534	2.5259e-01	1.9016e+00
33	TAP080136	164.2687	165.1560	164.6086	1.8353e-01	1.9060e+00
34	TAP090136	124.0607	125.2827	124.7083	2.8099e-01	1.9020e+00
35	TAP100136	131.1799	132.4996	131.7484	2.6026e-01	1.9026e+00
36	TAP105136	133.4388	134.6424	134.0734	2.8734e-01	1.9028e+00
37	TAP110136	146.5220	147.3228	146.9462	2.2899e-01	1.9040e+00
38	TAP115136	138.4613	139.6694	139.0294	2.1509e-01	1.9032e+00
39	TAP120136	156.9560	157.9484	157.4996	2.4642e-01	1.9052e+00
40	TAP125136	143.4833	144.8823	144.1508	2.8846e-01	1.9037e+00
41	TAP130136	146.0264	146.7281	146.3472	1.8658e-01	1.9039e+00
42	TAP120048	145.7112	146.9207	146.2677	2.4461e-01	1.9039e+00
43	TAP130048	150.2535	151.1521	150.6970	1.9473e-01	1.9044e+00
44	TAP120224	143.6887	144.7940	144.1671	2.6500e-01	1.9037e+00
45	TAP130224	146.9763	148.0830	147.5680	2.4528e-01	1.9040e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	38.0572	1.0471e-01	1.9010e+00
47	EMPTY	39.3761	39.6057	39.4633	1.1257e-01	1.9010e+00
48	TAI130138	172.5451	173.9212	173.1352	3.1149e-01	1.9072e+00
49	TAI130226	170.9829	171.8675	171.3801	2.2855e-01	1.9069e+00
50	TAI130314	174.9245	176.2023	175.5889	2.8544e-01	1.9075e+00
51	TAI130042	171.6400	173.0173	172.4114	2.6845e-01	1.9071e+00
52	TR1130090	119.1893	123.0614	120.8081	8.4937e-01	1.9017e+00
53	TSI000001	46.7380	47.2811	47.0030	1.7813e-01	1.9004e+00
54	TSI000002	114.5217	116.1609	115.4928	3.4816e-01	1.9014e+00
55	TSO000001	45.8886	46.7605	46.2640	2.0891e-01	1.9004e+00
56	TSO000002	55.9447	56.9129	56.3533	2.3412e-01	1.9001e+00
57	TAP020136	92.6295	93.8884	93.2673	2.9964e-01	1.9004e+00
58	TAP120312	145.5368	146.7380	146.0973	3.1272e-01	1.9039e+00
59	TAP130312	155.9799	157.4672	156.6743	3.3540e-01	1.9051e+00
60	EMPTY	2.2070	2.2217	2.2142	2.9938e-03	0.0000e+00
61	EMPTY	2.2119	2.2217	2.2167	1.5566e-03	0.0000e+00
62	EMPTY	2.2168	2.2217	2.2197	2.4164e-03	0.0000e+00
63	EMPTY	2.2217	2.2266	2.2262	1.3381e-03	0.0000e+00
64	EMPTY	1.0889	1.0938	1.0893	1.3381e-03	0.0000e+00
65	EMPTY	1.1035	1.1084	1.1079	1.4797e-03	0.0000e+00
66	EMPTY	1.1182	1.1230	1.1183	6.9053e-04	0.0000e+00
67	EMPTY	1.1328	1.1377	1.1329	6.9053e-04	0.0000e+00
68	EMPTY	1.1426	1.1475	1.1428	9.6655e-04	0.0000e+00
69	EMPTY	1.1572	1.1572	1.1572	0.0000e+00	0.0000e+00
70	EMPTY	1.1670	1.1719	1.1693	2.4642e-03	0.0000e+00
71	EMPTY	1.1865	1.1914	1.1886	2.4344e-03	0.0000e+00
72	EMPTY	1.1963	1.2012	1.1992	2.4164e-03	0.0000e+00
73	EMPTY	1.2109	1.2158	1.2146	2.1635e-03	0.0000e+00
74	EMPTY	1.2256	1.2305	1.2258	9.6655e-04	0.0000e+00
75	EMPTY	1.2354	1.2500	1.2402	1.7086e-03	0.0000e+00
76	EMPTY	1.2451	1.2500	1.2498	9.6655e-04	0.0000e+00
77	EMPTY	1.2646	1.2695	1.2648	9.6655e-04	0.0000e+00
78	EMPTY	1.2842	1.2891	1.2843	6.9053e-04	0.0000e+00
79	EMPTY	1.3037	1.3086	1.3044	1.7115e-03	0.0000e+00
80	PAN020136	-10.2702	-8.7443	-9.5485	3.6774e-01	8.7033e-01
81	PAN050136	-19.3414	-18.1207	-18.7219	3.2974e-01	1.6807e+00
82	PAN070136	-11.9867	-11.0711	-11.6235	2.0826e-01	8.7049e-01
83	PAN080136	-6.6051	-6.1473	-6.3960	1.0769e-01	8.7015e-01
84	PAN090136	-6.5905	-5.9801	-6.1815	1.2781e-01	8.7014e-01
85	PAN100136	-6.1298	-5.5195	-5.8720	1.1420e-01	8.7012e-01
86	PAN105136	-3.2784	-2.8206	-3.0129	8.7519e-02	8.7003e-01
87	PAN110136	-2.8954	-2.5140	-2.7245	8.9293e-02	8.7003e-01
88	PAN115136	-3.2578	-2.7238	-2.9740	9.8744e-02	8.7003e-01
89	PAN120136	-3.5205	-3.0627	-3.2794	8.7682e-02	8.7004e-01
90	PAN125136	-3.0465	-2.5888	-2.7932	8.2200e-02	8.7003e-01
91	PAN130136	-2.9952	-2.6901	-2.8839	7.4258e-02	8.7003e-01
92	PAN120048	-6.2942	-5.8364	-6.0516	1.2204e-01	8.7013e-01
93	PAN130048	-7.1568	-6.6991	-6.9463	1.1280e-01	8.7017e-01
94	PAN120224	-6.3763	-5.8422	-6.1565	1.2677e-01	8.7014e-01
95	PAN130224	-6.1239	-5.5898	-5.9332	1.2451e-01	8.7013e-01
96	PAN120312	-5.8539	-5.2436	-5.5686	1.2879e-01	8.7011e-01
97	PAN130312	-6.1474	-5.5371	-5.8438	1.4335e-01	8.7012e-01
98	PAB000136	39.9484	40.5435	40.2652	1.1981e-01	5.8867e-01
99	PAB100136	42.2109	42.3940	42.3097	4.6573e-02	5.8957e-01
100	PAB125136	42.8613	42.9529	42.9034	3.9062e-02	5.8983e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.8474	40.5799	40.2112	1.6450e-01	7.5671e-01
102	PRV000001	15.3654	15.6096	15.5632	6.4735e-02	7.5101e-01
103	PSR000001	42.8758	42.9979	42.8832	2.9284e-02	7.5762e-01
104	PFH000001	9.5180	10.0673	9.7890	1.1092e-01	5.0060e-01
105	PAN000136	-80.6632	-70.1346	-75.7651	2.5111e+00	4.9236e+00
106	PFH000002	9.6326	9.9514	9.8289	7.3748e-02	2.0150e-01
107	EMPTY	-0.0049	0.0049	0.0007	3.6924e-03	0.0000e+00
108	EMPTY	-8.2568	-7.4512	-7.7344	1.4837e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0037	2.1065e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	102.3400	102.9259	102.6173	1.5828e-01	1.0174e+00
113	VPW000002	119.5162	119.9069	119.7116	7.8918e-02	1.0826e+00
114	VPW000003	147.7426	148.1333	147.9731	1.4057e-01	1.2018e+00
115	VPW000004	105.1006	105.6866	105.3662	1.2944e-01	1.0275e+00
116	VPW000005	139.9940	140.3846	140.1698	1.0625e-01	1.1677e+00
117	VPW000006	146.5445	147.1304	146.8179	1.1838e-01	1.1967e+00
118	IPW000001	540.6492	544.5539	542.2891	1.2067e+00	9.1632e+00
119	IPW000002	1309.0769	1312.9794	1311.2231	1.0614e+00	1.3150e+01
120	IPW000003	1335.0751	1340.9250	1338.3511	1.2104e+00	1.3319e+01
121	IPW000004	381.7044	382.6810	381.9876	2.6267e-01	3.6203e+00
122	IPW000005	254.1531	255.6178	255.0124	3.4957e-01	2.8388e+00
123	IPW000006	267.9443	269.4091	268.4521	3.8155e-01	2.9151e+00
124	EMPTY	-0.0293	-0.0146	-0.0195	3.9459e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0135	2.8862e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0098	-0.0145	3.4116e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0175	3.2851e-03	0.0000e+00
128	IHT000001	131.8472	134.1909	133.0620	4.9172e-01	4.3105e+00
129	IHT000002	132.4444	134.2022	133.3311	4.2537e-01	4.3113e+00
130	IHT000003	131.3777	133.5261	132.3700	4.9731e-01	4.3084e+00
131	IHT000004	131.8735	134.2172	132.9477	5.3416e-01	4.3102e+00
132	IHT000005	129.2593	131.6031	130.4859	4.8655e-01	4.3026e+00
133	IHT000006	125.5521	127.8959	126.7201	4.4728e-01	4.2914e+00
134	IHT000007	130.0068	132.1552	131.1826	4.3313e-01	4.3048e+00
135	IHT000008	130.2171	132.1702	131.3109	4.3762e-01	4.3051e+00
136	IHT000009	131.4679	133.2257	132.3975	4.2965e-01	4.3085e+00
137	IHT000010	130.5213	132.4745	131.4393	4.9795e-01	4.3055e+00
138	IHT000011	134.9421	136.7000	135.6141	4.7213e-01	4.3185e+00
139	IHT000012	128.4442	130.3974	129.4521	4.8062e-01	4.2995e+00
140	IHT000013	92.2889	94.4373	93.0350	4.6804e-01	4.2042e+00
141	IHT000014	128.3992	130.3523	129.1336	4.7114e-01	4.2986e+00
142	IHT000015	96.0937	98.0469	96.9141	4.5677e-01	4.2130e+00
143	IHT000016	89.3968	91.5452	90.2757	4.8206e-01	4.1982e+00
144	IHT000017	107.1777	109.5215	108.0566	5.2977e-01	4.2400e+00
145	IHT000018	108.4022	110.5507	109.2421	5.0262e-01	4.2430e+00
146	IHT000019	103.7973	106.3364	104.8481	5.5227e-01	4.2319e+00
147	IHT000020	106.9937	109.1421	107.9351	5.2302e-01	4.2397e+00
148	IHT000021	-2.5579	0.1765	-1.4133	6.4599e-01	4.1000e+00
149	IHT000022	93.1453	95.4890	94.1805	5.1335e-01	4.2068e+00
150	IHT000023	106.2012	108.1543	107.2168	4.5847e-01	4.2379e+00
151	IHT000024	71.7097	73.2722	72.3777	4.1590e-01	4.1634e+00
152	IHT000025	103.7034	105.6566	104.5746	4.5883e-01	4.2313e+00
153	IHT000026	105.6716	107.4294	106.5348	4.1590e-01	4.2361e+00
154	IHT000027	90.6363	92.1988	91.3980	4.0289e-01	4.2006e+00
155	IHT000028	92.3077	95.0421	93.3467	4.8559e-01	4.2049e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.8369	108.3759	106.7549	4.9007e-01	4.2367e+00
157	IHT000030	107.8275	109.9760	108.7534	4.7973e-01	4.2418e+00
158	IHT000031	106.7721	108.9205	107.7212	4.7353e-01	4.2391e+00
159	IHT000032	108.1618	110.3102	109.0134	5.1864e-01	4.2425e+00
160	IHT000033	108.1656	110.1187	108.9898	4.9488e-01	4.2424e+00
161	IHT000034	94.5538	96.1163	95.3272	4.1189e-01	4.2094e+00
162	IHT000035	124.5756	126.7240	125.5678	4.7978e-01	4.2880e+00
163	IHT000036	92.9725	94.7303	93.7576	4.9833e-01	4.2058e+00

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Velocity 1 = 5.8608 (ft/sec) (+/- 5.1187 %)
 Velocity 2 = 5.8799 (ft/sec) (+/- 2.4059 %)
 Pressure drop = -3.8534 (psi)
 Tsat in = 267.8196 (deg F) Tsat out = 273.1501 (deg F)
 Phi inner = 100.7505 (kBtu/hr-ft2) (+/- 1.4127 %)
 Phi outer = 101.1033 (kBtu/hr-ft2) (+/- 1.6188 %)
 D inner = 0.1962 (ft) D outer = 0.2413 (ft) D hyd = 0.0389 (ft)
 L inner = 12.8550 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	71.7220	72.1484	72.0248	1.4978e-01	1.9000e+00
1	TRF000002	72.1438	72.3559	72.2159	1.0147e-01	1.9000e+00
2	TFH000001	87.6811	88.6228	88.1837	1.9152e-01	1.9002e+00
3	TIN000001	87.7596	88.3901	88.0370	1.2511e-01	1.9002e+00
4	TRV000001	88.1015	88.8337	88.5326	1.9197e-01	1.9002e+00
5	TSR000001	125.2160	126.5325	125.8920	3.2944e-01	1.9021e+00
6	TAO020136	164.0847	165.0751	164.5562	2.2247e-01	1.9060e+00
7	TAO050136	166.6987	167.7790	167.2881	2.4622e-01	1.9064e+00
8	TAO070136	166.6845	167.7733	167.2746	2.3404e-01	1.9064e+00
9	TAO080136	190.4263	191.1037	190.8020	1.9001e-01	1.9098e+00
10	TAO090136	194.7852	195.6552	195.3305	2.0078e-01	1.9106e+00
11	TAO100136	191.6609	192.6297	192.0833	2.5276e-01	1.9100e+00
12	TAO105136	196.3357	197.3034	196.6957	2.0694e-01	1.9108e+00
13	TAO110136	201.7399	202.6013	202.1806	2.0814e-01	1.9117e+00
14	TAO115136	199.6383	200.5087	200.0872	2.2684e-01	1.9114e+00
15	TAO120136	209.0304	209.6984	209.3933	1.2796e-01	1.9130e+00
16	TAO125136	204.7767	205.8316	205.3480	2.4280e-01	1.9123e+00
17	TAO130136	200.7899	201.4553	201.1705	1.6135e-01	1.9116e+00
18	TAO120048	212.3388	213.0082	212.7444	1.6337e-01	1.9137e+00
19	TAO130048	208.4960	209.0698	208.7721	1.5422e-01	1.9129e+00
20	TAO120224	209.8142	210.9633	210.4310	2.0580e-01	1.9132e+00
21	TAO130224	199.2598	200.1233	199.6404	2.1457e-01	1.9113e+00
22	TAO120312	211.9654	212.9224	212.2756	2.0790e-01	1.9136e+00
23	TAO130312	210.0152	210.6850	210.3561	1.6645e-01	1.9132e+00
24	TRT020000	163.4240	164.3173	163.9048	1.9985e-01	1.9059e+00
25	TRT070000	184.6290	185.3155	184.8924	1.5262e-01	1.9089e+00
26	TRT100000	206.5057	207.1773	206.9049	1.5540e-01	1.9126e+00
27	TRT120000	211.5878	212.7346	212.0542	2.2237e-01	1.9135e+00
28	TRT125000	221.0222	221.8744	221.4996	1.7095e-01	1.9154e+00
29	TRT130000	212.9603	213.5329	213.2542	1.3753e-01	1.9138e+00
30	EMPTY	39.1464	39.8352	39.5184	2.2670e-01	1.9011e+00
31	TAF050136	119.1439	120.3669	119.7926	2.4780e-01	1.9017e+00
32	TAF070136	132.5749	133.6811	133.0304	2.7838e-01	1.9027e+00
33	TAF080136	190.1248	191.0893	190.5030	2.0223e-01	1.9098e+00
34	TAF090136	140.6440	141.6494	141.1510	2.9410e-01	1.9034e+00
35	TAF100136	150.5382	151.6387	151.0705	2.5118e-01	1.9044e+00
36	TAF105136	153.6571	154.5494	154.0622	2.4861e-01	1.9048e+00
37	TAF110136	170.7688	171.9462	171.4320	2.5355e-01	1.9069e+00
38	TAF115136	160.2240	161.2139	160.7113	2.2712e-01	1.9055e+00
39	TAF120136	184.6077	185.8710	185.2960	2.7454e-01	1.9089e+00
40	TAF125136	167.3074	168.2884	167.7664	2.9547e-01	1.9064e+00
41	TAF130136	170.3151	171.2004	170.8111	2.2816e-01	1.9068e+00
42	TAF120048	170.0339	171.1246	170.4977	2.5980e-01	1.9068e+00
43	TAF130048	176.2481	177.4231	176.7887	2.5047e-01	1.9077e+00
44	TAF120224	167.2854	168.5684	168.0397	2.8173e-01	1.9065e+00
45	TAF130224	172.2310	173.3185	172.7488	2.4586e-01	1.9071e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.2273	38.0158	1.7896e-01	1.9010e+00
47	EMPTY	39.3761	39.8352	39.5598	1.1361e-01	1.9011e+00
48	TAI130138	204.6311	205.8812	205.1969	2.6679e-01	1.9123e+00
49	TAI130226	202.6828	203.8345	203.3358	3.1554e-01	1.9119e+00
50	TAI130314	207.6950	208.7526	208.3450	2.6385e-01	1.9129e+00
51	TAI130042	204.3315	205.3897	204.8394	2.5567e-01	1.9122e+00
52	TRR130090	132.5879	137.9285	135.1247	1.4749e+00	1.9029e+00
53	TSI000001	47.0650	47.8225	47.5021	1.7636e-01	1.9003e+00
54	TSI000002	118.3065	119.9395	119.0497	4.0245e-01	1.9016e+00
55	TSO000001	46.1059	46.8680	46.4849	1.6505e-01	1.9004e+00
56	TSO000002	58.4154	59.3816	59.0039	2.1050e-01	1.9001e+00
57	TAF020136	98.0768	99.4354	98.8591	3.2164e-01	1.9006e+00
58	TAF120312	169.8445	171.2211	170.5609	3.4750e-01	1.9068e+00
59	TAF130312	184.0658	185.4270	184.7076	3.7934e-01	1.9088e+00
60	EMPTY	2.8906	2.9053	2.8961	3.6433e-03	0.0000e+00
61	EMPTY	2.8906	2.9004	2.8949	2.7267e-03	0.0000e+00
62	EMPTY	2.8906	2.8955	2.8926	2.4164e-03	0.0000e+00
63	EMPTY	2.8906	2.9004	2.8953	1.3811e-03	0.0000e+00
64	EMPTY	1.3818	1.3867	1.3866	6.9053e-04	0.0000e+00
65	EMPTY	1.4014	1.4014	1.4014	0.0000e+00	0.0000e+00
66	EMPTY	1.4111	1.4111	1.4111	0.0000e+00	0.0000e+00
67	EMPTY	1.4209	1.4258	1.4231	2.4583e-03	0.0000e+00
68	EMPTY	1.4307	1.4355	1.4309	9.6655e-04	0.0000e+00
69	EMPTY	1.4404	1.4453	1.4444	1.8950e-03	0.0000e+00
70	EMPTY	1.4502	1.4551	1.4549	9.6655e-04	0.0000e+00
71	EMPTY	1.4697	1.4746	1.4734	2.1065e-03	0.0000e+00
72	EMPTY	1.4795	1.4844	1.4813	2.3941e-03	0.0000e+00
73	EMPTY	1.4893	1.4990	1.4942	1.2041e-03	0.0000e+00
74	EMPTY	1.4990	1.5088	1.5040	1.8429e-03	0.0000e+00
75	EMPTY	1.5088	1.5186	1.5163	2.5648e-03	0.0000e+00
76	EMPTY	1.5234	1.5283	1.5258	2.4642e-03	0.0000e+00
77	EMPTY	1.5381	1.5430	1.5398	2.3675e-03	0.0000e+00
78	EMPTY	1.5527	1.5576	1.5573	1.1714e-03	0.0000e+00
79	EMPTY	1.5723	1.5820	1.5764	2.0598e-03	0.0000e+00
80	PAN020136	-15.6108	-10.8043	-12.6231	1.4564e+00	8.7057e-01
81	PAN050136	-27.1233	-26.0552	-26.5893	2.6919e-01	1.6813e+00
82	PAN070136	-17.2510	-16.7169	-16.9900	1.3880e-01	8.7104e-01
83	PAN080136	-9.5042	-9.1228	-9.3425	1.0750e-01	8.7031e-01
84	PAN090136	-8.3452	-8.0401	-8.1560	8.0447e-02	8.7024e-01
85	PAN100136	-8.7238	-8.2661	-8.5148	9.2238e-02	8.7026e-01
86	PAN105136	-4.4228	-4.1176	-4.3084	6.4018e-02	8.7007e-01
87	PAN110136	-4.1924	-3.9635	-4.0627	5.6107e-02	8.7006e-01
88	PAN115136	-4.3259	-3.9445	-4.1566	9.0259e-02	8.7006e-01
89	PAN120136	-5.1989	-4.8175	-5.0189	7.8231e-02	8.7009e-01
90	PAN125136	-3.9621	-3.6569	-3.8110	6.9771e-02	8.7005e-01
91	PAN130136	-4.4448	-4.0634	-4.2785	8.1109e-02	8.7007e-01
92	PAN120048	-9.1933	-8.8119	-8.9904	8.6660e-02	8.7029e-01
93	PAN130048	-9.5220	-9.1405	-9.2931	9.9892e-02	8.7031e-01
94	PAN120224	-9.2754	-8.8177	-9.0435	9.8648e-02	8.7029e-01
95	PAN130224	-8.5653	-8.1075	-8.3349	1.0396e-01	8.7025e-01
96	PAN120312	-8.3716	-8.0665	-8.2282	8.1036e-02	8.7024e-01
97	PAN130312	-8.5125	-7.9785	-8.2638	1.0546e-01	8.7025e-01
98	PAB000136	39.9942	40.4519	40.3036	9.5467e-02	5.8869e-01
99	PAB100136	43.1264	43.3095	43.2106	4.4699e-02	5.8997e-01
100	PAB125136	43.9600	44.1431	44.0469	4.8277e-02	5.9036e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.4812	40.3357	40.0037	1.6734e-01	7.5664e-01
102	PRV0000001	15.3654	15.4875	15.4680	4.5206e-02	7.5100e-01
103	PSR0000001	44.0965	44.3407	44.1796	6.2585e-02	7.5809e-01
104	PFM0000001	5.0319	5.3981	5.1674	9.4748e-02	5.0017e-01
105	PAN000136	-113.1644	-102.1781	-106.6824	2.4016e+00	4.9272e+00
106	PFM0000002	5.0853	5.2866	5.2017	4.5026e-02	2.0042e-01
107	EMPTY	-0.0049	0.0049	-0.0031	3.0819e-03	0.0000e+00
108	EMPTY	-8.5059	-7.7051	-8.1188	2.3293e-01	0.0000e+00
109	EMPTY	-0.0049	0.0049	0.0028	2.6267e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0004	1.3381e-03	0.0000e+00
112	VPW0000001	102.3400	102.7306	102.4572	1.2478e-01	1.0169e+00
113	VPW0000002	119.7116	120.1022	119.9147	7.8523e-02	1.0834e+00
114	VPW0000003	147.7426	148.3286	148.0786	1.3111e-01	1.2023e+00
115	VPW0000004	105.1006	105.8819	105.4600	1.6441e-01	1.0279e+00
116	VPW0000005	139.9940	140.5799	140.2050	1.5201e-01	1.1678e+00
117	VPW0000006	146.7398	147.1304	146.8921	1.0654e-01	1.1970e+00
118	IPW0000001	558.2203	566.0297	562.0858	1.6961e+00	9.2373e+00
119	IPW0000002	1279.8079	1285.6616	1282.5005	1.9667e+00	1.2972e+01
120	IPW0000003	1313.6250	1319.4750	1315.3018	1.4746e+00	1.3175e+01
121	IPW0000004	384.6341	387.0755	385.4837	4.6070e-01	3.6433e+00
122	IPW0000005	253.6649	255.1296	254.2509	3.9455e-01	2.8345e+00
123	IPW0000006	265.9912	267.4560	266.8701	3.8206e-01	2.9060e+00
124	EMPTY	-0.0293	-0.0146	-0.0225	4.0673e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0141	2.3428e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0146	-0.0196	3.4863e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0146	-0.0168	2.9856e-03	0.0000e+00
128	IHT0000001	131.4566	133.9956	132.7183	5.6111e-01	4.3095e+00
129	IHT0000002	132.2491	134.5929	133.1827	5.1944e-01	4.3109e+00
130	IHT0000003	131.1824	133.7214	132.1981	5.1145e-01	4.3079e+00
131	IHT0000004	131.4829	134.9985	132.7954	6.2020e-01	4.3097e+00
132	IHT0000005	129.0640	131.6031	130.2163	5.5978e-01	4.3018e+00
133	IHT0000006	125.5521	127.7006	126.4779	5.6194e-01	4.2906e+00
134	IHT0000007	129.8114	131.9599	130.9404	5.4289e-01	4.3040e+00
135	IHT0000008	130.2171	132.1702	131.1351	5.1335e-01	4.3046e+00
136	IHT0000009	130.8819	133.4210	132.0967	5.2983e-01	4.3075e+00
137	IHT0000010	130.3260	132.6698	131.2557	5.5322e-01	4.3050e+00
138	IHT0000011	134.5515	137.0906	135.5008	5.2498e-01	4.3181e+00
139	IHT0000012	128.2489	130.9833	129.3388	5.1764e-01	4.2992e+00
140	IHT0000013	91.8983	94.4373	92.9256	5.0038e-01	4.2040e+00
141	IHT0000014	128.0086	130.3523	128.9227	5.0291e-01	4.2979e+00
142	IHT0000015	95.8984	98.0469	96.7578	5.2348e-01	4.2126e+00
143	IHT0000016	89.0061	91.1546	89.8929	4.8200e-01	4.1974e+00
144	IHT0000017	105.4199	107.5683	106.5137	5.0223e-01	4.2361e+00
145	IHT0000018	107.6210	109.9647	108.9217	5.2141e-01	4.2422e+00
146	IHT0000019	103.6020	105.7505	104.6802	4.6895e-01	4.2315e+00
147	IHT0000020	106.6031	108.3609	107.5874	4.3398e-01	4.2388e+00
148	IHT0000021	-2.9485	-0.6047	-1.7493	5.2941e-01	4.1000e+00
149	IHT0000022	92.7547	94.7078	93.6180	4.0834e-01	4.2055e+00
150	IHT0000023	105.8105	107.9590	106.8730	4.5363e-01	4.2370e+00
151	IHT0000024	71.1238	73.0769	72.0144	3.7881e-01	4.1628e+00
152	IHT0000025	103.3128	105.2659	104.3167	4.0242e-01	4.2306e+00
153	IHT0000026	105.2810	107.0388	106.3356	3.9656e-01	4.2356e+00
154	IHT0000027	89.8550	91.6128	91.0152	4.0895e-01	4.1998e+00
155	IHT0000028	91.7217	94.0655	92.8780	5.5079e-01	4.2039e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	105.4462	107.9853	106.5986	5.7892e-01	4.2363e+00
157	IHT0000030	107.2416	110.3666	108.5581	6.1106e-01	4.2413e+00
158	IHT0000031	106.3815	108.9205	107.5142	6.0102e-01	4.2386e+00
159	IHT0000032	107.5759	110.5056	108.8259	5.5102e-01	4.2420e+00
160	IHT0000033	107.5796	110.3140	108.7788	5.4678e-01	4.2418e+00
161	IHT0000034	94.3585	96.1163	95.1006	3.7226e-01	4.2088e+00
162	IHT0000035	124.3803	126.7240	125.2436	4.3956e-01	4.2870e+00
163	IHT0000036	92.9725	94.7303	93.6287	4.1901e-01	4.2055e+00

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Velocity 1 = 3.9540 (ft/sec) (+/- 10.9211 %)
 Velocity 2 = 3.9922 (ft/sec) (+/- 4.1601 %)
 Pressure drop = -4.6249 (psi)
 Tsat in = 268.0347 (deg F) Tsat out = 274.3646 (deg F)
 Phi inner = 100.5679 (kBtu/hr-ft2) (+/- 1.4133 %)
 Phi outer = 100.8367 (kBtu/hr-ft2) (+/- 1.6198 %)
 D inner = 0.1962 (ft) D outer = 0.2413 (ft) D hyd = 0.0389 (ft)
 L inner = 12.8550 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	72.1484	72.7878	72.5747	1.7752e-01	1.9000e+00
1	TRF000002	72.7799	72.9918	72.9028	1.0567e-01	1.9000e+00
2	TRF000001	87.2637	88.1022	87.6391	1.8579e-01	1.9002e+00
3	TIN000001	87.1286	88.0743	87.5427	2.0739e-01	1.9002e+00
4	TRV000001	87.6878	88.5242	88.1167	1.9731e-01	1.9002e+00
5	TSR000001	128.0524	130.5775	129.7631	5.8121e-01	1.9024e+00
6	TAO020136	190.7807	192.0441	191.3891	2.8579e-01	1.9099e+00
7	TAO050136	196.0434	197.3904	196.7800	3.0155e-01	1.9108e+00
8	TAO070136	192.9849	194.4424	193.7254	2.8715e-01	1.9103e+00
9	TAO080136	227.6763	228.6170	228.1625	1.6465e-01	1.9168e+00
10	TAO090136	234.3352	235.3714	234.9402	2.3840e-01	1.9182e+00
11	TAO100136	231.8909	234.4362	232.8962	6.5483e-01	1.9178e+00
12	TAO105136	238.6194	240.2196	239.4272	3.6234e-01	1.9192e+00
13	TAO110136	245.8206	247.6751	246.6492	4.2155e-01	1.9209e+00
14	TAO115136	244.3640	246.8073	245.4639	6.2875e-01	1.9206e+00
15	TAO120136	255.9205	257.3997	256.8730	3.5148e-01	1.9234e+00
16	TAO125136	250.9887	253.2222	251.8994	5.3665e-01	1.9222e+00
17	TAO130136	246.7811	248.0733	247.2220	2.9059e-01	1.9210e+00
18	TAO120048	260.7701	262.0681	261.4287	2.9556e-01	1.9245e+00
19	TAO130048	256.3503	256.9075	256.6381	1.6051e-01	1.9233e+00
20	TAO120224	258.1887	259.3966	258.7518	2.6771e-01	1.9239e+00
21	TAO130224	244.4829	247.5456	246.1790	7.1609e-01	1.9208e+00
22	TAO120312	260.9666	262.2658	261.6292	2.7236e-01	1.9246e+00
23	TAO130312	258.0790	259.0075	258.6974	1.8805e-01	1.9238e+00
24	TRT020000	190.3673	191.3411	190.7668	2.3703e-01	1.9098e+00
25	TRT070000	221.2602	222.3133	221.6913	2.6015e-01	1.9154e+00
26	TRT100000	251.0646	251.9034	251.5138	2.0688e-01	1.9221e+00
27	TRT120000	262.1786	263.2898	262.6766	2.5099e-01	1.9248e+00
28	TRT125000	273.6013	274.4266	274.0140	2.0722e-01	1.9278e+00
29	TRT130000	260.8262	261.6598	261.2177	1.8350e-01	1.9245e+00
30	EMPTY	39.1464	39.8352	39.6011	2.1500e-01	1.9011e+00
31	TAF050136	133.1408	135.3604	134.2009	4.3660e-01	1.9028e+00
32	TAF070136	153.1590	154.7475	153.8211	3.8890e-01	1.9047e+00
33	TAF080136	226.2809	229.6600	227.8658	8.5042e-01	1.9167e+00
34	TAF090136	161.4840	162.8684	162.2253	3.5927e-01	1.9057e+00
35	TAF100136	180.6352	182.9838	181.6199	5.3330e-01	1.9084e+00
36	TAF105136	184.9340	187.0609	185.8957	5.6261e-01	1.9090e+00
37	TAF110136	207.6621	211.5774	209.2355	1.0040e+00	1.9130e+00
38	TAF115136	194.8475	199.2856	196.1205	1.2358e+00	1.9107e+00
39	TAF120136	226.8161	230.4000	228.7435	8.1729e-01	1.9169e+00
40	TAF125136	205.4972	209.1189	206.6355	8.5159e-01	1.9125e+00
41	TAF130136	209.1868	213.7708	210.4430	8.9076e-01	1.9132e+00
42	TAF120048	208.5027	211.3003	209.6857	6.1709e-01	1.9131e+00
43	TAF130048	217.7513	220.1290	218.7732	4.8227e-01	1.9149e+00
44	TAF120224	205.0774	206.9034	206.2327	4.0421e-01	1.9125e+00
45	TAF130224	212.2221	215.8756	213.9631	1.1174e+00	1.9139e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.0572	1.9604e-01	1.9010e+00
47	EMPTY	39.6057	40.0646	39.7159	1.2477e-01	1.9011e+00
48	TAI130138	253.3791	255.1492	254.2083	4.4124e-01	1.9227e+00
49	TAI130226	252.2172	253.7052	253.0266	2.9754e-01	1.9224e+00
50	TAI130314	258.9618	260.1714	259.4810	2.8083e-01	1.9240e+00
51	TAI130042	254.8717	256.3618	255.5293	3.0073e-01	1.9230e+00
52	TRR130090	130.8719	133.8007	132.2279	6.7392e-01	1.9026e+00
53	TSI000001	47.4991	48.2571	47.9646	1.7401e-01	1.9003e+00
54	TSI000002	120.2470	121.9785	120.9663	4.2643e-01	1.9017e+00
55	TSO000001	45.9946	46.8658	46.5543	1.8539e-01	1.9004e+00
56	TSO000002	62.2732	63.1290	62.6736	1.9547e-01	1.9000e+00
57	TAF020136	103.3961	105.4777	104.3522	5.0394e-01	1.9008e+00
58	TAF120312	208.9375	211.9968	210.4585	6.5323e-01	1.9132e+00
59	TAF130312	227.5564	230.0117	228.5677	6.2935e-01	1.9169e+00
60	EMPTY	3.9795	4.0039	3.9918	6.5614e-03	0.0000e+00
61	EMPTY	3.9746	3.9893	3.9823	4.4216e-03	0.0000e+00
62	EMPTY	3.9648	3.9795	3.9738	3.4681e-03	0.0000e+00
63	EMPTY	3.9648	3.9746	3.9697	2.9594e-03	0.0000e+00
64	EMPTY	1.8506	1.8604	1.8557	1.9631e-03	0.0000e+00
65	EMPTY	1.8652	1.8701	1.8668	2.3008e-03	0.0000e+00
66	EMPTY	1.8701	1.8799	1.8755	2.0337e-03	0.0000e+00
67	EMPTY	1.8848	1.8896	1.8855	1.8082e-03	0.0000e+00
68	EMPTY	1.8896	1.8945	1.8907	2.0432e-03	0.0000e+00
69	EMPTY	1.8994	1.9043	1.9009	2.2603e-03	0.0000e+00
70	EMPTY	1.9043	1.9092	1.9090	9.6655e-04	0.0000e+00
71	EMPTY	1.9238	1.9287	1.9248	1.9730e-03	0.0000e+00
72	EMPTY	1.9287	1.9336	1.9305	2.3675e-03	0.0000e+00
73	EMPTY	1.9385	1.9531	1.9415	2.9413e-03	0.0000e+00
74	EMPTY	1.9482	1.9531	1.9487	1.4797e-03	0.0000e+00
75	EMPTY	1.9580	1.9629	1.9581	6.9053e-04	0.0000e+00
76	EMPTY	1.9629	1.9678	1.9647	2.3941e-03	0.0000e+00
77	EMPTY	1.9727	1.9824	1.9773	1.8111e-03	0.0000e+00
78	EMPTY	1.9873	1.9922	1.9921	6.9053e-04	0.0000e+00
79	EMPTY	2.0068	2.0117	2.0095	2.4583e-03	0.0000e+00
80	PAN020136	-17.1367	-15.0767	-16.5629	3.9274e-01	8.7098e-01
81	PAN050136	-31.2432	-30.3277	-30.7915	1.9487e-01	1.6818e+00
82	PAN070136	-20.8368	-20.3027	-20.5041	1.1916e-01	8.7151e-01
83	PAN080136	-11.4879	-6.9865	-10.8470	7.7053e-01	8.7042e-01
84	PAN090136	-12.7703	-9.1082	-10.5150	8.9760e-01	8.7040e-01
85	PAN100136	-10.9364	-8.5713	-9.8179	6.5822e-01	8.7035e-01
86	PAN105136	-6.4827	0.9941	-4.9462	1.2080e+00	8.7009e-01
87	PAN110136	-6.2524	-3.3532	-5.0774	6.6761e-01	8.7009e-01
88	PAN115136	-6.1570	-4.4479	-4.6449	1.5516e+00	8.7008e-01
89	PAN120136	-6.7248	-4.1308	-5.3973	6.7187e-01	8.7010e-01
90	PAN125136	-6.0220	-3.1991	-4.7677	5.4608e-01	8.7008e-01
91	PAN130136	-5.6655	-4.0634	-4.6096	3.3143e-01	8.7008e-01
92	PAN120048	-12.0162	-9.9563	-10.6780	4.9112e-01	8.7041e-01
93	PAN130048	-11.2004	-9.7508	-10.5153	3.3575e-01	8.7040e-01
94	PAN120224	-12.2509	-9.5043	-10.1635	6.8669e-01	8.7037e-01
95	PAN130224	-10.4726	-8.9468	-9.6777	3.1290e-01	8.7034e-01
96	PAN120312	-12.2626	-8.9057	-10.0242	7.7401e-01	8.7036e-01
97	PAN130312	-10.3436	-8.6651	-9.5425	3.7384e-01	8.7037e-01
98	PAB000136	40.3604	40.5893	40.4492	5.5804e-02	5.8875e-01
99	PAB100136	43.8588	44.0877	43.9531	4.3780e-02	5.9032e-01
100	PAB125136	44.8755	45.0128	44.9396	4.3378e-02	5.9078e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.9695	40.3357	40.1526	8.9771e-02	7.5669e-01
102	PRV000001	15.3654	15.4875	15.4069	5.8413e-02	7.5099e-01
103	PSR000001	45.0731	45.1952	45.0951	4.7374e-02	7.5843e-01
104	PFM000001	2.1938	2.4684	2.3164	6.5682e-02	5.0003e-01
105	PAN000136	-130.5594	-125.0663	-128.0417	1.1780e+00	4.9304e+00
106	PFM000002	2.3334	2.4005	2.3626	1.8196e-02	2.0009e-01
107	EMPTY	-0.0049	0.0000	-0.0048	6.9053e-04	0.0000e+00
108	EMPTY	-8.2471	-7.4414	-7.7618	1.9010e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0007	1.7115e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0098	0.0000	-0.0018	2.5648e-03	0.0000e+00
112	VPW000001	101.5587	103.1212	102.3869	3.0196e-01	1.0166e+00
113	VPW000002	119.5162	120.4928	119.9616	2.3689e-01	1.0836e+00
114	VPW000003	147.5473	149.1098	148.1919	3.0373e-01	1.2028e+00
115	VPW000004	104.7100	106.2725	105.4444	3.2433e-01	1.0278e+00
116	VPW000005	139.4081	141.3612	140.2284	3.7642e-01	1.1679e+00
117	VPW000006	146.5445	147.9117	147.0757	3.1080e-01	1.1978e+00
118	IPW000001	556.2679	566.0297	561.4612	2.2176e+00	9.2349e+00
119	IPW000002	1272.0027	1285.6616	1278.1687	3.1131e+00	1.2945e+01
120	IPW000003	1305.8251	1321.4250	1311.8700	3.2307e+00	1.3154e+01
121	IPW000004	381.7044	387.5638	384.4583	1.3226e+00	3.6366e+00
122	IPW000005	252.2002	255.6178	253.6259	8.0037e-01	2.8310e+00
123	IPW000006	265.0146	267.9443	266.0986	6.8551e-01	2.9016e+00
124	EMPTY	-0.0293	-0.0195	-0.0231	3.3901e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0163	2.7213e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0146	-0.0194	3.4863e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0146	-0.0175	3.2851e-03	0.0000e+00
128	IHT000001	131.4566	134.5816	132.6089	6.6527e-01	4.3091e+00
129	IHT000002	132.0538	134.7882	133.0381	6.4592e-01	4.3104e+00
130	IHT000003	131.1824	133.7214	132.1551	6.0937e-01	4.3077e+00
131	IHT000004	131.6782	134.2172	132.6548	6.6145e-01	4.3093e+00
132	IHT000005	129.0640	131.6031	130.0913	6.5532e-01	4.3014e+00
133	IHT000006	125.1615	128.0912	126.3685	6.7623e-01	4.2903e+00
134	IHT000007	129.8114	132.5458	130.8896	6.8030e-01	4.3039e+00
135	IHT000008	130.0218	132.5608	131.0179	6.6993e-01	4.3043e+00
136	IHT000009	130.8819	133.4210	131.9327	6.4945e-01	4.3070e+00
137	IHT000010	129.9354	132.4745	131.0917	5.6060e-01	4.3045e+00
138	IHT000011	134.3562	136.5046	135.2977	5.8085e-01	4.3175e+00
139	IHT000012	128.2489	130.5927	129.1826	5.9489e-01	4.2987e+00
140	IHT000013	91.7030	93.8514	92.7694	5.0872e-01	4.2036e+00
141	IHT000014	127.8132	130.1570	128.7547	5.7547e-01	4.2974e+00
142	IHT000015	95.7031	97.8516	96.6094	5.3925e-01	4.2123e+00
143	IHT000016	88.8108	90.7640	89.6585	4.9381e-01	4.1969e+00
144	IHT000017	105.2246	107.5683	106.1504	4.9726e-01	4.2352e+00
145	IHT000018	107.8163	109.7694	108.7538	4.9442e-01	4.2418e+00
146	IHT000019	103.4067	105.7505	104.5200	4.7882e-01	4.2311e+00
147	IHT000020	106.4078	108.3609	107.3413	4.7234e-01	4.2382e+00
148	IHT000021	-2.7532	-0.2141	-1.7258	5.9557e-01	4.1000e+00
149	IHT000022	92.3640	94.3172	93.3094	4.7574e-01	4.2048e+00
150	IHT000023	105.6152	107.3730	106.7207	4.0933e-01	4.2366e+00
151	IHT000024	70.9285	72.4910	71.7996	3.9303e-01	4.1624e+00
152	IHT000025	103.3128	105.0706	104.1644	4.0000e-01	4.2303e+00
153	IHT000026	105.4763	107.0388	106.1364	3.8640e-01	4.2351e+00
154	IHT000027	89.6597	91.8082	90.6675	4.7900e-01	4.1991e+00
155	IHT000028	91.5264	93.8702	92.7920	6.0777e-01	4.2037e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.4462	107.7900	106.6338	5.5361e-01	4.2364e+00
157	IHT000030	107.0463	109.9760	108.6440	5.7411e-01	4.2415e+00
158	IHT000031	106.1861	108.9205	107.5181	5.4203e-01	4.2386e+00
159	IHT000032	107.5759	110.1149	108.8219	5.6757e-01	4.2420e+00
160	IHT000033	107.3843	110.1187	108.7866	5.8353e-01	4.2419e+00
161	IHT000034	93.9679	96.5069	95.0186	6.2126e-01	4.2087e+00
162	IHT000035	123.9896	126.7240	125.1499	6.0799e-01	4.2868e+00
163	IHT000036	92.5819	94.9256	93.5897	5.3286e-01	4.2055e+00

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Velocity 1 = 3.4874 (ft/sec) (+/- 14.0590 %)
 Velocity 2 = 3.5043 (ft/sec) (+/- 5.2489 %)
 Pressure drop = -4.7545 (psi)
 Tsat in = 268.0617 (deg F) Tsat out = 274.5399 (deg F)
 Phi inner = 102.2321 (kBtu/hr-ft2) (+/- 1.4088 %)
 Phi outer = 102.0903 (kBtu/hr-ft2) (+/- 1.6164 %)
 D inner = 0.1962 (ft) D outer = 0.2413 (ft) D hyd = 0.0389 (ft)
 L inner = 12.8550 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	72.3616	73.0008	72.7622	1.8586e-01	1.9000e+00
1	TRF000002	72.7799	73.4156	73.0808	1.3599e-01	1.9000e+00
2	TFH000001	86.6366	87.4749	87.0994	1.9304e-01	1.9002e+00
3	TIN000001	86.7080	87.3385	87.0213	1.4321e-01	1.9002e+00
4	TRV000001	87.2715	88.1077	87.7212	1.9971e-01	1.9002e+00
5	TSR000001	135.1082	137.0190	136.0396	5.1778e-01	1.9029e+00
6	TAO020136	199.4087	200.5687	200.1721	2.8909e-01	1.9114e+00
7	TAO050136	207.8253	209.4485	208.6446	3.9469e-01	1.9129e+00
8	TAO070136	204.5106	206.6322	205.6354	4.8516e-01	1.9124e+00
9	TAO080136	243.2197	244.6178	243.9632	3.0814e-01	1.9203e+00
10	TAO090136	251.6490	252.4878	252.0088	2.0873e-01	1.9222e+00
11	TAO100136	250.2710	251.8559	251.0414	3.9589e-01	1.9220e+00
12	TAO105136	256.9716	258.1819	257.6847	3.3567e-01	1.9236e+00
13	TAO110136	264.8041	267.0940	266.3447	4.3782e-01	1.9258e+00
14	TAO115136	264.0851	266.3138	265.2461	4.8597e-01	1.9255e+00
15	TAO120136	276.0046	276.8278	276.4342	2.3010e-01	1.9285e+00
16	TAO125136	270.8966	273.6568	272.2203	4.6207e-01	1.9274e+00
17	TAO130136	266.2924	267.5698	266.9262	2.5675e-01	1.9259e+00
18	TAO130048	280.9444	282.2271	281.4704	2.5373e-01	1.9299e+00
19	TAO130048	275.9679	276.7937	276.4247	1.8489e-01	1.9285e+00
20	TAO120224	278.5066	279.7921	279.0742	2.6923e-01	1.9292e+00
21	TAO130224	264.7891	266.7157	265.8120	4.3764e-01	1.9257e+00
22	TAO120312	270.3167	271.3324	270.7839	2.5530e-01	1.9270e+00
23	TAO130312	277.5238	278.6245	278.1529	2.3366e-01	1.9290e+00
24	TRT020000	199.8826	201.1403	200.5462	2.8644e-01	1.9114e+00
25	TRT070000	236.5992	237.7354	237.0634	2.3041e-01	1.9187e+00
26	TRT100000	270.0417	271.0559	270.4938	2.2594e-01	1.9269e+00
27	TRT120000	282.2472	283.3457	282.7395	2.4948e-01	1.9302e+00
28	TRT125000	290.1689	290.9867	290.4835	1.7418e-01	1.9325e+00
29	TRT130000	280.2332	280.9663	280.5904	1.7684e-01	1.9296e+00
30	EMPTY	39.1464	39.8352	39.5873	2.0131e-01	1.9011e+00
31	TAF050136	139.9834	142.1902	141.1864	4.6363e-01	1.9034e+00
32	TAF070136	162.1540	165.1070	163.7751	6.0395e-01	1.9059e+00
33	TAF080136	229.7566	243.7670	240.1199	3.1498e+00	1.9194e+00
34	TAF090136	173.1099	175.3652	174.1788	5.4504e-01	1.9073e+00
35	TAF100136	194.0881	197.3835	195.5949	7.1089e-01	1.9106e+00
36	TAF105136	199.0742	203.8536	200.5375	1.1196e+00	1.9114e+00
37	TAF110136	225.5330	229.7814	227.2467	1.0254e+00	1.9166e+00
38	TAF115136	210.6098	215.0028	212.0649	9.1201e-01	1.9135e+00
39	TAF120136	255.9058	258.6836	257.3973	6.8991e-01	1.9235e+00
40	TAF125136	222.8598	227.0962	224.0293	8.2687e-01	1.9159e+00
41	TAF130136	226.6870	228.9556	227.9630	4.8956e-01	1.9167e+00
42	TAF120048	225.7925	228.7508	227.2310	4.8202e-01	1.9166e+00
43	TAF130048	237.0484	238.7397	238.0087	4.1254e-01	1.9189e+00
44	TAF120224	222.0000	224.4702	223.2184	6.5278e-01	1.9158e+00
45	TAF130224	229.9227	232.2996	231.1151	6.0425e-01	1.9174e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.0572	1.8470e-01	1.9010e+00
47	EMPTY	39.6057	40.0646	39.8352	1.2267e-01	1.9011e+00
48	TAI130138	273.7659	275.3311	274.7255	3.2921e-01	1.9280e+00
49	TAI130226	272.6253	274.4611	273.4721	3.4111e-01	1.9277e+00
50	TAI130314	277.9431	279.1400	278.6225	2.6945e-01	1.9291e+00
51	TAI130042	274.6933	276.1669	275.5832	3.4833e-01	1.9283e+00
52	TRR130090	139.9400	147.6497	144.9002	1.8569e+00	1.9038e+00
53	TSI000001	47.8235	48.5821	48.1512	1.8243e-01	1.9003e+00
54	TSI000002	123.1997	125.7395	124.7307	5.8394e-01	1.9020e+00
55	TSO000001	46.2118	47.0827	46.6190	1.9644e-01	1.9004e+00
56	TSO000002	63.8763	64.9455	64.3706	2.6074e-01	1.9000e+00
57	TAF020136	105.6856	108.2806	107.0043	5.7414e-01	1.9009e+00
58	TAF120312	226.7319	229.4741	228.0089	6.0977e-01	1.9167e+00
59	TAF130312	247.2668	250.6213	249.1434	7.6720e-01	1.9215e+00
60	EMPTY	4.5020	4.5361	4.5195	9.6150e-03	0.0000e+00
61	EMPTY	4.4922	4.5166	4.5065	6.2709e-03	0.0000e+00
62	EMPTY	4.4873	4.5020	4.4947	4.8568e-03	0.0000e+00
63	EMPTY	4.4824	4.4971	4.4896	4.9560e-03	0.0000e+00
64	EMPTY	2.0752	2.0850	2.0821	2.6267e-03	0.0000e+00
65	EMPTY	2.0988	2.0947	2.0924	2.4642e-03	0.0000e+00
66	EMPTY	2.0947	2.1045	2.0988	2.2839e-03	0.0000e+00
67	EMPTY	2.1045	2.1094	2.1073	2.4344e-03	0.0000e+00
68	EMPTY	2.1094	2.1143	2.1116	2.4583e-03	0.0000e+00
69	EMPTY	2.1143	2.1240	2.1208	2.5362e-03	0.0000e+00
70	EMPTY	2.1240	2.1289	2.1276	2.1635e-03	0.0000e+00
71	EMPTY	2.1387	2.1436	2.1420	2.3008e-03	0.0000e+00
72	EMPTY	2.1436	2.1484	2.1470	2.2603e-03	0.0000e+00
73	EMPTY	2.1533	2.1582	2.1564	2.3675e-03	0.0000e+00
74	EMPTY	2.1582	2.1680	2.1627	1.9331e-03	0.0000e+00
75	EMPTY	2.1680	2.1729	2.1710	2.3941e-03	0.0000e+00
76	EMPTY	2.1729	2.1777	2.1767	2.0432e-03	0.0000e+00
77	EMPTY	2.1826	2.1875	2.1873	9.6655e-04	0.0000e+00
78	EMPTY	2.1973	2.2070	2.2007	2.4662e-03	0.0000e+00
79	EMPTY	2.2119	2.2168	2.2166	9.6655e-04	0.0000e+00
80	PAN020136	-19.1203	-14.6190	-17.2877	1.3014e+00	8.7107e-01
81	PAN050136	-32.6165	-30.0225	-31.2432	6.6832e-01	1.6818e+00
82	PAN070136	-25.5670	-17.5561	-22.6022	1.6909e+00	8.7183e-01
83	PAN080136	-14.0819	-4.8503	-10.4091	1.7726e+00	8.7039e-01
84	PAN090136	-12.7703	-3.2335	-10.6325	1.9633e+00	8.7041e-01
85	PAN100136	-12.3097	-7.9609	-10.0620	8.3494e-01	8.7036e-01
86	PAN105136	-6.1013	0.9941	-5.0011	9.6568e-01	8.7009e-01
87	PAN110136	-6.2524	0.3852	-5.0271	9.3268e-01	8.7009e-01
88	PAN115136	-6.1570	-3.5630	-4.4877	6.0598e-01	8.7007e-01
89	PAN120136	-6.0382	-3.5968	-5.1715	4.7577e-01	8.7010e-01
90	PAN125136	-5.5642	-4.1147	-4.7143	2.9569e-01	8.7008e-01
91	PAN130136	-5.2078	-4.1397	-4.8263	2.4854e-01	8.7008e-01
92	PAN120048	-11.2533	-9.0408	-10.4690	5.3128e-01	8.7039e-01
93	PAN130048	-11.1241	-9.8271	-10.6206	2.7958e-01	8.7041e-01
94	PAN120224	-10.7250	-8.2836	-9.6401	4.6607e-01	8.7033e-01
95	PAN130224	-10.6252	-8.7179	-9.7814	3.7800e-01	8.7034e-01
96	PAN120312	-12.1863	-7.3798	-9.7495	6.3988e-01	8.7034e-01
97	PAN130312	-10.1147	-8.9703	-9.7790	2.4371e-01	8.7034e-01
98	PAB000136	40.2688	40.5893	40.4675	6.7080e-02	5.8876e-01
99	PAB100136	43.9961	44.2250	44.0977	4.8313e-02	5.9038e-01
100	PAB125136	44.9670	45.1501	45.0696	5.1125e-02	5.9084e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	40.3357	40.7019	40.4944	7.8957e-02	7.5680e-01
102	PRV000001	15.3654	15.4875	15.4460	5.8413e-02	7.5099e-01
103	PSR000001	45.1952	45.4393	45.3050	5.0842e-02	7.5850e-01
104	PFH000001	1.6444	1.9191	1.7909	6.4074e-02	5.0002e-01
105	PAN000136	-136.0526	-129.1861	-131.6306	1.4405e+00	4.9310e+00
106	PFH000002	1.7796	1.8468	1.8088	1.4703e-02	2.0005e-01
107	EMPTY	-0.0049	0.0000	-0.0048	6.9053e-04	0.0000e+00
108	EMPTY	-7.5439	-6.6895	-7.0865	2.0812e-01	0.0000e+00
109	EMPTY	-0.0049	0.0000	-0.0007	1.7115e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0044	1.4797e-03	0.0000e+00
112	VPW000001	102.1447	103.3166	102.7306	2.9264e-01	1.0179e+00
113	VPW000002	119.9069	120.6881	120.2076	1.7739e-01	1.0846e+00
114	VPW000003	148.1333	148.9145	148.4497	2.0078e-01	1.2039e+00
115	VPW000004	104.9053	106.2725	105.6358	2.8945e-01	1.0285e+00
116	VPW000005	139.9940	141.1659	140.5331	2.5742e-01	1.1692e+00
117	VPW000006	146.7398	147.9117	147.3179	2.3331e-01	1.1989e+00
118	IPW000001	542.6016	552.3633	547.2090	2.1517e+00	9.1814e+00
119	IPW000002	1311.0281	1320.7844	1314.9695	2.2122e+00	1.3173e+01
120	IPW000003	1329.2250	1338.9750	1333.5151	2.0088e+00	1.3289e+01
121	IPW000004	379.7513	385.1224	382.3392	1.2092e+00	3.6226e+00
122	IPW000005	253.6649	256.5943	254.8562	6.4801e-01	2.8379e+00
123	IPW000006	266.4795	269.4091	267.7881	5.4426e-01	2.9113e+00
124	EMPTY	-0.0293	-0.0146	-0.0232	3.3540e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0153	2.4184e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0146	-0.0195	3.1195e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0146	-0.0178	2.7480e-03	0.0000e+00
128	IHT000001	131.6519	133.8003	132.5464	5.1006e-01	4.3089e+00
129	IHT000002	131.8585	134.5929	132.9639	5.2735e-01	4.3102e+00
130	IHT000003	130.9871	133.5261	132.0653	5.1485e-01	4.3074e+00
131	IHT000004	131.4829	134.0219	132.5884	5.7400e-01	4.3091e+00
132	IHT000005	129.0640	131.4077	130.1655	5.1412e-01	4.3017e+00
133	IHT000006	125.1615	127.7006	126.3803	5.2875e-01	4.2904e+00
134	IHT000007	129.6161	132.3505	130.9443	5.2793e-01	4.3040e+00
135	IHT000008	129.8264	132.1702	131.0960	5.1637e-01	4.3045e+00
136	IHT000009	130.6866	133.2257	132.0459	5.0986e-01	4.3074e+00
137	IHT000010	129.9354	132.8651	131.0370	6.2485e-01	4.3043e+00
138	IHT000011	133.9656	137.2859	135.1532	6.4578e-01	4.3170e+00
139	IHT000012	127.8583	130.7880	129.0576	6.2016e-01	4.2983e+00
140	IHT000013	91.3123	94.4373	92.6600	5.5699e-01	4.2034e+00
141	IHT000014	127.4226	130.3523	128.7157	6.0347e-01	4.2973e+00
142	IHT000015	95.3125	98.2422	96.5312	5.7799e-01	4.2121e+00
143	IHT000016	88.8108	91.3499	89.7913	6.0295e-01	4.1972e+00
144	IHT000017	106.2012	109.5215	107.3809	7.4238e-01	4.2383e+00
145	IHT000018	108.2069	110.5507	109.1210	5.8586e-01	4.2427e+00
146	IHT000019	103.9926	105.9458	104.8286	4.0633e-01	4.2319e+00
147	IHT000020	106.9937	108.5562	107.6460	3.4311e-01	4.2390e+00
148	IHT000021	-2.3625	-0.2141	-1.4211	4.9551e-01	4.1000e+00
149	IHT000022	93.1453	94.7078	93.7547	3.8184e-01	4.2058e+00
150	IHT000023	106.2012	107.9590	106.9394	4.1999e-01	4.2372e+00
151	IHT000024	71.1238	72.6863	71.9871	4.0258e-01	4.1627e+00
152	IHT000025	103.3128	105.2659	104.4183	4.3871e-01	4.2309e+00
153	IHT000026	105.2810	107.4294	106.3942	4.8528e-01	4.2358e+00
154	IHT000027	90.0503	92.1988	91.0659	4.5335e-01	4.1999e+00
155	IHT000028	91.7217	94.6514	92.8936	6.4718e-01	4.2039e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.6415	107.9853	106.6025	6.0982e-01	4.2363e+00
157	IHT000030	107.4369	109.5853	108.5151	5.4282e-01	4.2412e+00
158	IHT000031	106.3815	108.7252	107.4439	5.4699e-01	4.2384e+00
159	IHT000032	107.7712	109.9196	108.7477	5.7993e-01	4.2418e+00
160	IHT000033	107.5796	109.9234	108.6929	5.8026e-01	4.2416e+00
161	IHT000034	93.9679	96.1163	94.8545	5.0565e-01	4.2083e+00
162	IHT000035	124.1850	126.3334	124.9897	5.0012e-01	4.2863e+00
163	IHT000036	92.7772	94.5350	93.4061	4.5385e-01	4.2051e+00

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Velocity 1 - 3.3091 (ft/sec) (+/- 15.6386 %)
 Velocity 2 - 3.3312 (ft/sec) (+/- 5.7691 %)
 Pressure drop - -4.7459 (psi)
 Tsat in - 267.8914 (deg F) Tsat out - 274.4017 (deg F)
 Phi inner - 101.0474 (kBtu/hr-ft2) (+/- 1.4121 %)
 Phi outer - 101.7762 (kBtu/hr-ft2) (+/- 1.6166 %)
 D inner - 0.1962 (ft) D outer - 0.2413 (ft) D hyd - 0.0389 (ft)
 L inner - 12.8550 (ft) L outer - 12.8070 (ft) A flow - 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	72.7878	73.6398	73.0775	1.9608e-01	1.9000e+00
1	TRF0000002	73.2037	73.6274	73.3478	1.1676e-01	1.9000e+00
2	TFH0000001	86.8467	87.7902	87.3830	2.2575e-01	1.9002e+00
3	TIN0000001	86.9181	87.7590	87.3259	1.6939e-01	1.9002e+00
4	TRV0000001	87.7950	88.7359	88.1758	1.8630e-01	1.9002e+00
5	TSR0000001	140.6272	142.6315	141.5129	5.4928e-01	1.9034e+00
6	TAO020136	203.1737	204.5231	203.8251	3.0579e-01	1.9120e+00
7	TAO050136	212.8755	214.2074	213.5529	3.7122e-01	1.9138e+00
8	TAO070136	211.2489	213.4565	212.2898	5.1646e-01	1.9136e+00
9	TAO080136	249.0801	250.1035	249.6759	2.1892e-01	1.9216e+00
10	TAO090136	257.5045	258.6178	258.0797	2.2650e-01	1.9237e+00
11	TAO100136	257.0650	258.8290	257.8116	4.1730e-01	1.9236e+00
12	TAO105136	263.8481	265.4241	264.6158	3.0890e-01	1.9253e+00
13	TAO110136	272.5782	273.8568	273.2819	2.8950e-01	1.9276e+00
14	TAO115136	269.4656	271.5023	270.6469	4.1370e-01	1.9269e+00
15	TAO120136	281.8315	282.8355	282.1570	2.3078e-01	1.9301e+00
16	TAO125136	275.8613	277.7886	276.7394	4.7319e-01	1.9286e+00
17	TAO130136	271.5686	272.5716	272.1200	2.3164e-01	1.9273e+00
18	TAO120048	285.8839	286.7072	286.2828	1.8359e-01	1.9313e+00
19	TAO130048	281.1820	281.9148	281.5695	1.5653e-01	1.9299e+00
20	TAO120224	283.0007	284.3746	283.6564	2.4921e-01	1.9305e+00
21	TAO130224	271.1124	272.4817	271.6780	3.1458e-01	1.9272e+00
22	TAO120312	276.1240	277.1363	276.5693	2.1951e-01	1.9285e+00
23	TAO130312	283.3797	284.0214	283.6911	1.4904e-01	1.9305e+00
24	TRF020000	203.0725	204.0379	203.6438	2.5334e-01	1.9120e+00
25	TRF070000	242.2769	243.4091	242.8052	2.4636e-01	1.9200e+00
26	TRF100000	274.7317	276.3853	275.7714	3.3420e-01	1.9283e+00
27	TRF120000	285.7226	286.6368	286.1284	1.8308e-01	1.9312e+00
28	TRF125000	292.7057	293.7047	293.2684	1.8785e-01	1.9333e+00
29	TRF130000	285.2576	285.9896	285.6487	1.7422e-01	1.9311e+00
30	EMPTY	39.1464	40.0646	39.6011	1.8253e-01	1.9011e+00
31	TAP050136	142.4915	145.1947	143.7018	5.8047e-01	1.9037e+00
32	TAP070136	165.8949	169.0360	167.7164	6.5813e-01	1.9064e+00
33	TAP080136	243.7687	248.6906	246.2325	1.2725e+00	1.9208e+00
34	TAP090136	178.1048	182.2066	179.2974	9.6321e-01	1.9080e+00
35	TAP100136	199.2213	202.0226	200.5474	6.3425e-01	1.9114e+00
36	TAP105136	204.0438	206.9049	205.3150	7.3955e-01	1.9123e+00
37	TAP110136	234.1103	236.6480	235.4001	5.5355e-01	1.9183e+00
38	TAP115136	216.1458	218.9072	217.4756	6.3532e-01	1.9146e+00
39	TAP120136	260.9042	262.3847	261.6740	4.3370e-01	1.9246e+00
40	TAP125136	227.8516	231.1400	229.7010	7.2818e-01	1.9171e+00
41	TAP130136	232.9163	234.8001	233.7908	3.6103e-01	1.9180e+00
42	TAP120048	232.3699	234.4602	233.2327	4.2231e-01	1.9179e+00
43	TAP130048	243.8036	245.3013	244.6873	3.8069e-01	1.9204e+00
44	TAP120224	227.6945	230.2506	228.9936	6.0389e-01	1.9170e+00
45	TAP130224	236.4719	238.3657	237.4155	4.7277e-01	1.9188e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	38.0664	2.0904e-01	1.9010e+00
47	EMPTY	39.6057	40.0646	39.8352	1.3114e-01	1.9011e+00
48	TAI130138	276.6194	277.8152	277.2744	2.9299e-01	1.9287e+00
49	TAI130226	276.0194	277.0285	276.4967	2.2465e-01	1.9285e+00
50	TAI130314	282.0821	283.2761	282.7214	3.0879e-01	1.9302e+00
51	TAI130042	279.2929	280.3951	279.8953	2.3850e-01	1.9295e+00
52	TBR130090	146.1521	149.9453	147.9299	8.4413e-01	1.9041e+00
53	TSI0000001	47.7168	48.6908	48.1933	2.1876e-01	1.9003e+00
54	TSI0000002	128.4784	129.8972	129.1794	3.3363e-01	1.9024e+00
55	TSO0000001	46.1019	47.0816	46.5809	2.1553e-01	1.9004e+00
56	TSO0000002	64.7314	65.5865	65.0352	2.3568e-01	1.9000e+00
57	TAP020136	106.0995	109.7308	107.6488	7.0161e-01	1.9010e+00
58	TAP120312	233.6237	235.6956	234.3927	5.4814e-01	1.9181e+00
59	TAP130312	256.3826	260.2749	258.1555	8.4344e-01	1.9237e+00
60	EMPTY	4.7217	4.7705	4.7455	1.1101e-02	0.0000e+00
61	EMPTY	4.7119	4.7461	4.7308	8.3711e-03	0.0000e+00
62	EMPTY	4.7070	4.7314	4.7168	7.0449e-03	0.0000e+00
63	EMPTY	4.6973	4.7168	4.7084	5.4960e-03	0.0000e+00
64	EMPTY	2.1729	2.1826	2.1781	2.7621e-03	0.0000e+00
65	EMPTY	2.1826	2.1973	2.1872	2.4976e-03	0.0000e+00
66	EMPTY	2.1875	2.1973	2.1931	2.2080e-03	0.0000e+00
67	EMPTY	2.1973	2.2021	2.2006	2.3008e-03	0.0000e+00
68	EMPTY	2.2021	2.2070	2.2045	2.4642e-03	0.0000e+00
69	EMPTY	2.2119	2.2266	2.2128	2.5515e-03	0.0000e+00
70	EMPTY	2.2168	2.2217	2.2188	2.4164e-03	0.0000e+00
71	EMPTY	2.2314	2.2363	2.2321	1.7115e-03	0.0000e+00
72	EMPTY	2.2314	2.2412	2.2365	2.4083e-03	0.0000e+00
73	EMPTY	2.2412	2.2510	2.2450	2.2689e-03	0.0000e+00
74	EMPTY	2.2461	2.2559	2.2506	2.3839e-03	0.0000e+00
75	EMPTY	2.2510	2.2607	2.2576	2.5648e-03	0.0000e+00
76	EMPTY	2.2559	2.2656	2.2630	2.6488e-03	0.0000e+00
77	EMPTY	2.2705	2.2754	2.2726	2.4344e-03	0.0000e+00
78	EMPTY	2.2852	2.2900	2.2860	1.8950e-03	0.0000e+00
79	EMPTY	2.2998	2.3047	2.3015	2.3365e-03	0.0000e+00
80	PAN020136	-19.0440	-13.8560	-16.2547	1.3919e+00	8.7095e-01
81	PAN050136	-33.2269	-32.0061	-32.7508	2.6988e-01	1.6820e+00
82	PAN070136	-22.3627	-21.0657	-21.6196	3.4217e-01	8.7168e-01
83	PAN080136	-12.0219	-4.9266	-10.9340	9.4814e-01	8.7043e-01
84	PAN090136	-12.7703	-6.7431	-10.5532	7.9905e-01	8.7040e-01
85	PAN100136	-12.3859	-9.1816	-10.2482	5.7124e-01	8.7038e-01
86	PAN105136	-7.2457	-4.1939	-5.4497	5.8839e-01	8.7011e-01
87	PAN110136	-6.1761	-2.7428	-4.8028	7.3243e-01	8.7008e-01
88	PAN115136	-6.2333	-3.9445	-5.1606	5.6516e-01	8.7010e-01
89	PAN120136	-5.6567	-3.6730	-4.8175	4.8498e-01	8.7008e-01
90	PAN125136	-4.8776	-3.5043	-4.4030	3.1411e-01	8.7007e-01
91	PAN130136	-5.4367	-4.7500	-5.1193	1.3817e-01	8.7009e-01
92	PAN120048	-10.7955	-8.7356	-10.3438	3.8775e-01	8.7038e-01
93	PAN130048	-10.9715	-10.5138	-10.7655	1.0137e-01	8.7042e-01
94	PAN120224	-10.0384	-9.1991	-9.6066	2.4883e-01	8.7033e-01
95	PAN130224	-10.0912	-9.4045	-9.8257	1.4397e-01	8.7035e-01
96	PAN120312	-9.7449	-8.3716	-9.2338	3.2194e-01	8.7031e-01
97	PAN130312	-10.1910	-9.7332	-9.9194	1.0472e-01	8.7035e-01
98	PAB0000136	39.8568	40.4977	40.3521	1.0075e-01	5.8871e-01
99	PAB100136	43.9046	44.0419	43.9860	4.1658e-02	5.9033e-01
100	PAB125136	44.8755	45.0586	44.9670	4.3378e-02	5.9079e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.7254	40.4578	40.1282	1.2145e-01	7.5668e-01
102	PRV000001	15.3654	15.6096	15.4875	2.4662e-02	7.5100e-01
103	PSR000001	45.0731	45.1952	45.1927	1.7263e-02	7.5846e-01
104	PFH000001	1.4613	1.7360	1.6078	6.4074e-02	5.0002e-01
105	PAN000136	-137.8836	-127.8128	-131.3925	1.9893e+00	4.9310e+00
106	PFH000002	1.5783	1.6957	1.6300	3.0101e-02	2.0004e-01
107	EMPTY	-0.0049	0.0049	-0.0042	1.9754e-03	0.0000e+00
108	EMPTY	-7.4512	-6.6895	-7.0166	2.1267e-01	0.0000e+00
109	EMPTY	-0.0049	0.0049	0.0001	1.2041e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0018	2.3675e-03	0.0000e+00
112	VPW000001	102.3400	102.9259	102.6720	1.5906e-01	1.0176e+00
113	VPW000002	120.1022	120.4928	120.2272	1.0992e-01	1.0846e+00
114	VPW000003	148.1333	148.7192	148.4888	1.4600e-01	1.2041e+00
115	VPW000004	105.2960	106.0772	105.6631	1.9587e-01	1.0286e+00
116	VPW000005	139.9940	140.7752	140.4511	1.9969e-01	1.1689e+00
117	VPW000006	147.1304	147.7164	147.3491	1.4573e-01	1.1991e+00
118	IPW000001	554.3156	562.1250	558.8061	1.6850e+00	9.2249e+00
119	IPW000002	1297.3693	1307.1256	1300.1012	1.6254e+00	1.3080e+01
120	IPW000003	1311.6750	1321.4250	1316.1207	2.1949e+00	1.3180e+01
121	IPW000004	379.7513	383.6576	381.3235	9.6801e-01	3.6159e+00
122	IPW000005	252.6884	254.6413	253.6259	4.2814e-01	2.8310e+00
123	IPW000006	265.0146	267.4560	266.2353	4.9570e-01	2.9024e+00
124	EMPTY	-0.0293	-0.0146	-0.0226	3.9323e-03	0.0000e+00
125	EMPTY	-0.0244	-0.0098	-0.0148	2.7832e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0187	3.3728e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0146	-0.0185	3.5962e-03	0.0000e+00
128	IHT000001	131.4566	133.8003	132.6128	6.0211e-01	4.3091e+00
129	IHT000002	132.0538	134.0069	133.1045	5.2776e-01	4.3106e+00
130	IHT000003	130.9871	133.3308	132.2450	5.5686e-01	4.3080e+00
131	IHT000004	131.4829	133.6313	132.8071	5.3712e-01	4.3097e+00
132	IHT000005	129.2593	131.0171	130.2788	4.9645e-01	4.3020e+00
133	IHT000006	125.3568	127.7006	126.5795	5.4933e-01	4.2909e+00
134	IHT000007	129.8114	131.9599	130.9951	5.3585e-01	4.3042e+00
135	IHT000008	129.8264	132.1702	131.1429	5.5637e-01	4.3046e+00
136	IHT000009	130.6866	133.2257	132.0186	5.7003e-01	4.3073e+00
137	IHT000010	130.1307	132.0838	131.1464	4.3762e-01	4.3046e+00
138	IHT000011	134.3562	136.1140	135.2391	4.3088e-01	4.3173e+00
139	IHT000012	128.0536	129.8114	129.0771	4.2784e-01	4.2984e+00
140	IHT000013	91.8983	93.6561	92.7498	4.4426e-01	4.2036e+00
141	IHT000014	127.8132	129.5711	128.7079	4.3778e-01	4.2973e+00
142	IHT000015	95.8984	97.6562	96.6328	4.0541e-01	4.2123e+00
143	IHT000016	89.0061	90.7640	89.7561	4.0503e-01	4.1971e+00
144	IHT000017	105.2246	107.9590	106.3965	5.9451e-01	4.2358e+00
145	IHT000018	107.8163	109.9647	108.7303	5.2858e-01	4.2417e+00
146	IHT000019	103.7973	105.3598	104.6294	4.4610e-01	4.2314e+00
147	IHT000020	106.6031	108.3609	107.4312	4.4039e-01	4.2384e+00
148	IHT000021	-2.5579	-0.6047	-1.6125	4.8866e-01	4.1000e+00
149	IHT000022	92.5594	94.3172	93.4461	4.1425e-01	4.2051e+00
150	IHT000023	105.8105	107.7637	106.7793	4.0618e-01	4.2368e+00
151	IHT000024	70.9285	72.8816	71.8660	3.9459e-01	4.1625e+00
152	IHT000025	103.3128	105.4613	104.2933	4.1289e-01	4.2306e+00
153	IHT000026	105.2810	107.4294	106.2106	3.9372e-01	4.2353e+00
154	IHT000027	89.8550	91.8082	90.8355	3.7119e-01	4.1994e+00
155	IHT000028	91.3311	94.2608	92.7451	5.9785e-01	4.2036e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	105.2509	108.3759	106.5361	6.2899e-01	4.2362e+00
157	IHT000030	107.4369	110.3666	108.4877	6.2001e-01	4.2411e+00
158	IHT000031	106.3815	109.3111	107.4283	6.1226e-01	4.2384e+00
159	IHT000032	107.5759	110.1149	108.6969	6.1360e-01	4.2416e+00
160	IHT000033	107.5796	110.1187	108.6343	6.0102e-01	4.2415e+00
161	IHT000034	93.9679	96.5069	94.9717	5.4962e-01	4.2086e+00
162	IHT000035	123.9896	126.3334	125.0249	4.9007e-01	4.2864e+00
163	IHT000036	92.7772	94.7303	93.5389	4.9951e-01	4.2053e+00

DEFECTIVE INSTRUMENTS FOR THE RIBBED GEOMETRY TEST SERIES

Series	Tests	Defective Instruments
3	May08_01 to May08_08	TAO070136 TAF020136 TRR130090 TAO120136 TAF080136 TAF090136 TAF110136 TAF120136 TAF130312 IHT000021 IHT000024 IHT000033

Chapter 9

NUCLEATE BOILING PRESSURE DROP IN AN ANNULUS

Test Geometry: Ribbed (4)
Test Series: 1A
Test Date: August 1, 1990

TOTAL PRESSURE DROP (psf)

TEST NUMBER	INLET VELOCITY(a) (ft/s)	PRESSURE DROP(b) (psi)
Aug01_01	26.17	19.55
Aug01_02	19.80	9.26
Aug01_03	14.05	2.27
Aug01_04	8.06	-2.69
Aug01_05	6.11	-3.77
Aug01_06	4.07	-4.65
Aug01_07	3.49	-4.79
Aug01_08	3.27	-4.83

(c)

NOMINAL TEST CONDITIONS	
Annulus geometry	ribbed (4)
Inlet temperature	86 °F
Inlet pressure	40 psia
Wall heat flux	100 kBtu/hr-ft ²
Flux distribution	uniform
He saturation pressure	5 psig

NOTES:

- (a) Inlet velocity calculated from PFM000001
- (b) Pressure drop calculated from PAN000136
- (c) Shading notes test at minimum pressure drop

DEMAND CURVE AND DATA FOR SERIES 1A - RIBBED ANNULUS

SERIES 1A, AUG01_08
 RIBBED (4)
 $\phi = 100,900 \text{ Btu/hr-ft}^2$
 $V_f = 3.27 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$
 $P = 40.08 \text{ psia}$
 $T = 87.17 \text{ }^\circ\text{F}$
 $L = 12.83 \text{ ft}$

RIBBED (4)
 $\phi = 100,900 \text{ Btu/hr-ft}^2$
 $V_f = 3.27 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$
 $P = 40.08 \text{ psia}$
 $T = 87.17 \text{ }^\circ\text{F}$
 $L = 12.83 \text{ ft}$

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Velocity 1 - 26.1660 (ft/sec) (+/- 1.6884 %)
 Velocity 2 - 13.4134 (ft/sec) (+/- 1.7033 %)
 Pressure drop - 19.5520 (psi)
 Tsat in - 267.5090 (deg F) Tsat out - 231.1341 (deg F)
 Phi inner - 101.1592 (kBtu/hr-ft2) (+/- 1.4112 %)
 Phi outer - 101.0141 (kBtu/hr-ft2) (+/- 1.5419 %)
 D inner - 0.1961 (ft) D outer - 0.2413 (ft) D hyd - 0.0390 (ft)
 L inner - 12.8610 (ft) L outer - 12.8070 (ft) A flow - 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	77.3122	77.9506	77.5846	1.7750e-01	1.9000e+00
1	TRF0000002	77.5650	77.9883	77.7555	1.3006e-01	1.9000e+00
2	TFH0000001	85.2659	85.8975	85.5714	1.8553e-01	1.9002e+00
3	TIN0000001	84.8386	85.2615	85.0396	1.2476e-01	1.9002e+00
4	TRV0000001	85.5261	86.3651	85.9645	2.1783e-01	1.9002e+00
5	TSR0000001	105.1912	106.1203	105.6483	2.1901e-01	1.9009e+00
6	TAC020136	69.2586	71.2867	70.0250	4.9442e-01	1.9000e+00
7	TAC050136	107.7987	108.8270	108.3532	1.9176e-01	1.9010e+00
8	TAC070136	108.8541	109.7864	109.3286	2.1365e-01	1.9010e+00
9	TAC080136	115.7293	116.4464	116.1333	1.5289e-01	1.9014e+00
10	TAC090136	115.9910	116.9149	116.4036	2.0148e-01	1.9015e+00
11	TAC100136	113.7597	114.4797	114.1239	1.8026e-01	1.9013e+00
12	TAC105136	113.5132	114.3381	113.8988	1.7026e-01	1.9013e+00
13	TAC110136	115.0717	115.8911	115.4917	2.0483e-01	1.9014e+00
14	TAC115136	113.1900	114.0143	113.5010	2.0225e-01	1.9013e+00
15	TAC120136	119.4895	120.1047	119.8117	1.6027e-01	1.9017e+00
16	TAC125136	85.8994	86.9509	86.4902	2.4465e-01	1.9002e+00
17	TAC130136	115.9995	116.7125	116.3312	1.4722e-01	1.9014e+00
18	TAC120048	86.2003	86.8324	86.5604	1.6756e-01	1.9002e+00
19	TAC130048	117.6419	118.3588	117.9800	1.5783e-01	1.9016e+00
20	TAC120224	117.5509	118.3718	117.9267	1.7047e-01	1.9015e+00
21	TAC130224	114.1116	115.0318	114.5064	2.0232e-01	1.9013e+00
22	TAC120312	117.8573	118.4741	118.1759	1.6365e-01	1.9016e+00
23	TAC130312	118.3233	118.9390	118.6618	1.4678e-01	1.9016e+00
24	TRT020000	106.6079	107.6446	107.0622	2.3416e-01	1.9009e+00
25	TRT070000	114.4270	115.2532	114.8671	1.8288e-01	1.9014e+00
26	TRT100000	120.4222	121.5456	121.0569	2.4170e-01	1.9018e+00
27	TRT120000	118.1911	119.1138	118.7219	2.0871e-01	1.9016e+00
28	TRT125000	-0.7931	437.7462	236.4602	1.0087e+02	1.9186e+00
29	TRT130000	119.1291	119.9480	119.5817	1.6040e-01	1.9017e+00
30	EMPTY	39.3761	40.0646	39.7388	2.2759e-01	1.9011e+00
31	TAF050136	92.2822	93.0137	92.6272	1.7443e-01	1.9003e+00
32	TAF070136	95.0802	95.9125	95.5527	1.8948e-01	1.9004e+00
33	TAF080136	115.2423	116.4673	115.9455	2.8144e-01	1.9014e+00
34	TAF090136	81.2971	82.5615	81.8306	3.0010e-01	1.9001e+00
35	TAF100136	99.3010	100.1348	99.7035	1.7873e-01	1.9006e+00
36	TAF105136	99.9521	100.8834	100.4268	2.4005e-01	1.9006e+00
37	TAF110136	100.8079	101.6387	101.2585	1.5079e-01	1.9007e+00
38	TAF115136	102.1279	102.8541	102.4787	1.8609e-01	1.9007e+00
39	TAF120136	109.0502	109.8752	109.5099	1.9663e-01	1.9011e+00
40	TAF125136	103.1214	104.1539	103.6853	2.6912e-01	1.9008e+00
41	TAF130136	103.9185	104.7464	104.3965	1.6857e-01	1.9008e+00
42	TAF120048	104.3312	105.1642	104.7871	2.0710e-01	1.9008e+00
43	TAF130048	105.8417	106.4638	106.1713	1.4754e-01	1.9009e+00
44	TAF120224	101.8364	102.6677	102.3618	1.9945e-01	1.9007e+00
45	TAF130224	102.9639	103.5894	103.1912	1.2910e-01	1.9007e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	38.0756	2.1594e-01	1.9010e+00
47	EMPTY	39.1464	39.3761	39.2796	1.1449e-01	1.9010e+00
48	TAC130048	113.2157	114.4508	113.8314	2.9721e-01	1.9013e+00
49	TAC130136	114.5719	115.3930	114.8946	2.0528e-01	1.9014e+00
50	TAC130224	116.2546	117.4886	117.0137	3.0173e-01	1.9015e+00
51	TAC130312	112.4102	113.2351	112.7631	1.7928e-01	1.9012e+00
52	TRR130000	95.0222	96.3762	95.6786	3.1062e-01	1.9004e+00
53	TSI0000001	70.4291	71.1737	70.8055	1.6270e-01	1.9000e+00
54	TSI0000002	89.8205	93.7896	91.4703	8.8352e-01	1.9003e+00
55	TSO0000001	70.6201	71.5824	71.2466	2.0719e-01	1.9000e+00
56	TSO0000002	75.0165	76.0782	75.6261	1.9757e-01	1.9000e+00
57	TAF020136	86.5903	87.2242	86.9681	1.8366e-01	1.9002e+00
58	TAF120312	102.7756	104.0212	103.4131	3.1518e-01	1.9008e+00
59	TAF130312	105.9881	106.8165	106.4663	2.0993e-01	1.9009e+00
60	EMPTY	0.8691	0.8740	0.8718	2.4583e-03	0.0000e+00
61	EMPTY	0.8789	0.8838	0.8834	1.3381e-03	0.0000e+00
62	EMPTY	0.8887	0.8984	0.8936	9.8648e-04	0.0000e+00
63	EMPTY	0.9033	0.9082	0.9060	2.4583e-03	0.0000e+00
64	EMPTY	0.5371	0.5420	0.5393	2.4484e-03	0.0000e+00
65	EMPTY	0.5566	0.5615	0.5609	1.6028e-03	0.0000e+00
66	EMPTY	0.5762	0.5762	0.5762	0.0000e+00	0.0000e+00
67	EMPTY	0.5908	0.5957	0.5954	1.1714e-03	0.0000e+00
68	EMPTY	0.6055	0.6104	0.6094	1.9730e-03	0.0000e+00
69	EMPTY	0.6250	0.6299	0.6275	2.4642e-03	0.0000e+00
70	EMPTY	0.6396	0.6445	0.6426	2.4164e-03	0.0000e+00
71	EMPTY	0.6641	0.6689	0.6646	1.4797e-03	0.0000e+00
72	EMPTY	0.6787	0.6836	0.6788	6.9053e-04	0.0000e+00
73	EMPTY	0.6982	0.7031	0.6983	6.9053e-04	0.0000e+00
74	EMPTY	0.7129	0.7178	0.7133	1.3381e-03	0.0000e+00
75	EMPTY	0.7275	0.7324	0.7320	1.3381e-03	0.0000e+00
76	EMPTY	0.7422	0.7471	0.7466	1.4797e-03	0.0000e+00
77	EMPTY	0.7617	0.7666	0.7657	1.8950e-03	0.0000e+00
78	EMPTY	0.7861	0.7910	0.7867	1.6028e-03	0.0000e+00
79	EMPTY	0.8057	0.8105	0.8085	2.4344e-03	0.0000e+00
80	PAN020136	68.2935	69.6668	68.8947	2.8448e-01	8.8689e-01
81	PAN050136	125.4056	127.3892	126.4920	4.1087e-01	1.7095e+00
82	PAN070136	86.0570	87.2777	86.7192	2.8937e-01	8.9661e-01
83	PAN080136	42.4547	43.4466	42.8576	1.9681e-01	8.7657e-01
84	PAN090136	47.0677	48.2884	47.6933	2.5654e-01	8.7813e-01
85	PAN100136	31.5565	32.3957	31.8906	1.5711e-01	8.7365e-01
86	PAN105136	20.0704	20.6045	20.2810	1.0173e-01	8.7148e-01
87	PAN110136	21.6302	22.0879	21.8065	1.1302e-01	8.7172e-01
88	PAN115136	22.2288	22.6865	22.4348	1.1865e-01	8.7181e-01
89	PAN120136	21.0594	21.4409	21.2578	9.6259e-02	8.7162e-01
90	PAN125136	23.4905	23.8719	23.7255	1.0206e-01	8.7202e-01
91	PAN130136	23.5903	24.0481	23.7780	9.2752e-02	8.7203e-01
92	PAN120048	38.2498	38.9364	38.5916	1.7455e-01	8.7533e-01
93	PAN130048	49.6968	50.3835	49.9959	1.6446e-01	8.7893e-01
94	PAN120224	41.0082	41.7712	41.3103	1.6670e-01	8.7611e-01
95	PAN130224	38.1310	38.6651	38.3294	1.1637e-01	8.7526e-01
96	PAN120312	42.4636	43.1502	42.8328	1.7120e-01	8.7657e-01
97	PAN130312	48.8224	49.6616	49.2084	1.6487e-01	8.7865e-01
98	PAB000136	39.9313	40.2518	40.0943	8.6341e-02	5.8860e-01
99	PAB100136	25.3111	25.4942	25.4026	4.8937e-02	5.8347e-01
100	PAB125136	21.2194	21.4025	21.3100	4.2872e-02	5.8244e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.5255	40.2579	39.8282	1.6950e-01	7.5658e-01
102	PRV000001	19.4847	19.6068	19.5824	4.9324e-02	7.5160e-01
103	PSR000001	17.9001	18.0222	18.0100	3.6993e-02	7.5135e-01
104	PFM000001	104.7944	106.5339	105.6349	4.0847e-01	5.6546e-01
105	PAN000136	539.2199	545.1708	541.3074	1.4480e+00	5.1027e+00
106	PFM000002	27.5702	27.5702	27.5702	9.6336e-06	2.1154e-01
107	EMPTY	0.0098	0.0146	0.0100	9.6655e-04	0.0000e+00
108	EMPTY	-6.9141	-5.0049	-6.1533	4.0893e-01	0.0000e+00
109	EMPTY	0.0049	0.0098	0.0074	2.4642e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0033	2.3008e-03	0.0000e+00
112	VPW000001	101.4911	102.0771	101.8154	1.4557e-01	1.0145e+00
113	VPW000002	118.8815	119.2721	118.9869	1.0595e-01	1.0797e+00
114	VPW000003	146.1463	146.5370	146.4354	1.0617e-01	1.1950e+00
115	VPW000004	104.1983	104.7889	104.6170	1.0168e-01	1.0247e+00
116	VPW000005	138.9011	139.5470	139.2228	1.3445e-01	1.1636e+00
117	VPW000006	146.7886	147.1792	147.0386	1.3111e-01	1.1977e+00
118	IPW000001	538.8844	550.5984	546.3813	2.5973e+00	9.1783e+00
119	IPW000002	1310.7277	1318.5327	1314.5911	1.8275e+00	1.3171e+01
120	IPW000003	1334.5874	1342.3875	1337.9420	2.2985e+00	1.3317e+01
121	IPW000004	381.5354	382.5120	381.9943	3.4751e-01	3.6203e+00
122	IPW000005	253.7964	255.2611	254.3724	3.3725e-01	2.8352e+00
123	IPW000006	264.2823	266.2354	265.1416	4.6855e-01	2.8961e+00
124	EMPTY	-0.0293	-0.0146	-0.0222	3.8473e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0143	3.3944e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0177	3.2554e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0161	3.1583e-03	0.0000e+00
128	IHT000001	128.8950	132.2153	130.4380	6.1416e-01	4.3025e+00
129	IHT000002	132.7749	136.0952	134.2319	5.9216e-01	4.3141e+00
130	IHT000003	132.3355	135.8511	134.0659	6.2889e-01	4.3136e+00
131	IHT000004	130.8519	134.1722	132.4691	6.3263e-01	4.3087e+00
132	IHT000005	129.4809	132.4106	130.8755	5.9714e-01	4.3038e+00
133	IHT000006	124.5493	127.0883	125.8227	6.0133e-01	4.2887e+00
134	IHT000007	131.3852	133.5337	132.5845	5.6083e-01	4.3090e+00
135	IHT000008	129.5297	132.0688	130.9985	5.3850e-01	4.3042e+00
136	IHT000009	130.0518	132.7862	131.7354	5.8646e-01	4.3064e+00
137	IHT000010	132.2791	135.4041	133.3495	5.6254e-01	4.3114e+00
138	IHT000011	130.7505	133.6801	131.8286	5.4852e-01	4.3067e+00
139	IHT000012	128.7410	131.6707	129.6239	5.8957e-01	4.3000e+00
140	IHT000013	91.7405	94.4749	92.4671	5.4824e-01	4.2030e+00
141	IHT000014	127.7344	130.4688	128.6406	5.4642e-01	4.2971e+00
142	IHT000015	95.4590	97.6074	96.4043	4.8706e-01	4.2118e+00
143	IHT000016	89.1226	91.2710	89.8374	4.5268e-01	4.1973e+00
144	IHT000017	104.5298	106.8735	105.7173	6.2991e-01	4.2341e+00
145	IHT000018	107.4444	109.7881	108.4014	5.5137e-01	4.2409e+00
146	IHT000019	102.7757	105.7054	103.9593	5.5300e-01	4.2297e+00
147	IHT000020	105.8030	108.5374	107.0491	5.4945e-01	4.2374e+00
148	IHT000021	-3.0010	-0.0714	-1.6182	6.2495e-01	4.1000e+00
149	IHT000022	92.3866	94.9256	93.6326	5.3654e-01	4.2056e+00
150	IHT000023	104.6575	106.8059	105.7355	5.1029e-01	4.2341e+00
151	IHT000024	70.2261	72.3746	71.2222	4.8848e-01	4.1614e+00
152	IHT000025	104.1091	106.4528	105.1208	5.0792e-01	4.2326e+00
153	IHT000026	104.9091	107.0575	106.0068	5.2034e-01	4.2348e+00
154	IHT000027	90.0053	92.1537	90.9975	5.7024e-01	4.1998e+00
155	IHT000028	91.5490	93.8927	92.5334	5.6491e-01	4.2031e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	104.6049	106.9486	105.6010	5.6943e-01	4.2338e+00
157	IHT000030	107.0162	109.3600	108.1647	5.1996e-01	4.2403e+00
158	IHT000031	105.9082	108.0566	106.8379	4.7770e-01	4.2369e+00
159	IHT000032	106.9336	109.2774	107.8828	5.0070e-01	4.2396e+00
160	IHT000033	106.9336	109.2773	107.8398	5.1714e-01	4.2395e+00
161	IHT000034	94.1031	96.2515	94.9468	4.2027e-01	4.2085e+00
162	IHT000035	123.8957	125.8488	124.9386	3.9382e-01	4.2861e+00
163	IHT000036	92.5856	94.3435	93.5036	4.2361e-01	4.2053e+00

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Velocity 1 = 19.7990 (ft/sec) (+/- 1.7223 %)
 Velocity 2 = 13.4154 (ft/sec) (+/- 1.7033 %)
 Pressure drop = 9.2600 (psi)
 Tsat in = 267.3809 (deg F) Tsat out = 252.5111 (deg F)
 Phi inner = 100.5047 (kBtu/hr-ft2) (+/- 1.4130 %)
 Phi outer = 100.6013 (kBtu/hr-ft2) (+/- 1.5428 %)
 D inner = 0.1961 (ft) D outer = 0.2413 (ft) D hyd = 0.0390 (ft)
 L inner = 12.8610 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	77.5250	78.1634	77.7846	1.8386e-01	1.9000e+00
1	TRF0000002	77.7766	78.4115	78.0349	1.4988e-01	1.9000e+00
2	TFH0000001	86.9465	87.6822	87.2998	2.0109e-01	1.9002e+00
3	TIN0000001	86.4191	87.0513	86.7269	1.6595e-01	1.9002e+00
4	TRV0000001	87.3057	88.0400	87.6713	1.7996e-01	1.9002e+00
5	TSR0000001	109.2058	110.9530	110.1807	3.0448e-01	1.9011e+00
6	TAO020136	69.0445	70.9665	70.1510	4.6397e-01	1.9000e+00
7	TAO050136	115.8876	116.8092	116.3258	2.0260e-01	1.9014e+00
8	TAO070136	117.1244	117.8452	117.4211	2.0443e-01	1.9015e+00
9	TAO080136	125.7946	126.5061	126.1079	1.6551e-01	1.9021e+00
10	TAO090136	125.7886	126.6026	126.2484	1.8993e-01	1.9021e+00
11	TAO100136	123.6797	124.4962	124.1655	1.8967e-01	1.9020e+00
12	TAO105136	123.0591	124.0821	123.6566	2.1608e-01	1.9019e+00
13	TAO110136	125.2118	125.8229	125.5661	1.7925e-01	1.9021e+00
14	TAO115136	123.1376	124.0576	123.5182	2.0232e-01	1.9019e+00
15	TAO120136	130.3987	131.1091	130.6906	1.8882e-01	1.9025e+00
16	TAO125136	91.2412	92.4960	91.8982	2.5351e-01	1.9003e+00
17	TAO130136	126.2825	126.9905	126.6426	1.6772e-01	1.9022e+00
18	TAO120048	85.7808	86.4131	86.0926	1.6197e-01	1.9002e+00
19	TAO130048	128.4197	129.1306	128.9109	1.7689e-01	1.9023e+00
20	TAO120224	128.3672	129.1812	128.7704	1.4967e-01	1.9023e+00
21	TAO130224	123.8525	124.9676	124.4607	2.1269e-01	1.9020e+00
22	TAO120312	128.9959	129.7087	129.3057	1.7812e-01	1.9024e+00
23	TAO130312	129.0095	129.5180	129.2659	1.5267e-01	1.9024e+00
24	TRT020000	113.7439	114.7754	114.3010	2.0518e-01	1.9013e+00
25	TRT070000	124.0141	124.7327	124.3836	1.6958e-01	1.9020e+00
26	TRT100000	131.7956	132.6059	132.2657	2.1819e-01	1.9026e+00
27	TRT120000	129.6030	130.3149	129.9690	1.6425e-01	1.9024e+00
28	TRT125000	-46.5107	261.9926	135.1348	6.5988e+01	1.9029e+00
29	TRT130000	130.1123	130.9244	130.5267	1.8657e-01	1.9025e+00
30	EMPTY	39.3761	40.0646	39.7571	2.1050e-01	1.9011e+00
31	TAFO50136	96.4442	97.2766	96.7778	1.9737e-01	1.9005e+00
32	TAFO70136	100.0540	100.7802	100.4234	1.8142e-01	1.9006e+00
33	TAFO80136	124.4831	126.4075	125.5285	3.9833e-01	1.9021e+00
34	TAFO90136	80.3481	81.5095	80.8384	2.6431e-01	1.9001e+00
35	TAFO100136	105.6419	106.6791	105.9451	2.2258e-01	1.9009e+00
36	TAFO105136	106.4335	107.4616	106.9440	2.6339e-01	1.9009e+00
37	TAFO110136	107.5170	108.2396	107.9381	1.6935e-01	1.9010e+00
38	TAFO115136	109.0456	109.8700	109.4823	1.9920e-01	1.9010e+00
39	TAFO120136	118.1591	118.7729	118.4541	1.6366e-01	1.9016e+00
40	TAFO125136	110.7133	111.7374	111.2207	2.5167e-01	1.9011e+00
41	TAFO130136	111.9578	112.4732	112.2259	1.5716e-01	1.9012e+00
42	TAFO120048	111.9187	113.0568	112.5394	2.4647e-01	1.9012e+00
43	TAFO130048	114.0827	114.7008	114.3999	1.4677e-01	1.9013e+00
44	TAFO120224	109.0729	110.1048	109.4737	2.1330e-01	1.9010e+00
45	TAFO130224	110.4486	111.0693	110.7920	1.6391e-01	1.9011e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	38.0756	2.0039e-01	1.9010e+00
47	EMPTY	39.1464	39.6057	39.3118	1.2309e-01	1.9010e+00
48	TAI130048	123.6686	124.7913	124.2809	2.8867e-01	1.9020e+00
49	TAI130136	124.8793	125.5926	125.2588	1.8518e-01	1.9021e+00
50	TAI130224	127.0114	128.0318	127.6196	2.9430e-01	1.9022e+00
51	TAI130312	122.3689	123.2903	122.7130	2.0223e-01	1.9019e+00
52	TRR130000	91.7935	93.4633	92.7710	3.9360e-01	1.9003e+00
53	TSI0000001	70.6420	71.1748	70.9489	1.3022e-01	1.9000e+00
54	TSI0000002	93.8941	96.7061	95.1360	6.4947e-01	1.9004e+00
55	TSO0000001	70.9400	71.6882	71.3036	1.9190e-01	1.9000e+00
56	TSO0000002	75.9716	76.9266	76.4472	2.2916e-01	1.9000e+00
57	TAFO20136	89.0203	89.9695	89.4973	1.9192e-01	1.9003e+00
58	TAFO120312	110.2249	111.4631	110.8237	2.7178e-01	1.9011e+00
59	TAFO130312	114.6351	115.4573	115.0587	2.1440e-01	1.9014e+00
60	EMPTY	1.0645	1.0742	1.0682	2.3261e-03	0.0000e+00
61	EMPTY	1.0742	1.0840	1.0781	2.2058e-03	0.0000e+00
62	EMPTY	1.0840	1.0889	1.0853	2.1635e-03	0.0000e+00
63	EMPTY	1.0938	1.1035	1.0983	1.5314e-03	0.0000e+00
64	EMPTY	0.6201	0.6299	0.6269	2.5894e-03	0.0000e+00
65	EMPTY	0.6445	0.6494	0.6493	6.9053e-04	0.0000e+00
66	EMPTY	0.6641	0.6641	0.6641	0.0000e+00	0.0000e+00
67	EMPTY	0.6787	0.6836	0.6832	1.3381e-03	0.0000e+00
68	EMPTY	0.6934	0.6982	0.6976	1.7115e-03	0.0000e+00
69	EMPTY	0.7129	0.7178	0.7132	1.1714e-03	0.0000e+00
70	EMPTY	0.7227	0.7324	0.7276	1.2041e-03	0.0000e+00
71	EMPTY	0.7520	0.7520	0.7520	0.0000e+00	0.0000e+00
72	EMPTY	0.7617	0.7666	0.7658	1.8082e-03	0.0000e+00
73	EMPTY	0.7813	0.7861	0.7852	1.9730e-03	0.0000e+00
74	EMPTY	0.7959	0.8008	0.8004	1.3381e-03	0.0000e+00
75	EMPTY	0.8154	0.8203	0.8162	1.8082e-03	0.0000e+00
76	EMPTY	0.8252	0.8350	0.8304	1.5314e-03	0.0000e+00
77	EMPTY	0.8447	0.8545	0.8500	1.6624e-03	0.0000e+00
78	EMPTY	0.8691	0.8740	0.8733	1.7115e-03	0.0000e+00
79	EMPTY	0.8936	0.8984	0.8938	9.6655e-04	0.0000e+00
80	PAN020136	32.4353	33.3509	32.8397	2.2719e-01	8.7387e-01
81	PAN050136	59.1824	61.0135	59.9362	3.8800e-01	1.6867e+00
82	PAN070136	40.9673	42.2643	41.5227	2.7618e-01	8.7617e-01
83	PAN080136	19.1851	20.3295	19.8198	2.2039e-01	8.7141e-01
84	PAN090136	22.4248	23.0351	22.6720	1.5610e-01	8.7184e-01
85	PAN100136	13.4748	14.1614	13.8547	1.4904e-01	8.7069e-01
86	PAN105136	8.9315	9.3893	9.1589	1.1788e-01	8.7030e-01
87	PAN110136	10.4150	10.9490	10.6271	1.2923e-01	8.7041e-01
88	PAN115136	10.4032	10.8610	10.6641	1.0464e-01	8.7041e-01
89	PAN120136	9.8442	10.3019	10.0090	8.7682e-02	8.7036e-01
90	PAN125136	11.2072	11.6649	11.4086	9.3453e-02	8.7047e-01
91	PAN130136	11.5359	11.8410	11.7007	8.2084e-02	8.7049e-01
92	PAN120048	17.1164	17.8030	17.4337	1.4652e-01	8.7109e-01
93	PAN130048	24.0621	24.7487	24.3306	1.4804e-01	8.7212e-01
94	PAN120224	19.0356	19.8748	19.3469	1.6154e-01	8.7134e-01
95	PAN130224	16.8450	17.4554	17.1395	1.5491e-01	8.7105e-01
96	PAN120312	19.8042	20.5672	20.1659	1.5930e-01	8.7146e-01
97	PAN130312	23.6454	24.2557	24.0146	1.3988e-01	8.7207e-01
98	PAB000136	39.7940	40.2975	40.0082	9.7190e-02	5.8856e-01
99	PAB100136	32.9557	33.1388	33.0638	4.8727e-02	5.8586e-01
100	PAB125136	31.0155	31.1528	31.0833	4.2622e-02	5.8518e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.4034	40.1358	39.7257	1.7044e-01	7.5655e-01
102	PRV0000001	19.6068	19.7289	19.7240	2.4164e-02	7.5162e-01
103	PSR0000001	29.1306	29.2527	29.1697	5.7521e-02	7.5354e-01
104	PFM0000001	59.6589	61.4899	60.3236	3.7261e-01	5.2225e-01
105	PAN000136	252.2021	261.3574	256.3677	2.1236e+00	4.9616e+00
106	PFM0000002	27.5702	27.5702	27.5702	9.6336e-06	2.1154e-01
107	EMPTY	0.0049	0.0146	0.0089	2.1364e-03	0.0000e+00
108	EMPTY	-6.7480	-4.1650	-5.6857	6.3216e-01	0.0000e+00
109	EMPTY	0.0049	0.0098	0.0051	9.6655e-04	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0005	1.4797e-03	0.0000e+00
112	VPW0000001	101.4911	102.0771	101.8506	1.4953e-01	1.0147e+00
113	VPW0000002	118.8815	119.2721	118.9947	1.1223e-01	1.0797e+00
114	VPW0000003	146.1463	146.7323	146.3808	1.3087e-01	1.1948e+00
115	VPW0000004	104.2030	104.7889	104.5545	1.6269e-01	1.0245e+00
116	VPW0000005	138.7658	139.5470	139.1915	1.4600e-01	1.1634e+00
117	VPW0000006	146.5933	147.3745	147.0112	1.6274e-01	1.1976e+00
118	IPW0000001	552.5508	558.4078	555.2841	1.4758e+00	9.2116e+00
119	IPW0000002	1295.1174	1302.9225	1299.6835	1.7457e+00	1.3078e+01
120	IPW0000003	1326.7874	1330.6874	1328.9719	1.2232e+00	1.3260e+01
121	IPW0000004	378.6057	380.5589	379.8459	5.3315e-01	3.6062e+00
122	IPW0000005	252.8199	254.7728	253.7963	4.0670e-01	2.8320e+00
123	IPW0000006	263.7940	265.2588	264.2823	4.0673e-01	2.8912e+00
124	EMPTY	-0.0293	-0.0146	-0.0213	3.9162e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0151	2.2603e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0176	3.2718e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0167	2.8058e-03	0.0000e+00
128	IHT0000001	129.0903	131.4341	130.1684	5.7350e-01	4.3017e+00
129	IHT0000002	132.9702	135.1187	134.0249	5.1599e-01	4.3135e+00
130	IHT0000003	133.1167	134.8745	134.0112	4.9140e-01	4.3135e+00
131	IHT0000004	131.4378	133.5863	132.3519	5.2562e-01	4.3083e+00
132	IHT0000005	129.8716	132.0200	130.7231	5.0031e-01	4.3034e+00
133	IHT0000006	124.7446	126.8930	125.5962	4.5807e-01	4.2881e+00
134	IHT0000007	131.5806	133.7290	132.4790	4.8808e-01	4.3087e+00
135	IHT0000008	130.1157	132.4594	130.9868	4.3443e-01	4.3042e+00
136	IHT0000009	130.4425	133.1768	131.6807	5.4047e-01	4.3063e+00
137	IHT0000010	132.0838	134.4276	133.3065	5.4076e-01	4.3113e+00
138	IHT0000011	130.7505	132.7036	131.7622	5.0792e-01	4.3065e+00
139	IHT0000012	128.5457	130.6941	129.6239	5.5837e-01	4.3000e+00
140	IHT0000013	91.3499	93.6936	92.5413	5.6806e-01	4.2031e+00
141	IHT0000014	127.7344	129.8828	128.8047	5.7756e-01	4.2976e+00
142	IHT0000015	95.2636	97.8027	96.3105	5.9420e-01	4.2116e+00
143	IHT0000016	88.7320	91.4664	89.8687	5.9802e-01	4.1973e+00
144	IHT0000017	104.1391	106.4829	105.3970	6.3031e-01	4.2333e+00
145	IHT0000018	107.2491	110.1788	108.4365	6.5773e-01	4.2410e+00
146	IHT0000019	102.9710	105.9007	103.9984	6.2988e-01	4.2298e+00
147	IHT0000020	105.9983	108.5374	106.9085	5.6305e-01	4.2371e+00
148	IHT0000021	-2.8057	0.1240	-1.6182	6.9457e-01	4.1000e+00
149	IHT0000022	92.5819	95.1209	93.6248	5.6581e-01	4.2055e+00
150	IHT0000023	104.6575	107.0012	105.7238	5.4134e-01	4.2341e+00
151	IHT0000024	70.2261	72.5699	71.1870	5.4511e-01	4.1613e+00
152	IHT0000025	104.3044	106.4528	105.2145	5.4621e-01	4.2328e+00
153	IHT0000026	105.1044	107.0575	106.1396	5.2386e-01	4.2352e+00
154	IHT0000027	90.0053	92.3490	91.0873	5.3701e-01	4.2000e+00
155	IHT0000028	91.5490	93.6974	92.5099	5.5079e-01	4.2031e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	104.6049	106.9486	105.5971	5.5921e-01	4.2338e+00
157	IHT0000030	107.0162	109.5553	108.0709	5.4676e-01	4.2400e+00
158	IHT0000031	105.7129	108.4473	106.7559	5.7129e-01	4.2367e+00
159	IHT0000032	106.7383	109.4727	107.8242	5.4413e-01	4.2394e+00
160	IHT0000033	106.7383	109.4726	107.7617	5.3896e-01	4.2393e+00
161	IHT0000034	93.9077	95.8609	94.8140	4.1715e-01	4.2082e+00
162	IHT0000035	124.0910	126.0442	124.9347	4.6428e-01	4.2861e+00
163	IHT0000036	92.5856	94.3435	93.4333	4.2427e-01	4.2051e+00

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Velocity 1 = 14.0468 (ft/sec) (+/- 1.8649 %)
 Velocity 2 = 13.4155 (ft/sec) (+/- 1.7033 %)
 Pressure drop = 2.2742 (psi)
 Tsat in = 267.7224 (deg F) Tsat out = 264.3325 (deg F)
 Phi inner = 99.9101 (kBtu/hr-ft2) (+/- 1.4148 %)
 Phi outer = 100.3663 (kBtu/hr-ft2) (+/- 1.5433 %)
 D inner = 0.1961 (ft) D outer = 0.2413 (ft) D hyd = 0.0390 (ft)
 L inner = 12.8610 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	77.7378	78.5887	78.1591	1.8973e-01	1.9000e+00
1	TRF000002	78.1999	78.6230	78.4580	1.4361e-01	1.9000e+00
2	TFM000001	87.0529	87.8935	87.4523	1.9101e-01	1.9002e+00
3	TIN000001	86.5249	87.1568	86.7735	1.3584e-01	1.9002e+00
4	TRV000001	87.3086	88.2519	87.8538	1.9170e-01	1.9002e+00
5	TSR000001	117.8094	119.2387	118.6749	2.8382e-01	1.9016e+00
6	TAO020136	68.5101	71.1800	70.1254	6.6008e-01	1.9000e+00
7	TAO050136	126.0548	126.8668	126.4286	1.8642e-01	1.9021e+00
8	TAO070136	126.7748	127.6947	127.2370	2.1480e-01	1.9022e+00
9	TAO080136	137.7906	138.4980	138.0820	1.6383e-01	1.9031e+00
10	TAO090136	139.2403	140.0475	139.5477	2.0265e-01	1.9033e+00
11	TAO100136	135.9499	136.7584	136.3946	1.8158e-01	1.9030e+00
12	TAO105136	136.4896	137.5011	136.9347	2.2310e-01	1.9030e+00
13	TAO110136	139.2780	139.8821	139.5603	1.7470e-01	1.9033e+00
14	TAO115136	136.8571	137.8690	137.2905	2.2760e-01	1.9030e+00
15	TAO120136	145.4382	146.2425	145.8040	1.7662e-01	1.9039e+00
16	TAO125136	96.5608	97.9154	97.3731	3.1272e-01	1.9005e+00
17	TAO130136	140.7631	141.4673	141.1049	1.5038e-01	1.9034e+00
18	TAO120048	86.8320	87.5693	87.1691	1.7528e-01	1.9002e+00
19	TAO130048	144.0219	144.8249	144.3555	1.6781e-01	1.9037e+00
20	TAO120224	143.4222	144.2263	143.7763	1.9834e-01	1.9037e+00
21	TAO130224	137.5302	138.7347	138.0633	2.6233e-01	1.9031e+00
22	TAO120312	144.4731	145.5799	145.0204	2.4394e-01	1.9038e+00
23	TAO130312	143.6246	144.3291	144.0346	1.9034e-01	1.9037e+00
24	TRT020000	123.1975	124.1188	123.6521	2.0071e-01	1.9019e+00
25	TRT070000	136.8925	137.7043	137.3023	1.9671e-01	1.9030e+00
26	TRT100000	146.4775	147.2783	146.9177	1.9318e-01	1.9040e+00
27	TRT120000	145.7358	146.5394	146.0972	1.8704e-01	1.9039e+00
28	TRT125000	450.0835	450.5125	450.2723	1.0817e-01	1.9950e+00
29	TRT130000	146.3175	147.1202	146.7023	1.8163e-01	1.9040e+00
30	EMPTY	39.3761	40.0646	39.8903	1.8868e-01	1.9011e+00
31	TAFO50136	100.2829	101.3205	100.8225	2.2970e-01	1.9006e+00
32	TAFO70136	105.6275	106.7620	106.0733	2.3793e-01	1.9009e+00
33	TAFO80136	136.7728	138.3782	137.4516	4.0546e-01	1.9031e+00
34	TAFO90136	80.7716	82.0379	81.4471	2.9313e-01	1.9001e+00
35	TAF100136	113.2922	114.2200	113.6635	2.1545e-01	1.9013e+00
36	TAF105136	114.6170	115.4371	115.0791	2.1871e-01	1.9014e+00
37	TAF110136	116.0324	116.8534	116.4392	1.9223e-01	1.9015e+00
38	TAF115136	117.9716	118.7908	118.3976	2.1347e-01	1.9016e+00
39	TAF120136	130.3401	131.1516	130.6483	1.8757e-01	1.9025e+00
40	TAF125136	120.4918	121.7131	121.0094	2.7304e-01	1.9018e+00
41	TAF130136	122.0899	123.0103	122.5521	1.6681e-01	1.9019e+00
42	TAF120048	122.2386	123.2656	122.8099	2.3021e-01	1.9019e+00
43	TAF130048	125.1254	125.8401	125.4967	1.5536e-01	1.9021e+00
44	TAF120224	118.4200	119.3421	118.8053	2.0869e-01	1.9016e+00
45	TAF130224	120.4616	121.0780	120.7782	1.4349e-01	1.9017e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	38.1078	2.0898e-01	1.9010e+00
47	EMPTY	39.3761	39.6057	39.4450	1.0627e-01	1.9010e+00
48	TAI130048	138.2831	139.8984	139.0302	3.4365e-01	1.9032e+00
49	TAI130136	139.3363	140.2428	139.7634	2.2990e-01	1.9033e+00
50	TAI130224	142.0249	143.2348	142.6341	2.7857e-01	1.9036e+00
51	TAI130312	136.2045	136.9134	136.5448	1.7441e-01	1.9030e+00
52	TRR130000	89.1857	90.4412	89.6799	2.8202e-01	1.9003e+00
53	TSI000001	70.7501	71.4962	71.1420	2.0097e-01	1.9000e+00
54	TSI000002	90.1364	94.4190	92.1935	9.7494e-01	1.9003e+00
55	TSO000001	71.0458	71.9008	71.4094	2.1258e-01	1.9000e+00
56	TSO000002	77.0325	77.9866	77.4906	2.3113e-01	1.9000e+00
57	TAF020136	90.4963	91.4443	90.9432	2.2872e-01	1.9003e+00
58	TAF120312	120.3975	121.4220	120.9055	2.6480e-01	1.9017e+00
59	TAF130312	125.9735	127.1946	126.7143	2.7284e-01	1.9022e+00
60	EMPTY	1.3330	1.3428	1.3354	2.6543e-03	0.0000e+00
61	EMPTY	1.3379	1.3428	1.3421	1.7115e-03	0.0000e+00
62	EMPTY	1.3428	1.3525	1.3479	1.5314e-03	0.0000e+00
63	EMPTY	1.3574	1.3623	1.3585	2.0432e-03	0.0000e+00
64	EMPTY	0.7422	0.7471	0.7428	1.6028e-03	0.0000e+00
65	EMPTY	0.7617	0.7666	0.7653	2.1635e-03	0.0000e+00
66	EMPTY	0.7764	0.7813	0.7806	1.7115e-03	0.0000e+00
67	EMPTY	0.7959	0.8008	0.7972	2.1635e-03	0.0000e+00
68	EMPTY	0.8057	0.8154	0.8106	1.5566e-03	0.0000e+00
69	EMPTY	0.8252	0.8301	0.8286	2.603e-03	0.0000e+00
70	EMPTY	0.8350	0.8447	0.8433	2.4662e-03	0.0000e+00
71	EMPTY	0.8594	0.8643	0.8642	6.9053e-04	0.0000e+00
72	EMPTY	0.8740	0.8789	0.8779	1.9730e-03	0.0000e+00
73	EMPTY	0.8936	0.8984	0.8976	1.8950e-03	0.0000e+00
74	EMPTY	0.9082	0.9131	0.9128	1.1714e-03	0.0000e+00
75	EMPTY	0.9277	0.9326	0.9281	1.331e-03	0.0000e+00
76	EMPTY	0.9424	0.9424	0.9424	0.0000e+00	0.0000e+00
77	EMPTY	0.9570	0.9668	0.9615	1.6624e-03	0.0000e+00
78	EMPTY	0.9814	0.9863	0.9817	1.1714e-03	0.0000e+00
79	EMPTY	1.0010	1.0059	1.0044	2.2603e-03	0.0000e+00
80	PANO20136	8.1739	8.7842	8.5279	1.1406e-01	8.7026e-01
81	PANO50136	13.7112	14.9319	14.4223	2.7158e-01	1.6804e+00
82	PANO70136	10.6786	11.4415	11.0967	1.4642e-01	8.7044e-01
83	PANO80136	4.3078	4.8418	4.5428	1.2602e-01	8.7007e-01
84	PANO90136	4.7246	5.3349	5.0633	1.1653e-01	8.7009e-01
85	PANI00136	1.8018	2.4122	2.1436	1.3101e-01	8.7002e-01
86	PANI05136	1.5310	1.8362	1.6821	8.9200e-02	8.7001e-01
87	PANI10136	2.4041	2.9382	2.6086	1.1983e-01	8.7002e-01
88	PANI15136	2.3161	2.9264	2.5465	1.3914e-01	8.7002e-01
89	PANI20136	2.1385	2.5200	2.3781	9.3771e-02	8.7002e-01
90	PANI25136	2.7385	3.1963	2.9979	8.9877e-02	8.7003e-01
91	PANI30136	3.2198	3.5250	3.3480	6.4370e-02	8.7004e-01
92	PANI20048	3.0020	3.4597	3.2110	1.1411e-01	8.7004e-01
93	PANI30048	6.6671	7.1248	6.8837	9.2943e-02	8.7017e-01
94	PANI20224	4.0820	4.7686	4.4619	1.3033e-01	8.7007e-01
95	PANI30224	2.8069	3.1884	3.0099	9.1980e-02	8.7003e-01
96	PANI20312	4.6980	5.1558	4.9651	9.8996e-02	8.7009e-01
97	PANI30312	6.8607	7.3185	7.0194	1.0436e-01	8.7018e-01
98	PAB000136	40.1144	40.3891	40.2380	6.2211e-02	5.8866e-01
99	PAB100136	38.4489	38.6320	38.5212	4.2471e-02	5.8794e-01
100	PAB125136	37.8820	38.0651	38.0083	3.8754e-02	5.8773e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.7696	40.2579	40.0431	1.2468e-01	7.5665e-01
102	PRV000001	19.6068	19.8509	19.7167	5.0842e-02	7.5162e-01
103	PSR000001	37.0652	37.3093	37.1262	6.6404e-02	7.5572e-01
104	PFM000001	29.8127	30.6367	30.2448	1.8957e-01	5.0568e-01
105	PAN000136	59.4836	66.3500	62.9626	1.6440e+00	4.9225e+00
106	PFM000002	27.5702	27.5702	27.5702	9.6336e-06	2.1154e-01
107	EMPTY	0.0049	0.0098	0.0061	2.1065e-03	0.0000e+00
108	EMPTY	-6.6064	-3.9795	-5.5696	6.4053e-01	0.0000e+00
109	EMPTY	0.0049	0.0098	0.0050	6.9053e-04	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0002	9.6655e-04	0.0000e+00
112	VPW000001	101.4911	102.2724	101.8076	2.0462e-01	1.0145e+00
113	VPW000002	119.0768	119.2721	119.1431	9.3461e-02	1.0803e+00
114	VPW000003	146.3417	146.7323	146.4706	1.1578e-01	1.1952e+00
115	VPW000004	104.3983	104.7889	104.6756	1.0507e-01	1.0250e+00
116	VPW000005	139.1564	139.5470	139.3204	1.2701e-01	1.1640e+00
117	VPW000006	146.7886	147.3745	147.1441	1.3491e-01	1.1981e+00
118	IPW000001	556.4554	566.2172	560.9850	2.7734e+00	9.2331e+00
119	IPW000002	1279.5073	1293.1661	1286.0248	3.6046e+00	1.2993e+01
120	IPW000003	1317.0375	1324.8374	1320.1573	1.9698e+00	1.3205e+01
121	IPW000004	381.5354	382.5120	381.8576	2.7213e-01	3.6194e+00
122	IPW000005	252.3317	253.7964	253.2204	3.2250e-01	2.8287e+00
123	IPW000006	261.8409	263.3057	262.6221	3.5568e-01	2.8817e+00
124	EMPTY	-0.0293	-0.0098	-0.0188	4.3011e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0130	3.3613e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0098	-0.0146	2.8744e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0165	2.9413e-03	0.0000e+00
128	IHT000001	129.2856	132.0200	130.4106	6.4785e-01	4.3024e+00
129	IHT000002	132.9702	135.7046	134.1655	6.3336e-01	4.3139e+00
130	IHT000003	133.1167	135.4605	134.1909	6.0393e-01	4.3140e+00
131	IHT000004	131.4378	133.7816	132.4457	5.7094e-01	4.3086e+00
132	IHT000005	129.8716	132.2153	130.9145	5.8209e-01	4.3039e+00
133	IHT000006	124.5493	126.8930	125.7134	5.2193e-01	4.2884e+00
134	IHT000007	131.5806	133.9243	132.6470	5.3410e-01	4.3092e+00
135	IHT000008	130.3110	132.4594	131.1860	4.7881e-01	4.3048e+00
136	IHT000009	130.8331	133.3721	131.8291	5.6531e-01	4.3067e+00
137	IHT000010	132.0838	134.8182	133.5057	5.5389e-01	4.3119e+00
138	IHT000011	130.7505	133.2895	131.8442	5.2348e-01	4.3068e+00
139	IHT000012	128.3504	131.4754	129.7215	6.0424e-01	4.3003e+00
140	IHT000013	91.3499	94.0843	92.6155	5.8692e-01	4.2033e+00
141	IHT000014	127.7344	130.2734	128.9883	5.4973e-01	4.2981e+00
142	IHT000015	95.0683	97.8027	96.4629	5.1601e-01	4.2119e+00
143	IHT000016	88.7320	91.0757	89.8960	5.0062e-01	4.1974e+00
144	IHT000017	105.1157	109.4126	107.2212	8.9832e-01	4.2379e+00
145	IHT000018	107.6397	110.1788	108.9600	5.2432e-01	4.2423e+00
146	IHT000019	103.5569	105.5101	104.4515	5.2658e-01	4.2310e+00
147	IHT000020	106.1936	108.1468	107.2132	5.0423e-01	4.2379e+00
148	IHT000021	-2.4151	0.1240	-1.2667	6.1970e-01	4.1000e+00
149	IHT000022	92.9725	94.9256	93.7303	4.7127e-01	4.2058e+00
150	IHT000023	104.8528	107.0012	105.9582	4.8425e-01	4.2347e+00
151	IHT000024	70.4214	72.5699	71.3863	4.7582e-01	4.1617e+00
152	IHT000025	104.6950	106.6481	105.4958	5.2237e-01	4.2335e+00
153	IHT000026	105.2997	107.2528	106.4013	5.6601e-01	4.2358e+00
154	IHT000027	90.0053	92.1537	91.1498	5.7994e-01	4.2001e+00
155	IHT000028	91.1584	93.8927	92.6076	6.9148e-01	4.2033e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	104.6049	107.1439	105.8627	6.8021e-01	4.2345e+00
157	IHT000030	107.0162	109.7506	108.3366	7.0538e-01	4.2407e+00
158	IHT000031	105.5176	108.4473	106.8926	6.7308e-01	4.2371e+00
159	IHT000032	106.9336	109.2774	107.9649	6.3263e-01	4.2398e+00
160	IHT000033	106.7383	109.2773	107.9297	6.4022e-01	4.2397e+00
161	IHT000034	94.1031	96.0562	94.9780	5.4710e-01	4.2086e+00
162	IHT000035	124.0910	126.4348	125.0011	5.2439e-01	4.2863e+00
163	IHT000036	92.9763	94.9294	93.6521	4.8038e-01	4.2056e+00

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Velocity 1 = 8.0617 (ft/sec) (+/- 3.0359 %)
 Velocity 2 = 8.0653 (ft/sec) (+/- 1.9040 %)
 Pressure drop = -2.6884 (psi)
 Tsat in = 268.0487 (deg F) Tsat out = 271.6555 (deg F)
 Phi inner = 100.4013 (kBtu/hr-ft2) (+/- 1.4134 %)
 Phi outer = 100.7615 (kBtu/hr-ft2) (+/- 1.5425 %)
 D inner = 0.1961 (ft) D outer = 0.2413 (ft) D hyd = 0.0390 (ft)
 L inner = 12.8610 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	78.1634	78.8014	78.5334	1.7083e-01	1.9000e+00
1	TRF000002	78.6230	79.0460	78.8260	1.2789e-01	1.9001e+00
2	TFN000001	86.2151	87.0563	86.6586	1.9370e-01	1.9002e+00
3	TIN000001	85.7881	86.5258	86.0433	1.6502e-01	1.9002e+00
4	TRV000001	86.7909	87.5220	87.1348	1.8000e-01	1.9002e+00
5	TSR000001	128.3826	131.2134	129.8398	7.1617e-01	1.9024e+00
6	TAO020136	70.4325	73.0976	71.7361	6.4512e-01	1.9000e+00
7	TAO050136	148.1447	149.3407	148.7004	2.3673e-01	1.9042e+00
8	TAO070136	151.9014	152.9053	152.3891	2.7196e-01	1.9046e+00
9	TAO080136	165.3026	165.9912	165.5728	1.7456e-01	1.9061e+00
10	TAO090136	169.1949	170.1797	169.7006	2.3042e-01	1.9067e+00
11	TAO100136	165.1982	166.1876	165.6752	2.2397e-01	1.9062e+00
12	TAO105136	167.8035	168.7926	168.2051	2.1922e-01	1.9065e+00
13	TAO110136	172.0497	172.8344	172.5099	1.8797e-01	1.9071e+00
14	TAO115136	169.6142	170.4047	169.9919	2.3399e-01	1.9067e+00
15	TAO120136	180.4164	181.2973	180.8257	1.8100e-01	1.9083e+00
16	TAO125136	116.3842	118.0240	117.2881	4.0442e-01	1.9015e+00
17	TAO130136	173.5321	174.2158	173.8470	1.6595e-01	1.9073e+00
18	TAO120048	87.4632	88.0946	87.8105	1.3810e-01	1.9002e+00
19	TAO130048	179.5758	180.4548	180.0116	1.8006e-01	1.9081e+00
20	TAO120224	177.8423	178.7244	178.2959	1.9298e-01	1.9079e+00
21	TAO130224	168.6732	169.5564	169.2087	2.0116e-01	1.9066e+00
22	TAO120312	181.1838	182.0660	181.5624	2.3748e-01	1.9084e+00
23	TAO130312	177.6750	178.5565	178.1275	1.7583e-01	1.9079e+00
24	TRT020000	143.7169	144.9265	144.3077	2.4767e-01	1.9037e+00
25	TRT070000	165.4717	166.4655	165.9190	1.9079e-01	1.9062e+00
26	TRT100000	181.1317	181.9138	181.5401	1.7172e-01	1.9084e+00
27	TRT120000	183.6868	184.4669	184.0592	1.8678e-01	1.9087e+00
28	TRT125000	238.7853	240.7693	239.7743	3.7673e+01	1.9901e+00
29	TRT130000	182.2529	183.1316	182.5750	1.9557e-01	1.9085e+00
30	EMPTY	39.3761	40.2940	39.8673	2.0215e-01	1.9011e+00
31	TAF050136	109.4670	110.6992	110.0528	2.6131e-01	1.9011e+00
32	TAF070136	117.6159	118.6368	118.1371	2.1477e-01	1.9016e+00
33	TAF080136	163.8657	165.7322	164.8964	3.7867e-01	1.9061e+00
34	TAF090136	80.6676	81.8287	81.2566	2.8601e-01	1.9001e+00
35	TAF100136	132.0177	133.2365	132.5764	2.6304e-01	1.9026e+00
36	TAF105136	134.4430	135.2485	134.8554	2.1711e-01	1.9028e+00
37	TAF110136	136.7247	137.5327	136.9979	1.7558e-01	1.9030e+00
38	TAF115136	139.5671	140.7742	140.1731	2.3043e-01	1.9033e+00
39	TAF120136	159.7132	160.7025	160.1382	2.4337e-01	1.9055e+00
40	TAF125136	144.4208	145.9178	145.0899	3.6914e-01	1.9038e+00
41	TAF130136	147.3313	148.1310	147.6930	2.0307e-01	1.9041e+00
42	TAF120048	147.4891	148.3966	147.9469	2.3678e-01	1.9041e+00
43	TAF130048	152.3289	153.1273	152.6826	1.8393e-01	1.9046e+00
44	TAF120224	140.9412	141.9479	141.4665	2.6132e-01	1.9034e+00
45	TAF130224	144.7105	145.6183	145.0921	2.0305e-01	1.9038e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.6870	38.1124	2.0901e-01	1.9010e+00
47	EMPTY	39.3761	39.6057	39.5276	1.0986e-01	1.9011e+00
48	TAI130048	174.0377	175.6108	174.8145	3.5756e-01	1.9074e+00
49	TAI130136	173.9736	174.6619	174.3258	1.6845e-01	1.9073e+00
50	TAI130224	177.2703	178.4500	177.8307	2.7100e-01	1.9078e+00
51	TAI130312	169.3883	170.1784	169.8087	1.9630e-01	1.9067e+00
52	TRR130000	94.5083	96.1731	95.3971	4.1789e-01	1.9004e+00
53	TSI000001	70.9641	71.7089	71.3031	1.9426e-01	1.9000e+00
54	TSI000002	75.3092	82.6939	78.3165	1.6030e+00	1.9000e+00
55	TSO000001	70.9376	71.6864	71.3292	1.8018e-01	1.9000e+00
56	TSO000002	79.4678	80.4201	79.9523	1.9363e-01	1.9001e+00
57	TAF020136	93.1294	94.1813	93.7458	2.3837e-01	1.9004e+00
58	TAF120312	145.0330	146.1384	145.5896	2.6867e-01	1.9038e+00
59	TAF130312	154.6423	156.0334	155.3286	3.0097e-01	1.9049e+00
60	EMPTY	2.0117	2.0215	2.0151	3.0003e-03	0.0000e+00
61	EMPTY	2.0117	2.0215	2.0168	2.6025e-03	0.0000e+00
62	EMPTY	2.0117	2.0215	2.0176	2.4164e-03	0.0000e+00
63	EMPTY	2.0166	2.0264	2.0238	2.8317e-03	0.0000e+00
64	EMPTY	1.0303	1.0400	1.0351	1.2041e-03	0.0000e+00
65	EMPTY	1.0498	1.0596	1.0546	1.2041e-03	0.0000e+00
66	EMPTY	1.0645	1.0693	1.0687	1.7115e-03	0.0000e+00
67	EMPTY	1.0840	1.0889	1.0847	1.7115e-03	0.0000e+00
68	EMPTY	1.0938	1.0986	1.0972	2.2603e-03	0.0000e+00
69	EMPTY	1.1084	1.1133	1.1125	1.8082e-03	0.0000e+00
70	EMPTY	1.1230	1.1328	1.1244	2.4244e-03	0.0000e+00
71	EMPTY	1.1426	1.1475	1.1447	2.4484e-03	0.0000e+00
72	EMPTY	1.1523	1.1572	1.1569	1.7114e-03	0.0000e+00
73	EMPTY	1.1719	1.1768	1.1729	2.0432e-03	0.0000e+00
74	EMPTY	1.1865	1.1914	1.1866	6.9053e-04	0.0000e+00
75	EMPTY	1.2012	1.2109	1.2023	2.3261e-03	0.0000e+00
76	EMPTY	1.2109	1.2207	1.2157	1.2041e-03	0.0000e+00
77	EMPTY	1.2305	1.2354	1.2312	1.7115e-03	0.0000e+00
78	EMPTY	1.2500	1.2549	1.2505	1.4797e-03	0.0000e+00
79	EMPTY	1.2695	1.2744	1.2710	2.2603e-03	0.0000e+00
80	PAN020136	-9.2212	-8.8397	-9.0411	1.0312e-01	8.7029e-01
81	PAN050136	-18.3322	-17.5693	-17.9752	1.7332e-01	1.6806e+00
82	PAN070136	-11.9044	-11.3704	-11.5947	1.2934e-01	8.7048e-01
83	PAN080136	-6.5260	-6.0682	-6.3261	1.0212e-01	8.7014e-01
84	PAN090136	-6.1855	-5.8040	-5.9917	8.6110e-02	8.7013e-01
85	PAN100136	-6.8194	-6.4379	-6.6165	9.1980e-02	8.7016e-01
86	PAN105136	-3.2755	-3.0466	-3.1580	8.3305e-02	8.7004e-01
87	PAN110136	-3.0891	-2.8602	-3.0051	7.1054e-02	8.7003e-01
88	PAN115136	-3.1008	-2.7956	-2.9330	8.0092e-02	8.7003e-01
89	PAN120136	-3.2784	-3.0495	-3.1029	6.0192e-02	8.7003e-01
90	PAN125136	-3.1361	-2.8309	-2.9606	7.8972e-02	8.7003e-01
91	PAN130136	-2.7311	-2.5022	-2.5770	6.0664e-02	8.7002e-01
92	PAN120048	-7.2214	-6.8399	-6.9620	8.3005e-02	8.7017e-01
93	PAN130048	-5.6163	-5.2348	-5.4240	6.9345e-02	8.7011e-01
94	PAN120224	-6.4466	-6.0651	-6.2879	8.1328e-02	8.7014e-01
95	PAN130224	-6.7298	-6.4246	-6.5589	7.1570e-02	8.7015e-01
96	PAN120312	-6.1357	-5.7542	-5.8992	9.5329e-02	8.7012e-01
97	PAN130312	-5.5752	-5.1937	-5.3890	9.0088e-02	8.7010e-01
98	PAB000136	40.2975	40.6180	40.4586	6.8736e-02	5.8875e-01
99	PAB100136	42.3399	42.6145	42.4809	5.0519e-02	5.8964e-01
100	PAB125136	42.8716	43.1462	42.9686	5.1192e-02	5.8986e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.8917	40.6241	40.2433	1.5130e-01	7.5672e-01
102	PRV000001	19.6068	19.8509	19.6703	6.6358e-02	7.5161e-01
103	PSR000001	42.8025	43.0466	42.9197	4.9077e-02	7.5764e-01
104	PFM000001	9.6711	10.1288	9.8652	1.2078e-01	5.0061e-01
105	PAN000136	-76.9300	-70.9791	-74.4306	1.2276e+00	4.9235e+00
106	PFM000002	9.7836	10.0017	9.8739	5.5898e-02	2.0152e-01
107	EMPTY	0.0049	0.0049	0.0049	0.0000e+00	0.0000e+00
108	EMPTY	-6.4893	-1.2549	-5.2139	1.0095e+00	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0033	2.3008e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0001	6.9053e-04	0.0000e+00
112	VPW000001	101.8818	102.4677	102.1201	1.4916e-01	1.0156e+00
113	VPW000002	118.8815	119.4674	119.1900	1.4812e-01	1.0805e+00
114	VPW000003	146.3417	146.9276	146.6854	1.2200e-01	1.1961e+00
115	VPW000004	104.5936	104.9842	104.7850	1.2780e-01	1.0254e+00
116	VPW000005	139.3517	139.9377	139.5626	1.6667e-01	1.1650e+00
117	VPW000006	146.9839	147.7652	147.3862	1.7384e-01	1.1992e+00
118	IPW000001	550.5984	560.3602	555.6746	1.9722e+00	9.2131e+00
119	IPW000002	1275.6047	1304.8738	1294.6882	6.2492e+00	1.3047e+01
120	IPW000003	1318.9874	1326.7874	1324.3300	1.8815e+00	1.3231e+01
121	IPW000004	383.0003	385.4417	384.0939	6.1257e-01	3.6342e+00
122	IPW000005	252.8199	254.7728	253.6597	4.6307e-01	2.8312e+00
123	IPW000006	262.8174	265.2588	263.8526	5.1863e-01	2.8887e+00
124	EMPTY	-0.0293	-0.0098	-0.0191	4.5034e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0134	3.0897e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0098	-0.0148	3.1133e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0162	3.3366e-03	0.0000e+00
128	IHT000001	128.6997	131.8247	130.2231	6.4718e-01	4.3018e+00
129	IHT000002	132.5796	135.1187	133.9859	5.7182e-01	4.3134e+00
130	IHT000003	132.5308	135.2652	134.1441	5.6194e-01	4.3139e+00
131	IHT000004	130.8519	133.5863	132.4379	5.9535e-01	4.3086e+00
132	IHT000005	129.2856	132.0200	130.8364	5.8315e-01	4.3037e+00
133	IHT000006	124.1587	126.6977	125.6938	5.9058e-01	4.2883e+00
134	IHT000007	130.9946	133.7290	132.6548	6.0650e-01	4.3093e+00
135	IHT000008	129.9204	132.2641	131.1899	5.5838e-01	4.3048e+00
136	IHT000009	130.6378	132.7862	131.7510	5.2830e-01	4.3065e+00
137	IHT000010	132.4745	134.6229	133.4901	4.4293e-01	4.3118e+00
138	IHT000011	130.7505	132.8989	131.8442	4.4817e-01	4.3068e+00
139	IHT000012	128.7410	130.8894	129.6629	5.0229e-01	4.3001e+00
140	IHT000013	91.5452	93.4983	92.5530	4.6078e-01	4.2032e+00
141	IHT000014	128.3203	130.2734	128.9648	4.3090e-01	4.2980e+00
142	IHT000015	95.6543	97.6074	96.3691	4.6956e-01	4.2117e+00
143	IHT000016	89.1226	90.8804	89.9468	4.4867e-01	4.1975e+00
144	IHT000017	104.9204	108.4360	106.9438	8.2086e-01	4.2372e+00
145	IHT000018	107.8350	109.3975	108.6045	4.1085e-01	4.2414e+00
146	IHT000019	102.9710	105.1194	104.2327	4.0474e-01	4.2304e+00
147	IHT000020	105.8030	108.1468	107.0140	4.2499e-01	4.2374e+00
148	IHT000021	-2.8057	-0.0714	-1.3253	5.3538e-01	4.1000e+00
149	IHT000022	92.5819	94.7303	93.6912	4.6928e-01	4.2057e+00
150	IHT000023	104.6575	106.8059	105.7746	4.7685e-01	4.2342e+00
151	IHT000024	70.0308	71.9839	71.1089	4.4159e-01	4.1612e+00
152	IHT000025	104.3044	106.2575	105.3591	4.3405e-01	4.2332e+00
153	IHT000026	105.1044	107.2528	106.2451	4.7410e-01	4.2354e+00
154	IHT000027	90.2006	91.9584	91.1967	4.7392e-01	4.2002e+00
155	IHT000028	91.5490	94.0881	92.6076	5.3828e-01	4.2033e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	104.6049	107.5345	105.7143	5.9378e-01	4.2341e+00
157	IHT000030	107.0162	109.7506	108.1959	5.5937e-01	4.2404e+00
158	IHT000031	105.7129	108.2520	106.8340	5.3205e-01	4.2369e+00
159	IHT000032	106.7383	109.2774	107.8867	5.0012e-01	4.2396e+00
160	IHT000033	106.7383	109.2773	107.8359	5.0669e-01	4.2394e+00
161	IHT000034	93.7124	96.2515	94.9155	4.0695e-01	4.2084e+00
162	IHT000035	123.8957	126.4348	125.0050	4.3304e-01	4.2863e+00
163	IHT000036	92.5856	94.9294	93.5427	4.2177e-01	4.2054e+00

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Velocity 1 = 6.1130 (ft/sec) (+/- 4.7448 %)
 Velocity 2 = 6.1143 (ft/sec) (+/- 2.3126 %)
 Pressure drop = -3.7721 (psi)
 Tsat in = 267.9892 (deg F) Tsat out = 273.0422 (deg F)
 Phi inner = 101.2252 (kBtu/hr-ft2) (+/- 1.4112 %)
 Phi outer = 100.4258 (kBtu/hr-ft2) (+/- 1.5449 %)
 D inner = 0.1961 (ft) D outer = 0.2413 (ft) D hyd = 0.0390 (ft)
 L inner = 12.8610 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	78.3761	79.0140	78.7120	1.8271e-01	1.9001e+00
1	TRF0000002	79.0460	79.4688	79.3589	1.2260e-01	1.9001e+00
2	TFM0000001	87.0557	87.6858	87.3268	1.7124e-01	1.9002e+00
3	TIN0000001	86.7357	87.3678	87.0915	1.5902e-01	1.9002e+00
4	TRV0000001	87.6265	88.4661	88.0192	2.1573e-01	1.9002e+00
5	TSR0000001	139.0676	142.0765	140.8194	8.1894e-01	1.9034e+00
6	TAO020136	72.2450	74.3748	73.2656	5.1675e-01	1.9000e+00
7	TAO050136	165.9491	167.0324	166.2753	2.4942e-01	1.9062e+00
8	TAO070136	170.4433	171.6308	171.1184	2.8036e-01	1.9069e+00
9	TAO080136	186.6705	187.4466	187.0877	1.8750e-01	1.9092e+00
10	TAO090136	191.9437	192.8174	192.4154	1.9103e-01	1.9101e+00
11	TAO100136	189.1875	190.1604	189.8041	2.4257e-01	1.9096e+00
12	TAO105136	191.8286	192.8985	192.3211	2.5569e-01	1.9101e+00
13	TAO110136	197.3788	198.2446	197.8150	1.9050e-01	1.9110e+00
14	TAO115136	194.2662	195.2361	194.7066	2.5425e-01	1.9104e+00
15	TAO120136	207.0775	207.8475	207.4875	1.8816e-01	1.9127e+00
16	TAO125136	128.9245	130.0408	129.4219	2.5724e-01	1.9024e+00
17	TAO130136	199.0944	200.1434	199.5975	2.1584e-01	1.9113e+00
18	TAO120048	94.0580	95.3114	94.6783	3.2906e-01	1.9004e+00
19	TAO130048	207.6741	208.2510	207.9224	1.6122e-01	1.9128e+00
20	TAO120224	204.1504	205.1140	204.5611	2.5931e-01	1.9122e+00
21	TAO130224	193.6706	194.6336	194.1122	2.2631e-01	1.9103e+00
22	TAO120312	208.8256	209.6908	209.1624	2.0107e-01	1.9130e+00
23	TAO130312	204.5067	205.2764	204.8857	1.6878e-01	1.9122e+00
24	TRT020000	159.1509	160.0477	159.7105	2.3115e-01	1.9054e+00
25	TRT070000	186.5225	187.6006	187.1010	2.5607e-01	1.9092e+00
26	TRT100000	207.4152	208.2787	207.7241	1.7150e-01	1.9127e+00
27	TRT120000	212.2626	213.3154	212.7168	2.5195e-01	1.9137e+00
28	TRT125000	450.6830	451.0261	450.8596	1.0011e-01	1.9953e+00
29	TRT130000	209.6707	210.4378	210.0675	1.5140e-01	1.9132e+00
30	EMPTY	39.6057	40.2940	39.9545	1.9799e-01	1.9011e+00
31	TAF050136	117.8674	118.9910	118.4509	2.8865e-01	1.9016e+00
32	TAF070136	129.1905	130.3044	129.6905	2.9001e-01	1.9024e+00
33	TAF080136	185.4095	186.9586	186.1489	3.0303e-01	1.9091e+00
34	TAF090136	85.9309	86.8772	86.2989	2.2984e-01	1.9002e+00
35	TAF100136	148.0720	149.2768	148.4478	2.6108e-01	1.9041e+00
36	TAF105136	150.9040	152.3938	151.3829	3.1506e-01	1.9045e+00
37	TAF110136	154.0212	155.1157	154.4142	2.1030e-01	1.9048e+00
38	TAF115136	157.8431	159.0356	158.3582	2.4791e-01	1.9053e+00
39	TAF120136	182.4516	184.0078	183.4038	3.0451e-01	1.9086e+00
40	TAF125136	164.2996	166.2665	165.0814	3.6024e-01	1.9061e+00
41	TAF130136	167.8750	169.4517	168.4445	3.3796e-01	1.9065e+00
42	TAF120048	168.4053	169.7945	169.0068	3.2285e-01	1.9066e+00
43	TAF130048	174.7831	175.6668	175.2683	1.6774e-01	1.9075e+00
44	TAF120224	159.5199	161.0080	160.3118	3.2412e-01	1.9055e+00
45	TAF130224	164.6529	165.6474	165.1719	2.2026e-01	1.9061e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.6870	38.1400	2.0715e-01	1.9010e+00
47	EMPTY	39.6057	39.8352	39.6883	1.1129e-01	1.9011e+00
48	TAI130048	202.5561	204.0017	203.1905	3.0349e-01	1.9119e+00
49	TAI130136	200.6759	201.7346	201.1167	2.0690e-01	1.9115e+00
50	TAI130224	204.7283	205.7888	205.2316	2.4357e-01	1.9123e+00
51	TAI130312	195.4129	196.3827	195.8804	2.5589e-01	1.9106e+00
52	TRR130000	100.1189	101.3617	100.8248	2.8446e-01	1.9006e+00
53	TSI0000001	70.7539	71.4989	71.2280	1.6688e-01	1.9000e+00
54	TSI0000002	79.7474	86.3720	82.2466	1.5483e+00	1.9001e+00
55	TSO0000001	70.7225	71.6847	71.2165	2.1803e-01	1.9000e+00
56	TSO0000002	81.4751	82.3208	81.8706	2.1104e-01	1.9001e+00
57	TAF020136	97.0160	98.1697	97.6898	2.5695e-01	1.9005e+00
58	TAF120312	165.4679	166.7536	166.0835	2.9389e-01	1.9062e+00
59	TAF130312	177.8317	179.8864	178.8791	3.8896e-01	1.9080e+00
60	EMPTY	2.5781	2.5928	2.5834	4.2818e-03	0.0000e+00
61	EMPTY	2.5781	2.5879	2.5812	2.9413e-03	0.0000e+00
62	EMPTY	2.5732	2.5830	2.5782	3.0389e-03	0.0000e+00
63	EMPTY	2.5732	2.5879	2.5815	2.8334e-03	0.0000e+00
64	EMPTY	1.2793	1.2842	1.2824	2.3675e-03	0.0000e+00
65	EMPTY	1.2939	1.3037	1.2989	1.5566e-03	0.0000e+00
66	EMPTY	1.3037	1.3184	1.3120	2.6562e-03	0.0000e+00
67	EMPTY	1.3232	1.3330	1.3262	2.6100e-03	0.0000e+00
68	EMPTY	1.3330	1.3379	1.3359	2.4164e-03	0.0000e+00
69	EMPTY	1.3428	1.3574	1.3505	2.8058e-03	0.0000e+00
70	EMPTY	1.3574	1.3623	1.3621	9.6655e-04	0.0000e+00
71	EMPTY	1.3770	1.3818	1.3804	2.2603e-03	0.0000e+00
72	EMPTY	1.3867	1.3916	1.3910	1.6028e-03	0.0000e+00
73	EMPTY	1.4014	1.4111	1.4062	1.2041e-03	0.0000e+00
74	EMPTY	1.4160	1.4209	1.4184	2.4642e-03	0.0000e+00
75	EMPTY	1.4307	1.4355	1.4319	2.1635e-03	0.0000e+00
76	EMPTY	1.4404	1.4453	1.4422	2.3675e-03	0.0000e+00
77	EMPTY	1.4551	1.4648	1.4598	1.3811e-03	0.0000e+00
78	EMPTY	1.4746	1.4795	1.4780	2.2603e-03	0.0000e+00
79	EMPTY	1.4941	1.4990	1.4978	2.1635e-03	0.0000e+00
80	PAN020136	-15.2484	-11.6626	-12.2210	7.6332e-01	8.7054e-01
81	PAN050136	-25.5038	-24.8935	-25.1621	1.5585e-01	1.6812e+00
82	PAN070136	-16.8635	-16.4058	-16.6301	8.3590e-02	8.7099e-01
83	PAN080136	-8.7385	-8.5096	-8.6286	7.7315e-02	8.7027e-01
84	PAN090136	-8.4743	-8.1691	-8.3018	6.3196e-02	8.7025e-01
85	PAN100136	-8.8793	-8.5742	-8.7222	7.2967e-02	8.7027e-01
86	PAN105136	-4.4199	-4.1147	-4.2521	7.8595e-02	8.7006e-01
87	PAN110136	-4.3098	-4.0046	-4.1328	7.6200e-02	8.7006e-01
88	PAN115136	-4.2452	-3.9400	-4.1399	8.2848e-02	8.7006e-01
89	PAN120136	-4.4991	-4.1176	-4.4091	8.3987e-02	8.7007e-01
90	PAN125136	-4.9672	-4.6620	-4.8542	8.8866e-02	8.7008e-01
91	PAN130136	-3.4178	-3.1126	-3.2591	6.6903e-02	8.7004e-01
92	PAN120048	-9.5102	-9.2051	-9.3683	9.5029e-02	8.7032e-01
93	PAN130048	-8.4391	-8.1340	-8.2957	6.4738e-02	8.7025e-01
94	PAN120224	-9.1169	-8.8880	-9.0024	6.6404e-02	8.7029e-01
95	PAN130224	-8.7897	-8.4846	-8.6204	6.4092e-02	8.7027e-01
96	PAN120312	-8.8823	-8.5771	-8.7205	8.8061e-02	8.7027e-01
97	PAN130312	-8.0929	-7.7877	-7.9296	6.1674e-02	8.7023e-01
98	PAB000136	40.1602	40.5264	40.4184	6.7809e-02	5.8874e-01
99	PAB100136	43.2096	43.3470	43.2737	4.6241e-02	5.9000e-01
100	PAB125136	43.8787	44.0618	43.9684	4.5269e-02	5.9032e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	40.0138	40.3800	40.2970	9.0412e-02	7.5674e-01
102	PRV0000001	19.6068	19.7289	19.6703	6.1605e-02	7.5161e-01
103	PSR0000001	43.9011	44.2673	44.0745	7.0146e-02	7.5805e-01
104	PFM0000001	5.4597	5.8259	5.6299	9.7891e-02	5.0020e-01
105	PAN000136	-109.8890	-102.5648	-104.4324	1.3461e+00	4.9269e+00
106	PFM0000002	5.5215	5.7397	5.6323	5.1968e-02	2.0050e-01
107	EMPTY	-0.0049	0.0049	0.0047	1.3811e-03	0.0000e+00
108	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0027	2.4484e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0001	6.9053e-04	0.0000e+00
112	VPW0000001	101.8818	102.4677	102.2021	1.7540e-01	1.0159e+00
113	VPW0000002	119.0768	119.4674	119.3306	1.1334e-01	1.0811e+00
114	VPW0000003	146.5370	147.1229	146.8183	1.3182e-01	1.1967e+00
115	VPW0000004	104.5936	104.9842	104.8748	1.3182e-01	1.0257e+00
116	VPW0000005	139.5470	139.9377	139.6642	1.2478e-01	1.1655e+00
117	VPW0000006	147.1792	147.7652	147.4527	1.4227e-01	1.1995e+00
118	IPW0000001	538.8844	544.7414	541.7737	1.5895e+00	9.1613e+00
119	IPW0000002	1297.0687	1304.8738	1300.5813	1.8490e+00	1.3083e+01
120	IPW0000003	1330.6874	1338.4874	1335.4064	1.3698e+00	1.3301e+01
121	IPW0000004	379.0940	380.5589	379.7580	3.0819e-01	3.6056e+00
122	IPW0000005	252.3317	253.7964	253.1520	3.8758e-01	2.8284e+00
123	IPW0000006	263.3057	265.7471	264.4873	4.7402e-01	2.8924e+00
124	EMPTY	-0.0244	-0.0098	-0.0170	3.7226e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0111	3.1257e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0049	-0.0133	3.5623e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0098	-0.0148	3.1133e-03	0.0000e+00
128	IHT0000001	129.2856	131.2387	130.1528	4.8030e-01	4.3016e+00
129	IHT0000002	132.9702	135.1187	133.8921	4.9918e-01	4.3131e+00
130	IHT0000003	133.1167	135.2652	134.0464	5.0618e-01	4.3136e+00
131	IHT0000004	131.4378	133.5863	132.3129	4.9480e-01	4.3082e+00
132	IHT0000005	129.8716	132.0200	130.7778	4.9718e-01	4.3035e+00
133	IHT0000006	124.7446	127.0883	125.5962	4.9718e-01	4.2881e+00
134	IHT0000007	131.7759	134.1196	132.5727	5.3356e-01	4.3090e+00
135	IHT0000008	130.3110	132.4594	131.1548	5.2414e-01	4.3047e+00
136	IHT0000009	130.6378	132.7862	131.7002	5.4413e-01	4.3063e+00
137	IHT0000010	132.2791	135.0135	133.4315	5.4140e-01	4.3117e+00
138	IHT0000011	130.7505	133.0942	131.8169	4.8682e-01	4.3067e+00
139	IHT0000012	128.7410	130.8894	129.6278	4.5371e-01	4.3000e+00
140	IHT0000013	91.5452	93.8890	92.5022	4.5206e-01	4.2031e+00
141	IHT0000014	128.1250	130.2734	128.9258	5.1637e-01	4.2979e+00
142	IHT0000015	95.2636	97.6074	96.3301	5.0256e-01	4.2116e+00
143	IHT0000016	88.9273	91.0757	89.9195	4.6159e-01	4.1974e+00
144	IHT0000017	106.2876	109.0219	107.4907	5.9889e-01	4.2386e+00
145	IHT0000018	107.2491	109.9835	108.6670	5.3788e-01	4.2416e+00
146	IHT0000019	103.5569	105.5101	104.3421	4.9204e-01	4.2307e+00
147	IHT0000020	106.1936	108.3421	107.0335	5.0262e-01	4.2374e+00
148	IHT0000021	-2.4151	0.1240	-1.2276	6.2868e-01	4.1000e+00
149	IHT0000022	92.7772	95.1209	93.6561	5.5278e-01	4.2056e+00
150	IHT0000023	104.6575	107.0012	105.7707	5.1183e-01	4.2342e+00
151	IHT0000024	70.0308	72.3746	71.0816	5.1128e-01	4.1612e+00
152	IHT0000025	104.1091	106.6481	105.3786	5.2977e-01	4.2333e+00
153	IHT0000026	105.1044	107.4482	106.2529	5.2443e-01	4.2354e+00
154	IHT0000027	90.0053	92.3490	91.1889	5.1812e-01	4.2002e+00
155	IHT0000028	90.9631	93.8927	92.5763	5.8101e-01	4.2032e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	104.6049	106.9486	105.7026	5.5086e-01	4.2341e+00
157	IHT0000030	107.2116	109.7506	108.1686	5.3416e-01	4.2403e+00
158	IHT0000031	105.5176	108.2520	106.7285	5.6359e-01	4.2366e+00
159	IHT0000032	106.9336	109.2774	107.8008	5.6794e-01	4.2394e+00
160	IHT0000033	106.7383	109.2773	107.7344	5.5838e-01	4.2392e+00
161	IHT0000034	93.9077	96.0562	94.7437	4.6862e-01	4.2080e+00
162	IHT0000035	123.8957	126.0442	124.7863	4.7868e-01	4.2857e+00
163	IHT0000036	92.5856	94.5388	93.3786	4.2206e-01	4.2050e+00

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Velocity 1 = 4.0650 (ft/sec) (+/- 10.3350 %)
 Velocity 2 = 4.0695 (ft/sec) (+/- 4.0266 %)
 Pressure drop = -4.6454 (psi)
 Tsat in = 268.0973 (deg F) Tsat out = 274.2956 (deg F)
 Phi inner = 99.6738 (kBtu/hr-ft2) (+/- 1.4157 %)
 Phi outer = 100.5761 (kBtu/hr-ft2) (+/- 1.5428 %)
 D inner = 0.1961 (ft) D outer = 0.2413 (ft) D hyd = 0.0390 (ft)
 L inner = 12.8610 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	79.0140	79.4391	79.2010	1.5859e-01	1.9001e+00
1	TRF000002	79.4688	79.8915	79.5745	1.2986e-01	1.9001e+00
2	TFM000001	87.7913	88.7355	88.1673	1.8484e-01	1.9002e+00
3	TIN000001	87.2624	87.8942	87.5593	1.4375e-01	1.9002e+00
4	TRV000001	88.4661	89.4085	88.9915	1.9880e-01	1.9002e+00
5	TSR000001	149.0726	152.9535	151.1131	8.9807e-01	1.9044e+00
6	TAO020136	74.0556	77.4557	75.7034	9.6282e-01	1.9000e+00
7	TAO050136	196.5738	198.4011	197.4681	4.7047e-01	1.9109e+00
8	TAO070136	208.4538	210.1890	209.3656	4.5382e-01	1.9130e+00
9	TAO080136	225.7533	226.6048	226.1601	1.7948e-01	1.9164e+00
10	TAO090136	233.2144	234.1581	233.7030	2.2833e-01	1.9180e+00
11	TAO100136	231.1177	233.0059	232.0188	4.1741e-01	1.9176e+00
12	TAO105136	237.4163	238.6432	238.0864	3.0271e-01	1.9189e+00
13	TAO110136	244.4590	245.6677	245.0470	2.8350e-01	1.9205e+00
14	TAO115136	241.4320	242.9369	242.1075	4.3217e-01	1.9199e+00
15	TAO120136	255.4124	256.7169	256.2377	2.5390e-01	1.9232e+00
16	TAO125136	161.1978	164.8579	162.5228	7.9458e-01	1.9058e+00
17	TAO130136	247.1770	249.3038	248.2663	4.6052e-01	1.9213e+00
18	TAO120048	101.1374	102.2800	101.7543	2.9391e-01	1.9007e+00
19	TAO130048	258.5751	259.4093	258.9104	1.7664e-01	1.9239e+00
20	TAO120224	251.0525	252.8260	252.0735	4.5269e-01	1.9222e+00
21	TAO130224	239.8277	241.5018	240.8074	4.1174e-01	1.9196e+00
22	TAO120312	258.3784	259.5891	259.1809	2.8590e-01	1.9240e+00
23	TAO130312	253.2539	254.4648	253.9115	2.9162e-01	1.9227e+00
24	TRT020000	186.4843	187.5587	187.0371	2.7314e-01	1.9092e+00
25	TRT070000	225.2525	226.3989	225.8388	2.7967e-01	1.9163e+00
26	TRT100000	255.2256	256.0629	255.6110	2.0751e-01	1.9231e+00
27	TRT120000	265.7514	267.1381	266.3677	2.6539e-01	1.9258e+00
28	TRT125000	94.3649	451.2833	345.7997	1.0442e+02	1.9506e+00
29	TRT130000	260.6719	261.5072	261.0969	1.9122e-01	1.9244e+00
30	EMPTY	39.3761	40.2940	39.8352	2.3642e-01	1.9011e+00
31	TAFO50136	134.9120	137.3303	135.9626	5.3535e-01	1.9029e+00
32	TAFO70136	152.1349	154.0213	153.0436	4.3394e-01	1.9046e+00
33	TAFO80136	222.4808	228.6967	225.9161	1.5380e+00	1.9163e+00
34	TAFO90136	90.4401	91.3830	90.9325	2.3568e-01	1.9003e+00
35	TAF100136	181.1920	184.1289	182.2755	6.3372e-01	1.9085e+00
36	TAF105136	185.0775	188.6554	186.4151	6.6104e-01	1.9091e+00
37	TAF110136	189.9098	193.3927	190.9887	7.4677e-01	1.9098e+00
38	TAF115136	195.2319	197.5499	196.2504	5.1208e-01	1.9107e+00
39	TAF120136	228.4897	233.1974	231.1361	1.0627e+00	1.9174e+00
40	TAF125136	205.9001	211.5167	208.1098	1.4584e+00	1.9128e+00
41	TAF130136	210.6688	214.5842	212.3209	1.1920e+00	1.9136e+00
42	TAF120048	209.7156	215.3998	212.4785	1.3348e+00	1.9136e+00
43	TAF130048	220.3711	222.4610	221.3763	4.7816e-01	1.9154e+00
44	TAF120224	197.2981	202.0247	199.5430	1.4146e+00	1.9113e+00
45	TAF130224	205.7366	208.2481	206.9287	6.0256e-01	1.9126e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.1078	2.3794e-01	1.9010e+00
47	EMPTY	39.6057	40.0646	39.8260	1.2232e-01	1.9011e+00
48	TAI130048	255.7939	258.1220	256.7345	5.0353e-01	1.9233e+00
49	TAI130136	252.5095	253.5347	253.0965	2.5948e-01	1.9225e+00
50	TAI130224	256.2383	257.7314	257.0986	3.4311e-01	1.9234e+00
51	TAI130312	245.7603	247.2614	246.5844	3.6715e-01	1.9209e+00
52	TRR130000	107.2496	109.3099	108.1054	4.0059e-01	1.9010e+00
53	TSI000001	70.6496	71.1824	70.8437	1.4856e-01	1.9000e+00
54	TSI000002	85.0098	90.9792	87.4232	1.3863e+00	1.9002e+00
55	TSO000001	70.0796	70.9353	70.5739	1.8447e-01	1.9000e+00
56	TSO000002	84.9558	85.7981	85.3746	2.0237e-01	1.9002e+00
57	TAF020136	102.7740	104.3399	103.6702	3.6165e-01	1.9008e+00
58	TAF120312	205.8492	209.4997	207.4046	8.3584e-01	1.9127e+00
59	TAF130312	222.2623	227.0024	224.4652	1.1812e+00	1.9160e+00
60	EMPTY	3.6914	3.7598	3.7219	2.0158e-02	0.0000e+00
61	EMPTY	3.6914	3.7402	3.7106	1.5673e-02	0.0000e+00
62	EMPTY	3.6816	3.7207	3.6989	1.3279e-02	0.0000e+00
63	EMPTY	3.6768	3.7158	3.6937	1.1848e-02	0.0000e+00
64	EMPTY	1.7627	1.7773	1.7693	5.4712e-03	0.0000e+00
65	EMPTY	1.7773	1.7969	1.7844	5.1411e-03	0.0000e+00
66	EMPTY	1.7871	1.8018	1.7928	5.0648e-03	0.0000e+00
67	EMPTY	1.7969	1.8115	1.8041	4.0960e-03	0.0000e+00
68	EMPTY	1.8066	1.8164	1.8097	4.0542e-03	0.0000e+00
69	EMPTY	1.8164	1.8311	1.8218	3.9766e-03	0.0000e+00
70	EMPTY	1.8262	1.8359	1.8295	3.6165e-03	0.0000e+00
71	EMPTY	1.8359	1.8555	1.8457	3.4173e-03	0.0000e+00
72	EMPTY	1.8506	1.8604	1.8523	2.7480e-03	0.0000e+00
73	EMPTY	1.8604	1.8701	1.8657	2.0337e-03	0.0000e+00
74	EMPTY	1.8701	1.8799	1.8746	2.3839e-03	0.0000e+00
75	EMPTY	1.8848	1.8896	1.8860	2.1635e-03	0.0000e+00
76	EMPTY	1.8896	1.8994	1.8937	2.3531e-03	0.0000e+00
77	EMPTY	1.9043	1.9092	1.9071	2.4344e-03	0.0000e+00
78	EMPTY	1.9189	1.9287	1.9231	1.9754e-03	0.0000e+00
79	EMPTY	1.9385	1.9434	1.9393	1.8082e-03	0.0000e+00
80	PAN020136	-16.1639	-15.3247	-15.6253	2.0875e-01	8.7088e-01
81	PAN050136	-33.8962	-30.3867	-32.3307	1.2396e+00	1.6819e+00
82	PAN070136	-21.1360	-17.2450	-18.8502	1.2763e+00	8.7128e-01
83	PAN080136	-14.0791	-10.5696	-12.9881	1.2104e+00	8.7061e-01
84	PAN090136	-13.2045	-10.6868	-12.3668	8.2048e-01	8.7055e-01
85	PAN100136	-10.6341	-7.1246	-9.3554	8.5703e-01	8.7031e-01
86	PAN105136	-5.5643	-1.6733	-3.7027	8.1006e-01	8.7005e-01
87	PAN110136	-5.2253	-2.5550	-3.9756	6.2817e-01	8.7006e-01
88	PAN115136	-7.5259	-2.5668	-4.6374	9.5403e-01	8.7008e-01
89	PAN120136	-6.0250	3.8932	-4.3511	1.8826e+00	8.7007e-01
90	PAN125136	-6.0353	-3.8990	-5.0480	6.3053e-01	8.7009e-01
91	PAN130136	-7.6902	2.4569	-4.2722	1.6879e+00	8.7007e-01
92	PAN120048	-11.7228	-4.5511	-10.0092	1.1095e+00	8.7036e-01
93	PAN130048	-12.8642	-7.8288	-9.3791	8.3752e-01	8.7032e-01
94	PAN120224	-12.5501	-5.9126	-9.8371	1.0746e+00	8.7035e-01
95	PAN130224	-14.0540	-7.6453	-10.0898	1.1447e+00	8.7037e-01
96	PAN120312	-12.3918	-7.0512	-10.0068	1.0550e+00	8.7036e-01
97	PAN130312	-11.2210	-2.7523	-9.1229	1.3266e+00	8.7030e-01
98	PAB000136	40.3891	40.6637	40.4916	6.1038e-02	5.8877e-01
99	PAB100136	44.0336	44.2625	44.1572	6.2895e-02	5.9041e-01
100	PAB125136	44.7484	45.0231	44.8885	5.8790e-02	5.9076e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	40.0138	40.3800	40.1871	9.5801e-02	7.5670e-01
102	PRV000001	19.6068	19.8509	19.6874	6.3406e-02	7.5161e-01
103	PSR000001	44.7556	45.1218	45.0022	5.7785e-02	7.5839e-01
104	PFM000001	2.3469	2.6215	2.4512	7.4009e-02	5.0004e-01
105	PAN000136	-130.9461	-119.9598	-128.6115	1.6105e+00	4.9305e+00
106	PFM000002	2.4005	2.5180	2.4569	2.6206e-02	2.0009e-01
107	EMPTY	-0.0049	0.0098	0.0016	4.2361e-03	0.0000e+00
108	EMPTY	-7.2314	-3.0469	-4.8918	8.0422e-01	0.0000e+00
109	EMPTY	-0.0049	0.0049	0.0012	2.3261e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	101.4911	103.0536	102.3896	4.2682e-01	1.0166e+00
113	VPW000002	119.0768	120.0533	119.5806	2.3374e-01	1.0821e+00
114	VPW000003	146.3417	147.5135	146.9979	3.1754e-01	1.1975e+00
115	VPW000004	103.8123	105.7655	104.9803	4.1477e-01	1.0261e+00
116	VPW000005	138.5705	140.7189	139.8986	4.8166e-01	1.1665e+00
117	VPW000006	146.5933	148.1558	147.6441	4.4449e-01	1.2004e+00
118	IPW000001	554.5031	572.0742	564.2649	4.5145e+00	9.2456e+00
119	IPW000002	1267.7997	1283.4098	1277.5951	2.9890e+00	1.2941e+01
120	IPW000003	1305.3374	1317.0375	1311.1484	2.7715e+00	1.3149e+01
121	IPW000004	380.0706	385.9300	383.5080	1.5752e+00	3.6303e+00
122	IPW000005	250.3787	254.2846	252.8200	9.4610e-01	2.8265e+00
123	IPW000006	259.8877	263.7940	262.2705	1.0608e+00	2.8797e+00
124	EMPTY	-0.0293	-0.0098	-0.0183	4.1631e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0134	2.5743e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0049	-0.0146	4.1853e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0162	3.1874e-03	0.0000e+00
128	IHT000001	128.5044	131.6294	129.9614	6.9274e-01	4.3010e+00
129	IHT000002	132.1890	135.3140	133.7554	6.2327e-01	4.3127e+00
130	IHT000003	132.3355	135.4605	133.9878	6.5341e-01	4.3134e+00
131	IHT000004	130.4613	133.5863	132.1918	6.5198e-01	4.3078e+00
132	IHT000005	129.0903	132.2153	130.6020	6.1613e-01	4.3030e+00
133	IHT000006	123.9633	126.8930	125.4321	5.7350e-01	4.2876e+00
134	IHT000007	130.7993	133.7290	132.3579	5.6150e-01	4.3083e+00
135	IHT000008	129.3344	132.0688	130.7681	5.0472e-01	4.3035e+00
136	IHT000009	129.8565	132.5909	131.2901	5.6581e-01	4.3051e+00
137	IHT000010	131.6932	134.2323	133.4276	5.7540e-01	4.3116e+00
138	IHT000011	129.7739	132.7036	131.6138	6.4003e-01	4.3061e+00
139	IHT000012	127.5691	130.4988	129.3622	6.3710e-01	4.2992e+00
140	IHT000013	90.3733	93.3030	92.2366	6.2913e-01	4.2025e+00
141	IHT000014	126.7578	129.8828	128.6758	6.7276e-01	4.2972e+00
142	IHT000015	94.0918	97.2168	96.0293	5.8772e-01	4.2110e+00
143	IHT000016	87.9507	90.8804	89.6812	6.1004e-01	4.1969e+00
144	IHT000017	104.9204	108.4360	106.7017	7.3678e-01	4.2366e+00
145	IHT000018	107.4444	110.1788	108.5030	5.7601e-01	4.2411e+00
146	IHT000019	102.9710	105.5101	104.3030	5.5900e-01	4.2306e+00
147	IHT000020	105.6077	108.1468	106.8538	5.4231e-01	4.2370e+00
148	IHT000021	-3.0010	0.1240	-1.3331	6.3406e-01	4.1000e+00
149	IHT000022	91.8006	94.7303	93.4451	6.3146e-01	4.2051e+00
150	IHT000023	104.2668	106.8059	105.6105	5.2146e-01	4.2338e+00
151	IHT000024	69.8355	71.7886	70.8863	4.6670e-01	4.1608e+00
152	IHT000025	104.1091	106.0622	105.2184	4.8398e-01	4.2329e+00
153	IHT000026	105.1044	107.2528	106.0966	4.5990e-01	4.2351e+00
154	IHT000027	89.6146	92.1537	91.0366	5.5248e-01	4.1999e+00
155	IHT000028	90.7677	93.6974	92.3381	7.8221e-01	4.2027e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	104.4095	106.9486	105.6206	6.1257e-01	4.2339e+00
157	IHT000030	107.0162	109.3600	108.0905	6.1795e-01	4.2401e+00
158	IHT000031	105.5176	107.8613	106.6777	6.3185e-01	4.2365e+00
159	IHT000032	106.5430	108.6914	107.7227	6.3865e-01	4.2392e+00
160	IHT000033	106.5430	108.6914	107.6641	6.4454e-01	4.2390e+00
161	IHT000034	93.1265	95.8609	94.5171	6.6689e-01	4.2075e+00
162	IHT000035	123.3098	126.0442	124.6574	6.9615e-01	4.2853e+00
163	IHT000036	91.8044	94.3435	93.1638	6.5073e-01	4.2045e+00

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Velocity 1 = 3.4940 (ft/sec) (+/- 14.0079 %)
 Velocity 2 = 3.4999 (ft/sec) (+/- 5.2621 %)
 Pressure drop = -4.7883 (psi)
 Tsat in = 267.9635 (deg F) Tsat out = 274.3599 (deg F)
 Phi inner = 100.9145 (kBtu/hr-ft2) (+/- 1.4122 %)
 Phi outer = 100.7280 (kBtu/hr-ft2) (+/- 1.5437 %)
 D inner = 0.1961 (ft) D outer = 0.2413 (ft) D hyd = 0.0390 (ft)
 L inner = 12.8610 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRFO000001	79.6516	80.2888	80.0552	1.6757e-01	1.9001e+00
1	TRFO000002	80.3140	80.5252	80.3731	9.5797e-02	1.9001e+00
2	TFHO000001	87.9002	88.9489	88.3508	2.2047e-01	1.9002e+00
3	TINO000001	87.3681	88.0000	87.6569	1.3244e-01	1.9002e+00
4	TRVO000001	88.9931	89.8318	89.3982	1.8665e-01	1.9003e+00
5	TSRO000001	159.5001	162.3637	161.1107	8.3159e-01	1.9056e+00
6	TAO020136	78.6223	79.9999	79.3917	3.4434e-01	1.9001e+00
7	TAO050136	209.1251	211.1271	209.9252	4.5851e-01	1.9131e+00
8	TAO070136	222.9469	226.5738	224.4426	6.2104e-01	1.9160e+00
9	TAO080136	243.7678	244.6097	244.2072	2.1382e-01	1.9203e+00
10	TAO090136	252.1467	253.4514	252.8117	2.4554e-01	1.9224e+00
11	TAO100136	251.6685	253.7192	252.7812	4.1005e-01	1.9224e+00
12	TAO105136	257.4885	259.3521	258.4188	4.2868e-01	1.9238e+00
13	TAO110136	266.3473	267.6332	267.1122	2.6729e-01	1.9260e+00
14	TAO115136	264.0372	265.5210	264.8181	3.5550e-01	1.9254e+00
15	TAO120136	278.6429	279.2873	278.9834	1.7458e-01	1.9292e+00
16	TAO125136	172.7416	239.7341	214.0920	1.4429e+01	1.9139e+00
17	TAO130136	268.7448	270.1131	269.4247	3.3246e-01	1.9266e+00
18	TAO120048	110.0353	111.0668	110.5408	2.6525e-01	1.9011e+00
19	TAO130048	280.3902	281.1230	280.7807	1.4689e-01	1.9297e+00
20	TAO120224	273.2227	274.6967	274.0101	3.0319e-01	1.9278e+00
21	TAO130224	260.9424	262.5070	261.6837	3.6830e-01	1.9246e+00
22	TAO120312	280.2188	281.4144	280.8131	2.6361e-01	1.9297e+00
23	TAO130312	275.1663	276.1787	275.7242	2.5503e-01	1.9283e+00
24	TRT020000	199.0361	200.2953	199.6929	3.2463e-01	1.9113e+00
25	TRT070000	242.7417	243.6873	243.1520	2.5740e-01	1.9201e+00
26	TRT100000	276.5587	277.2926	276.9018	1.5842e-01	1.9286e+00
27	TRT120000	285.6187	286.8078	286.3597	2.4112e-01	1.9313e+00
28	TRT125000	288.0103	294.7203	291.3003	1.0735e+00	1.9327e+00
29	TRT130000	282.1253	283.0426	282.5385	1.4847e-01	1.9302e+00
30	EMPTY	39.3761	40.0646	39.7296	1.8670e-01	1.9011e+00
31	TAFO50136	143.1554	146.2570	144.2194	6.7139e-01	1.9037e+00
32	TAFO70136	164.7979	168.7287	166.9153	6.9101e-01	1.9063e+00
33	TAFO80136	240.5949	244.2301	242.6774	8.3142e-01	1.9200e+00
34	TAFO90136	94.6219	95.6657	95.1710	2.6725e-01	1.9004e+00
35	TAFO100136	197.2711	203.2672	199.4606	1.5364e+00	1.9113e+00
36	TAFO105136	201.8218	207.5474	204.4278	1.6318e+00	1.9121e+00
37	TAFO110136	207.4316	210.5838	209.1305	7.7645e-01	1.9130e+00
38	TAFO115136	213.2858	216.4326	214.8793	6.0975e-01	1.9141e+00
39	TAFO120136	259.9521	262.1711	260.8496	5.4828e-01	1.9244e+00
40	TAFO125136	225.4265	229.2826	227.2286	8.6486e-01	1.9166e+00
41	TAFO130136	230.3401	232.5095	231.7531	4.6003e-01	1.9175e+00
42	TAFO120048	231.9441	234.0351	232.7941	5.3450e-01	1.9178e+00
43	TAFO130048	243.2236	245.5663	244.1370	5.1395e-01	1.9203e+00
44	TAFO120224	215.9219	218.9714	217.2020	6.7646e-01	1.9145e+00
45	TAFO130224	224.9478	227.8091	225.8389	5.4562e-01	1.9163e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.6870	38.1308	2.2319e-01	1.9010e+00
47	EMPTY	39.8352	40.2940	39.9821	1.2053e-01	1.9011e+00
48	TAI130048	275.6188	276.8158	276.3351	2.8662e-01	1.9285e+00
49	TAI130136	275.3447	276.2654	275.8109	2.0209e-01	1.9283e+00
50	TAI130224	279.0518	280.3412	279.6872	2.5536e-01	1.9294e+00
51	TAI130312	269.0581	270.5386	269.7376	3.0122e-01	1.9267e+00
52	TR130000	117.8245	119.8679	118.5293	5.3257e-01	1.9016e+00
53	TSI0000001	69.3790	70.1248	69.7263	1.8862e-01	1.9000e+00
54	TSI0000002	69.9088	76.4806	72.0381	1.4690e+00	1.9000e+00
55	TSO0000001	68.7916	69.6488	69.1923	2.1290e-01	1.9000e+00
56	TSO0000002	85.7995	86.7464	86.2601	2.2786e-01	1.9002e+00
57	TAF020136	105.4842	107.7756	106.7447	4.6489e-01	1.9009e+00
58	TAF120312	225.9175	228.1953	226.9447	5.5549e-01	1.9165e+00
59	TAF130312	243.7669	247.6052	246.0616	7.3952e-01	1.9208e+00
60	EMPTY	4.2334	4.2574	4.2454	8.7034e-03	0.0000e+00
61	EMPTY	4.2236	4.2578	4.2415	6.9482e-03	0.0000e+00
62	EMPTY	4.2139	4.2383	4.2263	6.4845e-03	0.0000e+00
63	EMPTY	4.2090	4.2334	4.2193	6.3656e-03	0.0000e+00
64	EMPTY	2.0020	2.0166	2.0078	2.4164e-03	0.0000e+00
65	EMPTY	2.0166	2.0264	2.0216	2.8744e-03	0.0000e+00
66	EMPTY	2.0264	2.0361	2.0288	3.8523e-03	0.0000e+00
67	EMPTY	2.0361	2.0508	2.0397	4.1631e-03	0.0000e+00
68	EMPTY	2.0410	2.0508	2.0453	3.9013e-03	0.0000e+00
69	EMPTY	2.0508	2.0605	2.0557	3.6911e-03	0.0000e+00
70	EMPTY	2.0605	2.0703	2.0636	3.6765e-03	0.0000e+00
71	EMPTY	2.0752	2.0850	2.0780	3.7029e-03	0.0000e+00
72	EMPTY	2.0801	2.0898	2.0838	3.8913e-03	0.0000e+00
73	EMPTY	2.0898	2.1045	2.0953	4.1432e-03	0.0000e+00
74	EMPTY	2.0996	2.1094	2.1039	4.0241e-03	0.0000e+00
75	EMPTY	2.1094	2.1191	2.1136	3.9471e-03	0.0000e+00
76	EMPTY	2.1143	2.1289	2.1204	3.9224e-03	0.0000e+00
77	EMPTY	2.1289	2.1387	2.1321	2.8946e-03	0.0000e+00
78	EMPTY	2.1436	2.1533	2.1474	3.1644e-03	0.0000e+00
79	EMPTY	2.1582	2.1680	2.1630	3.1950e-03	0.0000e+00
80	PAN020136	-19.1394	-16.2402	-16.7422	5.6278e-01	8.7101e-01
81	PAN050136	-37.4057	-31.1496	-35.0437	2.0551e+00	1.6823e+00
82	PAN070136	-25.8662	-12.6674	-21.7479	3.2146e+00	8.7170e-01
83	PAN080136	-14.0028	0.4931	-9.0956	2.8797e+00	8.7030e-01
84	PAN090136	-13.2045	-7.7113	-10.9798	1.5849e+00	8.7043e-01
85	PAN100136	-12.1600	-4.2254	-8.9236	1.5491e+00	8.7029e-01
86	PAN105136	-7.7768	-0.1474	-4.9311	1.3682e+00	8.7009e-01
87	PAN110136	-7.3615	-2.3261	-4.5417	1.0611e+00	8.7007e-01
88	PAN115136	-5.8474	-3.9400	-4.7610	3.7647e-01	8.7008e-01
89	PAN120136	-5.9487	-4.6517	-5.2529	3.2539e-01	8.7010e-01
90	PAN125136	-5.6538	-3.4413	-4.7749	4.4759e-01	8.7008e-01
91	PAN130136	-5.3251	-4.1807	-4.8857	2.2119e-01	8.7009e-01
92	PAN120048	-12.0279	-9.3576	-10.5951	5.6849e-01	8.7040e-01
93	PAN130048	-9.8887	-7.3710	-9.2814	4.2575e-01	8.7031e-01
94	PAN120224	-10.9480	-6.9807	-9.3717	6.2318e-01	8.7032e-01
95	PAN130224	-10.6208	-8.2557	-10.0120	4.2951e-01	8.7036e-01
96	PAN120312	-11.0185	-8.7297	-10.0145	4.7367e-01	8.7036e-01
97	PAN130312	-10.0003	-8.4744	-9.4433	3.5760e-01	8.7032e-01
98	PAB000136	40.2518	40.4806	40.4010	5.2974e-02	5.8873e-01
99	PAB100136	43.8505	44.2167	44.1087	6.5238e-02	5.9039e-01
100	PAB125136	44.8400	45.0231	44.9361	5.0865e-02	5.9078e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	40.1358	40.3800	40.3092	7.0146e-02	7.5674e-01
102	PRV0000001	19.6068	19.7289	19.6337	5.1081e-02	7.5160e-01
103	PSR0000001	45.1218	45.3660	45.1511	5.8152e-02	7.5845e-01
104	PFH0000001	1.7060	1.8891	1.7975	7.3986e-02	5.0002e-01
105	PAN000136	-135.0660	-131.4039	-132.5666	6.5532e-01	4.9311e+00
106	PFH0000002	1.7796	1.8468	1.8038	1.6314e-02	2.0005e-01
107	EMPTY	-0.0049	0.0049	-0.0008	4.1102e-03	0.0000e+00
108	EMPTY	-9.9316	-5.8008	-6.3731	7.1759e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0004	1.3381e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW0000001	102.2724	102.6630	102.3857	1.1897e-01	1.0166e+00
113	VPW0000002	119.2721	119.6627	119.5611	1.0617e-01	1.0820e+00
114	VPW0000003	146.9276	147.3182	147.0956	1.2484e-01	1.1979e+00
115	VPW0000004	104.7889	105.1795	105.0155	9.9512e-02	1.0262e+00
116	VPW0000005	139.7424	140.1330	139.9728	1.0206e-01	1.1668e+00
117	VPW0000006	147.5698	148.1558	147.8433	1.5282e-01	1.2012e+00
118	IPW0000001	540.8367	548.6461	544.5071	1.7480e+00	9.1714e+00
119	IPW0000002	1295.1174	1302.9225	1298.3568	1.8326e+00	1.3070e+01
120	IPW0000003	1324.8374	1330.6874	1327.7239	1.1976e+00	1.3253e+01
121	IPW0000004	381.5354	383.0003	382.3166	3.5568e-01	3.6225e+00
122	IPW0000005	252.8199	254.2846	253.4839	2.9194e-01	2.8302e+00
123	IPW0000006	263.3057	264.7705	264.0479	3.5895e-01	2.8899e+00
124	EMPTY	-0.0293	-0.0098	-0.0210	4.2142e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0134	3.0897e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0049	-0.0158	3.7642e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0098	-0.0156	3.2718e-03	0.0000e+00
128	IHT0000001	128.3091	131.0434	129.7270	6.3725e-01	4.3003e+00
129	IHT0000002	132.1890	134.9234	133.5132	5.5983e-01	4.3119e+00
130	IHT0000003	132.5308	135.2652	133.7339	5.6821e-01	4.3126e+00
131	IHT0000004	130.8519	133.3909	131.9183	5.8422e-01	4.3070e+00
132	IHT0000005	129.4809	131.8247	130.4302	5.3381e-01	4.3025e+00
133	IHT0000006	124.1587	126.3071	125.2524	5.4960e-01	4.2871e+00
134	IHT0000007	131.3852	133.5337	132.2954	5.4335e-01	4.3082e+00
135	IHT0000008	129.7251	131.8735	130.8071	5.3990e-01	4.3036e+00
136	IHT0000009	130.0518	132.5909	131.2744	5.5777e-01	4.3050e+00
137	IHT0000010	132.2791	134.4276	133.2557	4.6689e-01	4.3111e+00
138	IHT0000011	130.7505	132.8989	131.5473	4.7489e-01	4.3059e+00
139	IHT0000012	128.1551	130.4988	129.1942	4.7587e-01	4.2987e+00
140	IHT0000013	91.1546	93.4983	92.0999	5.4155e-01	4.2022e+00
141	IHT0000014	127.5391	129.8828	128.5078	5.1744e-01	4.2967e+00
142	IHT0000015	94.8730	97.0215	95.9277	5.1599e-01	4.2107e+00
143	IHT0000016	88.5367	90.8804	89.5718	5.3416e-01	4.1967e+00
144	IHT0000017	105.1157	108.8266	106.9048	8.1381e-01	4.2371e+00
145	IHT0000018	107.0538	110.3741	108.5889	6.2641e-01	4.2414e+00
146	IHT0000019	102.9710	105.5101	104.3929	5.5809e-01	4.2308e+00
147	IHT0000020	105.2171	107.7561	106.8460	5.3903e-01	4.2369e+00
148	IHT0000021	-3.1964	-0.0714	-1.3370	6.6992e-01	4.1000e+00
149	IHT0000022	91.9959	94.3397	93.2772	4.7868e-01	4.2048e+00
150	IHT0000023	103.8762	106.6106	105.4582	5.1637e-01	4.2335e+00
151	IHT0000024	69.2496	71.7886	70.7730	5.1750e-01	4.1606e+00
152	IHT0000025	103.7185	106.4528	105.1755	5.2528e-01	4.2328e+00
153	IHT0000026	104.7138	107.0575	106.0068	5.3363e-01	4.2348e+00
154	IHT0000027	89.8100	91.9584	90.9272	4.9606e-01	4.1996e+00
155	IHT0000028	91.1584	93.8927	92.3146	5.7023e-01	4.2026e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	104.6049	107.3392	105.6635	5.4260e-01	4.2340e+00
157	IHT0000030	107.0162	109.3600	108.0241	5.0580e-01	4.2399e+00
158	IHT0000031	105.5176	107.8613	106.5566	4.9825e-01	4.2362e+00
159	IHT0000032	106.5430	108.8867	107.5938	5.1432e-01	4.2388e+00
160	IHT0000033	106.3476	108.8867	107.5430	5.3034e-01	4.2387e+00
161	IHT0000034	93.7124	95.6656	94.4312	4.2027e-01	4.2073e+00
162	IHT0000035	123.8957	125.4582	124.4699	4.0895e-01	4.2848e+00
163	IHT0000036	92.5856	94.1481	93.1247	4.0155e-01	4.2044e+00

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Velocity 1 = 3.2735 (ft/sec) (+/- 15.9876 %)
 Velocity 2 = 3.2944 (ft/sec) (+/- 5.8917 %)
 Pressure drop = -4.8257 (psi)
 Tsat in = 267.8959 (deg F) Tsat out = 274.5080 (deg F)
 Phi inner = 101.0104 (kBtu/hr-ft2) (+/- 1.4119 %)
 Phi outer = 100.9008 (kBtu/hr-ft2) (+/- 1.5432 %)
 D inner = 0.1961 (ft) D outer = 0.2413 (ft) D hyd = 0.0390 (ft)
 L inner = 12.8610 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	80.0764	80.7135	80.4799	1.8326e-01	1.9001e+00
1	TRF000002	80.5252	80.9475	80.7955	1.2096e-01	1.9001e+00
2	TRF000001	87.4819	88.2170	87.8452	1.9677e-01	1.9002e+00
3	TIN000001	86.8428	87.3695	87.1651	1.2664e-01	1.9002e+00
4	TRV000001	88.7871	89.5211	89.1421	1.9363e-01	1.9002e+00
5	TSR000001	163.3544	166.3093	164.9915	7.2080e-01	1.9061e+00
6	TAO020136	79.2584	81.6927	80.0866	4.5802e-01	1.9001e+00
7	TAO050136	212.0830	214.1733	213.0174	3.7889e-01	1.9137e+00
8	TAO070136	222.9461	225.5237	224.1554	5.9774e-01	1.9159e+00
9	TAO080136	248.6137	249.6369	249.1410	2.1170e-01	1.9215e+00
10	TAO090136	257.7275	258.8428	258.4252	2.6890e-01	1.9238e+00
11	TAO100136	256.8830	259.4834	258.3117	4.8059e-01	1.9237e+00
12	TAO105136	263.6305	265.6735	264.4944	4.5997e-01	1.9253e+00
13	TAO110136	272.4852	273.8593	273.1575	3.6543e-01	1.9276e+00
14	TAO115136	269.4106	271.3521	270.2889	4.3048e-01	1.9268e+00
15	TAO120136	283.6925	284.7938	284.2672	2.4285e-01	1.9307e+00
16	TAO125136	183.9922	218.3680	199.7244	9.5077e+00	1.9113e+00
17	TAO130136	274.1212	275.3037	274.7105	2.8170e-01	1.9280e+00
18	TAO120048	112.5079	113.7430	113.1975	2.9927e-01	1.9013e+00
19	TAO130048	284.8696	285.8732	285.3859	2.1722e-01	1.9310e+00
20	TAO120224	278.6529	280.0317	279.4453	2.7143e-01	1.9293e+00
21	TAO130224	266.4550	268.1070	267.3983	3.6482e-01	1.9261e+00
22	TAO120312	283.9857	285.1792	284.7149	2.3844e-01	1.9308e+00
23	TAO130312	279.8482	280.7651	280.4255	2.1386e-01	1.9296e+00
24	TRT020000	203.0028	204.2586	203.5461	3.3796e-01	1.9120e+00
25	TRT070000	248.0267	249.2506	248.6125	3.2645e-01	1.9214e+00
26	TRT100000	281.2338	281.9669	281.5659	1.6760e-01	1.9299e+00
27	TRT120000	289.4577	290.4619	290.0435	2.0475e-01	1.9323e+00
28	TRT125000	294.4514	295.3584	294.9324	2.0520e-01	1.9338e+00
29	TRT130000	286.5141	287.2467	286.9118	1.6394e-01	1.9314e+00
30	EMPTY	39.3761	40.2940	39.8398	2.0468e-01	1.9011e+00
31	TAF050136	145.2606	148.8538	146.4778	6.5160e-01	1.9039e+00
32	TAF070136	169.1250	171.8670	170.5377	6.2755e-01	1.9068e+00
33	TAF080136	246.8377	251.0134	249.0599	9.8524e-01	1.9215e+00
34	TAF090136	96.8115	97.8538	97.4264	2.4288e-01	1.9005e+00
35	TAF100136	202.3019	208.5664	205.4208	1.7033e+00	1.9123e+00
36	TAF105136	207.6461	213.3521	210.2016	1.4560e+00	1.9132e+00
37	TAF110136	213.8293	217.3509	215.3087	8.7817e-01	1.9142e+00
38	TAF115136	220.5235	223.3713	222.0260	5.7223e-01	1.9155e+00
39	TAF120136	265.4955	266.9695	266.1045	3.5915e-01	1.9257e+00
40	TAF125136	233.9760	237.3434	235.4416	7.7414e-01	1.9184e+00
41	TAF130136	236.4663	239.5672	237.8820	6.1390e-01	1.9189e+00
42	TAF120048	238.4940	240.1985	239.4882	3.4718e-01	1.9193e+00
43	TAF130048	251.7342	253.9718	252.5833	4.8068e-01	1.9223e+00
44	TAF120224	222.0171	224.0117	223.0331	5.3489e-01	1.9157e+00
45	TAF130224	231.0447	233.0400	232.0694	4.3451e-01	1.9176e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.1216	2.1890e-01	1.9010e+00
47	EMPTY	39.6057	40.2940	39.9729	1.4660e-01	1.9011e+00
48	TAI130048	277.9200	279.0249	278.5223	3.0553e-01	1.9291e+00
49	TAI130136	280.1155	281.2168	280.5877	2.3802e-01	1.9296e+00
50	TAI130224	282.7329	284.1119	283.3640	3.2538e-01	1.9304e+00
51	TAI130312	274.5102	275.8948	275.3614	3.3670e-01	1.9282e+00
52	TR130000	119.1544	122.8255	120.4421	8.9890e-01	1.9017e+00
53	TSI000001	68.8487	69.5954	69.2608	1.6547e-01	1.9000e+00
54	TSI000002	68.9532	77.3280	71.9891	1.5582e+00	1.9000e+00
55	TSO000001	68.2544	69.1114	68.7024	2.1497e-01	1.9000e+00
56	TSO000002	86.0098	86.9570	86.4461	2.0060e-01	1.9002e+00
57	TAF020136	106.3160	108.6054	107.2676	5.1119e-01	1.9009e+00
58	TAF120312	232.6443	235.1007	233.9921	5.6156e-01	1.9180e+00
59	TAF130312	256.0886	258.2270	257.1989	5.6810e-01	1.9235e+00
60	EMPTY	4.5215	4.5459	4.5353	6.7406e-03	0.0000e+00
61	EMPTY	4.5068	4.5264	4.5169	5.0696e-03	0.0000e+00
62	EMPTY	4.4873	4.5068	4.4978	4.8337e-03	0.0000e+00
63	EMPTY	4.4824	4.4971	4.4896	4.5432e-03	0.0000e+00
64	EMPTY	2.1240	2.1338	2.1266	2.6543e-03	0.0000e+00
65	EMPTY	2.1338	2.1436	2.1391	2.9330e-03	0.0000e+00
66	EMPTY	2.1387	2.1484	2.1457	2.6396e-03	0.0000e+00
67	EMPTY	2.1436	2.1582	2.1553	2.9594e-03	0.0000e+00
68	EMPTY	2.1533	2.1631	2.1607	2.6543e-03	0.0000e+00
69	EMPTY	2.1680	2.1729	2.1703	2.4642e-03	0.0000e+00
70	EMPTY	2.1729	2.1777	2.1760	2.3675e-03	0.0000e+00
71	EMPTY	2.1875	2.1924	2.1896	2.4344e-03	0.0000e+00
72	EMPTY	2.1924	2.2021	2.1950	2.6488e-03	0.0000e+00
73	EMPTY	2.2021	2.2070	2.2057	2.2146e-03	0.0000e+00
74	EMPTY	2.2070	2.2168	2.2120	1.2041e-03	0.0000e+00
75	EMPTY	2.2168	2.2266	2.2216	1.2041e-03	0.0000e+00
76	EMPTY	2.2266	2.2314	2.2268	9.6655e-04	0.0000e+00
77	EMPTY	2.2363	2.2461	2.2390	2.6488e-03	0.0000e+00
78	EMPTY	2.2510	2.2559	2.2515	1.4797e-03	0.0000e+00
79	EMPTY	2.2656	2.2705	2.2668	2.1065e-03	0.0000e+00
80	PAN020136	-19.2920	-15.6298	-17.1191	1.0568e+00	8.7105e-01
81	PAN050136	-38.6264	-31.1496	-35.8890	2.3344e+00	1.6824e+00
82	PAN070136	-25.9425	-13.2777	-20.6126	3.5826e+00	8.7152e-01
83	PAN080136	-14.0791	-3.0165	-9.6342	3.0851e+00	8.7033e-01
84	PAN090136	-13.2045	-5.2699	-11.0545	1.6920e+00	8.7044e-01
85	PAN100136	-12.1600	-5.7513	-9.4363	1.4358e+00	8.7032e-01
86	PAN105136	-7.8531	-2.1311	-5.0074	1.5524e+00	8.7009e-01
87	PAN110136	-7.4378	-0.0373	-3.9619	1.4590e+00	8.7006e-01
88	PAN115136	-6.3815	-3.5586	-4.9593	5.7565e-01	8.7009e-01
89	PAN120136	-6.1013	-4.3465	-5.3658	5.0225e-01	8.7010e-01
90	PAN125136	-6.1116	-3.8228	-5.8461	4.2331e-01	8.7012e-01
91	PAN130136	-3.9518	3.2961	-1.9651	1.5864e+00	8.7001e-01
92	PAN120048	-12.0279	-8.8999	-10.5982	8.4450e-01	8.7010e-01
93	PAN130048	-10.5754	-7.3710	-9.3013	6.3762e-01	8.7031e-01
94	PAN120224	-11.6346	-5.5311	-9.7181	1.0691e+00	8.7034e-01
95	PAN130224	-11.0786	-8.1031	-9.7221	6.6392e-01	8.7034e-01
96	PAN120312	-12.3918	-8.2719	-10.2968	7.5452e-01	8.7038e-01
97	PAN130312	-10.3817	-6.8722	-9.3517	7.2580e-01	8.7031e-01
98	PAB000136	40.1602	40.4806	40.3552	6.2595e-02	5.8871e-01
99	PAB100136	43.9421	44.2167	44.1078	5.8410e-02	5.9039e-01
100	PAB125136	44.8857	45.2519	45.0459	7.9690e-02	5.9083e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.8917	40.1358	40.0797	7.0664e-02	7.5666e-01
102	PRV000001	19.4847	19.7289	19.6117	3.4527e-02	7.5160e-01
103	PSR000001	44.9998	45.2439	45.1194	4.6072e-02	7.5843e-01
104	PFM000001	1.4313	1.7060	1.5723	7.8930e-02	5.0002e-01
105	PAN000136	-136.8970	-131.4039	-133.6011	1.1662e+00	4.9313e+00
106	PFM000002	1.5783	1.6118	1.5930	9.9646e-03	2.0004e-01
107	EMPTY	-0.0049	0.0049	0.0021	3.8409e-03	0.0000e+00
108	EMPTY	-10.0000	-7.4707	-9.8994	4.0780e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0012	2.1065e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	102.0771	102.6630	102.3935	1.2409e-01	1.0166e+00
113	VPW000002	119.2721	119.8580	119.5376	1.1679e-01	1.0819e+00
114	VPW000003	146.9276	147.3182	147.0878	1.0942e-01	1.1979e+00
115	VPW000004	104.7889	105.3748	105.0819	1.5409e-01	1.0265e+00
116	VPW000005	139.5470	140.3283	140.0314	1.5902e-01	1.1671e+00
117	VPW000006	147.3745	148.1558	147.8198	1.6760e-01	1.2011e+00
118	IPW000001	538.8844	542.7891	541.4614	1.3341e+00	9.1601e+00
119	IPW000002	1306.8251	1310.7277	1308.8157	1.2768e+00	1.3135e+01
120	IPW000003	1326.7874	1332.6375	1329.5565	1.6286e+00	1.3264e+01
121	IPW000004	377.6292	379.0940	378.6349	3.7447e-01	3.5982e+00
122	IPW000005	252.3317	253.7964	252.9567	3.5619e-01	2.8273e+00
122	IPW000006	262.8174	264.7705	263.8428	4.7566e-01	2.8887e+00
124	EMPTY	-0.0342	-0.0146	-0.0226	4.2875e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0146	2.4164e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0146	-0.0195	2.9594e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0159	3.2434e-03	0.0000e+00
128	IHT000001	128.1137	131.0434	129.5513	6.6703e-01	4.2998e+00
129	IHT000002	132.1890	134.9234	133.3882	5.9974e-01	4.3115e+00
130	IHT000003	132.5308	135.4605	133.7534	6.0850e-01	4.3127e+00
131	IHT000004	130.6566	133.5863	131.8754	6.4905e-01	4.3069e+00
132	IHT000005	129.2856	131.6294	130.3403	5.7318e-01	4.3022e+00
133	IHT000006	124.1587	126.6977	125.1977	5.8851e-01	4.2869e+00
134	IHT000007	131.1899	133.7290	132.2524	5.7475e-01	4.3080e+00
135	IHT000008	129.7251	132.0688	130.7837	5.4973e-01	4.3035e+00
136	IHT000009	130.2471	132.5909	131.2862	5.9378e-01	4.3051e+00
137	IHT000010	132.0838	134.6229	133.0760	5.3936e-01	4.3106e+00
138	IHT000011	130.5551	133.0942	131.4341	5.0878e-01	4.3055e+00
139	IHT000012	128.3504	130.4988	129.2684	4.6059e-01	4.2990e+00
140	IHT000013	91.3499	93.3030	92.1936	4.5752e-01	4.2024e+00
141	IHT000014	127.5391	129.8828	128.5078	5.1744e-01	4.2967e+00
142	IHT000015	94.6777	97.2168	95.9824	5.0136e-01	4.2109e+00
143	IHT000016	88.5367	90.2945	89.4663	4.7443e-01	4.1965e+00
144	IHT000017	104.7251	106.6782	105.6626	4.6689e-01	4.2340e+00
145	IHT000018	107.2491	109.3975	108.2061	5.8427e-01	4.2404e+00
146	IHT000019	103.3616	105.5101	104.1937	4.9726e-01	4.2303e+00
147	IHT000020	105.6077	107.7561	106.5843	5.0532e-01	4.2363e+00
148	IHT000021	-2.6104	0.1240	-1.4932	6.2644e-01	4.1000e+00
149	IHT000022	92.1912	94.3397	93.0858	5.3100e-01	4.2043e+00
150	IHT000023	104.4621	106.6106	105.3527	5.0248e-01	4.2332e+00
151	IHT000024	69.8355	71.7886	70.5933	4.4754e-01	4.1603e+00
152	IHT000025	104.3044	106.6481	105.0661	5.1335e-01	4.2325e+00
153	IHT000026	104.9091	107.4482	105.8115	5.3654e-01	4.2343e+00
154	IHT000027	89.8100	91.9584	90.7319	5.1906e-01	4.1992e+00
155	IHT000028	91.1584	93.5021	92.1428	5.2193e-01	4.2023e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	104.6049	106.7533	105.5034	5.1297e-01	4.2336e+00
157	IHT000030	106.6256	109.1647	107.9108	5.0700e-01	4.2396e+00
158	IHT000031	105.3223	107.6660	106.4551	5.2940e-01	4.2359e+00
159	IHT000032	106.1524	108.6914	107.4336	5.0864e-01	4.2384e+00
160	IHT000033	106.1523	108.6914	107.3828	5.1031e-01	4.2383e+00
161	IHT000034	93.5171	95.8609	94.4546	4.5506e-01	4.2074e+00
162	IHT000035	123.5051	125.4582	124.4699	4.2574e-01	4.2848e+00
163	IHT000036	92.1950	94.1481	93.1403	4.4004e-01	4.2045e+00

DEFECTIVE INSTRUMENTS FOR THE RIBBED GEOMETRY TEST SERIES

Series	Tests	Defective Instruments
1A	Aug01_01 to Aug01_08	TAO120048 TAF080136 TRT125000 TAO020136 TAF090136 TRR130000 TAO070136 TAF120136 TAO125136 IHT000021 IHT000024 IHT000033

Chapter 10

NUCLEATE BOILING PRESSURE DROP IN AN ANNULUS

Test Geometry: Ribbed (4)
Test Series: 4
Test Date: August 1, 1990

TEST NUMBER	INLET VELOCITY(a) (ft/s)	PRESSURE DROP(b) (psi)
Aug01_10	25.95	19.16
Aug01_11	19.93	9.43
Aug01_12	14.10	2.12
Aug01_13	8.06	-2.52
Aug01_14	7.10	-2.95
Aug01_15	6.79	-3.07
Aug01_17	6.65	-3.06
Aug01_16	6.54	-2.99
Aug01_18	6.44	-2.72
Aug01_19	5.98	-2.05

(c)

NOMINAL TEST CONDITIONS	
Annulus geometry	ribbed (4)
Inlet temperature	86 °F
Inlet pressure	40 psia
Wall heat flux	200 kBtu/hr-ft ²
Flux distribution	uniform
He saturation pressure	5 psig

NOTES:

(a) Inlet velocity calculated from PFM000001

(b) Pressure drop calculated from PAN000136

(c) Shading notes test at minimum pressure drop

DEMAND CURVE AND DATA FOR SERIES 4 - RIBBED ANNULUS

SERIES 4, AUG01_11

$P_{He} = 5 \text{ psig}$

RIBBED (4)

$P = 39.84 \text{ psia}$

$\phi = 199,800 \text{ Btu/hr-ft}^2$

$T = 85.59 \text{ }^\circ\text{F}$

$V_f = 19.93 \text{ ft/sec}$

$L = 12.83 \text{ ft}$

RIBBED (4)

$P_{He} = 5 \text{ psig}$

$P = 39.84 \text{ psia}$

$\phi = 199,800 \text{ Btu/hr-ft}^2$

$T = 85.59 \text{ }^\circ\text{F}$

$V_f = 19.93 \text{ ft/sec}$

$L = 12.83 \text{ ft}$

AUG01_11

SERIES 4, AUG01_12

$P_{He} = 5$ psig

RIBBED (4)

$P = 39.70$ psia

$\phi = 200,200$ Btu/hr-ft²

$T = 85.69$ °F

$V_f = 14.10$ ft/sec

$L = 12.83$ ft

RIBBED (4)

$P_{He} = 5$ psig

$P = 39.70$ psia

$\phi = 200,200$ Btu/hr-ft²

$T = 85.69$ °F

$V_f = 14.10$ ft/sec

$L = 12.83$ ft

AUG01_12

SERIES 4, AUG01_13

RIBBED (4)

$\phi = 201,500 \text{ Btu/hr-ft}^2$

$V_t = 8.06 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 39.99 \text{ psia}$

$T = 86.53 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

RIBBED (4)

$\phi = 201,500 \text{ Btu/hr-ft}^2$

$V_t = 8.06 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 39.99 \text{ psia}$

$T = 86.53 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

AUG01_13

SERIES 4, AUG01_14

RIBBED (4)

$\phi = 200,600 \text{ Btu/hr-ft}^2$

$v_f = 7.10 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 39.89 \text{ psia}$

$T = 87.10 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

RIBBED (4)

$\phi = 200,600 \text{ Btu/hr-ft}^2$

$v_f = 7.10 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 39.89 \text{ psia}$

$T = 87.10 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

AUG01_14

SERIES 4, AUG01_15

RIBBED (4)

$\phi = 201,400 \text{ Btu/hr-ft}^2$

$V_f = 6.79 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 39.96 \text{ psia}$

$T = 87.59 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

RIBBED (4)

$\phi = 201,400 \text{ Btu/hr-ft}^2$

$V_f = 6.79 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 39.96 \text{ psia}$

$T = 87.59 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

AUG01_15

SERIES 4, AUG01_17

RIBBED (4)

$\phi = 200,200 \text{ Btu/hr-ft}^2$

$V_f = 6.65 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 39.92 \text{ psia}$

$T = 87.55 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

RIBBED (4)

$\phi = 200,200 \text{ Btu/hr-ft}^2$

$V_f = 6.65 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 39.92 \text{ psia}$

$T = 87.55 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

AUG01_17

SERIES 4, AUG01_18

RIBBED (4)

$\phi = 201,200 \text{ Btu/hr-ft}^2$

$V_f = 6.44 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 39.91 \text{ psia}$

$T = 87.43 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

RIBBED (4)

$\phi = 201,200 \text{ Btu/hr-ft}^2$

$V_f = 6.44 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$

$P = 39.91 \text{ psia}$

$T = 87.43 \text{ }^\circ\text{F}$

$L = 12.83 \text{ ft}$

AUG01_18

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Velocity 1 = 25.9481 (ft/sec) (+/- 1.6889 %)
 Velocity 2 = 13.4163 (ft/sec) (+/- 1.7033 %)
 Pressure drop = 19.1555 (psi)
 Tsat in = 268.0000 (deg F) Tsat out = 233.7540 (deg F)
 Phi inner = 200.0756 (kBtu/hr-ft2) (+/- 1.2823 %)
 Phi outer = 201.7830 (kBtu/hr-ft2) (+/- 1.3377 %)
 D inner = 0.1961 (ft) D outer = 0.2413 (ft) D hyd = 0.0390 (ft)
 L inner = 12.8610 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	81.9865	82.6226	82.4233	1.7871e-01	1.9001e+00
1	TRF000002	82.0027	82.8462	82.6775	1.6498e-01	1.9001e+00
2	TFH000001	87.5944	88.5390	88.1002	2.1381e-01	1.9002e+00
3	TIN000001	87.0561	87.8968	87.5163	1.6861e-01	1.9002e+00
4	TRV000001	88.2784	89.1164	88.6580	1.9491e-01	1.9002e+00
5	TSR000001	124.5557	126.8908	125.5005	4.9236e-01	1.9021e+00
6	TAO020136	82.6445	87.3894	85.1583	1.1166e+00	1.9002e+00
7	TAO050136	129.1235	130.0358	129.6082	2.1779e-01	1.9024e+00
8	TAO070136	132.2789	133.1944	132.7733	2.2143e-01	1.9027e+00
9	TAO080136	141.1343	143.1361	142.5139	3.4654e-01	1.9035e+00
10	TAO090136	145.7851	147.4878	146.4005	2.9596e-01	1.9039e+00
11	TAO100136	139.5960	141.9101	140.6729	4.4542e-01	1.9034e+00
12	TAO105136	141.3429	143.2583	142.2646	5.0779e-01	1.9035e+00
13	TAO110136	145.4078	147.1006	146.0432	3.6007e-01	1.9039e+00
14	TAO115136	141.8100	143.5210	142.6018	3.2914e-01	1.9035e+00
15	TAO120136	152.2569	153.8548	152.8105	3.7483e-01	1.9046e+00
16	TAO125136	128.5339	130.1566	129.3726	3.9027e-01	1.9024e+00
17	TAO130136	144.8003	145.1860	145.3218	3.1436e-01	1.9038e+00
18	TAO120048	97.6138	98.6555	98.1701	3.0003e-01	1.9005e+00
19	TAO130048	146.6481	148.0467	147.3150	3.1758e-01	1.9040e+00
20	TAO120224	149.9489	151.6492	150.5278	3.7637e-01	1.9044e+00
21	TAO130224	141.1730	143.2711	142.1153	4.3242e-01	1.9035e+00
22	TAO120312	147.3923	148.8974	148.1611	3.9897e-01	1.9041e+00
23	TAO130312	147.7500	148.9496	148.1806	2.4151e-01	1.9041e+00
24	TWT020000	126.5705	127.4895	126.9691	2.0446e-01	1.9022e+00
25	TWT070000	138.1984	139.2120	138.7672	2.3808e-01	1.9032e+00
26	TWT100000	151.0921	152.1893	151.6365	2.2204e-01	1.9045e+00
27	TWT120000	148.3552	148.9565	148.6339	1.6850e-01	1.9042e+00
28	TWT125000	77.5795	279.2825	156.2174	3.6816e+01	1.9050e+00
29	TWT130000	150.5340	151.2338	150.9357	1.6958e-01	1.9044e+00
30	EMPTY	39.3761	40.0646	39.8443	2.1228e-01	1.9011e+00
31	TAF050136	101.7588	102.3818	102.1429	1.7310e-01	1.9007e+00
32	TAF070136	107.1009	107.9259	107.5448	2.0859e-01	1.9009e+00
33	TAF080136	135.2132	167.8273	143.4314	6.2628e+00	1.9036e+00
34	TAF090136	89.8242	90.9765	90.3375	2.7775e-01	1.9003e+00
35	TAF100136	116.4868	117.5148	116.9988	1.8636e-01	1.9015e+00
36	TAF105136	117.9180	118.8373	118.2887	2.3381e-01	1.9016e+00
37	TAF110136	119.6341	120.3502	120.1471	1.5796e-01	1.9017e+00
38	TAF115136	121.9738	122.7910	122.3438	1.9660e-01	1.9018e+00
39	TAF120136	133.2971	140.8363	135.4433	1.1010e+00	1.9029e+00
40	TAF125136	124.7950	125.9059	125.3449	2.4803e-01	1.9021e+00
41	TAF130136	126.2837	127.0972	126.7335	1.8167e-01	1.9022e+00
42	TAF120048	123.4570	124.4827	123.9392	2.2348e-01	1.9020e+00
43	TAF130048	126.5656	127.3810	127.0042	1.7728e-01	1.9022e+00
44	TAF120224	122.2162	123.0344	122.6318	1.8506e-01	1.9019e+00
45	TAF130224	124.7631	125.4799	125.1094	1.7412e-01	1.9020e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	38.0894	1.9152e-01	1.9010e+00
47	EMPTY	39.1464	39.8352	39.4266	1.4879e-01	1.9010e+00
48	TAI130048	140.3110	141.4196	140.8772	3.1857e-01	1.9034e+00
49	TAI130136	145.5774	146.4797	146.1327	1.7332e-01	1.9039e+00
50	TAI130224	146.3563	147.4626	146.8895	3.1474e-01	1.9040e+00
51	TAI130312	140.6556	141.6646	141.1783	2.2663e-01	1.9034e+00
52	TRR130000	119.5733	120.9009	120.2206	3.0418e-01	1.9017e+00
53	TSI000001	67.0501	67.7973	67.4791	1.5026e-01	1.9000e+00
54	TSI000002	76.2805	80.8192	78.2219	1.0102e+00	1.9000e+00
55	TSO000001	66.8542	67.8195	67.4230	2.3355e-01	1.9000e+00
56	TSO000002	74.7094	75.6647	75.1572	2.1593e-01	1.9000e+00
57	TAP020136	90.6905	91.6363	91.1711	1.9958e-01	1.9003e+00
58	TAP120312	121.5334	122.6577	122.0788	2.7842e-01	1.9018e+00
59	TAP130312	127.8213	129.4453	128.3961	3.6894e-01	1.9023e+00
60	EMPTY	1.2695	1.2891	1.2767	3.5854e-03	0.0000e+00
61	EMPTY	1.2793	1.2891	1.2833	2.1364e-03	0.0000e+00
62	EMPTY	1.2842	1.2939	1.2893	2.1970e-03	0.0000e+00
63	EMPTY	1.2988	1.3037	1.3001	2.1635e-03	0.0000e+00
64	EMPTY	0.7373	0.7471	0.7428	1.8821e-03	0.0000e+00
65	EMPTY	0.7617	0.7666	0.7662	1.3381e-03	0.0000e+00
66	EMPTY	0.7764	0.7813	0.7812	6.9053e-04	0.0000e+00
67	EMPTY	0.7959	0.8057	0.8004	1.9331e-03	0.0000e+00
68	EMPTY	0.8057	0.8154	0.8138	2.5362e-03	0.0000e+00
69	EMPTY	0.8301	0.8350	0.8304	1.1714e-03	0.0000e+00
70	EMPTY	0.8447	0.8496	0.8448	6.9053e-04	0.0000e+00
71	EMPTY	0.8643	0.8691	0.8672	2.4164e-03	0.0000e+00
72	EMPTY	0.8789	0.8838	0.8797	1.8082e-03	0.0000e+00
73	EMPTY	0.8984	0.9033	0.8996	2.1065e-03	0.0000e+00
74	EMPTY	0.9131	0.9180	0.9158	2.4484e-03	0.0000e+00
75	EMPTY	0.9326	0.9326	0.9326	0.0000e+00	0.0000e+00
76	EMPTY	0.9424	0.9521	0.9473	9.8648e-04	0.0000e+00
77	EMPTY	0.9619	0.9668	0.9665	1.1714e-03	0.0000e+00
78	EMPTY	0.9863	0.9912	0.9871	1.8082e-03	0.0000e+00
79	EMPTY	1.0059	1.0107	1.0070	2.1065e-03	0.0000e+00
80	PAN020136	67.4543	75.3125	69.6408	1.6745e+00	8.8725e-01
81	PAN050136	121.7435	123.4219	122.6438	4.0576e-01	1.7077e+00
82	PAN070136	92.6946	93.9916	93.3919	3.7756e-01	9.0078e-01
83	PAN080136	39.4030	45.3539	43.5457	1.3137e+00	8.7678e-01
84	PAN090136	30.5882	38.7517	34.9278	1.5992e+00	8.7437e-01
85	PAN100136	28.5810	39.4910	34.9012	2.3527e+00	8.7436e-01
86	PAN105136	13.2040	27.1658	19.2831	3.1047e+00	8.7133e-01
87	PAN110136	16.0607	29.7173	23.3773	3.7344e+00	8.7196e-01
88	PAN115136	14.7520	23.4495	19.0626	1.9909e+00	8.7130e-01
89	PAN120136	11.2175	26.0185	17.8999	3.3373e+00	8.7141e-01
90	PAN125136	8.8420	27.6866	15.0203	5.0535e+00	8.7081e-01
91	PAN130136	22.3696	36.9417	32.8036	3.2000e+00	8.7386e-01
92	PAN120048	26.1953	37.4868	32.5292	2.7235e+00	8.7379e-01
93	PAN130048	43.5933	52.1383	47.5683	2.1403e+00	8.7809e-01
94	PAN120224	23.5369	37.1935	29.0789	3.6389e+00	8.7303e-01
95	PAN130224	35.6896	48.3544	43.3587	3.6794e+00	8.7673e-01
96	PAN120312	25.4500	38.2674	32.5301	3.3307e+00	8.7379e-01
97	PAN130312	46.3047	55.9940	50.0583	2.9909e+00	8.7895e-01
98	PAB000136	40.1602	70.7095	40.4257	1.1327e-01	5.8874e-01
99	PAB100136	25.7688	26.0893	25.9300	8.6874e-02	5.8361e-01
100	PAB125136	21.8602	22.5469	22.3546	1.4117e-01	5.8269e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.7696	40.5021	40.1505	1.8885e-01	7.5669e-01
102	PRV0000001	19.4847	19.6068	19.6019	2.4164e-02	7.5160e-01
103	PSR0000001	18.7546	18.7546	18.7546	1.9267e-06	7.5146e-01
104	PFH0000001	102.0478	104.7944	103.8331	5.3680e-01	5.6337e-01
105	PAN0000136	525.4870	536.9311	530.3303	2.8596e+00	5.0955e+00
106	PFH0000002	27.5702	27.5702	27.5702	9.6336e-06	2.1154e-01
107	EMPTY	0.0098	0.0146	0.0103	1.4797e-03	0.0000e+00
108	EMPTY	-10.0000	9.9951	-8.4106	2.9123e+00	0.0000e+00
109	EMPTY	0.0049	0.0098	0.0093	1.4797e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0044	1.4797e-03	0.0000e+00
112	VPW0000001	144.2646	145.0458	144.5537	1.8185e-01	1.1867e+00
113	VPW0000002	168.6862	169.2721	169.0259	1.1027e-01	1.2979e+00
114	VPW0000003	207.6698	208.2557	208.0214	1.4764e-01	1.4879e+00
115	VPW0000004	148.1483	148.7342	148.3749	1.3873e-01	1.2036e+00
116	VPW0000005	197.3595	198.1408	197.8751	1.7979e-01	1.4372e+00
117	VPW0000006	209.2886	209.8745	209.4567	1.5288e-01	1.4952e+00
118	IPW0000001	779.0226	790.7367	784.1769	2.2918e+00	1.0197e+01
119	IPW0000002	1825.8628	1837.5704	1831.9111	3.5534e+00	1.6585e+01
120	IPW0000003	1855.2374	1864.9874	1860.4241	1.9937e+00	1.6782e+01
121	IPW0000004	539.7385	542.1799	541.0274	6.6731e-01	4.7189e+00
122	IPW0000005	357.3016	359.2545	358.2293	4.4387e-01	3.4654e+00
123	IPW0000006	369.7510	371.7041	370.4835	4.2142e-01	3.5449e+00
124	EMPTY	-0.0244	-0.0098	-0.0178	3.3829e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0129	2.7480e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0098	-0.0139	3.3249e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0159	3.3901e-03	0.0000e+00
128	IHT0000001	181.8247	183.9731	182.7934	6.1252e-01	4.4890e+00
129	IHT0000002	187.2671	189.4156	188.1969	6.3449e-01	4.5113e+00
130	IHT0000003	188.3902	190.9292	189.4762	6.5810e-01	4.5166e+00
131	IHT0000004	185.1488	187.4925	186.3441	6.4554e-01	4.5036e+00
132	IHT0000005	182.9966	185.5356	184.2231	6.6032e-01	4.4949e+00
133	IHT0000006	176.8930	179.8227	178.4868	6.4278e-01	4.4717e+00
134	IHT0000007	185.0962	188.2212	186.8305	6.5035e-01	4.5056e+00
135	IHT0000008	183.0454	186.3657	184.8071	6.5849e-01	4.4973e+00
136	IHT0000009	183.9581	187.2784	185.4385	6.4367e-01	4.4999e+00
137	IHT0000010	186.9666	189.7010	188.3808	6.2335e-01	4.5121e+00
138	IHT0000011	184.8520	187.3911	186.0551	6.4881e-01	4.5024e+00
139	IHT0000012	181.4754	184.2097	182.7841	6.1795e-01	4.4890e+00
140	IHT0000013	130.2171	133.3421	131.6351	6.3111e-01	4.3061e+00
141	IHT0000014	181.0547	183.9844	182.4453	6.1592e-01	4.4876e+00
142	IHT0000015	134.9121	137.6465	136.2363	6.1039e-01	4.3204e+00
143	IHT0000016	125.2554	128.3804	126.6929	5.9941e-01	4.2913e+00
144	IHT0000017	150.2329	153.5532	151.6782	6.7543e-01	4.3716e+00
145	IHT0000018	152.1710	155.1006	153.3975	7.1685e-01	4.3776e+00
146	IHT0000019	146.7210	149.4554	148.0179	5.1864e-01	4.3590e+00
147	IHT0000020	151.1155	153.6546	152.4398	5.1341e-01	4.3742e+00
148	IHT0000021	-2.8057	-0.0714	-1.3878	5.8101e-01	4.1000e+00
149	IHT0000022	130.6678	133.2069	131.9764	5.0107e-01	4.3072e+00
150	IHT0000023	148.4075	151.1418	149.9777	5.4385e-01	4.3657e+00
151	IHT0000024	113.3902	115.9293	114.6909	5.1389e-01	4.2574e+00
152	IHT0000025	147.4685	150.3981	148.9332	5.7079e-01	4.3621e+00
153	IHT0000026	149.2450	152.1747	150.6240	5.5160e-01	4.3679e+00
154	IHT0000027	127.7006	129.8490	128.6772	5.2793e-01	4.2972e+00
155	IHT0000028	129.4396	132.9552	130.6661	6.9030e-01	4.3032e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	148.5502	151.2845	149.7924	5.9157e-01	4.3651e+00
157	IHT0000030	151.5475	154.0865	152.6958	6.4070e-01	4.3751e+00
158	IHT0000031	149.6582	152.1973	150.8066	6.0314e-01	4.3686e+00
159	IHT0000032	151.4649	153.8086	152.5625	5.8112e-01	4.3746e+00
160	IHT0000033	151.2695	153.8086	152.4687	6.0748e-01	4.3743e+00
161	IHT0000034	133.3609	135.1187	134.0796	4.3484e-01	4.3137e+00
162	IHT0000035	175.8488	177.4113	176.6495	4.3450e-01	4.4644e+00
163	IHT0000036	131.6481	133.2106	132.3707	4.5629e-01	4.3084e+00

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Velocity 1 = 19.9325 (ft/sec) (+/- 1.7209 %)
 Velocity 2 = 13.4142 (ft/sec) (+/- 1.7033 %)
 Pressure drop = 9.4293 (psi)
 Tsat in = 267.6721 (deg F) Tsat out = 253.0119 (deg F)
 Phi inner = 199.4649 (kBtu/hr-ft2) (+/- 1.2828 %)
 Phi outer = 199.9801 (kBtu/hr-ft2) (+/- 1.3395 %)
 D inner = 0.1961 (ft) D outer = 0.2413 (ft) D hyd = 0.0390 (ft)
 L inner = 12.8610 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	82.4106	82.8345	82.6649	1.4834e-01	1.9001e+00
1	TRF0000002	82.6354	83.4784	82.9642	1.4849e-01	1.9001e+00
2	TFH0000001	85.8118	86.624	86.2319	1.7765e-01	1.9002e+00
3	TIN0000001	85.2658	86.1081	85.5861	1.4591e-01	1.9002e+00
4	TRV0000001	86.5034	87.3426	86.9223	2.0528e-01	1.9003e+00
5	TSR0000001	127.1943	130.7370	129.2719	9.4064e-01	1.9024e+00
6	TAO020136	82.8559	86.2316	84.2832	8.0121e-01	1.9001e+00
7	TAO050136	137.7833	138.6902	138.2305	2.2091e-01	1.9031e+00
8	TAO070136	142.8289	144.1414	143.3787	2.8790e-01	1.9036e+00
9	TAO080136	153.4884	154.5828	153.9144	2.4514e-01	1.9047e+00
10	TAO090136	158.7402	160.0306	159.3044	3.0297e-01	1.9054e+00
11	TAO100136	152.2175	154.4099	152.9200	5.1717e-01	1.9046e+00
12	TAO105136	154.1902	156.1867	155.1331	4.6822e-01	1.9049e+00
13	TAO110136	159.0637	160.7401	159.6958	4.0844e-01	1.9054e+00
14	TAO115136	155.0400	157.1331	155.9133	4.8686e-01	1.9050e+00
15	TAO120136	166.8589	168.5375	167.5306	3.6125e-01	1.9064e+00
16	TAO125136	138.6439	140.0539	139.2973	3.3998e-01	1.9032e+00
17	TAO130136	158.6877	159.7664	159.1101	2.4718e-01	1.9053e+00
18	TAO120048	99.4872	100.6307	100.0236	3.0531e-01	1.9006e+00
19	TAO130048	161.0528	162.0418	161.4888	1.6625e-01	1.9056e+00
20	TAO120224	164.5670	166.3473	165.1412	4.0256e-01	1.9061e+00
21	TAO130224	154.6726	156.8456	155.1685	4.0716e-01	1.9049e+00
22	TAO120312	161.1701	163.2552	162.1634	4.8261e-01	1.9057e+00
23	TAO130312	161.6680	162.5603	161.9697	1.8121e-01	1.9057e+00
24	TRT020000	134.5119	135.5265	135.0152	2.1785e-01	1.9028e+00
25	TRT070000	149.5289	150.4339	149.9832	1.9944e-01	1.9043e+00
26	TRT100000	164.5781	165.4679	165.0523	2.1223e-01	1.9061e+00
27	TRT120000	162.8800	163.7720	163.2727	1.8451e-01	1.9059e+00
28	TRT125000	99.6771	252.5092	156.3330	3.2411e+01	1.9050e+00
29	TRT130000	164.8186	165.5111	165.1197	1.5469e-01	1.9061e+00
30	EMPTY	39.3761	40.2940	39.8214	2.0947e-01	1.9011e+00
31	TAFO50136	104.1372	105.0684	104.6210	2.0825e-01	1.9008e+00
32	TAFO70136	111.8234	112.6448	112.2142	2.1934e-01	1.9012e+00
33	TAFO80136	149.8846	158.6900	154.3155	1.6923e+00	1.9048e+00
34	TAFO90136	91.4992	92.6497	92.1225	2.3805e-01	1.9003e+00
35	TAF100136	123.4594	124.2774	123.9378	1.7340e-01	1.9020e+00
36	TAF105136	125.2194	126.1341	125.7470	2.3767e-01	1.9021e+00
37	TAF110136	127.7659	128.3756	128.0104	1.7053e-01	1.9023e+00
38	TAF115136	130.3057	131.3185	130.8001	2.1737e-01	1.9025e+00
39	TAF120136	145.8373	148.4320	146.8765	6.1665e-01	1.9040e+00
40	TAF125136	133.9626	135.3698	134.8359	3.1290e-01	1.9028e+00
41	TAF130136	136.0022	137.1134	136.6486	2.4393e-01	1.9030e+00
42	TAF120048	132.1581	133.4825	132.9364	3.0375e-01	1.9027e+00
43	TAF130048	136.4950	137.1014	136.7777	1.4725e-01	1.9030e+00
44	TAF120224	131.0635	131.9766	131.4737	2.2534e-01	1.9025e+00
45	TAF130224	134.2606	134.8705	134.6103	1.5918e-01	1.9028e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.1446	1.9574e-01	1.9010e+00
47	EMPTY	39.3761	39.8352	39.5552	1.0668e-01	1.9011e+00
48	TAI130048	154.0462	155.2431	154.7004	3.0830e-01	1.9048e+00
49	TAI130136	160.1090	161.1995	160.6559	2.3625e-01	1.9055e+00
50	TAI130224	160.2600	161.7523	160.9247	3.5237e-01	1.9056e+00
51	TAI130312	154.5019	155.4007	154.9853	2.3463e-01	1.9049e+00
52	TRR130000	122.4283	124.1603	123.3904	3.5932e-01	1.9019e+00
53	TSI0000001	66.8381	67.5855	67.1886	1.8802e-01	1.9000e+00
54	TSI0000002	73.5294	77.3394	74.5378	8.5498e-01	1.9000e+00
55	TSO0000001	66.6395	67.8178	67.0680	2.0437e-01	1.9000e+00
56	TSO0000002	75.3460	76.3014	75.8514	2.0405e-01	1.9000e+00
57	TAF020136	90.4771	91.4246	90.9611	2.2522e-01	1.9003e+00
58	TAF120312	129.9924	131.3129	130.6262	3.4068e-01	1.9025e+00
59	TAF130312	138.1381	139.0465	138.5258	2.4131e-01	1.9032e+00
60	EMPTY	1.5088	1.5186	1.5129	2.4878e-03	0.0000e+00
61	EMPTY	1.5088	1.5234	1.5161	2.6562e-03	0.0000e+00
62	EMPTY	1.5186	1.5234	1.5218	2.3365e-03	0.0000e+00
63	EMPTY	1.5283	1.5430	1.5304	2.9742e-03	0.0000e+00
64	EMPTY	0.8398	0.8447	0.8433	2.2603e-03	0.0000e+00
65	EMPTY	0.8643	0.8691	0.8644	6.9053e-04	0.0000e+00
66	EMPTY	0.8740	0.8838	0.8789	9.8648e-04	0.0000e+00
67	EMPTY	0.8936	0.8984	0.8974	2.0432e-03	0.0000e+00
68	EMPTY	0.9082	0.9131	0.9094	2.1065e-03	0.0000e+00
69	EMPTY	0.9229	0.9277	0.9274	1.1714e-03	0.0000e+00
70	EMPTY	0.9375	0.9424	0.9408	2.3008e-03	0.0000e+00
71	EMPTY	0.9619	0.9619	0.9619	0.0000e+00	0.0000e+00
72	EMPTY	0.9717	0.9766	0.9749	2.3365e-03	0.0000e+00
73	EMPTY	0.9912	0.9961	0.9940	2.4344e-03	0.0000e+00
74	EMPTY	1.0059	1.0107	1.0092	2.3008e-03	0.0000e+00
75	EMPTY	1.0205	1.0303	1.0254	9.8648e-04	0.0000e+00
76	EMPTY	1.0352	1.0400	1.0398	9.6655e-04	0.0000e+00
77	EMPTY	1.0547	1.0596	1.0573	2.4583e-03	0.0000e+00
78	EMPTY	1.0742	1.0791	1.0790	6.9053e-04	0.0000e+00
79	EMPTY	1.0986	1.1035	1.0988	9.6655e-04	0.0000e+00
80	PANO20136	33.1983	41.1328	36.0776	1.9423e+00	8.7466e-01
81	PANO50136	59.3350	61.6238	60.6106	5.3373e-01	1.6868e+00
82	PANO70136	45.5449	47.8337	46.7351	4.6395e-01	8.7781e-01
83	PANO80136	17.9644	22.1605	20.6057	1.1889e+00	8.7152e-01
84	PANO90136	12.5829	20.2885	16.0008	1.7510e+00	8.7092e-01
85	PANI00136	10.8808	20.7227	16.1100	2.1333e+00	8.7093e-01
86	PANI05136	5.9561	14.2721	9.5190	1.9236e+00	8.7033e-01
87	PANI10136	5.6084	14.9163	10.8941	2.1190e+00	8.7043e-01
88	PANI115136	4.9101	12.4632	8.4577	1.4480e+00	8.7026e-01
89	PANI120136	4.1221	14.5744	10.3401	3.0670e+00	8.7038e-01
90	PANI125136	-0.5421	10.4442	4.6031	3.3127e+00	8.7008e-01
91	PANI130136	12.4514	24.5821	19.3911	3.5984e+00	8.7135e-01
92	PANI20048	8.9529	18.4896	14.1043	2.1663e+00	8.7071e-01
93	PANI30048	21.6207	31.0811	24.5321	2.2003e+00	8.7216e-01
94	PANI20224	5.4552	17.8912	11.6427	3.4363e+00	8.7049e-01
95	PANI30224	16.3873	26.6869	22.7349	2.8199e+00	8.7185e-01
96	PANI120312	8.4365	17.8206	14.2134	2.1840e+00	8.7073e-01
97	PANI30312	22.2721	29.5963	25.2643	2.0514e+00	8.7229e-01
98	PAB000136	39.9313	40.5722	40.2041	1.3078e-01	5.8864e-01
99	PAB100136	32.8642	33.1846	33.0198	9.1084e-02	5.8585e-01
100	PAB125136	31.0155	31.5648	31.3515	1.4196e-01	5.8527e-01

AIM

Association for Information and Image Management

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Silver Spring, Maryland 20910
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Centimeter

Inches

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.4034	40.2579	39.8404	2.3922e-01	7.5658e-01
102	PRV0000001	19.3627	19.4847	19.3895	5.1081e-02	7.5156e-01
103	PSR0000001	28.8865	29.2527	29.1038	9.3227e-02	7.5352e-01
104	PFM0000001	60.2082	61.9477	61.1549	3.7571e-01	5.2285e-01
105	PAN000136	253.5754	268.2238	261.0552	3.6687e+00	4.9631e+00
106	PFM0000002	27.5702	27.5702	27.5702	9.6336e-06	2.1154e-01
107	EMPTY	0.0049	0.0146	0.0097	1.2041e-03	0.0000e+00
108	EMPTY	-10.0000	3.8428	-9.0205	2.0879e+00	0.0000e+00
109	EMPTY	0.0049	0.0098	0.0062	2.1635e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0009	1.8950e-03	0.0000e+00
112	VPW0000001	144.4599	145.0458	144.6396	1.4680e-01	1.1871e+00
113	VPW0000002	168.6862	169.0768	168.8814	1.1161e-01	1.2972e+00
114	VPW0000003	208.0604	208.4510	208.2597	1.2156e-01	1.4891e+00
115	VPW0000004	148.1483	148.7342	148.4843	1.3111e-01	1.2041e+00
116	VPW0000005	197.7502	198.3361	197.9845	1.3087e-01	1.4378e+00
117	VPW0000006	209.2886	209.6792	209.5387	1.4249e-01	1.4956e+00
118	IPW0000001	788.7844	794.6414	790.7367	1.6734e+00	1.0229e+01
119	IPW0000002	1792.6912	1804.3988	1797.0620	2.3508e+00	1.6345e+01
120	IPW0000003	1849.3875	1855.2374	1852.2734	1.5876e+00	1.6725e+01
121	IPW0000004	540.7151	542.6682	541.6036	4.6990e-01	4.7230e+00
122	IPW0000005	356.3252	357.7899	357.3212	3.5510e-01	3.4595e+00
123	IPW0000006	368.7744	370.7276	369.5558	6.1605e-01	3.5388e+00
124	EMPTY	-0.0244	-0.0146	-0.0191	3.3944e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0132	2.8334e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0146	3.4173e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0167	3.2851e-03	0.0000e+00
128	IHT0000001	181.8247	184.7544	182.9887	6.9246e-01	4.4898e+00
129	IHT0000002	187.2671	189.8062	188.3765	6.2818e-01	4.5120e+00
130	IHT0000003	188.7808	191.1245	189.7926	5.8884e-01	4.5180e+00
131	IHT0000004	185.5394	188.0784	186.5980	6.1522e-01	4.5047e+00
132	IHT0000005	183.3872	185.7309	184.4536	5.4134e-01	4.4958e+00
133	IHT0000006	177.4790	179.8227	178.7094	5.0878e-01	4.4725e+00
134	IHT0000007	185.4868	188.2212	186.9985	5.2469e-01	4.5063e+00
135	IHT0000008	183.4360	186.1704	184.9164	4.5693e-01	4.4977e+00
136	IHT0000009	183.9581	186.8878	185.4776	4.8695e-01	4.5000e+00
137	IHT0000010	186.7713	189.8963	188.6034	6.1749e-01	4.5130e+00
138	IHT0000011	184.2661	187.5864	186.1176	6.1793e-01	4.5027e+00
139	IHT0000012	181.0847	184.2097	182.8583	6.5891e-01	4.4893e+00
140	IHT0000013	130.2171	132.9515	131.7054	6.2126e-01	4.3063e+00
141	IHT0000014	181.0547	183.7891	182.5430	6.2998e-01	4.4880e+00
142	IHT0000015	135.1074	137.4512	136.2207	5.5278e-01	4.3204e+00
143	IHT0000016	125.4507	127.9898	126.7476	5.6049e-01	4.2914e+00
144	IHT0000017	149.8423	152.7720	151.2446	7.6686e-01	4.3701e+00
145	IHT0000018	151.7803	154.7100	153.1123	7.1756e-01	4.3766e+00
146	IHT0000019	146.9163	149.4554	148.1117	6.1970e-01	4.3593e+00
147	IHT0000020	150.9202	153.8499	152.2797	6.0741e-01	4.3737e+00
148	IHT0000021	-3.0010	0.3193	-1.2159	7.3080e-01	4.1000e+00
149	IHT0000022	130.6678	133.2069	132.0780	5.2392e-01	4.3075e+00
150	IHT0000023	148.4075	151.3371	149.8878	5.7465e-01	4.3654e+00
151	IHT0000024	113.1949	115.7339	114.6480	5.3110e-01	4.2573e+00
152	IHT0000025	147.4685	150.2028	148.9410	5.2971e-01	4.3621e+00
153	IHT0000026	149.4403	152.1747	150.6357	5.1996e-01	4.3680e+00
154	IHT0000027	127.7006	130.4350	128.8452	5.1752e-01	4.2977e+00
155	IHT0000028	129.4396	131.9787	130.5529	6.4022e-01	4.3028e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	148.1595	150.8939	149.5620	6.5518e-01	4.3643e+00
157	IHT0000030	150.7662	153.8912	152.3794	6.6942e-01	4.3740e+00
158	IHT0000031	148.8770	152.1973	150.4434	6.5613e-01	4.3673e+00
159	IHT0000032	150.6836	154.1992	152.2305	6.8213e-01	4.3735e+00
160	IHT0000033	150.6836	154.0039	152.1719	6.8560e-01	4.3733e+00
161	IHT0000034	132.5796	135.8999	133.9624	5.7296e-01	4.3133e+00
162	IHT0000035	175.2629	178.5832	176.5323	5.8958e-01	4.4639e+00
163	IHT0000036	131.0622	133.9919	132.2496	5.6337e-01	4.3080e+00

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Velocity 1 = 14.0994 (ft/sec) (+/- 1.8621 %)
 Velocity 2 = 13.4142 (ft/sec) (+/- 1.7033 %)
 Pressure drop = 2.1221 (psi)
 Tsat in = 267.4613 (deg F) Tsat out = 264.5535 (deg F)
 Phi inner = 199.3643 (kBtu/hr-ft2) (+/- 1.2829 %)
 Phi outer = 200.8415 (kBtu/hr-ft2) (+/- 1.3384 %)
 D inner = 0.1961 (ft) D outer = 0.2413 (ft) D hyd = 0.0390 (ft)
 L inner = 12.8610 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	82.6226	83.0464	82.8896	1.6477e-01	1.9001e+00
1	TRF0000002	83.0570	83.4784	83.2045	1.2229e-01	1.9001e+00
2	TFM0000001	85.9169	86.6532	86.2706	1.9317e-01	1.9002e+00
3	TIN0000001	85.2660	85.8982	85.6874	1.5359e-01	1.9002e+00
4	TRV0000001	86.7141	87.4482	87.0745	2.0313e-01	1.9002e+00
5	TSR0000001	139.6989	142.2056	141.1224	6.4555e-01	1.9034e+00
6	TAO020136	87.1797	95.5716	93.2174	2.2835e+00	1.9004e+00
7	TAO050136	155.6269	157.1124	156.2334	3.9067e-01	1.9050e+00
8	TAO070136	156.3018	159.9990	157.3217	9.7241e-01	1.9051e+00
9	TAO080136	177.5731	178.6458	178.1974	2.7293e-01	1.9079e+00
10	TAO090136	182.9262	184.6811	183.7102	3.7399e-01	1.9087e+00
11	TAO100136	176.0372	178.7796	177.0761	7.1798e-01	1.9077e+00
12	TAO105136	178.4489	180.9988	179.2651	6.0673e-01	1.9080e+00
13	TAO110136	184.8158	186.8478	185.3013	4.8929e-01	1.9089e+00
14	TAO115136	180.6322	182.7846	181.2935	4.4714e-01	1.9083e+00
15	TAO120136	194.2549	195.7089	194.6702	2.9041e-01	1.9104e+00
16	TAO125136	160.2232	161.9063	160.9842	3.5829e-01	1.9056e+00
17	TAO130136	185.5697	187.3025	186.0022	3.7068e-01	1.9090e+00
18	TAO120048	101.5649	102.6027	102.1792	3.0292e-01	1.9007e+00
19	TAO130048	188.2562	189.6118	188.7906	2.9511e-01	1.9095e+00
20	TAO120224	191.7008	193.4468	192.2364	3.5515e-01	1.9100e+00
21	TAO130224	180.4031	183.1168	181.2529	5.7393e-01	1.9083e+00
22	TAO120312	188.2234	190.1712	188.7534	3.9752e-01	1.9095e+00
23	TAO130312	188.3140	189.6736	188.7925	2.9726e-01	1.9095e+00
24	TRT020000	151.0544	152.2567	151.6516	2.1798e-01	1.9045e+00
25	TRT070000	171.6146	173.1998	172.2212	3.0594e-01	1.9070e+00
26	TRT100000	190.4854	191.5521	190.9740	1.8888e-01	1.9098e+00
27	TRT120000	191.1905	192.0640	191.5398	2.0553e-01	1.9099e+00
28	TRT125000	90.2408	454.1089	215.5731	6.8025e+01	1.9142e+00
29	TRT130000	192.2775	193.0532	192.6423	1.7350e-01	1.9101e+00
30	EMPTY	39.3761	40.2940	39.8352	2.3183e-01	1.9011e+00
31	TAF050136	112.0609	113.3951	112.6772	2.8862e-01	1.9012e+00
32	TAF070136	123.4504	124.4655	123.9254	2.4052e-01	1.9020e+00
33	TAF080136	163.5168	204.0993	177.1264	4.8836e+00	1.9077e+00
34	TAF090136	91.6047	92.4415	92.0606	2.3007e-01	1.9003e+00
35	TAF100136	139.3152	140.7290	140.2120	2.7114e-01	1.9033e+00
36	TAF105136	142.0950	143.4923	142.7261	2.8841e-01	1.9036e+00
37	TAF110136	145.3791	146.4801	145.8754	2.2066e-01	1.9039e+00
38	TAF115136	149.0079	150.2065	149.6710	2.6289e-01	1.9043e+00
39	TAF120136	169.4926	172.2367	170.4896	5.9660e-01	1.9068e+00
40	TAF125136	154.4921	156.0727	155.5117	3.5306e-01	1.9049e+00
41	TAF130136	157.5121	158.6047	158.0528	2.5541e-01	1.9052e+00
42	TAF120048	152.0048	153.2098	152.6883	2.9479e-01	1.9046e+00
43	TAF130048	157.6204	159.0113	158.1219	2.2167e-01	1.9052e+00
44	TAF120224	150.1788	151.6774	151.1100	2.6266e-01	1.9044e+00
45	TAF130224	155.0586	155.6601	155.4234	1.5508e-01	1.9049e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.9168	38.1491	2.9232e-01	1.9010e+00
47	EMPTY	39.3761	40.5234	39.6057	1.7957e-01	1.9011e+00
48	TAI130048	181.3040	183.1616	182.3019	4.0718e-01	1.9085e+00
49	TAI130136	188.8159	189.7871	189.3018	2.2109e-01	1.9096e+00
50	TAI130224	188.1416	189.7995	188.9769	3.8115e-01	1.9095e+00
51	TAI130312	181.9764	183.1506	182.5521	2.3449e-01	1.9085e+00
52	TRR130000	125.1763	127.0058	125.9167	4.2218e-01	1.9021e+00
53	TSI0000001	66.6261	67.2674	66.8191	1.2942e-01	1.9000e+00
54	TSI0000002	73.6361	77.1281	75.0470	9.2874e-01	1.9000e+00
55	TSO0000001	66.1007	67.0666	66.5348	1.7875e-01	1.9000e+00
56	TSO0000002	77.1486	77.9969	77.5475	2.1260e-01	1.9000e+00
57	TAF020136	93.3202	94.2675	93.8295	2.4999e-01	1.9004e+00
58	TAF120312	148.9548	150.4561	149.9034	3.3118e-01	1.9043e+00
59	TAF130312	159.9234	162.6977	160.8202	5.2264e-01	1.9055e+00
60	EMPTY	2.0410	2.0654	2.0469	5.3123e-03	0.0000e+00
61	EMPTY	2.0410	2.0557	2.0471	3.6326e-03	0.0000e+00
62	EMPTY	2.0410	2.0508	2.0473	2.7971e-03	0.0000e+00
63	EMPTY	2.0459	2.0557	2.0534	2.6488e-03	0.0000e+00
64	EMPTY	1.0693	1.0742	1.0694	6.9053e-04	0.0000e+00
65	EMPTY	1.0889	1.0938	1.0896	1.8082e-03	0.0000e+00
66	EMPTY	1.1035	1.1084	1.1036	6.9053e-04	0.0000e+00
67	EMPTY	1.1182	1.1230	1.1216	2.2603e-03	0.0000e+00
68	EMPTY	1.1328	1.1328	1.1328	0.0000e+00	0.0000e+00
69	EMPTY	1.1426	1.1523	1.1475	9.8648e-04	0.0000e+00
70	EMPTY	1.1572	1.1621	1.1618	1.1714e-03	0.0000e+00
71	EMPTY	1.1768	1.1816	1.1814	9.6655e-04	0.0000e+00
72	EMPTY	1.1914	1.1963	1.1918	1.3381e-03	0.0000e+00
73	EMPTY	1.2061	1.2109	1.2108	6.9053e-04	0.0000e+00
74	EMPTY	1.2207	1.2256	1.2247	1.8950e-03	0.0000e+00
75	EMPTY	1.2354	1.2402	1.2399	1.1714e-03	0.0000e+00
76	EMPTY	1.2500	1.2549	1.2503	1.1714e-03	0.0000e+00
77	EMPTY	1.2646	1.2695	1.2687	1.8950e-03	0.0000e+00
78	EMPTY	1.2842	1.2939	1.2891	1.3951e-03	0.0000e+00
79	EMPTY	1.3086	1.3135	1.3087	6.9053e-04	0.0000e+00
80	PAN020136	8.4790	18.3210	11.5338	2.5022e+00	8.7048e-01
81	PAN050136	10.9647	14.4742	13.1009	9.6702e-01	1.6803e+00
82	PAN070136	8.6949	15.8666	12.2625	1.7130e+00	8.7054e-01
83	PAN080136	-4.5423	6.5966	1.2652	2.3738e+00	8.7001e-01
84	PAN090136	-5.4225	11.4384	1.8239	3.9967e+00	8.7001e-01
85	PAN100136	-6.7431	10.1942	2.4381	4.6469e+00	8.7002e-01
86	PAN105136	-6.7850	10.0759	0.6079	4.3416e+00	8.7000e-01
87	PAN110136	-4.1572	10.7964	3.0526	4.3585e+00	8.7003e-01
88	PAN115136	-5.2370	7.7329	0.8817	3.2088e+00	8.7000e-01
89	PAN120136	-6.0250	9.6153	-0.0695	4.3419e+00	8.7000e-01
90	PAN125136	-5.9590	11.5123	2.4044	5.0229e+00	8.7002e-01
91	PAN130136	1.8465	16.0372	9.2119	3.0751e+00	8.7030e-01
92	PAN120048	-8.5947	6.3589	-1.0904	3.3713e+00	8.7000e-01
93	PAN130048	0.5635	18.0349	9.4396	3.8425e+00	8.7032e-01
94	PAN120224	-10.1087	8.8885	-4.6095	4.8167e+00	8.7008e-01
95	PAN130224	2.5781	16.2347	10.9765	2.9781e+00	8.7043e-01
96	PAN120312	-11.0948	2.1041	-5.8931	3.4717e+00	8.7012e-01
97	PAN130312	3.3512	17.6182	13.0207	3.6823e+00	8.7061e-01
98	PAB000136	39.8398	40.2975	40.0622	1.2545e-01	5.8858e-01
99	PAB100136	38.2200	38.6778	38.4397	1.3241e-01	5.8791e-01
100	PAB125136	37.6531	38.3855	38.1502	1.4564e-01	5.8779e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.1593	40.1358	39.6964	2.1358e-01	7.5654e-01
102	PRV000001	19.9730	20.0951	20.0365	6.1605e-02	7.5167e-01
103	PSR000001	36.8210	37.0652	36.9651	5.8828e-02	7.5567e-01
104	PFM000001	30.1789	30.8198	30.4792	1.4451e-01	5.0577e-01
105	PAN000136	51.7016	69.0966	58.7512	4.2522e+00	4.9222e+00
106	PFM000002	27.5702	27.5702	27.5702	9.6336e-06	2.1154e-01
107	EMPTY	0.0049	0.0098	0.0065	2.3365e-03	0.0000e+00
108	EMPTY	-10.0000	9.9951	-8.3298	3.7175e+00	0.0000e+00
109	EMPTY	-0.0049	0.0049	0.0046	1.5314e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0098	0.0003	1.5314e-03	0.0000e+00
112	VPW000001	144.4599	144.8505	144.6201	1.0206e-01	1.1870e+00
113	VPW000002	169.0768	169.4674	169.2173	1.1189e-01	1.2988e+00
114	VPW000003	208.2557	208.6463	208.4511	1.1161e-01	1.4901e+00
115	VPW000004	148.3436	148.9295	148.6952	1.2478e-01	1.2050e+00
116	VPW000005	198.1408	198.3361	198.2266	9.7935e-02	1.4390e+00
117	VPW000006	209.6792	210.0698	209.7731	1.1327e-01	1.4968e+00
118	IPW000001	790.7367	796.5938	792.4157	1.4227e+00	1.0237e+01
119	IPW000002	1804.3988	1810.2526	1806.6234	1.5774e+00	1.6411e+01
120	IPW000003	1847.4374	1851.3374	1849.1539	1.2232e+00	1.6704e+01
121	IPW000004	540.7151	542.1799	541.2813	3.7382e-01	4.7207e+00
122	IPW000005	355.8369	357.3016	356.5594	3.3069e-01	3.4546e+00
123	IPW000006	368.7744	370.2393	369.4386	3.7899e-01	3.5381e+00
124	EMPTY	-0.0293	-0.0098	-0.0194	4.0059e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0146	3.0389e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0165	3.8066e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0168	2.9856e-03	0.0000e+00
128	IHT000001	181.6294	184.3637	182.8207	6.2421e-01	4.4891e+00
129	IHT000002	186.8765	189.8062	188.1617	5.9724e-01	4.5112e+00
130	IHT000003	188.3902	190.9292	189.7183	5.8660e-01	4.5177e+00
131	IHT000004	184.9534	188.0784	186.4535	6.3435e-01	4.5041e+00
132	IHT000005	182.9966	185.7309	184.3364	5.7590e-01	4.4953e+00
133	IHT000006	177.2836	179.8227	178.6664	5.9952e-01	4.4724e+00
134	IHT000007	185.6821	188.2212	187.1078	5.9615e-01	4.5068e+00
135	IHT000008	183.6313	186.7563	185.0336	5.8619e-01	4.4982e+00
136	IHT000009	184.3487	187.0831	185.5596	6.1763e-01	4.5004e+00
137	IHT000010	187.1620	189.7010	188.4472	5.4403e-01	4.5123e+00
138	IHT000011	184.6567	187.1958	185.9731	5.5777e-01	4.5021e+00
139	IHT000012	181.2801	184.0144	182.7997	5.7357e-01	4.4891e+00
140	IHT000013	130.2171	132.7561	131.6976	5.5816e-01	4.3063e+00
141	IHT000014	180.8594	183.5938	182.4570	5.6592e-01	4.4877e+00
142	IHT000015	134.7168	137.2558	136.1816	5.6669e-01	4.3202e+00
143	IHT000016	125.2554	127.5992	126.5327	5.1024e-01	4.2908e+00
144	IHT000017	150.0376	152.7720	151.2602	5.8502e-01	4.3701e+00
145	IHT000018	151.9756	155.1006	153.2998	6.3539e-01	4.3772e+00
146	IHT000019	146.9163	148.8694	147.9008	5.0833e-01	4.3586e+00
147	IHT000020	151.1155	153.0686	151.9008	4.7595e-01	4.3723e+00
148	IHT000021	-2.8057	-0.0714	-1.6299	5.9253e-01	4.1000e+00
149	IHT000022	130.4725	132.4256	131.4374	4.4012e-01	4.3055e+00
150	IHT000023	148.6028	150.7512	149.5948	4.8302e-01	4.3644e+00
151	IHT000024	113.3902	115.3433	114.3511	4.4440e-01	4.2565e+00
152	IHT000025	147.6638	149.8122	148.7574	5.1297e-01	4.3615e+00
153	IHT000026	149.4403	151.3935	150.3466	4.8127e-01	4.3670e+00
154	IHT000027	127.5053	129.6537	128.3803	5.1485e-01	4.2963e+00
155	IHT000028	129.0490	132.1740	130.3185	6.4507e-01	4.3021e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	148.5502	151.2845	149.6674	6.1516e-01	4.3646e+00
157	IHT000030	151.1569	153.8912	152.5318	5.8920e-01	4.3745e+00
158	IHT000031	149.2676	151.6113	150.5684	5.6305e-01	4.3677e+00
159	IHT000032	150.8789	153.6133	152.3438	5.9875e-01	4.3739e+00
160	IHT000033	150.8789	153.6133	152.2773	5.9629e-01	4.3737e+00
161	IHT000034	132.9702	134.9234	133.9468	4.5847e-01	4.3133e+00
162	IHT000035	175.2629	177.8020	176.4855	5.3643e-01	4.4637e+00
163	IHT000036	131.2575	133.2106	132.2496	4.8140e-01	4.3080e+00

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Velocity 1 = 8.0591 (ft/sec) (+/- 3.0374 %)
 Velocity 2 = 8.0802 (ft/sec) (+/- 1.9024 %)
 Pressure drop = -2.5241 (psi)
 Tsat in = 267.8051 (deg F) Tsat out = 271.2658 (deg F)
 Phi inner = 200.8459 (kBtu/hr-ft2) (+/- 1.2818 %)
 Phi outer = 201.9822 (kBtu/hr-ft2) (+/- 1.3380 %)
 D inner = 0.1961 (ft) D outer = 0.2413 (ft) D hyd = 0.0390 (ft)
 L inner = 12.8610 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	84.5287	85.1635	84.7742	1.6199e-01	1.9001e+00
1	TRF0000002	84.7419	85.1628	85.0576	1.2211e-01	1.9002e+00
2	TFM0000001	86.7641	87.4999	87.1909	2.1266e-01	1.9002e+00
3	TIN0000001	86.1103	86.9528	86.5253	1.5985e-01	1.9002e+00
4	TRV0000001	87.4583	88.4014	87.9468	2.2354e-01	1.9002e+00
5	TSR0000001	140.7137	143.1194	142.0032	5.7176e-01	1.9035e+00
6	TAO020136	92.4319	102.7665	98.4805	2.2741e+00	1.9005e+00
7	TAO050136	193.0542	195.5609	193.9674	5.4441e-01	1.9103e+00
8	TAO070136	194.5852	198.6693	195.7939	9.9239e-01	1.9106e+00
9	TAO080136	228.3411	229.4742	229.0419	2.3517e-01	1.9170e+00
10	TAO090136	238.2259	239.7295	239.0704	3.1461e-01	1.9192e+00
11	TAO100136	230.5736	233.1226	231.9388	5.8633e-01	1.9176e+00
12	TAO105136	236.7609	238.5536	237.6612	4.7369e-01	1.9188e+00
13	TAO110136	246.9319	248.7862	248.0350	4.0047e-01	1.9212e+00
14	TAO115136	242.4764	244.8248	243.8236	5.8099e-01	1.9202e+00
15	TAO120136	259.1482	260.6361	260.0652	3.6707e-01	1.9242e+00
16	TAO125136	209.7943	214.0978	211.5414	7.1647e-01	1.9134e+00
17	TAO130136	252.6053	253.9894	253.1945	3.1731e-01	1.9225e+00
18	TAO120048	113.8588	115.1946	114.4651	3.0397e-01	1.9013e+00
19	TAO130048	253.9703	254.9951	254.5570	2.1111e-01	1.9228e+00
20	TAO120224	257.0335	259.6371	258.7167	4.6712e-01	1.9238e+00
21	TAO130224	244.2576	246.2110	245.4091	4.1004e-01	1.9206e+00
22	TAO120312	250.4509	252.4155	251.3994	4.5984e-01	1.9220e+00
23	TAO130312	249.8343	251.2350	250.6279	2.7849e-01	1.9219e+00
24	TRT020000	190.3869	192.2378	191.1487	3.3267e-01	1.9099e+00
25	TRT070000	222.4567	224.1788	223.4769	3.9785e-01	1.9158e+00
26	TRT100000	247.9919	249.0189	248.5535	2.4639e-01	1.9214e+00
27	TRT120000	257.5199	258.5433	258.0466	2.4469e-01	1.9237e+00
28	TRT125000	266.5643	271.7979	269.4766	8.7748e-01	1.9266e+00
29	TRT130000	255.4099	256.5267	256.1934	2.3762e-01	1.9232e+00
30	EMPTY	39.3761	40.0646	39.8627	2.1569e-01	1.9011e+00
31	TAF050136	134.0403	136.3581	135.2119	5.5637e-01	1.9029e+00
32	TAF070136	153.4674	157.2362	155.2722	6.5803e-01	1.9049e+00
33	TAF080136	225.0761	227.9037	226.4401	7.1327e-01	1.9164e+00
34	TAF090136	98.9076	99.9481	99.5382	2.6108e-01	1.9006e+00
35	TAF100136	182.7635	185.4032	183.7006	5.2278e-01	1.9087e+00
36	TAF105136	187.1639	189.5757	187.9934	5.5933e-01	1.9094e+00
37	TAF110136	192.5560	194.8753	193.3394	5.0602e-01	1.9102e+00
38	TAF115136	198.3467	200.6599	199.3363	5.1163e-01	1.9112e+00
39	TAF120136	238.3938	244.8472	241.5822	1.3833e+00	1.9197e+00
40	TAF125136	208.8130	211.7619	209.9128	5.8208e-01	1.9131e+00
41	TAF130136	214.2278	216.0381	214.9807	4.3161e-01	1.9141e+00
42	TAF120048	203.0214	205.2505	203.8998	5.4891e-01	1.9120e+00
43	TAF130048	212.3804	215.8187	213.7006	7.1379e-01	1.9139e+00
44	TAF120224	200.8885	203.7770	202.1464	5.7384e-01	1.9117e+00
45	TAF130224	209.7781	212.0913	210.4472	5.2828e-01	1.9132e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.1032	1.6883e-01	1.9010e+00
47	EMPTY	39.6057	40.0646	39.8719	1.2578e-01	1.9011e+00
48	TAI130048	250.5808	252.6357	251.5058	4.6934e-01	1.9221e+00
49	TAI130136	260.7996	262.1904	261.5132	3.4722e-01	1.9246e+00
50	TAI130224	257.7330	259.1318	258.3876	3.3938e-01	1.9238e+00
51	TAI130312	252.0432	253.8191	252.8827	4.0252e-01	1.9224e+00
52	TRR130000	138.2322	140.1403	139.2220	4.3924e-01	1.9032e+00
53	TSI0000001	65.6764	66.4256	65.9528	1.5587e-01	1.9000e+00
54	TSI0000002	72.2675	77.4545	74.0119	1.2367e+00	1.9000e+00
55	TSO0000001	65.0207	65.8806	65.4402	1.9923e-01	1.9000e+00
56	TSO0000002	81.8058	82.7557	82.2637	1.9263e-01	1.9001e+00
57	TAF020136	101.7051	104.4198	103.1654	6.5992e-01	1.9007e+00
58	TAF120312	197.9523	201.0437	199.4349	6.8563e-01	1.9113e+00
59	TAF130312	214.3834	217.9111	216.2237	8.1320e-01	1.9144e+00
60	EMPTY	3.3643	3.3984	3.3805	8.1011e-03	0.0000e+00
61	EMPTY	3.3594	3.3740	3.3677	4.4391e-03	0.0000e+00
62	EMPTY	3.3447	3.3594	3.3551	3.6433e-03	0.0000e+00
63	EMPTY	3.3447	3.3594	3.3513	3.5030e-03	0.0000e+00
64	EMPTY	1.6406	1.6504	1.6443	2.3261e-03	0.0000e+00
65	EMPTY	1.6553	1.6650	1.6600	2.6025e-03	0.0000e+00
66	EMPTY	1.6650	1.6748	1.6708	2.3531e-03	0.0000e+00
67	EMPTY	1.6797	1.6895	1.6832	2.4244e-03	0.0000e+00
68	EMPTY	1.6895	1.6943	1.6919	2.4662e-03	0.0000e+00
69	EMPTY	1.6992	1.7090	1.7032	2.3531e-03	0.0000e+00
70	EMPTY	1.7090	1.7188	1.7126	2.3778e-03	0.0000e+00
71	EMPTY	1.7285	1.7334	1.7301	2.3008e-03	0.0000e+00
72	EMPTY	1.7334	1.7432	1.7375	2.0598e-03	0.0000e+00
73	EMPTY	1.7480	1.7578	1.7526	1.8216e-03	0.0000e+00
74	EMPTY	1.7578	1.7627	1.7625	9.6655e-04	0.0000e+00
75	EMPTY	1.7725	1.7773	1.7741	2.3365e-03	0.0000e+00
76	EMPTY	1.7822	1.7871	1.7830	1.8082e-03	0.0000e+00
77	EMPTY	1.7920	1.8018	1.7969	9.8648e-04	0.0000e+00
78	EMPTY	1.8115	1.8164	1.8132	2.3365e-03	0.0000e+00
79	EMPTY	1.8311	1.8359	1.8312	6.9053e-04	0.0000e+00
80	PAN020136	-15.4010	11.3019	-1.7001	6.3469e+00	8.7001e-01
81	PAN050136	-33.8962	-12.2287	-24.0970	5.3261e+00	1.6811e+00
82	PAN070136	-25.9425	3.4307	-15.3773	8.4848e+00	8.7085e-01
83	PAN080136	-14.0028	6.2914	-5.9309	5.7233e+00	8.7013e-01
84	PAN090136	-13.1282	5.4875	-7.1712	3.9598e+00	8.7018e-01
85	PAN100136	-12.2363	-0.9448	-8.1271	3.4584e+00	8.7024e-01
86	PAN105136	-7.7768	5.8035	-2.3920	3.1210e+00	8.7002e-01
87	PAN110136	-5.1490	7.1343	1.2582	2.5668e+00	8.7001e-01
88	PAN115136	-7.6022	4.2234	-2.4889	2.7277e+00	8.7002e-01
89	PAN120136	-6.0250	6.3347	-2.7336	3.4365e+00	8.7003e-01
90	PAN125136	-3.2887	15.0981	2.8865	4.3054e+00	8.7003e-01
91	PAN130136	-6.0117	1.6176	-1.6310	1.1933e+00	8.7001e-01
92	PAN120048	-12.0279	6.4352	-2.0456	3.9409e+00	8.7002e-01
93	PAN130048	-5.0059	6.8959	-1.2812	2.5325e+00	8.7001e-01
94	PAN120224	-11.7872	4.8449	-2.6289	3.4765e+00	8.7002e-01
95	PAN130224	-11.0023	5.4009	-3.5163	2.8522e+00	8.7004e-01
96	PAN120312	-12.3918	3.2485	-4.9592	4.4252e+00	8.7009e-01
97	PAN130312	-8.0929	10.9043	-1.3180	3.6475e+00	8.7001e-01
98	PAB000136	39.7940	40.7095	40.2939	2.7323e-01	5.8868e-01
99	PAB100136	42.2941	42.8434	42.5449	1.1411e-01	5.8967e-01
100	PAB125136	42.5511	42.8258	42.6912	6.1631e-02	5.8974e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	38.9151	40.6241	39.9894	3.9995e-01	7.5663e-01
102	PRV0000001	19.7289	19.8509	19.7679	5.7521e-02	7.5163e-01
103	PSR0000001	42.1921	42.4363	42.3142	4.2716e-02	7.5742e-01
104	PFH0000001	9.6711	10.1288	9.8579	1.1396e-01	5.0061e-01
105	PAN0000136	-86.0853	-57.7039	-69.8804	8.1877e+00	4.9231e+00
106	PFH0000002	9.8004	10.0521	9.9101	5.5519e-02	2.0153e-01
107	EMPTY	0.0049	0.0049	0.0049	0.0000e+00	0.0000e+00
108	EMPTY	-10.0000	8.5352	-9.2909	2.6743e+00	0.0000e+00
109	EMPTY	-0.0049	0.0049	0.0042	1.9754e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW0000001	144.4599	145.4365	145.0576	2.1032e-01	1.1889e+00
113	VPW0000002	169.0768	169.6627	169.4478	1.4363e-01	1.2999e+00
114	VPW0000003	208.4510	209.4276	208.9159	1.9287e-01	1.4924e+00
115	VPW0000004	148.3436	149.3201	148.9608	2.1014e-01	1.2062e+00
116	VPW0000005	197.9455	198.9220	198.5665	1.8377e-01	1.4407e+00
117	VPW0000006	209.4839	210.6558	210.2028	1.9104e-01	1.4989e+00
118	IPW0000001	771.2133	779.0226	774.7274	1.8916e+00	1.0152e+01
119	IPW0000002	1831.7166	1841.4729	1835.6189	2.2300e+00	1.6610e+01
120	IPW0000003	1855.2374	1863.0374	1859.1764	1.6476e+00	1.6773e+01
121	IPW0000004	536.3206	540.2268	538.9669	7.5186e-01	4.7042e+00
122	IPW0000005	355.8369	358.7663	357.6434	4.9565e-01	3.4616e+00
123	IPW0000006	369.7510	372.1924	371.0011	5.1411e-01	3.5483e+00
124	EMPTY	-0.0293	-0.0098	-0.0185	4.3326e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0124	2.6488e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0098	-0.0138	3.5141e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0098	-0.0151	3.3087e-03	0.0000e+00
128	IHT0000001	181.0434	184.5591	182.4692	6.4144e-01	4.4877e+00
129	IHT0000002	186.2906	189.8062	187.7398	6.5088e-01	4.5094e+00
130	IHT0000003	188.1949	191.5152	189.4644	6.5107e-01	4.5166e+00
131	IHT0000004	184.5628	187.8831	185.9535	6.6573e-01	4.5020e+00
132	IHT0000005	182.4106	185.7309	183.7895	6.1436e-01	4.4931e+00
133	IHT0000006	177.0883	179.8227	178.0961	5.6684e-01	4.4701e+00
134	IHT0000007	185.6821	188.4165	186.6625	5.9384e-01	4.5049e+00
135	IHT0000008	183.6313	186.1704	184.6274	5.8826e-01	4.4965e+00
136	IHT0000009	183.9581	186.3018	185.1377	5.5518e-01	4.4986e+00
137	IHT0000010	186.9666	189.3104	188.3144	5.5419e-01	4.5118e+00
138	IHT0000011	184.2661	186.8051	185.6801	5.3169e-01	4.5009e+00
139	IHT0000012	181.0847	183.4285	182.4364	4.8623e-01	4.4876e+00
140	IHT0000013	130.2171	132.3655	131.3304	4.9795e-01	4.3052e+00
141	IHT0000014	180.8594	183.2031	182.1563	5.2014e-01	4.4864e+00
142	IHT0000015	134.5215	136.8652	135.8496	4.9126e-01	4.3192e+00
143	IHT0000016	125.2554	127.4039	126.4429	4.6828e-01	4.2905e+00
144	IHT0000017	150.0376	151.9907	151.0766	5.3151e-01	4.3695e+00
145	IHT0000018	151.5850	154.3194	153.0576	6.1284e-01	4.3764e+00
146	IHT0000019	147.1116	149.2601	147.9476	5.0074e-01	4.3588e+00
147	IHT0000020	150.5296	153.0686	151.5297	5.0012e-01	4.3711e+00
148	IHT0000021	-2.8057	0.3193	-1.5401	5.9874e-01	4.1000e+00
149	IHT0000022	129.8866	132.4256	131.1913	4.9037e-01	4.3048e+00
150	IHT0000023	148.2121	150.5559	149.1613	5.0841e-01	4.3629e+00
151	IHT0000024	112.9996	115.3433	113.8980	5.2940e-01	4.2553e+00
152	IHT0000025	147.6638	150.0075	148.5934	5.3022e-01	4.3610e+00
153	IHT0000026	149.0497	151.7841	150.0849	5.3561e-01	4.3661e+00
154	IHT0000027	127.1146	129.8490	128.2358	5.7292e-01	4.2959e+00
155	IHT0000028	128.8537	131.9787	130.2755	5.6226e-01	4.3020e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	148.3549	150.8939	149.5463	5.1031e-01	4.3642e+00
157	IHT0000030	151.3522	153.6959	152.2857	5.1037e-01	4.3737e+00
158	IHT0000031	149.0723	151.4160	150.1543	4.6724e-01	4.3663e+00
159	IHT0000032	150.8789	153.2227	151.9336	5.3233e-01	4.3725e+00
160	IHT0000033	150.8789	153.2226	151.8789	5.3473e-01	4.3723e+00
161	IHT0000034	132.1890	134.7281	133.6265	4.9404e-01	4.3123e+00
162	IHT0000035	174.8723	177.2160	176.2042	5.4632e-01	4.4626e+00
163	IHT0000036	130.4763	133.2106	132.0036	5.2894e-01	4.3073e+00

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Velocity 1 = 7.1015 (ft/sec) (+/- 3.6786 %)
 Velocity 2 = 7.1088 (ft/sec) (+/- 2.0446 %)
 Pressure drop = -2.9457 (psi)
 Tsat in = 267.5906 (deg F) Tsat out = 271.5849 (deg F)
 Phi inner = 200.2622 (kBtu/hr-ft²) (+/- 1.2823 %)
 Phi outer = 200.9116 (kBtu/hr-ft²) (+/- 1.3389 %)
 D inner = 0.1961 (ft) D outer = 0.2413 (ft) D hyd = 0.0390 (ft)
 L inner = 12.8610 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft²)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	84.7403	85.3750	85.0619	1.7223e-01	1.9002e+00
1	TRF0000002	84.9524	85.5835	85.3731	1.4723e-01	1.9002e+00
2	TFM0000001	87.3944	88.2348	87.8150	1.9097e-01	1.9002e+00
3	TIN0000001	86.7424	87.4789	87.0959	1.6164e-01	1.9002e+00
4	TRV0000001	88.0869	89.0311	88.5904	2.1692e-01	1.9002e+00
5	TSR0000001	144.4203	146.7200	145.5406	4.9623e-01	1.9038e+00
6	TAO020136	93.7941	96.5142	95.1379	5.8464e-01	1.9004e+00
7	TAO050136	204.1022	206.7785	205.1440	6.2564e-01	1.9123e+00
8	TAO070136	206.5121	211.7184	208.9590	1.0494e+00	1.9130e+00
9	TAO080136	245.0191	246.6054	245.9259	3.3272e-01	1.9207e+00
10	TAO090136	255.5190	257.5632	256.6823	4.9587e-01	1.9233e+00
11	TAO100136	251.1289	253.4590	252.3181	5.6984e-01	1.9223e+00
12	TAO105136	257.4002	259.2637	258.2574	3.6604e-01	1.9237e+00
13	TAO110136	268.7837	270.0678	269.3691	2.9866e-01	1.9266e+00
14	TAO115136	263.3034	265.2522	264.2870	4.2040e-01	1.9253e+00
15	TAO120136	280.9519	282.0544	281.5947	2.4826e-01	1.9299e+00
16	TAO125136	223.3299	224.8474	224.1112	3.5791e-01	1.9159e+00
17	TAO130136	272.2798	274.0948	273.1591	3.6125e-01	1.9276e+00
18	TAO120048	118.4755	119.8072	119.1310	2.7673e-01	1.9016e+00
19	TAO130048	276.0255	276.7600	276.3779	1.9137e-01	1.9285e+00
20	TAO120224	279.5857	280.9620	280.2244	3.0644e-01	1.9295e+00
21	TAO130224	265.3136	267.1501	265.9235	3.4544e-01	1.9257e+00
22	TAO120312	272.2064	274.0534	273.3627	3.4560e-01	1.9277e+00
23	TAO130312	271.5124	272.4352	271.9664	2.4203e-01	1.9273e+00
24	TRT020000	202.4224	204.4512	203.1529	3.7605e-01	1.9119e+00
25	TRT070000	238.2729	240.9255	239.1714	4.9065e-01	1.9192e+00
26	TRT100000	267.3827	268.3990	267.8888	2.0714e-01	1.9262e+00
27	TRT120000	278.3973	279.9583	279.0955	3.2293e-01	1.9292e+00
28	TRT125000	286.7746	287.6853	287.2449	2.1164e-01	1.9315e+00
29	TRT130000	278.3029	280.4109	278.8059	4.2123e-01	1.9291e+00
30	EMPTY	39.3761	40.2940	39.8719	1.9318e-01	1.9011e+00
31	TAFO50136	141.2826	144.4895	142.7989	6.3324e-01	1.9036e+00
32	TAFO70136	164.5393	167.3914	165.7288	7.2880e-01	1.9062e+00
33	TAFO80136	246.2300	251.7983	249.4127	1.1850e+00	1.9216e+00
34	TAFO90136	101.0893	102.2323	101.7542	3.0166e-01	1.9007e+00
35	TAFI00136	195.9173	198.8244	197.4915	5.6137e-01	1.9109e+00
36	TAFI05136	200.8172	202.9203	201.9741	4.7064e-01	1.9117e+00
37	TAFI10136	207.6536	209.2798	208.3795	3.2397e-01	1.9129e+00
38	TAFI15136	213.8829	215.7906	214.8025	4.1130e-01	1.9141e+00
39	TAFI20136	257.6732	261.5583	260.1166	7.0062e-01	1.9242e+00
40	TAFI25136	225.8556	228.2035	227.1181	5.0966e-01	1.9166e+00
41	TAFI30136	231.9661	233.8508	232.7997	4.5635e-01	1.9178e+00
42	TAFI20048	219.7014	222.0961	220.7213	5.4431e-01	1.9152e+00
43	TAFI30048	231.1963	233.1798	232.2244	4.3990e-01	1.9176e+00
44	TAFI20224	217.3711	219.6568	218.3313	5.1186e-01	1.9148e+00
45	TAFI30224	226.6533	228.4647	227.3854	5.1322e-01	1.9166e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.6870	38.1262	2.2353e-01	1.9010e+00
47	EMPTY	39.6057	40.0646	39.9637	1.3243e-01	1.9011e+00
48	TAI130048	269.7254	271.9419	270.7566	4.7047e-01	1.9270e+00
49	TAI130136	276.9313	278.1254	277.4490	2.9895e-01	1.9288e+00
50	TAI130224	276.9327	278.1317	277.5046	3.3740e-01	1.9288e+00
51	TAI130312	272.8556	274.7017	273.8710	4.0640e-01	1.9278e+00
52	TRR130000	142.0509	143.6545	142.7797	4.1928e-01	1.9036e+00
53	TSI0000001	65.6786	66.6392	66.1611	1.8208e-01	1.9000e+00
54	TSI0000002	73.7537	76.7167	74.9265	6.8578e-01	1.9000e+00
55	TSO0000001	64.9120	65.8794	65.4200	2.2553e-01	1.9000e+00
56	TSO0000002	83.3878	84.4422	83.9069	2.4645e-01	1.9001e+00
57	TAF020136	104.7321	108.3775	106.5330	6.3339e-01	1.9009e+00
58	TAF120312	214.7809	216.6922	215.5573	5.1730e-01	1.9142e+00
59	TAF130312	233.4509	235.9004	234.7285	5.4951e-01	1.9182e+00
60	EMPTY	3.8330	3.8623	3.8450	8.2068e-03	0.0000e+00
61	EMPTY	3.8184	3.8428	3.8295	6.9082e-03	0.0000e+00
62	EMPTY	3.8037	3.8281	3.8145	6.7629e-03	0.0000e+00
63	EMPTY	3.7988	3.8184	3.8082	5.9875e-03	0.0000e+00
64	EMPTY	1.8408	1.8506	1.8469	2.8862e-03	0.0000e+00
65	EMPTY	1.8555	1.8652	1.8620	2.8946e-03	0.0000e+00
66	EMPTY	1.8652	1.8750	1.8711	2.4164e-03	0.0000e+00
67	EMPTY	1.8799	1.8896	1.8834	2.6174e-03	0.0000e+00
68	EMPTY	1.8848	1.8945	1.8910	2.7971e-03	0.0000e+00
69	EMPTY	1.8994	1.9043	1.9021	2.4484e-03	0.0000e+00
70	EMPTY	1.9043	1.9141	1.9098	2.3428e-03	0.0000e+00
71	EMPTY	1.9238	1.9287	1.9268	2.4164e-03	0.0000e+00
72	EMPTY	1.9287	1.9385	1.9329	1.9754e-03	0.0000e+00
73	EMPTY	1.9434	1.9482	1.9470	2.1635e-03	0.0000e+00
74	EMPTY	1.9531	1.9580	1.9553	2.4484e-03	0.0000e+00
75	EMPTY	1.9629	1.9678	1.9674	1.3381e-03	0.0000e+00
76	EMPTY	1.9727	1.9775	1.9745	2.3941e-03	0.0000e+00
77	EMPTY	1.9873	1.9922	1.9874	6.9053e-04	0.0000e+00
78	EMPTY	2.0020	2.0068	2.0029	1.9730e-03	0.0000e+00
79	EMPTY	2.0166	2.0215	2.0208	1.7115e-03	0.0000e+00
80	PAN020136	-17.2320	4.6643	-8.4002	5.9486e+00	8.7025e-01
81	PAN050136	-37.8635	-12.2287	-25.9982	5.9331e+00	1.6813e+00
82	PAN070136	-25.8662	-0.3840	-13.0549	6.3534e+00	8.7061e-01
83	PAN080136	-14.0791	-1.7195	-7.9969	3.6395e+00	8.7023e-01
84	PAN090136	-13.2045	-2.9048	-9.1350	3.4247e+00	8.7030e-01
85	PAN100136	-7.8112	10.7282	-0.9142	4.8586e+00	8.7000e-01
86	PAN105136	-7.7005	0.5392	-2.0762	1.5599e+00	8.7002e-01
87	PAN110136	-4.9964	4.2352	-1.4274	1.8737e+00	8.7001e-01
88	PAN115136	-6.0763	-0.8120	-3.4716	1.3074e+00	8.7004e-01
89	PAN120136	-6.1013	0.0786	-3.2585	1.7571e+00	8.7004e-01
90	PAN125136	-4.7383	1.8993	-1.5538	1.4890e+00	8.7001e-01
91	PAN130136	-6.2406	1.2362	-3.0958	1.6812e+00	8.7003e-01
92	PAN120048	-10.7309	-2.6438	-6.6172	1.9916e+00	8.7016e-01
93	PAN130048	-8.0577	-0.7334	-4.3788	1.6152e+00	8.7007e-01
94	PAN120224	-9.1169	-2.5556	-6.2116	1.5353e+00	8.7014e-01
95	PAN130224	-10.5445	-3.2966	-6.5620	1.5530e+00	8.7015e-01
96	PAN120312	-10.4082	16.0658	-5.6627	4.2894e+00	8.7012e-01
97	PAN130312	-8.7795	-1.4553	-4.8550	1.7793e+00	8.7008e-01
98	PAB000136	39.7024	40.7095	40.1492	2.5201e-01	5.8862e-01
99	PAB100136	42.2941	42.6603	42.5102	9.0160e-02	5.8966e-01
100	PAB125136	42.7342	43.1462	42.9183	8.5510e-02	5.8984e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.1593	40.5021	39.8868	4.1485e-01	7.5660e-01
102	PRV000001	19.6068	19.8509	19.7484	5.1496e-02	7.5162e-01
103	PSR000001	42.5583	42.9246	42.7195	8.6984e-02	7.5757e-01
104	PFM000001	7.4738	7.7485	7.6295	7.4562e-02	5.0036e-01
105	PAN000136	-96.6138	-66.8592	-81.5534	8.4383e+00	4.9242e+00
106	PFM000002	7.5519	7.7197	7.6455	3.6526e-02	2.0091e-01
107	EMPTY	-0.0049	0.0049	0.0041	2.2839e-03	0.0000e+00
108	EMPTY	-10.0000	-7.9443	-9.8077	5.0640e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0035	2.2146e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	144.8505	145.4365	145.1982	1.5429e-01	1.1896e+00
113	VPW000002	169.2721	169.8580	169.5337	1.1578e-01	1.3003e+00
114	VPW000003	208.8417	209.2323	209.0683	1.1409e-01	1.4932e+00
115	VPW000004	148.7342	149.3201	149.0819	1.2027e-01	1.2067e+00
116	VPW000005	198.5314	198.9220	198.7305	1.0052e-01	1.4415e+00
117	VPW000006	210.2652	210.6558	210.4137	1.0106e-01	1.5000e+00
118	IPW000001	777.0703	786.8320	782.3025	2.2809e+00	1.0188e+01
119	IPW000002	1812.2039	1818.0577	1814.3510	1.2621e+00	1.6464e+01
120	IPW000003	1851.3374	1857.1874	1853.7556	1.6972e+00	1.6735e+01
121	IPW000004	535.3440	537.2971	535.9883	3.7486e-01	4.6829e+00
122	IPW000005	354.8605	355.8369	355.1925	3.0306e-01	3.4458e+00
123	IPW000006	366.8213	369.7510	368.2277	7.0889e-01	3.5302e+00
124	EMPTY	-0.0293	-0.0146	-0.0195	3.4173e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0136	3.3146e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0049	-0.0150	3.8002e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0098	-0.0158	2.7124e-03	0.0000e+00
128	IHT000001	180.8481	183.3872	182.3403	5.1108e-01	4.4872e+00
129	IHT000002	186.4859	188.6343	187.5992	4.0289e-01	4.5088e+00
130	IHT000003	188.1949	190.3433	189.4254	4.5549e-01	4.5164e+00
131	IHT000004	184.5628	187.1019	185.9339	5.6839e-01	4.5019e+00
132	IHT000005	182.6059	184.7544	183.8012	5.0937e-01	4.4931e+00
133	IHT000006	177.0883	179.2368	178.1079	5.5424e-01	4.4701e+00
134	IHT000007	185.6821	187.8306	186.6860	4.7188e-01	4.5050e+00
135	IHT000008	183.6313	185.5844	184.5883	4.8528e-01	4.4964e+00
136	IHT000009	183.9581	186.1065	185.0323	5.2682e-01	4.4982e+00
137	IHT000010	187.1620	189.3104	188.1152	5.0167e-01	4.5110e+00
138	IHT000011	184.2661	186.6098	185.4887	5.2617e-01	4.5001e+00
139	IHT000012	180.8894	183.4285	182.2762	5.3851e-01	4.4869e+00
140	IHT000013	130.0218	132.3655	131.2445	5.2171e-01	4.3049e+00
141	IHT000014	180.8594	183.2031	181.9453	5.6794e-01	4.4856e+00
142	IHT000015	134.5215	136.8652	135.6816	5.5300e-01	4.3187e+00
143	IHT000016	125.2554	127.5992	126.3296	5.6806e-01	4.2902e+00
144	IHT000017	149.4516	152.1860	150.7563	6.0546e-01	4.3684e+00
145	IHT000018	151.7803	154.7100	152.9014	6.4574e-01	4.3758e+00
146	IHT000019	147.1116	149.4554	148.0140	5.1128e-01	4.3590e+00
147	IHT000020	150.5296	152.8733	151.4789	5.1146e-01	4.3709e+00
148	IHT000021	-2.4151	-0.0714	-1.3799	6.2546e-01	4.1000e+00
149	IHT000022	130.2772	132.4256	131.2343	5.1486e-01	4.3049e+00
150	IHT000023	147.8215	150.1653	149.1261	5.6143e-01	4.3628e+00
151	IHT000024	112.6089	114.7574	113.8081	5.2498e-01	4.2550e+00
152	IHT000025	147.6638	149.6169	148.5582	5.5396e-01	4.3608e+00
153	IHT000026	149.0497	151.0028	150.0381	5.4449e-01	4.3659e+00
154	IHT000027	127.1146	129.4584	128.2085	5.6221e-01	4.2958e+00
155	IHT000028	129.0490	131.9787	130.2247	7.4188e-01	4.3018e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	148.1595	150.8939	149.4721	7.0037e-01	4.3640e+00
157	IHT000030	151.1569	153.5006	152.1568	6.4554e-01	4.3732e+00
158	IHT000031	148.8770	151.6113	150.0527	6.4656e-01	4.3660e+00
159	IHT000032	150.6836	153.0274	151.7969	5.6393e-01	4.3720e+00
160	IHT000033	150.6836	153.0273	151.7500	5.7752e-01	4.3718e+00
161	IHT000034	132.3843	134.5327	133.4780	5.2793e-01	4.3118e+00
162	IHT000035	174.8723	177.2160	175.9738	5.1563e-01	4.4617e+00
163	IHT000036	130.8669	133.2106	131.8864	4.7399e-01	4.3069e+00

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Velocity 1 = 6.7903 (ft/sec) (+/- 3.9588 %)
 Velocity 2 = 6.7947 (ft/sec) (+/- 2.1117 %)
 Pressure drop = -3.0737 (psi)
 Tsat in = 267.6613 (deg F) Tsat out = 271.8053 (deg F)
 Phi inner = 201.8723 (kBtu/hr-ft2) (+/- 1.2811 %)
 Phi outer = 200.9209 (kBtu/hr-ft2) (+/- 1.3393 %)
 D inner = 0.1961 (ft) D outer = 0.2413 (ft) D hyd = 0.0390 (ft)
 L inner = 12.8610 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	84.7403	85.7979	85.3750	1.9109e-01	1.9002e+00
1	TRF0000002	85.3732	86.0041	85.7012	1.2137e-01	1.9002e+00
2	TFM0000001	87.9190	88.5507	88.2607	1.3339e-01	1.9002e+00
3	TIN0000001	87.3727	87.9003	87.5928	1.4081e-01	1.9002e+00
4	TRV0000001	88.6127	89.4502	88.9812	2.0733e-01	1.9002e+00
5	TSR0000001	144.2207	147.5198	145.6345	9.5068e-01	1.9038e+00
6	TAO020136	104.2214	107.5392	106.2838	8.6227e-01	1.9009e+00
7	TAO050136	208.4980	211.1714	209.5462	6.8274e-01	1.9131e+00
8	TAO070136	212.1029	216.7141	214.1214	1.3016e+00	1.9139e+00
9	TAO080136	250.7903	252.6483	252.0234	3.2099e-01	1.9222e+00
10	TAO090136	261.1812	263.3127	262.3231	5.7206e-01	1.9248e+00
11	TAO100136	259.1311	261.5434	260.4894	5.9089e-01	1.9243e+00
12	TAO105136	264.3778	266.8835	265.4659	4.6726e-01	1.9256e+00
13	TAO110136	275.7304	277.0126	276.4017	2.7666e-01	1.9285e+00
14	TAO115136	270.1574	271.8224	271.0090	3.9179e-01	1.9270e+00
15	TAO120136	286.0857	287.1859	286.4679	2.4085e-01	1.9313e+00
16	TAO125136	235.3354	237.1246	235.8328	3.4577e-01	1.9184e+00
17	TAO130136	279.3588	280.8149	279.9796	3.5733e-01	1.9295e+00
18	TAO120048	119.0910	120.2170	119.7500	2.7904e-01	1.9017e+00
19	TAO130048	282.5247	283.5289	282.9675	2.2659e-01	1.9303e+00
20	TAO120224	285.4537	286.9176	286.0724	3.3264e-01	1.9312e+00
21	TAO130224	272.0951	273.9226	272.8805	4.1543e-01	1.9275e+00
22	TAO120312	279.2142	280.6862	279.9501	3.3565e-01	1.9295e+00
23	TAO130312	278.5879	279.4146	279.0031	2.1943e-01	1.9292e+00
24	TRT020000	206.6686	208.4035	207.4788	3.6623e-01	1.9127e+00
25	TRT070000	244.0453	246.0282	245.1065	4.7814e-01	1.9205e+00
26	TRT100000	273.4604	274.7500	274.0031	2.6126e-01	1.9278e+00
27	TRT120000	283.6249	285.4558	284.6721	2.9142e-01	1.9308e+00
28	TRT125000	289.9567	291.1396	290.4700	2.6100e-01	1.9325e+00
29	TRT130000	284.5291	285.2614	284.9610	1.7654e-01	1.9309e+00
30	EMPTY	39.3761	40.2940	39.8306	2.2471e-01	1.9011e+00
31	TAF050136	144.4908	147.7870	145.9429	7.5252e-01	1.9039e+00
32	TAF070136	168.1781	172.6893	169.8082	1.1588e+00	1.9067e+00
33	TAF080136	252.9117	257.7213	255.3544	8.9056e-01	1.9230e+00
34	TAF090136	99.7401	100.8846	100.3733	2.7522e-01	1.9006e+00
35	TAF100136	202.3053	204.1395	203.2976	4.7203e-01	1.9119e+00
36	TAF105136	206.2642	208.8394	207.7028	4.5920e-01	1.9127e+00
37	TAF110136	213.4781	215.8587	214.5183	5.1102e-01	1.9140e+00
38	TAF115136	220.2622	221.7830	220.9163	3.4580e-01	1.9153e+00
39	TAF120136	261.5598	264.6068	262.8974	7.6311e-01	1.9249e+00
40	TAF125136	232.9926	235.6155	234.0802	5.6426e-01	1.9181e+00
41	TAF130136	238.7418	241.3722	240.0318	5.6957e-01	1.9194e+00
42	TAF120048	225.9208	228.3057	227.1579	5.6370e-01	1.9166e+00
43	TAF130048	238.3609	240.4276	239.4663	3.9087e-01	1.9192e+00
44	TAF120224	223.3642	225.7358	224.6586	5.2050e-01	1.9160e+00
45	TAF130224	233.0286	235.0224	233.9897	4.6482e-01	1.9180e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.6870	38.1308	2.2320e-01	1.9010e+00
47	EMPTY	39.8352	40.0646	39.9821	1.1126e-01	1.9011e+00
48	TAI130048	274.7091	276.2765	275.6308	3.8105e-01	1.9283e+00
49	TAI130136	280.7810	281.9731	281.4378	2.5203e-01	1.9299e+00
50	TAI130224	281.6312	283.1028	282.4258	3.7886e-01	1.9302e+00
51	TAI130312	277.9275	279.1248	278.6974	2.7325e-01	1.9291e+00
52	TRR130000	140.6463	141.8509	141.2968	3.0053e-01	1.9034e+00
53	TSI0000001	65.7866	66.5346	66.1542	1.7149e-01	1.9000e+00
54	TSI0000002	74.3897	76.6133	75.2583	5.1184e-01	1.9000e+00
55	TSO0000001	65.0189	65.8788	65.4105	2.0454e-01	1.9000e+00
56	TSO0000002	84.1262	84.8644	84.4932	2.0340e-01	1.9001e+00
57	TAF020136	106.3990	109.7273	107.9765	6.8924e-01	1.9010e+00
58	TAF120312	220.6976	223.1747	221.8111	5.5459e-01	1.9155e+00
59	TAF130312	241.4458	243.8831	242.8597	5.4086e-01	1.9200e+00
60	EMPTY	4.0332	4.0576	4.0478	6.6534e-03	0.0000e+00
61	EMPTY	4.0186	4.0332	4.0286	4.2327e-03	0.0000e+00
62	EMPTY	3.9990	4.0137	4.0107	3.6911e-03	0.0000e+00
63	EMPTY	3.9990	4.0088	4.0024	3.0003e-03	0.0000e+00
64	EMPTY	1.9287	1.9385	1.9342	2.1249e-03	0.0000e+00
65	EMPTY	1.9482	1.9531	1.9487	1.4797e-03	0.0000e+00
66	EMPTY	1.9531	1.9629	1.9578	1.3811e-03	0.0000e+00
67	EMPTY	1.9678	1.9727	1.9685	1.7115e-03	0.0000e+00
68	EMPTY	1.9678	1.9775	1.9756	2.6100e-03	0.0000e+00
69	EMPTY	1.9824	1.9922	1.9869	1.6624e-03	0.0000e+00
70	EMPTY	1.9922	2.0020	1.9934	2.3261e-03	0.0000e+00
71	EMPTY	2.0068	2.0117	2.0089	2.4344e-03	0.0000e+00
72	EMPTY	2.0117	2.0166	2.0161	1.4797e-03	0.0000e+00
73	EMPTY	2.0264	2.0313	2.0278	2.2603e-03	0.0000e+00
74	EMPTY	2.0313	2.0410	2.0366	2.0337e-03	0.0000e+00
75	EMPTY	2.0410	2.0508	2.0477	2.5648e-03	0.0000e+00
76	EMPTY	2.0557	2.0605	2.0558	6.9053e-04	0.0000e+00
77	EMPTY	2.0654	2.0703	2.0678	2.4642e-03	0.0000e+00
78	EMPTY	2.0801	2.0850	2.0838	2.1065e-03	0.0000e+00
79	EMPTY	2.0996	2.1045	2.0998	9.6655e-04	0.0000e+00
80	PAN020136	-19.9023	0.7733	-10.7989	5.5022e+00	8.7042e-01
81	PAN050136	-38.6264	-13.9072	-25.3024	5.8616e+00	1.6812e+00
82	PAN070136	-25.2559	-1.8336	-14.6266	6.1375e+00	8.7077e-01
83	PAN080136	-14.0028	-1.0328	-8.2426	3.8069e+00	8.7024e-01
84	PAN090136	-13.2045	-5.2699	-10.8882	2.7098e+00	8.7043e-01
85	PAN100136	-6.4379	16.3740	2.8059	5.6562e+00	8.7003e-01
86	PAN105136	-5.3354	1.9888	-2.0105	1.5448e+00	8.7001e-01
87	PAN110136	-7.2852	-0.3425	-3.2905	1.5851e+00	8.7004e-01
88	PAN115136	-7.6022	1.0954	-2.9803	2.1930e+00	8.7003e-01
89	PAN120136	-6.0250	1.2993	-2.7214	1.8160e+00	8.7003e-01
90	PAN125136	-3.5176	0.9838	-1.2181	1.0043e+00	8.7001e-01
91	PAN130136	-3.4178	-1.5867	-2.8303	3.5292e-01	8.7003e-01
92	PAN120048	-8.5947	-4.0934	-5.9336	1.1299e+00	8.7013e-01
93	PAN130048	-6.3029	-3.0986	-4.9784	6.3772e-01	8.7009e-01
94	PAN120224	-7.2858	-2.0979	-5.1191	1.3262e+00	8.7009e-01
95	PAN130224	-7.7216	-3.9832	-6.2583	6.6667e-01	8.7014e-01
96	PAN120312	-9.4926	-2.9313	-5.9022	1.2362e+00	8.7013e-01
97	PAN130312	-10.9921	-1.8368	-6.0818	1.4850e+00	8.7013e-01
98	PAB000136	39.7940	40.6637	40.1968	2.4556e-01	5.8864e-01
99	PAB100136	42.4772	42.8434	42.6420	7.1636e-02	5.8972e-01
100	PAB125136	43.0089	43.1920	43.0757	4.3585e-02	5.8991e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.1593	40.6241	39.9576	4.4543e-01	7.5662e-01
102	PRV000001	19.6068	19.7289	19.6556	6.0409e-02	7.5161e-01
103	PSR000001	42.8025	43.0466	42.9441	5.1496e-02	7.5765e-01
104	PFM000001	6.7414	7.1992	6.9666	9.4694e-02	5.0030e-01
105	PAN000136	-97.0716	-70.5213	-85.0965	7.1716e+00	4.9246e+00
106	PFM000002	6.8807	7.0485	6.9757	3.8145e-02	2.0076e-01
107	EMPTY	-0.0049	0.0049	0.0045	1.6624e-03	0.0000e+00
108	EMPTY	-10.0000	-6.7480	-9.6557	8.3526e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0034	2.2603e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	144.8505	145.4365	145.2178	1.1599e-01	1.1897e+00
113	VPW000002	169.4674	169.8580	169.6392	7.5283e-02	1.3008e+00
114	VPW000003	209.0370	209.6229	209.1738	1.3235e-01	1.4937e+00
115	VPW000004	148.7342	149.3201	149.1171	1.1133e-01	1.2069e+00
116	VPW000005	198.5314	199.1174	198.7618	1.2283e-01	1.4416e+00
117	VPW000006	210.2652	210.6558	210.4567	1.0052e-01	1.5002e+00
118	IPW000001	769.2609	775.1180	772.0333	1.5322e+00	1.0139e+01
119	IPW000002	1818.0577	1825.8628	1821.6479	1.7788e+00	1.6514e+01
120	IPW000003	1864.9874	1870.8374	1868.5364	1.5100e+00	1.6838e+01
121	IPW000004	534.8557	536.3206	535.6661	4.1397e-01	4.6806e+00
122	IPW000005	354.8605	356.3252	355.6514	3.6762e-01	3.4488e+00
123	IPW000006	369.7510	370.7276	370.2980	3.3656e-01	3.5437e+00
124	EMPTY	-0.0244	-0.0098	-0.0176	3.4173e-03	0.0000e+00
125	EMPTY	-0.0146	-0.0098	-0.0122	2.4662e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0049	-0.0126	3.4300e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0160	3.2777e-03	0.0000e+00
128	IHT000001	181.0434	184.3637	182.4653	6.9926e-01	4.4877e+00
129	IHT000002	186.2906	189.0249	187.6929	6.6344e-01	4.5092e+00
130	IHT000003	188.1949	191.5152	189.4996	6.8281e-01	4.5167e+00
131	IHT000004	184.7581	187.6878	185.9261	6.0036e-01	4.5019e+00
132	IHT000005	182.6059	185.5356	183.8403	6.1058e-01	4.4933e+00
133	IHT000006	176.6977	179.8227	178.1118	6.5976e-01	4.4702e+00
134	IHT000007	185.2915	188.4165	186.7055	6.2585e-01	4.5051e+00
135	IHT000008	183.2407	186.1704	184.6625	5.8399e-01	4.4967e+00
136	IHT000009	183.5675	186.3018	185.1377	5.8655e-01	4.4986e+00
137	IHT000010	186.7713	189.5057	188.1152	5.9535e-01	4.5110e+00
138	IHT000011	184.0708	186.8051	185.4418	5.7655e-01	4.4999e+00
139	IHT000012	180.8894	183.8191	182.1942	6.1058e-01	4.4866e+00
140	IHT000013	130.0218	132.5608	131.2718	5.6082e-01	4.3050e+00
141	IHT000014	180.8594	183.5938	182.0859	6.2892e-01	4.4861e+00
142	IHT000015	134.3262	137.0605	135.7519	5.9875e-01	4.3189e+00
143	IHT000016	125.2554	127.9898	126.3569	6.0972e-01	4.2903e+00
144	IHT000017	150.2329	153.1626	151.4907	6.5335e-01	4.3709e+00
145	IHT000018	151.5850	154.3194	153.0733	6.2252e-01	4.3764e+00
146	IHT000019	146.9163	149.2601	147.9359	5.5844e-01	4.3587e+00
147	IHT000020	150.1390	152.8733	151.4398	5.3322e-01	4.3707e+00
148	IHT000021	-2.8057	0.1240	-1.4073	6.2932e-01	4.1000e+00
149	IHT000022	129.8866	132.4256	131.0741	5.2325e-01	4.3044e+00
150	IHT000023	148.0168	150.1653	149.0988	4.8361e-01	4.3627e+00
151	IHT000024	112.8043	114.9527	113.8003	4.7062e-01	4.2550e+00
152	IHT000025	147.4685	149.6169	148.5660	4.5829e-01	4.3609e+00
153	IHT000026	149.0497	150.8075	149.9951	4.1640e-01	4.3658e+00
154	IHT000027	127.1146	129.0678	128.1147	4.8269e-01	4.2955e+00
155	IHT000028	128.8537	131.7834	130.3107	6.9162e-01	4.3021e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	148.3549	151.0892	149.6948	6.7429e-01	4.3647e+00
157	IHT000030	151.1569	154.0865	152.4458	6.3258e-01	4.3742e+00
158	IHT000031	148.8770	151.6113	150.2520	6.1506e-01	4.3666e+00
159	IHT000032	150.8789	153.2227	152.0625	6.1055e-01	4.3729e+00
160	IHT000033	150.6836	153.2226	152.0039	6.2335e-01	4.3727e+00
161	IHT000034	132.7749	134.7281	133.7046	4.8897e-01	4.3125e+00
162	IHT000035	175.0676	177.2160	176.2120	5.4105e-01	4.4626e+00
163	IHT000036	131.0622	133.4059	132.0856	5.3461e-01	4.3075e+00

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Velocity 1 = 6.5412 (ft/sec) (+/- 4.2159 %)
 Velocity 2 = 6.5470 (ft/sec) (+/- 2.1746 %)
 Pressure drop = -2.9937 (psi)
 Tsat in = 267.9027 (deg F) Tsat out = 272.0901 (deg F)
 Phi inner = 200.8847 (kBtu/hr-ft2) (+/- 1.2819 %)
 Phi outer = 200.7400 (kBtu/hr-ft2) (+/- 1.3394 %)
 D inner = 0.1961 (ft) D outer = 0.2413 (ft) D hyd = 0.0390 (ft)
 L inner = 12.8610 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	85.3750	86.0093	85.7175	2.2150e-01	1.9002e+00
1	TRF0000002	85.7938	86.2143	86.0293	1.5102e-01	1.9002e+00
2	TFM0000001	86.4528	87.5041	87.0688	1.9570e-01	1.9002e+00
3	TIN0000001	85.9002	86.7434	86.3452	1.6527e-01	1.9002e+00
4	TRV0000001	87.0457	88.3037	87.7484	2.7073e-01	1.9002e+00
5	TSR0000001	144.2262	148.1216	146.1261	1.0978e+00	1.9039e+00
6	TAO020136	99.9565	103.7025	102.0035	8.2593e-01	1.9007e+00
7	TAO050136	210.9826	214.0292	211.9743	6.0974e-01	1.9135e+00
8	TAO070136	215.2741	219.8762	217.3636	9.7712e-01	1.9146e+00
9	TAO080136	254.9668	257.1902	256.1542	4.2206e-01	1.9232e+00
10	TAO090136	265.0718	267.1971	266.2076	5.3059e-01	1.9258e+00
11	TAO100136	264.2302	266.5428	265.3417	4.9649e-01	1.9255e+00
12	TAO105136	269.2927	270.7733	270.0457	3.8271e-01	1.9268e+00
13	TAO110136	279.6554	280.7502	280.2261	2.5223e-01	1.9295e+00
14	TAO115136	274.5905	275.9745	275.2826	2.9878e-01	1.9282e+00
15	TAO120136	289.2887	290.2953	289.9566	2.1337e-01	1.9323e+00
16	TAO125136	240.8827	244.0710	242.1157	6.5216e-01	1.9199e+00
17	TAO130136	287.1398	292.3670	288.6514	1.1777e+00	1.9319e+00
18	TAO120048	111.5983	112.7320	112.0747	3.1553e-01	1.9012e+00
19	TAO130048	294.2732	297.7209	296.0644	8.1650e-01	1.9341e+00
20	TAO120224	287.5589	289.0212	288.1200	3.1295e-01	1.9318e+00
21	TAO130224	272.5529	274.1092	273.2294	3.3650e-01	1.9276e+00
22	TAO120312	281.1457	282.5247	281.7874	3.0261e-01	1.9300e+00
23	TAO130312	276.7543	277.9498	277.2311	2.8553e-01	1.9287e+00
24	TRT020000	209.5584	211.0968	210.3488	3.3551e-01	1.9132e+00
25	TRT070000	248.1015	250.7371	249.2222	5.3838e-01	1.9215e+00
26	TRT100000	278.6034	279.8888	279.2224	2.6997e-01	1.9293e+00
27	TRT120000	277.8491	280.0522	278.9893	5.9327e-01	1.9292e+00
28	TRT125000	280.9506	282.4130	281.6762	3.4286e-01	1.9299e+00
29	TRT130000	274.6341	275.9222	275.1623	2.5474e-01	1.9281e+00
30	EMPTY	39.3761	40.2940	39.8902	2.3894e-01	1.9011e+00
31	TAF050136	145.8930	148.6905	146.7982	6.4905e-01	1.9040e+00
32	TAF070136	170.6334	174.6482	171.8627	9.0280e-01	1.9070e+00
33	TAF080136	257.4450	260.5815	258.8505	7.3983e-01	1.9239e+00
34	TAF090136	94.9552	96.1036	95.6171	3.0156e-01	1.9004e+00
35	TAF100136	205.4884	207.8965	206.7509	5.5210e-01	1.9126e+00
36	TAF105136	210.3614	212.4510	211.2431	4.9330e-01	1.9134e+00
37	TAF110136	217.0954	220.0407	218.0300	5.1915e-01	1.9147e+00
38	TAF115136	223.6799	225.8603	224.4861	4.2609e-01	1.9160e+00
39	TAF120136	263.5009	265.7154	264.5659	5.0847e-01	1.9253e+00
40	TAF125136	241.2181	247.3627	243.6106	1.2862e+00	1.9202e+00
41	TAF130136	250.8160	267.3271	258.2352	4.0408e+00	1.9237e+00
42	TAF120048	231.3543	233.6370	232.4939	5.9255e-01	1.9177e+00
43	TAF130048	263.9265	271.8712	268.3331	1.9282e+00	1.9263e+00
44	TAF120224	226.2097	228.7670	227.5729	4.8324e-01	1.9167e+00
45	TAF130224	237.2021	239.9459	238.3056	6.2441e-01	1.9190e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.1400	1.9646e-01	1.9010e+00
47	EMPTY	39.6057	40.2940	40.0233	1.7151e-01	1.9011e+00
48	TAI130048	280.8730	282.3431	281.5477	3.4451e-01	1.9299e+00
49	TAI130136	285.8115	288.4573	286.5369	5.4860e-01	1.9313e+00
50	TAI130224	278.2238	279.9746	279.0404	4.2089e-01	1.9292e+00
51	TAI130312	275.8089	277.0997	276.5040	2.9935e-01	1.9285e+00
52	TRR130000	139.1394	140.7499	140.0353	4.0382e-01	1.9033e+00
53	TSI0000001	65.6813	66.7498	66.2306	2.2549e-01	1.9000e+00
54	TSI0000002	75.5564	77.9885	76.7933	6.3842e-01	1.9000e+00
55	TSO0000001	64.9114	65.8776	65.3687	2.5475e-01	1.9000e+00
56	TSO0000002	84.8639	85.7073	85.3593	2.1205e-01	1.9002e+00
57	TAF020136	105.6679	108.6865	107.3403	6.2507e-01	1.9009e+00
58	TAF120312	223.7442	225.9306	224.7427	5.1130e-01	1.9161e+00
59	TAF130312	244.9147	248.0939	246.2037	7.3883e-01	1.9208e+00
60	EMPTY	4.1113	4.1406	4.1258	6.6145e-03	0.0000e+00
61	EMPTY	4.1016	4.1113	4.1061	3.3944e-03	0.0000e+00
62	EMPTY	4.0820	4.0918	4.0874	3.1583e-03	0.0000e+00
63	EMPTY	4.0771	4.0820	4.0793	2.4484e-03	0.0000e+00
64	EMPTY	1.9678	1.9727	1.9681	1.1714e-03	0.0000e+00
65	EMPTY	1.9824	1.9873	1.9827	1.1714e-03	0.0000e+00
66	EMPTY	1.9873	1.9922	1.9919	1.1714e-03	0.0000e+00
67	EMPTY	2.0020	2.0068	2.0030	2.0432e-03	0.0000e+00
68	EMPTY	2.0068	2.0117	2.0092	2.4642e-03	0.0000e+00
69	EMPTY	2.0166	2.0264	2.0196	2.5894e-03	0.0000e+00
70	EMPTY	2.0264	2.0313	2.0271	1.7115e-03	0.0000e+00
71	EMPTY	2.0410	2.0459	2.0424	2.2146e-03	0.0000e+00
72	EMPTY	2.0459	2.0508	2.0491	2.3365e-03	0.0000e+00
73	EMPTY	2.0605	2.0703	2.0613	2.0598e-03	0.0000e+00
74	EMPTY	2.0703	2.0703	2.0703	0.0000e+00	0.0000e+00
75	EMPTY	2.0801	2.0850	2.0806	1.4797e-03	0.0000e+00
76	EMPTY	2.0850	2.0898	2.0883	2.3008e-03	0.0000e+00
77	EMPTY	2.0996	2.1045	2.0999	1.1714e-03	0.0000e+00
78	EMPTY	2.1094	2.1191	2.1144	1.2041e-03	0.0000e+00
79	EMPTY	2.1289	2.1338	2.1318	2.4164e-03	0.0000e+00
80	PAN020136	-19.9023	2.5281	-11.7358	5.7700e+00	8.7049e-01
81	PAN050136	-37.1005	-16.5012	-26.2882	4.8527e+00	1.6813e+00
82	PAN070136	-25.2559	-1.6047	-15.3010	6.3484e+00	8.7084e-01
83	PAN080136	-14.0028	0.8745	-6.3551	4.2294e+00	8.7015e-01
84	PAN090136	-13.2045	-2.0656	-11.2209	3.1018e+00	8.7045e-01
85	PAN100136	-7.1246	22.2486	4.9192	7.8118e+00	8.7009e-01
86	PAN105136	-6.6324	0.9970	-2.9108	1.6289e+00	8.7003e-01
87	PAN110136	-6.9038	-0.5714	-3.7940	1.8080e+00	8.7005e-01
88	PAN115136	-4.8556	2.2398	-1.1294	1.6540e+00	8.7000e-01
89	PAN120136	-5.2620	-0.5318	-3.5652	1.1163e+00	8.7005e-01
90	PAN125136	-2.2206	-0.1606	-1.2364	4.5156e-01	8.7001e-01
91	PAN130136	0.4732	1.6176	0.9966	2.6113e-01	8.7000e-01
92	PAN120048	-7.9844	-3.7119	-5.8130	1.0234e+00	8.7012e-01
93	PAN130048	-0.7334	1.0976	0.2492	4.2399e-01	8.7000e-01
94	PAN120224	-5.9888	-1.8690	-4.3913	1.1644e+00	8.7007e-01
95	PAN130224	-1.0841	0.1366	-0.4646	3.1949e-01	8.7000e-01
96	PAN120312	-8.0430	-1.1003	-4.7456	1.6190e+00	8.7008e-01
97	PAN130312	-1.9894	3.8852	-0.2148	1.2655e+00	8.7000e-01
98	PAB000136	39.8855	40.8011	40.3598	2.6959e-01	5.8871e-01
99	PAB100136	42.7061	42.9808	42.8425	6.9509e-02	5.8981e-01
100	PAB125136	43.1920	43.3751	43.2799	4.6093e-02	5.9001e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.2813	40.7462	40.1066	4.0864e-01	7.5667e-01
102	PRV0000001	19.7289	19.8509	19.7386	3.3453e-02	7.5162e-01
103	PSR0000001	42.6804	42.8025	42.7463	6.1457e-02	7.5758e-01
104	PFM0000001	6.2836	6.6498	6.4594	8.2387e-02	5.0026e-01
105	PAN000136	-94.7828	-71.4368	-82.8809	7.5881e+00	4.9244e+00
106	PFM0000002	6.3605	6.5283	6.4709	3.3746e-02	2.0065e-01
107	EMPTY	-0.0049	0.0049	0.0042	2.2080e-03	0.0000e+00
108	EMPTY	-10.0000	-6.3086	-9.7537	7.9361e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0030	2.3941e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW0000001	145.0458	145.4365	145.2139	1.1844e-01	1.1896e+00
113	VPW0000002	169.4674	169.8580	169.6158	1.0106e-01	1.3007e+00
114	VPW0000003	209.0370	209.4276	209.2011	1.2072e-01	1.4939e+00
115	VPW0000004	148.9295	149.5155	149.2069	1.1223e-01	1.2073e+00
116	VPW0000005	198.7267	199.1174	198.8360	1.2577e-01	1.4420e+00
117	VPW0000006	210.2652	210.8511	210.5387	1.4227e-01	1.5006e+00
118	IPW0000001	769.2609	780.9750	775.4304	2.7429e+00	1.0156e+01
119	IPW0000002	1812.2039	1821.9602	1815.8333	2.8972e+00	1.6474e+01
120	IPW0000003	1853.2874	1863.0374	1858.7080	2.4057e+00	1.6770e+01
121	IPW0000004	535.3440	537.2971	536.1739	5.2432e-01	4.6842e+00
122	IPW0000005	352.9075	355.8369	355.0167	4.4595e-01	3.4447e+00
123	IPW0000006	367.7979	369.7510	368.7843	3.6232e-01	3.5338e+00
124	EMPTY	-0.0244	-0.0098	-0.0175	3.5691e-03	0.0000e+00
125	EMPTY	-0.0146	-0.0049	-0.0124	2.6488e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0098	-0.0136	3.3146e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0162	3.3366e-03	0.0000e+00
128	IHT0000001	181.0434	183.5825	182.2856	6.1607e-01	4.4870e+00
129	IHT0000002	186.2906	189.0249	187.5797	5.9057e-01	4.5087e+00
130	IHT0000003	188.1949	190.7339	189.3004	6.1207e-01	4.5159e+00
131	IHT0000004	184.7581	187.2972	185.9457	6.5058e-01	4.5020e+00
132	IHT0000005	182.8012	185.3403	183.8676	6.3896e-01	4.4934e+00
133	IHT0000006	176.6977	179.2368	178.0922	6.3993e-01	4.4701e+00
134	IHT0000007	185.2915	188.2212	186.7680	6.5216e-01	4.5054e+00
135	IHT0000008	183.2407	186.3657	184.6743	6.0052e-01	4.4967e+00
136	IHT0000009	183.5675	187.0831	185.1807	6.9004e-01	4.4988e+00
137	IHT0000010	186.7713	189.7010	187.9902	6.8523e-01	4.5104e+00
138	IHT0000011	184.4614	187.0005	185.4809	6.2923e-01	4.5000e+00
139	IHT0000012	181.0847	184.0144	182.2919	6.6461e-01	4.4870e+00
140	IHT0000013	130.0218	132.7561	131.3773	6.4042e-01	4.3053e+00
141	IHT0000014	180.8594	183.5938	182.1797	6.3449e-01	4.4865e+00
142	IHT0000015	134.5215	137.4512	135.8848	6.2948e-01	4.3193e+00
143	IHT0000016	125.0601	127.9898	126.3726	5.8266e-01	4.2903e+00
144	IHT0000017	149.4516	152.9673	151.4673	7.5535e-01	4.3708e+00
145	IHT0000018	151.1944	154.5147	153.0303	7.0476e-01	4.3763e+00
146	IHT0000019	147.1116	149.0647	147.8929	5.5102e-01	4.3586e+00
147	IHT0000020	150.7249	152.4827	151.5219	4.7489e-01	4.3710e+00
148	IHT0000021	-2.6104	-0.0714	-1.3526	6.5216e-01	4.1000e+00
149	IHT0000022	130.0819	132.4256	131.1366	5.6359e-01	4.3046e+00
150	IHT0000023	148.2121	150.3606	149.1261	5.6969e-01	4.3628e+00
151	IHT0000024	112.8043	115.1480	113.8589	5.5243e-01	4.2552e+00
152	IHT0000025	147.6638	149.8122	148.6246	5.4653e-01	4.3611e+00
153	IHT0000026	149.0497	151.3935	150.1513	5.5350e-01	4.3663e+00
154	IHT0000027	126.9193	129.0678	128.2045	5.8273e-01	4.2958e+00
155	IHT0000028	128.8537	132.3693	130.2208	7.4451e-01	4.3018e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	148.1595	151.4799	149.4877	7.1572e-01	4.3640e+00
157	IHT0000030	151.1569	153.8912	152.2623	6.8755e-01	4.3736e+00
158	IHT0000031	148.8770	151.4160	150.1074	6.2172e-01	4.3661e+00
159	IHT0000032	150.4883	153.4180	151.9453	6.6756e-01	4.3725e+00
160	IHT0000033	150.4883	153.2226	151.8828	6.4839e-01	4.3723e+00
161	IHT0000034	132.5796	134.7281	133.6929	5.5559e-01	4.3125e+00
162	IHT0000035	175.0676	177.2160	176.2003	5.1900e-01	4.4626e+00
163	IHT0000036	131.0622	133.4059	132.0582	5.5419e-01	4.3074e+00

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Velocity 1 = 6.6542 (ft/sec) (+/- 4.0956 %)
 Velocity 2 = 6.6580 (ft/sec) (+/- 2.1453 %)
 Pressure drop = -3.0618 (psi)
 Tstat in = 267.7970 (deg F) Tstat out = 271.8961 (deg F)
 Phi inner = 199.7250 (kBtu/hr-ft2) (+/- 1.2828 %)
 Phi outer = 200.5306 (kBtu/hr-ft2) (+/- 1.3393 %)
 D inner = 0.1961 (ft) D outer = 0.2413 (ft) D hyd = 0.0390 (ft)
 L inner = 12.8610 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	85.5864	86.4319	86.0685	1.7103e-01	1.9002e+00
1	TRF0000002	86.0041	86.6347	86.3405	1.2012e-01	1.9002e+00
2	TRF0000001	87.8180	88.5532	88.1753	1.8841e-01	1.9002e+00
3	TIN0000001	87.2691	87.7956	87.5514	1.4490e-01	1.9002e+00
4	TRV0000001	88.4081	89.3491	88.8688	2.0818e-01	1.9002e+00
5	TSR0000001	149.6184	152.9992	150.8597	8.7960e-01	1.9044e+00
6	TAO020136	103.2871	105.5712	104.3006	5.6112e-01	1.9008e+00
7	TAO050136	210.2238	213.2702	211.4838	6.1696e-01	1.9134e+00
8	TAO070136	214.6010	218.3433	216.5862	9.2791e-01	1.9144e+00
9	TAO080136	253.7644	255.6190	254.8659	3.6133e-01	1.9229e+00
10	TAO090136	264.2392	265.8122	264.9132	3.7655e-01	1.9254e+00
11	TAO100136	262.8422	265.0635	263.7276	5.2097e-01	1.9251e+00
12	TAO105136	268.3666	269.6631	268.9518	3.0424e-01	1.9265e+00
13	TAO110136	277.8387	279.2037	278.4869	2.6997e-01	1.9291e+00
14	TAO115136	273.0225	274.5917	273.8798	3.1717e-01	1.9278e+00
15	TAO120136	287.6444	289.0165	288.4055	2.6103e-01	1.9319e+00
16	TAO125136	234.4912	236.2810	235.5229	3.2516e-01	1.9184e+00
17	TAO130136	282.9953	284.7109	283.8900	4.2070e-01	1.9306e+00
18	TAO120048	117.2502	118.4802	117.8441	3.3199e-01	1.9015e+00
19	TAO130048	288.6396	289.9138	289.2296	3.2182e-01	1.9321e+00
20	TAO120224	287.5596	288.9310	288.0351	2.7643e-01	1.9318e+00
21	TAO130224	272.7401	274.0215	273.2933	2.9759e-01	1.9276e+00
22	TAO120312	281.2386	282.7081	281.9661	3.1981e-01	1.9300e+00
23	TAO130312	277.6743	278.5919	278.0455	1.9628e-01	1.9289e+00
24	TRT020000	208.5960	210.1354	209.5236	3.2393e-01	1.9131e+00
25	TRT070000	247.1573	248.7599	247.8286	4.2654e-01	1.9212e+00
26	TRT100000	276.8633	278.0570	277.5061	2.5237e-01	1.9288e+00
27	TRT120000	286.9209	288.0172	287.6185	2.5573e-01	1.9316e+00
28	TRT125000	257.7221	289.1474	281.1824	6.9074e+00	1.9298e+00
29	TRT130000	277.0232	278.3089	277.5929	3.7183e-01	1.9288e+00
30	EMPTY	39.3761	40.2940	39.8811	2.0734e-01	1.9011e+00
31	TAFO50136	145.8943	148.7906	147.1938	7.8085e-01	1.9040e+00
32	TAFO70136	170.4401	174.3556	171.6008	1.0078e+00	1.9069e+00
33	TAFO80136	255.4139	259.3861	257.3639	8.1566e-01	1.9235e+00
34	TAFO90136	100.3668	101.6133	100.9073	2.7270e-01	1.9006e+00
35	TAFI00136	205.0074	207.5117	205.7784	5.7248e-01	1.9124e+00
36	TAFI05136	209.3202	211.3155	210.4424	4.2240e-01	1.9132e+00
37	TAFI10136	216.0521	219.0943	217.1330	5.1162e-01	1.9145e+00
38	TAFI15136	222.7337	225.0094	223.7732	4.7307e-01	1.9159e+00
39	TAFI20136	262.8574	265.6256	263.9171	5.1342e-01	1.9252e+00
40	TAFI25136	235.8072	237.7729	236.6129	4.0134e-01	1.9186e+00
41	TAFI30136	244.3727	248.0179	246.1005	8.4568e-01	1.9208e+00
42	TAFI20048	228.9723	231.6384	230.4048	5.6675e-01	1.9173e+00
43	TAFI30048	251.6618	260.7774	254.6753	2.3754e+00	1.9228e+00
44	TAFI20224	226.2121	229.2413	227.5495	6.0838e-01	1.9166e+00
45	TAFI30224	234.9255	236.3484	235.6693	2.7514e-01	1.9184e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.1813	1.7379e-01	1.9010e+00
47	EMPTY	39.8352	40.2940	40.0096	1.3563e-01	1.9011e+00
48	TAI130048	278.3932	280.2319	279.0737	3.6064e-01	1.9292e+00
49	TAI130136	283.2556	284.4439	283.8227	2.1230e-01	1.9306e+00
50	TAI130224	280.1584	282.0912	281.1382	5.0946e-01	1.9298e+00
51	TAI130312	277.4677	278.5734	278.0060	2.6606e-01	1.9289e+00
52	TRR130000	141.5530	142.7579	142.2156	3.0220e-01	1.9035e+00
53	TSI0000001	65.6840	66.4321	66.0384	1.7986e-01	1.9000e+00
54	TSI0000002	73.3340	76.0870	74.7874	7.1282e-01	1.9000e+00
55	TSO0000001	64.9108	65.6627	65.3571	2.1418e-01	1.9000e+00
56	TSO0000002	84.5495	85.7082	85.1012	2.4128e-01	1.9002e+00
57	TAFO20136	106.9168	110.5551	108.4063	9.0165e-01	1.9010e+00
58	TAFI20312	223.3647	225.4563	224.2703	5.0768e-01	1.9150e+00
59	TAFI30312	242.2923	244.7291	243.6272	4.6112e-01	1.9202e+00
60	EMPTY	4.0332	4.0625	4.0514	6.0843e-03	0.0000e+00
61	EMPTY	4.0234	4.0381	4.0333	3.8825e-03	0.0000e+00
62	EMPTY	4.0039	4.0234	4.0157	3.5691e-03	0.0000e+00
63	EMPTY	4.0039	4.0137	4.0077	2.6899e-03	0.0000e+00
64	EMPTY	1.9336	1.9434	1.9381	1.6624e-03	0.0000e+00
65	EMPTY	1.9482	1.9580	1.9528	1.5314e-03	0.0000e+00
66	EMPTY	1.9629	1.9629	1.9601	2.4344e-03	0.0000e+00
67	EMPTY	1.9678	1.9775	1.9726	1.2041e-03	0.0000e+00
68	EMPTY	1.9775	1.9873	1.9777	1.3811e-03	0.0000e+00
69	EMPTY	1.9873	1.9922	1.9885	2.1065e-03	0.0000e+00
70	EMPTY	1.9922	1.9971	1.9970	6.9053e-04	0.0000e+00
71	EMPTY	2.0068	2.0166	2.0117	9.8648e-04	0.0000e+00
72	EMPTY	2.0068	2.0215	2.0184	2.9197e-03	0.0000e+00
73	EMPTY	2.0313	2.0361	2.0317	1.4797e-03	0.0000e+00
74	EMPTY	2.0410	2.0459	2.0411	6.9053e-04	0.0000e+00
75	EMPTY	2.0508	2.0557	2.0516	1.8082e-03	0.0000e+00
76	EMPTY	2.0557	2.0605	2.0602	1.3381e-03	0.0000e+00
77	EMPTY	2.0703	2.0801	2.0711	2.0598e-03	0.0000e+00
78	EMPTY	2.0850	2.0898	2.0870	2.4344e-03	0.0000e+00
79	EMPTY	2.0996	2.1045	2.1044	6.9053e-04	0.0000e+00
80	PAN020136	-19.9023	4.4355	-8.8839	6.5318e+00	8.7028e-01
81	PAN050136	-37.8635	-16.3486	-27.4143	5.1303e+00	1.6814e+00
82	PAN070136	-25.8662	-4.2750	-16.4714	5.8484e+00	8.7097e-01
83	PAN080136	-14.0791	-2.1009	-7.4720	3.6224e+00	8.7020e-01
84	PAN090136	-13.2045	-0.6160	-10.0551	3.6803e+00	8.7036e-01
85	PAN100136	-9.5660	16.6791	2.4351	6.5875e+00	8.7002e-01
86	PAN105136	-6.0984	1.9888	-2.6667	1.6333e+00	8.7003e-01
87	PAN110136	-6.7512	-0.3425	-3.4080	1.5184e+00	8.7004e-01
88	PAN115136	-5.9237	1.4768	-2.5484	1.9891e+00	8.7002e-01
89	PAN120136	-5.2620	0.9178	-2.2240	1.4070e+00	8.7002e-01
90	PAN125136	-3.2124	-0.1606	-1.9337	7.7354e-01	8.7001e-01
91	PAN130136	-1.9682	-0.7475	-1.2922	2.6963e-01	8.7001e-01
92	PAN120048	-8.4421	-3.6356	-6.3334	1.1141e+00	8.7014e-01
93	PAN130048	-5.4637	-3.0986	-4.4612	4.6061e-01	8.7007e-01
94	PAN120224	-7.1333	-1.7927	-5.0687	1.2228e+00	8.7009e-01
95	PAN130224	-3.9069	-1.6181	-2.8571	4.4502e-01	8.7003e-01
96	PAN120312	-8.6534	-2.5499	-5.0630	1.2430e+00	8.7009e-01
97	PAN130312	-5.8804	-0.6161	-3.3886	8.7065e-01	8.7004e-01
98	PAB000136	39.8398	40.7095	40.2884	2.5529e-01	5.8868e-01
99	PAB100136	42.6145	42.8892	42.7180	6.7207e-02	5.8975e-01
100	PAB125136	43.0547	43.2378	43.1407	4.9493e-02	5.8994e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.0372	40.5021	39.9161	4.1414e-01	7.5661e-01
102	PRV000001	19.6068	19.8509	19.7264	3.0104e-02	7.5162e-01
103	PSR000001	42.6804	42.8025	42.7268	5.9853e-02	7.5757e-01
104	PFH000001	6.4667	6.8330	6.6865	7.6263e-02	5.0028e-01
105	PAN000136	-99.3604	-71.8946	-84.7669	7.7788e+00	4.9246e+00
106	PFH000002	6.6290	6.7800	6.6941	3.7847e-02	2.0070e-01
107	EMPTY	0.0000	0.0049	0.0046	1.1714e-03	0.0000e+00
108	EMPTY	-10.0000	-7.4316	-9.8238	5.2876e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0039	1.9730e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	145.0458	145.6318	145.2803	1.3669e-01	1.1899e+00
113	VPW000002	169.4674	169.8580	169.6236	8.8233e-02	1.3007e+00
114	VPW000003	209.0370	209.4276	209.1620	1.1679e-01	1.4937e+00
115	VPW000004	148.9295	149.3201	149.1757	1.1712e-01	1.2072e+00
116	VPW000005	198.5314	199.1174	198.7462	1.5906e-01	1.4416e+00
117	VPW000006	210.2652	210.6558	210.4606	1.0440e-01	1.5002e+00
118	IPW000001	780.9750	788.7844	784.8796	2.0872e+00	1.0201e+01
119	IPW000002	1798.5450	1806.3501	1802.4092	2.2122e+00	1.6382e+01
120	IPW000003	1843.5374	1849.3875	1847.3594	1.5238e+00	1.6691e+01
121	IPW000004	536.3206	539.2502	537.9708	9.7102e-01	4.6970e+00
122	IPW000005	354.3722	355.8369	355.1339	2.9853e-01	3.4455e+00
123	IPW000006	366.8213	368.7744	367.7491	4.2142e-01	3.5271e+00
124	EMPTY	-0.0293	-0.0098	-0.0169	4.0924e-03	0.0000e+00
125	EMPTY	-0.0244	-0.0049	-0.0130	3.5030e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0049	-0.0123	3.3073e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0162	3.0309e-03	0.0000e+00
128	IHT000001	181.0434	183.5825	182.3051	6.0000e-01	4.4870e+00
129	IHT000002	186.2906	188.6343	187.5133	5.3643e-01	4.5085e+00
130	IHT000003	187.8042	190.1480	189.1597	5.3439e-01	4.5153e+00
131	IHT000004	184.5628	187.1019	185.8285	5.6530e-01	4.5015e+00
132	IHT000005	182.6059	184.7544	183.6840	5.4282e-01	4.4927e+00
133	IHT000006	176.6977	179.0415	177.9633	5.7078e-01	4.4696e+00
134	IHT000007	185.2915	187.6352	186.6078	5.4791e-01	4.5047e+00
135	IHT000008	183.4360	185.5844	184.5414	5.2587e-01	4.4962e+00
136	IHT000009	183.7628	186.1065	185.0323	5.3996e-01	4.4982e+00
137	IHT000010	186.7713	188.9198	187.9081	5.8353e-01	4.5101e+00
138	IHT000011	184.2661	186.4145	185.3207	5.7045e-01	4.4994e+00
139	IHT000012	181.0847	183.4285	182.0966	5.8219e-01	4.4862e+00
140	IHT000013	130.2171	132.5608	131.2132	5.4712e-01	4.3048e+00
141	IHT000014	180.6641	183.3984	181.9375	5.3414e-01	4.4855e+00
142	IHT000015	134.7168	136.6699	135.7754	5.1006e-01	4.3190e+00
143	IHT000016	125.2554	127.2085	126.3374	4.9001e-01	4.2902e+00
144	IHT000017	149.6470	152.5766	151.3110	7.4372e-01	4.3703e+00
145	IHT000018	151.3897	154.5147	153.0420	5.8953e-01	4.3763e+00
146	IHT000019	146.7210	149.0647	147.7875	5.7210e-01	4.3582e+00
147	IHT000020	150.3343	152.6780	151.5258	5.6393e-01	4.3710e+00
148	IHT000021	-2.8057	0.1240	-1.3682	7.0117e-01	4.1000e+00
149	IHT000022	129.8866	132.4256	131.1757	5.8261e-01	4.3047e+00
150	IHT000023	147.8215	150.3606	149.1105	5.9843e-01	4.3627e+00
151	IHT000024	112.6089	115.1480	113.7964	5.8105e-01	4.2550e+00
152	IHT000025	147.2731	149.8122	148.5739	5.7400e-01	4.3609e+00
153	IHT000026	149.0497	151.3935	150.0810	5.4109e-01	4.3661e+00
154	IHT000027	127.1146	129.2631	128.2045	5.7465e-01	4.2958e+00
155	IHT000028	129.0490	131.9787	130.2990	6.5078e-01	4.3021e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	148.3549	151.2845	149.5190	6.7769e-01	4.3641e+00
157	IHT000030	151.1569	154.2819	152.2974	6.7815e-01	4.3737e+00
158	IHT000031	148.8770	152.0020	150.1035	6.8007e-01	4.3661e+00
159	IHT000032	150.8789	153.8086	151.9141	6.9166e-01	4.3724e+00
160	IHT000033	150.8789	153.6133	151.8437	6.7475e-01	4.3721e+00
161	IHT000034	132.7749	134.9234	133.6460	5.3118e-01	4.3123e+00
162	IHT000035	175.2629	177.4113	176.0988	5.5389e-01	4.4622e+00
163	IHT000036	131.0622	133.4059	132.0739	5.4774e-01	4.3075e+00

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Velocity 1 = 6.4395 (ft/sec) (+/- 4.3316 %)
 Velocity 2 = 6.4525 (ft/sec) (+/- 2.2017 %)
 Pressure drop = -2.7202 (psi)
 Tsat in = 267.7156 (deg F) Tsat out = 271.6734 (deg F)
 Phi inner = 200.1103 (kBtu/hr-ft2) (+/- 1.2825 %)
 Phi outer = 202.0513 (kBtu/hr-ft2) (+/- 1.3377 %)
 D inner = 0.1961 (ft) D outer = 0.2413 (ft) D hyd = 0.0390 (ft)
 L inner = 12.8610 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	86.0093	86.6432	86.2037	2.0847e-01	1.9002e+00
1	TRF0000002	86.4245	86.8448	86.5717	1.3593e-01	1.9002e+00
2	TFM0000001	87.7141	88.5540	88.1612	2.0450e-01	1.9002e+00
3	TIN0000001	87.1640	87.7958	87.4315	1.5524e-01	1.9002e+00
4	TRV0000001	88.4095	89.2471	88.8637	2.1114e-01	1.9002e+00
5	TSR0000001	148.1226	153.0021	150.7546	1.6497e+00	1.9044e+00
6	TAO020136	104.2216	108.0583	106.4312	1.0717e+00	1.9009e+00
7	TAO050136	212.4129	215.3605	213.7439	6.7704e-01	1.9139e+00
8	TAO070136	217.1924	221.5976	219.2102	1.0210e+00	1.9149e+00
9	TAO080136	257.5630	259.2275	258.5446	3.4000e-01	1.9238e+00
10	TAO090136	268.3051	270.5185	269.6027	5.3117e-01	1.9267e+00
11	TAO100136	266.4505	268.2058	267.3290	4.2327e-01	1.9261e+00
12	TAO105136	270.8657	272.9001	272.0365	3.5325e-01	1.9273e+00
13	TAO110136	280.0239	281.3021	280.6536	2.7352e-01	1.9297e+00
14	TAO115136	277.0797	278.3692	277.6932	3.1221e-01	1.9288e+00
15	TAO120136	292.3037	292.9433	292.6125	1.7200e-01	1.9331e+00
16	TAO125136	241.4490	243.1353	242.1141	4.1248e-01	1.9199e+00
17	TAO130136	291.5618	293.6315	292.5916	5.1071e-01	1.9331e+00
18	TAO120048	112.5264	113.7621	113.1461	3.1576e-01	1.9013e+00
19	TAO130048	294.5484	297.7234	296.1981	7.8199e-01	1.9342e+00
20	TAO120224	286.8281	288.3823	287.4961	3.4468e-01	1.9316e+00
21	TAO130224	270.6415	272.6529	271.5716	4.0452e-01	1.9272e+00
22	TAO120312	280.2268	281.7903	280.9645	4.1396e-01	1.9298e+00
23	TAO130312	275.5804	276.6673	275.8016	2.6914e-01	1.9283e+00
24	TRT020000	211.1927	212.5379	211.7710	3.5070e-01	1.9135e+00
25	TRT070000	250.4541	252.5216	251.3924	4.6252e-01	1.9220e+00
26	TRT100000	279.8893	281.4470	280.8038	3.8120e-01	1.9297e+00
27	TRT120000	271.8712	273.4371	272.7163	4.2518e-01	1.9275e+00
28	TRT125000	278.2164	280.2253	279.0739	5.0641e-01	1.9292e+00
29	TRT130000	276.6571	278.4933	277.7679	4.0632e-01	1.9289e+00
30	EMPTY	39.6057	40.2940	39.8168	2.0651e-01	1.9011e+00
31	TAFO50136	147.0945	150.6846	148.5940	8.2798e-01	1.9042e+00
32	TAFO70136	171.9106	175.8236	173.7257	8.9196e-01	1.9072e+00
33	TAFO80136	258.9257	261.5107	260.3565	6.7577e-01	1.9243e+00
34	TAFO90136	96.2087	97.3548	96.7523	2.8032e-01	1.9005e+00
35	TAF100136	207.4153	209.8200	208.5949	5.4645e-01	1.9129e+00
36	TAF105136	212.0775	214.5473	213.2575	4.7070e-01	1.9138e+00
37	TAF110136	219.2849	221.8466	220.2051	4.6888e-01	1.9151e+00
38	TAF115136	225.5770	227.5651	226.6697	3.8401e-01	1.9165e+00
39	TAF120136	268.9395	271.0551	269.9755	4.5015e-01	1.9268e+00
40	TAF125136	249.8735	269.3213	259.0078	5.5627e+00	1.9239e+00
41	TAF130136	265.1120	270.0963	267.8925	1.1044e+00	1.9262e+00
42	TAF120048	239.1382	260.6847	247.7935	5.8375e+00	1.9212e+00
43	TAF130048	265.6865	272.0585	270.1670	1.2482e+00	1.9268e+00
44	TAF120224	228.6738	231.6999	229.9359	7.1100e-01	1.9172e+00
45	TAF130224	241.2688	244.1953	242.4679	6.5911e-01	1.9199e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.6870	38.1124	2.2874e-01	1.9010e+00
47	EMPTY	39.6057	40.5234	40.0417	2.1865e-01	1.9011e+00
48	TAI130048	280.4152	281.7017	281.1228	2.9356e-01	1.9298e+00
49	TAI130136	287.1828	288.6439	287.8786	3.0233e-01	1.9317e+00
50	TAI130224	276.3795	278.5926	277.2964	5.4457e-01	1.9287e+00
51	TAI130312	275.9941	277.8364	276.8401	4.3802e-01	1.9286e+00
52	TRR130000	141.4530	142.9596	142.3750	3.2556e-01	1.9035e+00
53	TSI0000001	65.6845	66.6463	66.1180	2.2891e-01	1.9000e+00
54	TSI0000002	75.5595	78.4128	76.8000	6.0818e-01	1.9000e+00
55	TSO0000001	64.9096	65.8765	65.3500	2.0624e-01	1.9000e+00
56	TSO0000002	84.9705	86.2341	85.6171	2.5525e-01	1.9002e+00
57	TAF020136	106.9153	110.7627	108.7444	8.5440e-01	1.9010e+00
58	TAF120312	226.0254	229.8189	227.9856	9.1067e-01	1.9167e+00
59	TAF130312	244.5414	248.2838	245.8390	7.1925e-01	1.9207e+00
60	EMPTY	4.0918	4.1211	4.1053	6.8743e-03	0.0000e+00
61	EMPTY	4.0771	4.1016	4.0862	4.4128e-03	0.0000e+00
62	EMPTY	4.0576	4.0723	4.0678	3.3944e-03	0.0000e+00
63	EMPTY	4.0527	4.0674	4.0596	3.1195e-03	0.0000e+00
64	EMPTY	1.9580	1.9629	1.9598	2.3675e-03	0.0000e+00
65	EMPTY	1.9727	1.9775	1.9748	2.4484e-03	0.0000e+00
66	EMPTY	1.9775	1.9873	1.9827	1.5314e-03	0.0000e+00
67	EMPTY	1.9922	1.9971	1.9958	2.1635e-03	0.0000e+00
68	EMPTY	1.9971	2.0020	2.0017	1.1714e-03	0.0000e+00
69	EMPTY	2.0117	2.0166	2.0120	1.1714e-03	0.0000e+00
70	EMPTY	2.0166	2.0215	2.0199	2.3008e-03	0.0000e+00
71	EMPTY	2.0313	2.0361	2.0358	1.1714e-03	0.0000e+00
72	EMPTY	2.0410	2.0459	2.0412	9.6655e-04	0.0000e+00
73	EMPTY	2.0508	2.0557	2.0555	9.6655e-04	0.0000e+00
74	EMPTY	2.0557	2.0654	2.0635	2.6100e-03	0.0000e+00
75	EMPTY	2.0752	2.0752	2.0752	0.0000e+00	0.0000e+00
76	EMPTY	2.0801	2.0850	2.0806	1.4797e-03	0.0000e+00
77	EMPTY	2.0898	2.0996	2.0948	1.2041e-03	0.0000e+00
78	EMPTY	2.1094	2.1094	2.1094	0.0000e+00	0.0000e+00
79	EMPTY	2.1240	2.1289	2.1241	6.9053e-04	0.0000e+00
80	PAN020136	-19.9023	4.4355	-8.9816	5.8486e+00	8.7029e-01
81	PAN050136	-37.7109	-15.4330	-25.5985	6.2104e+00	1.6812e+00
82	PAN070136	-25.9425	-10.8363	-17.8141	4.0810e+00	8.7114e-01
83	PAN080136	-14.0791	0.0353	-5.9858	4.3843e+00	8.7013e-01
84	PAN090136	-13.2045	0.6810	-9.5058	3.0944e+00	8.7032e-01
85	PAN100136	-7.2009	23.8508	0.2119	7.0770e+00	8.7000e-01
86	PAN105136	-7.4717	0.3866	-3.4876	1.8594e+00	8.7004e-01
87	PAN110136	-7.3615	0.0390	-3.9420	1.9738e+00	8.7006e-01
88	PAN115136	-4.1689	3.6894	-0.8868	1.6329e+00	8.7000e-01
89	PAN120136	-3.1258	-0.6844	-2.1904	5.7193e-01	8.7002e-01
90	PAN125136	-0.0844	1.1364	0.4589	2.8656e-01	8.7000e-01
91	PAN130136	2.4569	5.4323	3.6623	5.8936e-01	8.7005e-01
92	PAN120048	-7.1451	-2.8727	-4.9479	1.0444e+00	8.7009e-01
93	PAN130048	4.2257	6.8197	5.3579	6.3391e-01	8.7010e-01
94	PAN120224	-4.6918	-0.2668	-2.6762	1.1622e+00	8.7003e-01
95	PAN130224	1.2811	3.8750	2.3156	5.2069e-01	8.7002e-01
96	PAN120312	-4.7624	0.8834	-2.0616	1.2781e+00	8.7002e-01
97	PAN130312	0.2994	2.9697	1.5613	5.5494e-01	8.7001e-01
98	PAB000136	39.7482	40.6180	40.2334	2.6207e-01	5.8866e-01
99	PAB100136	42.5230	42.8434	42.6539	8.1683e-02	5.8972e-01
100	PAB125136	42.8716	43.1462	42.9814	6.6046e-02	5.8987e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.0372	40.5021	39.9112	4.3447e-01	7.5661e-01
102	PRV0000001	19.7289	19.8509	19.8070	5.9189e-02	7.5163e-01
103	PSR0000001	42.0701	42.6804	42.3044	7.3325e-02	7.5742e-01
104	PFH0000001	6.1005	6.3752	6.2562	8.1153e-02	5.0024e-01
105	PAN000136	-89.2896	-64.5704	-75.3095	8.0120e+00	4.9236e+00
106	PFH0000002	6.1759	6.3605	6.2817	3.7482e-02	2.0062e-01
107	EMPTY	-0.0049	0.0049	0.0046	1.5314e-03	0.0000e+00
108	EMPTY	-10.0000	-7.1533	-9.8316	5.6186e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0043	1.6028e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0001	6.9053e-04	0.0000e+00
112	VPW0000001	145.0458	145.4365	145.2451	9.2456e-02	1.1898e+00
113	VPW0000002	169.4674	169.8580	169.6626	1.2478e-01	1.3009e+00
114	VPW0000003	208.8417	209.2323	209.1113	1.1084e-01	1.4934e+00
115	VPW0000004	148.9295	149.5155	149.1522	1.4233e-01	1.2071e+00
116	VPW0000005	198.5314	198.9220	198.7970	1.1679e-01	1.4418e+00
117	VPW0000006	210.2652	210.6558	210.4410	1.2633e-01	1.5001e+00
118	IPW0000001	779.0226	784.8797	782.2637	1.4551e+00	1.0188e+01
119	IPW0000002	1823.9115	1831.7166	1827.1501	2.2512e+00	1.6552e+01
120	IPW0000003	1849.3875	1855.2374	1851.6490	1.3278e+00	1.6721e+01
121	IPW0000004	538.2737	539.7385	539.2012	3.4527e-01	4.7058e+00
122	IPW0000005	355.8369	357.3016	356.5302	2.9738e-01	3.4544e+00
123	IPW0000006	367.7979	368.7744	368.2179	3.2733e-01	3.5301e+00
124	EMPTY	-0.0244	-0.0098	-0.0183	3.9224e-03	0.0000e+00
125	EMPTY	-0.0146	-0.0049	-0.0123	2.6543e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0049	-0.0137	3.4173e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0098	-0.0159	2.9280e-03	0.0000e+00
128	IHT0000001	180.8481	183.9731	182.2348	6.5227e-01	4.4868e+00
129	IHT0000002	186.0952	189.0249	187.4976	6.4801e-01	4.5084e+00
130	IHT0000003	187.8042	190.7339	189.1519	6.3288e-01	4.5153e+00
131	IHT0000004	184.5628	187.2972	185.7894	6.5678e-01	4.5013e+00
132	IHT0000005	182.4106	185.1450	183.6840	6.3287e-01	4.4927e+00
133	IHT0000006	176.6977	179.4321	177.9594	6.0517e-01	4.4696e+00
134	IHT0000007	185.4868	188.0259	186.6078	6.0078e-01	4.5047e+00
135	IHT0000008	183.6313	186.1704	184.5961	5.5160e-01	4.4964e+00
136	IHT0000009	183.9581	186.4971	185.0284	5.9352e-01	4.4982e+00
137	IHT0000010	186.7713	189.7010	187.9316	6.0927e-01	4.5102e+00
138	IHT0000011	184.2661	186.6098	185.3286	5.5546e-01	4.4994e+00
139	IHT0000012	180.8894	183.2332	182.0887	5.2941e-01	4.4862e+00
140	IHT0000013	130.2171	132.3655	131.2289	4.8918e-01	4.3049e+00
141	IHT0000014	180.8594	183.3984	182.0742	5.4432e-01	4.4861e+00
142	IHT0000015	134.7168	137.2558	135.7676	5.1280e-01	4.3189e+00
143	IHT0000016	125.0601	127.5992	126.3726	5.0998e-01	4.2903e+00
144	IHT0000017	149.6470	152.3813	151.2720	5.7242e-01	4.3702e+00
145	IHT0000018	151.7803	154.9053	153.0967	6.1487e-01	4.3765e+00
146	IHT0000019	146.3304	148.8694	147.7719	5.5227e-01	4.3582e+00
147	IHT0000020	150.1390	152.4827	151.5179	5.6965e-01	4.3710e+00
148	IHT0000021	-2.8057	-0.2667	-1.4620	6.3459e-01	4.1000e+00
149	IHT0000022	130.0819	131.8397	131.1093	4.6490e-01	4.3045e+00
150	IHT0000023	148.0168	150.1653	149.1027	5.0403e-01	4.3627e+00
151	IHT0000024	112.6089	114.7574	113.7808	4.7021e-01	4.2550e+00
152	IHT0000025	147.4685	149.6169	148.6481	4.9278e-01	4.3611e+00
153	IHT0000026	149.0497	151.1982	150.0732	4.7443e-01	4.3660e+00
154	IHT0000027	127.3100	129.4584	128.2006	4.3968e-01	4.2958e+00
155	IHT0000028	129.2443	132.1740	130.2911	6.0716e-01	4.3020e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	148.5502	151.4799	149.5815	5.8399e-01	4.3643e+00
157	IHT0000030	151.3522	153.5006	152.3638	5.5760e-01	4.3740e+00
158	IHT0000031	149.2676	151.2207	150.1934	5.1571e-01	4.3664e+00
159	IHT0000032	151.0742	153.0274	151.9883	5.3151e-01	4.3726e+00
160	IHT0000033	150.8789	152.8320	151.9297	5.2034e-01	4.3724e+00
161	IHT0000034	132.3843	134.5327	133.6460	4.4505e-01	4.3123e+00
162	IHT0000035	174.8723	177.2160	176.1691	5.0341e-01	4.4625e+00
163	IHT0000036	130.6716	133.0153	132.0348	4.4203e-01	4.3074e+00

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Velocity 1 = 5.9829 (ft/sec) (+/- 4.9317 %)
 Velocity 2 = 5.9817 (ft/sec) (+/- 2.3636 %)
 Pressure drop = -2.0466 (psi)
 Tsat in = 267.9676 (deg F) Tsat out = 271.2323 (deg F)
 Phi inner = 201.6345 (kBtu/hr-ft2) (+/- 1.2813 %)
 Phi outer = 200.8106 (kBtu/hr-ft2) (+/- 1.3395 %)
 D inner = 0.1961 (ft) D outer = 0.2413 (ft) D hyd = 0.0390 (ft)
 L inner = 12.8610 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	86.2206	86.8545	86.5080	1.6400e-01	1.9002e+00
1	TRF0000002	86.6347	87.0549	86.8364	1.5861e-01	1.9002e+00
2	TFM0000001	88.0293	88.7644	88.3741	1.9549e-01	1.9002e+00
3	TIN0000001	87.3746	88.0057	87.6569	1.3005e-01	1.9002e+00
4	TRV0000001	88.7239	89.5628	89.1351	1.9586e-01	1.9002e+00
5	TSR0000001	147.2273	151.9112	149.5800	1.4970e+00	1.9043e+00
6	TAO020136	96.3052	100.0615	98.7020	8.2156e-01	1.9006e+00
7	TAO050136	220.4844	223.6993	222.0124	6.2091e-01	1.9155e+00
8	TAO070136	226.3702	230.2739	228.3939	1.0152e+00	1.9168e+00
9	TAO080136	270.2808	271.4744	270.7952	2.8976e-01	1.9270e+00
10	TAO090136	283.6501	284.8397	284.1699	3.3551e-01	1.9307e+00
11	TAO100136	279.1597	282.1856	280.4586	7.0276e-01	1.9296e+00
12	TAO105136	290.6428	293.3853	292.1171	6.4263e-01	1.9330e+00
13	TAO110136	292.8171	295.8874	294.3198	7.5126e-01	1.9336e+00
14	TAO115136	292.3934	296.2240	294.5576	7.8374e-01	1.9337e+00
15	TAO120136	295.8593	296.6797	296.3735	2.0058e-01	1.9342e+00
16	TAO125136	238.5393	240.2297	239.2151	3.7563e-01	1.9192e+00
17	TAO130136	289.6792	291.4798	290.8413	3.7249e-01	1.9326e+00
18	TAO120048	122.8756	123.9989	123.3942	3.0009e-01	1.9019e+00
19	TAO130048	291.4615	293.2799	292.3459	4.5324e-01	1.9330e+00
20	TAO120224	288.9323	291.6708	290.4513	6.9232e-01	1.9325e+00
21	TAO130224	277.1253	281.2228	278.3436	7.9235e-01	1.9290e+00
22	TAO120312	279.2151	281.7900	280.4334	5.7340e-01	1.9296e+00
23	TAO130312	278.7769	280.8848	279.8186	4.3338e-01	1.9294e+00
24	TRT020000	218.1920	220.1039	219.3277	3.6885e-01	1.9150e+00
25	TRT070000	261.8935	263.5756	262.7801	4.2075e-01	1.9249e+00
26	TRT100000	273.2850	276.2245	274.6078	6.1693e-01	1.9280e+00
27	TRT120000	274.8179	280.1465	276.7782	1.3375e+00	1.9286e+00
28	TRT125000	287.8789	292.4166	290.4606	9.5537e-01	1.9325e+00
29	TRT130000	290.5552	292.9233	292.1185	5.3918e-01	1.9330e+00
30	EMPTY	39.3761	40.2940	39.9086	2.2446e-01	1.9011e+00
31	TAF050136	152.2798	156.1539	154.1125	9.4824e-01	1.9048e+00
32	TAF070136	180.4056	183.3233	181.5231	7.3669e-01	1.9084e+00
33	TAF080136	265.7428	268.0392	266.8307	4.6783e-01	1.9259e+00
34	TAF090136	102.5478	103.6868	103.1484	2.3028e-01	1.9007e+00
35	TAF100136	218.2525	222.0701	219.7956	7.0179e-01	1.9151e+00
36	TAF105136	230.1128	234.4246	231.9179	9.0187e-01	1.9176e+00
37	TAF110136	247.5061	272.2218	260.8977	7.6861e+00	1.9244e+00
38	TAF115136	265.4121	272.2350	270.5070	1.5949e+00	1.9269e+00
39	TAF120136	274.4514	275.4615	274.9911	2.4506e-01	1.9281e+00
40	TAF125136	270.0585	271.9822	271.1360	3.7966e-01	1.9271e+00
41	TAF130136	269.9128	271.0205	270.3233	2.1190e-01	1.9268e+00
42	TAF120048	268.3325	271.5863	270.1965	8.1638e-01	1.9268e+00
43	TAF130048	269.1993	271.3211	270.6462	3.7867e-01	1.9269e+00
44	TAF120224	243.9290	248.8871	246.7257	1.2124e+00	1.9209e+00
45	TAF130224	251.7229	261.3649	255.3077	1.9644e+00	1.9230e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.6870	38.1445	2.2159e-01	1.9010e+00
47	EMPTY	39.6057	40.5234	40.1839	2.3285e-01	1.9011e+00
48	TAI130048	279.9568	282.0688	280.9379	4.7568e-01	1.9297e+00
49	TAI130136	286.1808	287.4588	286.7399	2.6773e-01	1.9314e+00
50	TAI130224	277.2096	279.2375	278.2352	4.9671e-01	1.9290e+00
51	TAI130312	276.5469	277.2848	276.9786	2.1502e-01	1.9286e+00
52	TRR130000	143.0590	144.4628	143.5575	2.9404e-01	1.9036e+00
53	TSI0000001	65.6862	66.4343	66.1430	1.9902e-01	1.9000e+00
54	TSI0000002	77.5691	79.4688	78.4216	4.9682e-01	1.9000e+00
55	TSO0000001	64.8009	65.6609	65.2783	2.4568e-01	1.9000e+00
56	TSO0000002	86.0237	86.9709	86.5707	2.0717e-01	1.9002e+00
57	TAF020136	109.8273	114.1824	111.4086	8.0901e-01	1.9012e+00
58	TAF120312	235.3019	239.5435	237.3048	1.2038e+00	1.9188e+00
59	TAF130312	251.3634	258.3428	253.9688	1.2760e+00	1.9227e+00
60	EMPTY	4.2773	4.3506	4.3077	1.4407e-02	0.0000e+00
61	EMPTY	4.2676	4.3115	4.2862	1.0610e-02	0.0000e+00
62	EMPTY	4.2480	4.2822	4.2653	8.7240e-03	0.0000e+00
63	EMPTY	4.2432	4.2725	4.2560	6.8267e-03	0.0000e+00
64	EMPTY	2.0410	2.0557	2.0474	3.8523e-03	0.0000e+00
65	EMPTY	2.0557	2.0703	2.0631	3.7382e-03	0.0000e+00
66	EMPTY	2.0654	2.0703	2.0681	2.4583e-03	0.0000e+00
67	EMPTY	2.0752	2.0850	2.0797	3.5348e-03	0.0000e+00
68	EMPTY	2.0801	2.0898	2.0847	2.8608e-03	0.0000e+00
69	EMPTY	2.0898	2.0996	2.0952	3.5908e-03	0.0000e+00
70	EMPTY	2.0996	2.1094	2.1026	2.5894e-03	0.0000e+00
71	EMPTY	2.1094	2.1240	2.1171	3.1333e-03	0.0000e+00
72	EMPTY	2.1191	2.1289	2.1229	3.0501e-03	0.0000e+00
73	EMPTY	2.1338	2.1387	2.1360	2.4583e-03	0.0000e+00
74	EMPTY	2.1387	2.1484	2.1438	3.1828e-03	0.0000e+00
75	EMPTY	2.1484	2.1582	2.1550	2.5362e-03	0.0000e+00
76	EMPTY	2.1582	2.1680	2.1610	2.6267e-03	0.0000e+00
77	EMPTY	2.1680	2.1777	2.1736	3.0180e-03	0.0000e+00
78	EMPTY	2.1826	2.1924	2.1883	2.2839e-03	0.0000e+00
79	EMPTY	2.2021	2.2070	2.2042	2.4344e-03	0.0000e+00
80	PAN020136	-19.9023	2.9859	-11.7328	6.4475e+00	8.7049e-01
81	PAN050136	-37.5583	-12.9916	-25.2719	6.5426e+00	1.6812e+00
82	PAN070136	-25.7899	-5.7246	-15.6642	4.9162e+00	8.7088e-01
83	PAN080136	-13.0873	2.4004	-5.8439	3.1437e+00	8.7012e-01
84	PAN090136	-8.3217	-1.3026	-4.5589	1.5387e+00	8.7007e-01
85	PAN100136	-10.9393	-2.0892	-6.0046	1.7719e+00	8.7013e-01
86	PAN105136	-4.5725	-0.9867	-3.2663	8.3784e-01	8.7004e-01
87	PAN110136	-1.7158	0.2679	-0.6477	5.1446e-01	8.7000e-01
88	PAN115136	1.4768	3.3842	2.1528	4.2549e-01	8.7002e-01
89	PAN120136	1.7570	4.6562	2.9213	7.1799e-01	8.7003e-01
90	PAN125136	4.0355	6.5532	5.1708	5.8484e-01	8.7010e-01
91	PAN130136	7.0345	9.8574	8.2827	5.7109e-01	8.7025e-01
92	PAN120048	4.4516	8.3425	6.0034	9.0700e-01	8.7013e-01
93	PAN130048	11.8551	17.1956	13.6937	9.6913e-01	8.7067e-01
94	PAN120224	1.3354	5.6078	3.0535	9.6938e-01	8.7003e-01
95	PAN130224	10.9704	14.8614	12.2048	9.1106e-01	8.7053e-01
96	PAN120312	0.3493	4.7743	2.2200	9.2151e-01	8.7002e-01
97	PAN130312	9.0732	13.3457	10.4786	8.1926e-01	8.7039e-01
98	PAB000136	40.0229	40.8468	40.4037	2.5587e-01	5.8873e-01
99	PAB100136	42.6603	43.2554	42.9267	1.2118e-01	5.8984e-01
100	PAB125136	42.4596	42.8716	42.6674	9.2116e-02	5.8973e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.5255	40.8683	40.2213	4.4545e-01	7.5671e-01
102	PRV000001	19.6068	19.7289	19.6801	6.0409e-02	7.5161e-01
103	PSR000001	41.4597	41.5818	41.5354	5.9853e-02	7.5715e-01
104	PFM000001	5.2766	5.5512	5.3882	8.3316e-02	5.0018e-01
105	PAN000136	-71.4368	-43.9710	-56.6602	7.8130e+00	4.9220e+00
106	PFM000002	5.3034	5.4880	5.3860	4.3525e-02	2.0045e-01
107	EMPTY	-0.0049	0.0049	0.0038	2.6635e-03	0.0000e+00
108	EMPTY	-10.0000	-8.9209	-9.9378	2.1209e-01	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0029	2.4164e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW000001	145.0458	145.4365	145.3037	1.0763e-01	1.1900e+00
113	VPW000002	169.4674	169.8580	169.6665	1.0799e-01	1.3009e+00
114	VPW000003	209.0370	209.6229	209.2909	1.2633e-01	1.4943e+00
115	VPW000004	148.9295	149.5155	149.2460	1.4167e-01	1.2075e+00
116	VPW000005	198.7267	199.1174	198.9532	1.3300e-01	1.4426e+00
117	VPW000006	210.4605	210.8511	210.5973	1.1334e-01	1.5009e+00
118	IPW000001	769.2609	775.1180	772.4236	1.2404e+00	1.0141e+01
119	IPW000002	1816.1064	1821.9602	1819.4233	1.5394e+00	1.6499e+01
120	IPW000003	1863.0374	1866.9374	1865.0652	1.1115e+00	1.6814e+01
121	IPW000004	533.3909	535.3440	534.2891	3.7382e-01	4.6707e+00
122	IPW000005	354.8605	356.3252	355.4464	3.1192e-01	3.4475e+00
123	IPW000006	369.2627	370.7276	369.8390	3.2253e-01	3.5407e+00
124	EMPTY	-0.0293	-0.0098	-0.0186	4.5206e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0131	3.1874e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0148	3.1133e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0163	3.2133e-03	0.0000e+00
128	IHT000001	181.0434	183.3872	182.1957	5.5699e-01	4.4866e+00
129	IHT000002	186.4859	188.6343	187.5250	5.2562e-01	4.5085e+00
130	IHT000003	187.9995	190.3433	189.1519	5.2977e-01	4.5153e+00
131	IHT000004	184.5628	186.9066	185.7504	5.6612e-01	4.5011e+00
132	IHT000005	182.4106	184.9497	183.6723	5.8422e-01	4.4926e+00
133	IHT000006	176.8930	179.4321	177.9594	5.9609e-01	4.4696e+00
134	IHT000007	185.2915	187.8306	186.5375	5.8910e-01	4.5044e+00
135	IHT000008	183.4360	185.5844	184.5180	5.3990e-01	4.4961e+00
136	IHT000009	183.7628	185.9112	185.0010	5.7806e-01	4.4981e+00
137	IHT000010	186.3807	189.3104	187.9433	5.9843e-01	4.5102e+00
138	IHT000011	183.8755	186.6098	185.2387	5.3741e-01	4.4990e+00
139	IHT000012	180.6941	183.2332	182.0380	5.0477e-01	4.4860e+00
140	IHT000013	129.8265	132.3655	131.0960	5.0417e-01	4.3045e+00
141	IHT000014	180.2734	183.3984	181.8672	5.2846e-01	4.4853e+00
142	IHT000015	134.1308	137.0605	135.5723	5.2776e-01	4.3183e+00
143	IHT000016	124.8648	127.5992	126.2905	5.3123e-01	4.2901e+00
144	IHT000017	150.0376	152.1860	151.0571	5.7897e-01	4.3694e+00
145	IHT000018	151.5850	154.3194	152.9912	6.5673e-01	4.3761e+00
146	IHT000019	146.3304	148.6741	147.7015	5.0299e-01	4.3579e+00
147	IHT000020	149.9436	152.0921	151.2562	5.0384e-01	4.3701e+00
148	IHT000021	-2.8057	-0.4620	-1.6221	6.1815e-01	4.1000e+00
149	IHT000022	130.0819	132.0350	130.9608	4.8688e-01	4.3041e+00
150	IHT000023	147.8215	149.9700	148.8175	5.0417e-01	4.3617e+00
151	IHT000024	112.6089	114.5621	113.5855	4.7515e-01	4.2544e+00
152	IHT000025	147.4685	149.4216	148.4254	4.9166e-01	4.3604e+00
153	IHT000026	148.8544	150.8075	149.8623	4.4879e-01	4.3653e+00
154	IHT000027	126.9193	129.0678	128.0249	5.1389e-01	4.2952e+00
155	IHT000028	128.8537	131.9787	130.2911	7.1219e-01	4.3020e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	147.9642	151.4799	149.4799	7.5856e-01	4.3640e+00
157	IHT000030	150.5709	154.4772	152.2115	7.9801e-01	4.3734e+00
158	IHT000031	148.2910	152.1973	149.9941	7.6924e-01	4.3658e+00
159	IHT000032	150.0977	154.1992	151.8125	7.9045e-01	4.3720e+00
160	IHT000033	150.0976	154.1992	151.7812	7.8412e-01	4.3719e+00
161	IHT000034	132.3843	135.5093	133.5913	6.4318e-01	4.3122e+00
162	IHT000035	175.0676	177.6067	176.1300	5.7610e-01	4.4623e+00
163	IHT000036	131.0622	133.6013	131.9919	6.0433e-01	4.3072e+00

DEFECTIVE INSTRUMENTS FOR THE RIBBED GEOMETRY TEST SERIES

Series	Tests	Defective Instruments
4	Aug01_10 to Aug01_19	TAO120048 TAF080136 TRT125000 TAO020136 TAF090136 TRR130000 TAO070136 TAF120136 TAO125136 IHT000021 IHT000024 IHT000033

Chapter 11

NUCLEATE BOILING PRESSURE DROP IN AN ANNULUS

Test Geometry: Ribbed (4)
Test Series: 10
Test Date: August 1, 1990

TEST NUMBER	INLET VELOCITY(a) (ft/s)	PRESSURE DROP(b) (psi)
Aug01_21	26.00	19.98
Aug01_22	14.01	2.48
Aug01_23	8.07	-2.73
Aug01_26	4.09	-4.89
Aug01_24	4.07	-5.00
Aug01_27	3.87	-4.81
Aug01_25	3.72	-4.12

(c)

NOMINAL TEST CONDITIONS	
Annulus geometry	ribbed (4)
Inlet temperature	86 °F
Inlet pressure	40 psia
Wall heat flux	200 kBtu/hr-ft ²
Flux distribution	asymmetric
He saturation pressure	5 psig

NOTES:

- (a) Inlet velocity calculated from PFM000001
 (b) Pressure drop calculated from PAN000136
 (c) Shading notes test at minimum pressure drop

DEMAND CURVE AND DATA FOR SERIES 10 - RIBBED ANNULUS

SERIES 10, AUG01_21
 RIBBED, ASYMMETRIC (4)
 $\phi_0 = 199,900 \text{ Btu/hr-ft}^2$
 $V_f = 26.00 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$
 $P = 40.06 \text{ psia}$
 $T = 87.07 \text{ }^\circ\text{F}$
 $L = 12.83 \text{ ft}$

RIBBED, ASYMMETRIC (4)
 $\phi_0 = 199,900 \text{ Btu/hr-ft}^2$
 $V_f = 26.00 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$
 $P = 40.06 \text{ psia}$
 $T = 87.07 \text{ }^\circ\text{F}$
 $L = 12.83 \text{ ft}$

AUG01_21

SERIES 10, AUG01_22
 RIBBED, ASYMMETRIC (4)
 $\phi_0 = 200,600 \text{ Btu/hr-ft}^2$
 $V_f = 14.00 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$
 $P = 39.97 \text{ psia}$
 $T = 86.12 \text{ }^\circ\text{F}$
 $L = 12.83 \text{ ft}$

RIBBED, ASYMMETRIC (4)
 $\phi_0 = 200,600 \text{ Btu/hr-ft}^2$
 $V_f = 14.00 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$
 $P = 39.97 \text{ psia}$
 $T = 86.12 \text{ }^\circ\text{F}$
 $L = 12.83 \text{ ft}$

AUG01_22

SERIES 10, AUG01_23
 RIBBED, ASYMMETRIC (4)
 $\phi_0 = 200,700 \text{ Btu/hr-ft}^2$
 $v_f = 8.07 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$
 $P = 40.07 \text{ psia}$
 $T = 86.12 \text{ }^\circ\text{F}$
 $L = 12.83 \text{ ft}$

RIBBED, ASYMMETRIC (4)
 $\phi_0 = 200,700 \text{ Btu/hr-ft}^2$
 $v_f = 8.07 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$
 $P = 40.07 \text{ psia}$
 $T = 86.12 \text{ }^\circ\text{F}$
 $L = 12.83 \text{ ft}$

AUG01_23

SERIES 10, AUG01_24
 RIBBED, ASYMMETRIC (4)
 $\phi_0 = 200,600 \text{ Btu/hr-ft}^2$
 $V_f = 4.07 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$
 $P = 40.02 \text{ psia}$
 $T = 87.07 \text{ }^\circ\text{F}$
 $L = 12.83 \text{ ft}$

RIBBED, ASYMMETRIC (4)
 $\phi_0 = 200,600 \text{ Btu/hr-ft}^2$
 $V_f = 4.07 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$
 $P = 40.02 \text{ psia}$
 $T = 87.07 \text{ }^\circ\text{F}$
 $L = 12.83 \text{ ft}$

AUG01_24

AUG01_25

SERIES 10, AUG01_26
 RIBBED, ASYMMETRIC (4)
 $\phi_0 = 200,200 \text{ Btu/hr-ft}^2$
 $V_f = 4.09 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$
 $P = 40.20 \text{ psia}$
 $T = 87.30 \text{ }^\circ\text{F}$
 $L = 12.83 \text{ ft}$

RIBBED, ASYMMETRIC (4)
 $\phi_0 = 200,200 \text{ Btu/hr-ft}^2$
 $V_f = 4.09 \text{ ft/sec}$

$P_{He} = 5 \text{ psig}$
 $P = 40.20 \text{ psia}$
 $T = 87.30 \text{ }^\circ\text{F}$
 $L = 12.83 \text{ ft}$

AUG01_26

SERIES 10, AUG01_27
 RIBBED, ASYMMETRIC (4)
 $\Phi_0 = 200,100 \text{ Btu/hr-ft}^2$
 $V_f = 3.87 \text{ ft/sec}$

$P_{\text{He}} = 5 \text{ psig}$
 $P = 40.10 \text{ psia}$
 $T = 87.59 \text{ }^\circ\text{F}$
 $L = 12.83 \text{ ft}$

RIBBED, ASYMMETRIC (4)
 $\Phi_0 = 200,100 \text{ Btu/hr-ft}^2$
 $V_f = 3.87 \text{ ft/sec}$

$P_{\text{He}} = 5 \text{ psig}$
 $P = 40.10 \text{ psia}$
 $T = 87.59 \text{ }^\circ\text{F}$
 $L = 12.83 \text{ ft}$

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Velocity 1 - 25.9967 (ft/sec) (+/- 1.6888 %)
 Velocity 2 - 13.4158 (ft/sec) (+/- 1.7033 %)
 Pressure drop - 19.9809 (psi)
 Tsat in - 267.8851 (deg F) Tsat out - 229.5785 (deg F)
 Phi inner - -0.0004 (kBtu/hr-ft2) (+/- 554.8671 %)
 Phi outer - 199.9298 (kBtu/hr-ft2) (+/- 1.3399 %)
 D inner - 0.1961 (ft) D outer - 0.2413 (ft) D hyd - 0.0390 (ft)
 L inner - 12.8610 (ft) L outer - 12.8070 (ft) A flow - 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	86.6432	87.4880	87.0150	2.1146e-01	1.9002e+00
1	TRF0000002	87.0549	87.4750	87.3323	1.4352e-01	1.9002e+00
2	TFM0000001	87.1929	88.1381	87.6843	2.1965e-01	1.9002e+00
3	TIN0000001	86.8493	87.4808	87.0768	1.4791e-01	1.9002e+00
4	TRV0000001	87.4735	88.3123	87.8137	2.1629e-01	1.9002e+00
5	TSR0000001	106.9078	109.2757	108.0520	5.1608e-01	1.9010e+00
6	TAO020136	48.6880	51.2934	50.0174	5.3474e-01	1.9003e+00
7	TAO050136	122.5809	123.4995	123.0297	2.3292e-01	1.9019e+00
8	TAO070136	122.1453	123.0691	122.6133	2.0110e-01	1.9019e+00
9	TAO080136	132.2358	132.9462	132.6450	1.6346e-01	1.9026e+00
10	TAO090136	135.2508	136.1621	135.6236	2.3777e-01	1.9029e+00
11	TAO100136	127.5840	128.5009	128.0646	2.4920e-01	1.9023e+00
12	TAO105136	128.8840	130.3094	129.4627	2.9478e-01	1.9024e+00
13	TAO110136	131.1618	132.2710	131.5507	2.1121e-01	1.9026e+00
14	TAO115136	126.7257	127.7455	127.1706	2.5451e-01	1.9022e+00
15	TAO120136	135.2858	136.4989	135.8202	2.5282e-01	1.9029e+00
16	TAO125136	115.3965	116.9344	116.1434	3.2830e-01	1.9014e+00
17	TAO130136	128.3389	129.2496	128.7232	1.8607e-01	1.9023e+00
18	TAO120048	94.5020	95.5475	95.0246	3.0563e-01	1.9004e+00
19	TAO130048	131.1113	131.9227	131.4436	1.6403e-01	1.9025e+00
20	TAO120224	134.4792	135.7958	135.0061	2.2769e-01	1.9028e+00
21	TAO130224	126.0810	126.8934	126.4270	2.2674e-01	1.9021e+00
22	TAO120312	132.8702	133.8851	133.2721	2.4159e-01	1.9027e+00
23	TAO130312	132.3978	133.2090	132.8521	2.0291e-01	1.9027e+00
24	TRT020000	124.4236	125.5484	125.2171	2.4049e-01	1.9021e+00
25	TRT070000	129.6142	130.6363	130.1088	2.1771e-01	1.9024e+00
26	TRT100000	134.4730	135.3827	134.9861	2.3080e-01	1.9028e+00
27	TRT120000	131.1602	132.0741	131.6593	2.0986e-01	1.9026e+00
28	TRT125000	66.4244	207.8750	135.1001	2.5799e+01	1.9029e+00
29	TRT130000	132.3872	133.0976	132.8248	1.4418e-01	1.9027e+00
30	EMPTY	39.3761	40.2940	39.8214	1.9893e-01	1.9011e+00
31	TAF050136	95.5689	96.5061	96.0278	2.1875e-01	1.9005e+00
32	TAF070136	203.9614	204.8255	204.3726	2.0893e-01	1.9121e+00
33	TAF080136	129.9300	132.7480	131.4407	6.5677e-01	1.9025e+00
34	TAF090136	84.7006	85.8579	85.4075	2.7788e-01	1.9002e+00
35	TAF100136	102.2223	103.3667	102.8050	2.3203e-01	1.9007e+00
36	TAF105136	102.2191	103.2506	102.7719	2.5728e-01	1.9007e+00
37	TAF110136	103.4555	104.1805	103.8363	1.9673e-01	1.9008e+00
38	TAF115136	104.5553	105.2807	104.9245	1.9290e-01	1.9008e+00
39	TAF120136	116.1891	118.5357	117.0143	5.1627e-01	1.9015e+00
40	TAF125136	106.2028	107.2316	106.8528	2.6285e-01	1.9009e+00
41	TAF130136	107.2685	107.8902	107.5873	1.6432e-01	1.9010e+00
42	TAF120048	107.7322	108.8748	108.2269	2.4428e-01	1.9010e+00
43	TAF130048	109.5938	110.5231	109.9860	1.8754e-01	1.9011e+00
44	TAF120224	107.2526	108.3904	107.7657	2.5121e-01	1.9010e+00
45	TAF130224	107.5188	108.2459	107.9466	1.7746e-01	1.9010e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.1353	2.1286e-01	1.9010e+00
47	EMPTY	39.1464	39.6057	39.3256	1.6263e-01	1.9010e+00
48	TAI130048	106.7415	108.3961	107.4656	3.6490e-01	1.9009e+00
49	TAI130136	107.0206	107.8471	107.4134	2.0870e-01	1.9009e+00
50	TAI130224	106.0321	106.9649	106.5175	2.1916e-01	1.9009e+00
51	TAI130312	106.4323	107.1582	106.7971	1.5417e-01	1.9009e+00
52	TRR130000	97.0515	98.1969	97.6341	2.5216e-01	1.9005e+00
53	TSI0000001	65.0479	65.7980	65.3268	1.7959e-01	1.9000e+00
54	TSI0000002	70.8977	71.9614	71.4171	2.6946e-01	1.9000e+00
55	TSO0000001	64.5846	65.3373	64.9415	1.9942e-01	1.9000e+00
56	TSO0000002	70.0402	70.8933	70.4406	1.9698e-01	1.9000e+00
57	TAF020136	88.8734	90.0333	89.4642	2.2339e-01	1.9003e+00
58	TAF120312	107.4577	108.3893	107.8389	2.5617e-01	1.9010e+00
59	TAF130312	111.7996	112.5212	112.1299	1.7665e-01	1.9012e+00
60	EMPTY	0.7813	0.7861	0.7843	2.3941e-03	0.0000e+00
61	EMPTY	0.7910	0.8008	0.7955	1.6624e-03	0.0000e+00
62	EMPTY	0.8008	0.8057	0.8027	2.4164e-03	0.0000e+00
63	EMPTY	0.8154	0.8154	0.8154	0.0000e+00	0.0000e+00
64	EMPTY	0.5225	0.5273	0.5269	1.4797e-03	0.0000e+00
65	EMPTY	0.5420	0.5518	0.5492	2.6543e-03	0.0000e+00
66	EMPTY	0.5664	0.5713	0.5666	9.6655e-04	0.0000e+00
67	EMPTY	0.5859	0.5908	0.5862	1.1714e-03	0.0000e+00
68	EMPTY	0.6006	0.6055	0.6012	1.6028e-03	0.0000e+00
69	EMPTY	0.6201	0.6250	0.6202	6.9053e-04	0.0000e+00
70	EMPTY	0.6348	0.6396	0.6372	2.4662e-03	0.0000e+00
71	EMPTY	0.6592	0.6641	0.6596	1.3381e-03	0.0000e+00
72	EMPTY	0.6738	0.6787	0.6750	2.1065e-03	0.0000e+00
73	EMPTY	0.6934	0.7031	0.6979	1.5314e-03	0.0000e+00
74	EMPTY	0.7080	0.7178	0.7129	9.8648e-04	0.0000e+00
75	EMPTY	0.7324	0.7373	0.7325	6.9053e-04	0.0000e+00
76	EMPTY	0.7422	0.7520	0.7473	1.3811e-03	0.0000e+00
77	EMPTY	0.7666	0.7715	0.7677	2.0432e-03	0.0000e+00
78	EMPTY	0.7861	0.7959	0.7910	9.8648e-04	0.0000e+00
79	EMPTY	0.8105	0.8154	0.8137	2.3675e-03	0.0000e+00
80	PAN020136	71.0401	71.8793	71.5100	1.8774e-01	8.8818e-01
81	PAN050136	122.3538	124.0323	123.2663	3.9054e-01	1.7080e+00
82	PAN070136	88.4221	89.7191	89.0294	2.9122e-01	8.9802e-01
83	PAN080136	44.5147	45.4302	44.9968	2.2885e-01	8.7724e-01
84	PAN090136	35.9288	38.2176	36.7970	4.8495e-01	8.7485e-01
85	PAN100136	39.1859	41.6273	40.6904	5.9459e-01	8.7593e-01
86	PAN105136	19.2312	22.3593	20.7937	6.4022e-01	8.7155e-01
87	PAN110136	24.9871	28.3440	26.5343	7.9032e-01	8.7253e-01
88	PAN115136	28.6375	30.9263	29.8276	6.1132e-01	8.7319e-01
89	PAN120136	32.2746	36.9285	34.4902	1.3223e+00	8.7426e-01
90	PAN125136	14.9456	22.9564	19.0044	2.4041e+00	8.7130e-01
91	PAN130136	9.5522	16.0372	12.3598	2.1581e+00	8.7055e-01
92	PAN120048	26.4242	29.5523	27.7227	7.9936e-01	8.7276e-01
93	PAN130048	52.0620	54.4271	53.3803	4.9517e-01	8.8018e-01
94	PAN120224	51.3842	55.1226	53.2656	1.0955e+00	8.8013e-01
95	PAN130224	40.1910	43.5479	42.2280	1.0039e+00	8.7638e-01
96	PAN120312	29.8750	31.7824	30.7707	5.0791e-01	8.7339e-01
97	PAN130312	48.2883	50.0431	49.1153	4.6404e-01	8.7862e-01
98	PAB000136	40.1144	40.5722	40.3479	8.3362e-02	5.8871e-01
99	PAB100136	25.4026	25.6315	25.5088	5.8812e-02	5.8350e-01
100	PAB125136	20.5327	20.8531	20.7067	9.1084e-02	5.8231e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.6476	40.3800	40.0602	1.6151e-01	7.5666e-01
102	PRV000001	19.6068	19.7289	19.6898	5.7521e-02	7.5161e-01
103	PSR000001	17.7781	18.0222	17.8733	5.6722e-02	7.5133e-01
104	PFH000001	103.3295	106.1677	104.2304	6.0060e-01	5.6383e-01
105	PAN000136	550.2062	556.6149	553.1817	1.4630e+00	5.1107e+00
106	PFH000002	27.5702	27.5702	27.5702	9.6336e-06	2.1154e-01
107	EMPTY	0.0098	0.0146	0.0104	1.6028e-03	0.0000e+00
108	EMPTY	-10.0000	-7.2314	-9.6673	7.4021e-01	0.0000e+00
109	EMPTY	0.0049	0.0098	0.0092	1.6028e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0040	1.8950e-03	0.0000e+00
112	VPW000001	144.0693	144.6552	144.3779	1.4812e-01	1.1860e+00
113	VPW000002	167.9049	168.4908	168.1431	1.0654e-01	1.2938e+00
114	VPW000003	0.0526	0.2479	0.1463	9.8569e-02	8.1000e-01
115	VPW000004	147.9530	148.5389	148.2069	1.6389e-01	1.2029e+00
116	VPW000005	196.7736	197.3595	197.0079	1.4227e-01	1.4329e+00
117	VPW000006	-0.0864	0.4995	0.2066	1.1334e-01	8.1000e-01
118	IPW000001	777.0703	788.7844	781.7559	3.1555e+00	1.0186e+01
119	IPW000002	1816.1064	1831.7166	1822.3503	3.8423e+00	1.6519e+01
120	IPW000003	-10.9125	0.7875	-5.7255	2.7467e+00	8.1001e+00
121	IPW000004	535.3440	538.7620	537.2286	8.8788e-01	4.6917e+00
122	IPW000005	354.3722	356.3252	355.2023	4.4387e-01	3.4459e+00
123	IPW000006	-1.3427	-0.3662	-0.7763	3.1752e-01	2.0000e+00
124	EMPTY	-0.0293	-0.0098	-0.0184	4.2499e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0131	3.1874e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0098	-0.0142	3.8523e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0098	-0.0143	3.3944e-03	0.0000e+00
128	IHT000001	-1.3784	-0.0113	-0.7652	2.8729e-01	4.1000e+00
129	IHT000002	-1.2094	-0.0376	-0.6821	2.6543e-01	4.1000e+00
130	IHT000003	-1.2583	-0.0864	-0.6840	2.6881e-01	4.1000e+00
131	IHT000004	-1.3747	-0.0075	-0.5661	2.4005e-01	4.1000e+00
132	IHT000005	-1.3784	-0.2066	-0.6675	2.7270e-01	4.1000e+00
133	IHT000006	-1.6226	-0.4507	-1.0484	2.7737e-01	4.1000e+00
134	IHT000007	-1.4273	0.1352	-0.6538	2.9781e-01	4.1000e+00
135	IHT000008	-1.3296	-0.1578	-0.6890	2.8737e-01	4.1000e+00
136	IHT000009	-1.3935	-0.0263	-0.7607	3.0960e-01	4.1000e+00
137	IHT000010	-0.7287	0.8338	0.1151	3.6474e-01	4.1000e+00
138	IHT000011	-0.4995	1.0630	0.4028	3.1786e-01	4.1000e+00
139	IHT000012	-0.7512	0.8113	0.1472	3.4849e-01	4.1000e+00
140	IHT000013	130.8030	132.5608	131.6429	3.9705e-01	4.3062e+00
141	IHT000014	181.0547	183.0078	182.0352	4.0910e-01	4.4859e+00
142	IHT000015	135.4980	136.8652	136.1855	3.4679e-01	4.3203e+00
143	IHT000016	126.4273	127.7945	127.0952	3.2079e-01	4.2925e+00
144	IHT000017	150.0376	152.3813	151.3579	6.1328e-01	4.3705e+00
145	IHT000018	152.3663	154.7100	153.3975	4.5854e-01	4.3776e+00
146	IHT000019	147.1116	149.2601	148.3148	5.0279e-01	4.3600e+00
147	IHT000020	150.9202	153.6546	152.2797	5.4528e-01	4.3737e+00
148	IHT000021	-2.4151	0.9052	-0.6885	6.4157e-01	4.1000e+00
149	IHT000022	130.8631	133.4022	132.2303	5.0686e-01	4.3080e+00
150	IHT000023	148.2121	150.9465	149.7941	5.0878e-01	4.3651e+00
151	IHT000024	113.1949	115.7339	114.5698	4.9436e-01	4.2571e+00
152	IHT000025	148.0544	150.3981	149.2574	5.0124e-01	4.3632e+00
153	IHT000026	149.6357	151.9794	150.7685	4.8166e-01	4.3684e+00
154	IHT000027	127.8959	130.6303	129.3061	5.6674e-01	4.2991e+00
155	IHT000028	130.2209	132.7599	131.3419	5.9948e-01	4.3052e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	149.1361	151.6752	150.2299	6.1002e-01	4.3666e+00
157	IHT000030	151.9381	154.4772	152.9966	6.0372e-01	4.3762e+00
158	IHT000031	149.8535	152.5879	150.8730	6.0269e-01	4.3688e+00
159	IHT000032	151.6602	154.3945	152.7852	6.1201e-01	4.3754e+00
160	IHT000033	151.6601	154.1992	152.6992	6.2570e-01	4.3751e+00
161	IHT000034	133.3609	135.7046	134.5015	4.7246e-01	4.3150e+00
162	IHT000035	175.4582	177.9973	176.5753	5.1303e-01	4.4641e+00
163	IHT000036	131.8434	134.3825	132.9020	4.7856e-01	4.3100e+00

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Velocity 1 = 14.0079 (ft/sec) (+/- 1.8669 %)
 Velocity 2 = 13.4148 (ft/sec) (+/- 1.7033 %)
 Pressure drop = 2.4796 (psi)
 Tsat in = 267.6953 (deg F) Tsat out = 263.8567 (deg F)
 Phi inner = 0.0005 (kBtu/hr-ft2) (+/- 513.3287 %)
 Phi outer = 200.5663 (kBtu/hr-ft2) (+/- 1.3395 %)
 D inner = 0.1961 (ft) D outer = 0.2413 (ft) D hyd = 0.0390 (ft)
 L inner = 12.8610 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	86.6432	87.2769	86.8798	1.5761e-01	1.9002e+00
1	TRF000002	86.8448	87.2650	87.0843	1.2740e-01	1.9002e+00
2	TRF000001	86.4575	87.1935	86.7711	1.8059e-01	1.9002e+00
3	TIN000001	85.7969	86.4283	86.1232	1.4472e-01	1.9002e+00
4	TRV000001	86.5308	87.2655	86.9571	2.0569e-01	1.9002e+00
5	TSR000001	109.9890	110.9146	110.4156	1.8600e-01	1.9011e+00
6	TAO020136	49.6657	51.4019	50.4798	4.5683e-01	1.9003e+00
7	TAO050136	147.1167	148.3136	147.7741	2.7797e-01	1.9041e+00
8	TAO070136	144.3353	145.8491	145.0845	3.0099e-01	1.9038e+00
9	TAO080136	162.6158	163.6022	163.1982	2.3107e-01	1.9058e+00
10	TAO090136	166.8678	167.0549	167.3359	2.6945e-01	1.9064e+00
11	TAO100136	156.6147	158.3037	157.3645	4.2347e-01	1.9051e+00
12	TAO105136	158.1841	160.1753	159.0028	4.5023e-01	1.9053e+00
13	TAO110136	161.6684	163.2421	162.2183	3.2032e-01	1.9057e+00
14	TAO115136	155.8456	157.6384	156.4574	3.8919e-01	1.9050e+00
15	TAO120136	167.4625	169.0417	168.1161	3.0180e-01	1.9065e+00
16	TAO125136	137.4531	138.8649	138.1291	2.9240e-01	1.9031e+00
17	TAO130136	158.1672	158.9550	158.5871	1.4502e-01	1.9053e+00
18	TAO120048	90.7397	91.7872	91.1652	3.0527e-01	1.9003e+00
19	TAO130048	163.0549	163.7482	163.4052	1.5643e-01	1.9059e+00
20	TAO120224	167.4454	168.6307	167.9929	2.5328e-01	1.9065e+00
21	TAO130224	154.8192	155.5135	155.1595	1.7451e-01	1.9049e+00
22	TAO120312	166.7275	167.9145	167.1414	2.9070e-01	1.9063e+00
23	TAO130312	163.6664	164.3595	163.9853	1.5390e-01	1.9059e+00
24	TRT020000	149.7499	150.8529	150.2973	2.7577e-01	1.9043e+00
25	TRT070000	159.6509	160.8494	160.3879	2.6988e-01	1.9055e+00
26	TRT100000	165.8822	166.8687	166.3979	2.2669e-01	1.9062e+00
27	TRT120000	164.7757	165.7649	165.2639	2.6824e-01	1.9061e+00
28	TRT125000	129.0246	192.7202	165.1899	1.5861e+01	1.9061e+00
29	TRT130000	162.9640	163.6574	163.3624	1.4215e-01	1.9059e+00
30	EMPTY	39.1464	40.0646	39.8352	2.0212e-01	1.9011e+00
31	TAF050136	102.3049	103.7525	103.1057	2.7930e-01	1.9007e+00
32	TAF070136	187.9796	192.3304	190.3262	9.7789e-01	1.9097e+00
33	TAF080136	155.5731	164.5363	160.7225	2.0616e+00	1.9055e+00
34	TAF090136	82.1750	83.4398	82.8554	2.8822e-01	1.9001e+00
35	TAF100136	115.1527	116.1816	115.6902	2.8444e-01	1.9014e+00
36	TAF105136	115.2184	116.5456	115.8177	3.3974e-01	1.9014e+00
37	TAF110136	116.8059	117.8291	117.3198	2.4491e-01	1.9015e+00
38	TAF115136	118.4254	119.5509	119.0700	2.4474e-01	1.9016e+00
39	TAF120136	135.8500	159.4776	147.700	4.4052e+00	1.9035e+00
40	TAF125136	122.2060	123.3230	122.7251	3.1503e-01	1.9019e+00
41	TAF130136	123.4579	124.3753	123.9571	2.1622e-01	1.9020e+00
42	TAF120048	124.9802	126.4162	125.6269	3.5162e-01	1.9021e+00
43	TAF130048	127.9047	129.1245	128.6224	3.0606e-01	1.9023e+00
44	TAF120224	124.5787	125.8010	125.1068	3.0362e-01	1.9020e+00
45	TAF130224	124.8544	126.0833	125.3114	2.4406e-01	1.9021e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	38.0618	2.4155e-01	1.9010e+00
47	EMPTY	39.1464	40.0646	39.4036	2.2070e-01	1.9010e+00
48	TAI130048	122.7727	123.9981	123.3097	3.4697e-01	1.9019e+00
49	TAI130136	122.9981	124.0167	123.5501	2.1605e-01	1.9019e+00
50	TAI130224	121.4934	122.5182	122.0448	3.1441e-01	1.9018e+00
51	TAI130312	122.2800	122.9965	122.6301	1.5482e-01	1.9019e+00
52	TR130000	108.9402	110.1762	109.4947	3.0483e-01	1.9011e+00
53	TSI000001	65.0474	65.6895	65.3067	1.6746e-01	1.9000e+00
54	TSI000002	73.0193	74.0806	73.4506	2.6451e-01	1.9000e+00
55	TSO000001	64.3707	65.3379	64.8927	2.1051e-01	1.9000e+00
56	TSO000002	71.7429	72.4885	72.0818	1.7167e-01	1.9000e+00
57	TAP020136	91.0902	92.2498	91.7333	2.8566e-01	1.9003e+00
58	TAP120312	125.2183	126.9509	126.2971	3.5662e-01	1.9021e+00
59	TAP130312	132.8057	133.9195	133.4478	2.3625e-01	1.9027e+00
60	EMPTY	1.2891	1.2988	1.2939	2.2058e-03	0.0000e+00
61	EMPTY	1.2939	1.3037	1.3001	2.3778e-03	0.0000e+00
62	EMPTY	1.3037	1.3086	1.3041	1.3381e-03	0.0000e+00
63	EMPTY	1.3135	1.3184	1.3145	1.9730e-03	0.0000e+00
64	EMPTY	0.7324	0.7373	0.7371	9.6655e-04	0.0000e+00
65	EMPTY	0.7568	0.7617	0.7572	1.3381e-03	0.0000e+00
66	EMPTY	0.7715	0.7764	0.7742	2.4484e-03	0.0000e+00
67	EMPTY	0.7910	0.7959	0.7923	2.1635e-03	0.0000e+00
68	EMPTY	0.8057	0.8057	0.8057	0.0000e+00	0.0000e+00
69	EMPTY	0.8203	0.8252	0.8250	9.6655e-04	0.0000e+00
70	EMPTY	0.8350	0.8447	0.8399	2.2058e-03	0.0000e+00
71	EMPTY	0.8594	0.8643	0.8595	6.9053e-04	0.0000e+00
72	EMPTY	0.8643	0.8789	0.8739	1.5566e-03	0.0000e+00
73	EMPTY	0.8936	0.8936	0.8936	0.0000e+00	0.0000e+00
74	EMPTY	0.9082	0.9131	0.9084	9.6655e-04	0.0000e+00
75	EMPTY	0.9229	0.9277	0.9274	1.1714e-03	0.0000e+00
76	EMPTY	0.9375	0.9424	0.9406	2.3675e-03	0.0000e+00
77	EMPTY	0.9570	0.9619	0.9585	2.2603e-03	0.0000e+00
78	EMPTY	0.9766	0.9863	0.9813	1.2041e-03	0.0000e+00
79	EMPTY	1.0010	1.0059	1.0014	1.3381e-03	0.0000e+00
80	PANO20136	7.8687	10.0812	9.1397	4.9387e-01	8.7030e-01
81	PANO50136	13.4061	14.9319	14.0591	3.5423e-01	1.6804e+00
82	PANO70136	10.9838	11.8993	11.4186	2.2403e-01	8.7047e-01
83	PANO80136	2.8582	5.2996	4.3184	6.7328e-01	8.7007e-01
84	PANO90136	2.1306	5.7164	3.6610	8.7185e-01	8.7005e-01
85	PANI00136	1.3441	4.8536	3.5886	8.2906e-01	8.7005e-01
86	PANI05136	0.3103	5.0405	2.3199	1.3314e+00	8.7002e-01
87	PANI10136	1.1834	6.8291	3.7026	1.5384e+00	8.7005e-01
88	PANI15136	2.7738	7.5040	5.5586	1.1093e+00	8.7011e-01
89	PANI20136	4.6562	9.7679	6.7299	1.4145e+00	8.7016e-01
90	PANI25136	-3.5176	4.0355	0.7626	1.6975e+00	8.7000e-01
91	PANI30136	-0.9763	3.4487	1.4788	1.4441e+00	8.7001e-01
92	PANI20048	-3.3304	2.4679	-0.8036	1.1703e+00	8.7000e-01
93	PANI30048	7.6589	10.0240	9.4838	6.0778e-01	8.7032e-01
94	PANI20224	5.2264	11.2536	8.0080	1.3271e+00	8.7023e-01
95	PANI30224	4.0276	7.3083	6.1074	1.0827e+00	8.7013e-01
96	PANI20312	-0.6425	2.2566	0.7002	8.1925e-01	8.7000e-01
97	PANI30312	6.4029	8.6155	7.7839	6.4687e-01	8.7022e-01
98	PAB000136	40.0686	40.3433	40.2197	7.1786e-02	5.8865e-01
99	PAB100136	38.3573	38.5862	38.4498	5.3520e-02	5.8791e-01
100	PAB125136	37.5615	37.7904	37.7043	7.0820e-02	5.8761e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.6476	40.2579	39.9698	1.3454e-01	7.5663e-01
102	PRV000001	19.4847	19.8509	19.6849	7.2993e-02	7.5161e-01
103	PSR000001	36.8210	37.0652	36.9260	4.9385e-02	7.5566e-01
104	PFH000001	29.8127	30.4536	30.0800	1.3822e-01	5.0562e-01
105	PAN000136	65.4345	71.8432	68.6480	1.4431e+00	4.9230e+00
106	PFH000002	27.5702	27.5702	27.5702	9.6336e-06	2.1154e-01
107	EMPTY	0.0049	0.0098	0.0067	2.3941e-03	0.0000e+00
108	EMPTY	-10.0000	9.9951	-8.8132	3.1332e+00	0.0000e+00
109	EMPTY	0.0049	0.0098	0.0050	6.9053e-04	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0002	9.6655e-04	0.0000e+00
112	VPW000001	144.4599	145.0458	144.7334	1.6741e-01	1.1875e+00
113	VPW000002	168.1002	168.4908	168.3189	1.2871e-01	1.2946e+00
114	VPW000003	0.0526	0.4432	0.1581	1.0595e-01	8.1000e-01
115	VPW000004	148.1483	148.7342	148.4257	1.3720e-01	1.2038e+00
116	VPW000005	196.9689	197.5549	197.2774	1.4812e-01	1.4343e+00
117	VPW000006	0.1089	0.3042	0.2027	9.8569e-02	8.1000e-01
118	IPW000001	773.1656	777.0703	775.4693	1.4051e+00	1.0156e+01
119	IPW000002	1825.8628	1831.7166	1829.2970	1.5550e+00	1.6567e+01
120	IPW000003	4.6875	8.5875	6.6375	1.4204e+00	8.1002e+00
121	IPW000004	537.7854	540.2268	539.4258	5.1975e-01	4.7074e+00
122	IPW000005	356.8134	357.7899	357.3016	3.6907e-01	3.4594e+00
123	IPW000006	0.6104	1.5869	1.0205	3.6057e-01	2.0000e+00
124	EMPTY	-0.0293	-0.0098	-0.0177	3.8066e-03	0.0000e+00
125	EMPTY	-0.0146	-0.0049	-0.0122	2.8334e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0145	3.6858e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0049	-0.0139	3.3249e-03	0.0000e+00
128	IHT000001	-1.3784	-0.2066	-0.7613	2.3794e-01	4.1000e+00
129	IHT000002	-1.4048	-0.2329	-0.6860	2.3157e-01	4.1000e+00
130	IHT000003	-1.2583	-0.0864	-0.7075	2.5170e-01	4.1000e+00
131	IHT000004	-1.1794	-0.2028	-0.6208	2.4645e-01	4.1000e+00
132	IHT000005	-1.1831	-0.2066	-0.6480	2.4897e-01	4.1000e+00
133	IHT000006	-1.6226	-0.4507	-0.9468	2.5331e-01	4.1000e+00
134	IHT000007	-1.2320	-0.0601	-0.5991	2.5438e-01	4.1000e+00
135	IHT000008	-1.3296	-0.1578	-0.6070	2.4404e-01	4.1000e+00
136	IHT000009	-1.3935	-0.2216	-0.6747	2.4465e-01	4.1000e+00
137	IHT000010	-0.7287	0.8338	0.0174	4.1515e-01	4.1000e+00
138	IHT000011	-0.3042	1.2583	0.3520	4.1151e-01	4.1000e+00
139	IHT000012	-0.5559	1.0066	0.0926	4.3304e-01	4.1000e+00
140	IHT000013	130.6077	132.3655	131.3812	4.3755e-01	4.3054e+00
141	IHT000014	180.8594	182.4219	181.5898	4.1910e-01	4.4841e+00
142	IHT000015	135.1074	137.2558	136.0840	4.2131e-01	4.3199e+00
143	IHT000016	126.0367	127.9898	127.0991	4.2711e-01	4.2925e+00
144	IHT000017	150.6235	153.1626	151.5376	5.0600e-01	4.3711e+00
145	IHT000018	152.3663	154.9053	153.3350	5.5658e-01	4.3773e+00
146	IHT000019	146.9163	149.2601	147.9476	5.9978e-01	4.3588e+00
147	IHT000020	151.3108	153.6546	152.3187	5.3722e-01	4.3738e+00
148	IHT000021	-1.8292	1.1005	-0.5284	5.9792e-01	4.1000e+00
149	IHT000022	131.2537	133.9881	132.4296	5.7520e-01	4.3086e+00
150	IHT000023	148.4075	151.1418	149.7042	5.3635e-01	4.3648e+00
151	IHT000024	113.1949	115.7339	114.4526	5.1473e-01	4.2568e+00
152	IHT000025	147.8591	150.3981	149.1442	5.5114e-01	4.3628e+00
153	IHT000026	149.4403	152.1747	150.5966	5.9430e-01	4.3678e+00
154	IHT000027	128.0912	130.8256	129.3295	5.9137e-01	4.2991e+00
155	IHT000028	130.2209	132.3693	131.3615	5.6821e-01	4.3053e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	148.9408	150.8939	149.9057	5.6553e-01	4.3655e+00
157	IHT000030	151.7428	153.8912	152.7818	5.8851e-01	4.3754e+00
158	IHT000031	149.6582	151.8066	150.6816	5.3315e-01	4.3681e+00
159	IHT000032	151.4649	154.0039	152.6094	5.6636e-01	4.3748e+00
160	IHT000033	151.4648	153.8086	152.4805	5.5943e-01	4.3744e+00
161	IHT000034	133.5562	135.3140	134.3023	4.4589e-01	4.3144e+00
162	IHT000035	175.2629	177.2160	176.2355	4.9204e-01	4.4627e+00
163	IHT000036	131.8434	133.4059	132.6286	4.2952e-01	4.3092e+00

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Velocity 1 = 8.0669 (ft/sec) (+/- 3.0331 %)
 Velocity 2 = 8.0902 (ft/sec) (+/- 1.9013 %)
 Pressure drop = -2.7314 (psi)
 Tsat in = 267.8458 (deg F) Tsat out = 271.5733 (deg F)
 Phi inner = 0.0009 (kBtu/hr-ft2) (+/- 579.4161 %)
 Phi outer = 200.7083 (kBtu/hr-ft2) (+/- 1.3397 %)
 D inner = 0.1961 (ft) D outer = 0.2413 (ft) D hyd = 0.0390 (ft)
 L inner = 12.8610 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	86.2206	86.8545	86.6474	1.8844e-01	1.9002e+00
1	TRF000002	86.6347	87.2650	86.8322	1.4339e-01	1.9002e+00
2	TRF000001	86.3518	87.0873	86.7010	1.9048e-01	1.9002e+00
3	TIN000001	85.9016	86.4281	86.1209	1.3936e-01	1.9002e+00
4	TRV000001	86.5293	87.2641	86.8321	1.9144e-01	1.9002e+00
5	TSR000001	113.4733	114.6015	114.0193	2.8344e-01	1.9013e+00
6	TNO020136	50.5342	52.3772	51.6355	4.2320e-01	1.9002e+00
7	TNO050136	180.0928	183.3023	181.8437	7.5673e-01	1.9084e+00
8	TNO070136	176.0614	177.8364	176.7283	3.5766e-01	1.9077e+00
9	TNO080136	203.8676	204.6347	204.2738	1.9532e-01	1.9121e+00
10	TNO090136	209.9810	211.2242	210.5174	3.0701e-01	1.9133e+00
11	TNO100136	198.3177	201.4033	199.4679	7.0271e-01	1.9113e+00
12	TNO105136	200.2725	203.1705	201.0536	5.1084e-01	1.9115e+00
13	TNO110136	205.7761	207.3981	206.5390	3.9093e-01	1.9125e+00
14	TNO115136	198.1553	200.0883	198.8438	4.0862e-01	1.9112e+00
15	TNO120136	211.9895	214.1914	212.8860	4.9108e-01	1.9137e+00
16	TNO125136	166.1732	167.6528	166.9065	3.1907e-01	1.9063e+00
17	TNO130136	201.6833	203.9688	202.3744	3.8530e-01	1.9118e+00
18	TNO120048	92.9349	94.1892	93.6333	3.3070e-01	1.9004e+00
19	TNO130048	209.0627	210.5920	209.8578	3.2643e-01	1.9131e+00
20	TNO120224	212.9996	214.3392	213.5892	3.1483e-01	1.9138e+00
21	TNO130224	195.7760	198.5506	196.8558	6.3039e-01	1.9108e+00
22	TNO120312	214.5909	216.8872	215.4907	4.3090e-01	1.9142e+00
23	TNO130312	208.8578	209.8171	209.3378	2.1389e-01	1.9130e+00
24	TNO200000	185.9938	187.4596	186.7681	2.9403e-01	1.9092e+00
25	TNO700000	202.3986	203.5625	203.0654	2.7674e-01	1.9119e+00
26	TNO100000	211.8542	213.0018	212.4357	2.6812e-01	1.9136e+00
27	TNO120000	214.6805	216.1132	215.3799	3.6268e-01	1.9142e+00
28	TNO125000	172.8216	233.5124	214.1954	1.3078e+01	1.9140e+00
29	TNO130000	207.6996	209.1374	208.4130	2.7068e-01	1.9129e+00
30	EMPTY	39.3761	40.0646	39.8030	2.0742e-01	1.9011e+00
31	TAP050136	116.3859	119.2464	117.7104	6.5447e-01	1.9015e+00
32	TAP070136	124.6962	127.1299	125.6257	6.2516e-01	1.9021e+00
33	TAP080136	199.3502	202.3169	201.1938	6.0540e-01	1.9116e+00
34	TAP090136	84.0681	85.2260	84.7040	2.7465e-01	1.9001e+00
35	TAP100136	139.0146	142.8496	140.8768	9.3897e-01	1.9034e+00
36	TAP105136	139.1385	142.9340	141.4357	7.7252e-01	1.9034e+00
37	TAP110136	141.7986	144.7046	143.5508	6.0693e-01	1.9036e+00
38	TAP115136	144.4256	147.1297	145.7443	4.9103e-01	1.9039e+00
39	TAP120136	175.6869	179.3961	177.0469	7.9030e-01	1.9077e+00
40	TAP125136	151.0652	153.9376	152.5511	6.4779e-01	1.9046e+00
41	TAP130136	153.0582	154.7500	153.9572	3.8329e-01	1.9047e+00
42	TAP120048	155.4056	158.7098	156.7004	6.7611e-01	1.9051e+00
43	TAP130048	160.5126	163.6827	162.0746	6.6778e-01	1.9057e+00
44	TAP120224	153.3856	156.6701	155.1348	6.1168e-01	1.9049e+00
45	TAP130224	154.0480	157.0521	155.4424	6.1127e-01	1.9049e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.0572	2.2666e-01	1.9010e+00
47	EMPTY	39.3761	39.8352	39.5276	1.1925e-01	1.9011e+00
48	TAP130048	150.3606	152.0603	151.1045	3.7036e-01	1.9044e+00
49	TAP130136	150.0952	150.8951	150.4912	1.9676e-01	1.9044e+00
50	TAP130224	148.7684	149.7723	149.3149	2.6829e-01	1.9042e+00
51	TAP130312	148.5057	149.6083	149.0830	2.4188e-01	1.9042e+00
52	TAP130000	131.6838	132.6964	132.2430	2.1190e-01	1.9026e+00
53	TSI000001	64.8323	65.7947	65.3844	1.9005e-01	1.9000e+00
54	TSI000002	77.2515	78.2032	77.7128	2.4991e-01	1.9000e+00
55	TSO000001	64.3713	65.3385	64.8396	2.3758e-01	1.9000e+00
56	TSO000002	74.3991	75.2497	74.8163	2.1122e-01	1.9000e+00
57	TAP020136	96.3525	98.9757	97.5534	5.0939e-01	1.9005e+00
58	TAP120312	156.6525	159.5372	158.3595	6.3395e-01	1.9053e+00
59	TAP130312	167.2539	170.7039	169.0927	6.6769e-01	1.9066e+00
60	EMPTY	2.1484	2.1777	2.1630	6.6534e-03	0.0000e+00
61	EMPTY	2.1582	2.1729	2.1611	4.0673e-03	0.0000e+00
62	EMPTY	2.1533	2.1680	2.1595	3.5307e-03	0.0000e+00
63	EMPTY	2.1582	2.1729	2.1646	3.4793e-03	0.0000e+00
64	EMPTY	1.1035	1.1084	1.1047	2.1065e-03	0.0000e+00
65	EMPTY	1.1182	1.1279	1.1241	2.2689e-03	0.0000e+00
66	EMPTY	1.1328	1.1475	1.1380	2.8608e-03	0.0000e+00
67	EMPTY	1.1523	1.1572	1.1537	2.2146e-03	0.0000e+00
68	EMPTY	1.1621	1.1719	1.1649	2.9742e-03	0.0000e+00
69	EMPTY	1.1768	1.1865	1.1796	3.5691e-03	0.0000e+00
70	EMPTY	1.1914	1.1963	1.1933	2.3941e-03	0.0000e+00
71	EMPTY	1.2109	1.2158	1.2126	2.3365e-03	0.0000e+00
72	EMPTY	1.2207	1.2305	1.2236	2.9594e-03	0.0000e+00
73	EMPTY	1.2354	1.2451	1.2421	2.5894e-03	0.0000e+00
74	EMPTY	1.2500	1.2598	1.2544	2.8334e-03	0.0000e+00
75	EMPTY	1.2646	1.2744	1.2703	2.8523e-03	0.0000e+00
76	EMPTY	1.2793	1.2842	1.2817	2.4662e-03	0.0000e+00
77	EMPTY	1.2939	1.3037	1.2982	2.1249e-03	0.0000e+00
78	EMPTY	1.3135	1.3232	1.3185	1.8429e-03	0.0000e+00
79	EMPTY	1.3330	1.3428	1.3381	1.6972e-03	0.0000e+00
80	PAN020136	-13.4173	-3.4228	-8.6902	2.1082e+00	8.7027e-01
81	PAN050136	-24.4357	-13.7546	-18.8327	3.0082e+00	1.6807e+00
82	PAN070136	-11.9044	-4.1987	-8.8145	2.6785e+00	8.7028e-01
83	PAN080136	-14.0791	-5.6104	-12.3136	2.7531e+00	8.7054e-01
84	PAN090136	-13.2045	2.8172	-7.6106	3.7728e+00	8.7021e-01
85	PAN100136	-12.0837	3.0225	-6.4288	3.7108e+00	8.7015e-01
86	PAN105136	-7.7768	8.8552	-3.4082	3.5197e+00	8.7004e-01
87	PAN110136	-7.4378	10.1861	-0.3394	4.6110e+00	8.7000e-01
88	PAN115136	-7.6022	5.5967	-2.7880	3.0066e+00	8.7003e-01
89	PAN120136	-6.0250	10.5308	0.4112	4.3693e+00	8.7000e-01
90	PAN125136	-6.1116	8.4606	-1.9780	3.7317e+00	8.7001e-01
91	PAN130136	-8.0717	7.5686	-1.1305	4.0564e+00	8.7000e-01
92	PAN120048	-12.1042	3.3071	-8.3002	4.1329e+00	8.7025e-01
93	PAN130048	-11.4909	5.9804	-1.7665	3.1347e+00	8.7001e-01
94	PAN120224	-12.5501	8.9648	-4.2692	4.4738e+00	8.7007e-01
95	PAN130224	-13.4437	4.4091	-0.6492	3.4154e+00	8.7000e-01
96	PAN120312	-12.4681	0.1967	-8.7236	3.9637e+00	8.7027e-01
97	PAN130312	-9.9240	2.0542	-2.4075	2.8956e+00	8.7002e-01
98	PAB0000136	40.1602	40.5722	40.3213	9.6661e-02	5.8869e-01
99	PAB100136	42.1568	42.7976	42.5779	1.4593e-01	5.8969e-01
100	PAB125136	42.5054	43.1462	42.9100	1.5291e-01	5.8984e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.7696	40.3800	40.0699	1.3997e-01	7.5666e-01
102	PRV0000001	19.7289	19.8509	19.7484	4.5206e-02	7.5162e-01
103	PSR0000001	42.5583	42.6804	42.5852	5.1081e-02	7.5752e-01
104	PPH0000001	9.5795	10.0373	9.8780	9.5772e-02	5.0061e-01
105	PAN0000136	-81.5076	-65.0281	-75.6208	3.2501e+00	4.9236e+00
106	PPH0000002	9.8172	10.0185	9.9356	5.3645e-02	2.0154e-01
107	EMPTY	0.0049	0.0049	0.0049	0.0000e+00	0.0000e+00
108	EMPTY	-10.0000	-1.6553	-9.1734	1.3957e+00	0.0000e+00
109	EMPTY	0.0000	0.0049	0.0039	1.9730e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW0000001	144.4599	145.0458	144.7490	1.3805e-01	1.1876e+00
113	VPW0000002	168.4908	168.8815	168.6431	1.0654e-01	1.2961e+00
114	VPW0000003	0.0526	0.4432	0.1424	1.0595e-01	8.1000e-01
115	VPW0000004	148.5389	148.9295	148.7382	1.0052e-01	1.2052e+00
116	VPW0000005	197.3595	197.7502	197.5704	9.5357e-02	1.4357e+00
117	VPW0000006	-0.0864	0.4995	0.1792	1.0992e-01	8.1000e-01
118	IPW0000001	763.4039	769.2609	766.5275	1.3082e+00	1.0113e+01
119	IPW0000002	1837.5704	1843.4242	1841.0831	1.5769e+00	1.6648e+01
120	IPW0000003	12.4875	16.3875	14.4765	1.2760e+00	8.1000e+00
121	IPW0000004	534.3674	536.3206	535.3243	3.6858e-01	4.6781e+00
122	IPW0000005	353.8840	355.3487	354.4796	3.3143e-01	3.4412e+00
123	IPW0000006	-0.3662	1.0987	0.2295	3.4583e-01	2.0000e+00
124	EMPTY	-0.0293	-0.0146	-0.0198	3.4751e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0139	2.6762e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0146	3.8206e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0098	-0.0147	3.6232e-03	0.0000e+00
128	IHT0000001	-1.3784	-0.2066	-0.7417	2.8675e-01	4.1000e+00
129	IHT0000002	-1.2094	-0.2329	-0.6430	2.6543e-01	4.1000e+00
130	IHT0000003	-1.2583	-0.0864	-0.6606	2.9373e-01	4.1000e+00
131	IHT0000004	-1.1794	-0.0075	-0.5934	2.7052e-01	4.1000e+00
132	IHT0000005	-1.1831	-0.2066	-0.6831	2.6809e-01	4.1000e+00
133	IHT0000006	-1.4273	-0.2554	-0.9195	2.8179e-01	4.1000e+00
134	IHT0000007	-1.2320	0.1352	-0.5757	2.7835e-01	4.1000e+00
135	IHT0000008	-1.1343	0.0376	-0.6187	2.7554e-01	4.1000e+00
136	IHT0000009	-1.1982	-0.0263	-0.6552	2.9074e-01	4.1000e+00
137	IHT0000010	-0.9240	0.8338	-0.0412	3.8509e-01	4.1000e+00
138	IHT0000011	-0.6949	1.0630	0.2817	3.8863e-01	4.1000e+00
139	IHT0000012	-0.9465	0.8113	0.0340	3.6908e-01	4.1000e+00
140	IHT0000013	130.0218	131.9749	131.0140	4.0786e-01	4.3042e+00
141	IHT0000014	180.0781	182.2266	180.9727	4.0643e-01	4.4816e+00
142	IHT0000015	134.9121	136.8652	135.6816	3.9736e-01	4.3187e+00
143	IHT0000016	125.8414	127.7945	126.5405	3.9674e-01	4.2908e+00
144	IHT0000017	149.2563	151.4048	150.2524	4.7062e-01	4.3666e+00
145	IHT0000018	151.7803	153.7335	152.7842	4.3227e-01	4.3754e+00
146	IHT0000019	146.5257	148.6741	147.4437	4.6897e-01	4.3571e+00
147	IHT0000020	151.1155	153.2640	151.9711	4.1739e-01	4.3726e+00
148	IHT0000021	-1.8292	0.7099	-0.7667	5.0711e-01	4.1000e+00
149	IHT0000022	131.2537	133.2069	131.9100	4.4601e-01	4.3070e+00
150	IHT0000023	148.4075	150.3606	149.3761	4.1938e-01	4.3636e+00
151	IHT0000024	113.1949	114.9527	114.0816	4.1425e-01	4.2558e+00
152	IHT0000025	147.8591	149.6169	148.7379	4.1806e-01	4.3615e+00
153	IHT0000026	149.2450	151.3935	150.2099	4.2206e-01	4.3665e+00
154	IHT0000027	127.8959	130.0443	128.8217	4.4784e-01	4.2976e+00
155	IHT0000028	129.4396	131.9787	130.5450	4.7615e-01	4.3028e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	148.1595	150.6986	149.2768	5.0692e-01	4.3633e+00
157	IHT0000030	151.1569	153.5006	152.2466	5.5114e-01	4.3735e+00
158	IHT0000031	149.2676	151.4160	150.2441	5.7993e-01	4.3666e+00
159	IHT0000032	151.0742	153.6133	152.1094	6.1921e-01	4.3731e+00
160	IHT0000033	150.8789	153.4180	152.0195	5.9889e-01	4.3728e+00
161	IHT0000034	133.1656	135.3140	133.9429	4.2221e-01	4.3132e+00
162	IHT0000035	174.8723	176.8254	175.7980	4.4083e-01	4.4610e+00
163	IHT0000036	131.4528	133.0153	132.2614	4.2865e-01	4.3081e+00

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Velocity 1 = 4.0722 (ft/sec) (+/- 10.2976 %)
 Velocity 2 = 4.0712 (ft/sec) (+/- 4.0234 %)
 Pressure drop = -5.0046 (psi)
 Tsat in = 267.7427 (deg F) Tsat out = 274.8734 (deg F)
 Phi inner = -0.0004 (kBtu/hr-ft2) (+/- 555.4529 %)
 Phi outer = 200.5908 (kBtu/hr-ft2) (+/- 1.3394 %)
 D inner = 0.1961 (ft) D outer = 0.2413 (ft) D hyd = 0.0390 (ft)
 L inner = 12.8610 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	86.0093	86.6432	86.2291	1.9548e-01	1.9002e+00
1	TRF000002	86.2143	86.8448	86.5044	1.4012e-01	1.9002e+00
2	TRF000001	87.0846	88.0301	87.6371	2.0104e-01	1.9002e+00
3	TIN000001	86.7434	87.4801	87.0740	1.5191e-01	1.9002e+00
4	TRV000001	87.1550	88.0970	87.6473	2.0433e-01	1.9002e+00
5	TSR000001	120.4136	121.9427	121.1503	4.2175e-01	1.9018e+00
6	TAO020136	51.4016	56.7012	54.2179	1.1307e+00	1.9002e+00
7	TAO050136	240.7019	242.9410	241.7193	4.9015e-01	1.9198e+00
8	TAO070136	239.1894	243.4383	241.0126	9.7759e-01	1.9196e+00
9	TAO080136	274.5865	275.5974	275.1396	2.2204e-01	1.9281e+00
10	TAO090136	279.2519	280.1700	279.6798	2.6392e-01	1.9294e+00
11	TAO100136	270.8810	273.9219	272.5088	7.3613e-01	1.9274e+00
12	TAO105136	276.5920	279.6311	278.0642	7.6945e-01	1.9289e+00
13	TAO110136	281.7564	283.7508	282.8648	4.2173e-01	1.9303e+00
14	TAO115136	279.7480	281.7705	280.7136	4.9522e-01	1.9297e+00
15	TAO120136	289.2912	290.1140	289.6873	2.1266e-01	1.9322e+00
16	TAO125136	223.4293	226.1778	224.6450	6.6217e-01	1.9160e+00
17	TAO130136	283.6293	286.2465	285.0721	5.9768e-01	1.9309e+00
18	TAO120048	98.4586	99.8120	99.1435	2.9208e-01	1.9006e+00
19	TAO130048	287.8196	289.3696	288.6789	3.5087e-01	1.9319e+00
20	TAO120224	288.9305	290.4828	289.8170	3.5748e-01	1.9323e+00
21	TAO130224	276.5756	278.4927	277.4970	4.6216e-01	1.9288e+00
22	TAO120312	286.7450	288.6687	287.4358	3.5325e-01	1.9316e+00
23	TAO130312	288.5574	289.7441	289.1438	2.6385e-01	1.9321e+00
24	TRT020000	254.4097	257.0260	255.8880	5.9180e-01	1.9231e+00
25	TRT070000	273.7250	275.2094	274.5844	3.1568e-01	1.9280e+00
26	TRT100000	286.1978	287.2949	286.6423	2.6536e-01	1.9314e+00
27	TRT120000	286.5548	288.1091	287.3467	3.4868e-01	1.9316e+00
28	TRT125000	267.0344	300.8266	289.6865	5.3754e+00	1.9322e+00
29	TRT130000	285.9030	287.4564	286.8661	3.1528e-01	1.9314e+00
30	EMPTY	39.3761	40.2940	39.8398	2.1988e-01	1.9011e+00
31	TAP050136	156.4487	160.5096	158.5875	1.0146e+00	1.9053e+00
32	TAP070136	174.6493	179.3320	177.2647	1.0717e+00	1.9077e+00
33	TAP080136	264.8197	266.5668	265.7017	4.5141e-01	1.9256e+00
34	TAP090136	86.7982	87.8488	87.3341	2.6924e-01	1.9002e+00
35	TAP100136	202.9815	207.4160	204.8395	1.0088e+00	1.9122e+00
36	TAP105136	207.4188	213.0269	210.4494	1.1214e+00	1.9132e+00
37	TAP110136	213.6756	218.3341	216.0363	1.2659e+00	1.9143e+00
38	TAP115136	218.7456	223.7785	221.1078	1.3257e+00	1.9153e+00
39	TAP120136	265.4433	270.2286	266.6040	9.3458e-01	1.9259e+00
40	TAP125136	231.1280	238.4254	234.2843	1.6343e+00	1.9181e+00
41	TAP130136	233.2907	240.6258	237.5650	1.6039e+00	1.9188e+00
42	TAP120048	224.5801	230.5911	227.4392	1.3876e+00	1.9166e+00
43	TAP130048	237.2352	243.7149	239.8540	1.4489e+00	1.9193e+00
44	TAP120224	219.9463	224.4105	222.3093	1.0118e+00	1.9156e+00
45	TAP130224	225.9827	229.9845	227.9486	1.0251e+00	1.9167e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.6870	38.1170	2.0897e-01	1.9010e+00
47	EMPTY	39.6057	40.2940	39.9820	1.5897e-01	1.9011e+00
48	TAI130048	220.7764	226.2893	224.0497	1.2450e+00	1.9159e+00
49	TAI130136	223.6278	227.4133	225.0344	7.7113e-01	1.9161e+00
50	TAI130224	215.9739	218.8441	216.9907	5.1138e-01	1.9145e+00
51	TAI130312	213.7323	216.3158	214.6949	5.7993e-01	1.9141e+00
52	TAI130000	186.7585	189.8647	187.4718	5.6798e-01	1.9093e+00
53	TSI000001	68.1342	68.7747	68.5331	1.4906e-01	1.9000e+00
54	TSI000002	91.1165	92.0571	91.5122	2.4644e-01	1.9003e+00
55	TSO000001	67.3810	68.1313	67.8501	1.8867e-01	1.9000e+00
56	TSO000002	83.0742	84.0237	83.4564	1.8571e-01	1.9001e+00
57	TAP020136	113.5629	117.9058	116.0936	9.2143e-01	1.9014e+00
58	TAP120312	226.8805	232.9409	229.0014	1.3814e+00	1.9170e+00
59	TAP130312	255.9257	259.7333	257.7231	7.9227e-01	1.9236e+00
60	EMPTY	4.3994	4.4385	4.4130	7.5315e-03	0.0000e+00
61	EMPTY	4.3848	4.4092	4.3916	4.8327e-03	0.0000e+00
62	EMPTY	4.3652	4.3799	4.3699	4.1806e-03	0.0000e+00
63	EMPTY	4.3555	4.3652	4.3592	3.0501e-03	0.0000e+00
64	EMPTY	2.0654	2.0752	2.0704	1.8429e-03	0.0000e+00
65	EMPTY	2.0801	2.0850	2.0826	2.3675e-03	0.0000e+00
66	EMPTY	2.0898	2.0947	2.0901	1.1714e-03	0.0000e+00
67	EMPTY	2.0996	2.1094	2.1001	1.7784e-03	0.0000e+00
68	EMPTY	2.1045	2.1094	2.1048	1.1714e-03	0.0000e+00
69	EMPTY	2.1143	2.1143	2.1143	0.0000e+00	0.0000e+00
70	EMPTY	2.1191	2.1240	2.1207	2.3008e-03	0.0000e+00
71	EMPTY	2.1338	2.1387	2.1350	2.1065e-03	0.0000e+00
72	EMPTY	2.1338	2.1436	2.1402	2.5034e-03	0.0000e+00
73	EMPTY	2.1484	2.1533	2.1530	1.1714e-03	0.0000e+00
74	EMPTY	2.1533	2.1680	2.1593	2.4741e-03	0.0000e+00
75	EMPTY	2.1680	2.1729	2.1684	1.3381e-03	0.0000e+00
76	EMPTY	2.1729	2.1777	2.1759	2.3941e-03	0.0000e+00
77	EMPTY	2.1826	2.1875	2.1872	1.1714e-03	0.0000e+00
78	EMPTY	2.1973	2.2021	2.2017	1.4797e-03	0.0000e+00
79	EMPTY	2.2119	2.2217	2.2167	1.2041e-03	0.0000e+00
80	PAN020136	-14.7906	-9.7552	-13.6615	8.5237e-01	8.7067e-01
81	PAN050136	-26.4194	-23.3676	-25.1865	7.3589e-01	1.6812e+00
82	PAN070136	-17.3213	-13.7355	-15.4902	7.2902e-01	8.7086e-01
83	PAN080136	-14.0791	-13.3924	-13.9540	1.1714e-01	8.7070e-01
84	PAN090136	-13.2045	-9.3898	-12.6353	8.9376e-01	8.7057e-01
85	PAN100136	-12.2363	-12.0074	-12.1279	5.1330e-02	8.7053e-01
86	PAN105136	-7.7768	23.3511	5.8416	8.3740e+00	8.7012e-01
87	PAN110136	-7.4378	15.5267	0.5334	6.5950e+00	8.7000e-01
88	PAN115136	-7.6022	8.8773	-2.7804	4.4830e+00	8.7003e-01
89	PAN120136	-6.0250	4.5799	-4.2275	2.4317e+00	8.7006e-01
90	PAN125136	-6.0353	17.6921	-3.1804	5.4463e+00	8.7004e-01
91	PAN130136	-5.1725	19.5467	5.8474	6.2617e+00	8.7012e-01
92	PAN120048	-12.0279	18.2608	-1.3590	8.0967e+00	8.7001e-01
93	PAN130048	-6.9133	14.5253	-0.8174	4.0709e+00	8.7000e-01
94	PAN120224	-12.5501	19.7222	-1.4570	9.7835e+00	8.7001e-01
95	PAN130224	-5.6617	4.1039	-0.8414	2.2254e+00	8.7000e-01
96	PAN120312	-12.3918	12.9378	-0.8378	6.8286e+00	8.7000e-01
97	PAN130312	-9.0847	2.0542	-2.4822	2.4505e+00	8.7002e-01
98	PAB000136	40.1144	40.5264	40.2517	6.4738e-02	5.8866e-01
99	PAB100136	44.2625	45.4985	44.9116	2.4741e-01	5.9077e-01
100	PAB125136	44.6569	46.0301	45.3179	3.0911e-01	5.9096e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.7696	40.5021	40.0162	1.4484e-01	7.5664e-01
102	PRV0000001	19.6068	19.7289	19.6898	5.7521e-02	7.5161e-01
103	PSB0000001	44.6335	44.7556	44.6433	3.3453e-02	7.5826e-01
104	PPH0000001	2.3469	2.6215	2.4604	7.7509e-02	5.0004e-01
105	PAN000136	-149.7144	-126.3685	-138.5541	4.5971e+00	4.9322e+00
106	PPH0000002	2.4173	2.5012	2.4592	2.2804e-02	2.0009e-01
107	EMPTY	-0.0049	0.0049	0.0004	4.0482e-03	0.0000e+00
108	EMPTY	-10.0000	9.9951	-5.7014	6.1247e+00	0.0000e+00
109	EMPTY	-0.0049	0.0049	0.0003	3.0261e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0049	0.0001	6.9053e-04	0.0000e+00
112	VPM0000001	144.6552	145.8271	145.2607	2.6543e-01	1.1898e+00
113	VPM0000002	168.8815	169.4674	169.1587	1.4812e-01	1.2985e+00
114	VPM0000003	0.0526	0.4432	0.1424	1.0595e-01	8.1000e-01
115	VPM0000004	148.7342	149.5155	149.1327	2.1598e-01	1.2070e+00
116	VPM0000005	197.7502	198.7267	198.2149	2.2283e-01	1.4389e+00
117	VPM0000006	-0.0864	0.3042	0.1831	1.2409e-01	8.1000e-01
118	IPM0000001	777.0703	786.8320	782.4980	2.2758e+00	1.0189e+01
119	IPM0000002	1802.4475	1820.0089	1812.6722	3.7927e+00	1.6452e+01
120	IPM0000003	-10.9125	-3.1125	-6.8175	2.4994e+00	8.1002e+00
121	IPM0000004	535.8323	540.2268	537.7169	1.0109e+00	4.6952e+00
122	IPM0000005	353.3958	355.8369	354.5480	6.0612e-01	3.4417e+00
123	IPM0000006	-0.3662	0.6104	0.1319	3.6232e-01	2.0000e+00
124	EMPTY	-0.0293	-0.0146	-0.0195	3.5568e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0127	3.4173e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0148	3.5513e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0098	-0.0145	3.4116e-03	0.0000e+00
128	INT0000001	-1.3784	-0.0113	-0.8238	2.7155e-01	4.1000e+00
129	INT0000002	-1.2094	-0.0376	-0.7602	2.5950e-01	4.1000e+00
130	INT0000003	-1.2583	-0.2817	-0.8169	2.6787e-01	4.1000e+00
131	INT0000004	-1.1794	-0.2028	-0.7341	2.5585e-01	4.1000e+00
132	INT0000005	-1.1831	-0.2066	-0.7534	2.3675e-01	4.1000e+00
133	INT0000006	-1.6226	-0.4507	-1.0171	2.7124e-01	4.1000e+00
134	INT0000007	-1.2320	-0.0601	-0.7085	2.7463e-01	4.1000e+00
135	INT0000008	-1.3296	-0.1578	-0.7476	2.6320e-01	4.1000e+00
136	INT0000009	-1.1982	-0.2216	-0.7411	2.6355e-01	4.1000e+00
137	INT0000010	-1.1193	0.6385	-0.0216	3.9634e-01	4.1000e+00
138	INT0000011	-0.8902	1.0630	0.2934	4.2206e-01	4.1000e+00
139	INT0000012	-1.1418	0.8113	0.0183	4.1462e-01	4.1000e+00
140	INT0000013	129.2405	131.5843	130.5726	4.5624e-01	4.3029e+00
141	INT0000014	179.1016	181.4453	180.4570	4.8714e-01	4.4796e+00
142	INT0000015	133.9355	135.8887	135.2637	4.1196e-01	4.3174e+00
143	INT0000016	125.0601	127.0132	126.2905	4.0673e-01	4.2901e+00
144	INT0000017	149.0610	151.9907	150.5181	6.8027e-01	4.3676e+00
145	INT0000018	151.3897	153.7335	152.5615	4.8004e-01	4.3746e+00
146	INT0000019	145.9397	148.2835	147.2836	4.7292e-01	4.3565e+00
147	INT0000020	150.3343	152.6780	151.7914	5.0718e-01	4.3720e+00
148	INT0000021	-2.2198	0.5146	-0.5557	5.5557e-01	4.1000e+00
149	INT0000022	130.4725	132.8162	131.9139	5.3363e-01	4.3070e+00
150	INT0000023	147.8215	149.9700	148.9972	5.1219e-01	4.3623e+00
151	INT0000024	112.4136	114.7574	113.8276	5.0155e-01	4.2551e+00
152	INT0000025	146.8825	149.2263	148.3668	5.3670e-01	4.3602e+00
153	INT0000026	148.4638	150.8075	149.8271	5.2570e-01	4.3652e+00
154	INT0000027	127.1146	129.4584	128.5717	5.0718e-01	4.2969e+00
155	INT0000028	129.2443	131.9787	130.5607	6.3725e-01	4.3029e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	INT0000029	147.9642	150.5033	149.1010	6.0450e-01	4.3627e+00
157	INT0000030	150.7662	153.6959	152.0552	5.9582e-01	4.3729e+00
158	INT0000031	148.8770	151.6113	149.9941	5.7323e-01	4.3658e+00
159	INT0000032	150.8789	153.2227	151.8320	5.3181e-01	4.3721e+00
160	INT0000033	150.8789	153.0273	151.7187	4.9166e-01	4.3717e+00
161	INT0000034	132.5796	134.5327	133.4155	4.5854e-01	4.3116e+00
162	INT0000035	174.4817	176.2395	175.2042	4.4860e-01	4.4587e+00
163	INT0000036	130.8669	132.6247	131.7106	4.0518e-01	4.3064e+00

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Velocity 1 - 3.7203 (ft/sec) (+/- 12.3402 %)
 Velocity 2 - 3.7289 (ft/sec) (+/- 4.6888 %)
 Pressure drop - -4.1210 (psi)
 Tsat in - 267.6396 (deg F) Tsat out - 273.2858 (deg F)
 Phi inner - -0.0009 (kBtu/hr-ft2) (+/- 612.3247 %)
 Phi outer - 199.8648 (kBtu/hr-ft2) (+/- 1.3400 %)
 D inner - 0.1961 (ft) D outer - 0.2413 (ft) D hyd - 0.0390 (ft)
 L inner - 12.0610 (ft) L outer - 12.8070 (ft) A flow - 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRP000001	85.5864	86.2206	85.9416	1.3799e-01	1.9002e+00
1	TRP000002	86.0041	86.4245	86.1807	1.2994e-01	1.9002e+00
2	TRP000001	87.1893	87.8194	87.5038	1.7611e-01	1.9002e+00
3	TRP000001	86.6378	87.2699	86.9453	1.6586e-01	1.9002e+00
4	TRP000001	87.4663	88.1996	87.8522	1.7370e-01	1.9002e+00
5	TSR000001	128.1284	130.1529	129.2101	5.3291e-01	1.9024e+00
6	TAC020136	55.2969	57.5641	56.5152	4.3896e-01	1.9001e+00
7	TAC050136	248.1569	251.5962	250.2621	7.3542e-01	1.9218e+00
8	TAC070136	249.8395	255.2804	252.4116	1.3842e+00	1.9223e+00
9	TAC080136	284.9040	288.1795	286.8193	6.9359e-01	1.9314e+00
10	TAC090136	291.4904	295.4113	294.0215	8.0806e-01	1.9335e+00
11	TAC100136	282.9158	287.6707	286.2120	1.2538e+00	1.9312e+00
12	TAC105136	287.6214	291.6491	289.9324	8.3972e-01	1.9323e+00
13	TAC110136	289.1009	292.2708	290.7848	6.0182e-01	1.9326e+00
14	TAC115136	286.3561	290.5656	288.4249	9.4641e-01	1.9319e+00
15	TAC120136	293.4890	295.6771	294.8164	1.1366e-01	1.9337e+00
16	TAC125136	227.9762	232.3212	230.9735	1.0047e+00	1.9174e+00
17	TAC130136	291.9217	296.7739	295.1194	8.9564e-01	1.9338e+00
18	TAC120048	97.3132	98.4586	97.9548	2.9919e-01	1.9005e+00
19	TAC130048	295.9088	299.7142	298.3801	1.0250e+00	1.9348e+00
20	TAC120224	293.7654	297.8623	296.6607	9.4815e-01	1.9343e+00
21	TAC130224	283.7603	287.3910	286.0985	6.7848e-01	1.9312e+00
22	TAC120312	291.2290	294.3351	293.5312	7.5984e-01	1.9334e+00
23	TAC130312	291.7456	294.3836	293.1503	6.1289e-01	1.9333e+00
24	TAC020000	264.2932	267.6362	266.0024	7.2862e-01	1.9257e+00
25	TAC070000	277.3428	280.1191	279.0391	5.1655e-01	1.9292e+00
26	TAC100000	292.5748	293.8493	293.4155	2.8887e-01	1.9333e+00
27	TAC120000	286.6453	290.4814	289.0605	9.7290e-01	1.9321e+00
28	TAC125000	173.5979	223.1685	261.9796	3.7451e+01	1.9247e+00
29	TAC130000	286.7244	291.8274	290.5714	1.0104e+00	1.9325e+00
30	EMPTY	39.3761	40.0646	39.8581	1.9888e-01	1.9011e+00
31	TAP050136	157.9337	165.0478	160.7242	1.4967e+00	1.9055e+00
32	TAP070136	179.3298	185.7439	182.0623	1.5855e+00	1.9084e+00
33	TAP080136	268.9511	270.6941	270.0435	4.7570e-01	1.9268e+00
34	TAP090136	84.8019	85.8540	85.4118	2.6959e-01	1.9002e+00
35	TAP100136	211.0687	218.1562	214.2592	1.7016e+00	1.9140e+00
36	TAP105136	211.4102	221.1676	215.2349	2.1635e+00	1.9142e+00
37	TAP110136	215.8613	223.5501	219.6461	1.9706e+00	1.9150e+00
38	TAP115136	221.3096	229.5487	223.5025	1.7846e+00	1.9158e+00
39	TAP120136	269.1225	272.3394	270.9751	6.3528e-01	1.9270e+00
40	TAP125136	237.4919	245.1329	241.5014	1.9629e+00	1.9197e+00
41	TAP130136	241.6561	257.7938	251.2490	3.5523e+00	1.9220e+00
42	TAP120048	234.9662	243.1122	239.9487	1.8251e+00	1.9194e+00
43	TAP130048	252.7795	273.9911	270.2434	6.8059e+00	1.9268e+00
44	TAP120224	229.8079	236.9771	233.4526	1.4902e+00	1.9179e+00
45	TAP130224	237.9583	244.6678	241.3631	1.5218e+00	1.9197e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	38.1170	1.9288e-01	1.9010e+00
47	EMPTY	39.3761	40.5234	40.0325	2.6634e-01	1.9011e+00
48	TAP130048	247.0282	261.8547	257.5071	3.9361e+00	1.9235e+00
49	TAP130136	237.7746	244.0543	241.6307	1.5069e+00	1.9197e+00
50	TAP130224	229.8897	234.9109	233.0855	1.2269e+00	1.9178e+00
51	TAP130312	225.1808	227.7460	226.2644	4.9419e-01	1.9164e+00
52	TAP130000	204.0388	206.5338	205.0831	6.3002e-01	1.9123e+00
53	TSI000001	70.0471	70.6860	70.3578	1.6206e-01	1.9000e+00
54	TSI000002	94.3506	95.6803	94.8836	3.1049e-01	1.9004e+00
55	TSO000001	69.0974	70.1674	69.6111	1.9217e-01	1.9000e+00
56	TSO000002	86.0223	86.7593	86.4643	1.7005e-01	1.9002e+00
57	TAP020136	113.0460	119.7642	116.2950	1.4908e+00	1.9014e+00
58	TAP120312	233.6954	241.6119	237.8309	1.7294e+00	1.9189e+00
59	TAP130312	254.6224	261.7724	258.1543	1.3950e+00	1.9237e+00
60	EMPTY	4.3945	4.4775	4.4337	2.0961e-02	0.0000e+00
61	EMPTY	4.3848	4.4482	4.4146	1.7048e-02	0.0000e+00
62	EMPTY	4.3701	4.4189	4.3951	1.4653e-02	0.0000e+00
63	EMPTY	4.3604	4.4043	4.3855	1.2913e-02	0.0000e+00
64	EMPTY	2.0654	2.0850	2.0778	5.4220e-03	0.0000e+00
65	EMPTY	2.0801	2.0996	2.0904	5.1863e-03	0.0000e+00
66	EMPTY	2.0898	2.1045	2.0976	5.1344e-03	0.0000e+00
67	EMPTY	2.0996	2.1143	2.1071	4.8538e-03	0.0000e+00
68	EMPTY	2.0996	2.1191	2.1120	4.5432e-03	0.0000e+00
69	EMPTY	2.1143	2.1289	2.1213	4.3180e-03	0.0000e+00
70	EMPTY	2.1240	2.1338	2.1282	3.6924e-03	0.0000e+00
71	EMPTY	2.1387	2.1484	2.1423	3.6659e-03	0.0000e+00
72	EMPTY	2.1436	2.1533	2.1477	3.3249e-03	0.0000e+00
73	EMPTY	2.1533	2.1680	2.1593	3.5962e-03	0.0000e+00
74	EMPTY	2.1631	2.1729	2.1664	3.4229e-03	0.0000e+00
75	EMPTY	2.1680	2.1875	2.1762	3.9998e-03	0.0000e+00
76	EMPTY	2.1777	2.1924	2.1853	3.3728e-03	0.0000e+00
77	EMPTY	2.1924	2.2021	2.1947	3.4513e-03	0.0000e+00
78	EMPTY	2.2021	2.2168	2.2095	3.7239e-03	0.0000e+00
79	EMPTY	2.2217	2.2314	2.2246	3.8206e-03	0.0000e+00
80	PAM020136	-19.9023	-4.8724	-17.1527	3.9809e+00	8.7106e-01
81	PAM050136	-38.7790	-14.5175	-28.5098	5.4966e+00	1.6815e+00
82	PAM070136	-25.8662	-2.1388	-14.2131	6.4125e+00	8.7073e-01
83	PAM080136	-14.0791	-2.4824	-10.1164	3.5643e+00	8.7037e-01
84	PAM090136	-13.2045	5.5638	-9.2509	4.1604e+00	8.7031e-01
85	PAM100136	-12.1600	52.2321	-5.6338	1.0741e+01	8.7011e-01
86	PAM105136	-5.7932	23.1985	-1.2934	6.0071e+00	8.7001e-01
87	PAM110136	-7.2852	-0.3425	-4.8072	1.6260e+00	8.7008e-01
88	PAM115136	-7.1444	-0.5831	-3.6013	1.1197e+00	8.7005e-01
89	PAM120136	-6.1013	3.9695	-4.0032	1.5923e+00	8.7006e-01
90	PAM125136	-6.0353	-2.7546	-4.9153	1.0219e+00	8.7009e-01
91	PAM130136	-3.1126	5.1272	-1.1945	2.4076e+00	8.7001e-01
92	PAM120048	-12.1042	-7.5266	-10.2869	9.7237e-01	8.7038e-01
93	PAM130048	-7.1421	1.2502	-4.9922	2.3184e+00	8.7009e-01
94	PAM120224	-8.5065	-4.0052	-6.8327	1.1926e+00	8.7017e-01
95	PAM130224	-8.3320	-1.3892	-6.7420	1.6192e+00	8.7016e-01
96	PAM120312	-11.4763	-5.3728	-9.0623	1.3496e+00	8.7029e-01
97	PAM130312	-7.4063	1.6727	-4.8413	2.5804e+00	8.7008e-01
98	PAM000136	39.7024	40.6637	40.1822	3.1160e-01	5.8864e-01
99	PAM100136	43.2096	44.9949	43.5255	3.2714e-01	5.9012e-01
100	PAM125136	43.9782	44.6569	44.1460	1.4633e-01	5.9041e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN000001	39.1593	40.5021	39.9161	4.0673e-01	7.5661e-01
102	PRV000001	19.6068	19.8509	19.6630	6.6221e-02	7.5161e-01
103	PSR000001	44.0232	44.1453	44.1038	5.8413e-02	7.5806e-01
104	PFH000001	1.9807	2.1638	2.0447	5.3127e-02	5.0003e-01
105	PAN000136	-127.2840	-99.8182	-114.0912	8.5533e+00	4.9283e+00
106	PFH000002	2.0313	2.1152	2.0545	2.0024e-02	2.0007e-01
107	EMPTY	-0.0049	0.0049	-0.0009	4.2647e-03	0.0000e+00
108	EMPTY	-10.0000	9.9951	-1.1631	7.7382e+00	0.0000e+00
109	EMPTY	-0.0049	0.0049	-0.0011	3.4583e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0001	6.9051e-04	0.0000e+00
112	VPW000001	144.8505	145.6318	145.3349	1.6852e-01	1.1902e+01
113	VPW000002	169.0768	169.2721	169.2056	9.3461e-02	1.2988e+00
114	VPW000003	0.0526	0.4432	0.1346	1.0507e-01	8.1000e-01
115	VPW000004	148.7342	149.3201	149.1015	1.5098e-01	1.2068e+00
116	VPW000005	198.1408	198.7267	198.3712	1.2283e-01	1.4397e+00
117	VPW000006	0.1089	0.3042	0.1792	9.4782e-02	8.1000e-01
118	IPW000001	782.9273	794.6414	788.5890	2.9844e+00	1.0219e+01
119	IPW000002	1792.6912	1798.5450	1795.5396	1.1964e+00	1.6335e+01
120	IPW000003	-18.7125	-12.8625	-15.8265	1.1975e+00	8.1010e+00
121	IPW000004	535.8323	538.7620	537.3067	7.6087e-01	4.6923e+00
122	IPW000005	352.9075	354.3722	353.6789	3.8316e-01	3.4361e+00
123	IPW000006	-0.8545	0.6104	-0.1904	3.0819e-01	2.0000e+00
124	EMPTY	-0.0293	-0.0146	-0.0193	3.6858e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0049	-0.0136	2.8403e-03	0.0000e+00
126	EMPTY	-0.0195	-0.0098	-0.0143	3.0945e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0049	-0.0144	3.8725e-03	0.0000e+00
128	INT000001	-1.3784	-0.2066	-0.8081	2.6127e-01	4.1000e+00
129	INT000002	-1.2094	-0.2329	-0.7524	2.5146e-01	4.1000e+00
130	INT000003	-1.4536	-0.2817	-0.8559	2.5084e-01	4.1000e+00
131	INT000004	-1.1794	-0.2028	-0.7731	2.5524e-01	4.1000e+00
132	INT000005	-1.1831	-0.2066	-0.7964	2.6614e-01	4.1000e+00
133	INT000006	-1.6226	-0.2554	-1.0289	2.4311e-01	4.1000e+00
134	INT000007	-1.2320	-0.0601	-0.7241	2.8179e-01	4.1000e+00
135	INT000008	-1.1343	-0.3531	-0.7554	2.6590e-01	4.1000e+00
136	INT000009	-1.1982	-0.2216	-0.7724	2.7815e-01	4.1000e+00
137	INT000010	-0.7287	1.0291	-0.0451	3.5786e-01	4.1000e+00
138	INT000011	-0.4995	1.4536	0.2739	3.8249e-01	4.1000e+00
139	INT000012	-0.5559	1.2019	-0.0051	3.7370e-01	4.1000e+00
140	INT000013	129.6311	131.7796	130.4164	4.3133e-01	4.3024e+00
141	INT000014	179.6875	181.6406	180.3750	4.0480e-01	4.4792e+00
142	INT000015	134.5215	136.6699	135.1621	3.7442e-01	4.3170e+00
143	INT000016	125.6460	127.5992	126.3101	4.1007e-01	4.2902e+00
144	INT000017	149.0610	151.7954	150.3149	6.0372e-01	4.3669e+00
145	INT000018	151.7803	153.7335	152.5225	4.5677e-01	4.3745e+00
146	INT000019	146.1351	148.4788	147.2679	5.4534e-01	4.3565e+00
147	INT000020	150.7249	153.2640	151.7992	5.5838e-01	4.3720e+00
148	INT000021	-2.2198	1.1005	-0.5518	7.1595e-01	4.1000e+00
149	INT000022	130.6678	133.2069	131.8944	5.7187e-01	4.3069e+00
150	INT000023	147.8215	150.5559	148.9738	6.1162e-01	4.3623e+00
151	INT000024	112.6089	114.9527	113.8198	5.2645e-01	4.2551e+00
152	INT000025	147.4685	149.6169	148.3473	5.1031e-01	4.3601e+00
153	INT000026	148.6591	150.8075	149.7998	4.8706e-01	4.3651e+00
154	INT000027	127.5053	129.6537	128.6186	5.1788e-01	4.2970e+00
155	INT000028	129.2443	132.3693	130.4474	6.6890e-01	4.3025e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	INT000029	147.3783	151.0892	148.9331	6.7654e-01	4.3621e+00
157	INT000030	150.3756	153.8912	151.9263	6.5722e-01	4.3724e+00
158	INT000031	148.6816	151.6113	149.9512	6.3165e-01	4.3656e+00
159	INT000032	150.4883	153.4180	151.7969	6.4868e-01	4.3720e+00
160	INT000033	150.2930	153.4180	151.7031	6.7114e-01	4.3717e+00
161	INT000034	132.3843	134.5327	133.3413	5.0878e-01	4.3114e+00
162	INT000035	174.2863	176.2395	175.2863	4.9227e-01	4.4590e+00
163	INT000036	138.4763	132.6247	131.7106	4.7750e-01	4.3064e+00

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Velocity 1 - 4.0856 (ft/sec) (+/- 10.2309 %)
 Velocity 2 - 4.1065 (ft/sec) (+/- 3.9655 %)
 Pressure drop - -4.8852 (psi)
 Tsat in - 267.9352 (deg F) Tsat out - 274.8869 (deg F)
 Phi inner - 0.0010 (kBtu/hr-ft2) (+/- 750.0195 %)
 Phi outer - 200.1977 (kBtu/hr-ft2) (+/- 1.3405 %)
 D inner - 0.1961 (ft) D outer - 0.2413 (ft) D hyd - 0.0390 (ft)
 L inner - 12.8610 (ft) L outer - 12.8070 (ft) A flow - 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF000001	85.3750	86.0093	85.7217	2.1255e-01	1.9002e+00
1	TRF000002	85.7938	86.2143	85.9831	1.5463e-01	1.9002e+00
2	TRF000001	87.5024	88.2378	87.8825	2.0759e-01	1.9002e+00
3	TIM000001	87.1633	87.5851	87.3344	1.2753e-01	1.9002e+00
4	TRV000001	87.7781	88.6176	88.1163	2.1003e-01	1.9002e+00
5	TSR000001	124.1734	127.6226	126.2294	6.9925e-01	1.9021e+00
6	TAO020136	55.5135	60.0416	57.5441	9.5230e-01	1.9001e+00
7	TAO050136	239.7622	241.7268	240.7512	4.1446e-01	1.9195e+00
8	TAO070136	239.6621	244.2878	241.8409	8.1674e-01	1.9198e+00
9	TAO080136	273.4834	274.4943	274.0256	2.3576e-01	1.9278e+00
10	TAO090136	277.6896	279.3434	278.6689	3.3529e-01	1.9291e+00
11	TAO100136	269.4046	272.9998	270.9736	8.2481e-01	1.9270e+00
12	TAO105136	274.3773	277.6053	275.9769	6.7159e-01	1.9284e+00
13	TAO110136	280.2020	282.1125	281.2340	3.9294e-01	1.9298e+00
14	TAO115136	279.0112	281.3102	279.8560	5.6852e-01	1.9294e+00
15	TAO120136	288.6493	289.8385	289.1524	2.5689e-01	1.9321e+00
16	TAO125136	236.8434	272.0258	256.0591	8.5460e+00	1.9232e+00
17	TAO130136	283.2553	286.1523	284.3781	6.0846e-01	1.9307e+00
18	TAO130048	100.6391	101.6790	101.1488	3.2057e-01	1.9007e+00
19	TAO130048	286.8140	288.8209	287.9218	4.5980e-01	1.9317e+00
20	TAO120224	288.3810	290.2079	289.3333	4.3573e-01	1.9321e+00
21	TAO130224	275.3824	277.8470	276.5144	5.2917e-01	1.9285e+00
22	TAO120312	288.0261	289.9492	288.9404	4.0660e-01	1.9320e+00
23	TAO130312	289.0110	290.3801	289.7246	3.4996e-01	1.9323e+00
24	TRT020000	253.9419	256.6516	254.9124	5.8265e-01	1.9229e+00
25	TRT070000	273.0778	275.1186	274.1631	3.6020e-01	1.9279e+00
26	TRT100000	286.1963	287.6571	286.7383	2.9723e-01	1.9314e+00
27	TRT120000	286.0040	287.7418	286.7162	3.9898e-01	1.9314e+00
28	TRT125000	175.7450	386.0532	262.3140	4.2308e+01	1.9248e+00
29	TRT130000	285.3545	286.9979	286.2173	3.8368e-01	1.9312e+00
30	EMPTY	39.3761	40.2940	39.8581	2.2356e-01	1.9011e+00
31	TAP050136	156.5454	160.9024	159.0675	8.9894e-01	1.9053e+00
32	TAP070136	173.6707	180.1093	176.6088	1.3795e+00	1.9076e+00
33	TAP080136	263.8030	266.2886	265.1051	4.6508e-01	1.9255e+00
34	TAP090136	86.1662	87.3227	86.8034	2.8588e-01	1.9002e+00
35	TAP100136	200.0826	205.5849	203.0988	1.0863e+00	1.9119e+00
36	TAP105136	205.5055	210.2697	208.0465	1.2345e+00	1.9128e+00
37	TAP110136	211.4793	217.1931	213.9199	1.2437e+00	1.9139e+00
38	TAP115136	216.7461	223.6794	219.6614	1.4598e+00	1.9150e+00
39	TAP120136	264.6991	268.8447	265.9668	8.3882e-01	1.9257e+00
40	TAP125136	230.1834	235.1531	232.4586	1.2472e+00	1.9177e+00
41	TAP130136	231.4985	238.3690	235.3132	1.4375e+00	1.9183e+00
42	TAP120048	225.1562	230.4028	227.1356	1.3361e+00	1.9166e+00
43	TAP130048	237.7027	243.2453	239.6756	1.2534e+00	1.9193e+00
44	TAP120224	217.9441	223.4603	220.9272	1.2969e+00	1.9153e+00
45	TAP130224	224.8384	230.3661	226.5886	1.1229e+00	1.9164e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.5374	38.4572	38.0664	2.5968e-01	1.9010e+00
47	EMPTY	39.6057	40.2940	39.9453	1.6868e-01	1.9011e+00
48	TAI130048	220.6792	226.4781	223.6948	1.5311e+00	1.9158e+00
49	TAI130136	221.6326	224.9505	223.1941	7.0163e-01	1.9157e+00
50	TAI130224	215.7827	217.9838	216.9638	4.6097e-01	1.9145e+00
51	TAI130312	212.8688	215.1677	213.8862	4.9026e-01	1.9139e+00
52	TR130000	181.8913	184.1312	182.6578	4.0789e-01	1.9085e+00
53	TS1000001	70.6822	71.5325	71.0214	1.8078e-01	1.9000e+00
54	TS1000002	93.0975	94.1417	93.6717	2.6784e-01	1.9004e+00
55	TS0000001	69.9544	70.8102	70.3934	1.9237e-01	1.9000e+00
56	TS0000002	85.3901	86.3383	85.8223	2.3423e-01	1.9002e+00
57	TAP020136	113.4610	114.0112	114.9995	9.2307e-01	1.9014e+00
58	TAP120312	225.9301	231.4262	228.8298	1.3134e+00	1.9169e+00
59	TAP130312	256.3882	260.4745	258.1890	9.4826e-01	1.9237e+00
60	EMPTY	4.4238	4.4531	4.4381	7.2383e-03	0.0000e+00
61	EMPTY	4.4092	4.4238	4.4168	4.5378e-03	0.0000e+00
62	EMPTY	4.3896	4.4043	4.3965	3.9459e-03	0.0000e+00
63	EMPTY	4.3799	4.3945	4.3864	3.7706e-03	0.0000e+00
64	EMPTY	2.0752	2.0801	2.0780	2.4344e-03	0.0000e+00
65	EMPTY	2.0898	2.0947	2.0902	1.3381e-03	0.0000e+00
66	EMPTY	2.0947	2.1045	2.0979	2.5362e-03	0.0000e+00
67	EMPTY	2.1045	2.1094	2.1076	2.3675e-03	0.0000e+00
68	EMPTY	2.1045	2.1143	2.1117	2.6543e-03	0.0000e+00
69	EMPTY	2.1191	2.1240	2.1222	2.3941e-03	0.0000e+00
70	EMPTY	2.1240	2.1289	2.1282	1.7115e-03	0.0000e+00
71	EMPTY	2.1387	2.1436	2.1431	1.4797e-03	0.0000e+00
72	EMPTY	2.1436	2.1484	2.1479	1.6028e-03	0.0000e+00
73	EMPTY	2.1533	2.1631	2.1589	2.2080e-03	0.0000e+00
74	EMPTY	2.1631	2.1680	2.1665	2.2603e-03	0.0000e+00
75	EMPTY	2.1729	2.1777	2.1764	2.2146e-03	0.0000e+00
76	EMPTY	2.1729	2.1826	2.1823	1.5314e-03	0.0000e+00
77	EMPTY	2.1924	2.1924	2.1924	0.0000e+00	0.0000e+00
78	EMPTY	2.2021	2.2070	2.2069	6.9053e-04	0.0000e+00
79	EMPTY	2.2217	2.2217	2.2217	0.0000e+00	0.0000e+00
80	PAN020136	-15.7824	-4.7961	-12.4942	2.5125e+00	8.7056e-01
81	PAN050136	-26.2668	-22.6047	-24.3472	8.7633e-01	1.6811e+00
82	PAN070136	-21.1360	-17.1687	-19.1340	1.0639e+00	8.7131e-01
83	PAN080136	-12.9347	-8.9674	-10.8122	9.7261e-01	8.7042e-01
84	PAN090136	-13.2045	-5.8803	-10.9828	2.3050e+00	8.7043e-01
85	PAN100136	-12.2363	-12.0074	-12.1279	4.3841e-02	8.7053e-01
86	PAN105136	-7.7005	21.2912	5.3686	6.7493e+00	8.7010e-01
87	PAN110136	-7.3615	12.7801	1.0812	5.6700e+00	8.7000e-01
88	PAN115136	-7.5259	14.6757	-0.4229	4.3508e+00	8.7000e-01
89	PAN120136	-6.1013	2.4437	-4.1481	2.4485e+00	8.7006e-01
90	PAN125136	-6.1116	13.0382	-2.4937	6.0627e+00	8.7002e-01
91	PAN130136	-8.0717	18.0971	5.6170	6.2609e+00	8.7011e-01
92	PAN120048	-11.9516	18.2608	-2.0258	8.1975e+00	8.7001e-01
93	PAN130048	-10.9568	5.3701	-1.8016	4.1914e+00	8.7001e-01
94	PAN120224	-12.3212	13.8476	-1.1274	6.8224e+00	8.7000e-01
95	PAN130224	-4.6699	4.4854	-0.1548	2.3128e+00	8.7000e-01
96	PAN120312	-10.9422	12.7089	-0.2000	6.2391e+00	8.7000e-01
97	PAN130312	-6.0330	5.9452	-0.0118	2.4081e+00	8.7000e-01
98	PAB000136	40.2060	40.8011	40.3817	1.3221e-01	5.8872e-01
99	PAB100136	44.5829	45.5442	45.0160	2.5832e-01	5.9082e-01
100	PAB125136	44.7942	45.9844	45.3279	2.4895e-01	5.9097e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIH000001	39.8917	40.7462	40.2433	1.8885e-01	7.5672e-01
102	PRV000001	19.4847	19.7289	19.6215	4.7052e-02	7.5160e-01
103	PSR000001	44.6335	44.7556	44.7410	4.0071e-02	7.5829e-01
104	PFH000001	2.3469	2.6215	2.4769	6.6920e-02	5.0004e-01
105	PAN000136	-143.7635	-119.0443	-135.2491	4.9597e+00	4.9316e+00
106	PFH000002	2.4508	2.5683	2.5028	2.6094e-02	2.0010e-01
107	EMPTY	-0.0049	0.0049	-0.0011	3.8574e-03	0.0000e+00
108	EMPTY	-10.0000	9.9951	-0.1242	7.5061e+00	0.0000e+00
109	EMPTY	-0.0049	0.0000	-0.0021	2.4344e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	-0.0049	0.0000	-0.0001	6.9053e-04	0.0000e+00
112	VPW000001	144.8505	145.6318	145.2373	1.7420e-01	1.1897e+00
113	VPW000002	168.8815	169.2721	169.0845	9.6332e-02	1.2982e+00
114	VPW000003	-0.1427	0.2479	0.1073	9.6976e-02	8.1000e-01
115	VPW000004	148.9295	149.5155	149.1600	1.4057e-01	1.2071e+00
116	VPW000005	197.9455	198.5314	198.2188	1.5784e-01	1.4389e+00
117	VPW000006	-0.0864	0.3042	0.1636	1.1189e-01	8.1000e-01
118	IPW000001	759.4992	765.3563	763.5991	1.5900e+00	1.0100e+01
119	IPW000002	1823.9115	1835.6191	1829.5303	3.0444e+00	1.6568e+01
120	IPW000003	18.3375	22.2375	19.7415	1.0453e+00	8.1015e+00
121	IPW000004	528.9963	530.9495	529.9337	4.8166e-01	4.6397e+00
122	IPW000005	353.3958	355.8369	354.9191	4.6933e-01	3.4441e+00
123	IPW000006	0.1221	1.0987	0.5616	2.8334e-01	2.0000e+00
124	EMPTY	-0.0244	-0.0146	-0.0204	3.6500e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0139	2.8523e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0174	3.2955e-03	0.0000e+00
127	EMPTY	-0.0195	-0.0049	-0.0143	3.0945e-03	0.0000e+00
128	IHT000001	-1.3784	-0.4019	-0.8159	2.8900e-01	4.1000e+00
129	IHT000002	-1.4048	-0.2329	-0.7251	2.7969e-01	4.1000e+00
130	IHT000003	-1.4536	-0.2817	-0.7895	2.7902e-01	4.1000e+00
131	IHT000004	-1.3747	-0.2028	-0.7145	2.6438e-01	4.1000e+00
132	IHT000005	-1.3784	-0.2066	-0.7573	2.8094e-01	4.1000e+00
133	IHT000006	-1.6226	-0.4507	-1.0015	2.6672e-01	4.1000e+00
134	IHT000007	-1.4273	-0.2554	-0.7280	2.7078e-01	4.1000e+00
135	IHT000008	-1.5249	-0.3531	-0.7593	2.7576e-01	4.1000e+00
136	IHT000009	-1.3935	-0.4169	-0.7919	2.7857e-01	4.1000e+00
137	IHT000010	-0.7287	1.0291	0.0174	3.6739e-01	4.1000e+00
138	IHT000011	-0.3042	1.2583	0.3169	3.6739e-01	4.1000e+00
139	IHT000012	-0.5559	0.8113	0.0340	3.4510e-01	4.1000e+00
140	IHT000013	129.8265	131.5843	130.5453	4.2212e-01	4.3028e+00
141	IHT000014	179.4922	181.2500	180.3672	4.0287e-01	4.4792e+00
142	IHT000015	134.5215	136.0840	135.2793	4.2433e-01	4.3174e+00
143	IHT000016	125.6460	127.4039	126.3452	4.0258e-01	4.2903e+00
144	IHT000017	148.2798	151.4048	149.9087	6.9207e-01	4.3655e+00
145	IHT000018	151.3897	153.5301	152.4600	4.5718e-01	4.3743e+00
146	IHT000019	145.9397	148.2835	146.9867	6.0844e-01	4.3555e+00
147	IHT000020	150.5296	153.0686	151.5961	6.3284e-01	4.3713e+00
148	IHT000021	-2.2198	0.7099	-0.8956	7.5623e-01	4.1000e+00
149	IHT000022	130.6678	132.8162	131.7225	5.7724e-01	4.3064e+00
150	IHT000023	147.8215	149.7746	148.6769	5.2332e-01	4.3612e+00
151	IHT000024	112.6089	114.9527	113.6284	5.4575e-01	4.2545e+00
152	IHT000025	147.0778	149.2263	148.1129	4.8206e-01	4.3593e+00
153	IHT000026	148.6591	150.4169	149.5576	4.3584e-01	4.3643e+00
154	IHT000027	127.5053	129.4584	128.3999	4.3600e-01	4.2964e+00
155	IHT000028	129.4396	131.9787	130.5841	6.7774e-01	4.3029e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT000029	147.7689	150.5033	148.9995	6.5703e-01	4.3623e+00
157	IHT000030	150.7662	153.6959	152.0083	6.5168e-01	4.3727e+00
158	IHT000031	148.8770	151.6113	150.0371	6.0285e-01	4.3659e+00
159	IHT000032	150.6836	153.2227	151.8477	6.1632e-01	4.3722e+00
160	IHT000033	150.6836	153.2226	151.7890	6.2217e-01	4.3720e+00
161	IHT000034	132.5796	134.3374	133.4898	4.5440e-01	4.3118e+00
162	IHT000035	174.2863	176.2395	175.2706	4.9906e-01	4.4589e+00
163	IHT000036	131.0622	132.8200	131.8239	4.5890e-01	4.3067e+00

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Velocity 1 = 3.8686 (ft/sec) (+/- 11.4097 %)
 Velocity 2 = 3.8702 (ft/sec) (+/- 4.3904 %)
 Pressure drop = -4.8118 (psi)
 Tsat in = 268.0352 (deg F) Tsat out = 275.7689 (deg F)
 Phi inner = -0.0009 (kBtu/hr-ft2) (+/- 711.4663 %)
 Phi outer = 200.1279 (kBtu/hr-ft2) (+/- 1.3395 %)
 D inner = 0.1961 (ft) D outer = 0.2413 (ft) D hyd = 0.0390 (ft)
 L inner = 12.8610 (ft) L outer = 12.8070 (ft) A flow = 0.0150 (ft2)

#	Name	Min	Max	Ave	SD	Uncert
0	TRF0000001	85.1635	85.7979	85.5484	1.7969e-01	1.9302e+00
1	TRF0000002	85.3732	86.0041	85.8401	1.4895e-01	1.9002e+00
2	TRF0000001	87.5022	88.6556	88.1146	2.0694e-01	1.9002e+00
3	TIN0000001	87.2693	87.9005	87.5887	1.5614e-01	1.9002e+00
4	TRV0000001	87.6726	88.9285	88.4307	2.5084e-01	1.9002e+00
5	TSR0000001	125.2894	128.3293	126.6438	7.6972e-01	1.9022e+00
6	TAO020136	54.1080	59.2880	57.0669	1.2845e+00	1.9001e+00
7	TAO050136	245.4548	247.4109	246.3713	4.4994e-01	1.9208e+00
8	TAO070136	246.5498	251.1551	248.5509	9.8936e-01	1.9214e+00
9	TAO080136	278.0587	279.2487	278.6885	2.4851e-01	1.9291e+00
10	TAO090136	282.7306	283.0129	283.2766	2.6872e-01	1.9304e+00
11	TAO100136	275.2991	278.4228	276.7542	7.0399e-01	1.9286e+00
12	TAO105136	280.6431	282.7579	281.6693	4.9260e-01	1.9299e+00
13	TAO110136	284.7444	286.2852	285.4349	3.8617e-01	1.9310e+00
14	TAO115136	283.7885	286.9053	284.9695	5.8822e-01	1.9309e+00
15	TAO120136	291.0238	292.3939	291.7988	3.6716e-01	1.9329e+00
16	TAO125136	215.7203	219.0559	217.4979	6.9184e-01	1.9146e+00
17	TAO130136	287.1362	289.1262	288.0992	4.0772e-01	1.9318e+00
18	TAO120048	103.4395	104.5800	104.0491	3.0384e-01	1.9008e+00
19	TAO130048	287.0883	289.0012	288.2286	4.2430e-01	1.9318e+00
20	TAO120224	290.2072	292.4886	291.4633	4.7888e-01	1.9328e+00
21	TAO130224	278.3016	280.3943	279.2257	6.1409e-01	1.9293e+00
22	TAO120312	289.7648	291.6858	290.9215	4.2001e-01	1.9326e+00
23	TAO130312	289.4659	291.1984	290.3233	3.5382e-01	1.9324e+00
24	TRT020000	260.1037	262.8045	261.5685	5.3284e-01	1.9246e+00
25	TRT070000	276.7885	277.9926	277.4553	2.5444e-01	1.9288e+00
26	TRT100000	288.9304	290.2992	289.7042	2.8385e-01	1.9322e+00
27	TRT120000	288.4709	290.4794	289.3405	4.2268e-01	1.9321e+00
28	TRT125000	255.7732	456.4185	425.8859	5.9384e+01	1.9835e+00
29	TRT130000	289.0938	290.7349	290.0742	3.5688e-01	1.9324e+00
30	EMPTY	39.3761	40.2940	39.8168	2.1166e-01	1.9011e+00
31	TAP050136	161.6917	165.8347	163.5626	1.0938e+00	1.9059e+00
32	TAP070136	178.2565	183.5100	180.7685	1.0934e+00	1.9082e+00
33	TAP080136	266.0084	267.5722	266.7262	3.8992e-01	1.9259e+00
34	TAP090136	88.8930	89.9419	89.3755	2.4231e-01	1.9003e+00
35	TAP100136	208.3770	212.7956	210.6720	1.0290e+00	1.9133e+00
36	TAP105136	213.7823	219.2695	216.5395	1.1407e+00	1.9144e+00
37	TAP110136	220.6099	225.5332	222.9019	1.1762e+00	1.9157e+00
38	TAP115136	225.5745	232.5656	229.0728	1.4237e+00	1.9170e+00
39	TAP120136	268.1068	272.3360	269.6049	7.1673e-01	1.9267e+00
40	TAP125136	237.6720	245.4086	241.2856	1.5647e+00	1.9197e+00
41	TAP130136	241.7473	246.9892	244.6165	1.0999e+00	1.9204e+00
42	TAP120048	234.3027	239.9919	236.7853	1.3163e+00	1.9186e+00
43	TAP130048	244.9312	249.2336	247.2549	9.1666e-01	1.9211e+00
44	TAP120224	226.1151	232.1695	229.1289	1.7464e+00	1.9170e+00
45	TAP130224	231.6033	237.1079	234.3760	1.4292e+00	1.9181e+00

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#	Name	Min	Max	Ave	SD	Uncert
46	EMPTY	37.7675	38.4572	38.1216	2.1392e-01	1.9010e+00
47	EMPTY	39.6057	40.2940	39.9545	1.6219e-01	1.9011e+00
48	TAI130048	231.6877	236.4084	234.2228	1.1713e+00	1.9181e+00
49	TAI130136	232.0336	234.2005	233.0062	4.8130e-01	1.9178e+00
50	TAI130224	225.2330	227.7060	226.2758	5.0102e-01	1.9164e+00
51	TAI130312	221.4686	223.9444	222.6384	4.6724e-01	1.9156e+00
52	TRR130000	188.4050	190.4416	189.3754	4.6511e-01	1.9096e+00
53	TSI0000001	70.9999	71.7447	71.3411	1.7472e-01	1.9000e+00
54	TSI0000002	94.9726	96.0156	95.3650	2.5487e-01	1.9004e+00
55	TSO0000001	70.1691	71.0248	70.6795	1.9273e-01	1.9000e+00
56	TSO0000002	86.0209	86.8630	86.4130	2.1687e-01	1.9002e+00
57	TAP020136	116.1535	121.1048	117.9746	9.7108e-01	1.9015e+00
58	TAP120312	232.9391	238.3167	235.7600	1.3296e+00	1.9184e+00
59	TAP130312	259.4522	262.7899	261.0927	8.4167e-01	1.9244e+00
60	EMPTY	4.5020	4.5361	4.5188	7.7147e-03	0.0000e+00
61	EMPTY	4.4873	4.5068	4.4981	3.9815e-03	0.0000e+00
62	EMPTY	4.4727	4.4824	4.4774	3.1950e-03	0.0000e+00
63	EMPTY	4.4629	4.4727	4.4683	3.1583e-03	0.0000e+00
64	EMPTY	2.1094	2.1143	2.1097	1.1714e-03	0.0000e+00
65	EMPTY	2.1191	2.1240	2.1233	1.7115e-03	0.0000e+00
66	EMPTY	2.1240	2.1338	2.1289	9.8648e-04	0.0000e+00
67	EMPTY	2.1387	2.1436	2.1391	1.3381e-03	0.0000e+00
68	EMPTY	2.1387	2.1484	2.1437	1.3811e-03	0.0000e+00
69	EMPTY	2.1533	2.1533	2.1533	0.0000e+00	0.0000e+00
70	EMPTY	2.1533	2.1631	2.1589	1.9754e-03	0.0000e+00
71	EMPTY	2.1729	2.1875	2.1734	2.3428e-03	0.0000e+00
72	EMPTY	2.1777	2.1826	2.1786	1.8950e-03	0.0000e+00
73	EMPTY	2.1875	2.1924	2.1888	2.1635e-03	0.0000e+00
74	EMPTY	2.1924	2.1973	2.1965	1.8082e-03	0.0000e+00
75	EMPTY	2.2021	2.2070	2.2062	1.8082e-03	0.0000e+00
76	EMPTY	2.2070	2.2119	2.2117	9.6655e-04	0.0000e+00
77	EMPTY	2.2217	2.2266	2.2218	6.9053e-04	0.0000e+00
78	EMPTY	2.2363	2.2363	2.2363	0.0000e+00	0.0000e+00
79	EMPTY	2.2510	2.2510	2.2510	0.0000e+00	0.0000e+00
80	PAN020136	-15.9350	-12.5018	-14.6777	6.3445e-01	8.7077e-01
81	PAN050136	-27.0297	-21.8417	-24.8325	1.0921e+00	1.6811e+00
82	PAN070136	-25.4085	-20.4493	-22.7900	1.2639e+00	8.7186e-01
83	PAN080136	-14.0791	-11.6377	-13.5877	5.9481e-01	8.7066e-01
84	PAN090136	-13.2045	-13.0519	-13.1435	5.1121e-02	8.7062e-01
85	PAN100136	-12.1600	-12.0837	-12.1127	3.7408e-02	8.7053e-01
86	PAN105136	-6.7850	22.5882	5.6845	7.2177e+00	8.7012e-01
87	PAN110136	-7.4378	25.5975	5.4635	9.9963e+00	8.7011e-01
88	PAN115136	-7.6022	24.6702	4.3745	8.3577e+00	8.7007e-01
89	PAN120136	-6.1013	0.3074	-5.4924	1.3956e+00	8.7011e-01
90	PAN125136	-6.1116	14.5641	-4.1523	4.4846e+00	8.7006e-01
91	PAN130136	12.7566	35.1870	22.7404	5.1999e+00	8.7186e-01
92	PAN120048	-12.0279	17.8793	0.6475	6.6169e+00	8.7000e-01
93	PAN130048	-3.0223	24.2910	9.1039	6.8690e+00	8.7030e-01
94	PAN120224	-12.5501	31.6241	5.8535	1.2677e+01	8.7012e-01
95	PAN130224	-8.4846	2.3492	-2.6481	2.8357e+00	8.7003e-01
96	PAN120312	-12.4681	15.3792	-0.7356	8.1816e+00	8.7000e-01
97	PAN130312	-8.8558	22.4247	0.2613	6.5533e+00	8.7000e-01
98	PAB0000136	40.3433	40.6180	40.4495	6.3699e-02	5.8875e-01
99	PAB100136	45.0407	45.8647	45.4252	1.6388e-01	5.9101e-01
100	PAB125136	45.4808	46.6252	45.9899	2.5084e-01	5.9129e-01

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#	Name	Min	Max	Ave	SD	Uncert
101	PIN0000001	39.7696	40.8683	40.0992	1.6952e-01	7.5667e-01
102	PRV0000001	19.6068	19.6068	19.6068	5.7801e-06	7.5160e-01
103	PSR0000001	44.8777	44.9998	44.9094	5.4088e-02	7.5836e-01
104	PFM0000001	2.0722	2.3469	2.2150	7.2017e-02	5.0003e-01
105	PAN000136	-142.8480	-117.2132	-133.2166	4.5711e+00	4.9313e+00
106	PFM0000002	2.1656	2.2663	2.2169	1.9299e-02	2.0008e-01
107	EMPTY	-0.0049	0.0049	-0.0014	4.1899e-03	0.0000e+00
108	EMPTY	-7.6660	9.9951	-4.6451	4.2980e+00	0.0000e+00
109	EMPTY	-0.0049	0.0049	-0.0001	2.6998e-03	0.0000e+00
110	EMPTY	-10.0000	-10.0000	-10.0000	0.0000e+00	0.0000e+00
111	EMPTY	0.0000	0.0000	0.0000	0.0000e+00	0.0000e+00
112	VPW0000001	144.8505	146.0224	145.2881	2.7212e-01	1.1900e+00
113	VPW0000002	168.6862	169.4674	169.1158	1.5784e-01	1.2983e+00
114	VPW0000003	-0.1427	0.4432	0.1151	1.0763e-01	8.1000e-01
115	VPW0000004	148.7342	149.5155	149.1991	2.0462e-01	1.2073e+00
116	VPW0000005	197.7502	198.7267	198.1798	2.3675e-01	1.4388e+00
117	VPW0000006	-0.0864	0.3042	0.1675	1.1334e-01	8.1000e-01
118	IPW0000001	790.7367	796.5938	793.3527	1.7907e+00	1.0242e+01
119	IPW0000002	1790.7399	1800.4962	1795.5001	2.1288e+00	1.6334e+01
120	IPW0000003	-18.7125	-14.8125	-17.5425	1.1819e+00	8.1012e+00
121	IPW0000004	537.2971	541.2034	538.8887	1.0195e+00	4.7036e+00
122	IPW0000005	352.9075	354.8605	353.8839	5.5798e-01	3.4374e+00
123	IPW0000006	-0.3662	0.6104	-0.2099	2.5034e-01	2.0000e+00
124	EMPTY	-0.0244	-0.0146	-0.0196	3.4863e-03	0.0000e+00
125	EMPTY	-0.0195	-0.0098	-0.0151	2.8334e-03	0.0000e+00
126	EMPTY	-0.0244	-0.0098	-0.0161	3.5908e-03	0.0000e+00
127	EMPTY	-0.0244	-0.0098	-0.0160	3.9508e-03	0.0000e+00
128	IHT0000001	-1.5738	-0.4019	-0.8941	2.3424e-01	4.1000e+00
129	IHT0000002	-1.4048	-0.2329	-0.8071	2.6296e-01	4.1000e+00
130	IHT0000003	-1.4536	-0.2817	-0.8715	2.6614e-01	4.1000e+00
131	IHT0000004	-1.3747	-0.2028	-0.8044	2.5827e-01	4.1000e+00
132	IHT0000005	-1.3784	-0.2066	-0.8433	2.6707e-01	4.1000e+00
133	IHT0000006	-1.6226	-0.4507	-1.0914	2.7063e-01	4.1000e+00
134	IHT0000007	-1.4273	-0.2554	-0.7905	2.8402e-01	4.1000e+00
135	IHT0000008	-1.5249	-0.1578	-0.8257	2.7078e-01	4.1000e+00
136	IHT0000009	-1.5888	-0.0263	-0.8505	2.8805e-01	4.1000e+00
137	IHT0000010	-0.7287	0.6385	-0.1427	3.0565e-01	4.1000e+00
138	IHT0000011	-0.3042	1.0630	0.1762	3.3531e-01	4.1000e+00
139	IHT0000012	-0.7512	0.8113	-0.1106	3.2787e-01	4.1000e+00
140	IHT0000013	129.4358	131.7796	130.4554	4.7889e-01	4.3025e+00
141	IHT0000014	179.2969	181.6406	180.1875	5.0093e-01	4.4785e+00
142	IHT0000015	134.3262	136.4746	135.1816	4.5998e-01	4.3171e+00
143	IHT0000016	125.4507	127.5992	126.2046	4.6523e-01	4.2898e+00
144	IHT0000017	148.2798	150.4282	149.4009	4.8458e-01	4.3637e+00
145	IHT0000018	150.9991	153.7335	152.1553	5.0198e-01	4.3732e+00
146	IHT0000019	146.1351	148.4788	147.1976	4.7377e-01	4.3562e+00
147	IHT0000020	150.7249	152.8733	151.8539	4.6903e-01	4.3722e+00
148	IHT0000021	-1.8292	0.7099	-0.4737	5.8315e-01	4.1000e+00
149	IHT0000022	131.0584	133.0116	132.0585	4.6629e-01	4.3074e+00
150	IHT0000023	147.6262	149.9700	149.0714	4.6354e-01	4.3626e+00
151	IHT0000024	112.6089	114.9527	113.8472	4.8905e-01	4.2551e+00
152	IHT0000025	147.0778	149.2263	148.2340	4.9417e-01	4.3597e+00
153	IHT0000026	148.4638	150.6122	149.6396	4.5930e-01	4.3645e+00
154	IHT0000027	127.7006	129.6537	128.5170	4.6133e-01	4.2967e+00
155	IHT0000028	129.0490	132.1740	130.3849	6.1303e-01	4.3023e+00

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#	Name	Min	Max	Ave	SD	Uncert
156	IHT0000029	147.7689	150.5033	148.7338	5.7644e-01	4.3614e+00
157	IHT0000030	150.7662	153.5006	151.7466	6.2076e-01	4.3718e+00
158	IHT0000031	148.6816	151.6113	149.8262	5.9058e-01	4.3652e+00
159	IHT0000032	150.4883	153.4180	151.5742	5.9078e-01	4.3712e+00
160	IHT0000033	150.2930	153.4180	151.5117	6.0690e-01	4.3710e+00
161	IHT0000034	132.1890	134.9234	133.3179	5.4432e-01	4.3113e+00
162	IHT0000035	173.8957	176.6301	175.0441	5.1545e-01	4.4580e+00
163	IHT0000036	130.4763	133.2106	131.6598	4.9507e-01	4.3062e+00

DEFECTIVE INSTRUMENTS FOR THE RIBBED GEOMETRY TEST SERIES

Series	Tests	Defective Instruments
10	Aug01_21 to Aug01_27	TAO120048 TAF080136 TRT125000 TAO020136 TAF090136 TRR130000 TAO070136 TAF120136 TAO125136 IHT000021 IHT000024 IHT000033

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