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FIRE PERFORMANCE EVALUATION OF A LOAD BEARING WALL ASSEMBLY TESTED IN ACCORDANCE WITH ASTM E 119-11A, *STANDARD TEST METHODS FOR FIRE TESTS OF BUILDING CONSTRUCTION AND MATERIALS*

FINAL REPORT
Consisting of 109 Pages

SwRI® Project No. 01.16918.01.301a
Test Date: November 9, 2011
Report Date: January 10, 2012

Prepared for:

Thermomass
1000 Technology Drive
Boone, IA 50036

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1/10/12
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OBJECTIVE

The objective of the test described in this report was to evaluate the fire resistance of a wall assembly identified as *Thermomass MC/MS Connector System* in accordance with ASTM E 119.

TEST METHOD

The ASTM E 119 test method is intended to evaluate the duration for which a building element will contain a fire, or retain its structural integrity, or display both properties dependent upon the type of building element involved, during a predetermined fire exposure time. The test exposes a specimen to a standard fire controlled to achieve specified temperatures throughout a specified period. When required, the fire exposure is followed by the application of a specified standard fire hose stream applied in accordance with ASTM E 2226.

This standard is used to measure and describe the response of materials, products, or assemblies to heat and flame under controlled laboratory conditions, but does not by itself incorporate all factors required for fire hazard or fire risk assessment of the materials, products, or assemblies under actual fire conditions.

This report describes the test results obtained for a load bearing wall assembly. The performance of the assembly is expressed in terms of the transmission of heat and hot gases during the standard fire exposure and penetration of water to the unexposed side of the assembly during the hose stream test. The results presented in this report apply specifically to the materials tested, in the manner tested, and not to the entire production of these or similar materials, nor to the performance when used in combination with other materials.

TEST ASSEMBLIES

MATERIALS:	**Provided By:**	**Received On:**
• Test wall consisting of two concrete wythes (one 5 in. thick and one 2 in. thick) with sandwich 2-in. insulation layer with *Thermomass MC/MS Connector System.*	Client	November 2, 2011

SAMPLE DESCRIPTION:

The sample tested was a restrained, asymmetrical wall. The test wall was identified by the Client as *Panel #2* and measured 10 × 10 ft. The panel consisted of a 5-in. thick concrete wythe interior, a 2-in. thick insulation layer and a 2-in. thick concrete wythe exterior. The 5-in. thick wythe had 4 × 4-in. reinforcing and the 2-in. thick wythe had 6 × 6-in. reinforcing. The insulation layer consisted of 2-in. thick extruded polystyrene insulation (ASTM C578 Type IV). The *Thermomass MC/MS Connector System* was placed according to the layout shown in the Client-provided drawing in Appendix C. The test wall was poured on February 25, 2011, and was allowed to cure at Thermomass's Boone, IA, facility. The concrete had a 28 day design strength of 4,000 psi. The Client provided Twin City Testing Corporation's Report TCT006003P.2 which showed that the 28 day concrete compressive strength exceeded 4,000 psi when tested to *ASTM C39/39M-05*.

The wall arrived with four eyelets installed on the 5-in. side to aid in moving the wall. Once the wall was installed into the test frame, SwRI personnel protected the eyelets for future use by installing 6-lb ceramic fiber blanket around each piece using 12-ga wire and pin washers as shown in Figure B-1. Prior to testing, the plastic sensors that were installed by the Client in each side of the wall to monitor the temperature and humidity were removed and the hole stuffed with ceramic fiber blanket.

The wall was placed into the test frame for testing by SwRI personnel. The wall installed such that the applied load would only be applied to the 5-in. side and the 2-in side would be unsupported by the frame. The frame was then protected around the perimeter with 6-lb ceramic fiber blanket. Per the Client's request, the fiber blanket did not cover the edge of the foam during testing and the sides of the wall were not restrained. The test assembly, prior to testing, can be seen in Figures B-2–B-4. Four 2-in. steel "L"

clips were place on the unexposed side (two on the top and two on the bottom) to prevent the outer wall from rapidly falling to the floor in the event of a catastrophic failure.

The manufacture of the samples was performed under the surveillance of a third party inspector retained by SwRI for this assignment. Upon arrival of the samples, the inspector's signature was verified to be present on each sample. Copies of the surveillance report are on file at SwRI.

TEST RESULTS

Test Date:	November 9, 2011
Test Witnesses:	Mr. Venkatesh Seshappa – representing Thermomass Mr. Darryl Dixon – representing Thermomass Mr. Barry Badders (Professional Engineer, License No. 61907, registered in the State of Florida) – representing SwRI
Miami-Dade Country Florida Test Notification Number:	SwRI 11005
Ambient Temperature:	64 °F
Relative Humidity:	35%
Instrumentation:	The unexposed side of the sample was instrumented with nine thermocouples (TCs) designed in accordance with ASTM E 119. One approximately at the center of the wall, one at approximately the center of each quarter section, and one approximately placed intermediately between each quarter section. See Figure B-4.
Load:	40,000 lb (4,000 lb/ft) applied to the 5-in. thick side only.
Wall Conditions (Exposed*):	74 °F and 47% moisture
Wall Conditions (Unexposed*):	74 °F and 57% moisture
Observations:	At 48 min, steam began to escape from the midpoint of the left side. At 73 min, steam began to escape from the midpoint of the right side but quickly diminished. At 102 min, there was no longer visible steam escaping. At 135 min, it was apparent that the outer wall had shifted down and is was resting directly on the test frame as seen in Figure B-7. At 240 min, the wall was removed from the furnace and the hose stream test was conducted.
Hose Stream Test:	Pass (Water pressure of 45 psi for 7 min 12 sec)
Rating Obtained:	240 min
Results:	The acquired data is located in Appendix A in graphical form.
Deviations:	None

*Measured by Client using their equipment.

CONCLUSION

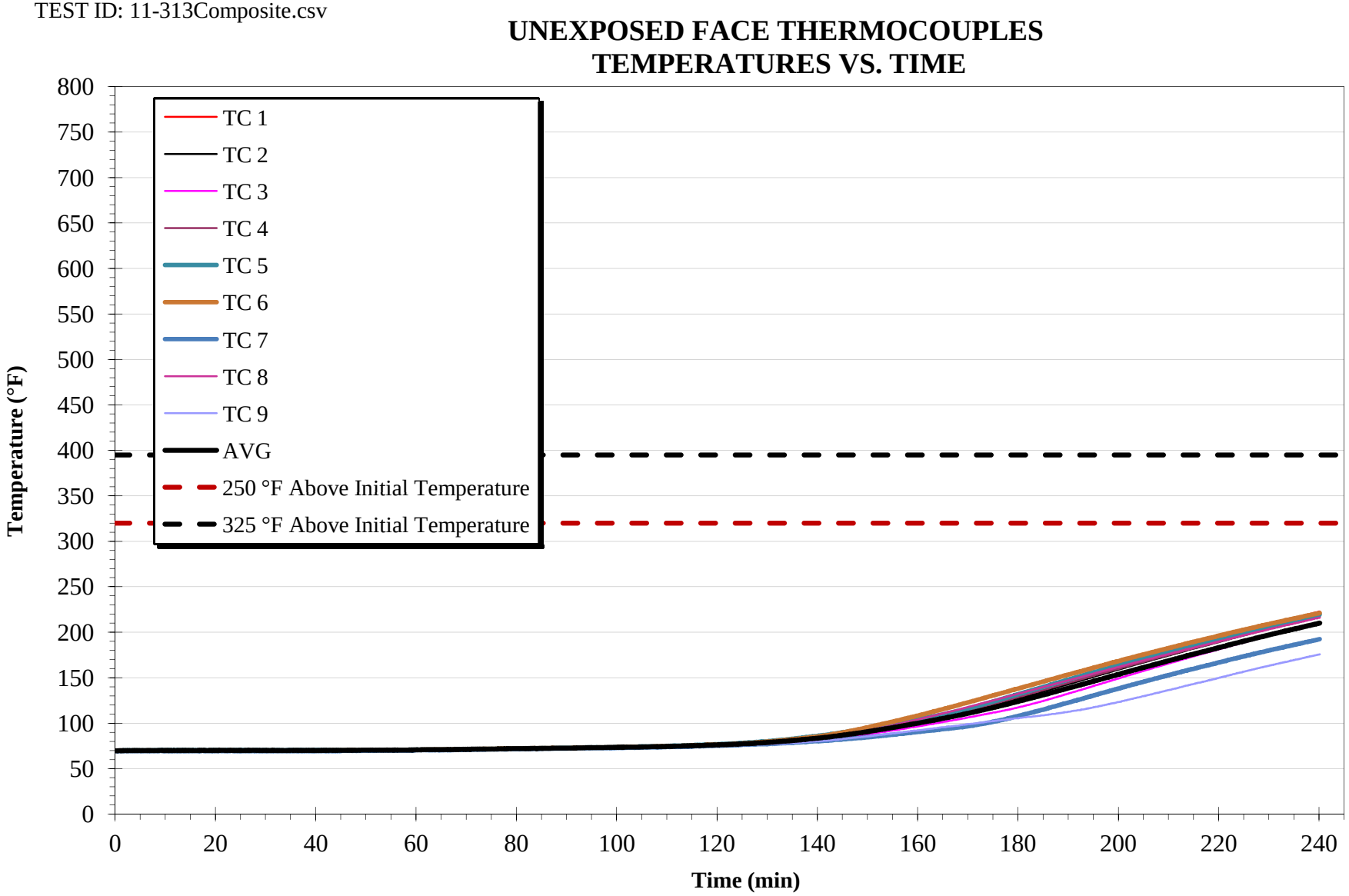
Based on the test results, the wall achieved a fire resistance rating of 240 min, tested in accordance with ASTM E 119.

APPENDIX A

GRAPHICAL DATA

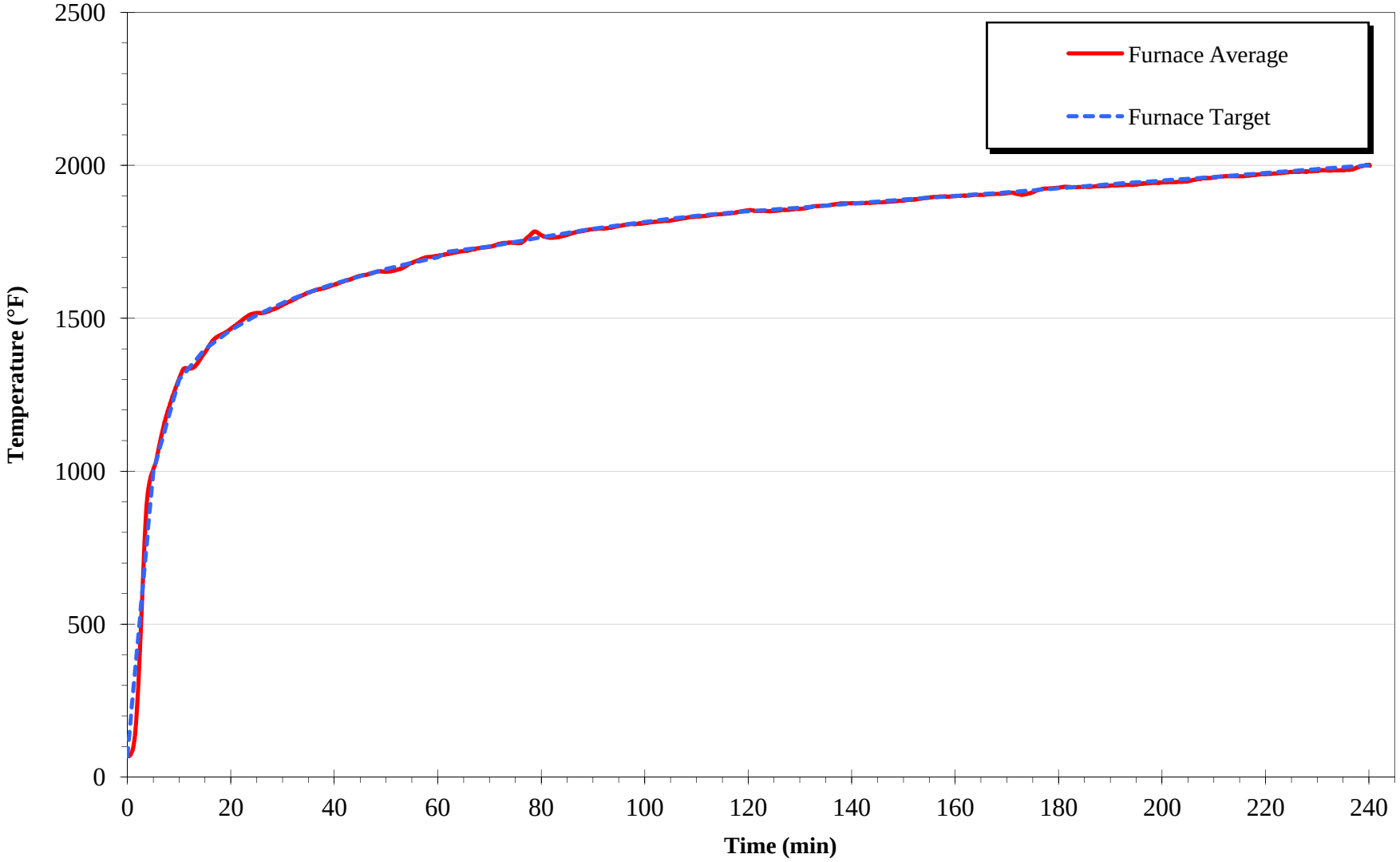
(CONSISTING OF 95 PAGES)

CLIENT: Thermomass.
SwRI PROJECT NO.: 01.16918.01.301a
TEST DATE: November 9, 2011
TEST ID: 11-313Composite.csv

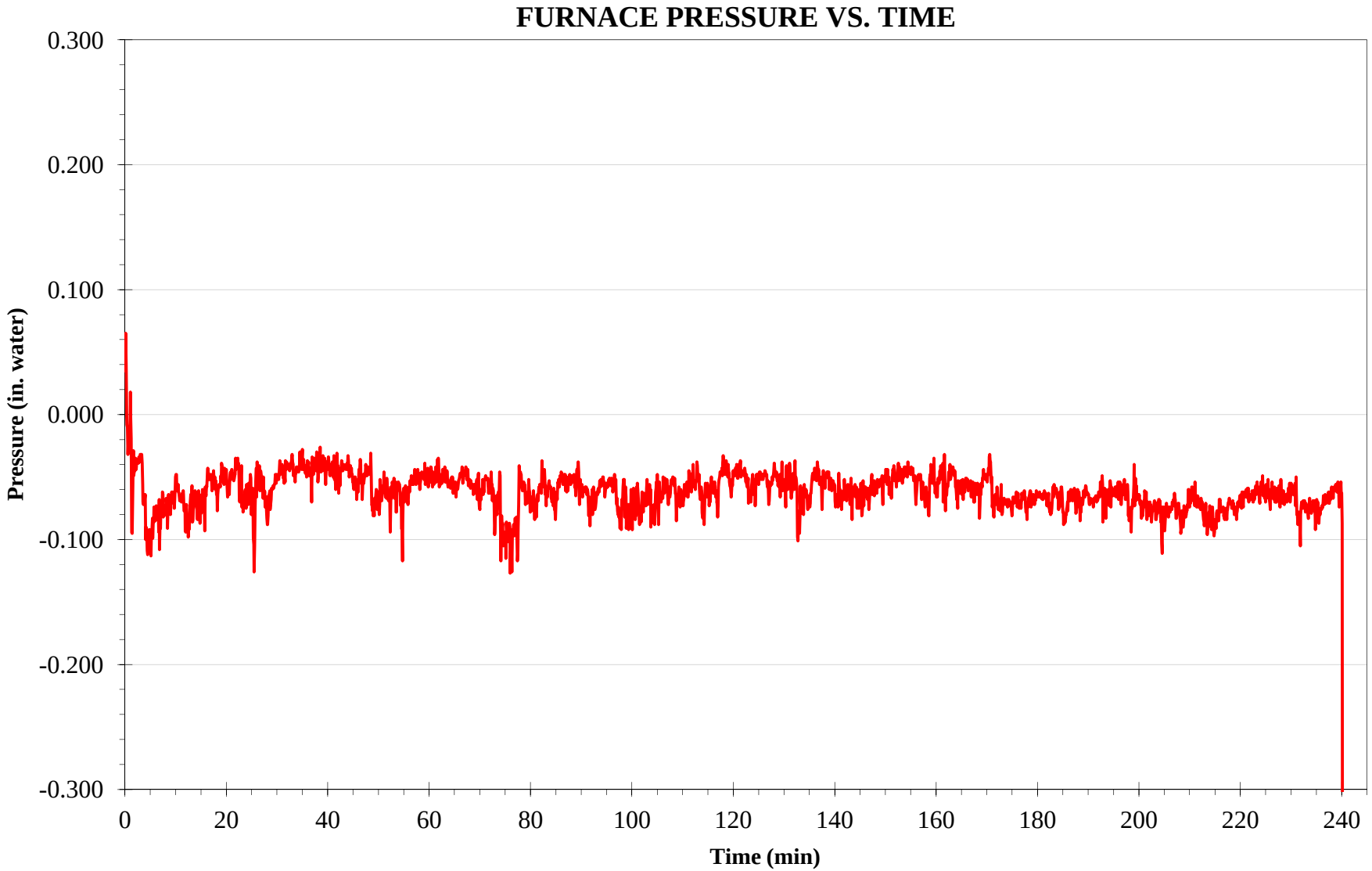


CLIENT: Thermomass.
SwRI PROJECT NO.: 01.16918.01.301a
TEST DATE: November 9, 2011
TEST ID: 11-313Composite.csv

FURNACE AVERAGE TEMPERATURE VS. TIME



CLIENT: Thermomass.
SwRI PROJECT NO.: 01.16918.01.301a
TEST DATE: November 9, 2011
TEST ID: 11-313Composite.csv



Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
0:00:00	0	70	70	70	70	70	70	69	69	69	70
0:00:05	0	70	70	70	70	70	70	69	69	69	70
0:00:10	0	70	70	70	70	70	70	69	69	69	70
0:00:15	0	70	70	70	70	70	70	69	69	69	70
0:00:20	0	70	70	70	70	70	70	69	69	69	70
0:00:25	0	70	70	70	70	70	70	69	69	69	70
0:00:30	1	70	70	70	70	70	70	69	69	69	70
0:00:35	1	70	70	70	69	70	69	69	69	69	70
0:00:40	1	70	70	70	70	70	70	69	69	69	70
0:00:45	1	70	70	70	70	70	70	69	69	69	70
0:00:50	1	70	70	70	70	70	70	69	69	69	70
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0:01:05	1	70	70	70	70	70	70	69	69	69	70
0:01:10	1	70	70	70	70	70	70	69	69	69	70
0:01:15	1	70	70	70	70	70	70	69	69	69	70
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0:01:40	2	70	70	70	70	70	70	69	69	69	70
0:01:45	2	70	70	70	70	70	70	69	69	69	70
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0:01:55	2	70	70	70	70	70	70	69	70	70	70
0:02:00	2	70	70	70	70	70	70	69	69	69	70
0:02:05	2	70	70	70	70	70	70	69	69	69	70
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0:02:15	2	71	70	70	70	70	70	69	70	70	70
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0:02:35	3	71	70	70	70	70	70	69	70	70	70
0:02:40	3	70	70	70	70	70	70	69	70	69	70
0:02:45	3	71	70	70	70	70	70	69	70	70	70
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0:03:35	4	71	70	70	70	70	70	69	70	70	70
0:03:40	4	71	70	70	70	70	70	69	70	70	70
0:03:45	4	71	70	70	70	70	70	69	70	70	70
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0:04:00	4	71	70	70	70	70	70	69	70	70	70
0:04:05	4	70	70	70	70	70	70	69	70	69	70
0:04:10	4	71	70	70	70	70	70	69	70	70	70
0:04:15	4	71	70	70	70	70	70	69	70	70	70
0:04:20	4	70	70	70	70	70	70	69	69	69	70
0:04:25	4	71	70	70	70	70	70	69	70	70	70
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0:05:25	5	71	70	70	70	70	70	69	70	70	70
0:05:30	6	70	70	70	70	70	70	69	69	69	70

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Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
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0:05:40	6	71	70	70	70	70	70	69	70	69	70
0:05:45	6	71	70	70	70	70	70	69	70	70	70
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0:06:20	6	71	71	70	70	70	70	69	70	70	70
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0:06:35	7	71	71	70	70	70	70	69	70	70	70
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0:07:15	7	71	70	70	70	70	70	69	70	70	70
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0:07:25	7	71	71	70	70	70	70	69	70	70	70
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0:10:15	10	71	71	70	70	70	70	70	70	70	70
0:10:20	10	71	71	70	70	70	70	70	70	70	70
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0:10:35	11	71	71	70	70	70	70	70	70	70	70
0:10:40	11	71	70	70	70	70	70	69	70	70	70
0:10:45	11	71	71	70	70	70	70	70	70	70	70
0:10:50	11	71	71	70	70	70	70	69	70	70	70
0:10:55	11	70	70	70	70	70	70	69	69	69	70
0:11:00	11	70	70	70	70	70	70	69	69	69	70
0:11:05	11	71	71	70	70	70	70	70	70	70	70

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
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0:11:15	11	71	70	70	70	70	70	69	69	69	70
0:11:20	11	71	71	70	70	70	70	69	70	70	70
0:11:25	11	71	71	70	70	70	70	70	70	70	70
0:11:30	12	71	71	70	70	70	70	69	70	70	70
0:11:35	12	71	71	70	70	70	70	69	70	70	70
0:11:40	12	70	70	70	70	70	70	69	69	69	70
0:11:45	12	71	71	70	70	70	70	69	70	70	70
0:11:50	12	71	70	70	70	70	70	69	69	69	70
0:11:55	12	71	71	70	70	70	70	69	70	70	70
0:12:00	12	71	71	70	70	70	70	69	70	70	70
0:12:05	12	71	71	70	70	70	70	69	70	70	70
0:12:10	12	71	71	70	70	70	70	69	70	70	70
0:12:15	12	71	70	70	70	70	70	69	70	70	70
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0:13:25	13	71	71	70	70	70	70	70	70	70	70
0:13:30	14	71	70	70	70	70	70	69	70	70	70
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0:13:55	14	71	71	70	70	70	70	70	70	70	70
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0:15:50	16	71	70	70	70	70	70	69	70	70	70
0:15:55	16	71	70	70	70	70	70	69	70	70	70
0:16:00	16	71	70	70	70	70	70	69	70	70	70
0:16:05	16	70	70	70	70	70	70	69	70	70	70
0:16:10	16	71	70	70	70	70	70	69	70	70	70
0:16:15	16	71	70	70	70	70	70	69	70	70	70
0:16:20	16	70	70	70	70	70	70	69	70	69	70
0:16:25	16	70	70	70	70	70	70	69	69	69	70
0:16:30	17	70	70	70	70	70	70	69	69	69	70
0:16:35	17	71	71	70	70	70	70	70	70	70	70
0:16:40	17	71	70	70	70	70	70	69	70	70	70

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
0:16:45	17	71	70	70	70	70	70	69	70	70	70
0:16:50	17	70	70	70	70	70	70	69	69	69	70
0:16:55	17	71	71	70	70	70	70	70	70	70	70
0:17:00	17	70	70	70	70	70	70	69	69	69	70
0:17:05	17	71	70	70	70	70	70	69	70	70	70
0:17:10	17	71	71	70	70	70	70	70	70	70	70
0:17:15	17	71	71	70	70	70	70	70	70	70	70
0:17:20	17	71	71	70	70	70	70	70	70	70	70
0:17:25	17	71	71	70	70	70	70	70	70	70	70
0:17:30	18	71	71	70	70	70	70	70	70	70	70
0:17:35	18	71	71	70	70	70	70	70	70	70	70
0:17:40	18	71	70	70	70	70	70	69	69	70	70
0:17:45	18	71	71	70	70	70	70	70	70	70	70
0:17:50	18	71	71	70	70	70	70	69	70	70	70
0:17:55	18	71	71	70	70	70	70	70	70	70	70
0:18:00	18	71	71	70	70	70	70	70	70	70	70
0:18:05	18	71	70	70	70	70	70	69	70	70	70
0:18:10	18	71	70	70	70	70	70	69	70	70	70
0:18:15	18	71	70	70	70	70	70	69	70	69	70
0:18:20	18	71	70	70	70	70	70	69	70	70	70
0:18:25	18	71	70	70	70	70	70	69	70	70	70
0:18:30	19	71	70	70	70	70	70	69	70	70	70
0:18:35	19	71	70	70	70	70	70	69	69	70	70
0:18:40	19	71	71	70	70	70	70	69	70	70	70
0:18:45	19	71	70	70	70	70	70	69	70	69	70
0:18:50	19	71	70	70	70	70	70	69	70	70	70
0:18:55	19	71	71	71	70	70	70	70	70	70	70
0:19:00	19	71	71	70	70	70	70	70	70	70	70
0:19:05	19	71	71	70	70	70	70	70	70	70	70
0:19:10	19	71	70	70	70	70	70	69	70	70	70
0:19:15	19	71	70	70	70	70	70	69	70	69	70
0:19:20	19	71	71	70	70	70	70	70	70	70	70
0:19:25	19	71	70	70	70	70	70	69	69	70	70
0:19:30	20	71	71	70	70	70	70	69	70	70	70
0:19:35	20	71	71	70	70	70	70	69	70	70	70
0:19:40	20	71	71	71	70	70	70	70	70	70	70
0:19:45	20	71	71	70	70	70	70	70	70	70	70
0:19:50	20	71	71	70	70	70	70	69	70	70	70
0:19:55	20	71	71	70	70	70	70	69	70	70	70
0:20:00	20	71	71	70	70	70	70	69	70	70	70
0:20:05	20	71	70	70	70	70	70	69	70	70	70
0:20:10	20	71	71	70	70	70	70	69	70	70	70
0:20:15	20	71	70	70	70	70	70	69	70	70	70
0:20:20	20	71	71	70	70	70	70	69	70	70	70
0:20:25	20	71	70	70	70	70	70	69	70	69	70
0:20:30	21	70	70	70	70	70	70	69	70	70	70
0:20:35	21	71	70	70	70	70	70	69	69	69	70
0:20:40	21	71	71	71	70	70	70	70	70	70	70
0:20:45	21	70	70	70	70	70	70	69	70	69	70
0:20:50	21	71	71	71	70	70	70	70	70	70	70
0:20:55	21	71	71	71	70	70	70	70	70	70	70
0:21:00	21	71	71	71	70	70	70	70	70	70	70
0:21:05	21	71	71	71	70	70	70	70	70	70	70
0:21:10	21	71	71	70	70	70	70	69	70	70	70
0:21:15	21	71	71	70	70	70	70	70	70	70	70
0:21:20	21	71	71	70	70	70	70	69	70	70	70
0:21:25	21	71	71	70	70	70	70	69	70	70	70
0:21:30	22	71	71	71	70	70	70	69	70	70	70
0:21:35	22	71	71	70	70	70	70	69	70	70	70
0:21:40	22	71	71	71	70	70	70	70	70	70	70
0:21:45	22	71	71	71	70	70	70	70	70	70	70
0:21:50	22	71	71	71	70	70	70	70	70	70	70
0:21:55	22	71	71	71	70	70	70	70	70	70	70
0:22:00	22	71	71	70	70	70	70	69	70	70	70
0:22:05	22	71	71	70	70	70	70	69	70	70	70

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
0:22:10	22	70	70	70	70	70	70	69	69	69	70
0:22:15	22	71	71	70	70	70	70	69	70	70	70
0:22:20	22	71	71	71	70	70	70	69	70	70	70
0:22:25	22	71	71	71	70	70	70	70	70	70	70
0:22:30	23	71	71	71	70	70	70	69	70	70	70
0:22:35	23	71	71	70	70	70	70	69	70	70	70
0:22:40	23	71	71	71	70	70	70	70	70	70	70
0:22:45	23	71	71	71	70	70	70	70	70	70	70
0:22:50	23	71	71	70	70	70	70	69	70	70	70
0:22:55	23	71	71	71	70	70	70	70	70	70	70
0:23:00	23	71	71	70	70	70	70	69	70	70	70
0:23:05	23	71	71	71	70	70	70	70	70	70	70
0:23:10	23	71	71	71	70	70	70	70	70	70	70
0:23:15	23	71	71	71	70	70	70	70	70	70	70
0:23:20	23	71	71	71	70	70	70	70	70	70	70
0:23:25	23	71	71	71	70	70	70	70	70	70	70
0:23:30	24	71	71	70	70	70	70	69	70	70	70
0:23:35	24	71	71	70	70	70	70	69	70	70	70
0:23:40	24	71	71	71	70	70	70	69	70	70	70
0:23:45	24	71	71	71	70	70	70	70	70	70	70
0:23:50	24	71	71	71	70	70	70	70	70	70	70
0:23:55	24	71	71	70	70	70	70	69	70	70	70
0:24:00	24	71	71	70	70	70	70	69	70	70	70
0:24:05	24	71	71	71	70	70	70	70	70	70	70
0:24:10	24	71	71	70	70	70	70	69	70	70	70
0:24:15	24	71	71	70	70	70	70	69	70	70	70
0:24:20	24	71	71	70	70	70	70	69	70	70	70
0:24:25	24	71	71	71	70	70	70	70	70	70	70
0:24:30	25	71	71	70	70	70	70	69	70	70	70
0:24:35	25	71	71	71	70	70	70	69	70	70	70
0:24:40	25	71	71	70	70	70	70	69	70	70	70
0:24:45	25	71	71	70	70	70	70	69	70	70	70
0:24:50	25	71	71	71	70	70	70	70	70	70	70
0:24:55	25	71	71	70	70	70	70	69	70	70	70
0:25:00	25	71	71	70	70	70	70	69	70	70	70
0:25:05	25	71	71	71	70	70	70	70	70	70	70
0:25:10	25	71	71	71	70	70	70	69	70	70	70
0:25:15	25	71	71	70	70	70	70	69	70	70	70
0:25:20	25	71	71	70	70	70	70	69	70	70	70
0:25:25	25	71	71	70	70	70	70	69	70	70	70
0:25:30	26	71	71	70	70	70	70	69	70	70	70
0:25:35	26	71	71	70	70	70	70	69	70	70	70
0:25:40	26	71	71	70	70	70	70	69	70	70	70
0:25:45	26	71	71	70	70	70	70	69	70	70	70
0:25:50	26	71	71	71	70	70	70	69	70	70	70
0:25:55	26	71	71	70	70	70	70	69	70	70	70
0:26:00	26	71	71	70	70	70	70	69	70	70	70
0:26:05	26	71	71	70	70	70	70	69	70	70	70
0:26:10	26	71	71	71	70	70	70	69	70	70	70
0:26:15	26	71	71	70	70	70	70	69	70	70	70
0:26:20	26	71	71	70	70	70	70	69	70	70	70
0:26:25	26	71	71	70	70	70	70	69	70	70	70
0:26:30	27	71	71	71	70	70	70	69	70	70	70
0:26:35	27	71	71	70	70	70	70	69	69	70	70
0:26:40	27	71	71	71	70	70	70	70	70	70	70
0:26:45	27	71	71	70	70	70	70	69	70	70	70
0:26:50	27	71	71	70	70	70	70	69	70	70	70
0:26:55	27	71	71	70	70	70	70	69	70	70	70
0:27:00	27	71	71	70	70	70	70	69	69	70	70
0:27:05	27	71	71	71	70	70	70	69	70	70	70
0:27:10	27	71	71	71	70	70	70	70	70	70	70
0:27:15	27	71	71	71	70	70	70	70	70	70	70
0:27:20	27	71	71	71	70	70	70	69	70	70	70

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
0:27:25	27	71	71	71	70	70	70	69	70	70	70
0:27:30	28	71	71	70	70	70	70	69	70	70	70
0:27:35	28	71	71	70	70	70	70	69	70	70	70
0:27:40	28	71	71	71	70	70	70	69	70	70	70
0:27:45	28	71	71	70	70	70	70	69	70	70	70
0:27:50	28	71	71	71	70	70	70	70	70	70	70
0:27:55	28	71	71	71	70	70	70	69	70	70	70
0:28:00	28	71	71	71	70	70	70	69	70	70	70
0:28:05	28	71	71	71	70	70	70	70	70	70	70
0:28:10	28	71	71	71	70	70	70	70	70	70	70
0:28:15	28	71	71	70	70	70	70	69	70	70	70
0:28:20	28	71	71	70	70	70	70	69	70	70	70
0:28:25	28	71	71	70	70	70	70	69	70	70	70
0:28:30	29	71	71	70	70	70	70	69	70	70	70
0:28:35	29	71	71	71	70	70	70	70	70	70	70
0:28:40	29	71	71	71	70	70	70	70	70	70	70
0:28:45	29	71	71	70	70	70	70	69	70	70	70
0:28:50	29	71	71	70	70	70	70	69	70	70	70
0:28:55	29	71	71	71	70	70	70	70	70	70	70
0:29:00	29	71	71	70	70	70	70	69	70	70	70
0:29:05	29	71	71	70	70	70	70	69	70	70	70
0:29:10	29	71	71	70	70	70	70	69	70	70	70
0:29:15	29	71	71	70	70	70	70	69	70	70	70
0:29:20	29	71	71	71	70	70	70	70	70	70	70
0:29:25	29	71	71	70	70	70	70	69	70	70	70
0:29:30	30	71	71	70	70	70	70	69	70	70	70
0:29:35	30	71	71	70	70	70	70	69	69	70	70
0:29:40	30	71	71	70	70	70	70	70	70	70	70
0:29:45	30	71	71	71	70	70	70	70	70	70	70
0:29:50	30	71	71	71	70	70	70	70	70	70	70
0:29:55	30	71	71	70	70	70	70	69	70	70	70
0:30:00	30	71	71	71	70	70	70	69	70	70	70
0:30:05	30	71	71	70	70	70	70	70	70	70	70
0:30:10	30	71	71	70	70	70	70	69	70	69	70
0:30:15	30	71	71	70	70	70	70	69	69	70	70
0:30:20	30	71	71	71	70	70	70	70	70	70	70
0:30:25	30	71	71	70	70	70	70	69	69	70	70
0:30:30	31	71	71	70	70	70	70	69	70	70	70
0:30:35	31	71	71	70	70	70	70	69	70	70	70
0:30:40	31	71	71	70	70	70	70	69	70	70	70
0:30:45	31	71	71	70	70	70	70	69	69	70	70
0:30:50	31	71	71	70	70	70	70	69	69	70	70
0:30:55	31	71	71	70	70	70	70	69	70	70	70
0:31:00	31	71	71	70	70	70	70	69	70	70	70
0:31:05	31	71	71	70	70	70	70	69	70	70	70
0:31:10	31	71	71	70	70	70	70	69	70	70	70
0:31:15	31	71	71	70	70	70	70	69	69	70	70
0:31:20	31	71	71	71	70	70	70	69	70	70	70
0:31:25	31	71	71	70	70	70	70	69	69	70	70
0:31:30	32	71	71	71	70	70	70	70	70	70	70
0:31:35	32	71	71	70	70	70	70	69	69	70	70
0:31:40	32	71	71	70	70	70	70	69	70	70	70
0:31:45	32	71	71	70	70	70	70	69	70	70	70
0:31:50	32	71	71	71	70	70	70	69	70	70	70
0:31:55	32	71	71	70	70	70	70	69	69	70	70
0:32:00	32	71	71	70	70	70	70	69	69	69	70
0:32:05	32	71	71	70	70	70	70	69	69	70	70
0:32:10	32	71	71	70	70	70	70	69	70	69	70
0:32:15	32	71	71	70	70	70	70	69	70	70	70
0:32:20	32	71	71	70	70	70	70	69	70	70	70
0:32:25	32	71	71	70	70	70	70	69	70	70	70
0:32:30	33	71	71	70	70	70	70	69	70	69	70
0:32:35	33	71	71	70	70	70	70	69	69	70	70

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
0:32:40	33	71	71	70	70	70	70	69	70	70	70
0:32:45	33	71	71	71	70	70	70	69	70	70	70
0:32:50	33	71	71	70	70	70	70	69	69	70	70
0:32:55	33	71	71	70	70	70	70	69	69	70	70
0:33:00	33	71	71	70	70	70	70	69	69	69	70
0:33:05	33	71	71	70	70	70	70	69	69	69	70
0:33:10	33	71	71	70	70	70	70	69	70	70	70
0:33:15	33	71	71	70	70	70	70	69	69	70	70
0:33:20	33	71	71	70	70	70	70	69	70	70	70
0:33:25	33	71	71	70	70	70	70	69	69	70	70
0:33:30	34	71	71	71	70	70	70	69	70	70	70
0:33:35	34	71	71	70	70	70	70	69	69	69	70
0:33:40	34	71	71	70	70	70	70	69	69	69	70
0:33:45	34	71	71	70	70	70	70	69	69	69	70
0:33:50	34	71	71	70	70	70	70	69	69	69	70
0:33:55	34	71	71	70	70	70	70	69	69	69	70
0:34:00	34	71	71	70	70	70	70	69	69	69	70
0:34:05	34	71	71	70	70	70	70	69	69	69	70
0:34:10	34	71	71	70	70	70	70	69	70	70	70
0:34:15	34	71	71	70	70	70	70	69	69	69	70
0:34:20	34	71	71	70	70	70	70	69	69	69	70
0:34:25	34	71	71	70	70	70	70	69	69	69	70
0:34:30	35	71	71	70	70	70	70	69	70	70	70
0:34:35	35	71	71	70	70	70	70	69	69	69	70
0:34:40	35	71	71	70	70	70	70	69	70	70	70
0:34:45	35	71	71	70	70	70	70	69	69	69	70
0:34:50	35	71	71	70	70	70	70	69	70	70	70
0:34:55	35	71	71	70	70	70	70	69	70	70	70
0:35:00	35	71	71	71	70	70	70	70	70	70	70
0:35:05	35	71	71	71	70	70	70	69	70	70	70
0:35:10	35	71	71	70	70	70	70	69	70	70	70
0:35:15	35	71	71	70	70	70	70	69	70	70	70
0:35:20	35	71	71	71	70	70	70	69	70	70	70
0:35:25	35	71	71	71	70	70	70	69	70	70	70
0:35:30	36	71	71	70	70	70	70	69	69	69	70
0:35:35	36	71	71	70	70	70	70	69	70	70	70
0:35:40	36	71	71	70	70	70	70	69	70	70	70
0:35:45	36	71	71	70	70	70	70	69	70	70	70
0:35:50	36	71	71	70	70	70	70	69	70	70	70
0:35:55	36	71	71	70	70	70	70	69	69	69	70
0:36:00	36	71	71	70	70	70	70	69	70	70	70
0:36:05	36	71	71	70	70	70	70	69	70	70	70
0:36:10	36	71	71	70	70	70	70	69	70	70	70
0:36:15	36	71	71	70	70	70	70	69	70	70	70
0:36:20	36	71	71	71	70	70	70	70	70	70	70
0:36:25	36	71	71	70	70	70	70	69	70	70	70
0:36:30	37	71	71	70	70	70	70	69	70	70	70
0:36:35	37	71	71	71	70	70	70	70	70	70	70
0:36:40	37	71	71	70	70	70	70	69	70	70	70
0:36:45	37	71	71	70	70	70	70	69	70	70	70
0:36:50	37	71	71	70	70	70	70	69	70	70	70
0:36:55	37	71	71	70	70	70	70	69	70	70	70
0:37:00	37	71	71	70	70	70	70	69	70	70	70
0:37:05	37	71	71	70	70	70	70	69	70	70	70
0:37:10	37	71	71	71	70	70	70	69	70	70	70
0:37:15	37	71	71	71	70	70	70	70	70	70	70
0:37:20	37	71	71	70	70	70	70	69	70	70	70
0:37:25	37	71	71	70	70	70	70	69	70	70	70
0:37:30	38	71	71	70	70	70	70	69	70	70	70
0:37:35	38	71	71	70	70	70	70	69	70	70	70
0:37:40	38	71	71	71	70	70	70	70	70	70	70
0:37:45	38	71	71	70	70	70	70	69	70	70	70
0:37:50	38	71	71	70	70	70	70	69	70	70	70

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
0:37:55	38	71	71	70	70	70	70	69	70	70	70
0:38:00	38	71	71	71	70	70	70	69	70	70	70
0:38:05	38	71	71	70	70	70	70	69	70	70	70
0:38:10	38	71	71	70	70	70	70	69	70	70	70
0:38:15	38	71	71	71	70	70	70	70	70	70	70
0:38:20	38	71	71	71	70	70	70	70	70	70	70
0:38:25	38	71	71	71	70	70	70	70	70	70	70
0:38:30	39	71	71	71	70	70	70	69	70	70	70
0:38:35	39	71	71	70	70	70	70	69	70	70	70
0:38:40	39	71	71	71	70	70	70	70	70	70	70
0:38:45	39	71	71	70	70	70	70	69	70	70	70
0:38:50	39	71	71	70	70	70	70	69	70	70	70
0:38:55	39	71	71	70	70	70	70	69	70	70	70
0:39:00	39	71	71	70	70	70	70	69	70	70	70
0:39:05	39	71	71	71	70	70	70	70	70	70	70
0:39:10	39	71	71	71	70	70	70	70	70	70	70
0:39:15	39	71	71	70	70	70	70	69	70	70	70
0:39:20	39	71	71	70	70	70	70	69	70	70	70
0:39:25	39	71	71	71	70	70	70	70	70	70	70
0:39:30	40	71	71	70	70	70	70	69	70	70	70
0:39:35	40	71	71	70	70	70	70	69	70	70	70
0:39:40	40	71	71	71	70	70	70	70	70	70	70
0:39:45	40	71	71	70	70	70	70	69	70	70	70
0:39:50	40	71	71	70	70	70	70	69	70	70	70
0:39:55	40	71	71	70	70	70	70	69	70	70	70
0:40:00	40	71	71	70	70	70	70	69	69	70	70
0:40:05	40	71	71	70	70	70	70	69	70	70	70
0:40:10	40	71	71	70	70	70	70	69	70	70	70
0:40:15	40	71	71	70	70	70	70	69	70	70	70
0:40:20	40	71	71	71	70	70	70	69	70	70	70
0:40:25	40	71	71	70	70	70	70	69	70	70	70
0:40:30	41	71	71	70	70	70	70	69	70	70	70
0:40:35	41	71	71	70	70	70	70	69	70	70	70
0:40:40	41	71	71	70	70	70	70	69	70	70	70
0:40:45	41	71	71	70	70	70	70	69	70	70	70
0:40:50	41	71	71	71	70	70	70	69	70	70	70
0:40:55	41	71	71	71	70	70	70	69	70	70	70
0:41:00	41	71	71	70	70	70	70	69	70	70	70
0:41:05	41	71	71	70	70	70	70	69	70	70	70
0:41:10	41	71	71	71	70	70	70	69	70	70	70
0:41:15	41	71	71	70	70	70	70	69	70	70	70
0:41:20	41	71	71	71	70	70	70	69	70	70	70
0:41:25	41	71	71	71	70	70	70	69	70	70	70
0:41:30	42	71	71	71	70	70	70	69	70	70	70
0:41:35	42	71	71	70	70	70	70	69	70	70	70
0:41:40	42	71	71	71	70	70	70	69	70	70	70
0:41:45	42	71	71	71	70	70	70	69	70	70	70
0:41:50	42	71	71	71	70	70	70	69	70	70	70
0:41:55	42	71	71	71	70	70	70	70	70	70	70
0:42:00	42	71	71	70	70	70	70	69	70	70	70
0:42:05	42	71	71	71	70	70	70	69	70	70	70
0:42:10	42	71	71	70	70	70	70	69	69	70	70
0:42:15	42	71	71	70	70	70	70	69	70	70	70
0:42:20	42	71	71	71	70	70	70	69	70	70	70
0:42:25	42	71	71	71	70	70	70	69	70	70	70
0:42:30	43	71	71	71	70	70	70	69	70	70	70
0:42:35	43	71	71	71	70	70	70	70	70	70	70
0:42:40	43	71	71	71	70	70	70	69	70	70	70
0:42:45	43	71	71	71	70	70	70	69	70	70	70
0:42:50	43	71	71	71	70	70	70	69	70	70	70
0:42:55	43	71	71	70	70	70	70	69	70	70	70
0:43:00	43	71	71	71	70	70	70	69	70	70	70
0:43:05	43	71	71	71	70	70	70	70	70	70	70

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time		Wall Assembly									
(h:m:s)		TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
0:43:10	43	71	71	71	70	70	70	70	70	70	70
0:43:15	43	71	71	71	70	70	70	69	70	70	70
0:43:20	43	71	71	71	70	70	70	69	70	70	70
0:43:25	43	71	71	71	70	70	70	70	70	70	70
0:43:30	44	71	71	71	70	70	70	69	70	70	70
0:43:35	44	71	71	71	70	70	70	69	70	70	70
0:43:40	44	71	71	71	70	70	70	70	70	70	70
0:43:45	44	71	71	71	70	70	70	69	70	70	70
0:43:50	44	71	71	71	70	70	70	69	70	70	70
0:43:55	44	71	71	71	70	70	70	69	70	70	70
0:44:00	44	71	71	71	70	70	70	70	70	70	70
0:44:05	44	71	71	71	70	70	70	69	70	70	70
0:44:10	44	71	71	71	70	70	70	69	70	70	70
0:44:15	44	71	71	71	70	70	70	69	70	70	70
0:44:20	44	71	71	71	70	70	70	70	70	70	70
0:44:25	44	71	71	71	70	70	70	69	70	70	70
0:44:30	45	71	71	71	70	70	70	69	70	70	70
0:44:35	45	71	71	71	70	70	70	69	70	70	70
0:44:40	45	71	71	71	70	70	70	69	70	70	70
0:44:45	45	71	71	71	70	70	70	70	70	70	70
0:44:50	45	71	71	71	70	70	70	70	70	70	70
0:44:55	45	71	71	71	70	70	70	69	70	70	70
0:45:00	45	71	71	71	70	70	70	69	70	70	70
0:45:05	45	71	71	71	70	70	70	70	70	70	70
0:45:10	45	71	71	71	70	70	70	70	70	70	70
0:45:15	45	71	71	71	70	70	70	70	70	70	70
0:45:20	45	71	71	71	70	70	70	70	70	70	70
0:45:25	45	71	71	71	70	70	70	70	70	70	70
0:45:30	46	71	71	71	70	70	70	70	70	70	70
0:45:35	46	71	71	71	70	70	70	70	70	70	70
0:45:40	46	71	71	71	70	70	70	70	70	70	70
0:45:45	46	71	71	71	70	70	70	70	70	70	70
0:45:50	46	71	71	71	70	70	70	70	70	70	70
0:45:55	46	71	71	71	70	70	70	70	70	70	70
0:46:00	46	71	71	71	70	70	70	70	70	70	70
0:46:05	46	71	71	71	70	70	70	70	70	70	70
0:46:10	46	71	71	71	70	70	70	70	70	70	70
0:46:15	46	71	71	71	70	70	70	70	70	70	70
0:46:20	46	71	71	71	70	70	70	70	70	70	70
0:46:25	46	71	71	71	70	70	70	70	70	70	70
0:46:30	47	71	71	71	70	70	70	70	70	70	70
0:46:35	47	71	71	71	70	70	70	70	70	70	70
0:46:40	47	71	71	71	70	70	70	70	70	70	70
0:46:45	47	71	71	71	70	70	70	70	70	70	70
0:46:50	47	71	71	71	70	70	70	70	70	70	70
0:46:55	47	71	71	71	70	70	70	70	70	70	70
0:47:00	47	71	71	71	70	70	70	70	70	70	70
0:47:05	47	71	71	71	70	70	70	70	70	70	70
0:47:10	47	71	71	71	70	70	70	70	70	70	70
0:47:15	47	71	71	71	70	70	70	70	70	70	70
0:47:20	47	71	71	71	70	70	70	70	70	70	70
0:47:25	47	71	71	71	70	70	70	70	70	70	70
0:47:30	48	71	71	71	70	70	70	70	70	70	70
0:47:35	48	71	71	71	70	70	70	70	70	70	70
0:47:40	48	71	71	71	70	70	70	70	70	70	70
0:47:45	48	71	71	71	70	70	70	70	70	70	70
0:47:50	48	71	71	71	70	70	70	70	70	70	70
0:47:55	48	71	71	71	70	70	70	70	70	70	70
0:48:00	48	71	71	71	70	70	70	70	70	70	70
0:48:05	48	71	71	71	70	70	70	69	70	70	70
0:48:10	48	71	71	71	70	70	70	70	70	70	70
0:48:15	48	71	71	71	70	70	70	70	70	70	70
0:48:20	48	71	71	71	70	70	70	70	70	70	70

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
0:48:25	48	71	71	71	70	70	70	70	70	70	70
0:48:30	49	71	71	71	70	70	70	70	70	70	70
0:48:35	49	71	71	71	70	70	70	70	70	70	70
0:48:40	49	71	71	71	70	70	70	70	70	70	70
0:48:45	49	71	71	71	70	70	70	70	70	70	70
0:48:50	49	71	71	71	70	70	70	70	70	70	70
0:48:55	49	71	71	71	70	70	70	70	70	70	70
0:49:00	49	71	71	71	70	70	70	70	70	70	70
0:49:05	49	71	71	71	70	70	70	70	70	70	70
0:49:10	49	71	71	71	70	70	70	70	70	70	70
0:49:15	49	71	71	71	70	70	70	70	70	70	70
0:49:20	49	71	71	71	70	70	70	70	70	70	70
0:49:25	49	71	71	71	70	70	70	70	70	70	70
0:49:30	50	71	71	71	70	70	70	70	70	70	70
0:49:35	50	71	71	71	70	70	70	70	70	70	70
0:49:40	50	71	71	71	70	70	70	70	70	70	70
0:49:45	50	71	71	71	70	70	70	70	70	70	70
0:49:50	50	71	71	71	70	70	70	70	70	70	70
0:49:55	50	71	71	71	70	70	70	70	70	70	70
0:50:00	50	71	71	71	70	70	70	70	70	70	70
0:50:05	50	71	71	71	70	70	70	70	70	70	70
0:50:10	50	71	71	71	70	70	70	70	70	70	70
0:50:15	50	71	71	71	70	70	70	70	70	70	70
0:50:20	50	71	71	71	70	70	70	70	70	70	70
0:50:25	50	71	71	71	70	70	70	70	70	70	70
0:50:30	51	71	71	71	70	70	70	70	70	70	70
0:50:35	51	71	71	71	70	70	70	70	70	70	70
0:50:40	51	71	71	71	70	70	70	70	70	70	70
0:50:45	51	71	71	71	70	70	70	70	70	70	70
0:50:50	51	71	71	71	70	70	70	70	70	70	70
0:50:55	51	71	71	71	70	70	70	70	70	70	70
0:51:00	51	71	71	71	70	70	70	70	70	70	70
0:51:05	51	71	71	71	70	70	70	70	70	70	70
0:51:10	51	71	71	71	70	70	70	70	70	70	70
0:51:15	51	71	71	71	70	70	70	70	70	70	70
0:51:20	51	71	71	71	70	70	70	70	70	70	70
0:51:25	51	71	71	71	70	70	70	70	70	70	70
0:51:30	52	71	71	71	70	70	70	70	70	70	70
0:51:35	52	71	71	71	70	70	70	70	70	70	70
0:51:40	52	71	71	71	70	70	70	70	70	70	70
0:51:45	52	71	71	71	70	70	70	70	70	70	70
0:51:50	52	71	71	71	70	70	70	70	70	70	70
0:51:55	52	71	71	71	70	70	70	70	70	70	70
0:52:00	52	71	71	71	70	70	70	70	70	70	70
0:52:05	52	71	71	71	70	70	70	70	70	70	70
0:52:10	52	71	71	71	70	70	70	70	70	70	70
0:52:15	52	71	71	71	70	70	70	70	70	70	70
0:52:20	52	71	71	71	70	70	70	70	70	70	70
0:52:25	52	71	71	71	70	70	70	70	70	70	70
0:52:30	53	71	71	71	70	70	70	70	70	70	70
0:52:35	53	71	71	71	70	70	70	70	70	70	70
0:52:40	53	71	71	71	70	70	70	70	70	70	70
0:52:45	53	71	71	71	70	70	70	70	70	70	70
0:52:50	53	71	71	71	70	70	70	70	70	70	70
0:52:55	53	71	71	71	70	70	70	70	70	70	70
0:53:00	53	71	71	71	70	70	70	70	70	70	70
0:53:05	53	71	71	71	70	70	70	70	70	70	70
0:53:10	53	71	71	71	70	70	70	70	70	70	70
0:53:15	53	71	71	71	70	70	70	70	70	70	70
0:53:20	53	71	71	71	70	70	70	70	70	70	70
0:53:25	53	71	71	71	70	70	70	70	70	70	70
0:53:30	54	71	71	71	70	70	70	70	70	70	70
0:53:35	54	71	71	71	70	70	70	70	70	70	70

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time		Wall Assembly									
(h:m:s)		TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
0:53:40	54	71	71	71	70	70	70	70	70	70	70
0:53:45	54	71	71	71	70	70	70	70	70	70	70
0:53:50	54	71	71	71	70	70	70	70	70	70	70
0:53:55	54	71	71	71	70	70	70	70	70	70	70
0:54:00	54	71	71	71	70	70	70	70	70	70	70
0:54:05	54	71	71	71	70	70	70	70	70	70	70
0:54:10	54	71	71	71	70	70	70	70	70	70	70
0:54:15	54	71	71	71	70	70	70	70	70	70	70
0:54:20	54	71	71	71	70	70	70	70	70	70	70
0:54:25	54	71	71	71	70	71	70	70	70	70	70
0:54:30	55	71	71	71	70	70	70	70	70	70	70
0:54:35	55	71	71	71	70	70	70	70	70	70	70
0:54:40	55	71	71	71	70	70	70	70	70	70	70
0:54:45	55	71	71	71	70	70	70	70	70	70	70
0:54:50	55	71	71	71	70	70	70	70	70	70	70
0:54:55	55	71	71	71	70	70	70	70	70	70	70
0:55:00	55	71	71	71	70	70	70	70	70	70	70
0:55:05	55	71	71	71	70	70	70	70	70	70	70
0:55:10	55	71	71	71	70	70	70	70	70	70	70
0:55:15	55	71	71	71	70	70	70	70	70	70	70
0:55:20	55	71	71	71	70	70	70	70	70	70	70
0:55:25	55	71	71	71	70	71	70	70	70	70	70
0:55:30	56	71	71	71	70	70	70	70	70	70	70
0:55:35	56	71	71	71	70	70	70	70	70	70	70
0:55:40	56	71	71	71	70	71	70	70	70	70	70
0:55:45	56	71	71	71	70	71	71	70	70	70	71
0:55:50	56	71	71	71	70	70	70	70	70	70	70
0:55:55	56	71	71	71	70	71	70	70	70	70	70
0:56:00	56	71	71	71	70	70	70	70	70	70	70
0:56:05	56	71	71	71	70	70	70	70	70	70	70
0:56:10	56	71	71	71	70	71	70	70	70	70	70
0:56:15	56	71	71	71	70	71	71	70	70	70	71
0:56:20	56	71	71	71	70	70	70	70	70	70	70
0:56:25	56	71	71	71	70	70	70	70	70	70	70
0:56:30	57	71	71	71	70	71	70	70	70	70	70
0:56:35	57	71	71	71	70	70	70	70	70	70	70
0:56:40	57	71	71	71	70	70	70	70	70	70	70
0:56:45	57	71	71	71	70	71	70	70	70	70	70
0:56:50	57	71	71	71	70	71	70	70	70	70	70
0:56:55	57	71	71	71	70	70	70	70	70	70	70
0:57:00	57	71	71	71	70	70	70	70	70	70	70
0:57:05	57	71	71	71	70	70	71	70	70	70	70
0:57:10	57	71	71	71	70	71	70	70	70	70	70
0:57:15	57	71	71	71	70	70	70	70	70	70	70
0:57:20	57	71	71	71	70	71	70	70	70	70	70
0:57:25	57	71	71	71	70	71	70	70	70	70	70
0:57:30	58	71	71	71	70	70	70	70	70	70	70
0:57:35	58	71	71	71	70	71	70	70	70	70	70
0:57:40	58	71	71	71	70	71	70	70	70	70	70
0:57:45	58	71	71	71	70	70	70	70	70	70	70
0:57:50	58	71	71	71	70	71	70	70	70	70	70
0:57:55	58	71	71	71	70	71	71	70	70	70	71
0:58:00	58	71	71	71	70	71	71	70	70	70	71
0:58:05	58	71	71	71	70	71	71	70	70	70	71
0:58:10	58	71	71	71	70	71	71	70	70	70	71
0:58:15	58	71	71	71	70	71	70	70	70	70	70
0:58:20	58	71	71	71	70	71	71	70	70	70	71
0:58:25	58	71	71	71	70	71	71	70	70	70	70
0:58:30	59	71	71	71	70	71	71	70	70	70	71
0:58:35	59	71	71	71	70	71	70	70	70	70	71
0:58:40	59	71	71	71	70	71	71	70	70	70	71
0:58:45	59	71	71	71	70	71	71	70	70	70	71
0:58:50	59	71	71	71	70	71	70	70	70	70	71

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
0:58:55	59	71	71	71	70	71	71	70	70	70	71
0:59:00	59	71	71	71	70	71	71	70	70	70	71
0:59:05	59	71	71	71	70	71	71	70	70	70	71
0:59:10	59	71	71	71	71	71	71	70	70	70	71
0:59:15	59	71	71	71	70	71	71	70	70	70	71
0:59:20	59	71	71	71	70	71	71	70	70	70	71
0:59:25	59	71	71	71	70	71	71	70	70	70	71
0:59:30	60	71	71	71	71	71	71	70	70	70	71
0:59:35	60	71	71	71	70	71	71	70	70	70	71
0:59:40	60	71	71	71	70	71	71	70	70	70	71
0:59:45	60	71	71	71	70	71	71	70	70	70	71
0:59:50	60	71	71	71	70	71	71	70	70	70	71
0:59:55	60	71	71	71	71	71	71	70	70	70	71
1:00:00	60	71	71	71	71	71	71	70	70	70	71
1:00:05	60	71	71	71	71	71	71	70	70	70	71
1:00:10	60	71	71	71	71	71	71	70	70	70	71
1:00:15	60	71	71	71	71	71	71	70	71	70	71
1:00:20	60	71	71	71	71	71	71	70	70	70	71
1:00:25	60	71	71	71	71	71	71	70	70	70	71
1:00:30	61	71	71	71	71	71	71	70	70	70	71
1:00:35	61	71	71	71	71	71	71	70	70	70	71
1:00:40	61	71	71	71	70	71	71	70	70	70	71
1:00:45	61	71	71	71	71	71	71	70	70	70	71
1:00:50	61	71	71	71	71	71	71	70	70	70	71
1:00:55	61	71	71	71	71	71	71	70	70	70	71
1:01:00	61	71	71	71	71	71	71	70	71	70	71
1:01:05	61	71	71	71	70	71	71	70	70	70	71
1:01:10	61	71	71	71	71	71	71	70	70	70	71
1:01:15	61	71	71	71	71	71	71	70	71	70	71
1:01:20	61	71	71	71	71	71	71	70	71	70	71
1:01:25	61	71	71	71	71	71	71	70	70	70	71
1:01:30	62	71	71	71	71	71	71	70	71	70	71
1:01:35	62	71	71	71	71	71	71	70	71	70	71
1:01:40	62	71	71	71	71	71	71	70	71	70	71
1:01:45	62	71	71	71	71	71	71	70	71	70	71
1:01:50	62	71	71	71	71	71	71	70	71	70	71
1:01:55	62	71	71	71	71	71	71	70	71	70	71
1:02:00	62	71	71	71	71	71	71	70	71	70	71
1:02:05	62	71	71	71	71	71	71	70	71	70	71
1:02:10	62	71	71	71	71	71	71	71	71	70	71
1:02:15	62	72	71	71	71	71	71	70	71	70	71
1:02:20	62	72	71	71	71	71	71	70	71	70	71
1:02:25	62	72	71	71	71	71	71	70	71	70	71
1:02:30	63	72	71	71	71	71	71	71	71	70	71
1:02:35	63	72	71	71	71	71	71	70	71	70	71
1:02:40	63	72	71	71	71	71	71	71	71	70	71
1:02:45	63	72	71	71	71	71	71	71	71	70	71
1:02:50	63	72	72	71	71	71	71	70	71	70	71
1:02:55	63	72	72	71	71	71	71	71	71	70	71
1:03:00	63	72	71	71	71	71	71	71	71	70	71
1:03:05	63	72	71	71	71	71	71	70	71	70	71
1:03:10	63	72	71	71	71	71	71	71	71	70	71
1:03:15	63	72	71	71	71	71	71	71	71	70	71
1:03:20	63	72	72	71	71	71	71	70	71	70	71
1:03:25	63	72	72	71	71	71	71	71	71	70	71
1:03:30	64	72	72	71	71	71	71	71	71	70	71
1:03:35	64	72	72	71	71	71	71	71	71	70	71
1:03:40	64	72	72	71	71	71	71	71	71	70	71
1:03:45	64	72	72	71	71	71	71	70	71	70	71
1:03:50	64	72	71	71	71	71	71	71	71	70	71
1:03:55	64	72	72	71	71	71	71	71	71	70	71
1:04:00	64	72	72	71	71	71	71	71	71	70	71
1:04:05	64	72	72	71	71	71	71	71	71	70	71

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
1:04:10	64	72	72	71	71	71	71	71	71	70	71
1:04:15	64	72	72	71	71	71	71	71	71	70	71
1:04:20	64	72	72	71	71	71	71	70	71	70	71
1:04:25	64	72	72	71	71	71	71	70	71	70	71
1:04:30	65	72	72	71	71	71	71	71	71	70	71
1:04:35	65	72	72	71	71	71	71	70	71	70	71
1:04:40	65	72	72	71	71	71	71	71	71	70	71
1:04:45	65	72	72	71	71	71	71	70	71	70	71
1:04:50	65	72	72	71	71	71	71	71	71	70	71
1:04:55	65	72	71	71	71	71	71	71	71	70	71
1:05:00	65	72	72	71	71	71	71	70	71	70	71
1:05:05	65	72	71	71	71	71	71	71	71	70	71
1:05:10	65	72	72	71	71	71	71	71	71	70	71
1:05:15	65	72	72	71	71	71	71	71	71	70	71
1:05:20	65	72	72	71	71	71	71	70	71	70	71
1:05:25	65	72	72	71	71	71	71	71	71	70	71
1:05:30	66	72	72	71	71	71	71	71	71	70	71
1:05:35	66	72	72	71	71	71	71	71	71	70	71
1:05:40	66	72	72	71	71	71	71	71	71	70	71
1:05:45	66	72	72	71	71	71	71	71	71	70	71
1:05:50	66	72	72	71	71	71	71	71	71	70	71
1:05:55	66	72	72	71	71	71	71	71	71	70	71
1:06:00	66	72	71	71	71	71	71	70	71	70	71
1:06:05	66	72	72	71	71	71	71	70	71	70	71
1:06:10	66	72	72	71	71	71	71	71	71	70	71
1:06:15	66	72	72	71	71	71	71	71	71	70	71
1:06:20	66	72	71	71	71	71	71	70	71	70	71
1:06:25	66	72	72	71	71	71	71	71	71	70	71
1:06:30	67	72	71	71	71	71	71	70	71	70	71
1:06:35	67	72	71	71	71	71	71	70	71	70	71
1:06:40	67	72	72	71	71	71	71	71	71	70	71
1:06:45	67	72	72	71	71	71	71	71	71	70	71
1:06:50	67	72	71	71	71	71	71	70	71	70	71
1:06:55	67	72	72	71	71	71	71	71	71	70	71
1:07:00	67	72	72	71	71	71	71	71	71	70	71
1:07:05	67	72	72	71	71	71	71	71	71	70	71
1:07:10	67	72	72	71	71	71	71	71	71	70	71
1:07:15	67	72	72	71	71	71	71	71	71	70	71
1:07:20	67	72	72	71	71	71	71	71	71	70	71
1:07:25	67	72	72	71	71	71	71	71	71	70	71
1:07:30	68	72	72	71	71	71	71	71	71	70	71
1:07:35	68	72	72	71	71	71	71	71	71	71	71
1:07:40	68	72	72	71	71	71	71	71	71	71	71
1:07:45	68	72	72	71	71	71	71	71	71	70	71
1:07:50	68	72	72	71	71	71	71	71	71	71	71
1:07:55	68	72	72	71	71	71	71	71	71	70	71
1:08:00	68	72	72	72	71	71	71	71	71	71	71
1:08:05	68	72	72	71	71	71	71	71	71	70	71
1:08:10	68	72	72	71	71	71	71	71	71	71	71
1:08:15	68	72	72	71	71	71	71	71	71	71	71
1:08:20	68	72	72	71	71	71	71	71	71	70	71
1:08:25	68	72	72	71	71	71	71	71	71	70	71
1:08:30	69	72	72	71	71	71	71	71	71	71	71
1:08:35	69	72	72	71	71	71	71	71	71	70	71
1:08:40	69	72	72	71	71	71	71	71	71	70	71
1:08:45	69	72	72	72	71	71	71	71	71	71	71
1:08:50	69	72	72	71	71	71	71	71	71	71	71
1:08:55	69	72	72	71	71	71	71	71	71	71	71
1:09:00	69	72	72	71	71	71	71	71	71	71	71
1:09:05	69	72	72	71	71	71	71	71	71	71	71
1:09:10	69	72	72	71	71	71	71	71	71	71	71
1:09:15	69	72	72	71	71	71	71	71	71	71	71
1:09:20	69	72	72	71	71	71	71	71	71	71	71

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
1:09:25	69	72	72	72	71	71	71	71	71	71	71
1:09:30	70	72	72	71	71	71	71	71	71	71	71
1:09:35	70	72	72	71	71	71	71	71	71	71	71
1:09:40	70	72	72	71	71	71	71	71	71	71	71
1:09:45	70	72	72	71	71	71	71	71	71	71	71
1:09:50	70	72	72	72	71	71	71	71	71	71	71
1:09:55	70	72	72	71	71	71	71	71	71	71	71
1:10:00	70	72	72	72	71	71	71	71	71	71	71
1:10:05	70	72	72	72	71	71	71	71	71	71	71
1:10:10	70	72	72	71	71	71	71	71	71	71	71
1:10:15	70	72	72	72	71	71	71	71	71	71	71
1:10:20	70	72	72	72	71	71	71	71	71	71	71
1:10:25	70	72	72	72	71	71	71	71	71	71	71
1:10:30	71	72	72	72	71	71	71	71	71	71	71
1:10:35	71	72	72	71	71	71	71	71	71	71	71
1:10:40	71	72	72	72	71	71	71	71	71	71	71
1:10:45	71	72	72	71	71	71	71	71	71	71	71
1:10:50	71	72	72	72	71	71	72	71	71	71	71
1:10:55	71	72	72	71	71	71	71	71	71	71	71
1:11:00	71	73	72	72	71	71	72	71	71	71	72
1:11:05	71	72	72	72	71	71	71	71	71	71	71
1:11:10	71	72	72	72	71	71	71	71	71	71	71
1:11:15	71	73	72	72	71	71	72	71	71	71	72
1:11:20	71	72	72	72	71	71	71	71	71	71	71
1:11:25	71	73	72	72	71	71	71	71	71	71	71
1:11:30	72	72	72	72	71	71	71	71	71	71	71
1:11:35	72	72	72	72	71	71	71	71	71	71	71
1:11:40	72	73	72	72	71	71	71	71	71	71	71
1:11:45	72	72	72	72	71	71	71	71	71	71	71
1:11:50	72	72	72	72	71	71	71	71	71	71	71
1:11:55	72	72	72	72	71	71	71	71	71	71	71
1:12:00	72	72	72	72	71	71	71	71	71	71	71
1:12:05	72	73	72	72	71	71	72	71	71	71	72
1:12:10	72	72	72	72	71	71	71	71	71	71	71
1:12:15	72	73	72	72	71	71	72	71	71	71	72
1:12:20	72	73	72	72	71	71	72	71	71	71	72
1:12:25	72	72	72	72	71	71	72	71	71	71	72
1:12:30	73	73	72	72	71	71	72	71	71	71	72
1:12:35	73	72	72	72	71	71	72	71	71	71	72
1:12:40	73	73	72	72	71	71	72	71	71	71	72
1:12:45	73	72	72	72	71	71	71	71	71	71	71
1:12:50	73	72	72	72	71	71	72	71	71	71	71
1:12:55	73	72	72	72	71	71	72	71	71	71	72
1:13:00	73	72	72	72	71	71	72	71	71	71	72
1:13:05	73	72	72	72	71	71	72	71	71	71	72
1:13:10	73	72	72	72	71	72	72	71	71	71	72
1:13:15	73	72	72	72	71	72	72	71	71	71	72
1:13:20	73	72	72	72	71	72	72	71	71	71	72
1:13:25	73	72	72	72	71	71	72	71	71	71	72
1:13:30	74	72	72	72	71	71	72	71	71	71	71
1:13:35	74	72	72	72	71	71	72	71	71	71	72
1:13:40	74	72	72	72	71	72	72	71	71	71	72
1:13:45	74	72	72	72	71	72	72	71	71	71	72
1:13:50	74	72	72	72	71	72	72	71	71	71	72
1:13:55	74	72	72	72	71	71	72	71	71	71	72
1:14:00	74	72	72	72	71	71	72	71	71	71	72
1:14:05	74	72	72	72	71	71	72	71	71	71	72
1:14:10	74	72	72	72	71	72	72	71	71	71	72
1:14:15	74	72	72	72	71	71	72	71	71	71	72
1:14:20	74	72	72	72	71	71	72	71	71	71	72
1:14:25	74	73	72	72	71	72	72	71	71	71	72
1:14:30	75	72	72	72	71	72	72	71	71	71	72
1:14:35	75	73	72	72	71	72	72	71	71	71	72

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
1:14:40	75	72	72	72	71	72	72	71	71	71	72
1:14:45	75	73	72	72	71	72	72	71	71	71	72
1:14:50	75	72	72	72	71	72	72	71	71	71	72
1:14:55	75	73	72	72	71	72	72	71	71	71	72
1:15:00	75	72	72	72	71	72	72	71	71	71	72
1:15:05	75	73	72	72	71	72	72	71	71	71	72
1:15:10	75	73	72	72	71	72	72	71	71	71	72
1:15:15	75	73	72	72	71	72	72	71	71	71	72
1:15:20	75	72	72	72	71	72	72	71	71	71	72
1:15:25	75	72	72	72	71	72	72	71	71	71	72
1:15:30	76	72	72	72	71	72	72	71	71	71	72
1:15:35	76	72	72	72	71	72	72	71	71	71	72
1:15:40	76	72	72	72	71	72	72	71	71	71	72
1:15:45	76	72	72	72	71	72	72	71	71	71	72
1:15:50	76	72	72	72	71	72	72	71	71	71	72
1:15:55	76	73	72	72	71	72	72	71	71	71	72
1:16:00	76	72	72	72	71	72	72	71	71	71	72
1:16:05	76	72	72	72	71	72	72	71	71	71	72
1:16:10	76	73	72	72	71	72	72	71	71	71	72
1:16:15	76	72	72	72	71	72	72	71	71	71	72
1:16:20	76	73	72	72	72	72	72	71	71	71	72
1:16:25	76	73	72	72	71	72	72	71	71	71	72
1:16:30	77	73	72	72	71	72	72	71	71	71	72
1:16:35	77	73	72	72	72	72	72	71	71	71	72
1:16:40	77	73	72	72	72	72	72	71	71	71	72
1:16:45	77	73	72	72	72	72	72	71	71	71	72
1:16:50	77	73	72	72	72	72	72	71	71	71	72
1:16:55	77	73	73	72	72	72	72	71	71	71	72
1:17:00	77	73	72	72	72	72	72	71	71	71	72
1:17:05	77	73	72	72	71	72	72	71	71	71	72
1:17:10	77	73	72	72	71	72	72	71	71	71	72
1:17:15	77	73	72	72	72	72	72	71	71	71	72
1:17:20	77	73	73	72	72	72	72	71	71	71	72
1:17:25	77	73	72	72	72	72	72	71	71	71	72
1:17:30	78	73	72	72	72	72	72	71	71	71	72
1:17:35	78	73	72	72	71	72	72	71	71	71	72
1:17:40	78	73	73	72	72	72	72	71	71	71	72
1:17:45	78	73	72	72	71	72	72	71	71	71	72
1:17:50	78	73	72	72	71	72	72	71	71	71	72
1:17:55	78	73	73	72	72	72	72	71	71	71	72
1:18:00	78	73	73	72	72	72	72	71	71	71	72
1:18:05	78	73	72	72	71	72	72	71	71	71	72
1:18:10	78	73	73	72	72	72	72	71	71	71	72
1:18:15	78	73	73	72	72	72	72	71	71	71	72
1:18:20	78	73	72	72	71	72	72	71	71	71	72
1:18:25	78	73	72	72	72	72	72	71	71	71	72
1:18:30	79	73	73	72	72	72	72	71	71	71	72
1:18:35	79	73	73	72	72	72	72	71	71	71	72
1:18:40	79	73	73	72	72	72	72	71	71	71	72
1:18:45	79	73	73	72	72	72	72	71	71	71	72
1:18:50	79	73	73	72	72	72	72	71	71	71	72
1:18:55	79	73	72	72	72	72	72	71	71	71	72
1:19:00	79	73	73	72	72	72	72	71	71	71	72
1:19:05	79	73	73	72	72	72	72	72	72	71	72
1:19:10	79	73	73	72	72	72	72	71	71	71	72
1:19:15	79	73	73	72	72	72	72	71	72	71	72
1:19:20	79	73	73	72	72	72	72	72	71	71	72
1:19:25	79	73	73	72	72	72	72	71	71	71	72
1:19:30	80	73	73	72	72	72	72	71	71	71	72
1:19:35	80	73	73	72	72	72	72	71	71	71	72
1:19:40	80	73	73	72	72	72	72	71	72	71	72
1:19:45	80	73	73	72	72	72	72	72	71	71	72
1:19:50	80	73	73	72	72	72	72	71	72	71	72

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
1:19:55	80	73	73	72	72	72	72	71	72	71	72
1:20:00	80	73	73	72	72	72	72	72	72	71	72
1:20:05	80	73	73	72	72	72	72	72	71	71	72
1:20:10	80	73	73	72	72	72	72	72	71	71	72
1:20:15	80	73	73	72	72	72	72	72	72	71	72
1:20:20	80	73	73	72	72	72	72	72	72	71	72
1:20:25	80	73	73	72	72	72	72	72	71	71	72
1:20:30	81	73	73	72	72	72	72	71	72	71	72
1:20:35	81	73	73	72	72	72	72	72	72	71	72
1:20:40	81	73	73	72	72	72	72	72	72	71	72
1:20:45	81	73	73	72	72	72	72	71	72	71	72
1:20:50	81	73	73	72	72	72	72	72	72	71	72
1:20:55	81	73	73	72	72	72	72	72	72	71	72
1:21:00	81	73	73	72	72	72	72	72	72	71	72
1:21:05	81	73	73	72	72	72	72	72	72	71	72
1:21:10	81	73	73	72	72	72	72	72	72	71	72
1:21:15	81	73	73	72	72	72	72	72	72	71	72
1:21:20	81	73	73	72	72	72	72	72	72	71	72
1:21:25	81	73	73	72	72	72	72	72	72	71	72
1:21:30	82	73	73	72	72	72	72	72	72	71	72
1:21:35	82	73	73	72	72	72	72	72	72	71	72
1:21:40	82	73	73	72	72	72	72	72	72	71	72
1:21:45	82	73	73	72	72	72	72	72	72	71	72
1:21:50	82	73	73	72	72	72	72	72	72	71	72
1:21:55	82	73	73	72	72	72	72	72	72	72	72
1:22:00	82	73	73	72	72	72	72	72	72	71	72
1:22:05	82	73	73	72	72	72	72	72	72	71	72
1:22:10	82	73	73	72	72	72	72	72	72	71	72
1:22:15	82	73	73	72	72	72	72	72	72	71	72
1:22:20	82	73	73	72	72	72	72	72	72	72	72
1:22:25	82	73	73	72	72	72	72	72	72	72	72
1:22:30	83	73	73	72	72	72	72	72	72	71	72
1:22:35	83	73	73	72	72	72	73	72	72	72	72
1:22:40	83	73	73	72	72	72	72	72	72	71	72
1:22:45	83	73	73	72	72	72	72	72	72	72	72
1:22:50	83	73	73	72	72	72	72	72	72	72	72
1:22:55	83	73	73	73	72	72	73	72	72	72	72
1:23:00	83	73	73	72	72	72	72	72	72	71	72
1:23:05	83	73	73	73	72	72	73	72	72	72	72
1:23:10	83	73	73	73	72	72	73	72	72	72	72
1:23:15	83	73	73	72	72	72	73	72	72	72	72
1:23:20	83	73	73	73	72	72	73	72	72	72	72
1:23:25	83	73	73	73	72	72	73	72	72	72	72
1:23:30	84	73	73	72	72	72	73	72	72	72	72
1:23:35	84	73	73	73	72	72	73	72	72	72	72
1:23:40	84	73	73	73	72	72	73	72	72	72	72
1:23:45	84	73	73	73	72	72	73	72	72	72	72
1:23:50	84	73	73	72	72	72	72	72	72	71	72
1:23:55	84	73	73	73	72	72	73	72	72	72	72
1:24:00	84	73	73	72	72	72	72	72	72	72	72
1:24:05	84	73	73	73	72	72	73	72	72	72	72
1:24:10	84	73	73	72	72	72	72	72	72	72	72
1:24:15	84	73	73	72	72	72	72	72	72	72	72
1:24:20	84	73	73	72	72	72	72	72	72	72	72
1:24:25	84	73	73	73	72	72	73	72	72	72	72
1:24:30	85	73	73	73	72	72	73	72	72	72	72
1:24:35	85	73	73	73	72	73	73	72	72	72	72
1:24:40	85	73	73	73	72	72	73	72	72	72	72
1:24:45	85	73	73	73	72	72	73	72	72	72	72
1:24:50	85	73	73	73	72	72	73	72	72	72	72
1:24:55	85	73	73	73	72	72	73	72	72	72	72
1:25:00	85	73	73	73	72	73	73	72	72	72	72
1:25:05	85	73	73	73	72	73	73	72	72	72	72

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
1:25:10	85	73	73	72	72	72	72	72	72	72	72
1:25:15	85	73	73	73	72	73	73	72	72	72	72
1:25:20	85	73	73	73	72	73	73	72	72	72	72
1:25:25	85	73	73	73	72	73	73	72	72	72	72
1:25:30	86	73	73	73	72	73	73	72	72	72	72
1:25:35	86	73	73	73	72	72	73	72	72	72	72
1:25:40	86	73	73	73	72	73	73	72	72	72	72
1:25:45	86	73	73	73	72	73	73	72	72	72	72
1:25:50	86	73	73	73	72	73	73	72	72	72	72
1:25:55	86	73	73	73	72	73	73	72	72	72	72
1:26:00	86	73	73	73	72	73	73	72	72	72	72
1:26:05	86	73	73	73	72	73	73	72	72	72	72
1:26:10	86	73	73	73	72	73	73	72	72	72	72
1:26:15	86	73	73	73	72	73	73	72	72	72	72
1:26:20	86	73	73	73	72	73	73	72	72	72	72
1:26:25	86	73	73	73	72	73	73	72	72	72	72
1:26:30	87	73	73	73	72	73	73	72	72	72	72
1:26:35	87	73	73	73	72	73	73	72	72	72	72
1:26:40	87	73	73	73	72	73	73	72	72	72	72
1:26:45	87	73	73	73	72	73	73	72	72	72	72
1:26:50	87	73	73	73	72	73	73	72	72	72	72
1:26:55	87	73	73	73	72	73	73	72	72	72	72
1:27:00	87	73	73	73	72	73	73	72	72	72	72
1:27:05	87	73	73	73	72	73	73	72	72	72	72
1:27:10	87	73	73	73	72	73	73	72	72	72	72
1:27:15	87	73	73	73	72	73	73	72	72	72	72
1:27:20	87	73	73	73	72	73	73	72	72	72	73
1:27:25	87	73	73	73	72	73	73	72	72	72	72
1:27:30	88	73	73	73	72	73	73	72	72	72	72
1:27:35	88	73	73	73	72	73	73	72	72	72	72
1:27:40	88	73	73	73	72	73	73	72	72	72	72
1:27:45	88	73	73	73	72	73	73	72	72	72	73
1:27:50	88	73	73	73	72	73	73	72	72	72	73
1:27:55	88	73	73	73	72	73	73	72	72	72	73
1:28:00	88	73	73	73	72	73	73	72	72	72	73
1:28:05	88	73	73	73	72	73	73	72	72	72	73
1:28:10	88	73	73	73	72	73	73	72	72	72	73
1:28:15	88	73	73	73	72	73	73	72	72	72	73
1:28:20	88	73	73	73	72	73	73	72	72	72	73
1:28:25	88	73	73	73	72	73	73	72	72	72	73
1:28:30	89	73	73	73	72	73	73	72	72	72	73
1:28:35	89	73	73	73	72	73	73	72	72	72	73
1:28:40	89	73	73	73	73	73	73	72	72	72	73
1:28:45	89	73	73	73	72	73	73	72	72	72	73
1:28:50	89	73	73	73	73	73	73	72	72	72	73
1:28:55	89	73	73	73	73	73	73	72	72	72	73
1:29:00	89	73	73	73	73	73	73	72	72	72	73
1:29:05	89	73	73	73	72	73	73	72	72	72	73
1:29:10	89	73	73	73	73	73	73	72	72	72	73
1:29:15	89	73	73	73	73	73	73	72	72	72	73
1:29:20	89	73	73	73	73	73	73	72	72	72	73
1:29:25	89	73	73	73	73	73	73	72	72	72	73
1:29:30	90	73	73	73	73	73	73	72	72	72	73
1:29:35	90	73	73	73	73	73	73	72	72	72	73
1:29:40	90	73	73	73	72	73	73	72	72	72	73
1:29:45	90	73	73	73	73	73	73	72	72	72	73
1:29:50	90	73	73	73	73	73	73	72	72	72	73
1:29:55	90	73	73	73	73	73	73	72	72	72	73
1:30:00	90	73	73	73	73	73	73	72	72	72	73
1:30:05	90	73	73	73	73	73	73	72	72	72	73
1:30:10	90	73	73	73	73	73	73	72	72	72	73
1:30:15	90	73	73	73	73	73	73	72	72	72	73
1:30:20	90	73	73	73	73	73	73	72	72	72	73

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Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
1:30:25	90	73	73	73	73	73	73	72	72	72	73
1:30:30	91	73	73	73	73	73	73	72	72	72	73
1:30:35	91	73	73	73	73	73	73	72	72	72	73
1:30:40	91	73	73	73	73	73	73	72	72	72	73
1:30:45	91	73	73	73	73	73	73	72	72	72	73
1:30:50	91	73	73	73	73	73	73	72	72	72	73
1:30:55	91	73	73	73	73	73	73	72	72	72	73
1:31:00	91	73	73	73	73	73	73	72	72	72	73
1:31:05	91	73	73	73	73	73	73	72	72	72	73
1:31:10	91	73	73	73	73	73	73	72	72	72	73
1:31:15	91	73	73	73	73	73	73	72	72	72	73
1:31:20	91	73	73	73	73	73	73	72	72	72	73
1:31:25	91	73	73	73	73	73	73	72	72	72	73
1:31:30	92	74	73	73	73	73	73	73	73	72	73
1:31:35	92	73	73	73	73	73	73	72	72	72	73
1:31:40	92	73	73	73	73	73	73	72	72	72	73
1:31:45	92	73	73	73	73	73	73	72	72	72	73
1:31:50	92	73	73	73	73	73	73	72	72	72	73
1:31:55	92	74	73	73	73	73	73	73	73	72	73
1:32:00	92	73	73	73	73	73	73	72	72	72	73
1:32:05	92	74	73	73	73	73	73	73	73	72	73
1:32:10	92	74	73	73	73	73	73	73	73	72	73
1:32:15	92	74	73	73	73	73	73	73	73	73	73
1:32:20	92	74	73	73	73	73	73	73	73	72	73
1:32:25	92	74	73	73	73	73	73	73	73	73	73
1:32:30	93	74	73	73	73	73	73	73	73	73	73
1:32:35	93	74	73	73	73	73	73	73	73	73	73
1:32:40	93	74	73	73	73	73	73	73	73	72	73
1:32:45	93	74	74	73	73	73	73	73	73	73	73
1:32:50	93	74	73	73	73	73	73	73	73	72	73
1:32:55	93	74	73	73	73	73	73	73	73	73	73
1:33:00	93	74	73	73	73	73	73	73	73	73	73
1:33:05	93	74	74	73	73	73	73	73	73	73	73
1:33:10	93	74	73	73	73	73	73	73	73	73	73
1:33:15	93	74	74	73	73	73	73	73	73	73	73
1:33:20	93	74	73	73	73	73	73	73	73	73	73
1:33:25	93	74	74	73	73	73	73	73	73	73	73
1:33:30	94	74	73	73	73	73	73	73	73	72	73
1:33:35	94	74	73	73	73	73	73	73	73	73	73
1:33:40	94	74	74	73	73	73	73	73	73	73	73
1:33:45	94	74	74	73	73	73	73	73	73	73	73
1:33:50	94	74	74	73	73	73	73	73	73	73	73
1:33:55	94	74	74	73	73	73	73	73	73	73	73
1:34:00	94	74	74	73	73	73	73	73	73	73	73
1:34:05	94	74	74	73	73	73	73	73	73	73	73
1:34:10	94	74	74	73	73	73	73	73	73	73	73
1:34:15	94	74	74	73	73	73	73	73	73	73	73
1:34:20	94	74	74	73	73	73	73	73	73	73	73
1:34:25	94	74	74	73	73	73	73	73	73	73	73
1:34:30	95	74	74	73	73	73	73	73	73	73	73
1:34:35	95	74	74	73	73	73	73	73	73	73	73
1:34:40	95	74	74	73	73	73	73	73	73	73	73
1:34:45	95	74	74	73	73	73	73	73	73	73	73
1:34:50	95	74	74	73	73	73	73	73	73	73	73
1:34:55	95	74	74	73	73	73	73	73	73	73	73
1:35:00	95	74	74	73	73	73	73	73	73	73	73
1:35:05	95	74	74	73	73	73	73	73	73	73	73
1:35:10	95	74	74	73	73	73	73	73	73	73	73
1:35:15	95	74	74	73	73	73	73	73	73	73	73
1:35:20	95	74	74	73	73	73	73	73	73	73	73
1:35:25	95	74	74	73	73	73	73	73	73	73	73
1:35:30	96	74	74	73	73	73	73	73	73	73	73
1:35:35	96	74	74	73	73	73	73	73	73	73	73

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
1:35:40	96	74	74	73	73	73	73	73	73	73	73
1:35:45	96	74	74	73	73	73	73	73	73	73	73
1:35:50	96	74	74	73	73	73	73	73	73	73	73
1:35:55	96	74	74	73	73	73	73	73	73	73	73
1:36:00	96	74	74	73	73	73	73	73	73	73	73
1:36:05	96	74	74	73	73	73	73	73	73	73	73
1:36:10	96	74	74	73	73	73	73	73	73	73	73
1:36:15	96	74	74	73	73	73	73	73	73	73	73
1:36:20	96	74	74	73	73	73	73	73	73	73	73
1:36:25	96	74	74	73	73	73	73	73	73	73	73
1:36:30	97	74	74	73	73	73	73	73	73	73	73
1:36:35	97	74	74	73	73	73	73	73	73	73	73
1:36:40	97	74	74	73	73	73	73	73	73	73	73
1:36:45	97	74	74	73	73	73	73	73	73	73	73
1:36:50	97	74	74	73	73	73	73	73	73	73	73
1:36:55	97	74	74	73	73	73	73	73	73	73	73
1:37:00	97	74	74	73	73	73	73	73	73	73	73
1:37:05	97	74	74	73	73	73	73	73	73	73	73
1:37:10	97	74	74	73	73	73	73	73	73	73	73
1:37:15	97	74	74	73	73	73	73	73	73	73	73
1:37:20	97	74	74	73	73	73	73	73	73	73	73
1:37:25	97	74	74	73	73	73	73	73	73	73	73
1:37:30	98	74	74	73	73	73	73	73	73	73	73
1:37:35	98	74	74	73	73	73	73	73	73	73	73
1:37:40	98	74	74	73	73	73	73	73	73	73	73
1:37:45	98	74	74	73	73	73	73	73	73	73	73
1:37:50	98	74	74	73	73	73	73	73	73	73	73
1:37:55	98	74	74	73	73	73	73	73	73	73	73
1:38:00	98	74	74	73	73	73	73	73	73	73	73
1:38:05	98	74	74	73	73	73	73	73	73	73	73
1:38:10	98	74	74	73	73	73	73	73	73	73	73
1:38:15	98	74	74	73	73	73	73	73	73	73	73
1:38:20	98	74	74	73	73	73	73	73	73	73	73
1:38:25	98	74	74	73	73	73	73	73	73	73	73
1:38:30	99	74	74	73	73	73	73	73	73	73	73
1:38:35	99	74	74	73	73	73	73	73	73	73	73
1:38:40	99	74	74	73	73	73	73	73	73	73	73
1:38:45	99	74	74	73	73	73	73	73	73	73	73
1:38:50	99	74	74	73	73	73	73	73	73	73	73
1:38:55	99	74	74	73	73	73	73	73	73	73	73
1:39:00	99	74	74	73	73	73	73	73	73	73	73
1:39:05	99	74	74	73	73	73	73	73	73	73	73
1:39:10	99	74	74	73	73	73	73	73	73	73	73
1:39:15	99	74	74	73	73	73	73	73	73	73	73
1:39:20	99	74	74	73	73	73	73	73	73	73	73
1:39:25	99	74	74	73	73	73	73	73	73	73	73
1:39:30	100	74	74	73	73	73	73	73	73	73	73
1:39:35	100	75	74	73	73	74	74	73	73	73	74
1:39:40	100	74	74	73	73	73	73	73	73	73	73
1:39:45	100	74	74	73	73	73	73	73	73	73	73
1:39:50	100	74	74	73	73	74	73	73	73	73	73
1:39:55	100	74	74	73	73	73	73	73	73	73	73
1:40:00	100	74	74	73	73	74	74	73	73	73	73
1:40:05	100	74	74	73	73	74	73	73	73	73	73
1:40:10	100	75	75	73	73	74	74	73	73	73	74
1:40:15	100	75	74	73	73	74	74	73	73	73	74
1:40:20	100	74	74	73	73	74	73	73	73	73	73
1:40:25	100	75	75	73	73	74	74	73	73	73	74
1:40:30	101	75	74	73	73	74	74	73	73	73	74
1:40:35	101	75	74	73	73	74	74	73	73	73	73
1:40:40	101	75	75	73	73	74	74	73	73	73	74
1:40:45	101	75	75	73	73	74	74	73	73	73	74
1:40:50	101	75	74	73	73	74	74	73	73	73	73

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
1:40:55	101	75	75	73	73	74	74	73	73	73	74
1:41:00	101	75	75	73	73	74	74	73	73	73	74
1:41:05	101	75	75	73	73	74	74	73	73	73	74
1:41:10	101	74	74	73	73	73	73	73	73	73	73
1:41:15	101	75	75	73	73	74	74	73	73	73	74
1:41:20	101	75	75	73	73	74	74	73	73	73	74
1:41:25	101	75	75	73	73	74	74	73	73	73	74
1:41:30	102	75	74	73	73	74	74	73	73	73	74
1:41:35	102	75	75	73	73	74	74	73	73	73	74
1:41:40	102	75	75	73	73	74	74	73	73	73	74
1:41:45	102	75	75	73	73	74	74	73	73	73	74
1:41:50	102	75	75	73	73	74	74	73	73	73	74
1:41:55	102	75	75	73	73	74	74	73	73	73	74
1:42:00	102	75	74	73	73	74	74	73	73	73	74
1:42:05	102	75	75	73	73	74	74	73	73	73	74
1:42:10	102	75	75	73	73	74	74	73	73	73	74
1:42:15	102	75	75	73	73	74	74	73	73	73	74
1:42:20	102	75	75	73	73	74	74	73	73	73	74
1:42:25	102	75	75	73	73	74	74	73	73	73	74
1:42:30	103	75	75	73	73	74	74	73	73	73	74
1:42:35	103	75	75	73	73	74	74	73	73	73	74
1:42:40	103	75	75	74	73	74	74	73	73	73	74
1:42:45	103	75	74	73	73	74	74	73	73	73	74
1:42:50	103	75	75	73	73	74	74	73	73	73	74
1:42:55	103	75	75	73	73	74	74	73	73	73	74
1:43:00	103	75	75	74	73	74	74	73	73	73	74
1:43:05	103	75	75	74	73	74	74	73	73	73	74
1:43:10	103	75	75	73	73	74	74	73	73	73	74
1:43:15	103	75	75	73	73	74	74	73	73	73	74
1:43:20	103	75	75	73	73	74	74	73	73	73	74
1:43:25	103	75	75	74	73	74	74	73	73	73	74
1:43:30	104	75	75	73	73	74	74	73	73	73	74
1:43:35	104	75	75	73	73	74	74	73	73	73	74
1:43:40	104	75	75	73	73	74	74	73	73	73	74
1:43:45	104	75	75	73	73	74	74	73	73	73	74
1:43:50	104	75	75	73	73	74	74	73	73	73	74
1:43:55	104	75	75	73	73	74	74	73	73	73	74
1:44:00	104	75	75	73	73	74	74	73	73	73	74
1:44:05	104	75	75	73	73	74	74	73	73	73	74
1:44:10	104	75	75	73	73	74	74	73	73	73	74
1:44:15	104	75	75	74	73	74	74	73	73	73	74
1:44:20	104	75	75	74	74	74	74	73	73	73	74
1:44:25	104	75	75	74	74	74	74	73	73	73	74
1:44:30	105	75	75	73	73	74	74	73	73	73	74
1:44:35	105	75	75	74	73	74	74	73	73	73	74
1:44:40	105	75	75	74	74	74	74	73	73	73	74
1:44:45	105	75	75	74	74	74	74	73	73	73	74
1:44:50	105	75	75	74	74	74	74	73	73	73	74
1:44:55	105	75	75	74	74	74	74	73	73	73	74
1:45:00	105	75	75	74	74	74	74	73	74	73	74
1:45:05	105	75	75	74	74	74	74	73	73	73	74
1:45:10	105	75	75	73	74	74	74	73	73	73	74
1:45:15	105	75	75	74	74	74	74	73	73	73	74
1:45:20	105	75	75	74	74	74	74	73	73	73	74
1:45:25	105	75	75	74	74	74	74	73	74	73	74
1:45:30	106	75	75	74	74	74	74	73	74	73	74
1:45:35	106	75	75	74	74	74	74	73	73	73	74
1:45:40	106	75	75	74	74	74	74	73	74	73	74
1:45:45	106	75	75	74	74	74	74	73	73	73	74
1:45:50	106	75	75	74	74	74	74	73	74	73	74
1:45:55	106	75	75	74	74	74	74	73	74	73	74
1:46:00	106	75	75	74	74	74	74	73	73	73	74
1:46:05	106	75	75	74	74	74	74	73	74	73	74

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time		Wall Assembly									
(h:m:s)		TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
1:46:10	106	75	75	74	74	74	74	73	74	73	74
1:46:15	106	75	75	74	74	74	74	73	74	73	74
1:46:20	106	75	75	74	74	74	74	73	74	73	74
1:46:25	106	75	75	74	74	74	74	73	74	73	74
1:46:30	107	75	75	74	74	74	74	73	74	73	74
1:46:35	107	75	75	74	74	75	74	73	74	73	74
1:46:40	107	75	75	74	74	75	74	73	74	73	74
1:46:45	107	75	75	74	74	75	74	73	74	73	74
1:46:50	107	75	75	74	74	75	74	73	74	73	74
1:46:55	107	75	75	74	74	75	74	73	74	73	74
1:47:00	107	75	75	74	74	75	74	73	74	73	74
1:47:05	107	75	75	74	74	75	74	73	74	73	74
1:47:10	107	75	75	74	74	75	74	73	74	73	74
1:47:15	107	75	75	74	74	75	74	73	74	73	74
1:47:20	107	75	75	74	74	75	75	73	74	73	74
1:47:25	107	75	75	74	74	75	74	73	74	73	74
1:47:30	108	75	75	74	74	75	74	73	74	73	74
1:47:35	108	75	75	74	74	75	75	73	74	73	74
1:47:40	108	75	75	74	74	75	75	73	74	73	74
1:47:45	108	75	75	74	74	75	75	73	74	73	74
1:47:50	108	75	75	74	74	75	74	73	74	73	74
1:47:55	108	75	75	74	74	75	74	73	74	73	74
1:48:00	108	75	75	74	74	75	75	74	74	73	74
1:48:05	108	75	75	74	74	75	74	73	74	73	74
1:48:10	108	75	75	74	74	75	75	74	74	73	74
1:48:15	108	75	75	74	74	75	75	74	74	73	74
1:48:20	108	75	75	74	74	75	75	74	74	73	74
1:48:25	108	75	75	74	74	75	75	74	74	73	74
1:48:30	109	75	75	74	74	75	75	73	74	73	74
1:48:35	109	75	75	74	74	75	74	73	74	73	74
1:48:40	109	75	75	74	74	75	75	73	74	73	74
1:48:45	109	75	75	74	74	75	75	74	74	73	74
1:48:50	109	75	75	74	74	75	75	74	74	73	74
1:48:55	109	75	75	74	74	75	75	74	74	74	74
1:49:00	109	75	75	74	74	75	75	74	74	73	74
1:49:05	109	75	75	74	74	75	75	74	74	74	74
1:49:10	109	75	75	74	74	75	75	74	74	73	74
1:49:15	109	75	75	74	74	75	75	74	74	73	74
1:49:20	109	75	75	74	74	75	75	74	74	73	74
1:49:25	109	75	75	74	74	75	75	74	74	73	74
1:49:30	110	75	75	74	74	75	75	74	74	73	74
1:49:35	110	75	75	74	74	75	75	74	74	73	74
1:49:40	110	75	75	74	74	75	75	74	74	73	74
1:49:45	110	76	75	74	74	75	75	74	74	74	74
1:49:50	110	76	75	74	74	75	75	74	74	74	75
1:49:55	110	76	75	74	74	75	75	74	74	73	74
1:50:00	110	76	75	74	74	75	75	74	74	74	74
1:50:05	110	76	75	74	74	75	75	74	74	74	75
1:50:10	110	76	75	74	74	75	75	74	74	74	75
1:50:15	110	76	75	74	74	75	75	74	74	74	75
1:50:20	110	76	75	74	74	75	75	74	74	74	75
1:50:25	110	76	76	74	75	75	75	74	74	74	75
1:50:30	111	76	75	74	74	75	75	74	74	73	74
1:50:35	111	76	76	74	75	75	75	74	74	74	75
1:50:40	111	76	76	74	75	75	75	74	74	74	75
1:50:45	111	76	75	74	75	75	75	74	74	74	75
1:50:50	111	76	75	74	74	75	75	74	74	74	75
1:50:55	111	76	75	74	74	75	75	74	74	74	75
1:51:00	111	76	75	74	74	75	75	74	74	74	74
1:51:05	111	76	76	74	75	75	75	74	75	74	75
1:51:10	111	76	76	74	75	75	75	74	75	74	75
1:51:15	111	76	76	74	74	75	75	74	74	74	75
1:51:20	111	76	76	74	75	75	75	74	75	74	75

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
1:51:25	111	76	76	74	75	75	75	74	75	74	75
1:51:30	112	76	75	74	75	75	75	74	74	74	75
1:51:35	112	76	76	74	75	75	75	74	75	74	75
1:51:40	112	76	76	74	75	75	75	74	75	74	75
1:51:45	112	76	76	74	75	75	75	74	75	74	75
1:51:50	112	76	76	74	75	75	75	74	75	74	75
1:51:55	112	76	76	74	75	75	75	74	75	74	75
1:52:00	112	76	76	74	75	75	75	74	75	74	75
1:52:05	112	76	76	74	75	75	75	74	75	74	75
1:52:10	112	76	76	74	75	75	75	74	75	74	75
1:52:15	112	76	76	74	75	75	75	74	75	74	75
1:52:20	112	76	76	74	75	75	75	74	75	74	75
1:52:25	112	76	76	74	75	75	75	74	75	74	75
1:52:30	113	76	76	74	75	75	75	74	75	74	75
1:52:35	113	76	76	74	75	75	75	74	75	74	75
1:52:40	113	76	76	74	75	75	75	74	75	74	75
1:52:45	113	76	76	74	75	75	75	74	75	74	75
1:52:50	113	76	76	74	75	75	75	74	75	74	75
1:52:55	113	76	76	74	75	75	75	74	75	74	75
1:53:00	113	76	76	74	75	75	75	74	75	74	75
1:53:05	113	76	76	74	75	75	75	74	75	74	75
1:53:10	113	76	76	74	75	75	75	74	75	74	75
1:53:15	113	76	76	75	75	75	75	74	75	74	75
1:53:20	113	76	76	74	75	75	75	74	75	74	75
1:53:25	113	76	76	75	75	75	75	74	75	74	75
1:53:30	114	76	76	74	75	75	75	74	75	74	75
1:53:35	114	76	76	74	75	75	75	74	75	74	75
1:53:40	114	76	76	75	75	76	75	74	75	74	75
1:53:45	114	76	76	75	75	75	75	75	75	74	75
1:53:50	114	76	76	75	75	75	75	74	75	74	75
1:53:55	114	76	76	75	75	75	75	74	75	74	75
1:54:00	114	76	76	75	75	76	75	74	75	74	75
1:54:05	114	76	76	74	75	75	75	74	75	74	75
1:54:10	114	76	76	75	75	76	75	75	75	74	75
1:54:15	114	76	76	74	75	75	75	74	75	74	75
1:54:20	114	76	76	75	75	76	75	75	75	74	75
1:54:25	114	76	76	75	75	76	75	75	75	74	75
1:54:30	115	76	76	75	75	76	75	75	75	74	75
1:54:35	115	76	76	74	75	76	75	74	75	74	75
1:54:40	115	76	76	75	75	76	75	75	75	74	75
1:54:45	115	76	76	75	75	76	75	75	75	74	75
1:54:50	115	76	76	74	75	76	75	74	75	74	75
1:54:55	115	76	76	75	75	76	75	75	75	74	75
1:55:00	115	76	76	74	75	76	75	74	75	74	75
1:55:05	115	76	76	75	75	76	75	75	75	74	75
1:55:10	115	77	76	75	75	76	76	75	75	74	75
1:55:15	115	77	76	75	75	76	76	75	75	74	75
1:55:20	115	76	76	75	75	76	75	75	75	74	75
1:55:25	115	76	76	75	75	76	75	75	75	74	75
1:55:30	116	77	76	75	75	76	76	75	75	74	75
1:55:35	116	77	77	75	75	76	76	75	75	74	75
1:55:40	116	77	77	75	75	76	76	75	75	74	75
1:55:45	116	77	77	75	75	76	76	75	75	74	75
1:55:50	116	77	76	75	75	76	75	75	75	74	75
1:55:55	116	77	77	75	75	76	76	75	75	74	75
1:56:00	116	77	77	75	75	76	76	75	75	75	75
1:56:05	116	77	77	75	75	76	76	75	75	75	75
1:56:10	116	77	76	75	75	76	76	75	75	74	75
1:56:15	116	77	77	75	75	76	76	75	75	74	75
1:56:20	116	77	77	75	75	76	76	75	75	75	75
1:56:25	116	77	77	75	75	76	76	75	75	75	75
1:56:30	117	77	77	75	75	76	76	75	75	74	75
1:56:35	117	76	76	75	75	76	75	75	75	74	75

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time		Wall Assembly									
(h:m:s)		TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
1:56:40	117	77	77	75	75	76	76	75	75	75	76
1:56:45	117	77	77	75	75	76	76	75	75	75	76
1:56:50	117	77	77	75	75	76	76	75	75	75	76
1:56:55	117	77	77	75	75	76	76	75	75	75	76
1:57:00	117	77	77	75	75	76	76	75	75	75	76
1:57:05	117	77	77	75	75	76	76	75	75	75	76
1:57:10	117	77	77	75	75	76	76	75	75	75	75
1:57:15	117	77	77	75	75	76	76	75	76	75	76
1:57:20	117	77	77	75	75	76	76	75	76	75	76
1:57:25	117	77	77	75	75	76	76	75	76	75	76
1:57:30	118	77	77	75	76	76	76	75	76	75	76
1:57:35	118	77	77	75	76	76	76	75	76	75	76
1:57:40	118	77	77	75	76	76	76	75	76	75	76
1:57:45	118	77	77	75	76	77	76	75	76	75	76
1:57:50	118	77	77	75	76	77	76	75	76	75	76
1:57:55	118	77	77	75	76	77	76	75	76	75	76
1:58:00	118	77	77	75	76	77	76	75	76	75	76
1:58:05	118	77	77	75	76	76	76	75	76	75	76
1:58:10	118	77	77	75	76	77	76	75	76	75	76
1:58:15	118	77	77	75	76	77	76	75	76	75	76
1:58:20	118	77	77	75	76	77	76	75	76	75	76
1:58:25	118	77	77	75	76	76	76	75	76	75	76
1:58:30	119	77	77	75	76	77	76	75	76	75	76
1:58:35	119	77	77	75	76	77	76	75	76	75	76
1:58:40	119	77	77	75	76	77	76	75	76	75	76
1:58:45	119	77	77	75	76	77	76	75	76	75	76
1:58:50	119	77	77	75	76	77	76	75	76	75	76
1:58:55	119	77	77	75	76	77	76	75	76	75	76
1:59:00	119	77	77	75	76	77	76	75	76	75	76
1:59:05	119	77	77	75	76	77	76	75	76	75	76
1:59:10	119	77	77	75	76	77	76	75	76	75	76
1:59:15	119	77	77	75	76	77	76	75	76	75	76
1:59:20	119	77	77	75	76	77	77	75	76	75	76
1:59:25	119	77	77	75	76	77	76	75	76	75	76
1:59:30	120	77	77	75	76	77	76	75	76	75	76
1:59:35	120	77	77	75	76	77	77	75	76	75	76
1:59:40	120	77	77	75	76	77	77	75	76	75	76
1:59:45	120	77	77	75	76	77	76	75	76	75	76
1:59:50	120	77	77	75	76	77	76	75	76	75	76
1:59:55	120	77	77	75	76	77	76	75	76	75	76
2:00:00	120	77	77	75	76	77	77	75	76	75	76
2:00:05	120	77	77	75	76	77	77	75	76	75	76
2:00:10	120	77	77	75	76	77	76	75	76	75	76
2:00:15	120	77	77	75	76	77	76	75	76	75	76
2:00:20	120	77	77	75	76	77	77	75	76	75	76
2:00:25	120	77	77	75	76	77	77	75	76	75	76
2:00:30	121	77	77	75	76	77	77	75	76	75	76
2:00:35	121	78	77	75	76	77	77	75	76	75	76
2:00:40	121	78	78	75	76	77	77	75	77	75	76
2:00:45	121	78	78	75	76	77	77	75	77	75	76
2:00:50	121	78	77	75	76	77	77	76	77	75	76
2:00:55	121	78	78	75	76	77	77	76	77	75	76
2:01:00	121	77	77	75	76	77	77	75	76	75	76
2:01:05	121	78	77	75	76	77	77	75	76	75	76
2:01:10	121	78	78	75	76	77	77	75	77	75	76
2:01:15	121	78	78	75	76	77	77	76	77	75	76
2:01:20	121	78	78	75	77	77	77	76	77	75	76
2:01:25	121	78	78	75	76	77	77	76	77	75	76
2:01:30	122	78	78	75	77	77	77	76	77	75	76
2:01:35	122	78	78	75	76	77	77	76	77	75	76
2:01:40	122	78	78	75	77	77	77	76	77	75	76
2:01:45	122	78	78	75	76	77	77	76	77	75	76
2:01:50	122	78	78	75	77	77	77	76	77	75	77

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
2:01:55	122	78	78	75	77	77	77	76	77	75	76
2:02:00	122	78	78	75	77	77	77	76	77	75	77
2:02:05	122	78	78	75	77	77	77	76	77	75	77
2:02:10	122	78	78	75	77	77	77	76	77	75	76
2:02:15	122	78	78	75	77	77	77	76	77	75	76
2:02:20	122	78	78	75	77	77	77	76	77	75	77
2:02:25	122	78	78	75	77	77	77	76	77	75	77
2:02:30	123	78	78	75	77	77	77	76	77	75	77
2:02:35	123	78	78	76	77	77	77	76	77	75	77
2:02:40	123	78	78	76	77	77	77	76	77	75	77
2:02:45	123	78	78	76	77	78	77	76	77	75	77
2:02:50	123	78	78	75	77	77	77	76	77	75	77
2:02:55	123	78	78	76	77	78	77	76	77	75	77
2:03:00	123	78	78	76	77	77	77	76	77	75	77
2:03:05	123	78	78	76	77	77	77	76	77	75	77
2:03:10	123	78	78	76	77	78	77	76	77	75	77
2:03:15	123	78	78	76	77	78	77	76	77	75	77
2:03:20	123	78	78	76	77	78	77	76	77	75	77
2:03:25	123	78	78	76	77	78	77	76	77	75	77
2:03:30	124	78	78	76	77	78	77	76	77	75	77
2:03:35	124	78	78	76	77	78	77	76	77	75	77
2:03:40	124	78	78	76	77	78	77	76	77	75	77
2:03:45	124	78	78	76	77	78	77	76	77	75	77
2:03:50	124	78	78	76	77	78	77	76	77	75	77
2:03:55	124	78	78	76	77	78	77	76	77	75	77
2:04:00	124	78	78	76	77	78	78	76	77	76	77
2:04:05	124	78	78	76	77	78	78	76	77	76	77
2:04:10	124	78	78	76	77	78	77	76	77	75	77
2:04:15	124	78	78	76	77	78	78	76	77	76	77
2:04:20	124	78	78	76	77	78	78	76	77	75	77
2:04:25	124	78	78	76	77	78	78	76	77	76	77
2:04:30	125	78	78	76	77	78	78	76	77	76	77
2:04:35	125	78	78	76	77	78	78	76	77	76	77
2:04:40	125	78	78	76	77	78	78	76	78	76	77
2:04:45	125	78	78	76	77	78	78	76	78	76	77
2:04:50	125	78	78	76	77	78	78	76	77	76	77
2:04:55	125	78	78	76	77	78	78	76	77	76	77
2:05:00	125	78	78	76	77	78	78	76	78	76	77
2:05:05	125	79	79	76	77	78	78	76	78	76	77
2:05:10	125	79	79	76	77	78	78	76	78	76	77
2:05:15	125	79	79	76	77	78	78	76	78	76	77
2:05:20	125	79	79	76	77	78	78	76	78	76	77
2:05:25	125	79	79	76	77	78	78	76	78	76	77
2:05:30	126	79	79	76	77	78	78	77	78	76	77
2:05:35	126	79	79	76	77	78	78	76	78	76	77
2:05:40	126	79	79	76	77	78	78	76	78	76	77
2:05:45	126	79	79	76	77	78	78	76	78	76	77
2:05:50	126	79	79	76	78	78	78	77	78	76	78
2:05:55	126	79	79	76	78	78	78	77	78	76	78
2:06:00	126	79	79	76	78	78	78	77	78	76	78
2:06:05	126	79	79	76	78	79	78	77	78	76	78
2:06:10	126	79	79	76	78	78	78	76	78	76	77
2:06:15	126	79	79	76	78	79	78	77	78	76	78
2:06:20	126	79	79	76	78	79	78	77	78	76	78
2:06:25	126	79	79	76	78	78	78	77	78	76	78
2:06:30	127	79	79	76	78	79	78	77	78	76	78
2:06:35	127	79	79	76	78	78	78	77	78	76	78
2:06:40	127	79	79	76	78	78	78	77	78	76	78
2:06:45	127	79	79	76	78	79	78	77	78	76	78
2:06:50	127	79	79	76	78	79	78	77	78	76	78
2:06:55	127	79	79	76	78	79	78	77	78	76	78
2:07:00	127	79	79	76	78	79	78	77	78	76	78
2:07:05	127	79	79	76	78	79	78	77	78	76	78

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
2:07:10	127	79	79	76	78	79	78	77	78	76	78
2:07:15	127	79	79	76	78	79	78	77	78	76	78
2:07:20	127	79	79	76	78	79	78	77	78	76	78
2:07:25	127	79	79	77	78	79	79	77	78	76	78
2:07:30	128	79	79	77	78	79	79	77	78	76	78
2:07:35	128	79	79	76	78	79	78	77	78	76	78
2:07:40	128	79	79	77	78	79	79	77	78	76	78
2:07:45	128	79	79	76	78	79	79	77	78	76	78
2:07:50	128	80	80	77	78	79	79	77	78	76	78
2:07:55	128	80	80	77	78	79	79	77	78	76	78
2:08:00	128	80	80	77	78	79	79	77	78	76	78
2:08:05	128	80	80	77	78	79	79	77	79	76	78
2:08:10	128	80	80	77	78	79	79	77	79	76	78
2:08:15	128	80	80	77	78	79	79	77	78	76	78
2:08:20	128	80	80	77	78	79	79	77	78	76	78
2:08:25	128	80	80	77	78	79	79	77	79	77	78
2:08:30	129	80	80	77	78	80	79	77	79	77	78
2:08:35	129	80	80	77	78	80	79	77	79	77	78
2:08:40	129	80	80	77	78	80	79	77	79	77	78
2:08:45	129	80	80	77	78	80	79	77	79	77	78
2:08:50	129	80	80	77	78	79	79	77	79	77	78
2:08:55	129	80	80	77	78	80	79	77	79	76	78
2:09:00	129	80	80	77	78	80	79	77	79	77	78
2:09:05	129	80	80	77	79	80	79	77	79	77	79
2:09:10	129	80	80	77	79	80	79	77	79	77	79
2:09:15	129	80	80	77	78	80	79	77	79	77	78
2:09:20	129	80	80	77	78	80	79	77	79	77	78
2:09:25	129	80	80	77	78	80	79	77	79	77	79
2:09:30	130	80	80	77	79	80	80	77	79	77	79
2:09:35	130	80	80	77	79	80	79	77	79	77	79
2:09:40	130	80	80	77	79	80	80	77	79	77	79
2:09:45	130	80	80	77	79	80	80	77	79	77	79
2:09:50	130	80	80	77	79	80	80	77	79	77	79
2:09:55	130	80	80	77	79	80	80	77	79	77	79
2:10:00	130	80	80	77	79	80	80	77	79	77	79
2:10:05	130	80	80	77	79	80	80	77	79	77	79
2:10:10	130	80	80	77	79	80	80	77	79	77	79
2:10:15	130	80	80	77	79	80	80	77	79	77	79
2:10:20	130	80	80	77	79	80	80	77	79	77	79
2:10:25	130	80	80	77	79	80	80	77	79	77	79
2:10:30	131	80	80	77	79	80	80	77	80	77	79
2:10:35	131	80	80	77	79	80	80	77	80	77	79
2:10:40	131	80	80	77	79	80	80	77	80	77	79
2:10:45	131	81	81	77	79	80	80	78	80	77	79
2:10:50	131	80	80	77	79	80	80	77	80	77	79
2:10:55	131	80	80	77	79	80	80	77	80	77	79
2:11:00	131	81	81	77	79	81	80	78	80	77	79
2:11:05	131	81	81	77	79	81	80	78	80	77	79
2:11:10	131	81	81	77	79	81	80	78	80	77	79
2:11:15	131	81	81	77	79	80	80	77	80	77	79
2:11:20	131	81	81	78	80	81	80	78	80	77	79
2:11:25	131	81	81	78	80	81	80	78	80	77	79
2:11:30	132	81	81	78	80	81	80	78	80	77	79
2:11:35	132	81	81	78	80	81	80	78	80	77	79
2:11:40	132	81	81	78	80	81	80	78	80	77	79
2:11:45	132	81	81	78	80	81	80	78	80	77	79
2:11:50	132	81	81	78	80	81	80	78	80	77	80
2:11:55	132	81	81	78	80	81	81	78	80	77	80
2:12:00	132	81	81	78	80	81	81	78	80	77	80
2:12:05	132	81	81	78	80	81	81	78	80	77	80
2:12:10	132	81	81	78	80	81	81	78	80	77	80
2:12:15	132	81	81	78	80	81	81	78	80	77	80
2:12:20	132	81	81	78	80	81	81	78	80	77	80

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
2:12:25	132	81	81	78	80	81	81	78	80	78	80
2:12:30	133	82	82	78	80	81	81	78	80	78	80
2:12:35	133	82	82	78	80	82	81	78	80	78	80
2:12:40	133	82	82	78	80	82	81	78	80	78	80
2:12:45	133	82	82	78	80	81	81	78	80	77	80
2:12:50	133	82	81	78	80	82	81	78	80	77	80
2:12:55	133	82	82	78	80	82	81	78	80	78	80
2:13:00	133	82	82	78	80	82	81	78	81	78	80
2:13:05	133	82	82	78	80	82	81	78	81	78	80
2:13:10	133	82	82	78	80	82	81	78	81	78	80
2:13:15	133	82	82	78	80	82	81	78	81	78	80
2:13:20	133	82	82	78	80	82	82	78	81	78	80
2:13:25	133	82	82	78	80	82	81	78	81	78	80
2:13:30	134	82	82	78	80	82	81	78	81	78	80
2:13:35	134	82	82	78	80	82	82	78	81	78	80
2:13:40	134	82	82	78	80	82	82	78	81	78	80
2:13:45	134	82	82	78	80	82	82	78	81	78	80
2:13:50	134	82	82	78	80	82	82	78	81	78	80
2:13:55	134	82	82	78	80	82	82	78	81	78	80
2:14:00	134	82	82	78	81	82	82	78	81	78	81
2:14:05	134	82	82	78	81	82	82	78	81	78	81
2:14:10	134	82	82	78	81	82	82	78	81	78	80
2:14:15	134	82	82	78	81	82	82	78	81	78	80
2:14:20	134	82	82	78	81	82	82	78	81	78	81
2:14:25	134	82	82	79	81	82	82	78	81	78	81
2:14:30	135	82	82	79	81	82	82	78	82	78	81
2:14:35	135	82	82	79	81	83	82	78	82	78	81
2:14:40	135	82	82	79	81	82	82	78	81	78	81
2:14:45	135	82	82	79	81	82	82	78	81	78	81
2:14:50	135	82	82	79	81	83	82	79	82	78	81
2:14:55	135	82	82	79	81	82	82	78	82	78	81
2:15:00	135	83	82	79	81	83	82	79	82	78	81
2:15:05	135	83	83	79	81	83	82	79	82	78	81
2:15:10	135	83	83	79	81	83	82	79	82	78	81
2:15:15	135	83	83	79	81	83	82	79	82	78	81
2:15:20	135	83	83	79	81	83	82	79	82	78	81
2:15:25	135	83	83	79	81	83	82	79	82	78	81
2:15:30	136	83	83	79	81	83	83	79	82	78	81
2:15:35	136	83	83	79	81	83	83	79	82	78	81
2:15:40	136	83	83	79	82	83	83	79	82	78	81
2:15:45	136	83	83	79	82	83	83	79	82	78	81
2:15:50	136	83	83	79	82	83	83	79	82	78	81
2:15:55	136	83	83	79	81	83	83	79	82	78	81
2:16:00	136	83	83	79	82	83	83	79	82	78	81
2:16:05	136	83	83	79	82	83	83	79	82	78	81
2:16:10	136	83	83	79	82	84	83	79	82	79	82
2:16:15	136	83	83	79	82	84	83	79	82	79	82
2:16:20	136	83	83	79	82	84	83	79	82	79	82
2:16:25	136	83	83	79	82	84	83	79	82	79	81
2:16:30	137	83	83	79	82	84	83	79	82	79	82
2:16:35	137	84	83	80	82	84	83	79	82	79	82
2:16:40	137	84	83	80	82	84	83	79	82	79	82
2:16:45	137	84	84	80	82	84	83	79	83	79	82
2:16:50	137	84	83	80	82	84	83	79	82	79	82
2:16:55	137	84	84	80	82	84	84	79	83	79	82
2:17:00	137	84	84	80	82	84	84	79	83	79	82
2:17:05	137	84	84	80	82	84	84	79	83	79	82
2:17:10	137	84	84	80	82	84	84	79	83	79	82
2:17:15	137	84	84	80	82	84	84	79	83	79	82
2:17:20	137	84	84	80	82	84	84	79	83	79	82
2:17:25	137	84	84	80	82	84	84	80	83	79	82
2:17:30	138	84	84	80	82	84	84	79	83	79	82
2:17:35	138	84	84	80	82	84	84	79	83	79	82

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time		Wall Assembly									
(h:m:s)		TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
2:17:40	138	84	84	80	83	85	84	80	83	79	82
2:17:45	138	84	84	80	82	84	84	80	83	79	82
2:17:50	138	84	84	80	83	85	84	80	83	79	82
2:17:55	138	84	84	80	83	85	84	80	83	79	82
2:18:00	138	84	84	80	83	85	84	80	83	79	82
2:18:05	138	84	84	80	83	85	84	80	83	79	82
2:18:10	138	84	84	80	83	85	84	80	84	79	83
2:18:15	138	85	84	80	83	85	84	80	84	80	83
2:18:20	138	85	84	80	83	85	84	80	84	80	83
2:18:25	138	85	85	80	83	85	84	80	84	80	83
2:18:30	139	85	85	80	83	85	85	80	84	80	83
2:18:35	139	85	85	80	83	85	85	80	84	80	83
2:18:40	139	85	85	80	83	85	85	80	84	80	83
2:18:45	139	85	85	80	83	85	85	80	84	80	83
2:18:50	139	85	85	81	83	85	85	80	84	80	83
2:18:55	139	85	85	81	84	85	85	80	84	80	83
2:19:00	139	85	85	81	83	85	85	80	84	80	83
2:19:05	139	85	85	81	83	85	85	80	84	80	83
2:19:10	139	85	85	81	84	85	85	80	84	80	83
2:19:15	139	85	85	81	84	86	85	80	84	80	83
2:19:20	139	85	85	81	84	85	85	80	84	80	83
2:19:25	139	85	85	81	84	85	85	80	84	80	83
2:19:30	140	85	85	81	84	86	85	80	84	80	83
2:19:35	140	85	85	81	84	86	85	80	84	80	83
2:19:40	140	85	85	81	84	86	85	80	84	80	83
2:19:45	140	85	85	81	84	86	85	80	84	80	83
2:19:50	140	85	85	81	84	86	85	80	84	80	83
2:19:55	140	85	85	81	84	86	85	80	84	80	83
2:20:00	140	86	85	81	84	86	85	80	85	80	84
2:20:05	140	86	85	81	84	86	85	80	85	80	84
2:20:10	140	86	85	81	84	86	85	80	85	80	84
2:20:15	140	86	86	82	84	86	86	80	85	80	84
2:20:20	140	86	86	81	84	86	86	80	85	80	84
2:20:25	140	86	86	81	84	86	86	80	85	80	84
2:20:30	141	86	86	82	84	86	86	80	85	80	84
2:20:35	141	86	86	82	84	86	86	80	85	80	84
2:20:40	141	86	86	82	84	86	86	80	85	80	84
2:20:45	141	86	86	82	84	87	86	81	85	80	84
2:20:50	141	86	86	82	84	86	86	80	85	80	84
2:20:55	141	86	86	82	84	86	86	80	85	80	84
2:21:00	141	86	86	82	84	87	86	80	85	80	84
2:21:05	141	86	86	82	85	87	86	80	85	80	84
2:21:10	141	86	86	82	85	87	86	81	85	81	84
2:21:15	141	86	86	82	85	87	86	81	85	81	84
2:21:20	141	87	86	82	85	87	86	81	85	81	84
2:21:25	141	87	86	82	85	87	86	81	85	81	84
2:21:30	142	87	86	82	85	87	86	81	85	81	84
2:21:35	142	87	86	82	85	87	86	81	85	81	84
2:21:40	142	87	86	82	85	87	87	81	86	81	85
2:21:45	142	87	86	82	85	87	87	81	85	81	84
2:21:50	142	87	86	82	85	87	87	81	85	81	85
2:21:55	142	87	87	82	85	87	87	81	86	81	85
2:22:00	142	87	87	82	85	87	87	81	86	81	85
2:22:05	142	87	87	82	85	87	87	81	86	81	85
2:22:10	142	87	87	82	85	87	87	81	86	81	85
2:22:15	142	87	87	82	85	87	87	81	86	81	85
2:22:20	142	87	87	82	85	87	87	81	86	81	85
2:22:25	142	87	87	82	85	87	87	81	86	81	85
2:22:30	143	87	87	83	85	88	87	81	86	81	85
2:22:35	143	87	87	83	85	88	87	81	86	81	85
2:22:40	143	87	87	83	85	88	87	81	86	81	85
2:22:45	143	87	87	83	85	88	87	81	86	81	85
2:22:50	143	87	87	83	86	88	88	81	86	81	85

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time		Wall Assembly									
(h:m:s)		TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
2:22:55	143	88	87	83	86	88	88	81	86	81	85
2:23:00	143	88	87	83	86	88	88	81	86	82	85
2:23:05	143	88	87	83	86	88	88	81	86	82	85
2:23:10	143	88	88	83	86	88	88	82	87	82	86
2:23:15	143	88	87	83	86	88	88	82	87	82	86
2:23:20	143	88	88	83	86	88	88	82	87	82	86
2:23:25	143	88	88	83	86	88	88	82	87	82	86
2:23:30	144	88	88	83	86	88	88	82	87	82	86
2:23:35	144	88	88	84	86	88	88	82	87	82	86
2:23:40	144	88	88	84	86	89	88	82	87	82	86
2:23:45	144	88	88	84	86	89	88	82	87	82	86
2:23:50	144	88	88	84	86	89	88	82	87	82	86
2:23:55	144	88	88	84	86	89	88	82	87	82	86
2:24:00	144	88	88	84	86	89	88	82	87	82	86
2:24:05	144	88	88	84	86	89	89	82	87	82	86
2:24:10	144	88	88	84	86	89	89	82	87	82	86
2:24:15	144	88	88	84	87	89	89	82	87	82	86
2:24:20	144	89	88	84	87	89	89	82	87	82	86
2:24:25	144	89	88	84	87	89	89	82	87	82	86
2:24:30	145	89	88	84	87	89	89	82	87	82	86
2:24:35	145	89	89	84	87	89	89	82	87	82	87
2:24:40	145	89	88	84	87	89	89	82	87	82	86
2:24:45	145	89	89	84	87	90	89	82	88	82	87
2:24:50	145	89	89	84	87	89	89	82	87	82	87
2:24:55	145	89	89	84	87	90	90	82	88	83	87
2:25:00	145	89	89	84	87	90	90	82	88	83	87
2:25:05	145	89	89	84	87	90	90	82	88	83	87
2:25:10	145	89	89	85	87	90	90	82	88	83	87
2:25:15	145	89	89	85	87	90	90	82	88	83	87
2:25:20	145	89	89	85	87	90	90	82	88	83	87
2:25:25	145	90	89	85	87	90	90	83	88	83	87
2:25:30	146	90	89	85	87	90	90	82	88	83	87
2:25:35	146	90	89	85	87	90	90	82	88	83	87
2:25:40	146	90	89	85	87	90	90	82	88	83	87
2:25:45	146	90	89	85	87	90	91	83	88	83	87
2:25:50	146	90	90	85	87	90	91	83	88	83	87
2:25:55	146	90	90	85	87	91	91	83	89	83	87
2:26:00	146	90	90	85	88	91	91	83	89	83	88
2:26:05	146	90	90	85	88	91	91	83	89	83	88
2:26:10	146	90	90	85	88	91	91	83	89	83	88
2:26:15	146	90	90	85	88	91	91	83	89	83	88
2:26:20	146	90	90	85	88	91	91	83	89	84	88
2:26:25	146	91	90	85	88	91	91	83	89	84	88
2:26:30	147	90	90	85	88	91	91	83	89	84	88
2:26:35	147	91	90	85	88	91	92	83	89	84	88
2:26:40	147	91	90	85	88	91	92	83	89	84	88
2:26:45	147	91	90	85	88	91	92	83	89	84	88
2:26:50	147	91	90	85	88	91	92	83	89	84	88
2:26:55	147	91	90	85	88	91	92	83	89	84	88
2:27:00	147	91	91	86	88	91	92	83	89	84	88
2:27:05	147	91	91	86	88	92	92	83	89	84	88
2:27:10	147	91	91	86	89	92	92	84	89	84	88
2:27:15	147	91	91	86	89	92	92	84	90	84	89
2:27:20	147	91	91	86	89	92	92	83	90	84	89
2:27:25	147	91	91	86	89	92	92	83	90	84	89
2:27:30	148	91	91	86	89	92	92	83	90	84	89
2:27:35	148	91	91	86	89	92	93	84	90	84	89
2:27:40	148	91	91	86	89	92	93	84	90	84	89
2:27:45	148	91	91	86	89	92	93	84	90	84	89
2:27:50	148	92	91	86	89	92	93	84	90	84	89
2:27:55	148	92	91	86	89	92	93	84	90	84	89
2:28:00	148	92	91	86	89	92	93	84	90	84	89
2:28:05	148	92	91	86	89	92	93	84	90	84	89

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time		Wall Assembly									
(h:m:s)		TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
2:28:10	148	92	91	86	89	92	93	84	90	84	89
2:28:15	148	92	91	86	89	92	93	84	90	84	89
2:28:20	148	92	92	87	89	93	93	84	90	84	89
2:28:25	148	92	92	87	89	93	93	84	91	85	89
2:28:30	149	92	92	87	89	93	93	84	91	85	89
2:28:35	149	92	92	87	89	93	94	84	91	85	89
2:28:40	149	92	92	87	89	93	94	84	91	85	90
2:28:45	149	92	92	87	89	93	94	84	91	85	90
2:28:50	149	92	92	87	90	93	94	84	91	85	90
2:28:55	149	92	92	87	90	93	94	84	91	85	90
2:29:00	149	92	92	87	90	93	94	84	91	85	90
2:29:05	149	92	92	87	90	93	94	84	91	85	90
2:29:10	149	93	92	87	90	93	95	84	91	85	90
2:29:15	149	93	92	87	90	93	95	84	91	85	90
2:29:20	149	93	92	87	90	93	95	84	91	85	90
2:29:25	149	93	92	87	90	94	95	84	92	85	90
2:29:30	150	93	92	87	90	93	95	84	92	85	90
2:29:35	150	93	93	87	90	94	95	84	92	85	90
2:29:40	150	93	93	87	90	94	95	84	92	85	90
2:29:45	150	93	93	87	90	94	95	84	92	85	90
2:29:50	150	93	93	88	91	94	95	85	92	86	91
2:29:55	150	93	93	88	90	94	95	85	92	85	91
2:30:00	150	93	93	88	91	94	95	85	92	85	91
2:30:05	150	93	93	88	91	94	96	85	92	86	91
2:30:10	150	93	93	88	91	94	96	85	92	85	91
2:30:15	150	93	93	88	91	94	96	85	92	86	91
2:30:20	150	94	93	88	91	95	96	85	92	86	91
2:30:25	150	94	93	88	91	95	96	85	92	86	91
2:30:30	151	94	93	88	91	95	96	85	92	86	91
2:30:35	151	94	94	88	91	95	96	85	93	86	91
2:30:40	151	94	94	88	91	95	96	85	93	86	91
2:30:45	151	94	94	88	91	95	96	85	93	86	91
2:30:50	151	94	94	89	91	95	96	85	93	86	91
2:30:55	151	94	94	89	91	95	97	85	93	86	92
2:31:00	151	94	94	89	92	95	97	85	93	86	92
2:31:05	151	95	94	89	92	95	97	85	93	86	92
2:31:10	151	95	94	89	92	95	97	85	93	86	92
2:31:15	151	95	94	89	92	95	97	85	93	86	92
2:31:20	151	95	94	89	92	96	97	85	94	86	92
2:31:25	151	95	94	89	92	96	97	85	93	86	92
2:31:30	152	95	94	89	92	96	97	85	94	86	92
2:31:35	152	95	95	89	92	96	97	85	94	87	92
2:31:40	152	95	95	89	92	96	98	86	94	87	92
2:31:45	152	95	95	89	92	96	98	86	94	87	92
2:31:50	152	95	95	89	92	96	98	86	94	87	92
2:31:55	152	95	95	89	92	96	98	86	94	87	92
2:32:00	152	95	95	89	92	96	98	86	94	87	92
2:32:05	152	95	95	89	92	96	98	86	94	87	93
2:32:10	152	95	95	89	92	96	98	86	94	87	93
2:32:15	152	95	95	89	92	96	98	86	95	87	93
2:32:20	152	96	95	90	93	96	98	86	95	87	93
2:32:25	152	96	95	90	93	96	98	86	95	87	93
2:32:30	153	96	95	90	93	97	98	86	95	87	93
2:32:35	153	96	95	90	93	97	99	86	95	87	93
2:32:40	153	96	95	90	93	97	99	86	95	87	93
2:32:45	153	96	95	90	93	97	99	86	95	87	93
2:32:50	153	96	96	90	93	97	99	86	95	87	93
2:32:55	153	96	96	90	93	97	99	86	95	87	93
2:33:00	153	96	96	90	93	97	99	86	95	87	93
2:33:05	153	96	96	90	93	97	99	86	95	87	93
2:33:10	153	96	96	90	93	97	100	86	95	87	93
2:33:15	153	96	96	90	93	97	100	86	96	87	94
2:33:20	153	96	96	90	93	97	100	86	96	87	94

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Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time		Wall Assembly									
(h:m:s)		TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
2:33:25	153	96	96	91	94	98	100	86	96	88	94
2:33:30	154	96	96	90	93	97	100	86	96	88	94
2:33:35	154	97	96	91	94	98	100	86	96	88	94
2:33:40	154	97	96	91	94	98	100	87	96	88	94
2:33:45	154	97	96	91	94	98	100	87	96	88	94
2:33:50	154	97	96	91	94	98	100	87	96	88	94
2:33:55	154	97	96	91	94	98	100	87	96	88	94
2:34:00	154	97	97	91	94	98	100	87	96	88	94
2:34:05	154	97	97	91	94	98	100	87	96	88	94
2:34:10	154	97	97	91	94	98	101	87	97	88	94
2:34:15	154	97	97	91	94	98	101	87	97	88	95
2:34:20	154	97	97	91	94	98	101	87	97	88	95
2:34:25	154	97	97	91	95	98	101	87	97	88	95
2:34:30	155	97	97	92	95	98	101	87	97	88	95
2:34:35	155	98	97	92	95	99	101	87	97	88	95
2:34:40	155	98	97	92	95	99	101	87	97	88	95
2:34:45	155	98	97	92	95	99	101	87	97	89	95
2:34:50	155	98	97	92	95	99	102	87	97	89	95
2:34:55	155	98	97	92	95	99	102	87	97	89	95
2:35:00	155	98	97	92	95	99	102	87	98	89	95
2:35:05	155	98	98	92	95	99	102	87	98	89	95
2:35:10	155	98	98	92	95	99	102	87	98	89	95
2:35:15	155	98	98	92	95	99	102	87	98	89	95
2:35:20	155	98	98	92	95	100	102	87	98	89	95
2:35:25	155	98	98	92	95	100	102	87	98	89	96
2:35:30	156	98	98	92	95	100	102	88	98	89	96
2:35:35	156	99	98	92	96	100	103	88	98	89	96
2:35:40	156	98	98	92	96	100	103	88	98	89	96
2:35:45	156	99	98	92	96	100	103	88	98	89	96
2:35:50	156	99	98	93	96	100	103	88	98	89	96
2:35:55	156	99	98	93	96	100	103	88	99	89	96
2:36:00	156	99	98	93	96	100	103	88	99	89	96
2:36:05	156	99	98	93	96	100	103	88	99	89	96
2:36:10	156	99	99	93	96	100	103	88	99	89	96
2:36:15	156	99	98	93	96	100	103	88	99	89	96
2:36:20	156	99	99	93	96	100	103	88	99	89	96
2:36:25	156	99	99	93	96	100	103	88	99	89	96
2:36:30	157	100	99	93	96	100	104	88	100	90	97
2:36:35	157	100	99	93	96	101	104	88	100	90	97
2:36:40	157	100	99	93	97	101	104	88	100	90	97
2:36:45	157	100	99	93	97	101	104	88	100	90	97
2:36:50	157	100	99	94	97	101	104	89	100	90	97
2:36:55	157	100	99	93	97	101	104	88	100	90	97
2:37:00	157	100	99	94	97	101	104	88	100	90	97
2:37:05	157	100	99	94	97	101	104	89	100	90	97
2:37:10	157	100	100	94	97	101	104	89	100	90	97
2:37:15	157	100	100	94	97	101	105	89	100	90	97
2:37:20	157	100	100	94	97	101	105	89	100	90	97
2:37:25	157	100	100	94	97	102	105	89	100	90	97
2:37:30	158	100	100	94	97	102	105	89	101	91	98
2:37:35	158	100	100	94	98	102	105	89	101	91	98
2:37:40	158	101	100	94	98	102	105	89	101	91	98
2:37:45	158	100	100	94	98	102	105	89	101	91	98
2:37:50	158	101	100	95	98	102	105	89	101	91	98
2:37:55	158	101	100	95	98	102	105	89	101	91	98
2:38:00	158	101	100	95	98	102	106	89	101	91	98
2:38:05	158	101	100	95	98	102	106	89	102	91	98
2:38:10	158	101	100	95	98	102	106	89	102	91	98
2:38:15	158	101	100	95	98	102	106	89	102	91	98
2:38:20	158	101	101	95	98	102	106	89	102	91	98
2:38:25	158	101	101	95	98	102	106	89	102	91	98
2:38:30	159	101	101	95	98	103	106	89	102	91	99
2:38:35	159	102	101	95	99	103	107	89	102	91	99

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time		Wall Assembly									
(h:m:s)		TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
2:38:40	159	102	101	95	99	103	107	90	102	91	99
2:38:45	159	102	101	95	99	103	107	90	102	91	99
2:38:50	159	102	101	95	99	103	107	90	102	91	99
2:38:55	159	102	101	95	99	103	107	90	103	91	99
2:39:00	159	102	101	95	99	103	107	90	103	91	99
2:39:05	159	102	101	96	99	103	107	90	103	92	99
2:39:10	159	102	101	96	99	103	107	90	103	92	99
2:39:15	159	102	102	96	99	103	107	90	103	92	99
2:39:20	159	102	102	96	99	103	107	90	103	92	99
2:39:25	159	102	102	96	100	103	107	90	103	92	99
2:39:30	160	102	102	96	100	104	108	90	103	92	100
2:39:35	160	102	102	96	100	104	108	90	103	92	100
2:39:40	160	102	102	96	100	104	108	90	104	92	100
2:39:45	160	103	102	96	100	104	108	90	104	92	100
2:39:50	160	103	102	96	100	104	108	90	104	92	100
2:39:55	160	103	102	96	100	104	108	91	104	92	100
2:40:00	160	103	102	96	100	104	108	91	104	92	100
2:40:05	160	103	102	96	100	104	108	91	104	92	100
2:40:10	160	103	102	96	100	104	109	91	104	92	100
2:40:15	160	103	102	97	100	104	109	91	104	92	100
2:40:20	160	103	102	97	100	104	109	91	104	92	100
2:40:25	160	103	102	97	100	104	109	91	105	92	100
2:40:30	161	103	102	97	101	105	109	91	105	92	100
2:40:35	161	103	103	97	101	105	109	91	105	92	101
2:40:40	161	103	103	97	101	105	109	91	105	93	101
2:40:45	161	104	103	97	101	105	109	91	105	93	101
2:40:50	161	104	103	97	101	105	110	91	105	93	101
2:40:55	161	104	103	97	101	105	110	91	105	93	101
2:41:00	161	104	103	97	101	105	110	91	105	93	101
2:41:05	161	104	103	97	101	105	110	91	105	93	101
2:41:10	161	104	103	97	101	105	110	91	105	93	101
2:41:15	161	104	103	97	102	105	110	91	106	93	101
2:41:20	161	104	103	98	102	105	110	91	106	93	101
2:41:25	161	104	103	98	102	105	110	91	106	93	101
2:41:30	162	104	103	98	102	105	110	91	106	93	101
2:41:35	162	104	104	98	102	106	111	91	106	93	102
2:41:40	162	105	104	98	102	106	111	91	106	93	102
2:41:45	162	105	104	98	102	106	111	91	106	93	102
2:41:50	162	105	104	98	102	106	111	92	106	93	102
2:41:55	162	105	104	98	102	106	111	92	107	93	102
2:42:00	162	105	104	98	102	106	111	92	107	93	102
2:42:05	162	105	104	98	103	106	111	92	107	94	102
2:42:10	162	105	104	98	103	106	111	92	107	94	102
2:42:15	162	105	104	98	103	106	112	92	107	94	102
2:42:20	162	105	104	99	103	106	112	92	107	94	102
2:42:25	162	105	104	99	103	107	112	92	107	94	102
2:42:30	163	105	105	99	103	107	112	92	107	94	103
2:42:35	163	105	105	99	103	107	112	92	107	94	103
2:42:40	163	105	105	99	103	107	112	92	107	94	103
2:42:45	163	106	105	99	104	107	112	92	108	94	103
2:42:50	163	106	105	99	104	107	112	92	108	94	103
2:42:55	163	106	105	99	104	107	112	92	108	94	103
2:43:00	163	106	105	99	104	107	113	92	108	94	103
2:43:05	163	106	105	99	104	107	113	92	108	94	103
2:43:10	163	106	105	99	104	107	113	92	108	94	103
2:43:15	163	106	105	100	104	108	113	93	108	95	104
2:43:20	163	106	105	100	104	108	113	92	108	95	103
2:43:25	163	106	105	100	104	108	113	92	109	95	104
2:43:30	164	107	105	100	104	108	113	93	109	95	104
2:43:35	164	107	105	100	105	108	113	92	109	95	104
2:43:40	164	107	105	100	105	108	113	93	109	95	104
2:43:45	164	107	105	100	105	108	114	93	109	95	104
2:43:50	164	107	106	100	105	108	114	93	109	95	104

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
2:43:55	164	107	106	100	105	108	114	93	109	95	104
2:44:00	164	107	106	100	105	108	114	93	109	95	104
2:44:05	164	107	106	100	105	108	114	93	110	95	104
2:44:10	164	107	106	100	105	109	114	93	110	95	104
2:44:15	164	107	106	100	105	108	114	93	110	95	104
2:44:20	164	107	106	100	105	109	114	93	110	95	104
2:44:25	164	107	106	100	105	109	114	93	110	95	104
2:44:30	165	108	107	101	106	109	115	93	110	95	105
2:44:35	165	108	107	101	106	109	115	93	110	95	105
2:44:40	165	108	107	101	106	109	115	93	110	95	105
2:44:45	165	108	107	101	106	109	115	93	110	96	105
2:44:50	165	108	107	101	106	109	115	93	111	96	105
2:44:55	165	108	107	101	106	109	115	93	111	96	105
2:45:00	165	108	107	101	106	109	115	93	111	96	105
2:45:05	165	108	107	101	107	110	116	93	111	96	105
2:45:10	165	108	107	101	107	110	116	94	111	96	105
2:45:15	165	108	107	101	107	110	116	94	111	96	105
2:45:20	165	108	107	102	107	110	116	94	111	96	106
2:45:25	165	108	107	102	107	110	116	94	111	96	106
2:45:30	166	109	107	102	107	110	116	94	112	96	106
2:45:35	166	109	107	102	107	110	116	94	112	96	106
2:45:40	166	109	108	102	107	110	116	94	112	96	106
2:45:45	166	109	108	102	107	110	116	94	112	96	106
2:45:50	166	109	108	102	108	111	117	94	112	96	106
2:45:55	166	109	108	102	108	111	117	94	112	96	106
2:46:00	166	109	108	102	108	111	117	94	112	96	106
2:46:05	166	109	108	102	108	111	117	94	112	96	106
2:46:10	166	109	108	102	108	111	117	94	112	96	106
2:46:15	166	109	108	102	108	111	117	94	113	96	107
2:46:20	166	109	108	102	108	111	117	94	113	96	107
2:46:25	166	110	108	102	108	111	118	94	113	96	107
2:46:30	167	110	108	103	109	111	118	94	113	96	107
2:46:35	167	110	108	103	109	111	118	94	113	96	107
2:46:40	167	110	109	103	109	112	118	94	113	97	107
2:46:45	167	110	109	103	109	112	118	95	113	97	107
2:46:50	167	110	109	103	109	112	118	95	113	97	107
2:46:55	167	110	109	103	109	112	118	95	113	97	107
2:47:00	167	110	109	103	109	112	118	95	113	97	107
2:47:05	167	110	109	103	109	112	118	95	114	97	107
2:47:10	167	110	109	103	110	112	119	95	114	97	108
2:47:15	167	110	109	103	110	112	119	95	114	97	108
2:47:20	167	110	109	104	110	112	119	95	114	97	108
2:47:25	167	111	109	104	110	113	119	95	114	97	108
2:47:30	168	111	110	104	110	113	119	95	114	97	108
2:47:35	168	111	110	104	110	113	119	95	114	97	108
2:47:40	168	111	110	104	110	113	119	95	114	97	108
2:47:45	168	111	110	104	110	113	120	95	114	97	108
2:47:50	168	111	110	104	110	113	120	95	115	97	108
2:47:55	168	111	110	104	111	113	120	95	115	97	108
2:48:00	168	111	110	104	111	113	120	95	115	97	108
2:48:05	168	111	110	104	111	113	120	95	115	97	108
2:48:10	168	111	110	104	111	113	120	95	115	98	109
2:48:15	168	111	110	104	111	114	120	95	115	98	109
2:48:20	168	112	110	104	111	114	120	96	115	98	109
2:48:25	168	112	111	104	111	114	120	96	115	98	109
2:48:30	169	112	111	105	111	114	121	96	115	98	109
2:48:35	169	112	111	105	112	114	121	96	116	98	109
2:48:40	169	112	111	105	112	114	121	96	116	98	109
2:48:45	169	112	111	105	112	114	121	96	116	98	109
2:48:50	169	112	111	105	112	114	121	96	116	98	109
2:48:55	169	112	111	105	112	114	121	96	116	98	109
2:49:00	169	112	111	105	112	115	122	96	116	98	110
2:49:05	169	112	111	105	112	115	122	96	116	98	110

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time		Wall Assembly									
(h:m:s)		TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
2:49:10	169	112	111	105	112	115	122	96	116	98	110
2:49:15	169	113	112	105	113	115	122	96	117	98	110
2:49:20	169	113	112	105	113	115	122	96	116	98	110
2:49:25	169	113	112	105	113	115	122	96	117	98	110
2:49:30	170	113	112	105	113	115	122	96	117	98	110
2:49:35	170	113	112	106	113	115	122	96	117	99	110
2:49:40	170	113	112	106	113	115	122	96	117	99	110
2:49:45	170	113	112	106	113	116	122	96	117	99	110
2:49:50	170	113	112	106	113	116	123	96	117	99	110
2:49:55	170	113	112	106	114	116	123	97	118	99	111
2:50:00	170	113	112	106	114	116	123	97	118	99	111
2:50:05	170	113	113	106	114	116	123	97	118	99	111
2:50:10	170	113	113	106	114	116	123	97	118	99	111
2:50:15	170	114	113	107	114	116	123	97	118	99	111
2:50:20	170	114	113	107	114	116	123	97	118	99	111
2:50:25	170	114	113	107	114	116	123	97	118	99	111
2:50:30	171	114	113	107	114	117	124	97	118	99	111
2:50:35	171	114	113	107	114	117	124	97	118	99	112
2:50:40	171	114	113	107	115	117	124	97	119	99	112
2:50:45	171	114	113	107	115	117	124	97	119	99	112
2:50:50	171	114	113	107	115	117	124	97	119	100	112
2:50:55	171	114	114	107	115	117	124	97	119	100	112
2:51:00	171	114	114	107	115	118	124	98	119	100	112
2:51:05	171	114	114	107	115	118	124	97	119	100	112
2:51:10	171	114	114	107	115	118	125	98	119	100	112
2:51:15	171	115	114	107	115	118	125	98	120	100	112
2:51:20	171	115	114	107	116	118	125	98	120	100	112
2:51:25	171	115	114	108	116	118	125	98	120	100	113
2:51:30	172	115	114	108	116	118	125	98	120	100	113
2:51:35	172	115	114	108	116	118	125	98	120	100	113
2:51:40	172	115	114	108	116	118	125	98	120	100	113
2:51:45	172	115	115	108	116	118	125	98	120	100	113
2:51:50	172	115	115	108	116	119	126	98	120	100	113
2:51:55	172	115	115	108	116	119	126	98	120	100	113
2:52:00	172	116	115	108	117	119	126	98	121	100	113
2:52:05	172	116	115	108	117	119	126	98	121	100	113
2:52:10	172	116	115	109	117	119	126	99	121	100	114
2:52:15	172	116	115	109	117	119	126	99	121	100	114
2:52:20	172	116	115	109	117	119	126	99	121	100	114
2:52:25	172	116	115	109	117	120	126	99	121	100	114
2:52:30	173	116	116	109	118	120	127	99	122	100	114
2:52:35	173	116	116	109	118	120	127	99	122	101	114
2:52:40	173	116	116	109	118	120	127	99	122	101	114
2:52:45	173	116	116	109	118	120	127	99	122	101	114
2:52:50	173	117	116	109	118	120	127	99	122	101	114
2:52:55	173	117	116	109	118	120	127	99	122	101	114
2:53:00	173	117	116	109	118	120	127	100	122	101	115
2:53:05	173	117	116	109	118	121	128	100	122	101	115
2:53:10	173	117	116	109	118	121	128	100	122	101	115
2:53:15	173	117	117	110	118	121	128	100	122	101	115
2:53:20	173	118	117	110	118	121	128	100	123	101	115
2:53:25	173	118	117	110	119	121	128	100	123	101	115
2:53:30	174	118	117	110	119	122	128	100	123	101	115
2:53:35	174	118	117	110	119	122	128	100	123	101	115
2:53:40	174	118	117	110	119	122	128	100	123	101	115
2:53:45	174	118	118	110	119	122	129	100	123	102	116
2:53:50	174	118	118	110	119	122	129	100	123	102	116
2:53:55	174	118	118	110	119	122	129	100	123	102	116
2:54:00	174	118	118	110	120	122	129	100	123	102	116
2:54:05	174	118	118	110	120	122	129	100	123	102	116
2:54:10	174	118	118	110	120	122	129	101	124	102	116
2:54:15	174	119	118	111	120	123	129	101	124	102	116
2:54:20	174	119	118	111	120	123	130	101	124	102	116

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
2:54:25	174	119	118	111	120	123	130	101	124	102	116
2:54:30	175	119	118	111	120	123	130	101	124	102	116
2:54:35	175	119	119	111	120	123	130	101	124	102	117
2:54:40	175	119	119	111	121	123	130	101	124	102	117
2:54:45	175	119	119	111	121	123	130	101	125	102	117
2:54:50	175	119	119	111	121	123	130	101	125	102	117
2:54:55	175	120	119	111	121	123	130	101	125	102	117
2:55:00	175	120	119	112	121	124	131	102	125	103	117
2:55:05	175	120	119	112	121	124	131	102	125	102	117
2:55:10	175	120	119	112	122	124	131	102	125	102	117
2:55:15	175	120	120	112	122	124	131	102	125	102	117
2:55:20	175	120	120	112	122	124	131	102	125	102	118
2:55:25	175	120	120	112	122	124	131	102	126	103	118
2:55:30	176	120	120	112	122	124	131	102	126	103	118
2:55:35	176	120	120	112	122	125	131	102	126	103	118
2:55:40	176	121	120	112	122	125	131	102	126	103	118
2:55:45	176	121	120	112	122	125	132	102	126	103	118
2:55:50	176	121	120	112	122	125	132	102	126	103	118
2:55:55	176	121	121	112	122	125	132	102	126	103	118
2:56:00	176	121	121	113	123	125	132	103	127	103	119
2:56:05	176	121	121	113	123	125	132	103	126	103	119
2:56:10	176	122	121	113	123	125	132	103	127	103	119
2:56:15	176	122	121	113	123	126	132	103	127	103	119
2:56:20	176	122	121	113	123	126	132	103	127	103	119
2:56:25	176	122	121	113	123	126	133	103	127	103	119
2:56:30	177	122	122	113	123	126	133	103	127	103	119
2:56:35	177	122	122	113	123	126	133	103	127	103	119
2:56:40	177	122	122	113	123	126	133	104	127	103	119
2:56:45	177	122	122	113	124	126	133	104	128	104	119
2:56:50	177	122	122	113	124	127	133	104	128	104	120
2:56:55	177	123	122	114	124	127	134	104	128	104	120
2:57:00	177	123	122	114	124	127	133	104	128	104	120
2:57:05	177	123	122	114	124	127	134	104	128	104	120
2:57:10	177	123	122	114	124	127	134	104	128	104	120
2:57:15	177	123	123	114	124	127	134	104	128	104	120
2:57:20	177	123	123	114	125	127	134	104	128	104	120
2:57:25	177	123	123	114	125	127	134	104	129	104	120
2:57:30	178	123	123	114	125	128	134	104	129	104	120
2:57:35	178	123	123	114	125	128	134	105	129	104	120
2:57:40	178	123	123	114	125	128	134	105	129	104	121
2:57:45	178	124	123	114	125	128	135	105	129	104	121
2:57:50	178	124	123	114	125	128	135	105	129	104	121
2:57:55	178	124	123	115	125	128	135	105	129	104	121
2:58:00	178	124	124	115	126	129	135	105	130	104	121
2:58:05	178	124	124	115	126	129	135	105	130	104	121
2:58:10	178	124	124	115	126	129	135	105	130	104	121
2:58:15	178	125	124	115	126	129	136	105	130	104	122
2:58:20	178	125	124	115	126	129	136	105	130	104	121
2:58:25	178	125	124	115	126	129	136	106	130	105	122
2:58:30	179	125	125	115	126	129	136	106	130	105	122
2:58:35	179	125	125	115	126	130	136	106	130	105	122
2:58:40	179	125	125	115	127	130	136	106	130	105	122
2:58:45	179	125	125	116	127	130	136	106	131	105	122
2:58:50	179	125	125	116	127	130	136	106	131	105	122
2:58:55	179	125	125	116	127	130	136	106	131	105	122
2:59:00	179	126	125	116	127	130	137	107	131	105	123
2:59:05	179	126	125	116	127	130	137	107	131	105	123
2:59:10	179	126	125	116	127	130	137	107	131	105	123
2:59:15	179	126	126	116	128	130	137	107	131	105	123
2:59:20	179	126	126	116	128	131	137	107	131	105	123
2:59:25	179	126	126	116	128	131	137	107	131	105	123
2:59:30	180	126	126	117	128	131	138	107	132	105	123
2:59:35	180	127	126	117	128	131	138	107	132	105	123

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
2:59:40	180	127	126	117	128	131	138	107	132	105	123
2:59:45	180	127	126	117	128	131	138	107	132	105	124
2:59:50	180	127	127	117	128	131	138	108	132	105	124
2:59:55	180	127	127	117	129	132	138	108	132	105	124
3:00:00	180	127	127	117	129	132	138	108	132	105	124
3:00:05	180	127	127	117	129	132	138	108	132	106	124
3:00:10	180	127	127	117	129	132	138	108	132	105	124
3:00:15	180	128	127	118	129	132	138	108	133	106	124
3:00:20	180	128	127	118	129	132	139	108	133	106	124
3:00:25	180	128	127	118	129	132	139	109	133	106	125
3:00:30	181	128	128	118	130	132	139	109	133	106	125
3:00:35	181	128	128	118	130	133	139	109	133	106	125
3:00:40	181	128	128	118	130	133	139	109	133	106	125
3:00:45	181	128	128	118	130	133	139	109	133	106	125
3:00:50	181	129	128	118	130	133	139	109	134	106	125
3:00:55	181	129	128	118	130	133	140	109	134	106	125
3:01:00	181	129	128	118	130	133	140	109	134	106	125
3:01:05	181	129	129	119	130	133	140	109	134	106	125
3:01:10	181	129	129	119	130	134	140	110	134	106	126
3:01:15	181	129	129	119	131	134	140	110	134	106	126
3:01:20	181	129	129	119	131	134	140	110	134	106	126
3:01:25	181	130	129	119	131	134	140	110	134	107	126
3:01:30	182	130	129	119	131	134	141	110	134	107	126
3:01:35	182	130	129	119	131	134	141	110	135	107	126
3:01:40	182	130	130	119	131	134	141	110	135	107	126
3:01:45	182	130	130	120	131	134	141	110	135	107	126
3:01:50	182	130	130	120	131	135	141	110	135	107	127
3:01:55	182	130	130	120	132	135	141	111	135	107	127
3:02:00	182	130	130	120	132	135	141	111	135	107	127
3:02:05	182	131	130	120	132	135	141	111	136	107	127
3:02:10	182	131	130	120	132	135	141	111	136	107	127
3:02:15	182	131	130	120	132	135	141	111	136	107	127
3:02:20	182	131	130	120	132	135	142	111	136	107	127
3:02:25	182	131	131	120	132	136	142	111	136	107	127
3:02:30	183	131	131	121	133	136	142	111	136	107	127
3:02:35	183	131	131	121	133	136	142	112	136	107	128
3:02:40	183	131	131	121	133	136	142	112	136	107	128
3:02:45	183	131	131	121	133	136	142	112	136	107	128
3:02:50	183	132	131	121	133	136	142	112	136	107	128
3:02:55	183	132	131	121	133	136	142	112	137	107	128
3:03:00	183	132	131	122	133	136	143	112	137	107	128
3:03:05	183	132	132	122	133	137	143	112	137	107	128
3:03:10	183	132	132	122	134	137	143	112	137	108	128
3:03:15	183	132	132	122	134	137	143	113	137	108	128
3:03:20	183	132	132	122	134	137	143	113	137	108	129
3:03:25	183	133	132	122	134	137	143	113	138	108	129
3:03:30	184	133	132	122	134	137	143	113	138	108	129
3:03:35	184	133	132	122	134	138	144	113	138	108	129
3:03:40	184	133	133	122	134	138	144	113	138	108	129
3:03:45	184	133	133	122	134	138	144	113	138	108	129
3:03:50	184	133	133	123	134	138	144	113	138	108	129
3:03:55	184	133	133	123	135	138	144	113	138	108	129
3:04:00	184	134	133	123	135	138	144	114	138	108	130
3:04:05	184	134	133	123	135	138	144	114	138	108	130
3:04:10	184	134	133	123	135	138	144	114	138	108	130
3:04:15	184	134	133	123	135	138	145	114	139	108	130
3:04:20	184	134	134	123	135	139	145	114	139	108	130
3:04:25	184	134	134	123	136	139	145	114	139	108	130
3:04:30	185	134	134	123	136	139	145	114	139	108	130
3:04:35	185	135	134	124	136	139	145	114	139	109	130
3:04:40	185	135	134	124	136	139	145	114	139	109	131
3:04:45	185	135	134	124	136	139	145	115	139	109	131
3:04:50	185	135	134	124	136	139	146	115	139	109	131

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time		Wall Assembly									
(h:m:s)		TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
3:04:55	185	135	134	124	136	140	146	115	140	109	131
3:05:00	185	135	135	124	136	140	146	115	140	109	131
3:05:05	185	136	135	124	136	140	146	115	140	109	131
3:05:10	185	136	135	125	137	140	146	115	140	109	131
3:05:15	185	136	135	125	137	140	146	115	140	109	131
3:05:20	185	136	135	125	137	140	146	115	140	109	131
3:05:25	185	136	135	125	137	140	146	115	140	109	132
3:05:30	186	136	136	125	137	141	147	116	141	109	132
3:05:35	186	136	136	125	137	141	147	116	141	109	132
3:05:40	186	136	136	125	138	141	147	116	141	109	132
3:05:45	186	137	136	125	138	141	147	116	141	109	132
3:05:50	186	137	136	126	138	141	147	116	141	109	132
3:05:55	186	137	136	126	138	141	147	116	141	109	132
3:06:00	186	137	136	126	138	141	147	117	141	109	133
3:06:05	186	137	137	126	138	141	148	117	141	110	133
3:06:10	186	137	137	126	138	141	148	117	141	109	133
3:06:15	186	138	137	126	138	142	148	117	141	110	133
3:06:20	186	138	137	127	138	142	148	117	142	110	133
3:06:25	186	138	137	127	139	142	148	117	142	110	133
3:06:30	187	138	137	127	139	142	148	117	142	110	133
3:06:35	187	138	137	127	139	142	148	117	142	110	133
3:06:40	187	138	138	127	139	142	148	118	142	110	134
3:06:45	187	138	138	127	139	143	149	118	142	110	134
3:06:50	187	138	138	127	139	143	149	118	142	110	134
3:06:55	187	138	138	127	139	143	149	118	142	110	134
3:07:00	187	139	138	128	140	143	149	118	143	110	134
3:07:05	187	139	138	128	140	143	149	118	143	110	134
3:07:10	187	139	138	128	140	143	149	118	143	110	134
3:07:15	187	139	138	128	140	143	149	118	143	110	134
3:07:20	187	139	138	128	140	144	149	118	143	110	135
3:07:25	187	140	139	128	140	144	150	119	143	110	135
3:07:30	188	140	139	128	140	144	149	119	143	110	135
3:07:35	188	140	139	128	141	144	150	119	144	111	135
3:07:40	188	140	139	129	141	144	150	119	144	111	135
3:07:45	188	140	139	129	141	144	150	119	144	111	135
3:07:50	188	140	139	129	141	144	150	119	144	111	135
3:07:55	188	140	139	129	141	144	150	119	144	111	135
3:08:00	188	141	140	129	141	145	150	120	144	111	135
3:08:05	188	141	140	129	141	145	150	120	144	111	136
3:08:10	188	141	140	129	141	145	150	120	144	111	136
3:08:15	188	141	140	130	141	145	151	120	145	111	136
3:08:20	188	141	140	130	142	145	151	120	145	111	136
3:08:25	188	141	140	130	142	145	151	120	145	111	136
3:08:30	189	141	141	130	142	145	151	120	145	111	136
3:08:35	189	141	141	130	142	146	151	120	145	111	136
3:08:40	189	142	141	130	142	146	151	121	145	111	137
3:08:45	189	142	141	130	142	146	152	121	145	111	137
3:08:50	189	142	141	130	142	146	152	121	145	112	137
3:08:55	189	142	141	131	143	146	152	121	146	112	137
3:09:00	189	142	141	131	143	146	152	121	146	112	137
3:09:05	189	142	141	131	143	146	152	122	146	112	137
3:09:10	189	143	142	131	143	147	152	122	146	112	137
3:09:15	189	143	142	131	143	147	152	122	146	112	137
3:09:20	189	143	142	131	143	147	152	122	146	112	138
3:09:25	189	143	142	131	143	147	152	122	146	112	138
3:09:30	190	143	142	132	143	147	153	122	146	112	138
3:09:35	190	143	142	132	144	147	153	122	147	112	138
3:09:40	190	143	142	132	144	147	153	122	147	112	138
3:09:45	190	143	142	132	144	147	153	122	147	112	138
3:09:50	190	144	143	132	144	148	153	122	147	112	138
3:09:55	190	144	143	132	144	148	153	123	147	112	138
3:10:00	190	144	143	132	144	148	154	123	147	113	139
3:10:05	190	144	143	132	144	148	154	123	147	113	139

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time		Wall Assembly									
(h:m:s)		TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
3:10:10	190	144	143	133	145	148	154	123	147	113	139
3:10:15	190	144	143	133	145	148	154	123	147	113	139
3:10:20	190	144	143	133	145	148	154	123	148	113	139
3:10:25	190	145	143	133	145	148	154	123	148	113	139
3:10:30	191	145	144	133	145	149	154	123	148	113	139
3:10:35	191	145	144	133	145	149	154	123	148	113	139
3:10:40	191	145	144	133	145	149	154	123	148	113	139
3:10:45	191	145	144	134	146	149	155	124	148	113	140
3:10:50	191	145	144	134	146	149	155	124	148	113	140
3:10:55	191	145	144	134	146	149	155	124	148	113	140
3:11:00	191	146	144	134	146	149	155	124	149	113	140
3:11:05	191	146	145	134	146	149	155	124	149	114	140
3:11:10	191	146	145	134	146	150	155	124	149	114	140
3:11:15	191	146	145	134	146	150	155	125	149	114	140
3:11:20	191	146	145	134	146	150	155	125	149	114	140
3:11:25	191	146	145	135	147	150	156	125	149	114	141
3:11:30	192	146	145	135	147	150	156	125	149	114	141
3:11:35	192	146	145	135	147	150	156	125	149	114	141
3:11:40	192	147	146	135	147	150	156	125	149	114	141
3:11:45	192	147	146	135	147	150	156	125	149	114	141
3:11:50	192	147	146	135	147	151	156	125	150	114	141
3:11:55	192	147	146	136	147	151	156	125	150	114	141
3:12:00	192	147	146	136	147	151	156	126	150	114	142
3:12:05	192	147	146	136	148	151	157	126	150	114	142
3:12:10	192	148	146	136	148	151	157	126	150	114	142
3:12:15	192	148	147	136	148	151	157	126	150	114	142
3:12:20	192	148	147	136	148	151	157	126	150	114	142
3:12:25	192	148	147	136	148	152	157	126	150	114	142
3:12:30	193	148	147	136	148	152	157	127	151	115	142
3:12:35	193	148	147	136	148	152	157	127	151	115	142
3:12:40	193	148	147	137	148	152	157	127	151	115	142
3:12:45	193	149	147	137	149	152	158	127	151	115	143
3:12:50	193	149	147	137	149	152	158	127	151	115	143
3:12:55	193	149	148	137	149	152	158	127	151	115	143
3:13:00	193	149	148	137	149	153	158	127	151	115	143
3:13:05	193	149	148	137	149	152	158	127	151	115	143
3:13:10	193	149	148	138	149	153	158	127	152	115	143
3:13:15	193	149	148	138	149	153	158	128	152	115	143
3:13:20	193	150	148	138	149	153	158	128	152	115	143
3:13:25	193	150	148	138	150	153	158	128	152	116	144
3:13:30	194	150	149	138	150	153	159	128	152	116	144
3:13:35	194	150	149	138	150	154	159	128	152	116	144
3:13:40	194	150	149	139	150	154	159	128	152	116	144
3:13:45	194	150	149	138	150	154	159	128	152	116	144
3:13:50	194	150	149	139	150	154	159	129	153	116	144
3:13:55	194	151	149	139	150	154	159	129	153	116	144
3:14:00	194	151	149	139	151	154	159	129	153	116	145
3:14:05	194	151	149	139	150	154	159	129	153	116	144
3:14:10	194	151	150	139	151	154	160	129	153	116	145
3:14:15	194	151	150	139	151	155	160	129	153	116	145
3:14:20	194	151	150	140	151	155	160	129	154	117	145
3:14:25	194	151	150	140	151	155	160	129	153	117	145
3:14:30	195	152	150	140	151	155	160	130	154	117	145
3:14:35	195	152	150	140	151	155	160	130	154	117	145
3:14:40	195	152	150	140	152	155	160	130	154	117	146
3:14:45	195	152	150	140	152	155	161	130	154	117	146
3:14:50	195	152	151	141	152	156	161	130	154	117	146
3:14:55	195	152	151	141	152	156	161	130	154	117	146
3:15:00	195	152	151	141	152	156	161	130	154	117	146
3:15:05	195	153	151	141	152	156	161	131	155	118	146
3:15:10	195	153	151	141	152	156	161	131	155	118	146
3:15:15	195	153	151	141	153	156	161	131	155	118	147
3:15:20	195	153	152	141	153	156	162	131	155	118	147

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
3:15:25	195	153	152	141	153	156	162	131	155	118	147
3:15:30	196	153	152	142	153	157	162	131	155	118	147
3:15:35	196	154	152	142	153	157	162	131	155	118	147
3:15:40	196	154	152	142	153	157	162	131	156	118	147
3:15:45	196	154	152	142	153	157	162	131	155	118	147
3:15:50	196	154	152	142	154	157	162	132	156	118	147
3:15:55	196	154	152	142	154	157	162	132	156	118	148
3:16:00	196	154	152	142	154	157	162	132	156	118	148
3:16:05	196	154	153	142	154	157	163	132	156	118	148
3:16:10	196	155	153	143	154	158	163	132	156	119	148
3:16:15	196	155	153	143	154	158	163	132	156	119	148
3:16:20	196	155	153	143	154	158	163	133	156	119	148
3:16:25	196	155	153	143	154	158	163	132	156	119	148
3:16:30	197	155	154	143	154	158	163	133	157	119	148
3:16:35	197	155	154	143	155	158	163	133	157	119	149
3:16:40	197	155	154	143	155	158	163	133	157	119	149
3:16:45	197	156	154	144	155	159	163	133	157	119	149
3:16:50	197	156	154	144	155	159	164	133	157	119	149
3:16:55	197	156	154	144	155	159	164	133	157	120	149
3:17:00	197	156	154	144	156	159	164	134	157	120	149
3:17:05	197	156	154	144	155	159	164	134	157	120	149
3:17:10	197	156	155	144	156	159	164	134	158	120	149
3:17:15	197	156	155	144	156	159	164	134	158	120	150
3:17:20	197	156	155	145	156	159	165	134	158	120	150
3:17:25	197	157	155	145	156	159	165	134	158	120	150
3:17:30	198	157	155	145	156	159	165	134	158	120	150
3:17:35	198	157	155	145	156	160	165	134	158	120	150
3:17:40	198	157	155	145	156	160	165	135	158	120	150
3:17:45	198	157	156	145	156	160	165	135	159	120	150
3:17:50	198	157	156	146	156	160	165	135	159	121	150
3:17:55	198	157	156	146	157	160	165	135	159	121	151
3:18:00	198	158	156	146	157	160	165	135	159	121	151
3:18:05	198	158	156	146	157	161	166	135	159	121	151
3:18:10	198	158	156	146	157	161	166	135	159	121	151
3:18:15	198	158	156	146	157	161	166	135	159	121	151
3:18:20	198	158	156	146	157	161	166	136	159	121	151
3:18:25	198	158	156	147	157	161	166	136	159	122	151
3:18:30	199	159	157	147	158	161	166	136	159	122	152
3:18:35	199	159	157	147	158	161	166	136	159	122	151
3:18:40	199	159	157	147	158	161	166	136	159	122	152
3:18:45	199	159	157	147	158	162	167	136	160	122	152
3:18:50	199	159	157	147	158	162	167	136	160	122	152
3:18:55	199	159	157	147	158	162	167	136	160	122	152
3:19:00	199	159	157	147	158	162	167	136	160	122	152
3:19:05	199	159	158	148	158	162	167	137	160	122	152
3:19:10	199	159	158	148	158	162	167	137	160	122	152
3:19:15	199	160	158	148	159	162	167	137	161	122	153
3:19:20	199	160	158	148	159	162	167	137	161	122	153
3:19:25	199	160	158	148	159	163	168	137	161	122	153
3:19:30	200	160	158	148	159	163	168	137	161	123	153
3:19:35	200	160	159	149	159	163	168	138	161	123	153
3:19:40	200	160	158	149	159	163	168	138	161	123	153
3:19:45	200	161	159	149	159	163	168	138	161	123	153
3:19:50	200	161	159	149	159	163	168	138	162	123	153
3:19:55	200	161	159	149	159	163	168	138	162	123	154
3:20:00	200	161	159	149	160	163	168	138	162	123	154
3:20:05	200	161	159	149	160	163	168	138	162	123	154
3:20:10	200	161	159	149	160	163	168	138	162	123	154
3:20:15	200	162	159	150	160	164	169	138	162	124	154
3:20:20	200	162	159	150	160	164	169	138	162	124	154
3:20:25	200	162	160	150	160	164	169	139	162	124	154
3:20:30	201	162	160	150	161	164	169	139	163	124	154
3:20:35	201	162	160	150	161	164	169	139	163	124	154

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time		Wall Assembly									
(h:m:s)		TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
3:20:40	201	162	160	150	161	165	170	139	163	124	155
3:20:45	201	162	160	150	161	165	170	139	163	124	155
3:20:50	201	162	160	150	161	165	170	140	163	124	155
3:20:55	201	163	161	151	161	165	170	140	163	125	155
3:21:00	201	163	161	151	161	165	170	140	163	125	155
3:21:05	201	163	161	151	162	165	170	140	163	125	155
3:21:10	201	163	161	151	162	165	170	140	163	125	155
3:21:15	201	163	161	151	162	165	170	140	163	125	156
3:21:20	201	163	161	151	162	166	170	140	164	125	156
3:21:25	201	163	161	151	162	166	170	140	164	125	156
3:21:30	202	163	161	152	162	166	170	140	164	125	156
3:21:35	202	164	162	152	162	166	171	141	164	125	156
3:21:40	202	164	162	152	162	166	171	141	164	125	156
3:21:45	202	164	162	152	163	166	171	141	164	126	156
3:21:50	202	164	162	152	163	167	171	141	165	126	157
3:21:55	202	164	162	152	163	167	171	141	165	126	157
3:22:00	202	165	162	152	163	167	171	141	165	126	157
3:22:05	202	165	162	153	163	167	171	141	165	126	157
3:22:10	202	165	163	153	163	167	172	141	165	126	157
3:22:15	202	165	163	153	163	167	172	141	165	126	157
3:22:20	202	165	163	153	163	167	172	141	165	126	157
3:22:25	202	165	163	153	163	167	172	142	165	126	157
3:22:30	203	165	163	153	164	167	172	142	165	127	158
3:22:35	203	165	163	154	164	167	172	142	166	127	158
3:22:40	203	165	163	154	164	168	172	142	166	127	158
3:22:45	203	166	163	154	164	168	172	142	166	127	158
3:22:50	203	166	163	154	164	168	172	142	166	127	158
3:22:55	203	166	164	154	164	168	173	143	166	127	158
3:23:00	203	166	164	154	164	168	173	143	166	127	158
3:23:05	203	166	164	154	165	168	173	143	166	127	158
3:23:10	203	166	164	154	165	168	173	143	167	127	159
3:23:15	203	167	164	155	165	168	173	143	167	128	159
3:23:20	203	167	164	155	165	168	173	143	167	128	159
3:23:25	203	167	164	155	165	169	173	143	167	128	159
3:23:30	204	167	165	155	165	169	174	143	167	128	159
3:23:35	204	167	165	155	165	169	174	143	167	128	159
3:23:40	204	167	165	155	165	169	174	144	167	128	159
3:23:45	204	167	165	155	165	169	174	144	167	128	159
3:23:50	204	167	165	156	166	169	174	144	167	128	160
3:23:55	204	168	165	156	166	170	174	144	167	128	160
3:24:00	204	168	165	156	166	170	174	144	168	129	160
3:24:05	204	168	165	156	166	170	174	144	168	129	160
3:24:10	204	168	166	156	166	170	174	144	168	129	160
3:24:15	204	168	166	156	166	170	175	144	168	129	160
3:24:20	204	168	166	156	167	170	175	145	168	129	160
3:24:25	204	168	166	156	167	170	175	145	168	129	160
3:24:30	205	168	166	157	167	170	175	145	168	129	161
3:24:35	205	168	166	157	167	170	175	145	168	129	161
3:24:40	205	169	166	157	167	171	175	145	168	129	161
3:24:45	205	169	167	157	167	171	176	145	169	130	161
3:24:50	205	169	167	157	167	171	175	145	169	130	161
3:24:55	205	169	167	157	167	171	175	145	169	130	161
3:25:00	205	169	167	157	167	171	176	145	169	130	161
3:25:05	205	170	167	158	168	171	176	146	169	130	161
3:25:10	205	170	167	158	168	171	176	146	169	130	161
3:25:15	205	170	167	158	168	172	176	146	170	130	162
3:25:20	205	170	167	158	168	171	176	146	169	130	162
3:25:25	205	170	168	158	168	172	176	146	170	130	162
3:25:30	206	170	168	158	168	172	176	146	170	130	162
3:25:35	206	170	168	158	168	172	176	146	170	131	162
3:25:40	206	170	168	158	168	172	176	146	170	131	162
3:25:45	206	170	168	159	168	172	177	147	170	131	162
3:25:50	206	171	168	159	168	172	177	147	170	131	162

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time		Wall Assembly									
(h:m:s)		TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
3:25:55	206	171	168	159	169	172	177	147	170	131	163
3:26:00	206	171	168	159	169	173	177	147	170	131	163
3:26:05	206	171	168	159	169	173	177	147	170	131	163
3:26:10	206	171	168	159	169	173	177	147	170	131	163
3:26:15	206	171	169	159	169	173	177	147	171	131	163
3:26:20	206	171	169	159	169	173	177	148	171	132	163
3:26:25	206	171	169	160	170	173	178	148	171	132	163
3:26:30	207	172	169	160	170	173	178	148	171	132	163
3:26:35	207	172	169	160	170	173	178	148	171	132	164
3:26:40	207	172	170	160	170	174	178	148	171	132	164
3:26:45	207	172	170	160	170	174	178	148	171	132	164
3:26:50	207	172	170	160	170	174	178	148	171	132	164
3:26:55	207	172	170	161	170	174	178	148	172	132	164
3:27:00	207	172	170	161	170	174	178	148	172	132	164
3:27:05	207	173	170	161	171	174	179	149	172	133	164
3:27:10	207	173	170	161	171	174	179	149	172	133	165
3:27:15	207	173	170	161	171	174	179	149	172	133	165
3:27:20	207	173	170	161	171	175	179	149	172	133	165
3:27:25	207	173	171	161	171	175	179	149	172	133	165
3:27:30	208	173	171	162	171	175	179	149	173	133	165
3:27:35	208	173	171	162	171	175	179	149	172	133	165
3:27:40	208	174	171	162	171	175	179	149	173	133	165
3:27:45	208	174	171	162	172	175	179	149	173	133	165
3:27:50	208	174	171	162	172	175	180	150	173	134	166
3:27:55	208	174	171	162	172	176	180	150	173	134	166
3:28:00	208	174	171	162	172	176	180	150	173	134	166
3:28:05	208	174	172	163	172	176	180	150	173	134	166
3:28:10	208	175	172	163	172	176	180	150	173	134	166
3:28:15	208	175	172	163	172	176	180	150	173	134	166
3:28:20	208	175	172	163	172	176	180	150	174	134	166
3:28:25	208	175	172	163	173	176	181	151	174	134	166
3:28:30	209	175	172	163	173	176	181	151	174	134	167
3:28:35	209	175	172	163	173	176	181	151	174	134	166
3:28:40	209	175	172	163	173	176	181	151	174	135	167
3:28:45	209	176	173	164	173	177	181	151	174	135	167
3:28:50	209	175	173	164	173	177	181	151	174	135	167
3:28:55	209	176	173	164	173	177	181	151	175	135	167
3:29:00	209	176	173	164	173	177	181	151	175	135	167
3:29:05	209	176	173	164	173	177	181	151	175	135	167
3:29:10	209	176	173	164	174	177	181	152	175	135	167
3:29:15	209	176	173	164	174	177	181	152	175	135	167
3:29:20	209	176	174	165	174	177	182	152	175	136	168
3:29:25	209	176	174	165	174	178	182	152	175	136	168
3:29:30	210	176	174	165	174	178	182	152	175	136	168
3:29:35	210	177	174	165	174	178	182	152	176	136	168
3:29:40	210	177	174	165	174	178	182	152	176	136	168
3:29:45	210	177	174	165	175	178	182	152	176	136	168
3:29:50	210	177	174	165	175	178	182	153	176	136	168
3:29:55	210	177	174	165	175	178	183	153	176	136	169
3:30:00	210	177	175	165	175	178	183	153	176	137	169
3:30:05	210	177	175	166	175	179	183	153	176	137	169
3:30:10	210	178	175	166	175	179	183	153	176	137	169
3:30:15	210	178	175	166	175	179	183	153	176	137	169
3:30:20	210	178	175	166	175	179	183	153	176	137	169
3:30:25	210	178	175	166	176	179	183	153	177	137	169
3:30:30	211	178	175	166	176	179	183	154	177	137	169
3:30:35	211	178	175	166	176	179	183	154	177	137	169
3:30:40	211	178	176	167	176	179	184	154	177	137	170
3:30:45	211	179	176	167	176	179	184	154	177	138	170
3:30:50	211	179	176	167	176	180	184	154	177	138	170
3:30:55	211	179	176	167	176	180	184	154	177	138	170
3:31:00	211	179	176	167	176	180	184	154	177	138	170
3:31:05	211	179	176	167	176	180	184	154	177	138	170

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time		Wall Assembly									
(h:m:s)		TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
3:31:10	211	179	176	167	176	180	184	154	178	138	170
3:31:15	211	179	176	168	177	180	184	155	178	138	171
3:31:20	211	179	176	168	177	180	185	155	178	138	171
3:31:25	211	179	176	168	177	180	185	155	178	138	171
3:31:30	212	180	177	168	177	181	185	155	178	138	171
3:31:35	212	180	177	168	177	181	185	155	178	138	171
3:31:40	212	180	177	168	177	181	185	155	178	138	171
3:31:45	212	180	177	168	177	181	185	155	178	139	171
3:31:50	212	180	177	168	178	181	185	156	179	139	171
3:31:55	212	181	177	168	178	181	185	156	179	139	172
3:32:00	212	181	177	168	178	181	185	156	179	139	172
3:32:05	212	181	178	169	178	181	185	156	179	139	172
3:32:10	212	181	178	169	178	182	186	156	179	140	172
3:32:15	212	181	178	169	178	182	186	156	179	139	172
3:32:20	212	181	178	169	178	182	186	156	179	140	172
3:32:25	212	181	178	169	178	182	186	156	179	140	172
3:32:30	213	182	178	170	179	182	186	156	179	140	172
3:32:35	213	182	178	170	179	182	186	156	180	140	172
3:32:40	213	182	179	170	179	183	186	157	180	140	173
3:32:45	213	182	179	170	179	182	186	157	180	140	173
3:32:50	213	182	179	170	179	183	186	157	180	140	173
3:32:55	213	182	179	170	179	183	187	157	180	140	173
3:33:00	213	182	179	170	179	183	187	157	180	141	173
3:33:05	213	182	179	170	179	183	187	157	180	141	173
3:33:10	213	183	179	170	180	183	187	157	181	141	173
3:33:15	213	183	180	171	180	183	187	158	181	141	174
3:33:20	213	183	180	171	180	183	187	158	181	141	174
3:33:25	213	183	180	171	180	183	187	158	181	141	174
3:33:30	214	183	180	171	180	184	188	158	181	141	174
3:33:35	214	183	180	171	180	183	187	158	181	141	174
3:33:40	214	183	180	172	180	184	188	158	181	141	174
3:33:45	214	183	180	171	180	184	188	158	181	141	174
3:33:50	214	184	181	172	181	184	188	158	181	142	174
3:33:55	214	184	181	172	181	184	188	158	182	142	175
3:34:00	214	184	181	172	181	185	188	158	182	142	175
3:34:05	214	184	181	172	181	185	188	159	182	142	175
3:34:10	214	184	181	172	181	185	188	159	182	142	175
3:34:15	214	184	181	172	181	185	188	159	182	142	175
3:34:20	214	185	181	172	181	185	189	159	182	142	175
3:34:25	214	185	181	172	181	185	189	159	182	142	175
3:34:30	215	185	181	173	182	185	189	159	182	143	175
3:34:35	215	185	182	173	182	185	189	159	182	143	176
3:34:40	215	185	182	173	182	185	189	159	182	143	176
3:34:45	215	185	182	173	182	185	189	159	183	143	176
3:34:50	215	185	182	173	182	186	189	159	183	143	176
3:34:55	215	185	182	173	182	186	190	160	183	143	176
3:35:00	215	185	182	173	182	186	190	160	183	143	176
3:35:05	215	186	182	174	182	186	190	160	183	143	176
3:35:10	215	186	182	174	183	186	190	160	183	143	176
3:35:15	215	186	183	174	183	186	190	160	183	144	176
3:35:20	215	186	183	174	183	186	190	160	183	143	176
3:35:25	215	186	183	174	183	186	190	160	183	144	177
3:35:30	216	186	183	174	183	186	190	161	184	144	177
3:35:35	216	186	183	174	183	187	190	161	184	144	177
3:35:40	216	186	183	175	183	186	190	161	184	144	177
3:35:45	216	187	183	175	183	187	191	161	184	144	177
3:35:50	216	187	183	175	183	187	191	161	184	144	177
3:35:55	216	187	183	175	184	187	191	161	184	145	177
3:36:00	216	187	184	175	184	187	191	161	185	145	178
3:36:05	216	187	184	175	184	187	191	161	185	145	178
3:36:10	216	187	184	175	184	187	191	161	185	145	178
3:36:15	216	188	184	176	184	188	191	162	185	145	178
3:36:20	216	188	184	176	184	188	191	162	185	145	178

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
3:36:25	216	188	184	176	185	188	191	162	185	145	178
3:36:30	217	188	185	176	185	188	192	162	185	145	178
3:36:35	217	188	185	176	185	188	192	162	185	145	178
3:36:40	217	188	185	176	185	188	192	162	185	145	178
3:36:45	217	188	185	176	185	188	192	162	185	146	179
3:36:50	217	188	185	176	185	188	192	162	185	146	179
3:36:55	217	188	185	176	185	188	192	163	186	146	179
3:37:00	217	188	185	176	185	188	192	163	186	146	179
3:37:05	217	189	185	176	185	189	192	163	186	146	179
3:37:10	217	189	185	177	185	189	192	163	186	146	179
3:37:15	217	189	185	177	185	189	192	163	186	146	179
3:37:20	217	189	186	177	186	189	193	163	186	146	179
3:37:25	217	189	186	177	186	189	193	163	186	146	179
3:37:30	218	189	186	177	186	189	193	163	186	146	179
3:37:35	218	189	186	177	186	189	193	163	186	147	180
3:37:40	218	190	186	178	186	189	193	164	187	147	180
3:37:45	218	190	186	178	186	189	193	163	186	147	180
3:37:50	218	190	186	178	186	190	193	164	187	147	180
3:37:55	218	190	186	178	186	190	193	164	187	147	180
3:38:00	218	190	186	178	186	190	194	164	187	147	180
3:38:05	218	190	186	178	186	190	194	164	187	147	180
3:38:10	218	190	187	178	187	190	194	164	187	148	180
3:38:15	218	190	187	178	187	190	194	164	187	147	180
3:38:20	218	191	187	179	187	190	194	164	188	148	181
3:38:25	218	191	187	179	187	190	194	164	188	148	181
3:38:30	219	191	187	179	187	191	194	165	188	148	181
3:38:35	219	191	187	179	187	191	194	165	188	148	181
3:38:40	219	191	188	179	188	191	194	165	188	148	181
3:38:45	219	191	188	179	188	191	195	165	188	148	181
3:38:50	219	191	188	179	188	191	195	165	188	148	181
3:38:55	219	191	188	179	188	191	195	165	188	148	181
3:39:00	219	192	188	180	188	191	195	165	188	149	182
3:39:05	219	192	188	180	188	191	195	165	189	149	182
3:39:10	219	192	188	180	188	191	195	165	188	149	182
3:39:15	219	192	188	180	188	192	195	165	189	149	182
3:39:20	219	192	188	180	188	192	195	166	189	149	182
3:39:25	219	192	188	180	188	192	195	166	189	149	182
3:39:30	220	192	189	180	189	192	196	166	189	149	182
3:39:35	220	192	189	180	189	192	195	166	189	149	182
3:39:40	220	193	189	181	189	192	196	166	189	149	183
3:39:45	220	193	189	181	189	192	196	166	190	150	183
3:39:50	220	193	189	181	189	192	196	167	190	150	183
3:39:55	220	193	189	181	189	193	196	167	190	150	183
3:40:00	220	193	189	181	189	192	196	167	190	150	183
3:40:05	220	193	190	181	190	193	196	167	190	150	183
3:40:10	220	194	190	181	190	193	197	167	190	150	183
3:40:15	220	194	190	181	190	193	197	167	190	150	183
3:40:20	220	194	190	182	190	193	197	167	190	150	184
3:40:25	220	194	190	182	190	193	197	167	190	150	184
3:40:30	221	194	190	182	190	193	197	167	190	150	184
3:40:35	221	194	190	182	190	194	197	168	191	151	184
3:40:40	221	194	190	182	190	194	197	168	191	151	184
3:40:45	221	194	191	182	190	194	197	168	191	151	184
3:40:50	221	194	191	182	190	194	197	168	191	151	184
3:40:55	221	195	191	183	191	194	197	168	191	151	184
3:41:00	221	195	191	183	191	194	197	168	191	151	184
3:41:05	221	195	191	183	191	194	197	168	191	151	185
3:41:10	221	195	191	183	191	194	198	168	191	152	185
3:41:15	221	195	191	183	191	194	198	168	191	152	185
3:41:20	221	195	191	183	191	194	198	168	191	151	185
3:41:25	221	195	191	183	191	194	198	168	192	152	185
3:41:30	222	196	192	183	191	195	198	168	192	152	185
3:41:35	222	196	192	183	192	195	198	169	192	152	185

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
3:41:40	222	196	192	184	192	195	199	169	192	152	186
3:41:45	222	196	192	184	192	195	199	169	192	152	186
3:41:50	222	196	192	184	192	195	199	169	192	152	186
3:41:55	222	196	192	184	192	196	199	170	193	153	186
3:42:00	222	196	192	184	192	195	199	169	192	153	186
3:42:05	222	196	192	184	192	195	199	170	192	153	186
3:42:10	222	197	193	185	192	196	199	170	193	153	186
3:42:15	222	197	193	185	192	196	199	170	193	153	186
3:42:20	222	197	193	185	193	196	199	170	193	153	186
3:42:25	222	197	193	185	193	196	199	170	193	153	187
3:42:30	223	197	193	185	193	196	199	170	193	153	187
3:42:35	223	197	193	185	193	196	200	170	193	153	187
3:42:40	223	197	194	185	193	197	200	170	194	154	187
3:42:45	223	198	194	185	193	197	200	170	194	154	187
3:42:50	223	198	194	186	194	197	200	171	194	154	187
3:42:55	223	198	194	186	194	197	200	171	194	154	187
3:43:00	223	198	194	186	194	197	201	171	194	154	188
3:43:05	223	198	194	186	194	197	201	171	194	154	188
3:43:10	223	198	194	186	194	197	201	171	194	154	188
3:43:15	223	198	194	186	194	197	201	171	194	154	188
3:43:20	223	199	194	186	194	197	201	171	194	154	188
3:43:25	223	199	195	186	194	197	201	171	195	155	188
3:43:30	224	199	195	187	194	198	201	172	195	155	188
3:43:35	224	199	195	186	194	197	201	171	195	155	188
3:43:40	224	199	195	187	195	198	201	172	195	155	188
3:43:45	224	199	195	187	195	198	201	172	195	155	188
3:43:50	224	199	195	187	195	198	201	172	195	155	189
3:43:55	224	199	195	187	195	198	201	172	195	155	189
3:44:00	224	199	195	187	195	198	201	172	195	155	189
3:44:05	224	200	195	187	195	198	202	172	195	156	189
3:44:10	224	200	196	188	195	198	202	172	195	156	189
3:44:15	224	200	196	188	195	199	202	172	196	156	189
3:44:20	224	200	196	188	196	199	202	172	196	156	189
3:44:25	224	200	196	188	196	199	202	173	196	156	189
3:44:30	225	200	196	188	196	199	202	173	196	156	189
3:44:35	225	201	196	188	196	199	202	173	196	156	190
3:44:40	225	201	196	188	196	199	202	173	196	156	190
3:44:45	225	201	196	188	196	199	202	173	196	156	190
3:44:50	225	201	197	189	196	199	203	173	197	157	190
3:44:55	225	201	197	189	197	200	203	174	197	157	190
3:45:00	225	201	197	189	197	199	203	174	197	157	190
3:45:05	225	201	197	189	197	200	203	174	197	157	190
3:45:10	225	201	197	189	197	200	203	173	197	157	190
3:45:15	225	201	197	189	197	200	203	174	197	157	191
3:45:20	225	202	197	189	197	200	203	174	197	157	191
3:45:25	225	202	197	189	197	200	203	174	197	157	191
3:45:30	226	202	197	189	197	200	203	174	197	157	191
3:45:35	226	202	197	190	197	201	204	174	197	158	191
3:45:40	226	202	198	190	197	201	204	174	197	158	191
3:45:45	226	202	198	190	197	201	204	175	198	158	191
3:45:50	226	202	198	190	197	201	204	175	198	158	191
3:45:55	226	203	198	190	198	201	204	175	198	158	191
3:46:00	226	203	198	190	198	201	204	175	198	158	192
3:46:05	226	203	198	190	198	201	204	175	198	158	192
3:46:10	226	203	198	190	198	201	204	175	198	158	192
3:46:15	226	203	199	191	198	201	204	175	198	158	192
3:46:20	226	203	199	191	198	201	204	175	198	158	192
3:46:25	226	203	199	191	198	202	204	175	198	158	192
3:46:30	227	203	199	191	199	202	205	175	199	159	192
3:46:35	227	203	199	191	199	202	205	176	199	159	192
3:46:40	227	204	199	191	199	202	205	176	199	159	193
3:46:45	227	204	199	191	199	202	205	176	199	159	193
3:46:50	227	204	199	191	199	202	205	176	199	159	193

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
3:46:55	227	204	199	192	199	202	205	176	199	159	193
3:47:00	227	204	200	192	199	202	205	176	199	159	193
3:47:05	227	204	200	192	199	203	205	176	199	159	193
3:47:10	227	204	200	192	199	203	205	176	199	159	193
3:47:15	227	204	200	192	200	203	206	176	200	160	193
3:47:20	227	205	201	192	200	203	206	177	200	160	194
3:47:25	227	205	201	192	200	203	206	177	200	160	194
3:47:30	228	205	201	192	200	203	206	177	200	160	194
3:47:35	228	205	201	192	200	203	206	177	200	160	194
3:47:40	228	205	201	193	200	203	206	177	200	160	194
3:47:45	228	205	201	193	200	203	206	177	200	160	194
3:47:50	228	205	201	193	201	204	206	177	201	161	194
3:47:55	228	205	201	193	201	204	206	177	201	161	194
3:48:00	228	206	201	193	201	204	207	177	201	161	194
3:48:05	228	206	201	193	201	204	207	177	201	161	194
3:48:10	228	206	201	193	201	204	207	178	201	161	195
3:48:15	228	206	202	194	201	204	207	178	201	161	195
3:48:20	228	206	202	194	201	204	207	178	201	161	195
3:48:25	228	206	202	194	201	204	207	178	201	161	195
3:48:30	229	206	202	194	201	204	207	178	201	161	195
3:48:35	229	206	202	194	201	204	207	178	201	161	195
3:48:40	229	207	202	194	202	204	208	178	201	162	195
3:48:45	229	207	202	194	202	204	207	178	201	161	195
3:48:50	229	207	202	194	202	205	208	178	202	162	196
3:48:55	229	207	202	194	202	205	208	178	202	162	196
3:49:00	229	207	203	195	202	205	208	179	202	162	196
3:49:05	229	207	203	195	202	205	208	179	202	162	196
3:49:10	229	207	203	195	202	205	208	179	202	162	196
3:49:15	229	208	203	195	202	205	208	179	202	162	196
3:49:20	229	208	203	195	203	205	208	179	202	163	196
3:49:25	229	208	203	195	203	206	208	179	203	163	196
3:49:30	230	208	203	195	203	206	208	179	203	163	196
3:49:35	230	208	203	195	203	206	209	179	203	163	196
3:49:40	230	208	204	196	203	206	209	180	203	163	197
3:49:45	230	208	204	196	203	206	209	180	203	163	197
3:49:50	230	208	204	196	203	206	209	180	203	163	197
3:49:55	230	208	204	196	203	206	209	180	203	163	197
3:50:00	230	209	204	196	203	206	209	180	203	163	197
3:50:05	230	209	204	196	204	207	209	180	204	163	197
3:50:10	230	209	204	196	204	207	209	180	204	164	197
3:50:15	230	209	204	196	204	207	209	180	204	164	197
3:50:20	230	209	204	196	204	207	210	180	204	164	197
3:50:25	230	209	205	197	204	207	210	181	204	164	198
3:50:30	231	209	205	197	204	207	210	181	204	164	198
3:50:35	231	210	205	197	204	207	210	181	204	164	198
3:50:40	231	210	205	197	204	207	210	181	204	164	198
3:50:45	231	210	205	197	204	207	210	181	204	164	198
3:50:50	231	210	205	197	204	208	210	181	204	164	198
3:50:55	231	210	205	197	205	208	210	181	204	165	198
3:51:00	231	210	205	197	204	208	210	181	204	164	198
3:51:05	231	210	205	197	205	208	210	181	204	165	198
3:51:10	231	210	205	197	205	208	210	181	205	165	199
3:51:15	231	210	206	198	205	208	211	182	205	165	199
3:51:20	231	210	206	198	205	208	211	182	205	165	199
3:51:25	231	211	206	198	205	208	211	182	205	165	199
3:51:30	232	211	206	198	205	208	211	182	205	165	199
3:51:35	232	211	206	198	205	209	211	182	205	165	199
3:51:40	232	211	206	198	206	209	211	182	205	165	199
3:51:45	232	211	206	199	206	209	211	182	205	166	199
3:51:50	232	211	206	199	206	209	211	182	205	166	199
3:51:55	232	211	207	199	206	209	212	182	206	166	200
3:52:00	232	211	207	199	206	209	212	182	206	166	200
3:52:05	232	212	207	199	206	209	212	182	206	166	200

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time		Wall Assembly									
(h:m:s)		TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
3:52:10	232	212	207	199	206	209	212	183	206	166	200
3:52:15	232	212	207	199	206	209	212	183	206	166	200
3:52:20	232	212	207	199	206	209	212	183	206	166	200
3:52:25	232	212	207	199	207	210	212	183	206	167	200
3:52:30	233	212	208	199	206	210	212	183	206	166	200
3:52:35	233	212	208	199	207	210	212	183	206	167	200
3:52:40	233	212	208	200	207	210	212	183	207	167	200
3:52:45	233	213	208	200	207	210	212	183	207	167	201
3:52:50	233	213	208	200	207	210	213	183	207	167	201
3:52:55	233	213	208	200	207	210	213	183	207	167	201
3:53:00	233	213	208	200	207	210	213	183	207	167	201
3:53:05	233	213	208	200	207	210	213	184	207	167	201
3:53:10	233	213	209	201	208	211	213	184	208	167	201
3:53:15	233	213	209	201	208	211	213	184	208	167	201
3:53:20	233	213	208	201	208	211	213	184	208	167	201
3:53:25	233	214	209	201	208	211	214	185	208	168	202
3:53:30	234	214	209	201	208	211	213	185	208	168	202
3:53:35	234	214	209	201	208	211	213	184	208	168	202
3:53:40	234	214	209	201	208	211	213	185	208	168	202
3:53:45	234	214	209	201	208	211	214	185	208	168	202
3:53:50	234	214	209	201	208	211	214	185	208	168	202
3:53:55	234	214	209	201	208	211	214	185	208	168	202
3:54:00	234	214	209	201	208	212	214	185	208	168	202
3:54:05	234	215	210	202	209	212	214	185	209	168	202
3:54:10	234	215	210	202	209	212	214	185	208	168	202
3:54:15	234	215	210	202	209	212	214	185	209	169	203
3:54:20	234	215	210	202	209	212	215	185	209	169	203
3:54:25	234	215	210	202	209	212	214	185	209	169	203
3:54:30	235	215	210	202	209	212	215	186	209	169	203
3:54:35	235	215	210	202	209	212	215	185	209	169	203
3:54:40	235	215	210	202	209	212	215	186	209	169	203
3:54:45	235	215	210	202	209	212	215	186	209	169	203
3:54:50	235	215	211	202	210	213	215	186	209	169	203
3:54:55	235	216	211	203	210	213	215	186	210	169	203
3:55:00	235	216	211	203	210	213	215	186	210	170	204
3:55:05	235	216	211	203	210	213	215	186	210	170	204
3:55:10	235	216	211	203	210	213	215	186	210	170	204
3:55:15	235	216	211	203	210	213	215	186	210	170	204
3:55:20	235	216	212	203	210	213	216	186	210	170	204
3:55:25	235	216	211	203	210	213	216	186	210	170	204
3:55:30	236	217	212	204	211	214	216	187	210	170	204
3:55:35	236	216	212	204	211	213	216	187	210	170	204
3:55:40	236	217	212	204	211	214	216	187	210	170	204
3:55:45	236	217	212	204	211	214	216	187	210	170	205
3:55:50	236	217	212	204	211	214	216	187	210	170	204
3:55:55	236	217	212	204	211	214	216	187	211	170	205
3:56:00	236	217	212	204	211	214	216	187	211	171	205
3:56:05	236	217	212	204	211	214	216	187	211	171	205
3:56:10	236	217	212	204	212	214	217	188	211	171	205
3:56:15	236	217	212	204	211	214	216	188	211	171	205
3:56:20	236	217	213	204	212	215	217	188	211	171	205
3:56:25	236	218	213	204	212	215	217	188	211	171	205
3:56:30	237	218	213	205	212	215	217	188	211	171	205
3:56:35	237	218	213	205	212	215	217	188	212	171	205
3:56:40	237	218	213	205	212	215	217	188	212	172	206
3:56:45	237	218	213	205	212	215	217	188	212	172	206
3:56:50	237	218	213	205	212	215	217	188	212	172	206
3:56:55	237	218	213	205	212	215	217	188	212	172	206
3:57:00	237	218	214	205	212	215	217	188	212	172	206
3:57:05	237	218	214	205	213	215	218	189	212	172	206
3:57:10	237	219	214	206	213	216	218	189	212	172	206
3:57:15	237	219	214	206	213	216	218	189	213	172	207
3:57:20	237	219	214	206	213	216	218	189	213	172	207

Thermomass

Wall Assembly Temperature (°F)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)		Wall Assembly TC 1	TC 2	TC 3	TC 4	TC 5	TC 6	TC 7	TC 8	TC 9	AVG
3:57:25	237	219	214	206	213	216	218	189	213	172	207
3:57:30	238	219	214	206	213	216	218	189	213	173	207
3:57:35	238	219	214	206	213	216	218	189	213	173	207
3:57:40	238	219	214	206	213	216	218	189	213	173	207
3:57:45	238	220	215	206	214	216	218	190	213	173	207
3:57:50	238	220	215	207	214	216	219	190	213	173	207
3:57:55	238	220	215	207	214	217	219	190	213	173	207
3:58:00	238	220	215	207	214	217	219	190	213	173	207
3:58:05	238	220	215	207	214	217	219	190	213	173	207
3:58:10	238	220	215	207	214	217	219	190	214	174	208
3:58:15	238	220	215	207	214	217	219	190	214	174	208
3:58:20	238	220	215	207	214	217	219	190	214	174	208
3:58:25	238	220	215	207	214	217	219	190	214	174	208
3:58:30	239	221	215	207	214	217	219	190	214	174	208
3:58:35	239	221	216	208	215	217	219	190	214	174	208
3:58:40	239	221	216	208	215	217	219	190	214	174	208
3:58:45	239	221	216	208	215	217	220	191	214	174	208
3:58:50	239	221	216	208	215	218	220	191	215	174	209
3:58:55	239	221	216	208	215	218	220	191	215	174	209
3:59:00	239	221	216	208	215	218	220	191	215	174	209
3:59:05	239	221	216	208	215	218	220	191	215	175	209
3:59:10	239	221	216	208	215	218	220	191	215	175	209
3:59:15	239	222	216	208	215	218	220	191	215	175	209
3:59:20	239	222	216	209	216	218	220	191	215	175	209
3:59:25	239	222	217	209	216	218	220	192	215	175	209
3:59:30	240	222	217	209	216	218	220	191	215	175	209
3:59:35	240	222	217	209	216	219	221	192	215	175	209
3:59:40	240	222	217	209	216	219	221	192	215	175	209
3:59:45	240	222	217	209	216	219	221	192	216	175	210
3:59:50	240	222	217	209	216	219	221	192	216	176	210
3:59:55	240	222	217	209	216	219	221	192	216	176	210
4:00:00	240	223	217	209	216	219	221	192	216	176	210
4:00:05	240	223	217	210	217	219	221	192	216	176	210
4:00:10	240	223	217	210	217	219	221	192	216	176	210

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time	Furnace										
(h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	FP 8	FP 9	Average	Pressure
0:00:05	68	68	68	68	67	67	68	67	68	68	-0.002
0:00:10	68	68	68	68	68	68	68	67	67	68	0.035
0:00:15	69	68	68	68	68	68	68	67	68	68	0.065
0:00:20	70	68	68	68	68	68	69	68	68	68	0.040
0:00:25	70	69	69	68	69	69	69	68	68	69	0.000
0:00:30	72	70	70	69	70	70	68	68	69	69	-0.008
0:00:35	74	71	71	70	71	72	70	69	70	71	-0.010
0:00:40	77	72	73	71	73	73	70	69	71	72	-0.032
0:00:45	81	73	75	73	75	76	72	70	73	74	-0.026
0:00:50	87	76	77	75	78	79	74	71	75	77	-0.013
0:00:55	93	78	80	78	81	82	77	73	78	80	-0.021
0:01:00	100	82	85	80	86	86	78	75	82	84	-0.025
0:01:05	109	85	89	84	90	91	82	77	85	88	-0.016
0:01:10	121	90	94	88	96	97	87	80	90	94	0.018
0:01:15	133	95	100	93	102	104	92	83	95	100	-0.002
0:01:20	148	101	108	99	110	111	97	86	101	107	-0.019
0:01:25	167	109	118	107	119	120	103	91	109	116	-0.094
0:01:30	190	119	129	118	133	131	111	96	119	127	-0.095
0:01:35	217	131	142	131	148	144	122	102	130	141	-0.081
0:01:40	245	145	157	146	166	159	133	109	143	156	-0.052
0:01:45	276	162	173	163	187	176	146	118	157	173	-0.029
0:01:50	308	181	190	183	211	196	161	128	174	192	-0.049
0:01:55	344	201	209	202	237	218	179	140	192	213	-0.046
0:02:00	382	222	229	224	266	241	199	153	212	236	-0.041
0:02:05	422	246	251	248	296	268	218	168	234	261	-0.045
0:02:10	465	270	274	274	329	299	242	184	258	288	-0.035
0:02:15	509	295	298	301	364	332	266	201	283	317	-0.042
0:02:20	554	322	324	331	401	366	293	220	310	347	-0.044
0:02:25	598	351	351	362	438	401	321	239	339	378	-0.038
0:02:30	643	381	379	395	475	436	350	260	368	410	-0.036
0:02:35	687	411	407	428	511	470	380	281	398	442	-0.036
0:02:40	730	444	437	461	548	506	411	303	430	474	-0.036
0:02:45	770	476	467	494	585	542	444	327	463	508	-0.039
0:02:50	809	510	498	530	622	577	477	351	497	541	-0.034
0:02:55	846	545	528	564	658	613	510	377	530	574	-0.036
0:03:00	881	580	558	599	693	649	543	403	563	608	-0.038
0:03:05	916	616	588	634	727	684	577	430	596	641	-0.032
0:03:10	948	652	618	670	761	719	610	458	629	674	-0.032
0:03:15	979	687	649	705	793	753	644	486	662	706	-0.032
0:03:20	1008	721	679	739	825	786	676	514	694	738	-0.033
0:03:25	1035	755	709	773	857	818	708	543	726	769	-0.032
0:03:30	1060	787	737	806	887	849	740	572	757	799	-0.039
0:03:35	1083	818	765	838	915	879	771	599	787	828	-0.056
0:03:40	1101	846	792	868	940	906	799	626	816	855	-0.070
0:03:45	1114	871	816	894	960	928	824	651	841	878	-0.072
0:03:50	1121	893	838	915	975	946	847	674	862	897	-0.068
0:03:55	1124	911	856	933	986	960	865	695	880	912	-0.071
0:04:00	1124	927	872	949	995	971	881	714	896	925	-0.068
0:04:05	1123	939	885	962	1001	980	894	731	908	936	-0.064
0:04:10	1122	950	897	973	1006	988	905	747	919	945	-0.100
0:04:15	1119	959	907	983	1011	995	916	761	928	953	-0.090
0:04:20	1117	967	917	991	1015	1001	926	775	936	960	-0.091
0:04:25	1115	974	925	998	1018	1007	935	787	944	967	-0.101
0:04:30	1114	980	934	1005	1021	1013	944	799	951	973	-0.109
0:04:35	1112	986	941	1010	1023	1017	952	810	958	979	-0.112
0:04:40	1111	990	948	1015	1026	1021	960	820	963	984	-0.098
0:04:45	1110	995	955	1020	1029	1025	968	831	969	989	-0.099
0:04:50	1108	999	962	1025	1031	1029	974	840	975	994	-0.097
0:04:55	1107	1003	968	1029	1033	1032	981	849	980	998	-0.092
0:05:00	1107	1007	973	1032	1035	1036	987	857	985	1002	-0.103
0:05:05	1106	1010	979	1035	1036	1038	993	865	989	1006	-0.100
0:05:10	1105	1013	984	1038	1038	1041	999	873	994	1009	-0.104
0:05:15	1104	1016	989	1041	1040	1044	1004	880	998	1013	-0.113
0:05:20	1104	1019	993	1045	1042	1047	1009	888	1002	1016	-0.093
0:05:25	1104	1023	998	1048	1043	1050	1014	895	1006	1020	-0.092
0:05:30	1105	1027	1002	1052	1047	1053	1019	902	1011	1024	-0.083
0:05:35	1108	1031	1007	1058	1051	1058	1026	910	1016	1029	-0.099

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time						Furnace					
(h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	FP 8	FP 9	Average	Pressure
0:05:40	1113	1035	1014	1064	1056	1063	1033	918	1022	1035	-0.087
0:05:45	1118	1040	1020	1070	1063	1068	1040	927	1029	1042	-0.086
0:05:50	1124	1045	1026	1077	1069	1075	1048	935	1036	1048	-0.074
0:05:55	1130	1051	1033	1083	1077	1082	1056	944	1043	1055	-0.079
0:06:00	1137	1057	1041	1090	1083	1089	1063	952	1050	1062	-0.078
0:06:05	1143	1063	1049	1096	1090	1096	1072	961	1057	1070	-0.085
0:06:10	1149	1068	1057	1103	1097	1103	1079	969	1064	1076	-0.084
0:06:15	1154	1074	1064	1109	1104	1109	1087	977	1071	1083	-0.073
0:06:20	1159	1080	1072	1116	1111	1116	1095	986	1078	1090	-0.077
0:06:25	1164	1085	1078	1123	1117	1123	1102	993	1085	1097	-0.080
0:06:30	1170	1091	1085	1130	1123	1129	1109	1001	1092	1103	-0.080
0:06:35	1176	1097	1092	1137	1130	1135	1116	1009	1099	1110	-0.074
0:06:40	1181	1103	1098	1143	1136	1141	1123	1016	1105	1116	-0.074
0:06:45	1187	1108	1104	1149	1142	1147	1130	1024	1112	1122	-0.094
0:06:50	1192	1114	1111	1155	1148	1152	1137	1031	1118	1129	-0.068
0:06:55	1198	1120	1117	1161	1153	1158	1143	1038	1124	1135	-0.108
0:07:00	1204	1125	1123	1166	1158	1164	1149	1045	1130	1140	-0.089
0:07:05	1209	1131	1129	1172	1165	1170	1155	1052	1137	1147	-0.091
0:07:10	1213	1136	1135	1177	1170	1176	1161	1059	1142	1152	-0.081
0:07:15	1217	1141	1140	1182	1175	1181	1167	1066	1148	1157	-0.070
0:07:20	1221	1146	1146	1187	1180	1187	1173	1073	1154	1163	-0.070
0:07:25	1225	1151	1151	1192	1184	1192	1179	1079	1159	1168	-0.077
0:07:30	1229	1156	1156	1197	1189	1197	1184	1086	1164	1173	-0.062
0:07:35	1232	1161	1161	1202	1194	1202	1190	1092	1170	1178	-0.064
0:07:40	1237	1166	1166	1207	1198	1207	1195	1098	1175	1183	-0.082
0:07:45	1240	1171	1171	1212	1202	1211	1200	1104	1180	1188	-0.073
0:07:50	1244	1175	1175	1217	1206	1216	1205	1110	1185	1193	-0.081
0:07:55	1248	1180	1180	1221	1211	1221	1210	1116	1190	1197	-0.076
0:08:00	1252	1185	1185	1226	1215	1226	1215	1121	1195	1202	-0.074
0:08:05	1256	1189	1190	1230	1220	1231	1220	1126	1200	1207	-0.076
0:08:10	1260	1194	1194	1235	1223	1235	1224	1131	1204	1211	-0.078
0:08:15	1263	1199	1199	1239	1227	1239	1229	1137	1209	1216	-0.067
0:08:20	1267	1203	1204	1243	1231	1242	1233	1142	1213	1220	-0.073
0:08:25	1270	1208	1208	1247	1234	1246	1237	1147	1217	1224	-0.072
0:08:30	1274	1212	1212	1251	1238	1250	1241	1152	1222	1228	-0.091
0:08:35	1277	1216	1216	1255	1242	1255	1246	1157	1226	1232	-0.075
0:08:40	1281	1220	1220	1259	1247	1259	1250	1162	1230	1236	-0.064
0:08:45	1285	1224	1225	1263	1252	1263	1254	1167	1235	1241	-0.066
0:08:50	1289	1227	1229	1267	1256	1267	1258	1172	1239	1245	-0.066
0:08:55	1292	1232	1233	1271	1260	1271	1263	1177	1243	1249	-0.078
0:09:00	1295	1236	1238	1275	1264	1275	1267	1182	1248	1253	-0.075
0:09:05	1298	1239	1242	1279	1268	1279	1271	1187	1252	1257	-0.080
0:09:10	1301	1243	1246	1283	1273	1283	1275	1192	1256	1261	-0.068
0:09:15	1303	1247	1250	1286	1277	1286	1279	1197	1260	1265	-0.064
0:09:20	1306	1249	1254	1290	1281	1290	1283	1202	1264	1269	-0.062
0:09:25	1309	1253	1258	1294	1286	1294	1287	1206	1268	1273	-0.064
0:09:30	1312	1256	1262	1298	1290	1298	1291	1211	1272	1277	-0.064
0:09:35	1315	1260	1265	1301	1293	1301	1296	1216	1276	1280	-0.062
0:09:40	1318	1264	1268	1305	1297	1305	1299	1220	1280	1284	-0.071
0:09:45	1322	1268	1272	1309	1301	1308	1303	1224	1284	1288	-0.063
0:09:50	1326	1272	1276	1312	1304	1311	1306	1228	1288	1291	-0.075
0:09:55	1329	1275	1279	1316	1307	1315	1310	1233	1291	1295	-0.068
0:10:00	1332	1279	1283	1319	1311	1319	1313	1237	1295	1299	-0.058
0:10:05	1334	1283	1287	1322	1314	1322	1317	1241	1299	1302	-0.050
0:10:10	1338	1287	1291	1326	1317	1325	1320	1246	1302	1306	-0.048
0:10:15	1340	1291	1295	1329	1320	1329	1323	1250	1307	1309	-0.048
0:10:20	1344	1294	1299	1333	1324	1332	1326	1254	1310	1313	-0.057
0:10:25	1348	1297	1302	1336	1327	1335	1330	1258	1314	1316	-0.061
0:10:30	1351	1301	1306	1339	1330	1338	1333	1262	1317	1320	-0.059
0:10:35	1354	1303	1309	1342	1333	1341	1336	1265	1320	1323	-0.056
0:10:40	1358	1307	1313	1345	1336	1345	1340	1270	1324	1326	-0.062
0:10:45	1360	1310	1316	1348	1338	1348	1342	1273	1326	1329	-0.063
0:10:50	1362	1313	1319	1351	1341	1350	1345	1276	1329	1332	-0.067
0:10:55	1364	1316	1322	1352	1342	1352	1347	1279	1331	1334	-0.069
0:11:00	1364	1319	1324	1354	1344	1353	1349	1281	1333	1335	-0.065
0:11:05	1364	1320	1325	1355	1344	1353	1350	1283	1333	1336	-0.066
0:11:10	1363	1322	1326	1355	1344	1354	1351	1285	1334	1337	-0.066

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time						Furnace					
(h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	FP 8	FP 9	Average	Pressure
0:11:15	1361	1323	1327	1355	1344	1354	1351	1286	1335	1337	-0.070
0:11:20	1359	1324	1328	1355	1344	1354	1351	1287	1335	1337	-0.068
0:11:25	1356	1324	1328	1355	1343	1353	1351	1288	1335	1337	-0.063
0:11:30	1354	1324	1328	1354	1342	1352	1351	1289	1335	1337	-0.064
0:11:35	1352	1325	1329	1354	1341	1352	1351	1290	1335	1336	-0.061
0:11:40	1352	1325	1329	1354	1340	1352	1351	1291	1335	1336	-0.064
0:11:45	1351	1325	1329	1353	1340	1351	1350	1291	1335	1336	-0.077
0:11:50	1349	1325	1329	1353	1339	1352	1350	1292	1335	1336	-0.077
0:11:55	1348	1325	1329	1352	1339	1352	1350	1293	1335	1336	-0.072
0:12:00	1347	1325	1329	1353	1339	1352	1350	1293	1335	1336	-0.093
0:12:05	1346	1326	1329	1352	1338	1351	1350	1294	1336	1336	-0.094
0:12:10	1346	1326	1329	1352	1338	1351	1350	1294	1336	1336	-0.074
0:12:15	1346	1326	1330	1353	1338	1352	1350	1295	1336	1336	-0.072
0:12:20	1346	1326	1330	1352	1337	1351	1350	1295	1336	1336	-0.084
0:12:25	1346	1327	1331	1352	1337	1351	1350	1296	1336	1336	-0.086
0:12:30	1346	1328	1331	1352	1337	1352	1351	1296	1337	1337	-0.082
0:12:35	1346	1328	1331	1353	1337	1352	1351	1296	1337	1337	-0.098
0:12:40	1347	1329	1332	1353	1337	1352	1351	1297	1338	1337	-0.089
0:12:45	1348	1330	1333	1353	1337	1353	1351	1298	1338	1338	-0.092
0:12:50	1348	1331	1335	1354	1338	1354	1352	1299	1339	1339	-0.087
0:12:55	1349	1331	1335	1355	1340	1354	1353	1299	1339	1339	-0.074
0:13:00	1351	1332	1336	1356	1342	1356	1354	1301	1341	1341	-0.070
0:13:05	1352	1333	1338	1358	1343	1357	1355	1302	1342	1342	-0.064
0:13:10	1354	1333	1339	1358	1344	1358	1356	1303	1343	1343	-0.069
0:13:15	1356	1335	1341	1360	1346	1360	1358	1305	1344	1345	-0.062
0:13:20	1358	1336	1343	1361	1348	1361	1360	1307	1346	1347	-0.057
0:13:25	1361	1337	1345	1363	1350	1362	1361	1308	1348	1348	-0.086
0:13:30	1363	1339	1347	1365	1352	1364	1363	1310	1349	1350	-0.084
0:13:35	1364	1340	1349	1366	1354	1366	1365	1312	1351	1352	-0.076
0:13:40	1366	1342	1351	1368	1355	1368	1366	1313	1352	1354	-0.074
0:13:45	1368	1344	1352	1370	1357	1371	1368	1316	1355	1355	-0.070
0:13:50	1370	1345	1354	1372	1359	1372	1370	1318	1356	1357	-0.067
0:13:55	1373	1347	1356	1374	1361	1374	1372	1320	1358	1360	-0.061
0:14:00	1376	1350	1358	1377	1364	1376	1374	1322	1361	1362	-0.066
0:14:05	1379	1352	1360	1378	1365	1378	1376	1323	1363	1364	-0.062
0:14:10	1382	1355	1362	1380	1368	1380	1378	1325	1364	1366	-0.069
0:14:15	1383	1357	1365	1383	1370	1383	1380	1328	1367	1368	-0.071
0:14:20	1386	1360	1368	1385	1372	1385	1383	1330	1369	1371	-0.082
0:14:25	1388	1362	1370	1387	1374	1387	1385	1332	1371	1373	-0.084
0:14:30	1390	1364	1373	1390	1377	1389	1387	1334	1373	1375	-0.078
0:14:35	1392	1366	1374	1391	1378	1391	1388	1336	1375	1377	-0.061
0:14:40	1395	1368	1376	1393	1380	1393	1390	1338	1377	1379	-0.063
0:14:45	1397	1369	1378	1395	1382	1396	1392	1340	1379	1381	-0.075
0:14:50	1399	1371	1380	1396	1385	1398	1394	1342	1381	1383	-0.083
0:14:55	1400	1373	1382	1398	1386	1400	1396	1344	1383	1385	-0.087
0:15:00	1401	1376	1384	1400	1388	1402	1397	1346	1385	1386	-0.073
0:15:05	1402	1378	1385	1402	1389	1404	1399	1348	1387	1388	-0.069
0:15:10	1404	1381	1388	1404	1391	1406	1401	1350	1389	1390	-0.079
0:15:15	1407	1384	1390	1406	1393	1408	1403	1352	1391	1393	-0.064
0:15:20	1410	1386	1392	1408	1395	1410	1405	1354	1393	1395	-0.074
0:15:25	1413	1388	1395	1410	1398	1413	1407	1356	1395	1397	-0.060
0:15:30	1416	1391	1398	1413	1401	1415	1409	1359	1398	1400	-0.062
0:15:35	1418	1392	1400	1415	1403	1417	1411	1361	1400	1402	-0.065
0:15:40	1420	1395	1402	1417	1405	1419	1413	1363	1402	1404	-0.062
0:15:45	1421	1397	1404	1419	1408	1421	1415	1365	1404	1406	-0.073
0:15:50	1423	1399	1406	1421	1410	1424	1418	1367	1406	1408	-0.093
0:15:55	1424	1401	1408	1423	1412	1426	1420	1370	1409	1410	-0.058
0:16:00	1426	1404	1410	1425	1414	1428	1422	1372	1410	1412	-0.061
0:16:05	1428	1406	1413	1428	1416	1430	1424	1374	1413	1415	-0.065
0:16:10	1430	1408	1415	1429	1419	1432	1426	1376	1415	1417	-0.057
0:16:15	1432	1411	1417	1432	1421	1435	1428	1378	1418	1419	-0.058
0:16:20	1434	1412	1418	1434	1422	1437	1429	1380	1419	1421	-0.050
0:16:25	1437	1414	1420	1435	1424	1438	1431	1383	1421	1422	-0.043
0:16:30	1439	1416	1422	1437	1425	1440	1433	1385	1423	1424	-0.052
0:16:35	1441	1418	1424	1439	1427	1442	1435	1387	1425	1426	-0.047
0:16:40	1443	1420	1425	1440	1428	1444	1436	1389	1426	1428	-0.051
0:16:45	1444	1421	1426	1441	1429	1445	1437	1390	1427	1429	-0.052

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time	Furnace										
(h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	FP 8	FP 9	Average	Pressure
0:16:50	1445	1422	1427	1443	1431	1446	1439	1392	1428	1430	-0.051
0:16:55	1446	1424	1430	1444	1433	1447	1441	1394	1430	1432	-0.052
0:17:00	1448	1425	1431	1445	1434	1449	1442	1396	1431	1434	-0.049
0:17:05	1448	1426	1433	1446	1436	1450	1443	1397	1432	1435	-0.048
0:17:10	1448	1427	1435	1448	1437	1452	1445	1399	1434	1436	-0.051
0:17:15	1448	1428	1436	1449	1438	1453	1446	1400	1435	1437	-0.061
0:17:20	1448	1429	1437	1450	1439	1454	1447	1401	1436	1438	-0.053
0:17:25	1448	1431	1437	1451	1440	1455	1448	1403	1437	1439	-0.052
0:17:30	1448	1431	1439	1452	1441	1456	1449	1404	1438	1440	-0.050
0:17:35	1449	1432	1440	1452	1441	1456	1450	1405	1439	1440	-0.045
0:17:40	1450	1434	1441	1453	1442	1457	1450	1406	1440	1441	-0.052
0:17:45	1451	1435	1442	1454	1443	1457	1451	1408	1441	1442	-0.058
0:17:50	1453	1436	1444	1454	1443	1458	1452	1408	1442	1443	-0.050
0:17:55	1453	1437	1445	1455	1444	1459	1453	1409	1442	1444	-0.060
0:18:00	1454	1438	1445	1456	1444	1459	1453	1410	1443	1445	-0.053
0:18:05	1454	1439	1446	1456	1445	1460	1454	1411	1444	1446	-0.057
0:18:10	1455	1440	1447	1457	1446	1461	1455	1412	1445	1446	-0.064
0:18:15	1455	1441	1448	1457	1446	1461	1455	1413	1445	1447	-0.064
0:18:20	1456	1441	1449	1458	1447	1462	1456	1414	1446	1448	-0.077
0:18:25	1456	1442	1450	1459	1448	1463	1457	1415	1446	1448	-0.064
0:18:30	1457	1442	1450	1459	1448	1463	1457	1416	1447	1449	-0.059
0:18:35	1457	1443	1450	1460	1449	1463	1457	1416	1448	1449	-0.057
0:18:40	1458	1443	1451	1460	1450	1464	1458	1418	1449	1450	-0.056
0:18:45	1459	1444	1452	1461	1450	1465	1458	1419	1449	1451	-0.058
0:18:50	1460	1445	1452	1461	1451	1466	1459	1419	1450	1451	-0.057
0:18:55	1461	1446	1453	1462	1451	1467	1460	1420	1451	1452	-0.058
0:19:00	1462	1446	1454	1462	1452	1468	1461	1421	1452	1453	-0.049
0:19:05	1462	1448	1454	1463	1452	1469	1461	1422	1452	1454	-0.052
0:19:10	1463	1448	1455	1464	1453	1470	1462	1423	1453	1455	-0.039
0:19:15	1463	1449	1456	1465	1454	1470	1463	1424	1454	1455	-0.041
0:19:20	1463	1450	1457	1467	1455	1471	1464	1425	1455	1456	-0.050
0:19:25	1464	1451	1459	1468	1456	1472	1465	1426	1456	1457	-0.049
0:19:30	1465	1452	1461	1469	1457	1473	1466	1427	1457	1459	-0.054
0:19:35	1466	1453	1462	1470	1458	1473	1467	1428	1458	1459	-0.052
0:19:40	1466	1454	1463	1471	1459	1474	1468	1428	1459	1460	-0.056
0:19:45	1467	1455	1464	1472	1461	1475	1469	1430	1460	1461	-0.043
0:19:50	1467	1456	1465	1473	1461	1476	1470	1430	1461	1462	-0.045
0:19:55	1469	1457	1466	1474	1463	1477	1471	1432	1462	1463	-0.049
0:20:00	1470	1459	1466	1475	1464	1479	1472	1433	1463	1464	-0.049
0:20:05	1471	1460	1468	1476	1465	1480	1473	1434	1464	1466	-0.044
0:20:10	1472	1461	1469	1477	1466	1481	1474	1435	1465	1467	-0.054
0:20:15	1473	1462	1470	1478	1467	1482	1476	1437	1466	1468	-0.057
0:20:20	1474	1463	1472	1479	1468	1483	1477	1437	1467	1469	-0.066
0:20:25	1474	1464	1472	1480	1470	1484	1478	1439	1468	1470	-0.063
0:20:30	1475	1465	1473	1481	1470	1485	1479	1440	1469	1471	-0.058
0:20:35	1477	1466	1475	1481	1471	1486	1480	1441	1470	1472	-0.062
0:20:40	1478	1467	1476	1482	1472	1486	1481	1442	1471	1473	-0.064
0:20:45	1479	1468	1477	1483	1473	1487	1482	1443	1472	1474	-0.056
0:20:50	1479	1470	1478	1484	1474	1488	1482	1444	1472	1475	-0.048
0:20:55	1481	1470	1479	1485	1475	1489	1483	1445	1473	1475	-0.046
0:21:00	1482	1471	1480	1486	1475	1490	1484	1446	1474	1476	-0.052
0:21:05	1483	1472	1481	1487	1476	1491	1485	1447	1475	1477	-0.047
0:21:10	1485	1473	1482	1488	1477	1492	1486	1448	1476	1478	-0.044
0:21:15	1487	1474	1483	1489	1479	1493	1488	1450	1478	1480	-0.048
0:21:20	1488	1475	1484	1490	1479	1495	1488	1451	1479	1481	-0.050
0:21:25	1489	1476	1485	1491	1480	1496	1490	1452	1480	1482	-0.050
0:21:30	1490	1477	1486	1492	1481	1497	1490	1453	1481	1483	-0.051
0:21:35	1491	1478	1487	1493	1483	1498	1491	1454	1482	1484	-0.053
0:21:40	1492	1479	1489	1494	1484	1499	1492	1455	1483	1485	-0.051
0:21:45	1493	1480	1490	1495	1486	1500	1494	1456	1484	1486	-0.048
0:21:50	1493	1481	1491	1496	1487	1501	1495	1458	1485	1488	-0.048
0:21:55	1495	1483	1493	1498	1489	1503	1496	1459	1486	1489	-0.035
0:22:00	1496	1483	1494	1498	1490	1504	1497	1460	1487	1490	-0.044
0:22:05	1497	1485	1495	1499	1491	1505	1498	1461	1488	1491	-0.036
0:22:10	1498	1486	1496	1500	1492	1507	1500	1463	1489	1492	-0.040

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
0:22:15	1498	1487	1497	1501	1493	1508	1500	1464	1490	1493	-0.041
0:22:20	1499	1488	1498	1502	1495	1509	1502	1465	1491	1494	-0.035
0:22:25	1500	1489	1499	1503	1496	1510	1503	1466	1493	1495	-0.043
0:22:30	1503	1491	1501	1504	1497	1511	1504	1468	1494	1497	-0.039
0:22:35	1504	1492	1502	1506	1498	1511	1505	1469	1495	1498	-0.051
0:22:40	1505	1493	1503	1507	1499	1513	1506	1470	1496	1499	-0.068
0:22:45	1507	1494	1504	1508	1500	1514	1507	1471	1497	1500	-0.070
0:22:50	1509	1495	1505	1508	1500	1515	1508	1472	1498	1501	-0.050
0:22:55	1510	1497	1506	1509	1502	1516	1509	1473	1499	1502	-0.064
0:23:00	1510	1498	1507	1511	1502	1517	1510	1474	1500	1503	-0.046
0:23:05	1511	1499	1508	1511	1503	1518	1511	1475	1501	1504	-0.041
0:23:10	1512	1499	1509	1513	1504	1518	1511	1476	1502	1505	-0.074
0:23:15	1513	1500	1510	1514	1505	1519	1512	1477	1503	1506	-0.065
0:23:20	1514	1501	1511	1515	1506	1520	1513	1478	1504	1507	-0.067
0:23:25	1514	1503	1512	1516	1507	1522	1514	1480	1505	1508	-0.078
0:23:30	1515	1504	1513	1517	1508	1522	1515	1481	1506	1509	-0.068
0:23:35	1516	1505	1513	1518	1509	1523	1516	1482	1507	1510	-0.066
0:23:40	1517	1505	1514	1518	1509	1524	1517	1483	1507	1511	-0.069
0:23:45	1517	1505	1514	1519	1510	1524	1517	1483	1508	1511	-0.062
0:23:50	1517	1505	1515	1519	1511	1525	1518	1484	1509	1511	-0.060
0:23:55	1518	1506	1516	1521	1511	1526	1519	1485	1510	1512	-0.069
0:24:00	1518	1506	1517	1521	1512	1526	1519	1486	1510	1513	-0.075
0:24:05	1519	1506	1517	1521	1513	1527	1520	1487	1511	1513	-0.056
0:24:10	1520	1506	1517	1522	1513	1527	1520	1487	1511	1514	-0.062
0:24:15	1521	1507	1518	1522	1513	1528	1521	1488	1512	1514	-0.057
0:24:20	1521	1508	1518	1522	1514	1529	1521	1489	1513	1515	-0.064
0:24:25	1520	1508	1519	1523	1514	1529	1521	1489	1513	1515	-0.072
0:24:30	1520	1508	1519	1523	1514	1529	1522	1490	1513	1515	-0.055
0:24:35	1519	1509	1519	1523	1514	1530	1522	1490	1513	1515	-0.066
0:24:40	1519	1509	1519	1524	1515	1531	1522	1491	1514	1516	-0.069
0:24:45	1520	1509	1519	1524	1515	1531	1522	1491	1514	1516	-0.061
0:24:50	1521	1509	1520	1524	1515	1531	1523	1492	1515	1517	-0.048
0:24:55	1521	1510	1521	1524	1516	1532	1523	1492	1515	1517	-0.051
0:25:00	1521	1510	1521	1524	1517	1532	1523	1492	1515	1517	-0.080
0:25:05	1521	1510	1521	1525	1517	1532	1524	1493	1516	1518	-0.075
0:25:10	1521	1510	1521	1525	1517	1532	1524	1493	1516	1518	-0.073
0:25:15	1521	1510	1521	1525	1517	1532	1524	1493	1516	1518	-0.069
0:25:20	1521	1510	1521	1525	1516	1532	1524	1493	1516	1517	-0.059
0:25:25	1522	1510	1520	1524	1516	1532	1523	1493	1515	1517	-0.099
0:25:30	1523	1510	1521	1524	1516	1532	1523	1494	1515	1517	-0.104
0:25:35	1523	1510	1521	1524	1516	1532	1522	1494	1515	1517	-0.126
0:25:40	1523	1510	1520	1524	1516	1531	1522	1494	1515	1517	-0.092
0:25:45	1522	1509	1520	1524	1515	1531	1521	1493	1515	1517	-0.088
0:25:50	1521	1510	1520	1524	1515	1532	1522	1494	1515	1517	-0.069
0:25:55	1521	1510	1520	1524	1515	1532	1521	1494	1515	1517	-0.048
0:26:00	1521	1509	1520	1524	1514	1532	1521	1494	1515	1517	-0.043
0:26:05	1521	1510	1520	1524	1514	1532	1521	1494	1515	1517	-0.066
0:26:10	1522	1510	1521	1524	1515	1532	1522	1495	1516	1517	-0.038
0:26:15	1522	1510	1521	1524	1515	1532	1522	1495	1515	1517	-0.048
0:26:20	1523	1510	1522	1524	1515	1532	1522	1495	1516	1518	-0.052
0:26:25	1524	1510	1522	1524	1515	1532	1523	1495	1516	1518	-0.052
0:26:30	1524	1511	1523	1524	1516	1532	1524	1495	1517	1518	-0.052
0:26:35	1524	1512	1523	1525	1517	1533	1524	1496	1517	1519	-0.041
0:26:40	1524	1513	1524	1525	1518	1533	1525	1497	1517	1519	-0.060
0:26:45	1525	1513	1524	1525	1518	1533	1525	1497	1517	1520	-0.061
0:26:50	1525	1513	1525	1526	1518	1534	1525	1497	1518	1520	-0.045
0:26:55	1526	1513	1525	1526	1518	1534	1526	1498	1518	1520	-0.046
0:27:00	1527	1513	1525	1527	1518	1535	1526	1498	1518	1521	-0.049
0:27:05	1527	1514	1526	1527	1519	1535	1527	1498	1519	1521	-0.052
0:27:10	1527	1515	1526	1528	1519	1536	1527	1499	1519	1522	-0.050
0:27:15	1528	1515	1527	1528	1520	1537	1527	1500	1520	1522	-0.056
0:27:20	1528	1516	1527	1529	1521	1538	1528	1501	1521	1523	-0.067
0:27:25	1528	1516	1527	1529	1521	1538	1529	1501	1521	1523	-0.050

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
0:27:30	1528	1517	1528	1530	1522	1539	1529	1502	1522	1524	-0.066
0:27:35	1528	1518	1529	1531	1523	1539	1530	1503	1523	1525	-0.061
0:27:40	1529	1518	1529	1531	1524	1540	1531	1503	1523	1525	-0.062
0:27:45	1530	1519	1530	1532	1525	1540	1532	1504	1524	1526	-0.074
0:27:50	1531	1519	1530	1532	1525	1541	1532	1504	1524	1527	-0.067
0:27:55	1532	1520	1531	1533	1526	1542	1532	1505	1524	1527	-0.066
0:28:00	1533	1520	1532	1534	1527	1542	1533	1506	1525	1528	-0.074
0:28:05	1533	1521	1532	1535	1527	1543	1533	1507	1526	1528	-0.083
0:28:10	1533	1521	1533	1535	1527	1544	1534	1507	1526	1529	-0.088
0:28:15	1534	1522	1533	1535	1527	1544	1534	1508	1527	1529	-0.088
0:28:20	1534	1522	1534	1536	1528	1544	1535	1508	1527	1530	-0.081
0:28:25	1533	1523	1534	1536	1528	1545	1535	1508	1527	1530	-0.065
0:28:30	1533	1524	1535	1537	1529	1546	1535	1509	1528	1531	-0.069
0:28:35	1534	1524	1536	1537	1529	1546	1536	1510	1528	1531	-0.063
0:28:40	1535	1524	1536	1538	1530	1547	1536	1511	1529	1532	-0.061
0:28:45	1536	1525	1536	1538	1530	1547	1537	1511	1529	1532	-0.076
0:28:50	1537	1526	1537	1539	1531	1548	1538	1512	1529	1533	-0.072
0:28:55	1538	1526	1537	1539	1531	1549	1538	1512	1530	1533	-0.068
0:29:00	1538	1527	1538	1539	1532	1549	1538	1513	1530	1534	-0.059
0:29:05	1539	1528	1539	1540	1533	1550	1539	1514	1531	1535	-0.060
0:29:10	1540	1528	1540	1541	1533	1551	1540	1514	1532	1535	-0.060
0:29:15	1542	1529	1541	1542	1534	1551	1541	1515	1533	1536	-0.058
0:29:20	1543	1529	1542	1542	1535	1551	1541	1515	1533	1537	-0.057
0:29:25	1543	1530	1542	1543	1536	1552	1542	1516	1534	1537	-0.059
0:29:30	1543	1531	1543	1544	1537	1553	1543	1517	1535	1538	-0.057
0:29:35	1544	1532	1544	1544	1538	1553	1544	1517	1536	1539	-0.056
0:29:40	1545	1532	1545	1545	1539	1554	1545	1518	1536	1540	-0.055
0:29:45	1546	1532	1546	1546	1540	1554	1546	1519	1537	1541	-0.048
0:29:50	1546	1533	1547	1546	1540	1555	1546	1520	1538	1541	-0.048
0:29:55	1547	1534	1547	1547	1541	1556	1547	1521	1539	1542	-0.055
0:30:00	1547	1534	1548	1548	1542	1556	1548	1522	1539	1543	-0.052
0:30:05	1548	1535	1549	1549	1543	1557	1549	1522	1540	1544	-0.048
0:30:10	1550	1536	1549	1550	1544	1558	1550	1523	1541	1544	-0.051
0:30:15	1551	1536	1550	1550	1545	1559	1551	1524	1541	1545	-0.050
0:30:20	1551	1537	1551	1551	1545	1560	1551	1525	1542	1546	-0.048
0:30:25	1551	1538	1551	1552	1546	1560	1552	1525	1543	1547	-0.052
0:30:30	1552	1538	1551	1552	1547	1561	1553	1526	1544	1547	-0.048
0:30:35	1552	1539	1552	1553	1547	1562	1554	1527	1544	1548	-0.040
0:30:40	1553	1540	1552	1553	1548	1563	1554	1527	1545	1548	-0.037
0:30:45	1553	1541	1553	1554	1548	1563	1555	1528	1546	1549	-0.048
0:30:50	1554	1541	1554	1555	1549	1564	1556	1529	1546	1550	-0.043
0:30:55	1555	1542	1555	1556	1550	1565	1556	1529	1547	1550	-0.040
0:31:00	1556	1542	1556	1556	1550	1565	1557	1530	1548	1551	-0.040
0:31:05	1556	1543	1556	1557	1551	1566	1558	1531	1548	1552	-0.040
0:31:10	1557	1544	1557	1558	1551	1566	1558	1531	1549	1552	-0.041
0:31:15	1557	1544	1558	1558	1552	1567	1559	1532	1551	1553	-0.046
0:31:20	1558	1545	1558	1559	1552	1568	1559	1533	1551	1554	-0.051
0:31:25	1560	1546	1559	1560	1553	1568	1560	1533	1552	1555	-0.048
0:31:30	1561	1547	1560	1560	1554	1569	1561	1534	1552	1555	-0.055
0:31:35	1562	1548	1561	1561	1555	1570	1562	1535	1553	1556	-0.049
0:31:40	1562	1548	1561	1562	1555	1570	1562	1536	1553	1557	-0.054
0:31:45	1562	1549	1562	1562	1556	1571	1563	1536	1554	1557	-0.037
0:31:50	1562	1550	1562	1563	1557	1571	1563	1537	1555	1558	-0.044
0:31:55	1562	1551	1563	1564	1557	1572	1564	1538	1556	1558	-0.043
0:32:00	1562	1551	1563	1564	1558	1573	1565	1539	1556	1559	-0.038
0:32:05	1563	1552	1564	1565	1558	1574	1566	1540	1557	1560	-0.040
0:32:10	1563	1553	1565	1566	1559	1574	1567	1540	1558	1561	-0.042
0:32:15	1564	1553	1566	1567	1560	1575	1567	1541	1558	1561	-0.042
0:32:20	1565	1554	1566	1567	1560	1576	1568	1542	1560	1562	-0.041
0:32:25	1566	1554	1567	1568	1561	1576	1569	1543	1560	1563	-0.044
0:32:30	1567	1555	1568	1569	1562	1577	1570	1543	1561	1563	-0.040
0:32:35	1568	1556	1569	1569	1562	1578	1571	1544	1562	1564	-0.045
0:32:40	1569	1556	1569	1570	1563	1578	1571	1544	1562	1565	-0.041

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
0:32:45	1569	1558	1570	1571	1564	1579	1572	1545	1563	1566	-0.039
0:32:50	1570	1559	1571	1571	1565	1580	1572	1546	1564	1566	-0.043
0:32:55	1571	1560	1571	1572	1565	1581	1573	1547	1564	1567	-0.038
0:33:00	1571	1560	1572	1573	1566	1581	1573	1548	1565	1568	-0.034
0:33:05	1572	1561	1573	1574	1567	1582	1574	1549	1566	1568	-0.032
0:33:10	1573	1561	1574	1574	1568	1583	1575	1549	1566	1569	-0.038
0:33:15	1574	1561	1574	1575	1569	1583	1576	1550	1567	1570	-0.040
0:33:20	1575	1562	1576	1576	1570	1584	1577	1551	1568	1571	-0.049
0:33:25	1576	1563	1576	1576	1570	1585	1577	1552	1568	1571	-0.045
0:33:30	1577	1564	1577	1576	1571	1585	1577	1552	1569	1572	-0.046
0:33:35	1577	1564	1577	1577	1571	1586	1578	1553	1569	1572	-0.047
0:33:40	1577	1565	1578	1577	1572	1587	1578	1553	1570	1573	-0.054
0:33:45	1577	1566	1578	1578	1572	1587	1579	1554	1570	1574	-0.044
0:33:50	1578	1567	1580	1579	1573	1588	1580	1555	1571	1574	-0.047
0:33:55	1579	1567	1580	1579	1574	1589	1581	1555	1572	1575	-0.042
0:34:00	1580	1568	1581	1580	1574	1590	1581	1556	1572	1576	-0.044
0:34:05	1580	1569	1581	1581	1575	1591	1582	1557	1573	1576	-0.044
0:34:10	1580	1569	1582	1581	1576	1591	1582	1558	1574	1577	-0.042
0:34:15	1581	1570	1582	1582	1576	1592	1583	1558	1574	1577	-0.043
0:34:20	1582	1570	1583	1582	1577	1592	1583	1559	1575	1578	-0.046
0:34:25	1583	1570	1584	1583	1578	1593	1584	1560	1576	1579	-0.044
0:34:30	1585	1571	1585	1584	1579	1594	1585	1560	1577	1580	-0.042
0:34:35	1585	1571	1586	1584	1580	1594	1585	1561	1577	1580	-0.030
0:34:40	1587	1573	1586	1585	1581	1595	1586	1562	1578	1581	-0.043
0:34:45	1587	1574	1587	1586	1581	1596	1587	1562	1579	1582	-0.041
0:34:50	1588	1574	1587	1587	1582	1596	1587	1563	1579	1583	-0.043
0:34:55	1589	1575	1588	1587	1582	1596	1588	1564	1580	1583	-0.044
0:35:00	1589	1575	1589	1587	1583	1596	1588	1564	1580	1583	-0.035
0:35:05	1589	1576	1589	1588	1584	1597	1588	1565	1581	1584	-0.028
0:35:10	1588	1576	1589	1588	1584	1598	1589	1565	1581	1584	-0.040
0:35:15	1588	1576	1589	1589	1584	1598	1589	1565	1581	1584	-0.044
0:35:20	1589	1577	1590	1589	1585	1598	1590	1567	1582	1585	-0.036
0:35:25	1590	1578	1591	1590	1586	1599	1591	1568	1582	1586	-0.044
0:35:30	1590	1578	1592	1590	1586	1599	1591	1568	1583	1586	-0.043
0:35:35	1591	1578	1593	1591	1587	1600	1592	1568	1583	1587	-0.041
0:35:40	1592	1579	1593	1591	1587	1600	1592	1569	1584	1587	-0.047
0:35:45	1592	1580	1594	1592	1588	1601	1593	1570	1584	1588	-0.044
0:35:50	1593	1580	1595	1593	1588	1601	1593	1571	1585	1589	-0.046
0:35:55	1593	1581	1595	1593	1589	1602	1594	1571	1585	1589	-0.050
0:36:00	1593	1581	1595	1593	1589	1602	1594	1571	1586	1589	-0.043
0:36:05	1593	1582	1595	1594	1589	1603	1595	1572	1587	1590	-0.037
0:36:10	1593	1583	1596	1595	1590	1603	1596	1572	1587	1591	-0.043
0:36:15	1594	1583	1596	1595	1590	1604	1596	1573	1587	1591	-0.041
0:36:20	1594	1584	1596	1596	1591	1604	1596	1573	1588	1591	-0.038
0:36:25	1596	1585	1597	1596	1591	1605	1597	1574	1588	1592	-0.049
0:36:30	1596	1585	1598	1596	1592	1605	1597	1574	1588	1592	-0.047
0:36:35	1597	1586	1598	1597	1592	1606	1598	1575	1589	1593	-0.049
0:36:40	1597	1586	1598	1597	1593	1606	1598	1575	1589	1593	-0.043
0:36:45	1597	1586	1599	1597	1593	1606	1598	1576	1590	1593	-0.047
0:36:50	1597	1586	1599	1597	1594	1606	1598	1576	1590	1594	-0.050
0:36:55	1597	1587	1599	1598	1594	1607	1598	1576	1590	1594	-0.070
0:37:00	1598	1587	1599	1598	1594	1607	1598	1576	1591	1594	-0.034
0:37:05	1599	1587	1600	1598	1594	1607	1598	1577	1591	1594	-0.047
0:37:10	1599	1587	1600	1599	1594	1607	1599	1577	1592	1595	-0.040
0:37:15	1600	1588	1600	1598	1595	1608	1599	1578	1592	1595	-0.048
0:37:20	1600	1588	1601	1599	1595	1608	1599	1578	1592	1596	-0.044
0:37:25	1601	1588	1601	1599	1595	1608	1600	1578	1592	1596	-0.035
0:37:30	1601	1589	1602	1600	1596	1608	1601	1579	1593	1596	-0.042
0:37:35	1601	1589	1602	1600	1596	1608	1601	1579	1593	1597	-0.039
0:37:40	1600	1589	1603	1601	1597	1609	1601	1580	1594	1597	-0.041
0:37:45	1600	1590	1603	1601	1597	1609	1602	1580	1594	1597	-0.045
0:37:50	1600	1590	1603	1602	1597	1610	1602	1580	1594	1598	-0.042
0:37:55	1601	1590	1604	1602	1598	1610	1603	1581	1594	1598	-0.030

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
0:38:00	1601	1591	1604	1602	1598	1610	1603	1581	1595	1598	-0.038
0:38:05	1602	1591	1605	1603	1599	1610	1604	1581	1595	1599	-0.039
0:38:10	1602	1591	1605	1603	1599	1611	1604	1582	1596	1599	-0.054
0:38:15	1601	1591	1605	1603	1599	1612	1604	1582	1596	1599	-0.048
0:38:20	1601	1591	1605	1604	1600	1612	1605	1583	1596	1600	-0.032
0:38:25	1602	1591	1605	1604	1600	1612	1605	1583	1596	1600	-0.034
0:38:30	1602	1592	1606	1604	1601	1612	1605	1583	1597	1600	-0.040
0:38:35	1603	1592	1607	1605	1601	1613	1606	1584	1598	1601	-0.026
0:38:40	1604	1593	1607	1606	1602	1613	1607	1584	1598	1601	-0.037
0:38:45	1605	1594	1608	1606	1602	1614	1607	1585	1599	1602	-0.046
0:38:50	1606	1594	1609	1607	1602	1614	1607	1585	1599	1603	-0.041
0:38:55	1606	1594	1609	1607	1603	1615	1608	1586	1600	1603	-0.034
0:39:00	1607	1594	1610	1607	1603	1615	1608	1586	1600	1603	-0.042
0:39:05	1608	1594	1610	1608	1604	1615	1609	1587	1601	1604	-0.045
0:39:10	1609	1594	1611	1608	1604	1616	1609	1587	1601	1604	-0.033
0:39:15	1610	1595	1612	1609	1604	1617	1610	1588	1601	1605	-0.041
0:39:20	1611	1596	1612	1609	1605	1617	1610	1588	1602	1606	-0.042
0:39:25	1611	1596	1612	1609	1605	1617	1610	1589	1602	1606	-0.040
0:39:30	1611	1597	1613	1610	1606	1618	1611	1590	1603	1607	-0.035
0:39:35	1611	1597	1613	1611	1607	1619	1611	1590	1603	1607	-0.047
0:39:40	1612	1598	1614	1611	1607	1619	1612	1591	1604	1607	-0.056
0:39:45	1612	1599	1614	1612	1607	1620	1612	1591	1604	1608	-0.050
0:39:50	1611	1599	1614	1612	1608	1620	1613	1592	1604	1608	-0.038
0:39:55	1612	1600	1614	1612	1608	1621	1613	1592	1605	1609	-0.042
0:40:00	1612	1600	1615	1613	1608	1621	1614	1593	1605	1609	-0.044
0:40:05	1613	1600	1615	1613	1609	1622	1614	1593	1606	1609	-0.043
0:40:10	1613	1601	1615	1614	1610	1623	1615	1594	1607	1610	-0.036
0:40:15	1614	1602	1617	1615	1611	1623	1616	1595	1607	1611	-0.034
0:40:20	1615	1601	1617	1615	1611	1623	1616	1595	1607	1611	-0.039
0:40:25	1616	1602	1618	1616	1612	1624	1617	1596	1608	1612	-0.040
0:40:30	1616	1602	1618	1616	1612	1624	1617	1596	1608	1612	-0.048
0:40:35	1616	1603	1618	1617	1613	1624	1618	1596	1608	1612	-0.049
0:40:40	1616	1604	1619	1618	1614	1625	1619	1598	1609	1613	-0.043
0:40:45	1616	1604	1620	1618	1614	1625	1619	1598	1610	1614	-0.040
0:40:50	1617	1605	1621	1618	1615	1626	1620	1598	1610	1614	-0.046
0:40:55	1618	1605	1621	1619	1616	1626	1620	1599	1611	1615	-0.041
0:41:00	1618	1605	1622	1620	1617	1627	1621	1599	1612	1616	-0.038
0:41:05	1619	1606	1622	1620	1617	1628	1621	1600	1612	1616	-0.040
0:41:10	1620	1607	1623	1621	1618	1629	1622	1601	1612	1617	-0.050
0:41:15	1621	1607	1623	1621	1617	1628	1622	1600	1612	1617	-0.045
0:41:20	1621	1608	1624	1622	1618	1630	1623	1601	1613	1618	-0.033
0:41:25	1622	1609	1625	1622	1619	1630	1624	1602	1614	1618	-0.052
0:41:30	1623	1609	1625	1623	1620	1630	1624	1602	1615	1619	-0.051
0:41:35	1623	1610	1626	1623	1620	1630	1625	1603	1615	1619	-0.050
0:41:40	1623	1610	1626	1624	1620	1631	1625	1603	1615	1620	-0.060
0:41:45	1623	1611	1626	1624	1621	1632	1626	1604	1616	1620	-0.048
0:41:50	1624	1611	1626	1624	1621	1632	1626	1604	1616	1620	-0.043
0:41:55	1625	1611	1627	1624	1621	1632	1626	1605	1617	1621	-0.031
0:42:00	1626	1611	1628	1625	1621	1633	1626	1605	1617	1621	-0.042
0:42:05	1626	1612	1628	1625	1622	1633	1627	1606	1618	1622	-0.041
0:42:10	1627	1613	1629	1626	1623	1634	1628	1606	1618	1623	-0.050
0:42:15	1628	1613	1630	1626	1623	1634	1628	1607	1619	1623	-0.063
0:42:20	1628	1614	1630	1626	1623	1635	1628	1607	1619	1623	-0.051
0:42:25	1629	1614	1630	1627	1623	1635	1628	1607	1619	1624	-0.046
0:42:30	1629	1614	1630	1628	1624	1635	1628	1608	1620	1624	-0.057
0:42:35	1629	1615	1630	1628	1625	1636	1629	1608	1621	1625	-0.044
0:42:40	1630	1615	1630	1628	1625	1636	1629	1609	1621	1625	-0.043
0:42:45	1630	1616	1631	1629	1626	1637	1630	1610	1622	1625	-0.042
0:42:50	1630	1616	1631	1629	1626	1637	1630	1610	1622	1626	-0.037
0:42:55	1630	1616	1632	1630	1626	1637	1631	1610	1622	1626	-0.045
0:43:00	1630	1616	1632	1630	1627	1638	1632	1611	1623	1626	-0.042
0:43:05	1630	1617	1632	1631	1627	1638	1632	1611	1623	1627	-0.045
0:43:10	1631	1617	1633	1631	1628	1638	1632	1612	1624	1627	-0.040

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
0:43:15	1632	1617	1634	1632	1628	1639	1633	1612	1624	1628	-0.040
0:43:20	1633	1617	1634	1632	1628	1639	1633	1613	1625	1628	-0.042
0:43:25	1633	1618	1635	1633	1629	1640	1634	1613	1625	1629	-0.041
0:43:30	1634	1618	1636	1634	1630	1641	1635	1614	1626	1630	-0.042
0:43:35	1634	1619	1636	1634	1630	1642	1635	1615	1627	1630	-0.042
0:43:40	1635	1620	1637	1634	1630	1642	1635	1615	1627	1630	-0.044
0:43:45	1635	1620	1637	1634	1631	1642	1636	1615	1628	1631	-0.040
0:43:50	1635	1621	1638	1635	1631	1643	1636	1616	1628	1632	-0.042
0:43:55	1636	1621	1638	1636	1632	1643	1637	1617	1628	1632	-0.039
0:44:00	1636	1622	1639	1636	1633	1643	1637	1617	1629	1633	-0.044
0:44:05	1637	1623	1640	1637	1634	1644	1638	1618	1630	1633	-0.033
0:44:10	1638	1623	1640	1637	1634	1644	1639	1618	1630	1634	-0.037
0:44:15	1638	1623	1640	1637	1635	1645	1639	1618	1631	1634	-0.041
0:44:20	1638	1625	1641	1638	1636	1646	1640	1619	1632	1635	-0.050
0:44:25	1639	1625	1641	1639	1636	1646	1640	1620	1632	1635	-0.048
0:44:30	1638	1626	1642	1639	1636	1647	1641	1620	1632	1636	-0.043
0:44:35	1638	1626	1642	1640	1637	1647	1641	1621	1633	1636	-0.041
0:44:40	1639	1627	1643	1640	1637	1648	1642	1621	1633	1637	-0.045
0:44:45	1639	1627	1643	1641	1637	1648	1642	1622	1634	1637	-0.043
0:44:50	1640	1628	1644	1641	1638	1649	1643	1623	1634	1638	-0.047
0:44:55	1640	1628	1644	1641	1638	1649	1643	1623	1634	1638	-0.048
0:45:00	1641	1628	1645	1642	1638	1650	1643	1623	1635	1638	-0.054
0:45:05	1641	1629	1645	1642	1639	1650	1643	1624	1635	1639	-0.052
0:45:10	1642	1630	1645	1642	1639	1650	1644	1624	1635	1639	-0.058
0:45:15	1642	1630	1645	1643	1639	1650	1644	1624	1635	1639	-0.060
0:45:20	1642	1630	1645	1643	1640	1651	1644	1624	1636	1639	-0.056
0:45:25	1643	1630	1646	1643	1640	1652	1644	1625	1636	1640	-0.050
0:45:30	1643	1630	1646	1643	1641	1652	1644	1625	1636	1640	-0.050
0:45:35	1644	1630	1646	1643	1641	1652	1644	1625	1636	1640	-0.056
0:45:40	1644	1631	1646	1644	1641	1652	1645	1626	1636	1640	-0.052
0:45:45	1644	1631	1647	1644	1641	1652	1645	1626	1636	1641	-0.061
0:45:50	1645	1631	1647	1644	1641	1652	1645	1626	1637	1641	-0.068
0:45:55	1645	1631	1647	1644	1641	1653	1645	1626	1637	1641	-0.057
0:46:00	1645	1632	1648	1645	1641	1653	1645	1627	1637	1641	-0.054
0:46:05	1645	1632	1648	1645	1642	1653	1646	1627	1638	1642	-0.062
0:46:10	1645	1632	1648	1645	1642	1653	1646	1627	1638	1642	-0.054
0:46:15	1645	1632	1649	1645	1643	1653	1646	1628	1638	1642	-0.044
0:46:20	1645	1632	1649	1645	1643	1654	1646	1628	1639	1642	-0.046
0:46:25	1646	1633	1649	1646	1643	1654	1647	1628	1639	1643	-0.044
0:46:30	1646	1633	1650	1646	1644	1655	1647	1629	1639	1643	-0.036
0:46:35	1647	1634	1650	1646	1644	1655	1647	1629	1640	1644	-0.040
0:46:40	1648	1635	1650	1647	1645	1656	1648	1630	1640	1644	-0.055
0:46:45	1648	1635	1651	1648	1646	1656	1648	1630	1641	1645	-0.054
0:46:50	1649	1635	1651	1648	1646	1656	1648	1630	1641	1645	-0.050
0:46:55	1650	1636	1652	1649	1647	1657	1648	1631	1641	1645	-0.068
0:47:00	1650	1636	1652	1649	1646	1657	1648	1631	1641	1646	-0.057
0:47:05	1650	1636	1652	1649	1647	1658	1649	1632	1642	1646	-0.048
0:47:10	1651	1636	1652	1649	1647	1658	1649	1632	1642	1646	-0.055
0:47:15	1650	1637	1653	1650	1648	1658	1649	1632	1642	1647	-0.053
0:47:20	1650	1637	1653	1650	1648	1658	1650	1633	1643	1647	-0.050
0:47:25	1650	1638	1653	1651	1649	1659	1650	1634	1643	1647	-0.047
0:47:30	1651	1638	1653	1651	1649	1659	1651	1634	1644	1648	-0.049
0:47:35	1652	1638	1654	1651	1650	1659	1651	1634	1644	1648	-0.040
0:47:40	1652	1639	1655	1652	1650	1660	1652	1635	1644	1649	-0.044
0:47:45	1653	1639	1655	1652	1650	1660	1652	1635	1645	1649	-0.049
0:47:50	1654	1640	1656	1652	1651	1661	1653	1635	1645	1650	-0.049
0:47:55	1655	1640	1656	1653	1651	1661	1653	1636	1646	1650	-0.044
0:48:00	1655	1640	1656	1653	1652	1662	1653	1636	1646	1650	-0.044
0:48:05	1655	1641	1657	1654	1652	1663	1655	1637	1648	1651	-0.042
0:48:10	1655	1641	1657	1654	1653	1663	1655	1638	1648	1652	-0.048
0:48:15	1655	1642	1657	1655	1653	1664	1656	1638	1649	1652	-0.044
0:48:20	1656	1642	1657	1655	1653	1664	1656	1638	1650	1652	-0.043
0:48:25	1656	1642	1658	1655	1654	1665	1656	1639	1650	1653	-0.047

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
0:48:30	1656	1643	1658	1655	1654	1665	1656	1639	1650	1653	-0.041
0:48:35	1657	1643	1659	1656	1655	1665	1657	1640	1650	1653	-0.031
0:48:40	1657	1644	1659	1657	1655	1665	1657	1640	1651	1654	-0.049
0:48:45	1657	1644	1659	1657	1655	1666	1657	1641	1651	1654	-0.072
0:48:50	1657	1644	1659	1657	1655	1666	1657	1641	1651	1654	-0.072
0:48:55	1656	1644	1659	1657	1655	1666	1657	1641	1651	1654	-0.077
0:49:00	1656	1644	1658	1657	1655	1666	1657	1641	1651	1654	-0.074
0:49:05	1656	1644	1658	1657	1654	1666	1656	1641	1651	1654	-0.081
0:49:10	1655	1644	1657	1656	1653	1666	1655	1641	1650	1653	-0.074
0:49:15	1655	1644	1657	1656	1653	1666	1655	1641	1650	1653	-0.081
0:49:20	1655	1644	1658	1656	1653	1666	1655	1641	1650	1653	-0.067
0:49:25	1655	1644	1657	1656	1652	1666	1654	1641	1650	1653	-0.071
0:49:30	1655	1644	1657	1655	1652	1665	1654	1641	1650	1653	-0.070
0:49:35	1654	1644	1657	1655	1652	1665	1653	1640	1649	1652	-0.065
0:49:40	1654	1644	1657	1655	1652	1666	1653	1641	1649	1652	-0.060
0:49:45	1655	1644	1657	1656	1652	1666	1653	1641	1650	1653	-0.061
0:49:50	1655	1644	1657	1656	1652	1666	1653	1641	1650	1653	-0.076
0:49:55	1655	1645	1657	1656	1652	1665	1653	1640	1650	1652	-0.062
0:50:00	1654	1645	1657	1656	1652	1665	1653	1641	1650	1653	-0.069
0:50:05	1654	1645	1657	1656	1652	1665	1653	1640	1649	1652	-0.062
0:50:10	1654	1645	1657	1656	1652	1665	1653	1641	1649	1652	-0.074
0:50:15	1654	1645	1657	1656	1652	1665	1653	1640	1649	1652	-0.080
0:50:20	1654	1645	1657	1656	1652	1665	1653	1640	1649	1652	-0.072
0:50:25	1655	1645	1657	1656	1652	1666	1653	1641	1649	1653	-0.052
0:50:30	1655	1645	1657	1656	1652	1666	1653	1641	1649	1652	-0.069
0:50:35	1655	1645	1657	1656	1652	1666	1653	1641	1649	1653	-0.058
0:50:40	1656	1646	1657	1657	1652	1666	1653	1641	1649	1653	-0.061
0:50:45	1656	1646	1658	1657	1653	1666	1654	1642	1650	1653	-0.069
0:50:50	1656	1646	1658	1657	1652	1666	1654	1641	1650	1653	-0.061
0:50:55	1657	1646	1658	1657	1653	1667	1654	1642	1650	1654	-0.057
0:51:00	1657	1647	1659	1658	1653	1667	1655	1642	1651	1654	-0.060
0:51:05	1658	1646	1659	1658	1653	1667	1654	1642	1650	1654	-0.058
0:51:10	1658	1647	1659	1658	1654	1667	1655	1642	1651	1655	-0.046
0:51:15	1659	1647	1659	1658	1654	1668	1655	1642	1651	1655	-0.059
0:51:20	1659	1647	1660	1659	1655	1668	1655	1643	1652	1655	-0.061
0:51:25	1660	1648	1661	1659	1655	1668	1656	1643	1652	1656	-0.064
0:51:30	1660	1648	1661	1659	1655	1668	1656	1643	1652	1656	-0.066
0:51:35	1661	1648	1661	1659	1655	1668	1655	1643	1652	1656	-0.066
0:51:40	1661	1648	1661	1660	1655	1669	1656	1644	1653	1656	-0.067
0:51:45	1662	1648	1661	1660	1655	1669	1656	1644	1652	1656	-0.051
0:51:50	1663	1649	1662	1660	1656	1670	1656	1645	1653	1657	-0.058
0:51:55	1663	1649	1662	1661	1656	1670	1657	1645	1653	1657	-0.058
0:52:00	1664	1650	1663	1661	1656	1671	1657	1645	1654	1658	-0.060
0:52:05	1665	1650	1664	1661	1657	1671	1657	1645	1655	1658	-0.069
0:52:10	1666	1651	1664	1662	1657	1671	1658	1646	1655	1659	-0.062
0:52:15	1666	1651	1664	1662	1657	1671	1658	1646	1655	1659	-0.062
0:52:20	1666	1651	1665	1662	1658	1672	1659	1647	1656	1659	-0.068
0:52:25	1665	1652	1665	1663	1659	1672	1659	1647	1656	1660	-0.094
0:52:30	1665	1652	1665	1663	1659	1672	1659	1648	1657	1660	-0.071
0:52:35	1665	1652	1665	1664	1659	1673	1660	1648	1657	1660	-0.058
0:52:40	1664	1653	1665	1664	1659	1673	1660	1648	1657	1660	-0.067
0:52:45	1664	1654	1666	1664	1659	1674	1660	1649	1658	1661	-0.060
0:52:50	1665	1654	1666	1665	1660	1675	1661	1649	1658	1661	-0.054
0:52:55	1665	1655	1666	1665	1660	1675	1661	1650	1659	1662	-0.057
0:53:00	1666	1655	1667	1666	1661	1676	1662	1650	1660	1662	-0.056
0:53:05	1666	1655	1667	1667	1661	1676	1663	1651	1660	1663	-0.056
0:53:10	1666	1656	1668	1668	1662	1677	1663	1652	1661	1664	-0.051
0:53:15	1667	1657	1669	1668	1663	1678	1664	1652	1662	1665	-0.067
0:53:20	1668	1658	1670	1669	1664	1679	1665	1653	1662	1665	-0.060
0:53:25	1669	1659	1670	1670	1664	1680	1665	1653	1663	1666	-0.054
0:53:30	1669	1660	1671	1671	1665	1680	1666	1654	1664	1667	-0.054
0:53:35	1670	1661	1671	1671	1666	1681	1667	1654	1664	1667	-0.078
0:53:40	1671	1661	1672	1672	1666	1682	1667	1655	1666	1668	-0.078

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
0:53:45	1673	1662	1673	1673	1667	1683	1668	1656	1666	1669	-0.062
0:53:50	1674	1663	1674	1674	1668	1683	1668	1656	1667	1670	-0.060
0:53:55	1675	1664	1675	1675	1668	1684	1669	1657	1668	1671	-0.058
0:54:00	1677	1665	1675	1676	1670	1685	1670	1658	1669	1671	-0.054
0:54:05	1678	1667	1677	1677	1670	1686	1671	1658	1670	1673	-0.055
0:54:10	1679	1667	1678	1678	1671	1687	1672	1660	1671	1674	-0.056
0:54:15	1680	1668	1679	1679	1672	1688	1673	1661	1672	1675	-0.056
0:54:20	1682	1669	1679	1680	1673	1689	1674	1661	1673	1675	-0.061
0:54:25	1682	1670	1681	1681	1675	1691	1675	1663	1674	1677	-0.062
0:54:30	1683	1671	1681	1681	1675	1691	1675	1663	1675	1677	-0.073
0:54:35	1683	1672	1681	1682	1676	1692	1676	1664	1675	1678	-0.065
0:54:40	1684	1673	1682	1683	1677	1693	1677	1665	1676	1679	-0.091
0:54:45	1684	1673	1683	1684	1678	1693	1678	1665	1677	1679	-0.092
0:54:50	1684	1674	1683	1684	1678	1694	1678	1666	1677	1680	-0.117
0:54:55	1685	1674	1684	1684	1678	1694	1678	1667	1678	1680	-0.086
0:55:00	1686	1675	1684	1685	1678	1695	1679	1667	1678	1681	-0.063
0:55:05	1686	1675	1685	1686	1679	1696	1679	1668	1679	1682	-0.059
0:55:10	1686	1676	1685	1686	1679	1696	1680	1668	1680	1682	-0.070
0:55:15	1688	1677	1686	1687	1680	1697	1680	1670	1680	1683	-0.066
0:55:20	1688	1677	1686	1688	1680	1697	1681	1670	1681	1683	-0.065
0:55:25	1689	1677	1687	1688	1681	1697	1681	1670	1681	1683	-0.057
0:55:30	1689	1678	1688	1689	1682	1698	1682	1671	1682	1684	-0.060
0:55:35	1690	1678	1688	1689	1683	1699	1682	1671	1682	1685	-0.066
0:55:40	1691	1679	1688	1690	1684	1699	1683	1672	1683	1685	-0.064
0:55:45	1691	1679	1689	1690	1684	1700	1684	1673	1683	1686	-0.070
0:55:50	1691	1680	1689	1691	1685	1701	1684	1673	1684	1686	-0.068
0:55:55	1691	1680	1689	1691	1685	1702	1685	1674	1684	1687	-0.072
0:56:00	1691	1681	1689	1692	1686	1702	1685	1675	1685	1687	-0.069
0:56:05	1692	1681	1690	1692	1686	1703	1686	1675	1685	1688	-0.058
0:56:10	1693	1682	1691	1693	1686	1703	1686	1676	1686	1688	-0.058
0:56:15	1693	1683	1691	1694	1687	1704	1687	1677	1686	1689	-0.062
0:56:20	1693	1683	1692	1694	1687	1704	1688	1677	1687	1689	-0.053
0:56:25	1694	1684	1693	1694	1688	1704	1688	1677	1688	1690	-0.056
0:56:30	1695	1684	1693	1694	1688	1704	1689	1677	1688	1690	-0.056
0:56:35	1695	1684	1694	1695	1689	1705	1689	1678	1689	1691	-0.049
0:56:40	1696	1685	1695	1696	1690	1706	1690	1679	1689	1692	-0.054
0:56:45	1697	1686	1695	1697	1691	1706	1691	1679	1690	1692	-0.056
0:56:50	1697	1686	1696	1697	1691	1707	1692	1680	1690	1693	-0.050
0:56:55	1698	1687	1697	1697	1692	1707	1692	1680	1690	1693	-0.052
0:57:00	1699	1688	1698	1698	1693	1707	1693	1681	1691	1694	-0.056
0:57:05	1700	1688	1698	1699	1693	1708	1693	1682	1692	1695	-0.053
0:57:10	1700	1689	1698	1699	1694	1709	1694	1682	1693	1695	-0.049
0:57:15	1701	1689	1699	1700	1694	1709	1694	1682	1693	1696	-0.044
0:57:20	1702	1690	1699	1700	1695	1710	1695	1683	1693	1696	-0.047
0:57:25	1702	1690	1700	1701	1695	1711	1696	1684	1694	1697	-0.054
0:57:30	1703	1691	1700	1701	1695	1711	1696	1684	1695	1697	-0.056
0:57:35	1703	1691	1700	1702	1695	1711	1697	1685	1695	1698	-0.050
0:57:40	1703	1692	1700	1702	1696	1712	1697	1686	1696	1698	-0.048
0:57:45	1704	1693	1700	1703	1696	1713	1697	1686	1696	1699	-0.050
0:57:50	1704	1694	1701	1704	1697	1714	1698	1687	1697	1699	-0.044
0:57:55	1704	1694	1701	1704	1698	1714	1699	1688	1697	1700	-0.048
0:58:00	1705	1694	1701	1704	1698	1714	1699	1688	1697	1700	-0.055
0:58:05	1705	1694	1702	1705	1698	1714	1699	1688	1698	1700	-0.047
0:58:10	1704	1694	1702	1705	1698	1714	1699	1688	1698	1700	-0.052
0:58:15	1704	1695	1702	1705	1699	1714	1700	1689	1698	1701	-0.060
0:58:20	1704	1695	1702	1705	1699	1714	1700	1689	1697	1700	-0.055
0:58:25	1704	1694	1701	1705	1699	1715	1699	1689	1697	1700	-0.053
0:58:30	1704	1694	1701	1705	1699	1715	1699	1689	1698	1700	-0.050
0:58:35	1704	1694	1701	1705	1699	1715	1700	1689	1698	1700	-0.048
0:58:40	1703	1694	1702	1705	1699	1715	1700	1689	1699	1701	-0.046
0:58:45	1704	1694	1702	1705	1699	1715	1700	1689	1699	1701	-0.049
0:58:50	1704	1694	1702	1706	1700	1715	1700	1690	1699	1701	-0.048
0:58:55	1704	1694	1703	1706	1700	1715	1701	1690	1699	1701	-0.050

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time						Furnace					
(h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	FP 8	FP 9	Average	Pressure
0:59:00	1705	1695	1702	1706	1700	1715	1701	1690	1699	1701	-0.050
0:59:05	1705	1695	1702	1706	1701	1715	1701	1690	1700	1702	-0.052
0:59:10	1705	1695	1703	1706	1701	1716	1702	1690	1700	1702	-0.051
0:59:15	1705	1695	1703	1706	1701	1716	1702	1691	1700	1702	-0.039
0:59:20	1706	1695	1703	1706	1701	1716	1702	1691	1700	1702	-0.056
0:59:25	1706	1695	1703	1707	1701	1716	1702	1691	1700	1702	-0.050
0:59:30	1707	1695	1704	1707	1701	1716	1702	1692	1700	1703	-0.052
0:59:35	1707	1695	1704	1707	1702	1716	1702	1692	1700	1703	-0.052
0:59:40	1707	1695	1704	1707	1702	1717	1702	1692	1701	1703	-0.052
0:59:45	1708	1696	1704	1708	1702	1717	1702	1693	1701	1703	-0.053
0:59:50	1708	1696	1704	1707	1702	1717	1702	1693	1701	1703	-0.043
0:59:55	1709	1696	1704	1708	1702	1717	1702	1693	1701	1704	-0.058
1:00:00	1709	1696	1704	1708	1702	1717	1703	1693	1701	1704	-0.050
1:00:05	1709	1697	1704	1708	1703	1718	1703	1694	1701	1704	-0.047
1:00:10	1709	1697	1704	1708	1703	1718	1703	1694	1702	1704	-0.052
1:00:15	1709	1698	1704	1709	1703	1718	1703	1695	1702	1704	-0.054
1:00:20	1709	1698	1705	1708	1704	1718	1704	1695	1702	1705	-0.047
1:00:25	1709	1698	1705	1709	1705	1718	1704	1695	1702	1705	-0.042
1:00:30	1710	1699	1706	1709	1705	1718	1704	1695	1703	1705	-0.043
1:00:35	1710	1699	1706	1709	1705	1719	1704	1695	1703	1706	-0.046
1:00:40	1710	1699	1706	1710	1705	1719	1705	1696	1703	1706	-0.053
1:00:45	1710	1700	1707	1710	1705	1719	1705	1696	1704	1706	-0.058
1:00:50	1711	1700	1706	1710	1705	1720	1705	1696	1703	1706	-0.046
1:00:55	1710	1700	1707	1711	1706	1720	1705	1696	1704	1706	-0.056
1:01:00	1711	1700	1707	1711	1706	1720	1706	1697	1704	1707	-0.056
1:01:05	1711	1701	1707	1711	1706	1721	1706	1697	1704	1707	-0.048
1:01:10	1711	1701	1707	1711	1706	1721	1706	1697	1704	1707	-0.055
1:01:15	1711	1701	1708	1711	1706	1721	1706	1697	1704	1707	-0.050
1:01:20	1712	1702	1708	1712	1707	1722	1707	1698	1705	1708	-0.049
1:01:25	1712	1702	1708	1712	1707	1722	1707	1698	1705	1708	-0.042
1:01:30	1712	1702	1709	1713	1708	1722	1707	1699	1706	1709	-0.054
1:01:35	1713	1703	1710	1713	1708	1723	1708	1699	1706	1709	-0.050
1:01:40	1713	1703	1710	1713	1708	1723	1708	1699	1706	1709	-0.045
1:01:45	1713	1703	1711	1713	1708	1723	1708	1699	1707	1709	-0.036
1:01:50	1713	1703	1710	1713	1708	1723	1708	1700	1707	1709	-0.047
1:01:55	1713	1703	1710	1713	1709	1723	1709	1700	1707	1710	-0.035
1:02:00	1713	1704	1711	1714	1709	1724	1709	1700	1708	1710	-0.045
1:02:05	1714	1704	1711	1714	1710	1724	1710	1700	1708	1711	-0.058
1:02:10	1714	1704	1711	1714	1710	1724	1710	1701	1708	1711	-0.053
1:02:15	1715	1704	1711	1715	1710	1724	1710	1701	1708	1711	-0.053
1:02:20	1715	1704	1712	1715	1711	1725	1711	1701	1709	1711	-0.056
1:02:25	1715	1704	1712	1715	1711	1725	1711	1702	1709	1712	-0.055
1:02:30	1716	1704	1713	1715	1711	1726	1711	1702	1709	1712	-0.048
1:02:35	1716	1704	1713	1715	1711	1726	1711	1702	1709	1712	-0.051
1:02:40	1716	1705	1713	1716	1711	1726	1712	1703	1710	1712	-0.055
1:02:45	1717	1706	1714	1716	1712	1727	1712	1703	1710	1713	-0.044
1:02:50	1718	1706	1715	1716	1713	1727	1713	1703	1710	1713	-0.048
1:02:55	1718	1706	1715	1717	1713	1727	1713	1704	1711	1714	-0.048
1:03:00	1718	1706	1716	1717	1714	1727	1714	1704	1711	1714	-0.052
1:03:05	1718	1706	1716	1717	1713	1727	1713	1704	1711	1714	-0.051
1:03:10	1718	1707	1716	1718	1714	1728	1714	1705	1712	1715	-0.042
1:03:15	1717	1707	1716	1718	1715	1728	1714	1705	1712	1715	-0.054
1:03:20	1718	1707	1716	1718	1715	1728	1714	1705	1712	1715	-0.048
1:03:25	1718	1707	1717	1718	1715	1728	1715	1705	1712	1715	-0.054
1:03:30	1718	1708	1717	1718	1715	1729	1715	1706	1712	1715	-0.045
1:03:35	1718	1708	1717	1719	1716	1729	1715	1706	1713	1716	-0.045
1:03:40	1718	1708	1717	1719	1716	1729	1715	1706	1713	1716	-0.046
1:03:45	1719	1709	1717	1720	1716	1729	1716	1706	1714	1716	-0.055
1:03:50	1720	1709	1717	1720	1716	1730	1716	1707	1714	1716	-0.058
1:03:55	1720	1710	1718	1721	1717	1730	1716	1707	1715	1717	-0.058
1:04:00	1721	1710	1718	1721	1717	1730	1716	1707	1715	1717	-0.053
1:04:05	1721	1710	1718	1721	1717	1731	1717	1708	1715	1718	-0.054
1:04:10	1721	1710	1718	1721	1717	1730	1717	1708	1715	1718	-0.056

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
1:04:15	1722	1711	1718	1722	1717	1731	1717	1708	1715	1718	-0.058
1:04:20	1723	1711	1718	1722	1718	1731	1717	1708	1715	1718	-0.059
1:04:25	1723	1711	1718	1722	1718	1731	1717	1708	1715	1718	-0.051
1:04:30	1723	1711	1719	1722	1718	1731	1718	1709	1716	1719	-0.054
1:04:35	1723	1711	1718	1722	1718	1732	1718	1709	1716	1719	-0.050
1:04:40	1723	1712	1719	1722	1718	1732	1718	1709	1716	1719	-0.050
1:04:45	1724	1712	1719	1723	1719	1732	1719	1709	1716	1719	-0.051
1:04:50	1723	1713	1719	1724	1719	1733	1719	1710	1717	1720	-0.063
1:04:55	1724	1713	1719	1724	1719	1733	1719	1710	1717	1720	-0.060
1:05:00	1724	1714	1719	1724	1720	1733	1720	1710	1717	1720	-0.058
1:05:05	1723	1713	1719	1724	1720	1733	1719	1710	1717	1720	-0.054
1:05:10	1723	1714	1719	1724	1720	1733	1720	1711	1717	1720	-0.058
1:05:15	1724	1714	1719	1725	1720	1733	1720	1711	1718	1720	-0.054
1:05:20	1724	1714	1719	1725	1720	1733	1720	1711	1718	1720	-0.062
1:05:25	1724	1714	1720	1725	1720	1733	1720	1711	1718	1720	-0.066
1:05:30	1724	1714	1720	1725	1720	1734	1720	1711	1718	1721	-0.055
1:05:35	1725	1714	1720	1725	1721	1734	1720	1711	1718	1721	-0.059
1:05:40	1725	1715	1720	1725	1720	1734	1720	1711	1718	1721	-0.060
1:05:45	1726	1715	1720	1726	1721	1734	1720	1712	1719	1721	-0.059
1:05:50	1726	1716	1721	1726	1721	1735	1721	1712	1719	1722	-0.055
1:05:55	1726	1716	1721	1726	1721	1735	1721	1712	1719	1722	-0.053
1:06:00	1727	1716	1721	1726	1721	1735	1721	1712	1719	1722	-0.052
1:06:05	1727	1716	1721	1726	1721	1736	1721	1713	1720	1722	-0.050
1:06:10	1727	1716	1721	1727	1721	1736	1721	1713	1720	1722	-0.048
1:06:15	1728	1716	1722	1727	1721	1736	1721	1713	1720	1723	-0.047
1:06:20	1729	1717	1722	1727	1722	1737	1722	1714	1720	1723	-0.047
1:06:25	1729	1717	1722	1728	1722	1737	1722	1714	1721	1723	-0.048
1:06:30	1729	1718	1722	1728	1723	1737	1722	1714	1721	1724	-0.048
1:06:35	1729	1718	1723	1728	1724	1738	1723	1715	1722	1724	-0.042
1:06:40	1729	1718	1723	1729	1724	1737	1723	1715	1722	1725	-0.049
1:06:45	1730	1718	1724	1729	1724	1738	1723	1715	1722	1725	-0.055
1:06:50	1730	1719	1724	1729	1724	1738	1724	1716	1723	1725	-0.045
1:06:55	1729	1720	1724	1730	1725	1739	1724	1716	1723	1726	-0.046
1:07:00	1729	1720	1724	1730	1725	1739	1725	1716	1724	1726	-0.049
1:07:05	1730	1720	1725	1731	1725	1739	1725	1717	1724	1726	-0.047
1:07:10	1730	1720	1724	1731	1725	1740	1726	1717	1724	1726	-0.045
1:07:15	1730	1720	1725	1731	1725	1740	1726	1718	1725	1727	-0.048
1:07:20	1730	1720	1725	1731	1725	1740	1726	1717	1725	1727	-0.042
1:07:25	1730	1721	1726	1732	1726	1741	1727	1718	1726	1727	-0.048
1:07:30	1731	1722	1726	1732	1726	1741	1727	1718	1726	1728	-0.052
1:07:35	1731	1722	1726	1732	1727	1741	1727	1718	1726	1728	-0.051
1:07:40	1732	1722	1727	1732	1727	1742	1727	1719	1727	1728	-0.050
1:07:45	1732	1722	1727	1733	1727	1742	1728	1719	1727	1728	-0.044
1:07:50	1732	1723	1727	1733	1728	1742	1729	1720	1727	1729	-0.057
1:07:55	1732	1722	1727	1733	1728	1742	1728	1720	1727	1729	-0.054
1:08:00	1733	1723	1727	1733	1728	1742	1728	1720	1727	1729	-0.056
1:08:05	1733	1723	1727	1733	1728	1743	1729	1720	1728	1729	-0.052
1:08:10	1734	1723	1727	1734	1728	1743	1729	1720	1728	1729	-0.055
1:08:15	1734	1723	1728	1734	1728	1743	1729	1721	1728	1730	-0.059
1:08:20	1734	1724	1728	1734	1728	1743	1729	1720	1728	1730	-0.053
1:08:25	1734	1724	1729	1734	1729	1744	1729	1721	1729	1730	-0.056
1:08:30	1734	1724	1729	1735	1729	1744	1729	1721	1729	1730	-0.058
1:08:35	1734	1724	1729	1735	1730	1744	1730	1722	1729	1731	-0.057
1:08:40	1734	1725	1729	1735	1730	1744	1730	1722	1729	1731	-0.056
1:08:45	1734	1725	1729	1735	1730	1744	1729	1722	1729	1731	-0.060
1:08:50	1734	1725	1730	1735	1730	1745	1730	1722	1729	1731	-0.064
1:08:55	1734	1725	1730	1735	1731	1745	1730	1722	1729	1731	-0.063
1:09:00	1735	1725	1730	1735	1730	1745	1730	1722	1730	1731	-0.056
1:09:05	1735	1725	1730	1735	1731	1745	1729	1722	1729	1731	-0.057
1:09:10	1736	1725	1731	1736	1731	1745	1730	1723	1730	1732	-0.058
1:09:15	1736	1725	1731	1736	1731	1745	1730	1723	1730	1732	-0.063
1:09:20	1736	1726	1731	1736	1731	1746	1730	1724	1730	1732	-0.056
1:09:25	1736	1726	1731	1736	1731	1746	1730	1724	1730	1732	-0.055

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
1:09:30	1736	1726	1732	1736	1732	1746	1731	1724	1730	1732	-0.052
1:09:35	1736	1726	1732	1736	1732	1746	1731	1724	1730	1732	-0.068
1:09:40	1737	1726	1732	1736	1732	1746	1731	1724	1731	1733	-0.056
1:09:45	1737	1726	1733	1736	1732	1746	1731	1724	1731	1733	-0.048
1:09:50	1738	1726	1733	1737	1733	1746	1732	1724	1731	1733	-0.047
1:09:55	1738	1726	1733	1737	1733	1746	1732	1724	1731	1733	-0.067
1:10:00	1738	1726	1734	1738	1734	1747	1733	1725	1731	1734	-0.074
1:10:05	1739	1727	1734	1738	1733	1747	1732	1725	1731	1734	-0.076
1:10:10	1739	1727	1734	1738	1734	1747	1733	1725	1731	1734	-0.069
1:10:15	1739	1727	1734	1738	1734	1748	1733	1725	1732	1734	-0.066
1:10:20	1739	1728	1734	1738	1734	1748	1733	1725	1732	1735	-0.068
1:10:25	1739	1728	1735	1739	1734	1748	1733	1726	1732	1735	-0.060
1:10:30	1739	1729	1735	1739	1734	1748	1734	1726	1732	1735	-0.061
1:10:35	1740	1729	1736	1739	1735	1749	1734	1727	1733	1736	-0.058
1:10:40	1740	1729	1736	1739	1734	1748	1734	1727	1733	1736	-0.052
1:10:45	1740	1730	1736	1740	1734	1749	1734	1727	1733	1736	-0.064
1:10:50	1740	1730	1737	1740	1735	1749	1735	1727	1734	1736	-0.060
1:10:55	1740	1730	1738	1741	1736	1750	1736	1728	1734	1737	-0.062
1:11:00	1741	1731	1738	1741	1736	1750	1736	1728	1735	1737	-0.053
1:11:05	1741	1731	1738	1741	1737	1751	1737	1729	1735	1738	-0.052
1:11:10	1741	1732	1739	1742	1738	1751	1737	1729	1736	1738	-0.050
1:11:15	1742	1732	1739	1742	1738	1751	1738	1730	1736	1739	-0.049
1:11:20	1742	1732	1740	1743	1739	1752	1739	1730	1737	1739	-0.052
1:11:25	1743	1733	1741	1743	1740	1752	1739	1730	1737	1740	-0.052
1:11:30	1744	1733	1741	1743	1740	1753	1740	1731	1738	1740	-0.052
1:11:35	1745	1734	1742	1745	1741	1753	1740	1731	1739	1741	-0.051
1:11:40	1746	1734	1743	1745	1741	1754	1741	1732	1739	1742	-0.051
1:11:45	1747	1735	1743	1746	1742	1754	1741	1733	1740	1742	-0.057
1:11:50	1747	1735	1744	1746	1742	1755	1742	1733	1740	1742	-0.063
1:11:55	1747	1736	1745	1746	1743	1755	1742	1733	1740	1743	-0.055
1:12:00	1747	1736	1745	1746	1743	1756	1742	1733	1740	1743	-0.057
1:12:05	1747	1736	1745	1747	1743	1756	1743	1734	1741	1743	-0.063
1:12:10	1747	1737	1745	1747	1743	1756	1743	1734	1741	1744	-0.053
1:12:15	1747	1737	1746	1748	1743	1756	1743	1734	1741	1744	-0.056
1:12:20	1748	1738	1746	1748	1744	1757	1744	1735	1742	1745	-0.046
1:12:25	1748	1738	1747	1748	1745	1757	1745	1735	1742	1745	-0.056
1:12:30	1749	1738	1747	1748	1745	1757	1745	1735	1742	1745	-0.056
1:12:35	1749	1738	1747	1749	1746	1758	1745	1736	1743	1745	-0.069
1:12:40	1748	1738	1747	1749	1746	1758	1745	1736	1743	1746	-0.059
1:12:45	1749	1738	1748	1749	1746	1758	1745	1736	1743	1746	-0.061
1:12:50	1749	1739	1748	1749	1746	1758	1746	1737	1743	1746	-0.066
1:12:55	1749	1739	1749	1749	1746	1759	1746	1737	1743	1746	-0.072
1:13:00	1749	1739	1749	1750	1746	1758	1745	1737	1743	1746	-0.096
1:13:05	1749	1739	1749	1750	1746	1759	1745	1737	1743	1746	-0.094
1:13:10	1749	1739	1749	1749	1746	1759	1745	1737	1743	1746	-0.081
1:13:15	1749	1739	1749	1750	1746	1759	1745	1737	1743	1746	-0.067
1:13:20	1749	1739	1749	1750	1746	1759	1745	1737	1743	1746	-0.065
1:13:25	1749	1740	1749	1750	1746	1759	1745	1738	1743	1746	-0.078
1:13:30	1750	1740	1749	1750	1746	1760	1745	1737	1743	1746	-0.080
1:13:35	1750	1740	1749	1749	1746	1760	1745	1737	1743	1746	-0.069
1:13:40	1750	1740	1749	1750	1746	1760	1745	1738	1743	1747	-0.064
1:13:45	1749	1740	1749	1750	1747	1760	1746	1738	1744	1747	-0.062
1:13:50	1749	1740	1749	1750	1747	1760	1746	1738	1744	1747	-0.070
1:13:55	1750	1741	1750	1750	1747	1760	1746	1738	1744	1747	-0.063
1:14:00	1750	1741	1750	1751	1747	1761	1747	1738	1745	1748	-0.046
1:14:05	1750	1741	1750	1751	1748	1761	1747	1739	1745	1748	-0.049
1:14:10	1750	1741	1751	1751	1748	1761	1747	1739	1745	1748	-0.081
1:14:15	1750	1741	1750	1752	1748	1761	1747	1739	1745	1748	-0.117
1:14:20	1750	1741	1750	1751	1747	1761	1747	1739	1745	1748	-0.093
1:14:25	1750	1741	1750	1751	1747	1761	1746	1739	1744	1748	-0.081
1:14:30	1749	1741	1750	1751	1747	1760	1745	1738	1744	1747	-0.091
1:14:35	1749	1741	1750	1751	1747	1761	1745	1739	1744	1747	-0.087
1:14:40	1749	1741	1749	1751	1746	1761	1745	1738	1744	1747	-0.100

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
1:14:45	1749	1740	1749	1751	1746	1760	1745	1738	1744	1747	-0.105
1:14:50	1749	1740	1749	1750	1746	1760	1744	1738	1743	1747	-0.097
1:14:55	1749	1740	1749	1750	1746	1760	1744	1738	1743	1747	-0.098
1:15:00	1749	1740	1749	1750	1746	1760	1744	1738	1743	1746	-0.094
1:15:05	1749	1739	1749	1750	1746	1760	1743	1738	1743	1746	-0.104
1:15:10	1749	1739	1748	1750	1745	1760	1743	1738	1742	1746	-0.100
1:15:15	1749	1740	1749	1750	1745	1760	1743	1738	1742	1746	-0.115
1:15:20	1748	1739	1749	1750	1745	1760	1743	1738	1742	1746	-0.086
1:15:25	1747	1739	1749	1749	1745	1759	1742	1738	1742	1746	-0.093
1:15:30	1748	1739	1749	1750	1745	1760	1743	1738	1742	1746	-0.102
1:15:35	1749	1739	1749	1749	1745	1760	1742	1738	1741	1746	-0.095
1:15:40	1749	1739	1749	1749	1745	1760	1742	1738	1741	1746	-0.096
1:15:45	1748	1739	1749	1749	1745	1760	1742	1738	1741	1746	-0.099
1:15:50	1748	1739	1749	1749	1745	1760	1742	1738	1742	1746	-0.091
1:15:55	1749	1739	1749	1749	1745	1760	1743	1738	1742	1746	-0.087
1:16:00	1749	1739	1749	1750	1746	1760	1743	1738	1742	1746	-0.090
1:16:05	1749	1740	1749	1750	1746	1760	1743	1739	1743	1746	-0.127
1:16:10	1749	1740	1750	1751	1746	1761	1744	1739	1743	1747	-0.110
1:16:15	1750	1741	1750	1751	1747	1762	1744	1739	1744	1748	-0.099
1:16:20	1751	1742	1751	1752	1748	1763	1745	1740	1745	1748	-0.104
1:16:25	1753	1743	1752	1752	1749	1764	1745	1740	1745	1749	-0.126
1:16:30	1753	1743	1752	1753	1749	1764	1746	1741	1746	1750	-0.094
1:16:35	1754	1744	1753	1754	1750	1765	1747	1742	1747	1751	-0.092
1:16:40	1756	1746	1755	1755	1751	1767	1748	1743	1748	1752	-0.094
1:16:45	1756	1747	1755	1756	1752	1768	1749	1743	1749	1753	-0.088
1:16:50	1758	1748	1757	1758	1754	1770	1750	1745	1751	1755	-0.094
1:16:55	1760	1750	1759	1760	1755	1771	1752	1746	1752	1756	-0.097
1:17:00	1762	1751	1761	1761	1757	1772	1753	1747	1753	1757	-0.087
1:17:05	1763	1753	1762	1763	1758	1774	1755	1749	1755	1759	-0.083
1:17:10	1764	1754	1764	1764	1760	1775	1756	1749	1756	1760	-0.091
1:17:15	1766	1755	1764	1765	1761	1776	1757	1750	1758	1761	-0.086
1:17:20	1767	1757	1766	1767	1762	1778	1759	1752	1759	1763	-0.082
1:17:25	1769	1758	1767	1767	1763	1779	1759	1752	1760	1764	-0.099
1:17:30	1770	1760	1769	1769	1765	1780	1761	1754	1762	1765	-0.117
1:17:35	1770	1761	1769	1770	1766	1781	1761	1755	1762	1766	-0.109
1:17:40	1771	1762	1770	1771	1767	1782	1763	1756	1763	1767	-0.090
1:17:45	1772	1763	1771	1772	1768	1783	1764	1757	1764	1768	-0.072
1:17:50	1773	1764	1773	1774	1770	1784	1765	1758	1766	1769	-0.041
1:17:55	1774	1765	1774	1775	1771	1785	1767	1759	1767	1771	-0.048
1:18:00	1776	1767	1776	1776	1772	1787	1769	1761	1768	1772	-0.055
1:18:05	1779	1768	1778	1778	1773	1788	1770	1762	1770	1774	-0.046
1:18:10	1780	1770	1779	1779	1775	1790	1772	1764	1771	1775	-0.050
1:18:15	1781	1771	1781	1781	1777	1791	1774	1765	1773	1777	-0.048
1:18:20	1783	1772	1782	1782	1778	1791	1775	1766	1774	1778	-0.056
1:18:25	1785	1774	1783	1783	1780	1793	1777	1768	1776	1780	-0.059
1:18:30	1786	1775	1785	1785	1781	1794	1778	1769	1777	1781	-0.061
1:18:35	1787	1776	1786	1786	1783	1796	1780	1770	1778	1782	-0.061
1:18:40	1788	1777	1787	1787	1784	1796	1781	1771	1779	1783	-0.060
1:18:45	1789	1777	1788	1787	1785	1797	1782	1772	1780	1784	-0.054
1:18:50	1789	1777	1788	1787	1785	1796	1782	1772	1780	1784	-0.057
1:18:55	1788	1776	1788	1787	1784	1795	1782	1772	1780	1783	-0.056
1:19:00	1787	1776	1787	1787	1784	1795	1782	1773	1780	1783	-0.058
1:19:05	1786	1776	1787	1786	1784	1794	1782	1772	1780	1783	-0.072
1:19:10	1785	1775	1786	1785	1783	1793	1781	1772	1779	1782	-0.065
1:19:15	1784	1774	1785	1784	1782	1792	1780	1771	1779	1781	-0.067
1:19:20	1783	1773	1784	1783	1781	1791	1779	1770	1778	1780	-0.065
1:19:25	1782	1772	1783	1782	1780	1790	1778	1770	1776	1779	-0.071
1:19:30	1780	1772	1782	1781	1779	1789	1778	1769	1775	1778	-0.067
1:19:35	1779	1770	1781	1780	1777	1788	1776	1768	1773	1777	-0.062
1:19:40	1778	1769	1780	1779	1776	1787	1775	1768	1773	1776	-0.061
1:19:45	1778	1768	1779	1778	1776	1785	1774	1767	1772	1775	-0.052
1:19:50	1777	1767	1778	1777	1775	1784	1773	1766	1771	1774	-0.060
1:19:55	1776	1766	1777	1776	1774	1784	1773	1766	1770	1774	-0.062

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
1:20:00	1775	1765	1776	1775	1773	1783	1772	1765	1769	1772	-0.078
1:20:05	1774	1764	1775	1774	1772	1782	1771	1764	1768	1771	-0.078
1:20:10	1773	1763	1775	1774	1771	1782	1770	1764	1768	1771	-0.066
1:20:15	1773	1762	1774	1773	1770	1781	1769	1763	1767	1770	-0.069
1:20:20	1772	1762	1774	1772	1770	1780	1769	1762	1766	1770	-0.077
1:20:25	1772	1761	1773	1771	1769	1780	1768	1762	1765	1769	-0.066
1:20:30	1771	1760	1772	1770	1768	1779	1767	1761	1764	1768	-0.070
1:20:35	1770	1760	1772	1770	1768	1778	1767	1760	1764	1768	-0.069
1:20:40	1770	1760	1772	1770	1768	1778	1767	1760	1764	1767	-0.061
1:20:45	1769	1759	1771	1770	1768	1777	1766	1760	1763	1767	-0.068
1:20:50	1769	1758	1771	1769	1767	1777	1766	1759	1763	1767	-0.076
1:20:55	1769	1758	1770	1769	1767	1777	1766	1759	1763	1766	-0.084
1:21:00	1768	1758	1770	1768	1767	1776	1765	1759	1763	1766	-0.074
1:21:05	1768	1757	1770	1768	1767	1776	1765	1758	1762	1766	-0.081
1:21:10	1767	1757	1769	1767	1766	1775	1765	1758	1762	1765	-0.071
1:21:15	1767	1757	1769	1767	1766	1775	1764	1758	1761	1765	-0.082
1:21:20	1767	1756	1769	1767	1765	1775	1764	1757	1761	1764	-0.067
1:21:25	1767	1756	1769	1767	1765	1775	1764	1757	1761	1764	-0.065
1:21:30	1766	1755	1769	1766	1765	1774	1764	1757	1760	1764	-0.064
1:21:35	1766	1755	1768	1766	1765	1775	1763	1757	1760	1764	-0.069
1:21:40	1765	1755	1768	1766	1764	1774	1763	1757	1760	1763	-0.063
1:21:45	1764	1755	1768	1766	1764	1774	1763	1756	1760	1763	-0.058
1:21:50	1764	1755	1768	1766	1764	1774	1763	1756	1760	1763	-0.060
1:21:55	1765	1754	1768	1766	1764	1774	1763	1756	1760	1763	-0.056
1:22:00	1765	1754	1767	1765	1764	1774	1763	1756	1760	1763	-0.056
1:22:05	1764	1754	1767	1765	1764	1774	1763	1756	1760	1763	-0.057
1:22:10	1765	1754	1767	1765	1764	1774	1763	1756	1759	1763	-0.057
1:22:15	1765	1754	1768	1765	1764	1775	1763	1756	1760	1763	-0.063
1:22:20	1766	1755	1768	1766	1765	1775	1764	1756	1760	1764	-0.037
1:22:25	1767	1755	1768	1766	1764	1774	1763	1756	1760	1764	-0.052
1:22:30	1767	1755	1768	1766	1764	1774	1763	1756	1760	1764	-0.058
1:22:35	1767	1755	1768	1766	1764	1775	1764	1756	1760	1764	-0.054
1:22:40	1767	1755	1768	1766	1764	1774	1764	1756	1760	1764	-0.049
1:22:45	1767	1756	1769	1767	1764	1774	1764	1756	1761	1764	-0.046
1:22:50	1767	1756	1769	1767	1765	1774	1764	1756	1761	1764	-0.044
1:22:55	1767	1756	1769	1767	1765	1775	1765	1756	1761	1764	-0.053
1:23:00	1767	1756	1769	1767	1765	1775	1765	1757	1761	1765	-0.064
1:23:05	1768	1756	1769	1767	1766	1776	1765	1757	1761	1765	-0.057
1:23:10	1769	1757	1769	1767	1766	1776	1765	1757	1761	1765	-0.073
1:23:15	1769	1757	1770	1768	1766	1776	1765	1757	1761	1765	-0.062
1:23:20	1769	1757	1770	1768	1767	1776	1765	1757	1761	1765	-0.064
1:23:25	1769	1757	1770	1768	1767	1777	1765	1757	1761	1766	-0.066
1:23:30	1769	1758	1770	1768	1767	1777	1765	1758	1761	1766	-0.060
1:23:35	1770	1758	1771	1768	1767	1777	1765	1758	1762	1766	-0.058
1:23:40	1770	1758	1772	1769	1768	1778	1766	1759	1762	1767	-0.055
1:23:45	1771	1759	1772	1769	1768	1778	1766	1759	1763	1767	-0.053
1:23:50	1771	1759	1772	1770	1769	1779	1767	1759	1763	1768	-0.059
1:23:55	1770	1760	1772	1770	1768	1779	1767	1760	1764	1768	-0.057
1:24:00	1771	1760	1772	1770	1769	1779	1767	1760	1764	1768	-0.059
1:24:05	1771	1761	1773	1771	1769	1779	1768	1760	1764	1769	-0.058
1:24:10	1772	1761	1774	1771	1770	1780	1768	1761	1765	1769	-0.067
1:24:15	1772	1761	1774	1771	1769	1780	1769	1761	1765	1769	-0.066
1:24:20	1773	1761	1774	1771	1770	1781	1769	1761	1765	1769	-0.070
1:24:25	1773	1761	1774	1772	1770	1781	1769	1761	1765	1770	-0.062
1:24:30	1774	1761	1775	1772	1770	1781	1769	1761	1766	1770	-0.066
1:24:35	1774	1762	1775	1772	1770	1781	1770	1762	1766	1770	-0.073
1:24:40	1774	1762	1776	1772	1771	1781	1770	1762	1767	1771	-0.059
1:24:45	1775	1763	1776	1773	1771	1782	1771	1763	1767	1771	-0.069
1:24:50	1776	1763	1776	1774	1772	1783	1771	1763	1768	1772	-0.076
1:24:55	1776	1764	1777	1774	1772	1783	1772	1763	1768	1772	-0.076
1:25:00	1777	1764	1777	1775	1773	1783	1772	1764	1769	1773	-0.084
1:25:05	1777	1765	1778	1775	1774	1784	1772	1764	1769	1773	-0.071
1:25:10	1777	1765	1778	1775	1774	1784	1772	1765	1769	1773	-0.069

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
1:25:15	1777	1766	1778	1776	1774	1785	1773	1765	1770	1774	-0.062
1:25:20	1778	1767	1779	1777	1775	1785	1774	1766	1770	1774	-0.068
1:25:25	1778	1767	1779	1777	1775	1786	1774	1766	1771	1775	-0.061
1:25:30	1778	1767	1779	1777	1776	1787	1774	1767	1771	1775	-0.054
1:25:35	1778	1768	1780	1778	1776	1787	1775	1767	1772	1776	-0.056
1:25:40	1779	1768	1781	1778	1777	1787	1775	1768	1772	1776	-0.052
1:25:45	1779	1769	1781	1778	1777	1788	1775	1768	1772	1776	-0.058
1:25:50	1780	1769	1781	1779	1778	1788	1776	1769	1773	1777	-0.054
1:25:55	1780	1769	1782	1779	1778	1788	1776	1769	1773	1777	-0.049
1:26:00	1781	1770	1783	1780	1778	1789	1777	1769	1774	1778	-0.052
1:26:05	1781	1770	1783	1780	1779	1789	1777	1769	1774	1778	-0.053
1:26:10	1781	1771	1783	1781	1779	1790	1778	1770	1775	1779	-0.046
1:26:15	1781	1771	1783	1781	1780	1791	1778	1770	1775	1779	-0.048
1:26:20	1781	1772	1784	1781	1780	1791	1779	1771	1775	1779	-0.048
1:26:25	1782	1772	1784	1782	1780	1791	1779	1771	1775	1780	-0.050
1:26:30	1783	1772	1784	1782	1780	1791	1780	1771	1776	1780	-0.056
1:26:35	1783	1773	1785	1783	1781	1792	1780	1772	1776	1780	-0.050
1:26:40	1784	1773	1785	1783	1782	1792	1781	1772	1777	1781	-0.048
1:26:45	1785	1774	1786	1783	1782	1792	1782	1773	1777	1781	-0.055
1:26:50	1785	1774	1786	1784	1782	1793	1782	1773	1778	1782	-0.051
1:26:55	1785	1774	1787	1784	1783	1794	1782	1773	1778	1782	-0.048
1:27:00	1785	1775	1787	1785	1783	1794	1783	1774	1778	1782	-0.061
1:27:05	1786	1775	1787	1785	1783	1794	1783	1774	1778	1783	-0.054
1:27:10	1785	1775	1787	1786	1783	1794	1783	1774	1779	1783	-0.050
1:27:15	1786	1776	1787	1785	1784	1795	1783	1775	1779	1783	-0.062
1:27:20	1786	1776	1787	1785	1784	1795	1783	1775	1779	1783	-0.056
1:27:25	1786	1776	1788	1786	1784	1795	1783	1775	1779	1783	-0.057
1:27:30	1786	1776	1788	1786	1785	1795	1784	1775	1779	1784	-0.061
1:27:35	1786	1776	1788	1786	1785	1795	1784	1775	1780	1784	-0.050
1:27:40	1787	1776	1789	1786	1785	1795	1784	1776	1780	1784	-0.055
1:27:45	1787	1776	1789	1786	1785	1795	1784	1775	1780	1784	-0.052
1:27:50	1787	1776	1789	1787	1785	1795	1785	1776	1780	1784	-0.048
1:27:55	1787	1776	1789	1787	1785	1796	1785	1776	1781	1785	-0.054
1:28:00	1787	1777	1790	1787	1786	1796	1785	1777	1781	1785	-0.056
1:28:05	1787	1777	1789	1787	1786	1797	1785	1777	1781	1785	-0.051
1:28:10	1788	1777	1790	1788	1786	1797	1785	1777	1781	1785	-0.049
1:28:15	1788	1778	1790	1788	1786	1797	1786	1778	1781	1786	-0.049
1:28:20	1789	1778	1791	1788	1787	1797	1786	1778	1782	1786	-0.050
1:28:25	1789	1779	1791	1789	1787	1797	1787	1778	1782	1786	-0.054
1:28:30	1789	1779	1791	1789	1788	1797	1787	1779	1783	1787	-0.054
1:28:35	1790	1779	1791	1789	1788	1798	1787	1779	1783	1787	-0.050
1:28:40	1790	1780	1792	1790	1788	1798	1787	1779	1784	1788	-0.048
1:28:45	1791	1780	1792	1790	1789	1799	1788	1780	1784	1788	-0.049
1:28:50	1791	1780	1793	1790	1789	1799	1788	1780	1784	1788	-0.058
1:28:55	1792	1780	1793	1790	1789	1799	1788	1780	1784	1788	-0.056
1:29:00	1792	1781	1794	1791	1789	1800	1789	1780	1785	1789	-0.065
1:29:05	1793	1780	1794	1790	1788	1800	1789	1781	1785	1789	-0.050
1:29:10	1793	1781	1794	1791	1789	1800	1789	1781	1785	1789	-0.049
1:29:15	1793	1781	1794	1791	1789	1800	1789	1781	1785	1789	-0.044
1:29:20	1793	1781	1794	1791	1790	1801	1789	1782	1786	1790	-0.052
1:29:25	1793	1782	1795	1791	1790	1801	1790	1782	1787	1790	-0.043
1:29:30	1793	1782	1795	1792	1790	1801	1790	1783	1787	1790	-0.038
1:29:35	1793	1782	1795	1792	1791	1802	1790	1783	1787	1790	-0.046
1:29:40	1793	1783	1795	1792	1791	1802	1791	1783	1787	1791	-0.060
1:29:45	1793	1783	1795	1792	1791	1802	1791	1783	1787	1791	-0.072
1:29:50	1793	1783	1796	1792	1791	1802	1791	1783	1787	1791	-0.060
1:29:55	1794	1783	1796	1793	1791	1802	1791	1783	1787	1791	-0.052
1:30:00	1794	1783	1796	1793	1791	1802	1791	1783	1787	1791	-0.062
1:30:05	1795	1784	1796	1793	1791	1802	1791	1784	1787	1791	-0.063
1:30:10	1795	1784	1796	1793	1792	1802	1792	1784	1787	1792	-0.064
1:30:15	1795	1784	1796	1793	1792	1802	1792	1784	1787	1792	-0.056
1:30:20	1795	1783	1796	1793	1792	1802	1792	1784	1788	1792	-0.066
1:30:25	1795	1784	1796	1794	1792	1802	1791	1784	1788	1792	-0.062

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
1:30:30	1795	1784	1796	1794	1792	1803	1791	1784	1788	1792	-0.061
1:30:35	1796	1784	1796	1794	1792	1803	1792	1784	1788	1792	-0.062
1:30:40	1796	1784	1797	1794	1793	1803	1792	1784	1788	1792	-0.060
1:30:45	1796	1784	1797	1794	1793	1803	1792	1785	1788	1793	-0.060
1:30:50	1796	1784	1797	1795	1794	1803	1792	1785	1788	1793	-0.058
1:30:55	1795	1784	1797	1794	1793	1803	1792	1785	1788	1792	-0.061
1:31:00	1795	1785	1797	1795	1794	1803	1792	1785	1788	1793	-0.062
1:31:05	1795	1785	1798	1795	1794	1804	1793	1785	1789	1793	-0.058
1:31:10	1795	1785	1798	1795	1794	1804	1793	1785	1789	1793	-0.064
1:31:15	1795	1785	1798	1795	1794	1804	1793	1786	1789	1793	-0.064
1:31:20	1796	1785	1798	1795	1794	1804	1793	1786	1789	1793	-0.060
1:31:25	1795	1785	1798	1796	1793	1804	1793	1786	1789	1793	-0.063
1:31:30	1796	1786	1798	1796	1794	1804	1793	1786	1789	1793	-0.070
1:31:35	1797	1786	1799	1796	1794	1804	1793	1786	1789	1794	-0.081
1:31:40	1797	1786	1799	1796	1794	1804	1793	1786	1789	1794	-0.066
1:31:45	1797	1786	1798	1796	1794	1804	1793	1786	1789	1794	-0.076
1:31:50	1797	1786	1799	1796	1794	1804	1793	1787	1789	1794	-0.089
1:31:55	1797	1786	1799	1796	1794	1805	1793	1787	1789	1794	-0.068
1:32:00	1797	1786	1798	1795	1794	1804	1792	1787	1789	1794	-0.079
1:32:05	1796	1785	1798	1795	1794	1805	1792	1786	1789	1793	-0.075
1:32:10	1796	1786	1798	1796	1794	1805	1792	1787	1789	1794	-0.067
1:32:15	1796	1787	1799	1796	1795	1805	1792	1787	1790	1794	-0.060
1:32:20	1796	1787	1799	1796	1795	1805	1793	1787	1790	1794	-0.080
1:32:25	1796	1787	1799	1796	1795	1805	1793	1787	1790	1794	-0.072
1:32:30	1795	1787	1798	1796	1795	1805	1793	1787	1790	1794	-0.058
1:32:35	1796	1787	1799	1796	1794	1805	1793	1787	1790	1794	-0.065
1:32:40	1797	1787	1799	1796	1795	1805	1793	1787	1790	1794	-0.076
1:32:45	1797	1787	1799	1796	1795	1806	1793	1787	1791	1795	-0.076
1:32:50	1797	1787	1799	1796	1795	1806	1794	1787	1791	1795	-0.076
1:32:55	1798	1788	1799	1797	1796	1806	1794	1788	1791	1795	-0.074
1:33:00	1798	1788	1799	1797	1796	1806	1794	1788	1791	1795	-0.070
1:33:05	1798	1788	1800	1797	1796	1807	1794	1788	1791	1795	-0.065
1:33:10	1798	1788	1800	1797	1796	1806	1794	1789	1791	1795	-0.062
1:33:15	1798	1788	1800	1797	1796	1807	1794	1788	1791	1795	-0.064
1:33:20	1798	1788	1800	1798	1796	1807	1795	1789	1792	1796	-0.064
1:33:25	1798	1789	1800	1798	1796	1807	1795	1789	1792	1796	-0.060
1:33:30	1799	1789	1800	1798	1797	1807	1796	1789	1792	1796	-0.059
1:33:35	1799	1789	1801	1799	1797	1808	1796	1789	1792	1797	-0.062
1:33:40	1800	1789	1801	1799	1797	1808	1796	1789	1793	1797	-0.060
1:33:45	1800	1789	1801	1799	1798	1808	1797	1790	1793	1797	-0.053
1:33:50	1801	1789	1802	1800	1798	1808	1797	1790	1793	1798	-0.058
1:33:55	1801	1790	1802	1800	1798	1808	1797	1790	1793	1798	-0.055
1:34:00	1801	1790	1803	1800	1799	1809	1798	1791	1794	1798	-0.052
1:34:05	1802	1791	1803	1800	1799	1809	1798	1791	1794	1798	-0.054
1:34:10	1802	1791	1803	1801	1799	1810	1798	1791	1794	1799	-0.053
1:34:15	1802	1792	1803	1801	1800	1810	1799	1792	1795	1799	-0.057
1:34:20	1802	1792	1803	1801	1800	1810	1799	1792	1795	1799	-0.050
1:34:25	1803	1792	1804	1802	1800	1810	1799	1792	1795	1800	-0.050
1:34:30	1802	1792	1804	1802	1800	1811	1799	1792	1795	1800	-0.055
1:34:35	1803	1793	1804	1802	1800	1811	1800	1792	1795	1800	-0.054
1:34:40	1803	1793	1805	1803	1800	1811	1800	1793	1796	1800	-0.055
1:34:45	1804	1794	1805	1803	1801	1811	1800	1793	1796	1801	-0.066
1:34:50	1804	1794	1805	1803	1801	1812	1800	1793	1796	1801	-0.062
1:34:55	1804	1794	1805	1803	1801	1812	1801	1794	1796	1801	-0.058
1:35:00	1804	1794	1805	1803	1802	1812	1801	1794	1797	1801	-0.059
1:35:05	1804	1794	1806	1803	1802	1813	1801	1794	1797	1801	-0.055
1:35:10	1805	1795	1806	1803	1802	1813	1802	1795	1797	1802	-0.058
1:35:15	1805	1795	1806	1803	1802	1813	1802	1794	1797	1802	-0.058
1:35:20	1805	1795	1807	1803	1803	1814	1802	1795	1798	1802	-0.058
1:35:25	1805	1795	1807	1804	1803	1814	1802	1795	1798	1802	-0.054
1:35:30	1805	1795	1807	1804	1803	1814	1802	1795	1798	1803	-0.052
1:35:35	1806	1795	1807	1805	1804	1814	1803	1796	1799	1803	-0.056
1:35:40	1806	1795	1808	1805	1804	1814	1803	1796	1799	1803	-0.051

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
1:35:45	1807	1796	1808	1805	1804	1815	1803	1796	1799	1804	-0.052
1:35:50	1808	1796	1808	1806	1804	1815	1803	1796	1799	1804	-0.052
1:35:55	1808	1796	1809	1806	1804	1815	1804	1796	1799	1804	-0.057
1:36:00	1808	1796	1809	1806	1804	1816	1804	1797	1800	1804	-0.052
1:36:05	1808	1796	1809	1807	1805	1816	1805	1797	1800	1805	-0.051
1:36:10	1808	1797	1810	1807	1805	1817	1805	1798	1801	1805	-0.054
1:36:15	1808	1797	1810	1807	1806	1817	1805	1798	1801	1805	-0.055
1:36:20	1808	1797	1810	1807	1806	1817	1805	1798	1801	1806	-0.062
1:36:25	1809	1798	1810	1807	1806	1817	1805	1799	1802	1806	-0.059
1:36:30	1809	1798	1810	1807	1806	1817	1805	1799	1802	1806	-0.055
1:36:35	1809	1798	1811	1808	1807	1817	1805	1799	1802	1806	-0.052
1:36:40	1809	1798	1811	1808	1807	1817	1806	1799	1802	1806	-0.048
1:36:45	1810	1798	1811	1808	1807	1817	1806	1799	1803	1807	-0.052
1:36:50	1810	1799	1812	1808	1807	1818	1806	1799	1803	1807	-0.060
1:36:55	1810	1799	1812	1808	1808	1818	1806	1800	1803	1807	-0.052
1:37:00	1810	1799	1812	1809	1808	1818	1807	1800	1803	1807	-0.067
1:37:05	1810	1799	1812	1809	1808	1818	1807	1800	1803	1807	-0.072
1:37:10	1810	1799	1812	1809	1808	1818	1807	1800	1803	1808	-0.067
1:37:15	1811	1799	1812	1810	1808	1818	1807	1800	1803	1808	-0.077
1:37:20	1811	1799	1812	1810	1809	1818	1807	1800	1803	1808	-0.080
1:37:25	1811	1800	1812	1809	1809	1818	1807	1800	1803	1808	-0.074
1:37:30	1811	1800	1812	1810	1809	1818	1807	1800	1803	1808	-0.082
1:37:35	1811	1800	1812	1810	1809	1818	1807	1800	1803	1808	-0.078
1:37:40	1812	1800	1812	1810	1809	1818	1807	1800	1804	1808	-0.082
1:37:45	1812	1800	1812	1810	1809	1819	1807	1801	1804	1808	-0.091
1:37:50	1811	1800	1813	1810	1809	1819	1807	1800	1803	1808	-0.081
1:37:55	1811	1800	1812	1810	1809	1819	1806	1800	1803	1808	-0.078
1:38:00	1810	1801	1813	1810	1809	1819	1806	1800	1803	1808	-0.092
1:38:05	1809	1801	1812	1810	1808	1819	1806	1800	1803	1808	-0.068
1:38:10	1810	1801	1812	1810	1808	1819	1806	1801	1803	1808	-0.075
1:38:15	1810	1801	1813	1810	1808	1819	1806	1801	1803	1808	-0.071
1:38:20	1810	1801	1813	1810	1808	1819	1806	1801	1803	1808	-0.058
1:38:25	1811	1801	1813	1810	1808	1819	1806	1800	1803	1808	-0.052
1:38:30	1812	1801	1814	1810	1808	1819	1807	1801	1804	1808	-0.062
1:38:35	1812	1801	1814	1810	1809	1820	1807	1801	1804	1809	-0.052
1:38:40	1812	1802	1814	1810	1809	1820	1808	1801	1805	1809	-0.082
1:38:45	1812	1802	1814	1810	1810	1820	1808	1801	1805	1809	-0.065
1:38:50	1813	1802	1814	1810	1810	1820	1808	1801	1805	1809	-0.058
1:38:55	1814	1802	1815	1811	1810	1820	1808	1802	1805	1810	-0.066
1:39:00	1814	1802	1815	1812	1811	1821	1809	1802	1805	1810	-0.091
1:39:05	1814	1802	1815	1812	1811	1821	1809	1803	1806	1810	-0.084
1:39:10	1814	1802	1815	1811	1810	1821	1809	1802	1805	1810	-0.073
1:39:15	1814	1802	1815	1812	1810	1821	1809	1803	1806	1810	-0.076
1:39:20	1814	1802	1815	1811	1810	1821	1809	1803	1806	1810	-0.072
1:39:25	1814	1802	1815	1812	1811	1821	1810	1803	1806	1810	-0.092
1:39:30	1814	1802	1815	1811	1810	1821	1809	1803	1806	1810	-0.088
1:39:35	1813	1802	1815	1812	1810	1821	1810	1803	1806	1810	-0.072
1:39:40	1813	1802	1815	1812	1810	1822	1809	1803	1806	1810	-0.084
1:39:45	1814	1802	1815	1812	1810	1822	1809	1803	1806	1810	-0.083
1:39:50	1814	1803	1815	1812	1810	1821	1809	1803	1806	1810	-0.091
1:39:55	1814	1803	1815	1812	1810	1821	1809	1803	1806	1810	-0.060
1:40:00	1814	1803	1815	1812	1810	1822	1809	1804	1806	1811	-0.064
1:40:05	1814	1803	1816	1812	1811	1822	1810	1804	1806	1811	-0.074
1:40:10	1814	1803	1816	1812	1811	1823	1810	1804	1806	1811	-0.092
1:40:15	1815	1804	1816	1813	1812	1823	1810	1804	1806	1811	-0.060
1:40:20	1815	1804	1816	1813	1812	1823	1810	1804	1807	1811	-0.063
1:40:25	1814	1804	1817	1813	1812	1823	1811	1805	1807	1812	-0.059
1:40:30	1815	1805	1817	1814	1813	1823	1811	1805	1808	1812	-0.074
1:40:35	1815	1805	1817	1814	1813	1823	1811	1805	1808	1812	-0.080
1:40:40	1815	1805	1817	1814	1814	1824	1812	1806	1808	1813	-0.079
1:40:45	1815	1805	1817	1815	1813	1824	1812	1806	1808	1813	-0.084
1:40:50	1815	1805	1818	1814	1813	1824	1812	1806	1809	1813	-0.074
1:40:55	1815	1805	1818	1815	1813	1824	1812	1806	1809	1813	-0.081

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
1:41:00	1816	1805	1818	1815	1814	1824	1812	1806	1809	1813	-0.058
1:41:05	1817	1805	1818	1815	1814	1824	1812	1806	1809	1813	-0.075
1:41:10	1817	1805	1819	1815	1814	1825	1813	1806	1810	1814	-0.055
1:41:15	1817	1805	1819	1815	1815	1824	1813	1806	1810	1814	-0.060
1:41:20	1818	1806	1820	1815	1815	1824	1813	1806	1810	1814	-0.067
1:41:25	1818	1806	1819	1815	1815	1825	1813	1807	1810	1814	-0.070
1:41:30	1818	1806	1820	1815	1815	1825	1813	1807	1810	1814	-0.079
1:41:35	1817	1806	1820	1815	1815	1824	1813	1806	1810	1814	-0.088
1:41:40	1817	1807	1820	1816	1816	1825	1814	1807	1810	1815	-0.079
1:41:45	1818	1807	1820	1816	1816	1825	1814	1807	1810	1815	-0.075
1:41:50	1818	1807	1820	1816	1816	1825	1814	1807	1811	1815	-0.076
1:41:55	1819	1807	1821	1816	1816	1825	1814	1807	1811	1815	-0.086
1:42:00	1819	1807	1821	1816	1816	1825	1814	1807	1810	1815	-0.076
1:42:05	1819	1807	1821	1817	1816	1826	1814	1808	1811	1815	-0.062
1:42:10	1820	1807	1821	1816	1816	1826	1814	1808	1811	1815	-0.075
1:42:15	1820	1807	1821	1817	1816	1826	1814	1808	1811	1816	-0.075
1:42:20	1820	1808	1821	1817	1816	1826	1814	1809	1811	1816	-0.078
1:42:25	1820	1808	1821	1817	1816	1826	1814	1808	1811	1816	-0.069
1:42:30	1819	1808	1821	1817	1816	1827	1814	1808	1811	1816	-0.063
1:42:35	1819	1809	1821	1817	1816	1827	1815	1809	1811	1816	-0.072
1:42:40	1819	1809	1821	1818	1817	1827	1815	1809	1811	1816	-0.068
1:42:45	1818	1809	1821	1818	1817	1827	1815	1809	1811	1816	-0.066
1:42:50	1819	1809	1821	1818	1817	1827	1815	1809	1812	1816	-0.073
1:42:55	1819	1808	1821	1818	1817	1827	1815	1809	1811	1816	-0.069
1:43:00	1820	1809	1822	1818	1817	1827	1816	1810	1812	1817	-0.059
1:43:05	1820	1809	1822	1818	1817	1828	1816	1810	1812	1817	-0.052
1:43:10	1820	1809	1822	1818	1817	1828	1816	1810	1812	1817	-0.072
1:43:15	1820	1809	1823	1819	1818	1828	1816	1810	1812	1817	-0.065
1:43:20	1821	1810	1823	1819	1818	1828	1816	1810	1813	1817	-0.065
1:43:25	1821	1810	1823	1819	1818	1828	1816	1810	1813	1817	-0.068
1:43:30	1821	1810	1823	1819	1818	1829	1817	1810	1813	1818	-0.066
1:43:35	1821	1810	1823	1819	1818	1829	1817	1811	1813	1818	-0.056
1:43:40	1821	1811	1823	1819	1818	1829	1817	1811	1813	1818	-0.072
1:43:45	1821	1810	1823	1819	1818	1829	1817	1811	1813	1818	-0.060
1:43:50	1821	1810	1823	1820	1818	1829	1817	1811	1813	1818	-0.090
1:43:55	1821	1810	1823	1820	1818	1829	1817	1811	1813	1818	-0.072
1:44:00	1821	1811	1823	1820	1819	1829	1817	1811	1813	1818	-0.078
1:44:05	1821	1811	1823	1820	1819	1829	1817	1811	1814	1818	-0.078
1:44:10	1821	1811	1823	1819	1819	1829	1817	1811	1814	1818	-0.076
1:44:15	1821	1811	1823	1820	1819	1829	1817	1811	1814	1818	-0.079
1:44:20	1820	1811	1823	1820	1819	1829	1817	1811	1814	1818	-0.083
1:44:25	1821	1811	1823	1820	1818	1829	1817	1811	1814	1818	-0.087
1:44:30	1821	1811	1823	1820	1818	1829	1817	1811	1814	1818	-0.072
1:44:35	1821	1811	1823	1820	1819	1830	1817	1811	1815	1819	-0.088
1:44:40	1821	1810	1823	1819	1819	1830	1817	1811	1814	1818	-0.076
1:44:45	1821	1810	1823	1820	1819	1830	1817	1812	1814	1818	-0.062
1:44:50	1821	1810	1823	1820	1819	1830	1818	1812	1814	1818	-0.059
1:44:55	1822	1810	1824	1820	1819	1830	1818	1812	1814	1819	-0.054
1:45:00	1822	1810	1824	1820	1819	1830	1818	1812	1815	1819	-0.060
1:45:05	1823	1811	1825	1821	1820	1830	1818	1812	1815	1819	-0.048
1:45:10	1823	1811	1825	1821	1820	1831	1819	1813	1815	1820	-0.054
1:45:15	1823	1812	1825	1821	1820	1831	1819	1813	1816	1820	-0.074
1:45:20	1824	1812	1825	1822	1821	1832	1820	1813	1816	1820	-0.088
1:45:25	1824	1812	1826	1822	1821	1832	1820	1814	1816	1821	-0.074
1:45:30	1824	1813	1826	1822	1821	1832	1820	1814	1816	1821	-0.054
1:45:35	1824	1813	1826	1822	1821	1832	1820	1814	1816	1821	-0.061
1:45:40	1825	1813	1826	1823	1822	1832	1821	1814	1816	1821	-0.062
1:45:45	1825	1814	1827	1823	1822	1832	1821	1815	1816	1821	-0.064
1:45:50	1826	1813	1827	1823	1822	1832	1821	1815	1816	1822	-0.070
1:45:55	1826	1814	1827	1823	1823	1833	1821	1815	1817	1822	-0.068
1:46:00	1826	1814	1828	1823	1823	1832	1821	1815	1817	1822	-0.063
1:46:05	1826	1815	1828	1823	1823	1833	1822	1815	1817	1822	-0.067
1:46:10	1827	1815	1828	1824	1823	1833	1822	1816	1817	1823	-0.067

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
1:46:15	1827	1815	1828	1824	1824	1833	1822	1816	1818	1823	-0.050
1:46:20	1827	1815	1828	1824	1824	1833	1823	1816	1818	1823	-0.056
1:46:25	1827	1815	1828	1824	1824	1833	1823	1817	1818	1823	-0.058
1:46:30	1827	1815	1829	1825	1824	1834	1823	1817	1819	1824	-0.063
1:46:35	1827	1815	1829	1825	1825	1834	1823	1818	1819	1824	-0.051
1:46:40	1827	1816	1829	1825	1825	1835	1824	1818	1820	1824	-0.058
1:46:45	1828	1816	1830	1826	1825	1835	1824	1818	1820	1825	-0.052
1:46:50	1828	1816	1830	1826	1826	1835	1824	1818	1821	1825	-0.058
1:46:55	1829	1816	1830	1827	1826	1835	1824	1818	1821	1825	-0.059
1:47:00	1829	1817	1830	1827	1827	1835	1825	1818	1821	1826	-0.052
1:47:05	1830	1817	1831	1827	1827	1836	1826	1819	1821	1826	-0.061
1:47:10	1830	1817	1831	1827	1827	1836	1825	1819	1821	1826	-0.068
1:47:15	1830	1818	1831	1828	1827	1836	1826	1819	1821	1826	-0.072
1:47:20	1830	1818	1832	1828	1827	1837	1826	1820	1822	1826	-0.070
1:47:25	1830	1819	1832	1828	1827	1837	1826	1820	1822	1827	-0.058
1:47:30	1830	1819	1832	1828	1828	1838	1826	1820	1822	1827	-0.066
1:47:35	1830	1819	1832	1828	1828	1837	1826	1820	1822	1827	-0.066
1:47:40	1830	1819	1832	1828	1828	1837	1826	1820	1822	1827	-0.063
1:47:45	1831	1819	1832	1828	1828	1838	1826	1821	1823	1827	-0.056
1:47:50	1831	1819	1832	1829	1828	1838	1827	1821	1823	1828	-0.053
1:47:55	1831	1819	1833	1829	1829	1838	1827	1821	1823	1828	-0.052
1:48:00	1831	1819	1833	1829	1829	1838	1827	1821	1824	1828	-0.054
1:48:05	1832	1820	1834	1829	1829	1839	1828	1821	1824	1828	-0.055
1:48:10	1832	1820	1834	1830	1829	1839	1828	1822	1824	1829	-0.050
1:48:15	1832	1821	1834	1830	1830	1839	1828	1822	1824	1829	-0.054
1:48:20	1833	1821	1834	1830	1830	1839	1828	1823	1825	1829	-0.051
1:48:25	1833	1821	1834	1830	1830	1840	1829	1823	1825	1829	-0.057
1:48:30	1833	1822	1835	1831	1830	1840	1829	1823	1825	1830	-0.051
1:48:35	1834	1822	1835	1832	1831	1840	1830	1823	1826	1830	-0.057
1:48:40	1834	1823	1836	1832	1831	1841	1830	1823	1826	1831	-0.063
1:48:45	1835	1823	1836	1832	1832	1841	1830	1824	1826	1831	-0.064
1:48:50	1834	1823	1836	1832	1832	1841	1830	1824	1826	1831	-0.085
1:48:55	1834	1823	1836	1832	1832	1841	1830	1824	1827	1831	-0.077
1:49:00	1834	1823	1836	1832	1832	1841	1830	1824	1826	1831	-0.066
1:49:05	1834	1823	1836	1832	1832	1841	1830	1824	1826	1831	-0.066
1:49:10	1834	1823	1836	1832	1832	1841	1831	1824	1826	1831	-0.064
1:49:15	1833	1823	1836	1832	1832	1841	1830	1824	1826	1831	-0.064
1:49:20	1834	1823	1836	1832	1832	1841	1831	1825	1827	1831	-0.058
1:49:25	1834	1823	1837	1832	1832	1841	1830	1824	1826	1831	-0.060
1:49:30	1835	1823	1837	1832	1832	1841	1830	1824	1827	1831	-0.061
1:49:35	1835	1823	1837	1832	1832	1841	1831	1825	1827	1831	-0.074
1:49:40	1835	1824	1837	1832	1832	1842	1831	1825	1827	1832	-0.060
1:49:45	1835	1824	1837	1832	1832	1842	1831	1825	1828	1832	-0.060
1:49:50	1835	1824	1837	1833	1832	1842	1831	1825	1828	1832	-0.062
1:49:55	1836	1824	1838	1833	1832	1842	1832	1826	1828	1832	-0.068
1:50:00	1836	1824	1837	1833	1833	1842	1831	1826	1828	1832	-0.065
1:50:05	1836	1824	1838	1833	1833	1842	1832	1826	1828	1832	-0.070
1:50:10	1836	1824	1838	1833	1833	1842	1832	1826	1828	1832	-0.073
1:50:15	1836	1824	1837	1833	1833	1842	1832	1826	1828	1832	-0.070
1:50:20	1835	1824	1837	1833	1832	1842	1832	1826	1828	1832	-0.067
1:50:25	1835	1824	1838	1834	1832	1843	1832	1826	1828	1832	-0.056
1:50:30	1836	1824	1838	1834	1833	1843	1832	1827	1828	1833	-0.057
1:50:35	1836	1825	1838	1834	1833	1844	1833	1827	1829	1833	-0.065
1:50:40	1837	1824	1839	1834	1833	1843	1832	1827	1828	1833	-0.060
1:50:45	1836	1825	1838	1834	1833	1843	1832	1827	1828	1833	-0.062
1:50:50	1836	1824	1838	1834	1833	1843	1832	1827	1829	1833	-0.056
1:50:55	1836	1825	1839	1835	1834	1844	1833	1827	1829	1833	-0.054
1:51:00	1836	1826	1839	1835	1834	1844	1833	1827	1829	1834	-0.059
1:51:05	1836	1826	1839	1835	1834	1844	1833	1827	1829	1834	-0.066
1:51:10	1836	1826	1839	1835	1834	1844	1833	1828	1830	1834	-0.066
1:51:15	1836	1826	1839	1835	1834	1844	1833	1827	1829	1834	-0.059
1:51:20	1836	1827	1839	1835	1835	1844	1833	1828	1830	1834	-0.045
1:51:25	1836	1826	1839	1835	1835	1844	1833	1827	1830	1834	-0.055

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
1:51:30	1836	1826	1839	1835	1834	1844	1833	1827	1830	1834	-0.056
1:51:35	1836	1826	1839	1836	1835	1845	1834	1828	1830	1834	-0.056
1:51:40	1836	1827	1840	1836	1835	1845	1834	1828	1830	1834	-0.053
1:51:45	1837	1827	1840	1836	1835	1845	1834	1828	1830	1835	-0.051
1:51:50	1837	1827	1840	1836	1834	1845	1834	1828	1830	1835	-0.062
1:51:55	1837	1827	1840	1836	1834	1845	1835	1829	1830	1835	-0.052
1:52:00	1837	1828	1840	1837	1835	1846	1835	1829	1830	1835	-0.047
1:52:05	1839	1828	1840	1837	1835	1846	1835	1829	1831	1835	-0.052
1:52:10	1839	1828	1840	1837	1835	1846	1835	1829	1831	1836	-0.040
1:52:15	1839	1828	1841	1837	1836	1846	1835	1829	1831	1836	-0.057
1:52:20	1840	1828	1841	1837	1836	1845	1835	1829	1830	1836	-0.058
1:52:25	1840	1828	1841	1837	1837	1846	1836	1829	1831	1836	-0.053
1:52:30	1840	1828	1841	1837	1837	1846	1836	1829	1831	1836	-0.057
1:52:35	1840	1829	1842	1838	1838	1846	1836	1830	1831	1836	-0.060
1:52:40	1840	1829	1842	1838	1837	1846	1836	1830	1831	1837	-0.055
1:52:45	1841	1829	1842	1838	1838	1847	1836	1830	1832	1837	-0.054
1:52:50	1841	1829	1843	1838	1838	1847	1836	1830	1832	1837	-0.052
1:52:55	1842	1829	1843	1838	1838	1847	1837	1831	1832	1837	-0.038
1:53:00	1842	1829	1843	1839	1838	1847	1837	1831	1832	1837	-0.041
1:53:05	1842	1829	1843	1839	1838	1848	1837	1831	1833	1838	-0.052
1:53:10	1843	1829	1843	1839	1839	1848	1837	1831	1833	1838	-0.050
1:53:15	1843	1830	1844	1839	1839	1848	1838	1831	1833	1838	-0.052
1:53:20	1843	1830	1844	1839	1839	1848	1838	1832	1833	1838	-0.048
1:53:25	1843	1830	1844	1840	1840	1848	1838	1832	1833	1839	-0.059
1:53:30	1843	1830	1845	1840	1840	1848	1838	1832	1833	1839	-0.065
1:53:35	1843	1831	1845	1840	1840	1848	1838	1832	1833	1839	-0.068
1:53:40	1843	1831	1845	1840	1840	1848	1838	1832	1833	1839	-0.060
1:53:45	1843	1832	1845	1840	1841	1849	1839	1832	1833	1839	-0.058
1:53:50	1843	1832	1845	1841	1841	1849	1839	1833	1834	1839	-0.061
1:53:55	1843	1832	1845	1841	1841	1849	1839	1833	1834	1839	-0.069
1:54:00	1843	1832	1845	1841	1841	1849	1839	1833	1834	1840	-0.081
1:54:05	1843	1832	1845	1841	1841	1850	1839	1833	1835	1840	-0.083
1:54:10	1842	1832	1845	1841	1841	1850	1839	1833	1835	1840	-0.074
1:54:15	1842	1832	1845	1841	1841	1850	1839	1833	1835	1840	-0.067
1:54:20	1842	1832	1845	1841	1841	1850	1839	1833	1835	1840	-0.088
1:54:25	1843	1833	1845	1841	1841	1850	1839	1833	1835	1840	-0.072
1:54:30	1843	1832	1845	1841	1841	1850	1839	1833	1835	1840	-0.064
1:54:35	1843	1832	1845	1841	1841	1850	1839	1833	1835	1840	-0.055
1:54:40	1843	1832	1846	1841	1841	1850	1840	1833	1835	1840	-0.059
1:54:45	1844	1833	1846	1841	1841	1850	1840	1833	1835	1840	-0.066
1:54:50	1844	1833	1846	1841	1842	1850	1840	1833	1835	1840	-0.066
1:54:55	1844	1833	1846	1841	1841	1850	1840	1834	1835	1840	-0.061
1:55:00	1844	1833	1846	1842	1842	1850	1840	1834	1836	1841	-0.055
1:55:05	1844	1833	1846	1842	1841	1850	1840	1834	1836	1841	-0.058
1:55:10	1844	1834	1846	1842	1841	1851	1840	1834	1836	1841	-0.058
1:55:15	1845	1834	1846	1842	1841	1851	1840	1834	1836	1841	-0.066
1:55:20	1845	1834	1847	1842	1841	1851	1840	1835	1836	1841	-0.073
1:55:25	1845	1834	1847	1842	1842	1851	1841	1834	1836	1841	-0.068
1:55:30	1845	1834	1847	1842	1842	1851	1841	1835	1836	1841	-0.070
1:55:35	1845	1834	1847	1842	1842	1851	1841	1835	1836	1841	-0.065
1:55:40	1845	1834	1847	1842	1842	1851	1841	1835	1836	1841	-0.056
1:55:45	1846	1835	1847	1843	1842	1852	1841	1835	1836	1842	-0.050
1:55:50	1846	1835	1847	1843	1843	1852	1841	1835	1836	1842	-0.058
1:55:55	1845	1835	1847	1843	1843	1852	1842	1835	1837	1842	-0.060
1:56:00	1846	1835	1847	1843	1843	1852	1842	1835	1837	1842	-0.054
1:56:05	1846	1835	1847	1843	1843	1852	1842	1835	1837	1842	-0.061
1:56:10	1846	1835	1848	1843	1843	1853	1842	1836	1838	1843	-0.063
1:56:15	1845	1835	1848	1843	1843	1853	1842	1836	1838	1843	-0.058
1:56:20	1846	1835	1848	1843	1843	1853	1842	1836	1838	1843	-0.055
1:56:25	1846	1836	1848	1844	1844	1853	1843	1837	1839	1843	-0.054
1:56:30	1847	1836	1849	1844	1844	1853	1843	1837	1838	1843	-0.059
1:56:35	1848	1836	1849	1844	1844	1853	1843	1837	1838	1843	-0.066
1:56:40	1848	1836	1849	1844	1844	1853	1843	1837	1839	1844	-0.065

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
1:56:45	1848	1836	1849	1844	1844	1854	1843	1837	1839	1844	-0.061
1:56:50	1848	1836	1849	1844	1844	1854	1843	1837	1839	1844	-0.070
1:56:55	1848	1836	1850	1845	1845	1854	1844	1837	1839	1844	-0.072
1:57:00	1848	1836	1849	1845	1845	1854	1844	1837	1839	1844	-0.082
1:57:05	1848	1836	1849	1845	1845	1854	1843	1837	1839	1844	-0.073
1:57:10	1848	1836	1849	1844	1845	1854	1843	1837	1839	1844	-0.058
1:57:15	1848	1837	1850	1845	1845	1854	1844	1838	1839	1844	-0.053
1:57:20	1849	1836	1850	1845	1845	1855	1844	1838	1839	1844	-0.051
1:57:25	1849	1836	1850	1846	1846	1855	1844	1838	1840	1845	-0.050
1:57:30	1849	1837	1850	1846	1846	1855	1844	1838	1840	1845	-0.046
1:57:35	1848	1837	1850	1846	1846	1855	1845	1839	1840	1845	-0.048
1:57:40	1848	1838	1851	1847	1846	1856	1846	1839	1841	1846	-0.046
1:57:45	1849	1838	1851	1847	1847	1856	1846	1840	1841	1846	-0.048
1:57:50	1849	1839	1851	1847	1847	1856	1846	1840	1841	1846	-0.043
1:57:55	1849	1839	1852	1848	1848	1857	1847	1840	1842	1847	-0.049
1:58:00	1849	1840	1852	1848	1848	1857	1847	1841	1842	1847	-0.039
1:58:05	1850	1840	1852	1848	1849	1857	1848	1841	1843	1847	-0.033
1:58:10	1850	1840	1852	1848	1849	1857	1848	1841	1843	1848	-0.038
1:58:15	1851	1840	1853	1849	1849	1858	1849	1842	1843	1848	-0.044
1:58:20	1851	1841	1853	1849	1849	1858	1849	1841	1843	1848	-0.047
1:58:25	1852	1841	1854	1849	1849	1858	1849	1842	1844	1848	-0.044
1:58:30	1852	1841	1854	1850	1850	1858	1849	1842	1844	1849	-0.048
1:58:35	1853	1841	1854	1850	1850	1858	1849	1842	1844	1849	-0.044
1:58:40	1853	1841	1855	1850	1850	1859	1849	1842	1844	1849	-0.037
1:58:45	1853	1841	1855	1850	1851	1859	1850	1843	1844	1849	-0.046
1:58:50	1854	1842	1855	1850	1851	1860	1850	1843	1845	1850	-0.043
1:58:55	1854	1841	1855	1851	1851	1860	1850	1843	1845	1850	-0.047
1:59:00	1855	1842	1855	1851	1851	1860	1850	1844	1845	1850	-0.050
1:59:05	1854	1842	1855	1851	1851	1860	1850	1844	1845	1850	-0.040
1:59:10	1854	1842	1856	1851	1851	1860	1851	1844	1846	1851	-0.046
1:59:15	1855	1843	1856	1852	1852	1860	1851	1845	1846	1851	-0.047
1:59:20	1855	1842	1857	1852	1851	1860	1851	1844	1846	1851	-0.054
1:59:25	1855	1843	1857	1852	1852	1861	1852	1845	1846	1851	-0.057
1:59:30	1855	1843	1857	1852	1852	1861	1852	1845	1846	1852	-0.058
1:59:35	1855	1843	1857	1852	1852	1861	1852	1846	1846	1852	-0.060
1:59:40	1855	1844	1857	1853	1853	1862	1852	1846	1847	1852	-0.066
1:59:45	1855	1844	1857	1853	1853	1862	1852	1846	1847	1852	-0.060
1:59:50	1854	1844	1857	1853	1853	1862	1852	1846	1847	1852	-0.052
1:59:55	1854	1844	1857	1853	1853	1861	1852	1846	1847	1852	-0.057
2:00:00	1854	1844	1857	1853	1853	1862	1852	1846	1847	1852	-0.050
2:00:05	1855	1845	1858	1853	1854	1862	1853	1847	1848	1853	-0.045
2:00:10	1855	1845	1858	1853	1854	1862	1853	1847	1848	1853	-0.049
2:00:15	1856	1845	1859	1854	1855	1863	1853	1847	1848	1853	-0.045
2:00:20	1856	1846	1859	1854	1855	1863	1854	1847	1848	1854	-0.046
2:00:25	1857	1846	1859	1854	1855	1863	1854	1848	1849	1854	-0.049
2:00:30	1857	1846	1859	1854	1855	1863	1854	1847	1848	1854	-0.043
2:00:35	1856	1846	1859	1854	1855	1863	1854	1847	1849	1854	-0.044
2:00:40	1857	1845	1859	1854	1855	1863	1854	1847	1849	1853	-0.045
2:00:45	1857	1845	1859	1854	1854	1862	1854	1847	1848	1853	-0.040
2:00:50	1857	1845	1859	1853	1854	1862	1853	1847	1848	1853	-0.045
2:00:55	1856	1845	1858	1853	1854	1862	1854	1847	1848	1853	-0.051
2:01:00	1856	1844	1858	1853	1854	1861	1853	1846	1847	1852	-0.051
2:01:05	1855	1844	1857	1853	1854	1861	1853	1846	1847	1852	-0.047
2:01:10	1855	1843	1857	1852	1853	1861	1852	1846	1847	1852	-0.040
2:01:15	1854	1843	1857	1852	1853	1861	1852	1846	1847	1852	-0.048
2:01:20	1854	1843	1857	1852	1853	1861	1852	1846	1846	1851	-0.044
2:01:25	1854	1842	1856	1851	1852	1860	1851	1846	1846	1851	-0.042
2:01:30	1854	1843	1856	1851	1852	1860	1851	1845	1846	1851	-0.037
2:01:35	1854	1843	1856	1851	1852	1860	1851	1845	1846	1851	-0.050
2:01:40	1853	1842	1856	1852	1852	1860	1851	1845	1846	1851	-0.045
2:01:45	1853	1842	1856	1852	1851	1859	1851	1845	1846	1851	-0.045
2:01:50	1853	1842	1856	1851	1851	1859	1851	1845	1846	1850	-0.046
2:01:55	1853	1842	1855	1851	1851	1859	1851	1845	1846	1850	-0.046

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
2:02:00	1853	1843	1855	1851	1851	1860	1851	1845	1846	1850	-0.045
2:02:05	1853	1843	1856	1851	1851	1860	1851	1845	1846	1851	-0.048
2:02:10	1853	1843	1856	1851	1852	1860	1852	1845	1846	1851	-0.049
2:02:15	1853	1843	1856	1851	1852	1860	1852	1845	1846	1851	-0.048
2:02:20	1853	1842	1856	1851	1852	1859	1852	1845	1846	1851	-0.043
2:02:25	1853	1843	1856	1851	1852	1860	1852	1845	1846	1851	-0.046
2:02:30	1853	1843	1856	1852	1852	1860	1852	1845	1846	1851	-0.051
2:02:35	1853	1843	1856	1852	1852	1860	1852	1845	1846	1851	-0.054
2:02:40	1854	1843	1857	1852	1853	1860	1852	1846	1846	1851	-0.048
2:02:45	1854	1843	1856	1852	1853	1860	1852	1845	1846	1851	-0.056
2:02:50	1854	1843	1857	1852	1853	1860	1852	1846	1846	1851	-0.058
2:02:55	1855	1843	1857	1852	1853	1860	1852	1846	1846	1851	-0.055
2:03:00	1855	1843	1857	1852	1852	1860	1852	1845	1846	1851	-0.051
2:03:05	1855	1843	1857	1852	1853	1860	1852	1845	1846	1851	-0.071
2:03:10	1855	1843	1857	1852	1852	1860	1852	1845	1846	1851	-0.061
2:03:15	1855	1844	1857	1852	1852	1860	1851	1845	1846	1851	-0.069
2:03:20	1855	1844	1857	1852	1852	1860	1851	1845	1846	1851	-0.066
2:03:25	1855	1844	1857	1851	1852	1860	1851	1845	1845	1851	-0.064
2:03:30	1854	1844	1857	1851	1852	1860	1851	1845	1845	1851	-0.069
2:03:35	1854	1843	1856	1851	1851	1860	1851	1845	1845	1851	-0.070
2:03:40	1854	1843	1856	1851	1851	1860	1851	1845	1845	1851	-0.058
2:03:45	1854	1843	1856	1851	1851	1859	1851	1845	1845	1850	-0.054
2:03:50	1854	1843	1856	1851	1851	1860	1851	1845	1845	1850	-0.051
2:03:55	1853	1843	1856	1851	1851	1859	1851	1845	1845	1850	-0.048
2:04:00	1853	1843	1856	1851	1851	1859	1851	1845	1845	1850	-0.058
2:04:05	1853	1842	1856	1851	1851	1859	1851	1845	1845	1850	-0.064
2:04:10	1853	1842	1856	1851	1851	1859	1851	1844	1844	1850	-0.052
2:04:15	1853	1842	1856	1851	1851	1860	1851	1845	1845	1850	-0.058
2:04:20	1853	1842	1856	1851	1851	1860	1851	1845	1845	1850	-0.062
2:04:25	1853	1842	1856	1851	1851	1860	1851	1845	1845	1850	-0.073
2:04:30	1853	1842	1856	1851	1851	1860	1851	1845	1845	1850	-0.060
2:04:35	1853	1842	1856	1851	1851	1860	1851	1845	1845	1850	-0.049
2:04:40	1854	1842	1856	1851	1851	1860	1851	1845	1844	1850	-0.048
2:04:45	1854	1842	1856	1851	1851	1860	1851	1845	1844	1850	-0.054
2:04:50	1854	1842	1856	1851	1851	1860	1851	1845	1844	1850	-0.048
2:04:55	1854	1842	1856	1851	1852	1860	1851	1845	1845	1851	-0.052
2:05:00	1854	1843	1856	1851	1852	1860	1851	1845	1845	1851	-0.049
2:05:05	1855	1843	1856	1851	1852	1860	1851	1845	1845	1851	-0.056
2:05:10	1855	1843	1857	1852	1852	1860	1851	1846	1845	1851	-0.048
2:05:15	1855	1843	1857	1852	1852	1860	1852	1846	1845	1851	-0.046
2:05:20	1855	1843	1857	1852	1852	1860	1852	1846	1845	1851	-0.046
2:05:25	1856	1843	1857	1852	1852	1860	1852	1846	1846	1851	-0.046
2:05:30	1856	1844	1857	1852	1853	1861	1852	1846	1846	1852	-0.048
2:05:35	1856	1844	1857	1852	1853	1861	1852	1846	1846	1852	-0.052
2:05:40	1855	1844	1857	1852	1853	1861	1853	1846	1846	1852	-0.048
2:05:45	1855	1844	1858	1853	1854	1861	1853	1847	1847	1852	-0.050
2:05:50	1856	1844	1858	1853	1854	1861	1853	1846	1847	1852	-0.048
2:05:55	1856	1844	1858	1853	1854	1861	1853	1847	1847	1852	-0.052
2:06:00	1856	1844	1858	1853	1854	1862	1853	1847	1847	1853	-0.050
2:06:05	1856	1844	1858	1853	1854	1861	1853	1847	1847	1853	-0.048
2:06:10	1856	1844	1858	1853	1855	1861	1853	1847	1847	1853	-0.049
2:06:15	1857	1845	1859	1854	1855	1861	1854	1847	1847	1853	-0.048
2:06:20	1857	1845	1859	1854	1855	1862	1854	1848	1848	1853	-0.045
2:06:25	1857	1845	1859	1854	1855	1862	1854	1848	1848	1854	-0.046
2:06:30	1857	1845	1859	1854	1855	1863	1854	1848	1849	1854	-0.049
2:06:35	1857	1845	1859	1854	1855	1863	1855	1849	1849	1854	-0.049
2:06:40	1857	1846	1860	1855	1856	1863	1855	1849	1849	1854	-0.048
2:06:45	1858	1846	1860	1855	1856	1863	1855	1849	1849	1855	-0.055
2:06:50	1858	1847	1860	1855	1856	1864	1855	1849	1849	1855	-0.058
2:06:55	1858	1847	1860	1855	1856	1864	1855	1849	1849	1855	-0.053
2:07:00	1858	1847	1861	1855	1856	1864	1855	1849	1849	1855	-0.064
2:07:05	1858	1847	1860	1855	1855	1863	1855	1848	1849	1854	-0.072
2:07:10	1858	1847	1860	1855	1856	1864	1855	1849	1850	1855	-0.069

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
2:07:15	1858	1847	1860	1855	1856	1863	1855	1848	1849	1855	-0.060
2:07:20	1858	1847	1860	1855	1855	1863	1855	1848	1849	1854	-0.057
2:07:25	1858	1846	1860	1854	1855	1863	1854	1848	1849	1854	-0.057
2:07:30	1858	1847	1860	1855	1855	1864	1855	1849	1849	1854	-0.054
2:07:35	1858	1847	1860	1854	1855	1863	1854	1848	1849	1854	-0.055
2:07:40	1858	1847	1860	1855	1855	1864	1855	1849	1849	1854	-0.056
2:07:45	1858	1847	1860	1855	1855	1863	1855	1849	1849	1854	-0.050
2:07:50	1858	1847	1860	1855	1855	1864	1855	1849	1849	1854	-0.053
2:07:55	1858	1847	1860	1855	1856	1864	1855	1849	1849	1855	-0.050
2:08:00	1858	1847	1860	1855	1856	1864	1855	1849	1849	1855	-0.048
2:08:05	1858	1847	1860	1855	1856	1864	1855	1849	1849	1855	-0.046
2:08:10	1858	1847	1860	1855	1856	1864	1856	1849	1850	1855	-0.039
2:08:15	1858	1847	1861	1856	1857	1864	1856	1850	1850	1855	-0.044
2:08:20	1859	1847	1861	1856	1857	1864	1856	1850	1850	1855	-0.048
2:08:25	1859	1847	1861	1856	1857	1864	1856	1850	1850	1855	-0.048
2:08:30	1860	1848	1861	1856	1857	1865	1856	1850	1850	1856	-0.050
2:08:35	1860	1848	1861	1856	1857	1865	1856	1850	1850	1856	-0.046
2:08:40	1859	1848	1861	1856	1857	1865	1856	1850	1851	1856	-0.047
2:08:45	1860	1848	1861	1857	1857	1865	1857	1851	1851	1856	-0.053
2:08:50	1860	1848	1862	1857	1858	1866	1857	1851	1851	1856	-0.049
2:08:55	1860	1849	1862	1857	1858	1866	1857	1851	1852	1857	-0.057
2:09:00	1861	1849	1862	1857	1858	1866	1857	1851	1852	1857	-0.051
2:09:05	1861	1849	1862	1857	1858	1867	1858	1851	1852	1857	-0.058
2:09:10	1861	1849	1863	1857	1859	1867	1858	1852	1852	1857	-0.049
2:09:15	1861	1849	1863	1857	1859	1867	1858	1852	1853	1858	-0.048
2:09:20	1861	1849	1863	1858	1859	1867	1858	1852	1852	1858	-0.066
2:09:25	1861	1849	1863	1858	1859	1867	1858	1852	1853	1858	-0.053
2:09:30	1860	1850	1863	1858	1859	1867	1858	1852	1853	1858	-0.058
2:09:35	1860	1849	1863	1858	1859	1867	1858	1852	1852	1858	-0.054
2:09:40	1861	1849	1863	1858	1859	1867	1858	1852	1853	1858	-0.038
2:09:45	1861	1849	1863	1858	1859	1867	1858	1852	1853	1858	-0.050
2:09:50	1861	1849	1863	1858	1860	1867	1858	1852	1853	1858	-0.061
2:09:55	1861	1850	1863	1858	1860	1867	1858	1852	1853	1858	-0.060
2:10:00	1861	1849	1863	1858	1860	1867	1858	1852	1852	1858	-0.055
2:10:05	1861	1850	1863	1858	1859	1867	1858	1852	1853	1858	-0.052
2:10:10	1861	1849	1863	1858	1859	1867	1858	1852	1853	1858	-0.056
2:10:15	1861	1850	1863	1858	1859	1867	1858	1852	1853	1858	-0.059
2:10:20	1862	1850	1863	1858	1860	1868	1858	1852	1853	1858	-0.058
2:10:25	1861	1850	1863	1858	1860	1868	1858	1853	1853	1858	-0.074
2:10:30	1862	1850	1863	1858	1860	1868	1858	1852	1853	1858	-0.044
2:10:35	1862	1851	1864	1859	1860	1868	1858	1853	1853	1859	-0.041
2:10:40	1862	1851	1864	1859	1860	1868	1858	1853	1853	1859	-0.045
2:10:45	1862	1851	1864	1859	1861	1868	1859	1853	1853	1859	-0.050
2:10:50	1862	1851	1864	1859	1860	1869	1859	1854	1854	1859	-0.060
2:10:55	1862	1851	1865	1860	1860	1869	1859	1854	1854	1859	-0.054
2:11:00	1862	1852	1865	1860	1861	1869	1859	1854	1854	1859	-0.054
2:11:05	1862	1852	1865	1860	1861	1869	1859	1854	1854	1860	-0.047
2:11:10	1862	1852	1865	1860	1861	1869	1859	1854	1854	1860	-0.039
2:11:15	1863	1852	1865	1860	1861	1869	1860	1854	1855	1860	-0.042
2:11:20	1863	1852	1866	1861	1862	1869	1860	1855	1855	1860	-0.053
2:11:25	1864	1853	1866	1861	1862	1870	1860	1855	1855	1861	-0.060
2:11:30	1864	1853	1867	1862	1862	1870	1861	1855	1855	1861	-0.067
2:11:35	1864	1853	1867	1862	1862	1871	1861	1855	1856	1861	-0.064
2:11:40	1865	1854	1867	1862	1863	1871	1861	1856	1856	1862	-0.062
2:11:45	1865	1854	1868	1863	1863	1871	1862	1856	1857	1862	-0.055
2:11:50	1866	1854	1868	1863	1864	1872	1862	1856	1857	1862	-0.058
2:11:55	1866	1855	1868	1863	1864	1872	1862	1857	1857	1863	-0.047
2:12:00	1867	1855	1869	1864	1864	1873	1863	1857	1857	1863	-0.059
2:12:05	1867	1856	1869	1864	1865	1873	1863	1857	1858	1863	-0.060
2:12:10	1867	1856	1869	1864	1865	1873	1863	1858	1858	1864	-0.048
2:12:15	1867	1857	1870	1865	1865	1874	1864	1858	1858	1864	-0.037
2:12:20	1868	1857	1870	1865	1865	1874	1864	1858	1859	1864	-0.058
2:12:25	1868	1857	1870	1865	1866	1874	1864	1859	1859	1865	-0.050

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
2:12:30	1868	1857	1871	1866	1866	1875	1865	1859	1860	1865	-0.052
2:12:35	1868	1858	1871	1866	1866	1875	1866	1860	1860	1866	-0.058
2:12:40	1869	1858	1871	1866	1867	1875	1866	1860	1861	1866	-0.059
2:12:45	1869	1858	1872	1867	1867	1876	1866	1860	1861	1866	-0.098
2:12:50	1869	1859	1872	1867	1868	1876	1866	1860	1861	1866	-0.101
2:12:55	1869	1859	1872	1867	1868	1876	1866	1860	1861	1866	-0.080
2:13:00	1869	1859	1872	1867	1867	1876	1866	1861	1861	1866	-0.078
2:13:05	1869	1859	1872	1867	1867	1876	1866	1860	1861	1866	-0.077
2:13:10	1869	1859	1872	1867	1867	1876	1866	1860	1861	1866	-0.095
2:13:15	1869	1859	1872	1867	1867	1876	1866	1860	1861	1866	-0.081
2:13:20	1869	1859	1872	1867	1867	1876	1866	1861	1861	1866	-0.057
2:13:25	1869	1859	1872	1867	1867	1876	1866	1861	1861	1866	-0.078
2:13:30	1869	1859	1872	1867	1867	1876	1866	1861	1861	1866	-0.079
2:13:35	1870	1859	1872	1867	1868	1876	1866	1861	1860	1866	-0.063
2:13:40	1870	1859	1872	1867	1868	1876	1866	1861	1861	1866	-0.061
2:13:45	1869	1859	1872	1867	1868	1876	1866	1861	1861	1867	-0.059
2:13:50	1870	1859	1873	1867	1868	1876	1866	1861	1861	1867	-0.066
2:13:55	1870	1859	1873	1868	1868	1876	1866	1861	1862	1867	-0.080
2:14:00	1871	1859	1873	1868	1869	1877	1867	1862	1862	1867	-0.068
2:14:05	1871	1859	1873	1868	1869	1877	1867	1862	1862	1867	-0.056
2:14:10	1871	1860	1873	1868	1869	1877	1867	1862	1862	1867	-0.066
2:14:15	1870	1860	1873	1868	1869	1877	1867	1862	1862	1867	-0.066
2:14:20	1871	1860	1873	1868	1869	1877	1867	1862	1862	1868	-0.064
2:14:25	1871	1860	1873	1868	1869	1878	1867	1862	1862	1868	-0.060
2:14:30	1871	1860	1873	1868	1869	1878	1867	1863	1862	1868	-0.061
2:14:35	1871	1860	1873	1868	1869	1878	1868	1863	1862	1868	-0.065
2:14:40	1872	1860	1874	1868	1869	1878	1868	1863	1863	1868	-0.068
2:14:45	1872	1861	1874	1868	1869	1878	1868	1863	1863	1868	-0.076
2:14:50	1872	1861	1874	1868	1869	1878	1868	1863	1863	1869	-0.065
2:14:55	1872	1861	1874	1868	1870	1878	1868	1863	1863	1868	-0.074
2:15:00	1872	1861	1874	1868	1869	1878	1868	1863	1863	1868	-0.068
2:15:05	1872	1861	1874	1868	1869	1878	1868	1863	1863	1868	-0.068
2:15:10	1872	1861	1874	1868	1869	1878	1868	1863	1863	1868	-0.074
2:15:15	1872	1861	1874	1868	1869	1878	1868	1863	1863	1868	-0.071
2:15:20	1872	1861	1874	1868	1869	1878	1868	1863	1863	1868	-0.063
2:15:25	1872	1860	1874	1868	1869	1878	1868	1863	1863	1868	-0.063
2:15:30	1872	1860	1874	1868	1869	1879	1868	1864	1863	1869	-0.056
2:15:35	1872	1861	1874	1868	1869	1879	1868	1864	1863	1869	-0.054
2:15:40	1872	1861	1875	1868	1869	1879	1868	1864	1863	1869	-0.049
2:15:45	1873	1861	1875	1869	1870	1879	1869	1864	1864	1869	-0.047
2:15:50	1873	1861	1875	1869	1870	1880	1869	1865	1864	1870	-0.051
2:15:55	1874	1862	1875	1869	1871	1880	1869	1865	1864	1870	-0.051
2:16:00	1874	1862	1876	1870	1871	1880	1870	1865	1864	1870	-0.052
2:16:05	1874	1862	1876	1870	1871	1881	1870	1866	1865	1871	-0.043
2:16:10	1874	1862	1876	1870	1872	1881	1870	1866	1865	1871	-0.043
2:16:15	1875	1862	1877	1870	1872	1881	1871	1866	1866	1871	-0.046
2:16:20	1875	1863	1877	1870	1872	1881	1871	1866	1866	1871	-0.046
2:16:25	1875	1863	1877	1871	1873	1881	1871	1866	1866	1872	-0.052
2:16:30	1876	1863	1877	1871	1873	1882	1871	1867	1867	1872	-0.053
2:16:35	1876	1863	1877	1871	1873	1882	1871	1867	1867	1872	-0.052
2:16:40	1876	1864	1877	1871	1873	1883	1872	1867	1867	1872	-0.038
2:16:45	1876	1864	1877	1871	1873	1883	1872	1867	1868	1872	-0.042
2:16:50	1877	1864	1878	1871	1873	1883	1872	1867	1868	1873	-0.050
2:16:55	1876	1864	1878	1872	1874	1883	1873	1868	1868	1873	-0.044
2:17:00	1877	1865	1878	1872	1874	1883	1873	1868	1868	1873	-0.048
2:17:05	1877	1865	1878	1872	1874	1883	1873	1868	1868	1873	-0.056
2:17:10	1877	1865	1878	1872	1875	1883	1873	1868	1868	1873	-0.052
2:17:15	1877	1865	1879	1873	1875	1883	1873	1868	1868	1873	-0.050
2:17:20	1878	1865	1879	1873	1875	1884	1873	1868	1868	1874	-0.052
2:17:25	1878	1865	1879	1873	1875	1884	1874	1868	1868	1874	-0.057
2:17:30	1878	1866	1879	1874	1875	1884	1874	1869	1868	1874	-0.059
2:17:35	1879	1866	1880	1874	1875	1884	1874	1869	1869	1874	-0.076
2:17:40	1879	1867	1880	1874	1875	1884	1874	1869	1868	1874	-0.059

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
2:17:45	1879	1867	1880	1874	1876	1884	1875	1869	1868	1875	-0.050
2:17:50	1878	1867	1880	1875	1876	1885	1875	1869	1868	1875	-0.045
2:17:55	1878	1867	1880	1875	1876	1885	1875	1869	1869	1875	-0.050
2:18:00	1878	1867	1880	1875	1877	1885	1875	1870	1870	1875	-0.056
2:18:05	1879	1868	1881	1875	1877	1885	1875	1869	1870	1875	-0.049
2:18:10	1878	1868	1881	1876	1877	1885	1876	1870	1871	1876	-0.059
2:18:15	1879	1868	1881	1876	1877	1885	1876	1870	1871	1876	-0.052
2:18:20	1879	1868	1881	1876	1877	1885	1876	1870	1871	1876	-0.051
2:18:25	1879	1868	1881	1876	1877	1885	1876	1870	1871	1876	-0.048
2:18:30	1879	1868	1881	1876	1877	1885	1876	1870	1871	1876	-0.050
2:18:35	1879	1868	1881	1876	1877	1885	1876	1870	1871	1876	-0.046
2:18:40	1878	1868	1881	1876	1877	1885	1876	1870	1871	1876	-0.049
2:18:45	1878	1868	1881	1876	1877	1885	1876	1870	1871	1876	-0.048
2:18:50	1878	1868	1881	1876	1878	1885	1876	1870	1871	1876	-0.046
2:18:55	1879	1868	1881	1876	1877	1885	1876	1870	1871	1876	-0.046
2:19:00	1879	1868	1881	1876	1877	1885	1877	1870	1871	1876	-0.060
2:19:05	1879	1868	1881	1876	1877	1885	1877	1870	1871	1876	-0.053
2:19:10	1879	1868	1881	1876	1877	1885	1877	1870	1871	1876	-0.056
2:19:15	1879	1868	1881	1876	1877	1884	1876	1870	1871	1876	-0.051
2:19:20	1879	1868	1881	1876	1877	1884	1876	1870	1871	1876	-0.051
2:19:25	1879	1868	1881	1877	1877	1885	1876	1870	1871	1876	-0.054
2:19:30	1879	1869	1881	1877	1877	1885	1876	1870	1871	1876	-0.061
2:19:35	1879	1868	1881	1877	1877	1885	1876	1870	1871	1876	-0.056
2:19:40	1879	1869	1881	1877	1877	1885	1876	1871	1871	1876	-0.053
2:19:45	1878	1869	1881	1876	1877	1885	1876	1871	1871	1876	-0.053
2:19:50	1879	1869	1881	1877	1877	1885	1876	1871	1871	1876	-0.054
2:19:55	1879	1868	1881	1876	1877	1885	1876	1870	1871	1876	-0.056
2:20:00	1879	1869	1881	1877	1877	1885	1876	1871	1871	1876	-0.056
2:20:05	1879	1869	1882	1877	1878	1885	1877	1871	1871	1876	-0.057
2:20:10	1879	1869	1882	1877	1878	1885	1877	1871	1871	1876	-0.069
2:20:15	1879	1869	1881	1877	1878	1885	1876	1871	1871	1876	-0.074
2:20:20	1879	1869	1881	1877	1878	1885	1876	1871	1871	1876	-0.067
2:20:25	1878	1869	1881	1876	1877	1885	1876	1871	1870	1876	-0.064
2:20:30	1878	1869	1881	1876	1877	1885	1876	1871	1870	1876	-0.072
2:20:35	1878	1868	1881	1876	1877	1885	1876	1871	1870	1876	-0.070
2:20:40	1878	1868	1881	1876	1877	1885	1876	1871	1870	1876	-0.068
2:20:45	1878	1868	1881	1876	1877	1884	1875	1871	1870	1876	-0.074
2:20:50	1878	1868	1881	1876	1876	1884	1875	1870	1870	1875	-0.052
2:20:55	1878	1868	1881	1876	1877	1884	1875	1871	1870	1875	-0.047
2:21:00	1878	1868	1881	1876	1877	1884	1875	1871	1870	1876	-0.057
2:21:05	1879	1868	1881	1876	1877	1884	1875	1871	1870	1876	-0.064
2:21:10	1879	1868	1881	1876	1878	1885	1876	1871	1870	1876	-0.060
2:21:15	1879	1868	1881	1876	1878	1885	1876	1871	1871	1876	-0.073
2:21:20	1879	1868	1881	1876	1878	1885	1876	1871	1870	1876	-0.068
2:21:25	1879	1868	1882	1876	1878	1885	1876	1871	1870	1876	-0.076
2:21:30	1879	1868	1882	1876	1878	1885	1875	1871	1870	1876	-0.070
2:21:35	1879	1868	1881	1876	1878	1885	1875	1871	1870	1876	-0.068
2:21:40	1880	1868	1881	1876	1878	1885	1875	1871	1870	1876	-0.068
2:21:45	1879	1868	1882	1877	1878	1885	1875	1870	1870	1876	-0.061
2:21:50	1880	1868	1881	1877	1878	1885	1875	1870	1870	1876	-0.068
2:21:55	1880	1868	1882	1876	1878	1885	1875	1870	1870	1876	-0.068
2:22:00	1880	1868	1882	1877	1878	1885	1875	1871	1870	1876	-0.052
2:22:05	1880	1868	1882	1877	1878	1885	1875	1871	1870	1876	-0.063
2:22:10	1880	1869	1882	1877	1878	1886	1876	1871	1871	1877	-0.058
2:22:15	1880	1869	1882	1877	1878	1886	1876	1871	1871	1877	-0.060
2:22:20	1880	1869	1882	1877	1878	1886	1877	1872	1871	1877	-0.062
2:22:25	1880	1869	1882	1877	1878	1886	1876	1872	1871	1876	-0.069
2:22:30	1880	1869	1882	1877	1878	1886	1877	1872	1871	1877	-0.064
2:22:35	1880	1869	1882	1877	1878	1886	1877	1872	1871	1877	-0.058
2:22:40	1880	1869	1882	1877	1878	1886	1877	1872	1871	1877	-0.056
2:22:45	1881	1869	1882	1877	1878	1885	1877	1871	1871	1877	-0.060
2:22:50	1881	1869	1883	1877	1878	1886	1877	1872	1872	1877	-0.058
2:22:55	1881	1869	1883	1878	1878	1886	1877	1872	1872	1877	-0.060

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
2:23:00	1881	1869	1883	1878	1878	1886	1877	1872	1871	1877	-0.062
2:23:05	1881	1870	1883	1878	1879	1887	1877	1873	1872	1878	-0.071
2:23:10	1880	1869	1883	1878	1879	1887	1877	1872	1871	1877	-0.072
2:23:15	1881	1870	1883	1878	1879	1887	1877	1872	1872	1878	-0.054
2:23:20	1881	1870	1883	1878	1879	1887	1877	1873	1872	1878	-0.051
2:23:25	1881	1870	1883	1878	1879	1887	1877	1873	1872	1878	-0.066
2:23:30	1881	1870	1883	1878	1878	1887	1877	1873	1872	1878	-0.084
2:23:35	1881	1870	1883	1878	1878	1887	1877	1873	1872	1878	-0.068
2:23:40	1881	1870	1883	1878	1879	1887	1877	1873	1872	1878	-0.064
2:23:45	1881	1870	1883	1878	1879	1887	1877	1873	1872	1878	-0.058
2:23:50	1881	1870	1883	1878	1879	1887	1877	1873	1872	1878	-0.060
2:23:55	1881	1870	1883	1878	1879	1887	1877	1873	1872	1878	-0.062
2:24:00	1881	1870	1883	1878	1879	1887	1877	1873	1872	1878	-0.063
2:24:05	1880	1870	1883	1878	1879	1887	1877	1873	1872	1878	-0.056
2:24:10	1881	1870	1883	1878	1879	1887	1878	1873	1872	1878	-0.065
2:24:15	1881	1870	1884	1878	1880	1887	1878	1873	1873	1878	-0.066
2:24:20	1881	1870	1884	1878	1880	1887	1878	1873	1873	1878	-0.058
2:24:25	1882	1870	1884	1879	1880	1888	1878	1873	1873	1878	-0.062
2:24:30	1882	1871	1884	1879	1880	1888	1878	1873	1873	1879	-0.075
2:24:35	1882	1871	1884	1879	1880	1888	1878	1874	1873	1879	-0.060
2:24:40	1882	1871	1884	1879	1879	1888	1878	1874	1873	1879	-0.060
2:24:45	1882	1871	1884	1879	1879	1888	1878	1874	1873	1879	-0.064
2:24:50	1882	1871	1884	1879	1880	1888	1878	1874	1873	1879	-0.075
2:24:55	1882	1871	1884	1879	1880	1888	1878	1874	1873	1879	-0.072
2:25:00	1883	1871	1885	1879	1880	1888	1879	1874	1873	1879	-0.073
2:25:05	1883	1871	1885	1879	1880	1888	1878	1874	1873	1879	-0.073
2:25:10	1883	1871	1885	1879	1880	1888	1878	1874	1873	1879	-0.063
2:25:15	1883	1871	1885	1879	1880	1888	1879	1874	1873	1879	-0.055
2:25:20	1883	1871	1885	1879	1880	1888	1879	1874	1873	1879	-0.066
2:25:25	1883	1871	1885	1879	1881	1888	1879	1874	1873	1879	-0.081
2:25:30	1883	1871	1885	1880	1881	1888	1879	1874	1874	1879	-0.080
2:25:35	1883	1871	1885	1880	1881	1889	1879	1874	1874	1879	-0.074
2:25:40	1883	1871	1885	1880	1881	1888	1879	1874	1874	1879	-0.053
2:25:45	1883	1871	1885	1880	1880	1889	1879	1874	1874	1879	-0.069
2:25:50	1883	1871	1884	1880	1880	1889	1878	1874	1873	1879	-0.073
2:25:55	1883	1871	1884	1879	1880	1889	1878	1874	1873	1879	-0.062
2:26:00	1883	1871	1885	1879	1880	1889	1878	1874	1874	1879	-0.058
2:26:05	1883	1871	1885	1879	1881	1889	1879	1875	1874	1879	-0.062
2:26:10	1883	1871	1885	1880	1881	1889	1879	1875	1874	1880	-0.058
2:26:15	1883	1871	1885	1880	1881	1889	1879	1875	1874	1880	-0.062
2:26:20	1883	1871	1885	1880	1881	1889	1880	1875	1874	1880	-0.066
2:26:25	1883	1871	1885	1880	1882	1890	1880	1876	1874	1880	-0.062
2:26:30	1883	1871	1885	1880	1881	1890	1880	1876	1874	1880	-0.064
2:26:35	1883	1871	1886	1880	1882	1890	1880	1876	1875	1880	-0.068
2:26:40	1883	1871	1886	1880	1882	1890	1880	1876	1875	1880	-0.059
2:26:45	1884	1871	1886	1880	1882	1890	1880	1876	1875	1881	-0.068
2:26:50	1884	1872	1887	1880	1882	1890	1881	1876	1875	1881	-0.076
2:26:55	1884	1872	1887	1880	1882	1890	1881	1876	1875	1881	-0.070
2:27:00	1884	1872	1887	1881	1882	1890	1881	1876	1875	1881	-0.063
2:27:05	1884	1873	1887	1881	1882	1890	1881	1876	1875	1881	-0.061
2:27:10	1884	1873	1887	1881	1882	1890	1881	1876	1875	1881	-0.057
2:27:15	1884	1873	1887	1881	1882	1890	1881	1876	1875	1881	-0.061
2:27:20	1885	1873	1887	1881	1883	1890	1881	1876	1875	1881	-0.052
2:27:25	1884	1874	1887	1882	1883	1890	1882	1877	1876	1882	-0.048
2:27:30	1884	1873	1887	1881	1883	1890	1881	1876	1875	1881	-0.064
2:27:35	1884	1873	1887	1882	1883	1891	1881	1876	1875	1881	-0.063
2:27:40	1885	1873	1887	1881	1883	1891	1881	1877	1875	1882	-0.054
2:27:45	1885	1873	1887	1881	1883	1891	1881	1877	1876	1882	-0.055
2:27:50	1885	1873	1887	1882	1883	1891	1882	1877	1876	1882	-0.053
2:27:55	1885	1873	1887	1882	1883	1891	1882	1877	1876	1882	-0.065
2:28:00	1885	1873	1887	1882	1883	1891	1882	1877	1876	1882	-0.056
2:28:05	1885	1874	1888	1882	1883	1891	1882	1877	1877	1882	-0.057
2:28:10	1885	1874	1888	1883	1884	1892	1882	1878	1877	1883	-0.055

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
2:28:15	1886	1874	1888	1883	1884	1891	1882	1877	1877	1882	-0.058
2:28:20	1886	1875	1888	1883	1884	1892	1883	1878	1877	1883	-0.056
2:28:25	1886	1875	1888	1883	1884	1891	1883	1878	1877	1883	-0.063
2:28:30	1886	1875	1888	1883	1884	1891	1883	1878	1877	1883	-0.052
2:28:35	1886	1875	1888	1883	1884	1891	1883	1878	1877	1883	-0.055
2:28:40	1886	1875	1889	1883	1884	1891	1883	1878	1877	1883	-0.053
2:28:45	1886	1875	1889	1883	1884	1892	1883	1878	1877	1883	-0.058
2:28:50	1887	1875	1889	1884	1884	1892	1883	1878	1877	1883	-0.058
2:28:55	1887	1875	1889	1884	1884	1892	1883	1878	1877	1883	-0.054
2:29:00	1887	1876	1890	1884	1885	1892	1884	1878	1878	1884	-0.053
2:29:05	1887	1876	1890	1884	1885	1892	1884	1878	1878	1884	-0.052
2:29:10	1888	1876	1890	1884	1885	1892	1884	1879	1878	1884	-0.053
2:29:15	1888	1876	1890	1884	1885	1893	1884	1879	1878	1884	-0.052
2:29:20	1887	1876	1890	1884	1885	1892	1884	1879	1878	1884	-0.054
2:29:25	1887	1876	1890	1884	1885	1893	1884	1879	1878	1884	-0.049
2:29:30	1887	1876	1890	1884	1886	1893	1885	1879	1878	1884	-0.064
2:29:35	1887	1876	1890	1884	1886	1893	1885	1879	1878	1884	-0.072
2:29:40	1887	1876	1890	1884	1885	1892	1884	1879	1878	1884	-0.055
2:29:45	1887	1877	1890	1884	1886	1893	1884	1879	1878	1884	-0.052
2:29:50	1887	1877	1890	1885	1886	1893	1885	1879	1878	1884	-0.054
2:29:55	1888	1877	1890	1885	1886	1893	1885	1879	1878	1884	-0.051
2:30:00	1887	1877	1890	1885	1886	1893	1885	1879	1878	1884	-0.049
2:30:05	1887	1877	1890	1885	1886	1893	1885	1880	1878	1885	-0.051
2:30:10	1888	1878	1891	1886	1886	1893	1885	1880	1879	1885	-0.044
2:30:15	1888	1878	1890	1885	1886	1893	1885	1880	1879	1885	-0.048
2:30:20	1888	1878	1891	1886	1887	1894	1886	1880	1880	1885	-0.046
2:30:25	1889	1878	1891	1886	1887	1894	1886	1881	1880	1886	-0.056
2:30:30	1889	1878	1891	1886	1887	1895	1886	1881	1880	1886	-0.044
2:30:35	1889	1878	1891	1887	1888	1895	1887	1881	1881	1886	-0.054
2:30:40	1890	1879	1892	1887	1888	1895	1886	1881	1881	1886	-0.055
2:30:45	1890	1879	1892	1887	1888	1896	1887	1882	1881	1887	-0.050
2:30:50	1889	1879	1892	1887	1888	1896	1887	1882	1881	1887	-0.064
2:30:55	1890	1879	1892	1887	1888	1896	1887	1882	1881	1887	-0.060
2:31:00	1890	1879	1892	1887	1888	1896	1887	1882	1881	1887	-0.057
2:31:05	1890	1879	1893	1887	1889	1896	1887	1882	1881	1887	-0.055
2:31:10	1890	1879	1893	1887	1889	1896	1887	1882	1881	1887	-0.059
2:31:15	1890	1879	1893	1888	1889	1896	1887	1882	1881	1887	-0.067
2:31:20	1890	1879	1893	1887	1889	1896	1887	1882	1881	1887	-0.063
2:31:25	1890	1879	1893	1887	1889	1896	1887	1882	1881	1887	-0.052
2:31:30	1890	1880	1893	1887	1889	1896	1887	1882	1881	1887	-0.047
2:31:35	1890	1880	1893	1887	1888	1896	1887	1882	1881	1887	-0.044
2:31:40	1890	1880	1893	1888	1889	1896	1888	1882	1881	1887	-0.046
2:31:45	1890	1880	1893	1888	1889	1896	1888	1883	1882	1888	-0.041
2:31:50	1891	1880	1893	1888	1889	1896	1888	1883	1882	1888	-0.045
2:31:55	1892	1880	1894	1888	1889	1897	1888	1883	1882	1888	-0.053
2:32:00	1892	1880	1894	1888	1889	1897	1888	1883	1882	1888	-0.050
2:32:05	1891	1881	1894	1889	1890	1897	1889	1883	1883	1888	-0.051
2:32:10	1891	1880	1894	1888	1890	1898	1889	1883	1883	1888	-0.049
2:32:15	1892	1881	1895	1889	1890	1898	1889	1884	1883	1889	-0.058
2:32:20	1892	1880	1894	1889	1890	1898	1889	1883	1883	1889	-0.052
2:32:25	1892	1880	1894	1889	1890	1898	1889	1883	1883	1889	-0.049
2:32:30	1892	1881	1895	1889	1890	1898	1889	1884	1884	1889	-0.044
2:32:35	1892	1881	1895	1889	1891	1898	1890	1884	1884	1889	-0.042
2:32:40	1892	1881	1895	1890	1891	1898	1890	1884	1884	1889	-0.039
2:32:45	1893	1881	1895	1890	1891	1898	1890	1885	1884	1890	-0.053
2:32:50	1893	1882	1895	1890	1891	1899	1890	1885	1884	1890	-0.044
2:32:55	1893	1881	1895	1890	1891	1899	1890	1884	1884	1890	-0.042
2:33:00	1893	1882	1896	1891	1892	1899	1890	1885	1885	1890	-0.044
2:33:05	1894	1882	1896	1890	1892	1899	1890	1885	1885	1890	-0.046
2:33:10	1894	1883	1896	1891	1892	1900	1891	1886	1885	1891	-0.045
2:33:15	1893	1883	1896	1891	1892	1900	1891	1886	1885	1891	-0.053
2:33:20	1894	1883	1896	1890	1892	1899	1891	1885	1885	1891	-0.044
2:33:25	1893	1883	1896	1891	1892	1900	1891	1885	1886	1891	-0.055

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
2:33:30	1894	1883	1897	1891	1892	1900	1891	1886	1886	1891	-0.047
2:33:35	1894	1883	1897	1891	1892	1900	1892	1886	1886	1891	-0.051
2:33:40	1895	1884	1897	1891	1893	1900	1892	1886	1886	1892	-0.048
2:33:45	1895	1884	1897	1892	1893	1900	1892	1887	1887	1892	-0.049
2:33:50	1895	1885	1897	1892	1893	1901	1892	1887	1887	1892	-0.042
2:33:55	1895	1885	1898	1893	1894	1901	1893	1887	1887	1892	-0.049
2:34:00	1896	1885	1898	1892	1894	1901	1893	1887	1887	1892	-0.042
2:34:05	1896	1885	1898	1893	1894	1901	1893	1887	1887	1893	-0.048
2:34:10	1896	1885	1898	1893	1894	1901	1893	1887	1887	1893	-0.049
2:34:15	1896	1885	1899	1893	1894	1902	1893	1888	1887	1893	-0.046
2:34:20	1897	1885	1899	1893	1894	1901	1893	1888	1887	1893	-0.046
2:34:25	1897	1886	1899	1893	1894	1902	1893	1888	1887	1893	-0.050
2:34:30	1897	1886	1899	1894	1895	1902	1894	1888	1888	1894	-0.038
2:34:35	1897	1886	1899	1894	1895	1902	1894	1888	1888	1894	-0.042
2:34:40	1897	1886	1900	1894	1895	1902	1894	1888	1888	1894	-0.046
2:34:45	1898	1886	1899	1894	1895	1902	1895	1888	1888	1894	-0.044
2:34:50	1898	1887	1900	1895	1895	1902	1895	1889	1888	1894	-0.045
2:34:55	1898	1887	1900	1895	1895	1903	1895	1889	1889	1894	-0.045
2:35:00	1898	1887	1900	1895	1896	1903	1895	1889	1889	1895	-0.045
2:35:05	1898	1887	1899	1895	1895	1902	1895	1889	1888	1894	-0.048
2:35:10	1898	1887	1900	1895	1896	1903	1896	1889	1889	1895	-0.042
2:35:15	1898	1888	1900	1895	1896	1904	1896	1890	1889	1895	-0.047
2:35:20	1899	1888	1901	1896	1896	1904	1896	1890	1889	1895	-0.044
2:35:25	1899	1888	1901	1896	1896	1904	1896	1890	1890	1896	-0.047
2:35:30	1898	1888	1901	1896	1896	1904	1896	1891	1890	1896	-0.043
2:35:35	1898	1888	1901	1896	1897	1904	1897	1891	1890	1896	-0.048
2:35:40	1898	1888	1901	1896	1897	1904	1897	1891	1890	1896	-0.053
2:35:45	1899	1888	1901	1896	1898	1905	1897	1891	1890	1896	-0.050
2:35:50	1899	1888	1902	1896	1898	1905	1897	1891	1890	1896	-0.049
2:35:55	1899	1889	1902	1896	1898	1905	1898	1892	1891	1897	-0.051
2:36:00	1900	1889	1902	1896	1898	1905	1898	1892	1891	1897	-0.063
2:36:05	1900	1889	1902	1897	1899	1905	1898	1892	1891	1897	-0.072
2:36:10	1900	1889	1902	1897	1899	1905	1897	1892	1891	1897	-0.068
2:36:15	1900	1889	1902	1897	1899	1905	1897	1892	1891	1897	-0.060
2:36:20	1900	1889	1902	1897	1898	1906	1897	1892	1891	1897	-0.055
2:36:25	1900	1889	1902	1897	1898	1905	1897	1892	1891	1897	-0.054
2:36:30	1900	1889	1902	1897	1898	1906	1897	1892	1892	1897	-0.049
2:36:35	1900	1889	1902	1896	1899	1906	1897	1892	1891	1897	-0.052
2:36:40	1900	1889	1902	1897	1899	1906	1897	1892	1892	1897	-0.048
2:36:45	1900	1889	1902	1897	1899	1906	1898	1893	1892	1897	-0.051
2:36:50	1900	1889	1903	1897	1899	1907	1898	1893	1892	1897	-0.052
2:36:55	1901	1889	1903	1897	1899	1907	1898	1893	1892	1897	-0.052
2:37:00	1901	1889	1903	1897	1900	1907	1898	1893	1892	1898	-0.048
2:37:05	1901	1889	1903	1897	1900	1907	1898	1893	1893	1898	-0.052
2:37:10	1901	1890	1903	1898	1900	1907	1899	1894	1893	1898	-0.066
2:37:15	1901	1890	1903	1898	1900	1907	1899	1894	1893	1898	-0.068
2:37:20	1901	1890	1903	1898	1900	1907	1899	1894	1893	1898	-0.064
2:37:25	1901	1890	1903	1897	1900	1907	1898	1894	1892	1898	-0.054
2:37:30	1901	1890	1903	1897	1900	1907	1898	1894	1893	1898	-0.063
2:37:35	1901	1890	1903	1898	1900	1908	1899	1894	1893	1898	-0.059
2:37:40	1901	1890	1903	1898	1900	1907	1899	1893	1892	1898	-0.062
2:37:45	1901	1890	1903	1898	1900	1907	1899	1893	1893	1898	-0.064
2:37:50	1900	1891	1903	1898	1900	1907	1899	1893	1892	1898	-0.069
2:37:55	1900	1890	1903	1898	1899	1907	1898	1893	1892	1898	-0.074
2:38:00	1900	1890	1903	1898	1899	1907	1899	1894	1892	1898	-0.068
2:38:05	1901	1890	1903	1898	1899	1907	1898	1893	1892	1898	-0.058
2:38:10	1901	1890	1904	1898	1899	1908	1899	1894	1892	1898	-0.062
2:38:15	1901	1890	1904	1898	1899	1907	1898	1893	1892	1898	-0.072
2:38:20	1901	1890	1903	1898	1899	1907	1898	1893	1892	1898	-0.066
2:38:25	1902	1890	1904	1898	1899	1907	1898	1893	1892	1898	-0.064
2:38:30	1901	1890	1904	1898	1899	1907	1898	1893	1892	1898	-0.072
2:38:35	1901	1890	1903	1898	1899	1907	1898	1893	1892	1898	-0.080
2:38:40	1900	1890	1904	1898	1899	1907	1898	1893	1892	1898	-0.081

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
2:38:45	1900	1890	1903	1898	1899	1907	1898	1893	1891	1898	-0.062
2:38:50	1900	1890	1903	1898	1899	1907	1898	1893	1891	1898	-0.051
2:38:55	1900	1890	1903	1897	1899	1907	1898	1893	1892	1898	-0.048
2:39:00	1900	1890	1903	1898	1899	1907	1898	1893	1892	1898	-0.051
2:39:05	1901	1890	1904	1898	1899	1907	1898	1893	1892	1898	-0.040
2:39:10	1902	1890	1904	1898	1899	1907	1898	1894	1892	1898	-0.042
2:39:15	1902	1890	1904	1898	1899	1907	1898	1893	1892	1898	-0.042
2:39:20	1902	1891	1904	1899	1900	1907	1899	1894	1892	1899	-0.055
2:39:25	1902	1891	1905	1899	1900	1908	1899	1894	1892	1899	-0.050
2:39:30	1903	1891	1905	1899	1900	1907	1899	1894	1892	1899	-0.049
2:39:35	1903	1891	1905	1899	1900	1907	1899	1894	1892	1899	-0.047
2:39:40	1903	1892	1905	1899	1900	1908	1899	1894	1893	1899	-0.035
2:39:45	1903	1892	1905	1899	1900	1908	1899	1894	1893	1899	-0.056
2:39:50	1903	1892	1905	1899	1900	1908	1899	1894	1893	1899	-0.058
2:39:55	1903	1892	1905	1899	1900	1908	1900	1894	1893	1899	-0.063
2:40:00	1903	1892	1905	1899	1900	1908	1899	1894	1893	1899	-0.055
2:40:05	1903	1892	1905	1899	1900	1908	1900	1894	1893	1899	-0.056
2:40:10	1903	1892	1905	1900	1900	1908	1900	1894	1894	1900	-0.066
2:40:15	1903	1892	1905	1900	1901	1908	1900	1895	1894	1900	-0.066
2:40:20	1903	1892	1905	1900	1901	1908	1900	1895	1894	1900	-0.066
2:40:25	1903	1892	1905	1900	1901	1908	1900	1895	1894	1900	-0.054
2:40:30	1903	1892	1905	1900	1900	1908	1900	1895	1894	1900	-0.051
2:40:35	1903	1892	1905	1900	1901	1909	1900	1895	1894	1900	-0.052
2:40:40	1903	1892	1905	1899	1900	1909	1900	1895	1894	1900	-0.055
2:40:45	1903	1892	1905	1899	1900	1909	1900	1895	1894	1900	-0.051
2:40:50	1903	1892	1905	1899	1901	1909	1900	1895	1894	1900	-0.045
2:40:55	1903	1892	1905	1899	1901	1909	1900	1896	1894	1900	-0.052
2:41:00	1903	1892	1905	1900	1902	1910	1900	1896	1894	1900	-0.041
2:41:05	1904	1892	1905	1900	1902	1910	1900	1896	1895	1900	-0.050
2:41:10	1904	1892	1906	1900	1902	1910	1901	1896	1895	1900	-0.044
2:41:15	1904	1893	1906	1900	1902	1910	1901	1896	1895	1901	-0.043
2:41:20	1904	1893	1906	1900	1902	1910	1901	1896	1895	1901	-0.050
2:41:25	1904	1892	1906	1900	1902	1909	1901	1896	1895	1901	-0.039
2:41:30	1904	1893	1906	1900	1902	1909	1902	1896	1895	1901	-0.070
2:41:35	1904	1893	1906	1900	1902	1909	1902	1897	1895	1901	-0.048
2:41:40	1904	1893	1907	1900	1902	1910	1902	1897	1895	1901	-0.041
2:41:45	1904	1893	1907	1900	1902	1910	1902	1897	1895	1901	-0.032
2:41:50	1904	1893	1907	1900	1902	1910	1902	1896	1896	1901	-0.055
2:41:55	1904	1893	1907	1901	1903	1910	1902	1897	1896	1901	-0.077
2:42:00	1904	1893	1907	1900	1903	1910	1902	1897	1896	1901	-0.063
2:42:05	1904	1893	1906	1900	1903	1910	1902	1896	1896	1901	-0.065
2:42:10	1904	1893	1907	1900	1903	1910	1901	1897	1896	1901	-0.064
2:42:15	1903	1893	1907	1900	1903	1910	1901	1897	1895	1901	-0.056
2:42:20	1903	1893	1906	1900	1902	1910	1901	1896	1895	1901	-0.058
2:42:25	1903	1893	1906	1900	1902	1910	1901	1897	1895	1901	-0.057
2:42:30	1903	1893	1906	1900	1902	1910	1901	1897	1895	1901	-0.051
2:42:35	1903	1893	1906	1900	1902	1910	1901	1897	1895	1901	-0.046
2:42:40	1903	1893	1906	1900	1902	1910	1901	1897	1895	1901	-0.049
2:42:45	1903	1893	1906	1900	1902	1910	1901	1897	1895	1901	-0.047
2:42:50	1904	1893	1907	1900	1903	1911	1902	1897	1896	1901	-0.040
2:42:55	1904	1893	1907	1901	1903	1911	1902	1898	1896	1902	-0.052
2:43:00	1905	1893	1907	1901	1903	1911	1902	1898	1896	1902	-0.050
2:43:05	1905	1894	1907	1901	1903	1911	1902	1898	1896	1902	-0.046
2:43:10	1905	1894	1908	1901	1903	1911	1902	1898	1896	1902	-0.042
2:43:15	1905	1894	1908	1901	1904	1912	1903	1898	1897	1902	-0.046
2:43:20	1906	1894	1908	1902	1904	1912	1903	1899	1897	1903	-0.044
2:43:25	1906	1894	1909	1902	1904	1912	1903	1899	1897	1903	-0.042
2:43:30	1906	1894	1909	1902	1904	1912	1903	1899	1897	1903	-0.047
2:43:35	1906	1895	1909	1902	1904	1912	1904	1899	1897	1903	-0.048
2:43:40	1907	1895	1909	1902	1904	1912	1904	1899	1897	1903	-0.049
2:43:45	1907	1895	1909	1902	1904	1912	1904	1899	1898	1903	-0.045
2:43:50	1907	1895	1910	1903	1905	1913	1905	1900	1898	1904	-0.048
2:43:55	1907	1895	1910	1903	1905	1913	1905	1900	1898	1904	-0.058

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
2:44:00	1908	1895	1910	1903	1905	1913	1905	1900	1898	1904	-0.058
2:44:05	1908	1895	1910	1903	1905	1914	1905	1900	1898	1904	-0.064
2:44:10	1907	1896	1909	1903	1905	1913	1905	1900	1898	1904	-0.068
2:44:15	1907	1895	1909	1903	1905	1913	1904	1900	1898	1904	-0.067
2:44:20	1907	1895	1909	1903	1905	1913	1904	1900	1898	1904	-0.075
2:44:25	1907	1895	1909	1903	1905	1913	1904	1900	1898	1904	-0.053
2:44:30	1907	1895	1909	1903	1905	1913	1904	1900	1898	1904	-0.060
2:44:35	1907	1895	1909	1903	1905	1913	1904	1900	1898	1904	-0.059
2:44:40	1907	1895	1909	1903	1905	1913	1904	1900	1898	1904	-0.063
2:44:45	1907	1895	1909	1902	1905	1912	1903	1899	1897	1903	-0.063
2:44:50	1907	1895	1909	1902	1905	1912	1903	1900	1898	1903	-0.058
2:44:55	1907	1895	1909	1902	1905	1912	1903	1899	1897	1903	-0.053
2:45:00	1907	1895	1909	1902	1905	1912	1903	1899	1897	1903	-0.059
2:45:05	1907	1895	1909	1902	1905	1912	1903	1899	1897	1903	-0.061
2:45:10	1907	1895	1909	1903	1905	1912	1903	1899	1897	1903	-0.064
2:45:15	1907	1895	1909	1903	1905	1912	1904	1899	1898	1904	-0.053
2:45:20	1907	1895	1909	1903	1905	1912	1904	1899	1898	1904	-0.052
2:45:25	1907	1895	1910	1903	1905	1912	1904	1899	1898	1904	-0.068
2:45:30	1907	1896	1910	1903	1905	1912	1904	1899	1898	1904	-0.057
2:45:35	1907	1896	1910	1903	1905	1912	1904	1899	1898	1904	-0.058
2:45:40	1907	1896	1910	1903	1905	1912	1903	1899	1897	1904	-0.057
2:45:45	1908	1896	1910	1903	1905	1912	1904	1899	1898	1904	-0.062
2:45:50	1907	1896	1911	1904	1906	1913	1904	1899	1898	1904	-0.055
2:45:55	1908	1896	1910	1904	1905	1913	1904	1899	1898	1904	-0.051
2:46:00	1908	1896	1910	1904	1906	1913	1904	1899	1898	1904	-0.051
2:46:05	1909	1896	1911	1904	1906	1913	1905	1900	1898	1905	-0.051
2:46:10	1909	1896	1911	1905	1907	1913	1905	1900	1898	1905	-0.058
2:46:15	1909	1896	1911	1905	1907	1914	1905	1900	1898	1905	-0.055
2:46:20	1909	1897	1911	1905	1907	1914	1905	1900	1898	1905	-0.052
2:46:25	1909	1897	1911	1905	1907	1914	1905	1900	1899	1905	-0.061
2:46:30	1909	1897	1911	1905	1907	1914	1905	1901	1899	1905	-0.057
2:46:35	1909	1897	1911	1905	1907	1914	1906	1901	1899	1905	-0.058
2:46:40	1910	1897	1911	1905	1907	1914	1906	1901	1899	1905	-0.058
2:46:45	1909	1897	1911	1905	1907	1914	1906	1901	1899	1906	-0.056
2:46:50	1909	1898	1911	1905	1907	1914	1906	1901	1899	1906	-0.057
2:46:55	1909	1898	1911	1906	1907	1914	1906	1901	1899	1905	-0.053
2:47:00	1908	1898	1911	1906	1907	1914	1906	1901	1900	1906	-0.066
2:47:05	1909	1898	1911	1906	1907	1914	1906	1901	1900	1906	-0.054
2:47:10	1909	1898	1912	1906	1907	1914	1906	1901	1900	1906	-0.057
2:47:15	1909	1899	1912	1906	1908	1914	1907	1901	1900	1906	-0.062
2:47:20	1909	1899	1912	1907	1908	1915	1907	1901	1900	1906	-0.054
2:47:25	1909	1899	1912	1907	1907	1915	1907	1901	1900	1906	-0.057
2:47:30	1909	1899	1912	1907	1908	1915	1907	1902	1900	1906	-0.070
2:47:35	1909	1899	1912	1906	1908	1915	1907	1901	1900	1906	-0.060
2:47:40	1909	1899	1912	1906	1908	1915	1907	1901	1900	1906	-0.070
2:47:45	1909	1899	1912	1907	1908	1915	1907	1901	1900	1906	-0.055
2:47:50	1909	1899	1912	1907	1908	1915	1907	1902	1900	1906	-0.060
2:47:55	1910	1899	1912	1907	1908	1916	1907	1902	1900	1907	-0.061
2:48:00	1910	1899	1912	1907	1908	1915	1907	1902	1900	1907	-0.062
2:48:05	1910	1900	1912	1907	1908	1916	1907	1902	1900	1907	-0.064
2:48:10	1910	1900	1912	1907	1908	1915	1907	1902	1900	1907	-0.064
2:48:15	1909	1899	1912	1907	1908	1915	1907	1902	1900	1907	-0.055
2:48:20	1909	1899	1912	1906	1908	1915	1906	1902	1900	1906	-0.062
2:48:25	1909	1899	1913	1907	1908	1915	1907	1902	1901	1907	-0.057
2:48:30	1910	1899	1913	1907	1908	1916	1907	1902	1901	1907	-0.056
2:48:35	1910	1899	1913	1907	1908	1915	1907	1902	1901	1907	-0.066
2:48:40	1910	1899	1913	1907	1908	1915	1907	1902	1901	1907	-0.083
2:48:45	1910	1899	1913	1907	1908	1916	1907	1902	1902	1907	-0.073
2:48:50	1911	1899	1913	1907	1908	1916	1907	1902	1902	1907	-0.059
2:48:55	1911	1899	1912	1907	1908	1916	1907	1902	1901	1907	-0.064
2:49:00	1910	1899	1913	1907	1908	1916	1907	1902	1902	1907	-0.055
2:49:05	1910	1899	1913	1907	1908	1916	1907	1902	1902	1907	-0.056
2:49:10	1911	1900	1913	1907	1908	1916	1907	1903	1901	1907	-0.058

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
2:49:15	1911	1900	1913	1907	1908	1916	1907	1903	1901	1907	-0.051
2:49:20	1911	1900	1913	1907	1909	1916	1907	1903	1902	1907	-0.050
2:49:25	1911	1900	1913	1907	1909	1916	1907	1903	1902	1908	-0.044
2:49:30	1911	1900	1914	1908	1909	1916	1908	1903	1902	1908	-0.047
2:49:35	1911	1900	1914	1908	1909	1916	1908	1903	1902	1908	-0.050
2:49:40	1912	1901	1914	1908	1909	1917	1909	1903	1902	1908	-0.050
2:49:45	1911	1901	1914	1909	1910	1917	1909	1903	1902	1908	-0.048
2:49:50	1911	1901	1914	1909	1910	1917	1909	1904	1902	1909	-0.052
2:49:55	1912	1901	1914	1909	1910	1917	1909	1904	1902	1909	-0.048
2:50:00	1913	1902	1914	1909	1911	1918	1910	1904	1903	1909	-0.052
2:50:05	1913	1902	1915	1909	1911	1918	1910	1904	1903	1909	-0.052
2:50:10	1913	1902	1915	1909	1911	1918	1910	1904	1903	1909	-0.054
2:50:15	1913	1902	1915	1909	1911	1918	1910	1904	1903	1909	-0.048
2:50:20	1913	1902	1915	1909	1911	1918	1911	1905	1903	1910	-0.048
2:50:25	1913	1902	1915	1909	1912	1918	1911	1905	1903	1910	-0.043
2:50:30	1913	1902	1916	1910	1912	1919	1911	1905	1904	1910	-0.048
2:50:35	1913	1902	1916	1910	1912	1919	1911	1905	1904	1910	-0.034
2:50:40	1913	1903	1916	1910	1912	1919	1911	1905	1904	1910	-0.032
2:50:45	1913	1903	1916	1911	1912	1919	1911	1906	1904	1911	-0.039
2:50:50	1914	1903	1916	1910	1913	1919	1912	1906	1904	1911	-0.038
2:50:55	1914	1903	1916	1910	1912	1919	1912	1906	1904	1911	-0.048
2:51:00	1914	1903	1916	1911	1912	1919	1912	1906	1904	1911	-0.055
2:51:05	1915	1903	1916	1910	1912	1919	1911	1906	1904	1911	-0.050
2:51:10	1914	1903	1916	1911	1913	1919	1912	1906	1905	1911	-0.074
2:51:15	1914	1903	1916	1910	1912	1919	1911	1906	1904	1911	-0.070
2:51:20	1914	1903	1916	1910	1912	1919	1911	1906	1904	1910	-0.074
2:51:25	1913	1902	1916	1910	1911	1918	1910	1905	1904	1910	-0.081
2:51:30	1912	1902	1915	1909	1911	1918	1909	1905	1903	1909	-0.082
2:51:35	1911	1902	1915	1909	1910	1918	1909	1904	1902	1909	-0.070
2:51:40	1911	1901	1914	1908	1910	1917	1908	1904	1902	1908	-0.070
2:51:45	1911	1901	1914	1907	1909	1916	1907	1903	1902	1908	-0.064
2:51:50	1910	1900	1913	1907	1909	1916	1907	1903	1901	1907	-0.072
2:51:55	1909	1900	1913	1907	1908	1916	1907	1903	1900	1907	-0.068
2:52:00	1909	1900	1913	1907	1908	1916	1906	1902	1900	1907	-0.067
2:52:05	1909	1899	1912	1907	1907	1915	1906	1902	1900	1906	-0.058
2:52:10	1908	1899	1912	1906	1907	1915	1906	1902	1899	1906	-0.061
2:52:15	1908	1899	1912	1906	1907	1914	1905	1902	1899	1906	-0.071
2:52:20	1908	1898	1911	1906	1907	1914	1905	1901	1899	1906	-0.076
2:52:25	1908	1898	1911	1905	1907	1914	1905	1901	1898	1905	-0.072
2:52:30	1908	1898	1911	1905	1906	1914	1905	1900	1898	1905	-0.073
2:52:35	1908	1898	1911	1905	1906	1913	1904	1900	1898	1905	-0.068
2:52:40	1907	1898	1911	1904	1906	1913	1904	1900	1898	1905	-0.077
2:52:45	1907	1898	1910	1904	1906	1913	1904	1900	1898	1904	-0.072
2:52:50	1907	1897	1910	1904	1905	1913	1904	1900	1897	1904	-0.064
2:52:55	1907	1897	1909	1903	1905	1913	1903	1900	1897	1904	-0.056
2:53:00	1907	1897	1909	1903	1905	1913	1903	1900	1897	1904	-0.076
2:53:05	1906	1896	1909	1903	1905	1913	1903	1900	1897	1904	-0.080
2:53:10	1907	1897	1910	1903	1905	1913	1903	1900	1897	1904	-0.078
2:53:15	1907	1897	1910	1904	1905	1914	1903	1900	1897	1904	-0.072
2:53:20	1907	1897	1910	1904	1905	1914	1903	1900	1898	1904	-0.072
2:53:25	1907	1898	1910	1904	1905	1915	1904	1900	1898	1905	-0.072
2:53:30	1908	1898	1911	1905	1906	1915	1904	1901	1898	1905	-0.067
2:53:35	1909	1898	1911	1905	1906	1916	1904	1901	1898	1905	-0.070
2:53:40	1909	1898	1911	1905	1906	1916	1905	1902	1899	1906	-0.069
2:53:45	1910	1899	1912	1906	1907	1916	1905	1902	1899	1906	-0.070
2:53:50	1910	1899	1912	1906	1907	1916	1905	1902	1899	1906	-0.072
2:53:55	1911	1899	1912	1906	1907	1916	1905	1902	1900	1906	-0.069
2:54:00	1911	1900	1913	1907	1908	1917	1906	1903	1900	1907	-0.070
2:54:05	1911	1900	1913	1908	1908	1917	1906	1903	1900	1907	-0.068
2:54:10	1912	1901	1913	1908	1909	1917	1907	1903	1900	1908	-0.074
2:54:15	1912	1901	1914	1908	1909	1917	1907	1903	1901	1908	-0.071
2:54:20	1912	1901	1914	1908	1910	1918	1907	1903	1901	1908	-0.071
2:54:25	1913	1902	1914	1909	1910	1918	1908	1904	1902	1909	-0.068

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time						Furnace					
(h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	FP 8	FP 9	Average	Pressure
2:54:30	1913	1902	1914	1909	1910	1918	1908	1904	1902	1909	-0.071
2:54:35	1913	1902	1915	1910	1911	1919	1908	1904	1902	1909	-0.073
2:54:40	1913	1902	1915	1910	1911	1919	1909	1904	1902	1909	-0.070
2:54:45	1913	1903	1915	1911	1911	1919	1909	1905	1903	1910	-0.072
2:54:50	1914	1903	1916	1911	1912	1920	1909	1905	1904	1910	-0.070
2:54:55	1914	1904	1916	1911	1913	1921	1910	1906	1904	1911	-0.075
2:55:00	1915	1904	1917	1912	1913	1921	1911	1906	1904	1912	-0.079
2:55:05	1916	1905	1918	1913	1914	1922	1911	1907	1905	1912	-0.081
2:55:10	1917	1906	1918	1913	1914	1922	1911	1907	1905	1913	-0.074
2:55:15	1918	1906	1918	1913	1914	1923	1912	1908	1906	1913	-0.066
2:55:20	1919	1907	1919	1914	1915	1923	1913	1909	1906	1914	-0.068
2:55:25	1919	1907	1920	1914	1916	1924	1913	1909	1907	1914	-0.071
2:55:30	1920	1908	1920	1915	1916	1925	1914	1910	1908	1915	-0.068
2:55:35	1920	1909	1921	1916	1917	1925	1914	1910	1909	1916	-0.066
2:55:40	1920	1910	1922	1917	1918	1926	1915	1911	1909	1916	-0.070
2:55:45	1921	1911	1922	1918	1918	1927	1916	1911	1910	1917	-0.068
2:55:50	1922	1911	1923	1918	1918	1927	1916	1912	1910	1917	-0.070
2:55:55	1922	1912	1923	1919	1918	1928	1917	1912	1911	1918	-0.062
2:56:00	1922	1912	1924	1920	1919	1928	1918	1913	1911	1919	-0.066
2:56:05	1923	1913	1924	1920	1919	1929	1918	1913	1912	1919	-0.074
2:56:10	1923	1913	1925	1920	1920	1929	1918	1914	1913	1919	-0.070
2:56:15	1923	1914	1925	1921	1920	1930	1919	1914	1913	1920	-0.063
2:56:20	1923	1914	1925	1921	1921	1930	1919	1915	1914	1920	-0.072
2:56:25	1923	1914	1926	1922	1922	1930	1920	1915	1914	1920	-0.071
2:56:30	1924	1914	1926	1922	1922	1930	1920	1915	1914	1920	-0.075
2:56:35	1924	1915	1926	1922	1922	1930	1920	1915	1914	1921	-0.071
2:56:40	1925	1915	1927	1922	1923	1931	1920	1916	1914	1921	-0.069
2:56:45	1925	1916	1927	1923	1923	1931	1921	1916	1915	1922	-0.070
2:56:50	1925	1916	1927	1923	1923	1931	1921	1916	1915	1922	-0.075
2:56:55	1926	1916	1928	1923	1924	1932	1921	1917	1916	1922	-0.068
2:57:00	1926	1916	1928	1924	1924	1932	1922	1917	1916	1923	-0.063
2:57:05	1926	1917	1928	1924	1925	1933	1922	1918	1916	1923	-0.065
2:57:10	1926	1917	1928	1924	1925	1933	1922	1918	1916	1923	-0.068
2:57:15	1927	1917	1929	1925	1925	1933	1922	1918	1917	1924	-0.065
2:57:20	1927	1917	1929	1925	1925	1934	1923	1918	1917	1924	-0.064
2:57:25	1927	1917	1929	1925	1925	1934	1923	1919	1918	1924	-0.064
2:57:30	1927	1917	1929	1925	1925	1934	1923	1919	1918	1924	-0.061
2:57:35	1928	1917	1930	1925	1925	1934	1923	1919	1918	1924	-0.066
2:57:40	1928	1918	1930	1925	1926	1934	1923	1920	1918	1925	-0.066
2:57:45	1927	1917	1929	1924	1925	1934	1923	1919	1918	1924	-0.074
2:57:50	1928	1918	1930	1925	1925	1934	1923	1919	1918	1924	-0.078
2:57:55	1928	1918	1930	1925	1925	1934	1923	1920	1918	1924	-0.076
2:58:00	1928	1918	1930	1925	1925	1934	1923	1919	1918	1924	-0.084
2:58:05	1928	1918	1930	1925	1925	1934	1923	1920	1918	1924	-0.071
2:58:10	1928	1918	1930	1925	1925	1934	1923	1919	1918	1924	-0.070
2:58:15	1928	1918	1930	1925	1925	1934	1923	1920	1918	1924	-0.074
2:58:20	1928	1918	1930	1925	1925	1934	1923	1920	1918	1924	-0.067
2:58:25	1928	1918	1930	1925	1926	1934	1924	1920	1918	1925	-0.066
2:58:30	1929	1918	1930	1925	1926	1934	1924	1920	1918	1925	-0.064
2:58:35	1929	1918	1931	1925	1926	1934	1924	1920	1918	1925	-0.062
2:58:40	1929	1918	1931	1925	1926	1934	1924	1920	1918	1925	-0.061
2:58:45	1929	1918	1931	1925	1927	1934	1924	1920	1918	1925	-0.062
2:58:50	1929	1918	1931	1925	1927	1934	1924	1920	1918	1925	-0.074
2:58:55	1928	1918	1931	1925	1926	1934	1924	1920	1918	1925	-0.067
2:59:00	1929	1918	1931	1925	1927	1935	1924	1920	1918	1925	-0.070
2:59:05	1929	1918	1931	1925	1927	1934	1924	1920	1918	1925	-0.072
2:59:10	1929	1919	1931	1926	1927	1935	1925	1921	1918	1925	-0.065
2:59:15	1929	1919	1931	1926	1927	1935	1925	1921	1918	1926	-0.064
2:59:20	1929	1919	1931	1926	1927	1935	1925	1921	1919	1926	-0.068
2:59:25	1929	1919	1931	1926	1927	1936	1925	1921	1919	1926	-0.067
2:59:30	1929	1919	1931	1926	1927	1936	1925	1921	1919	1926	-0.072
2:59:35	1929	1920	1932	1927	1927	1936	1925	1922	1919	1926	-0.066
2:59:40	1929	1920	1932	1927	1927	1936	1925	1922	1920	1926	-0.069

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
2:59:45	1929	1920	1932	1927	1927	1936	1925	1922	1920	1926	-0.068
2:59:50	1929	1920	1932	1927	1927	1936	1925	1922	1920	1926	-0.061
2:59:55	1930	1920	1933	1927	1927	1936	1926	1922	1920	1927	-0.064
3:00:00	1930	1920	1932	1927	1927	1936	1926	1922	1920	1927	-0.063
3:00:05	1930	1920	1933	1928	1928	1936	1926	1922	1920	1927	-0.066
3:00:10	1930	1920	1932	1928	1928	1936	1926	1922	1920	1927	-0.064
3:00:15	1930	1920	1933	1928	1929	1936	1927	1922	1920	1927	-0.064
3:00:20	1931	1921	1933	1928	1929	1936	1927	1922	1921	1927	-0.063
3:00:25	1931	1921	1933	1929	1929	1937	1927	1923	1921	1928	-0.066
3:00:30	1932	1922	1933	1929	1929	1937	1928	1923	1922	1928	-0.062
3:00:35	1932	1922	1933	1929	1929	1937	1928	1923	1922	1928	-0.066
3:00:40	1932	1922	1933	1929	1930	1938	1928	1923	1922	1929	-0.066
3:00:45	1932	1922	1934	1929	1930	1938	1929	1924	1923	1929	-0.064
3:00:50	1932	1923	1934	1930	1930	1938	1929	1925	1923	1929	-0.067
3:00:55	1933	1923	1934	1929	1930	1938	1929	1925	1923	1929	-0.066
3:01:00	1933	1923	1934	1930	1931	1938	1929	1925	1923	1929	-0.067
3:01:05	1933	1923	1934	1930	1931	1939	1929	1925	1923	1930	-0.068
3:01:10	1933	1923	1935	1930	1931	1939	1929	1925	1923	1930	-0.068
3:01:15	1933	1923	1935	1930	1931	1939	1929	1925	1923	1930	-0.063
3:01:20	1933	1924	1935	1931	1931	1939	1929	1925	1923	1930	-0.067
3:01:25	1932	1924	1935	1931	1931	1939	1930	1925	1923	1930	-0.061
3:01:30	1932	1924	1935	1931	1931	1939	1929	1925	1923	1930	-0.062
3:01:35	1932	1924	1935	1931	1931	1939	1929	1925	1923	1930	-0.063
3:01:40	1932	1923	1935	1931	1931	1939	1929	1925	1923	1930	-0.063
3:01:45	1933	1923	1934	1930	1931	1938	1929	1925	1923	1929	-0.066
3:01:50	1932	1923	1935	1930	1931	1939	1929	1925	1923	1930	-0.065
3:01:55	1932	1923	1934	1930	1931	1938	1929	1925	1923	1930	-0.073
3:02:00	1932	1923	1934	1930	1931	1938	1929	1925	1923	1930	-0.070
3:02:05	1932	1923	1934	1930	1931	1938	1929	1925	1923	1929	-0.069
3:02:10	1932	1922	1934	1930	1931	1938	1929	1925	1923	1929	-0.068
3:02:15	1932	1922	1934	1929	1931	1938	1929	1924	1923	1929	-0.063
3:02:20	1932	1922	1934	1929	1931	1938	1929	1924	1923	1929	-0.074
3:02:25	1932	1922	1934	1930	1931	1938	1929	1924	1923	1929	-0.075
3:02:30	1932	1922	1934	1929	1930	1937	1928	1924	1923	1929	-0.078
3:02:35	1932	1922	1934	1929	1930	1937	1928	1924	1922	1929	-0.071
3:02:40	1932	1922	1934	1929	1930	1937	1928	1924	1922	1929	-0.080
3:02:45	1932	1922	1934	1929	1931	1937	1928	1924	1922	1929	-0.076
3:02:50	1932	1922	1934	1929	1930	1937	1928	1923	1921	1928	-0.079
3:02:55	1931	1922	1934	1929	1930	1937	1928	1923	1921	1928	-0.075
3:03:00	1932	1922	1933	1929	1929	1937	1928	1923	1921	1928	-0.068
3:03:05	1931	1921	1934	1929	1929	1937	1928	1923	1921	1928	-0.058
3:03:10	1931	1922	1934	1929	1930	1937	1928	1924	1921	1928	-0.063
3:03:15	1931	1922	1934	1929	1930	1937	1928	1923	1921	1928	-0.066
3:03:20	1932	1922	1934	1929	1930	1937	1928	1923	1921	1928	-0.056
3:03:25	1932	1922	1934	1929	1930	1937	1928	1924	1921	1929	-0.060
3:03:30	1932	1922	1934	1929	1930	1937	1928	1924	1921	1929	-0.063
3:03:35	1932	1922	1934	1929	1930	1938	1928	1924	1921	1929	-0.061
3:03:40	1932	1922	1934	1929	1930	1938	1928	1924	1922	1929	-0.059
3:03:45	1933	1922	1934	1929	1930	1937	1928	1924	1922	1929	-0.059
3:03:50	1933	1922	1935	1929	1931	1938	1929	1925	1922	1929	-0.060
3:03:55	1933	1922	1935	1929	1931	1938	1929	1925	1922	1929	-0.064
3:04:00	1933	1922	1935	1929	1931	1938	1929	1925	1922	1929	-0.066
3:04:05	1933	1922	1935	1929	1931	1938	1929	1925	1922	1929	-0.067
3:04:10	1933	1922	1935	1929	1931	1939	1929	1925	1922	1929	-0.063
3:04:15	1933	1922	1935	1929	1931	1938	1929	1925	1922	1929	-0.076
3:04:20	1933	1922	1935	1929	1931	1938	1929	1925	1922	1929	-0.069
3:04:25	1933	1922	1935	1930	1931	1938	1929	1925	1923	1930	-0.074
3:04:30	1933	1922	1936	1930	1931	1938	1929	1925	1922	1930	-0.062
3:04:35	1932	1922	1935	1930	1931	1938	1929	1925	1922	1929	-0.065
3:04:40	1932	1922	1935	1929	1931	1937	1929	1924	1922	1929	-0.065
3:04:45	1932	1923	1936	1930	1931	1938	1929	1925	1923	1930	-0.058
3:04:50	1932	1923	1936	1930	1931	1938	1929	1925	1923	1930	-0.058
3:04:55	1933	1922	1936	1930	1931	1938	1929	1925	1923	1930	-0.063

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
3:05:00	1933	1923	1936	1930	1931	1938	1930	1925	1923	1930	-0.068
3:05:05	1933	1923	1936	1930	1931	1938	1929	1925	1923	1930	-0.078
3:05:10	1933	1923	1936	1930	1931	1938	1930	1925	1923	1930	-0.078
3:05:15	1933	1923	1936	1930	1931	1938	1929	1925	1923	1930	-0.088
3:05:20	1933	1923	1936	1930	1931	1939	1930	1925	1923	1930	-0.082
3:05:25	1933	1923	1936	1930	1931	1939	1929	1925	1923	1930	-0.087
3:05:30	1933	1923	1936	1930	1931	1938	1929	1925	1922	1930	-0.081
3:05:35	1933	1923	1936	1930	1931	1938	1929	1925	1922	1930	-0.086
3:05:40	1933	1923	1936	1930	1931	1938	1929	1925	1922	1930	-0.080
3:05:45	1933	1923	1935	1930	1931	1938	1929	1925	1922	1930	-0.080
3:05:50	1932	1923	1935	1930	1931	1939	1929	1926	1923	1930	-0.076
3:05:55	1932	1922	1935	1929	1931	1939	1929	1925	1922	1929	-0.074
3:06:00	1932	1922	1935	1929	1931	1939	1929	1926	1923	1930	-0.070
3:06:05	1932	1922	1935	1929	1931	1939	1929	1926	1923	1930	-0.077
3:06:10	1932	1922	1935	1929	1931	1939	1929	1926	1922	1929	-0.062
3:06:15	1933	1923	1936	1930	1932	1940	1929	1926	1923	1930	-0.066
3:06:20	1933	1923	1936	1930	1932	1940	1929	1926	1923	1930	-0.064
3:06:25	1933	1923	1936	1930	1932	1940	1929	1926	1923	1930	-0.066
3:06:30	1933	1923	1936	1930	1932	1940	1929	1926	1923	1930	-0.069
3:06:35	1933	1923	1936	1930	1932	1940	1930	1927	1924	1931	-0.061
3:06:40	1933	1923	1936	1930	1932	1940	1930	1927	1924	1931	-0.060
3:06:45	1934	1924	1936	1930	1932	1940	1930	1926	1924	1931	-0.064
3:06:50	1934	1924	1936	1930	1932	1940	1930	1927	1924	1931	-0.061
3:06:55	1935	1924	1936	1931	1932	1941	1930	1927	1924	1931	-0.065
3:07:00	1935	1924	1936	1931	1932	1940	1930	1927	1924	1931	-0.069
3:07:05	1934	1924	1936	1931	1932	1941	1930	1927	1924	1931	-0.068
3:07:10	1934	1924	1937	1931	1932	1941	1931	1927	1925	1931	-0.068
3:07:15	1934	1925	1937	1931	1932	1941	1931	1927	1925	1931	-0.066
3:07:20	1935	1925	1937	1932	1932	1941	1931	1927	1925	1932	-0.059
3:07:25	1936	1925	1937	1932	1932	1941	1931	1927	1925	1932	-0.067
3:07:30	1936	1925	1937	1932	1932	1941	1931	1927	1925	1932	-0.067
3:07:35	1935	1925	1938	1932	1933	1942	1932	1928	1925	1932	-0.073
3:07:40	1935	1925	1937	1932	1933	1941	1931	1927	1925	1932	-0.079
3:07:45	1935	1925	1938	1932	1933	1941	1932	1927	1925	1932	-0.078
3:07:50	1935	1926	1938	1933	1933	1942	1932	1928	1926	1932	-0.073
3:07:55	1935	1925	1937	1932	1933	1941	1931	1927	1925	1932	-0.074
3:08:00	1935	1925	1938	1932	1933	1941	1932	1928	1925	1932	-0.060
3:08:05	1935	1926	1938	1932	1933	1941	1932	1927	1925	1932	-0.069
3:08:10	1935	1925	1937	1932	1933	1941	1931	1927	1925	1932	-0.070
3:08:15	1935	1925	1938	1932	1933	1941	1931	1927	1925	1932	-0.062
3:08:20	1935	1925	1938	1932	1933	1941	1931	1927	1925	1932	-0.066
3:08:25	1935	1925	1938	1932	1933	1941	1931	1928	1925	1932	-0.072
3:08:30	1934	1925	1937	1932	1933	1941	1931	1928	1925	1932	-0.085
3:08:35	1934	1925	1937	1932	1933	1941	1931	1928	1925	1932	-0.073
3:08:40	1934	1925	1937	1932	1933	1941	1932	1928	1925	1932	-0.078
3:08:45	1934	1925	1937	1932	1932	1941	1931	1928	1925	1932	-0.067
3:08:50	1934	1925	1937	1932	1932	1941	1931	1928	1925	1932	-0.067
3:08:55	1935	1925	1937	1932	1933	1941	1932	1928	1925	1932	-0.070
3:09:00	1935	1925	1937	1932	1933	1941	1931	1928	1925	1932	-0.072
3:09:05	1935	1925	1938	1932	1933	1941	1932	1928	1925	1932	-0.068
3:09:10	1936	1926	1938	1933	1933	1941	1932	1928	1926	1933	-0.061
3:09:15	1936	1925	1938	1933	1933	1941	1932	1928	1926	1932	-0.066
3:09:20	1936	1925	1938	1933	1934	1941	1932	1928	1926	1932	-0.064
3:09:25	1936	1926	1938	1933	1934	1941	1932	1928	1926	1933	-0.066
3:09:30	1936	1926	1938	1933	1934	1941	1932	1928	1926	1933	-0.060
3:09:35	1936	1926	1938	1933	1934	1941	1932	1928	1925	1933	-0.057
3:09:40	1937	1926	1938	1933	1934	1942	1933	1929	1926	1933	-0.058
3:09:45	1937	1926	1939	1933	1934	1942	1933	1929	1926	1933	-0.064
3:09:50	1937	1927	1939	1933	1934	1943	1933	1929	1927	1933	-0.062
3:09:55	1937	1926	1939	1933	1934	1942	1933	1929	1927	1933	-0.064
3:10:00	1937	1927	1939	1934	1934	1943	1933	1929	1927	1934	-0.063
3:10:05	1937	1927	1939	1934	1935	1943	1933	1930	1927	1934	-0.064
3:10:10	1937	1927	1939	1934	1935	1943	1933	1930	1927	1934	-0.064

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	Furnace FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	FP 8	FP 9	Average	Pressure
3:10:15	1937	1927	1939	1934	1935	1943	1933	1930	1927	1934	-0.071
3:10:20	1937	1927	1939	1934	1935	1943	1933	1930	1927	1934	-0.072
3:10:25	1937	1927	1940	1934	1936	1943	1934	1930	1928	1934	-0.072
3:10:30	1937	1927	1940	1934	1936	1943	1933	1930	1927	1934	-0.068
3:10:35	1937	1927	1940	1934	1936	1943	1933	1930	1927	1934	-0.067
3:10:40	1937	1927	1940	1935	1936	1943	1934	1930	1927	1934	-0.069
3:10:45	1937	1928	1940	1935	1936	1943	1934	1930	1928	1934	-0.070
3:10:50	1937	1928	1940	1935	1936	1943	1934	1930	1928	1935	-0.069
3:10:55	1938	1928	1940	1935	1936	1943	1934	1930	1928	1934	-0.070
3:11:00	1938	1928	1940	1935	1936	1943	1934	1930	1928	1935	-0.068
3:11:05	1938	1928	1940	1935	1936	1943	1934	1930	1928	1935	-0.074
3:11:10	1937	1928	1940	1935	1936	1943	1934	1930	1929	1935	-0.068
3:11:15	1937	1928	1940	1935	1936	1943	1934	1930	1929	1935	-0.067
3:11:20	1937	1928	1940	1935	1936	1943	1934	1930	1929	1935	-0.068
3:11:25	1937	1928	1940	1935	1936	1944	1934	1930	1929	1935	-0.067
3:11:30	1938	1928	1940	1935	1936	1943	1934	1930	1928	1935	-0.066
3:11:35	1938	1928	1940	1934	1936	1943	1934	1930	1928	1935	-0.065
3:11:40	1938	1928	1940	1935	1936	1944	1934	1931	1929	1935	-0.068
3:11:45	1938	1928	1940	1935	1936	1944	1934	1931	1929	1935	-0.070
3:11:50	1938	1928	1940	1935	1936	1944	1934	1931	1929	1935	-0.068
3:11:55	1938	1928	1940	1935	1936	1944	1934	1931	1928	1935	-0.069
3:12:00	1939	1928	1940	1935	1936	1944	1934	1930	1928	1935	-0.068
3:12:05	1939	1929	1941	1935	1936	1944	1935	1931	1928	1935	-0.064
3:12:10	1939	1929	1941	1935	1936	1944	1935	1931	1928	1935	-0.062
3:12:15	1939	1929	1941	1936	1936	1944	1935	1931	1928	1935	-0.062
3:12:20	1938	1929	1941	1936	1936	1944	1935	1931	1928	1935	-0.066
3:12:25	1938	1929	1941	1936	1937	1944	1935	1931	1928	1935	-0.063
3:12:30	1938	1929	1941	1936	1936	1944	1935	1931	1928	1935	-0.054
3:12:35	1939	1929	1941	1936	1937	1945	1935	1931	1928	1935	-0.058
3:12:40	1938	1929	1941	1936	1937	1945	1936	1931	1929	1936	-0.055
3:12:45	1939	1929	1941	1936	1937	1945	1936	1931	1929	1936	-0.058
3:12:50	1939	1930	1942	1936	1937	1945	1936	1932	1929	1936	-0.049
3:12:55	1939	1930	1941	1936	1937	1945	1936	1931	1929	1936	-0.056
3:13:00	1939	1930	1942	1937	1937	1945	1936	1932	1929	1936	-0.086
3:13:05	1939	1930	1942	1937	1937	1945	1936	1932	1929	1936	-0.066
3:13:10	1939	1930	1942	1937	1937	1945	1935	1931	1929	1936	-0.067
3:13:15	1939	1930	1942	1937	1937	1945	1935	1931	1929	1936	-0.063
3:13:20	1939	1930	1942	1937	1937	1945	1935	1931	1929	1936	-0.059
3:13:25	1939	1930	1941	1936	1937	1945	1935	1931	1929	1936	-0.061
3:13:30	1939	1930	1941	1936	1937	1945	1935	1931	1929	1936	-0.060
3:13:35	1939	1930	1941	1936	1937	1945	1935	1931	1929	1936	-0.083
3:13:40	1939	1930	1941	1936	1937	1945	1936	1931	1929	1936	-0.064
3:13:45	1939	1930	1941	1937	1937	1945	1936	1932	1929	1936	-0.069
3:13:50	1939	1930	1941	1936	1937	1945	1936	1932	1929	1936	-0.064
3:13:55	1939	1930	1941	1936	1936	1945	1936	1932	1929	1936	-0.066
3:14:00	1939	1929	1941	1936	1936	1945	1935	1931	1929	1936	-0.061
3:14:05	1940	1930	1941	1936	1937	1945	1936	1932	1929	1936	-0.060
3:14:10	1939	1930	1942	1936	1937	1945	1936	1932	1929	1936	-0.067
3:14:15	1939	1930	1942	1936	1937	1945	1936	1932	1930	1936	-0.073
3:14:20	1939	1930	1942	1937	1938	1945	1936	1932	1930	1936	-0.061
3:14:25	1940	1930	1942	1937	1937	1945	1936	1932	1929	1936	-0.053
3:14:30	1940	1930	1941	1937	1937	1945	1936	1932	1929	1936	-0.056
3:14:35	1940	1930	1942	1937	1937	1945	1936	1932	1929	1937	-0.074
3:14:40	1939	1930	1942	1938	1938	1945	1936	1932	1930	1937	-0.058
3:14:45	1940	1931	1942	1938	1938	1945	1936	1932	1930	1937	-0.064
3:14:50	1940	1931	1943	1938	1938	1946	1936	1933	1930	1937	-0.065
3:14:55	1940	1931	1943	1938	1938	1946	1937	1933	1930	1937	-0.060
3:15:00	1941	1930	1942	1938	1938	1946	1937	1933	1930	1937	-0.064
3:15:05	1941	1931	1943	1938	1938	1947	1937	1933	1931	1938	-0.064
3:15:10	1941	1931	1943	1938	1939	1947	1937	1933	1931	1938	-0.060
3:15:15	1941	1931	1943	1938	1939	1947	1938	1934	1932	1938	-0.065
3:15:20	1941	1931	1943	1938	1939	1947	1937	1934	1931	1938	-0.061
3:15:25	1942	1932	1944	1939	1940	1948	1938	1934	1932	1939	-0.058

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
3:15:30	1943	1932	1944	1939	1940	1948	1938	1934	1932	1939	-0.063
3:15:35	1943	1932	1945	1939	1940	1948	1939	1935	1932	1939	-0.065
3:15:40	1943	1932	1945	1940	1940	1949	1939	1935	1932	1939	-0.066
3:15:45	1943	1933	1945	1940	1941	1948	1939	1935	1932	1939	-0.062
3:15:50	1943	1933	1945	1940	1941	1949	1939	1935	1932	1940	-0.057
3:15:55	1943	1933	1945	1940	1941	1949	1939	1935	1932	1940	-0.061
3:16:00	1943	1933	1945	1940	1941	1949	1940	1936	1933	1940	-0.054
3:16:05	1943	1934	1946	1940	1941	1949	1940	1936	1933	1940	-0.068
3:16:10	1943	1934	1946	1940	1942	1949	1940	1936	1933	1940	-0.061
3:16:15	1944	1934	1946	1940	1942	1949	1940	1936	1933	1940	-0.067
3:16:20	1944	1934	1946	1941	1942	1949	1940	1936	1933	1941	-0.054
3:16:25	1944	1934	1946	1941	1941	1949	1940	1936	1933	1940	-0.056
3:16:30	1944	1934	1946	1941	1942	1949	1940	1936	1934	1941	-0.061
3:16:35	1944	1934	1946	1941	1941	1949	1940	1936	1934	1941	-0.072
3:16:40	1944	1934	1947	1941	1942	1950	1940	1936	1934	1941	-0.066
3:16:45	1943	1934	1946	1941	1942	1949	1940	1936	1934	1941	-0.062
3:16:50	1944	1934	1947	1941	1943	1950	1940	1936	1934	1941	-0.063
3:16:55	1943	1933	1947	1941	1942	1949	1940	1936	1934	1940	-0.056
3:17:00	1944	1934	1947	1941	1942	1949	1940	1936	1934	1941	-0.064
3:17:05	1944	1934	1947	1941	1943	1950	1940	1936	1934	1941	-0.057
3:17:10	1944	1934	1947	1941	1943	1949	1941	1936	1934	1941	-0.054
3:17:15	1945	1934	1947	1941	1943	1950	1941	1936	1934	1941	-0.052
3:17:20	1944	1934	1947	1941	1943	1950	1941	1936	1934	1941	-0.060
3:17:25	1945	1935	1947	1942	1943	1950	1941	1937	1935	1941	-0.068
3:17:30	1945	1934	1947	1941	1943	1950	1941	1937	1935	1941	-0.065
3:17:35	1945	1935	1947	1942	1943	1950	1941	1937	1935	1942	-0.063
3:17:40	1945	1935	1948	1942	1944	1950	1941	1937	1935	1942	-0.064
3:17:45	1946	1935	1948	1942	1944	1951	1941	1937	1935	1942	-0.063
3:17:50	1946	1935	1948	1942	1944	1951	1941	1937	1935	1942	-0.056
3:17:55	1946	1935	1948	1943	1944	1951	1942	1938	1935	1942	-0.062
3:18:00	1946	1935	1948	1943	1944	1951	1941	1938	1935	1942	-0.081
3:18:05	1946	1936	1948	1943	1944	1951	1942	1938	1935	1942	-0.074
3:18:10	1945	1936	1948	1943	1944	1951	1942	1938	1935	1942	-0.085
3:18:15	1946	1936	1948	1943	1944	1951	1942	1938	1935	1942	-0.081
3:18:20	1945	1936	1948	1943	1944	1951	1941	1938	1935	1942	-0.083
3:18:25	1946	1936	1948	1943	1944	1951	1941	1938	1935	1942	-0.083
3:18:30	1945	1936	1948	1943	1944	1952	1941	1938	1934	1942	-0.076
3:18:35	1946	1936	1948	1943	1944	1952	1941	1938	1934	1942	-0.094
3:18:40	1945	1936	1948	1943	1943	1951	1941	1938	1935	1942	-0.074
3:18:45	1945	1936	1948	1943	1944	1951	1941	1938	1935	1942	-0.075
3:18:50	1946	1936	1948	1943	1944	1951	1941	1938	1935	1942	-0.068
3:18:55	1946	1937	1949	1943	1944	1952	1941	1938	1935	1943	-0.070
3:19:00	1946	1936	1948	1943	1944	1951	1941	1938	1935	1943	-0.066
3:19:05	1946	1936	1948	1943	1944	1952	1941	1938	1936	1943	-0.056
3:19:10	1946	1936	1948	1943	1944	1952	1942	1938	1936	1943	-0.040
3:19:15	1946	1936	1949	1943	1944	1952	1942	1938	1936	1943	-0.073
3:19:20	1946	1936	1949	1943	1944	1952	1942	1939	1936	1943	-0.062
3:19:25	1946	1937	1949	1943	1944	1952	1942	1939	1936	1943	-0.051
3:19:30	1946	1936	1949	1943	1944	1952	1942	1938	1936	1943	-0.069
3:19:35	1947	1937	1949	1943	1945	1952	1943	1939	1936	1943	-0.057
3:19:40	1947	1937	1949	1944	1945	1952	1943	1939	1936	1943	-0.065
3:19:45	1947	1937	1949	1944	1945	1952	1943	1939	1936	1944	-0.068
3:19:50	1947	1938	1950	1944	1945	1953	1943	1940	1936	1944	-0.064
3:19:55	1947	1937	1949	1944	1945	1953	1943	1939	1936	1944	-0.064
3:20:00	1948	1937	1950	1944	1945	1953	1943	1940	1937	1944	-0.064
3:20:05	1948	1937	1950	1944	1946	1954	1943	1940	1937	1944	-0.064
3:20:10	1948	1937	1950	1944	1945	1953	1943	1940	1937	1944	-0.065
3:20:15	1948	1938	1950	1944	1945	1954	1943	1940	1937	1944	-0.070
3:20:20	1948	1938	1950	1945	1945	1954	1943	1940	1938	1944	-0.072
3:20:25	1948	1938	1949	1945	1945	1954	1943	1940	1938	1944	-0.069
3:20:30	1948	1938	1950	1945	1945	1954	1943	1940	1938	1944	-0.072
3:20:35	1948	1938	1950	1945	1945	1954	1944	1940	1938	1944	-0.083
3:20:40	1948	1937	1950	1945	1945	1954	1943	1940	1938	1944	-0.074

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
3:20:45	1948	1938	1950	1945	1945	1954	1943	1940	1938	1944	-0.077
3:20:50	1947	1938	1950	1945	1946	1954	1944	1940	1938	1945	-0.081
3:20:55	1947	1938	1950	1945	1946	1954	1944	1941	1938	1945	-0.076
3:21:00	1947	1938	1950	1945	1946	1954	1943	1940	1937	1944	-0.072
3:21:05	1947	1938	1950	1945	1946	1954	1943	1940	1937	1944	-0.069
3:21:10	1948	1938	1950	1945	1946	1954	1944	1941	1937	1945	-0.069
3:21:15	1947	1938	1950	1945	1946	1954	1944	1941	1938	1945	-0.061
3:21:20	1948	1938	1950	1945	1947	1954	1944	1941	1938	1945	-0.063
3:21:25	1948	1938	1950	1946	1947	1954	1944	1941	1938	1945	-0.074
3:21:30	1948	1939	1950	1946	1947	1954	1944	1941	1938	1945	-0.062
3:21:35	1948	1939	1950	1945	1946	1954	1944	1941	1938	1945	-0.071
3:21:40	1948	1938	1950	1945	1946	1954	1944	1941	1938	1945	-0.084
3:21:45	1948	1939	1950	1946	1946	1954	1944	1941	1938	1945	-0.071
3:21:50	1948	1938	1950	1945	1946	1954	1944	1941	1938	1945	-0.070
3:21:55	1948	1939	1950	1945	1946	1954	1944	1941	1938	1945	-0.078
3:22:00	1948	1939	1951	1945	1947	1954	1944	1941	1938	1945	-0.081
3:22:05	1948	1939	1950	1946	1947	1954	1944	1941	1938	1945	-0.073
3:22:10	1948	1939	1951	1945	1947	1953	1944	1941	1938	1945	-0.075
3:22:15	1948	1939	1950	1946	1947	1954	1944	1941	1938	1945	-0.070
3:22:20	1948	1939	1950	1945	1947	1953	1944	1941	1938	1945	-0.076
3:22:25	1948	1939	1950	1945	1947	1954	1944	1941	1938	1945	-0.072
3:22:30	1948	1939	1950	1946	1947	1954	1944	1941	1938	1945	-0.080
3:22:35	1948	1939	1951	1946	1947	1954	1944	1941	1938	1945	-0.086
3:22:40	1948	1939	1951	1946	1947	1954	1944	1941	1938	1945	-0.080
3:22:45	1948	1939	1951	1946	1947	1954	1944	1941	1938	1945	-0.076
3:22:50	1948	1939	1951	1946	1947	1954	1944	1941	1938	1945	-0.077
3:22:55	1949	1939	1951	1946	1947	1954	1945	1941	1938	1946	-0.077
3:23:00	1949	1939	1952	1946	1947	1954	1945	1941	1938	1946	-0.074
3:23:05	1949	1939	1952	1946	1947	1954	1945	1941	1938	1946	-0.070
3:23:10	1949	1939	1952	1946	1947	1955	1945	1941	1938	1946	-0.069
3:23:15	1949	1939	1951	1946	1947	1955	1945	1942	1938	1946	-0.072
3:23:20	1949	1939	1952	1947	1947	1955	1945	1942	1939	1946	-0.071
3:23:25	1950	1939	1952	1946	1948	1955	1945	1942	1939	1946	-0.084
3:23:30	1949	1939	1952	1946	1948	1955	1945	1942	1938	1946	-0.084
3:23:35	1949	1939	1952	1946	1948	1955	1945	1942	1938	1946	-0.080
3:23:40	1949	1940	1952	1946	1948	1955	1945	1942	1938	1946	-0.074
3:23:45	1949	1940	1952	1947	1948	1955	1945	1942	1939	1946	-0.079
3:23:50	1950	1940	1952	1947	1948	1955	1945	1942	1939	1946	-0.070
3:23:55	1950	1940	1952	1947	1948	1955	1945	1942	1939	1946	-0.076
3:24:00	1950	1940	1952	1947	1948	1955	1945	1942	1939	1946	-0.068
3:24:05	1950	1940	1952	1947	1948	1956	1946	1942	1939	1947	-0.068
3:24:10	1950	1940	1952	1947	1948	1956	1946	1942	1939	1947	-0.075
3:24:15	1950	1941	1952	1947	1948	1956	1946	1942	1939	1947	-0.069
3:24:20	1950	1941	1953	1948	1949	1956	1946	1943	1940	1947	-0.079
3:24:25	1949	1941	1952	1948	1949	1956	1946	1942	1940	1947	-0.086
3:24:30	1949	1941	1953	1948	1949	1956	1947	1943	1940	1947	-0.081
3:24:35	1949	1941	1953	1948	1949	1956	1946	1942	1940	1947	-0.103
3:24:40	1949	1941	1952	1948	1948	1956	1946	1942	1939	1947	-0.111
3:24:45	1950	1941	1952	1948	1948	1956	1946	1942	1940	1947	-0.074
3:24:50	1950	1941	1953	1948	1948	1956	1946	1942	1939	1947	-0.080
3:24:55	1950	1941	1953	1948	1948	1956	1946	1942	1940	1947	-0.074
3:25:00	1950	1941	1953	1949	1949	1957	1947	1943	1940	1948	-0.074
3:25:05	1951	1942	1954	1949	1949	1957	1947	1943	1941	1948	-0.088
3:25:10	1952	1942	1954	1949	1949	1958	1947	1943	1941	1948	-0.093
3:25:15	1952	1943	1954	1950	1950	1958	1948	1944	1942	1949	-0.085
3:25:20	1952	1943	1955	1950	1950	1958	1948	1944	1942	1949	-0.082
3:25:25	1953	1943	1955	1950	1951	1959	1948	1945	1942	1949	-0.074
3:25:30	1953	1943	1955	1950	1951	1959	1949	1945	1942	1950	-0.071
3:25:35	1954	1943	1956	1951	1951	1959	1949	1945	1943	1950	-0.074
3:25:40	1954	1944	1956	1951	1952	1959	1949	1945	1943	1950	-0.074
3:25:45	1954	1944	1956	1951	1952	1959	1950	1946	1944	1951	-0.074
3:25:50	1954	1945	1956	1952	1953	1959	1950	1946	1944	1951	-0.076
3:25:55	1954	1945	1957	1952	1953	1960	1950	1947	1944	1951	-0.082

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Furnace Temperature (°F), and Furnace Pressure (in. water)

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Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
3:26:00	1954	1945	1957	1952	1954	1960	1950	1947	1944	1952	-0.078
3:26:05	1954	1946	1958	1953	1954	1960	1951	1947	1945	1952	-0.074
3:26:10	1955	1946	1958	1954	1955	1961	1951	1948	1945	1952	-0.075
3:26:15	1955	1946	1958	1954	1955	1961	1951	1948	1945	1953	-0.078
3:26:20	1956	1947	1958	1954	1955	1962	1951	1948	1945	1953	-0.074
3:26:25	1956	1947	1958	1954	1955	1962	1952	1948	1946	1953	-0.074
3:26:30	1957	1947	1959	1954	1955	1962	1952	1949	1946	1953	-0.076
3:26:35	1957	1947	1959	1954	1955	1962	1952	1949	1946	1954	-0.076
3:26:40	1957	1947	1959	1954	1955	1963	1952	1949	1947	1954	-0.070
3:26:45	1957	1948	1959	1954	1956	1963	1952	1949	1947	1954	-0.070
3:26:50	1957	1948	1960	1955	1956	1963	1953	1949	1947	1954	-0.072
3:26:55	1958	1949	1960	1956	1956	1964	1954	1950	1947	1955	-0.068
3:27:00	1958	1949	1960	1956	1956	1963	1954	1950	1947	1955	-0.073
3:27:05	1958	1949	1961	1956	1957	1964	1954	1950	1947	1955	-0.063
3:27:10	1959	1950	1961	1956	1957	1964	1954	1951	1948	1956	-0.066
3:27:15	1959	1949	1961	1956	1957	1964	1954	1951	1948	1956	-0.068
3:27:20	1959	1950	1962	1956	1958	1965	1955	1951	1949	1956	-0.075
3:27:25	1959	1950	1962	1956	1958	1965	1955	1952	1949	1956	-0.083
3:27:30	1960	1950	1962	1957	1958	1965	1955	1952	1949	1956	-0.083
3:27:35	1960	1950	1962	1957	1958	1965	1955	1952	1949	1956	-0.075
3:27:40	1959	1950	1962	1957	1958	1966	1955	1952	1949	1957	-0.079
3:27:45	1960	1950	1962	1957	1958	1966	1956	1952	1950	1957	-0.073
3:27:50	1960	1950	1962	1957	1958	1966	1956	1953	1950	1957	-0.071
3:27:55	1960	1951	1963	1957	1959	1967	1956	1953	1950	1957	-0.071
3:28:00	1961	1951	1963	1958	1959	1967	1956	1953	1950	1957	-0.075
3:28:05	1961	1951	1963	1958	1959	1967	1956	1953	1950	1958	-0.078
3:28:10	1961	1951	1963	1958	1959	1967	1956	1954	1951	1958	-0.082
3:28:15	1961	1952	1963	1958	1960	1967	1957	1954	1951	1958	-0.085
3:28:20	1961	1951	1963	1958	1959	1967	1956	1953	1951	1958	-0.095
3:28:25	1962	1952	1963	1958	1959	1967	1956	1954	1951	1958	-0.092
3:28:30	1962	1952	1963	1958	1959	1967	1956	1954	1951	1958	-0.085
3:28:35	1962	1952	1963	1958	1959	1967	1956	1954	1951	1958	-0.077
3:28:40	1962	1952	1963	1958	1959	1967	1956	1953	1950	1958	-0.077
3:28:45	1962	1952	1964	1958	1959	1968	1957	1954	1951	1958	-0.090
3:28:50	1962	1952	1964	1958	1959	1967	1957	1954	1951	1958	-0.090
3:28:55	1962	1952	1963	1958	1959	1967	1957	1954	1950	1958	-0.084
3:29:00	1962	1952	1964	1958	1959	1967	1957	1954	1951	1958	-0.073
3:29:05	1962	1952	1964	1958	1959	1967	1957	1954	1951	1958	-0.074
3:29:10	1962	1952	1964	1959	1959	1968	1957	1954	1951	1958	-0.078
3:29:15	1963	1952	1963	1959	1959	1968	1957	1954	1951	1958	-0.080
3:29:20	1963	1952	1964	1959	1960	1968	1957	1954	1952	1959	-0.082
3:29:25	1963	1952	1964	1959	1960	1968	1957	1954	1952	1959	-0.080
3:29:30	1963	1952	1964	1959	1960	1969	1958	1955	1952	1959	-0.076
3:29:35	1963	1953	1965	1959	1960	1969	1958	1955	1952	1959	-0.077
3:29:40	1963	1953	1965	1959	1960	1969	1958	1955	1953	1960	-0.072
3:29:45	1963	1953	1965	1959	1960	1968	1958	1955	1953	1959	-0.074
3:29:50	1963	1953	1965	1960	1961	1969	1958	1955	1953	1960	-0.060
3:29:55	1963	1953	1965	1960	1961	1969	1958	1955	1953	1960	-0.060
3:30:00	1963	1954	1966	1960	1962	1969	1959	1956	1954	1960	-0.062
3:30:05	1963	1954	1966	1961	1962	1969	1959	1956	1954	1960	-0.074
3:30:10	1964	1954	1966	1961	1962	1970	1959	1956	1954	1961	-0.071
3:30:15	1964	1954	1966	1961	1962	1970	1959	1956	1954	1961	-0.071
3:30:20	1963	1954	1966	1961	1962	1970	1959	1956	1953	1960	-0.070
3:30:25	1964	1955	1966	1962	1963	1970	1960	1957	1954	1961	-0.067
3:30:30	1964	1955	1967	1962	1963	1970	1960	1957	1954	1961	-0.058
3:30:35	1964	1955	1967	1962	1963	1970	1960	1957	1954	1961	-0.058
3:30:40	1965	1956	1967	1962	1963	1971	1961	1958	1955	1962	-0.062
3:30:45	1965	1955	1967	1962	1963	1971	1961	1957	1955	1962	-0.068
3:30:50	1965	1956	1968	1963	1964	1972	1961	1958	1956	1962	-0.069
3:30:55	1965	1956	1968	1963	1964	1972	1961	1958	1955	1962	-0.066
3:31:00	1965	1956	1968	1963	1964	1972	1961	1958	1956	1963	-0.060
3:31:05	1965	1956	1968	1963	1965	1972	1962	1958	1956	1963	-0.073
3:31:10	1965	1957	1968	1963	1964	1971	1962	1958	1956	1963	-0.054

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Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
3:31:15	1965	1956	1968	1963	1965	1971	1962	1958	1956	1963	-0.069
3:31:20	1965	1957	1968	1964	1965	1972	1962	1958	1956	1963	-0.067
3:31:25	1966	1957	1969	1964	1965	1972	1962	1958	1956	1963	-0.070
3:31:30	1966	1957	1969	1964	1965	1972	1962	1958	1956	1963	-0.074
3:31:35	1966	1957	1968	1964	1965	1972	1962	1958	1956	1963	-0.072
3:31:40	1966	1958	1969	1964	1965	1972	1962	1959	1956	1963	-0.065
3:31:45	1967	1958	1969	1965	1965	1972	1962	1959	1956	1964	-0.066
3:31:50	1966	1958	1969	1965	1965	1972	1962	1959	1956	1964	-0.074
3:31:55	1966	1958	1969	1965	1965	1972	1962	1959	1957	1964	-0.071
3:32:00	1967	1958	1969	1965	1966	1972	1963	1959	1957	1964	-0.074
3:32:05	1967	1958	1969	1965	1965	1973	1963	1959	1957	1964	-0.070
3:32:10	1967	1959	1970	1965	1966	1973	1963	1960	1958	1964	-0.070
3:32:15	1967	1958	1969	1965	1966	1973	1963	1959	1957	1964	-0.076
3:32:20	1967	1958	1969	1965	1966	1973	1963	1959	1957	1964	-0.067
3:32:25	1968	1959	1970	1966	1967	1973	1964	1960	1958	1965	-0.073
3:32:30	1968	1959	1970	1966	1967	1973	1964	1960	1958	1965	-0.071
3:32:35	1968	1959	1970	1966	1967	1973	1964	1960	1958	1965	-0.070
3:32:40	1968	1959	1970	1966	1966	1973	1964	1960	1958	1965	-0.078
3:32:45	1968	1958	1970	1965	1966	1973	1963	1960	1957	1964	-0.079
3:32:50	1968	1959	1970	1966	1966	1974	1963	1960	1957	1965	-0.084
3:32:55	1968	1959	1970	1966	1966	1974	1963	1960	1958	1965	-0.086
3:33:00	1968	1959	1970	1966	1966	1974	1963	1960	1957	1965	-0.089
3:33:05	1968	1959	1970	1965	1966	1974	1963	1960	1958	1965	-0.085
3:33:10	1968	1958	1970	1965	1966	1974	1963	1960	1958	1965	-0.080
3:33:15	1968	1958	1970	1965	1966	1974	1963	1960	1957	1965	-0.071
3:33:20	1967	1958	1970	1965	1965	1974	1963	1960	1957	1964	-0.080
3:33:25	1968	1958	1970	1965	1966	1974	1963	1960	1958	1965	-0.086
3:33:30	1967	1958	1970	1965	1966	1974	1963	1960	1957	1964	-0.090
3:33:35	1967	1958	1970	1965	1966	1974	1963	1960	1957	1964	-0.096
3:33:40	1967	1958	1970	1965	1966	1974	1962	1960	1957	1964	-0.090
3:33:45	1967	1958	1970	1965	1966	1973	1962	1960	1957	1964	-0.086
3:33:50	1966	1958	1970	1965	1966	1973	1962	1959	1957	1964	-0.090
3:33:55	1967	1958	1970	1965	1966	1973	1962	1960	1957	1964	-0.078
3:34:00	1967	1958	1970	1964	1966	1973	1962	1960	1957	1964	-0.078
3:34:05	1967	1958	1970	1964	1966	1973	1962	1960	1957	1964	-0.073
3:34:10	1967	1958	1970	1964	1966	1974	1963	1960	1957	1964	-0.080
3:34:15	1967	1958	1970	1964	1966	1974	1963	1960	1957	1964	-0.082
3:34:20	1967	1958	1970	1964	1966	1974	1963	1960	1957	1964	-0.081
3:34:25	1968	1958	1970	1964	1966	1974	1963	1960	1957	1964	-0.092
3:34:30	1967	1958	1970	1964	1966	1974	1963	1960	1957	1964	-0.084
3:34:35	1967	1958	1970	1964	1966	1974	1963	1960	1957	1964	-0.074
3:34:40	1967	1958	1970	1965	1966	1974	1963	1960	1957	1964	-0.080
3:34:45	1968	1958	1970	1965	1966	1973	1963	1960	1957	1964	-0.089
3:34:50	1967	1958	1970	1965	1966	1973	1963	1960	1956	1964	-0.094
3:34:55	1967	1958	1970	1965	1966	1973	1963	1960	1957	1964	-0.097
3:35:00	1967	1958	1970	1965	1966	1973	1963	1960	1956	1964	-0.094
3:35:05	1967	1958	1970	1965	1966	1973	1963	1960	1957	1964	-0.084
3:35:10	1967	1958	1970	1965	1966	1973	1963	1960	1957	1964	-0.090
3:35:15	1967	1958	1970	1964	1966	1974	1963	1960	1957	1964	-0.090
3:35:20	1967	1958	1970	1964	1966	1973	1963	1960	1957	1964	-0.091
3:35:25	1967	1958	1970	1964	1966	1973	1962	1960	1957	1964	-0.079
3:35:30	1967	1958	1970	1964	1966	1973	1962	1960	1956	1964	-0.077
3:35:35	1967	1959	1970	1964	1966	1974	1963	1960	1957	1964	-0.085
3:35:40	1967	1959	1970	1965	1966	1974	1963	1960	1957	1964	-0.081
3:35:45	1967	1958	1970	1964	1966	1973	1962	1960	1956	1964	-0.081
3:35:50	1968	1959	1970	1964	1966	1974	1963	1960	1957	1964	-0.085
3:35:55	1967	1959	1970	1965	1966	1974	1963	1960	1957	1965	-0.068
3:36:00	1967	1959	1970	1965	1967	1974	1963	1960	1957	1965	-0.069
3:36:05	1968	1959	1971	1965	1967	1975	1963	1961	1957	1965	-0.068
3:36:10	1968	1960	1971	1966	1967	1975	1964	1961	1958	1965	-0.073
3:36:15	1968	1960	1971	1966	1967	1975	1964	1961	1958	1966	-0.078
3:36:20	1969	1960	1971	1966	1967	1975	1964	1962	1958	1966	-0.076
3:36:25	1969	1960	1972	1967	1967	1976	1965	1962	1958	1966	-0.076

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Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
3:36:30	1969	1961	1972	1967	1968	1976	1965	1962	1958	1966	-0.077
3:36:35	1970	1960	1972	1967	1968	1976	1965	1962	1958	1966	-0.076
3:36:40	1970	1961	1972	1967	1968	1976	1965	1962	1959	1967	-0.076
3:36:45	1970	1961	1972	1967	1968	1976	1966	1962	1959	1967	-0.074
3:36:50	1970	1961	1973	1967	1969	1976	1966	1963	1959	1967	-0.081
3:36:55	1970	1961	1973	1967	1969	1977	1966	1963	1959	1967	-0.083
3:37:00	1970	1961	1973	1967	1970	1976	1966	1963	1959	1967	-0.084
3:37:05	1970	1961	1973	1967	1969	1976	1965	1963	1959	1967	-0.080
3:37:10	1970	1961	1973	1968	1970	1976	1966	1963	1959	1967	-0.079
3:37:15	1970	1961	1973	1968	1970	1976	1966	1963	1959	1967	-0.075
3:37:20	1970	1961	1973	1968	1970	1977	1966	1963	1960	1968	-0.078
3:37:25	1971	1962	1974	1968	1970	1977	1966	1963	1960	1968	-0.084
3:37:30	1971	1962	1973	1968	1970	1976	1966	1963	1960	1968	-0.076
3:37:35	1971	1962	1974	1968	1970	1976	1967	1963	1960	1968	-0.076
3:37:40	1971	1963	1974	1969	1970	1977	1967	1964	1960	1968	-0.072
3:37:45	1971	1963	1974	1969	1970	1977	1967	1964	1961	1968	-0.070
3:37:50	1971	1963	1974	1970	1971	1977	1967	1964	1961	1969	-0.071
3:37:55	1971	1963	1975	1970	1971	1977	1967	1964	1961	1969	-0.067
3:38:00	1971	1963	1975	1970	1971	1978	1967	1965	1962	1969	-0.070
3:38:05	1971	1963	1975	1970	1971	1978	1968	1965	1962	1969	-0.070
3:38:10	1972	1963	1974	1969	1971	1978	1968	1964	1962	1969	-0.071
3:38:15	1972	1964	1975	1970	1971	1978	1968	1965	1962	1970	-0.072
3:38:20	1972	1963	1975	1970	1971	1978	1968	1965	1962	1969	-0.072
3:38:25	1972	1964	1976	1970	1972	1978	1969	1965	1962	1970	-0.075
3:38:30	1973	1964	1976	1970	1972	1979	1969	1965	1963	1970	-0.075
3:38:35	1973	1964	1976	1970	1972	1978	1969	1965	1963	1970	-0.069
3:38:40	1973	1964	1976	1971	1972	1979	1969	1966	1963	1970	-0.073
3:38:45	1973	1964	1976	1971	1972	1979	1969	1966	1963	1970	-0.071
3:38:50	1974	1964	1976	1971	1972	1979	1970	1966	1963	1970	-0.077
3:38:55	1974	1964	1976	1971	1972	1980	1970	1966	1964	1971	-0.080
3:39:00	1974	1965	1976	1971	1972	1980	1970	1966	1964	1971	-0.074
3:39:05	1974	1965	1976	1971	1972	1979	1970	1966	1964	1971	-0.075
3:39:10	1974	1965	1976	1971	1972	1979	1970	1966	1964	1971	-0.074
3:39:15	1974	1965	1976	1971	1972	1980	1970	1967	1964	1971	-0.074
3:39:20	1974	1964	1976	1972	1972	1980	1970	1967	1964	1971	-0.084
3:39:25	1974	1964	1976	1971	1972	1980	1970	1967	1964	1971	-0.079
3:39:30	1974	1964	1976	1971	1972	1980	1970	1967	1964	1971	-0.077
3:39:35	1974	1964	1976	1971	1972	1980	1970	1967	1964	1971	-0.070
3:39:40	1973	1964	1976	1972	1973	1980	1970	1967	1965	1971	-0.074
3:39:45	1974	1964	1976	1972	1973	1980	1970	1967	1964	1971	-0.072
3:39:50	1974	1964	1977	1972	1973	1980	1970	1967	1964	1971	-0.070
3:39:55	1974	1965	1977	1972	1973	1980	1970	1967	1964	1971	-0.068
3:40:00	1974	1965	1977	1972	1973	1980	1970	1967	1964	1971	-0.065
3:40:05	1974	1965	1977	1972	1973	1980	1970	1967	1964	1971	-0.065
3:40:10	1975	1965	1977	1972	1973	1980	1970	1967	1964	1972	-0.069
3:40:15	1975	1966	1977	1973	1973	1981	1970	1967	1964	1972	-0.064
3:40:20	1975	1966	1977	1972	1973	1981	1971	1967	1965	1972	-0.075
3:40:25	1975	1965	1977	1973	1973	1981	1971	1967	1964	1972	-0.062
3:40:30	1975	1966	1978	1973	1973	1981	1971	1967	1965	1972	-0.069
3:40:35	1976	1966	1978	1973	1973	1981	1971	1967	1965	1972	-0.072
3:40:40	1976	1966	1978	1973	1974	1981	1971	1967	1965	1972	-0.074
3:40:45	1976	1966	1978	1973	1974	1981	1971	1968	1965	1972	-0.065
3:40:50	1976	1966	1978	1973	1974	1981	1971	1968	1965	1972	-0.062
3:40:55	1976	1966	1978	1973	1974	1981	1971	1968	1965	1972	-0.066
3:41:00	1976	1967	1978	1973	1974	1981	1972	1968	1965	1972	-0.066
3:41:05	1976	1966	1978	1973	1973	1981	1971	1967	1964	1972	-0.063
3:41:10	1976	1967	1978	1973	1974	1982	1972	1968	1965	1973	-0.064
3:41:15	1977	1966	1978	1973	1974	1981	1971	1968	1965	1973	-0.060
3:41:20	1976	1967	1978	1974	1974	1982	1972	1968	1966	1973	-0.064
3:41:25	1976	1966	1978	1973	1974	1982	1972	1968	1966	1973	-0.060
3:41:30	1976	1967	1978	1974	1974	1982	1972	1968	1966	1973	-0.059
3:41:35	1976	1967	1978	1974	1974	1982	1972	1968	1966	1973	-0.067
3:41:40	1976	1967	1978	1974	1974	1982	1972	1968	1966	1973	-0.059

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Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
3:41:45	1976	1967	1978	1974	1975	1982	1972	1968	1966	1973	-0.070
3:41:50	1976	1967	1979	1974	1975	1982	1972	1968	1966	1973	-0.065
3:41:55	1976	1967	1978	1974	1975	1982	1972	1968	1966	1973	-0.064
3:42:00	1976	1967	1979	1974	1975	1982	1972	1969	1966	1973	-0.066
3:42:05	1976	1967	1979	1974	1976	1982	1972	1969	1966	1973	-0.066
3:42:10	1976	1968	1979	1975	1976	1982	1972	1969	1966	1974	-0.066
3:42:15	1976	1968	1979	1975	1975	1982	1972	1969	1967	1974	-0.068
3:42:20	1977	1968	1979	1975	1975	1982	1972	1969	1967	1974	-0.066
3:42:25	1977	1968	1979	1975	1976	1983	1972	1969	1967	1974	-0.061
3:42:30	1977	1968	1979	1975	1976	1983	1973	1970	1967	1974	-0.065
3:42:35	1977	1968	1980	1975	1976	1983	1973	1970	1967	1974	-0.070
3:42:40	1977	1968	1980	1975	1976	1983	1973	1970	1967	1974	-0.070
3:42:45	1977	1968	1980	1975	1976	1983	1973	1970	1967	1974	-0.061
3:42:50	1977	1968	1979	1975	1976	1983	1973	1970	1967	1974	-0.068
3:42:55	1977	1968	1980	1975	1976	1983	1973	1970	1967	1974	-0.065
3:43:00	1977	1969	1980	1975	1976	1983	1974	1970	1967	1975	-0.060
3:43:05	1978	1969	1980	1976	1976	1983	1974	1970	1967	1975	-0.060
3:43:10	1978	1969	1980	1976	1976	1983	1974	1970	1968	1975	-0.057
3:43:15	1978	1969	1981	1976	1976	1983	1974	1970	1967	1975	-0.064
3:43:20	1978	1970	1981	1976	1976	1983	1974	1970	1967	1975	-0.062
3:43:25	1978	1970	1981	1976	1977	1983	1974	1970	1967	1975	-0.054
3:43:30	1978	1970	1981	1976	1977	1984	1975	1970	1968	1975	-0.060
3:43:35	1979	1970	1981	1977	1977	1984	1975	1971	1968	1976	-0.058
3:43:40	1979	1970	1982	1977	1978	1984	1976	1971	1968	1976	-0.062
3:43:45	1979	1970	1981	1976	1977	1984	1976	1971	1968	1976	-0.062
3:43:50	1979	1970	1982	1977	1978	1985	1976	1972	1968	1976	-0.068
3:43:55	1979	1970	1982	1977	1978	1985	1976	1972	1969	1977	-0.071
3:44:00	1979	1970	1982	1977	1978	1985	1976	1972	1969	1977	-0.058
3:44:05	1979	1971	1982	1977	1978	1985	1976	1972	1969	1977	-0.060
3:44:10	1979	1971	1983	1977	1978	1986	1976	1973	1969	1977	-0.054
3:44:15	1979	1971	1982	1977	1978	1986	1977	1973	1970	1977	-0.057
3:44:20	1979	1971	1983	1977	1979	1986	1977	1973	1970	1977	-0.056
3:44:25	1979	1971	1983	1977	1979	1986	1977	1973	1970	1977	-0.057
3:44:30	1980	1971	1983	1977	1979	1986	1977	1973	1970	1977	-0.049
3:44:35	1980	1971	1983	1977	1979	1986	1977	1974	1970	1977	-0.065
3:44:40	1981	1971	1984	1978	1979	1987	1977	1974	1971	1978	-0.057
3:44:45	1981	1971	1983	1978	1979	1986	1977	1974	1970	1978	-0.064
3:44:50	1981	1972	1984	1978	1980	1987	1978	1974	1971	1978	-0.065
3:44:55	1981	1972	1984	1979	1980	1987	1978	1974	1971	1978	-0.067
3:45:00	1981	1972	1984	1978	1980	1987	1978	1974	1971	1978	-0.067
3:45:05	1981	1972	1984	1979	1980	1986	1978	1974	1971	1978	-0.070
3:45:10	1981	1972	1984	1979	1980	1986	1978	1974	1971	1978	-0.056
3:45:15	1980	1972	1983	1979	1979	1986	1978	1974	1971	1978	-0.064
3:45:20	1981	1972	1984	1978	1980	1986	1978	1974	1971	1978	-0.060
3:45:25	1981	1972	1984	1979	1980	1986	1978	1974	1971	1978	-0.057
3:45:30	1981	1972	1984	1979	1980	1986	1978	1974	1972	1978	-0.060
3:45:35	1981	1972	1984	1979	1980	1987	1978	1974	1972	1978	-0.052
3:45:40	1981	1972	1984	1979	1980	1987	1978	1974	1972	1979	-0.067
3:45:45	1982	1972	1984	1979	1980	1987	1978	1974	1972	1979	-0.062
3:45:50	1982	1972	1984	1979	1980	1987	1978	1974	1972	1979	-0.068
3:45:55	1982	1972	1984	1979	1981	1987	1978	1975	1972	1979	-0.071
3:46:00	1982	1972	1984	1979	1981	1988	1978	1975	1972	1979	-0.076
3:46:05	1981	1972	1984	1978	1980	1988	1978	1975	1971	1978	-0.060
3:46:10	1982	1972	1984	1978	1981	1988	1978	1975	1972	1979	-0.063
3:46:15	1981	1972	1984	1978	1981	1988	1978	1975	1972	1979	-0.064
3:46:20	1982	1972	1984	1978	1981	1988	1978	1976	1972	1979	-0.054
3:46:25	1981	1972	1984	1978	1981	1988	1978	1976	1972	1979	-0.065
3:46:30	1982	1972	1984	1978	1981	1988	1978	1976	1972	1979	-0.067
3:46:35	1982	1972	1984	1978	1981	1988	1978	1976	1972	1979	-0.059
3:46:40	1982	1972	1984	1979	1981	1988	1978	1976	1972	1979	-0.060
3:46:45	1982	1972	1984	1979	1981	1989	1978	1976	1972	1979	-0.068
3:46:50	1982	1972	1984	1979	1981	1989	1978	1976	1972	1979	-0.058
3:46:55	1982	1972	1984	1979	1981	1989	1978	1976	1972	1979	-0.070

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time						Furnace					
(h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	FP 8	FP 9	Average	Pressure
3:47:00	1982	1973	1984	1979	1981	1988	1978	1976	1972	1979	-0.066
3:47:05	1982	1972	1984	1979	1980	1989	1978	1976	1972	1979	-0.070
3:47:10	1983	1972	1984	1979	1981	1989	1978	1976	1972	1979	-0.064
3:47:15	1982	1972	1984	1979	1980	1988	1978	1976	1972	1979	-0.070
3:47:20	1983	1973	1985	1979	1981	1989	1979	1976	1972	1980	-0.062
3:47:25	1983	1973	1984	1979	1981	1988	1978	1975	1972	1979	-0.059
3:47:30	1983	1973	1984	1979	1981	1988	1978	1976	1972	1979	-0.066
3:47:35	1983	1973	1985	1979	1981	1988	1978	1976	1972	1979	-0.066
3:47:40	1982	1973	1985	1979	1981	1988	1978	1976	1972	1979	-0.060
3:47:45	1983	1973	1985	1979	1981	1989	1979	1976	1972	1980	-0.057
3:47:50	1983	1973	1985	1979	1982	1989	1979	1976	1973	1980	-0.073
3:47:55	1983	1973	1985	1979	1982	1989	1979	1976	1972	1980	-0.074
3:48:00	1982	1973	1985	1979	1982	1989	1979	1976	1972	1980	-0.063
3:48:05	1983	1973	1985	1979	1981	1988	1979	1976	1972	1979	-0.052
3:48:10	1983	1973	1986	1979	1982	1989	1979	1976	1972	1980	-0.060
3:48:15	1983	1973	1986	1979	1982	1989	1979	1976	1972	1980	-0.062
3:48:20	1983	1974	1986	1979	1982	1989	1979	1976	1973	1980	-0.064
3:48:25	1984	1974	1986	1980	1982	1990	1979	1976	1973	1980	-0.071
3:48:30	1983	1974	1986	1980	1982	1990	1979	1976	1973	1980	-0.068
3:48:35	1984	1974	1986	1979	1982	1990	1979	1976	1973	1980	-0.061
3:48:40	1984	1974	1986	1980	1982	1990	1979	1977	1973	1980	-0.069
3:48:45	1983	1973	1986	1979	1982	1989	1979	1976	1972	1980	-0.072
3:48:50	1983	1974	1986	1979	1982	1989	1979	1976	1973	1980	-0.068
3:48:55	1983	1974	1986	1980	1982	1990	1979	1976	1973	1980	-0.065
3:49:00	1983	1974	1986	1980	1982	1990	1979	1976	1974	1981	-0.070
3:49:05	1983	1974	1986	1980	1982	1990	1979	1976	1974	1980	-0.064
3:49:10	1983	1974	1986	1980	1982	1989	1979	1976	1973	1980	-0.069
3:49:15	1983	1974	1986	1981	1982	1990	1980	1977	1974	1981	-0.070
3:49:20	1984	1974	1986	1980	1982	1989	1980	1977	1974	1981	-0.069
3:49:25	1983	1974	1986	1980	1982	1990	1980	1977	1974	1981	-0.063
3:49:30	1984	1974	1987	1981	1983	1990	1980	1977	1974	1981	-0.065
3:49:35	1984	1974	1987	1981	1983	1990	1981	1977	1974	1981	-0.059
3:49:40	1984	1974	1987	1981	1983	1990	1981	1977	1975	1981	-0.061
3:49:45	1984	1975	1988	1982	1984	1990	1981	1978	1975	1982	-0.060
3:49:50	1984	1975	1988	1982	1984	1991	1981	1978	1975	1982	-0.055
3:49:55	1984	1975	1988	1982	1983	1990	1981	1978	1975	1982	-0.070
3:50:00	1985	1975	1988	1982	1984	1991	1982	1978	1975	1982	-0.065
3:50:05	1984	1975	1988	1982	1983	1991	1982	1978	1975	1982	-0.055
3:50:10	1985	1976	1988	1982	1983	1991	1982	1978	1976	1982	-0.063
3:50:15	1985	1975	1988	1982	1983	1991	1982	1978	1975	1982	-0.058
3:50:20	1985	1976	1988	1982	1983	1991	1982	1978	1975	1982	-0.062
3:50:25	1986	1976	1988	1983	1984	1992	1982	1979	1976	1983	-0.058
3:50:30	1986	1976	1989	1983	1984	1992	1982	1979	1976	1983	-0.064
3:50:35	1986	1976	1989	1983	1985	1992	1983	1979	1976	1983	-0.057
3:50:40	1987	1977	1989	1983	1985	1992	1983	1979	1976	1983	-0.059
3:50:45	1987	1977	1989	1983	1985	1992	1983	1979	1976	1983	-0.060
3:50:50	1987	1977	1988	1983	1985	1992	1983	1979	1976	1983	-0.065
3:50:55	1987	1977	1989	1983	1985	1993	1983	1980	1976	1984	-0.055
3:51:00	1987	1978	1989	1984	1985	1993	1984	1980	1977	1984	-0.073
3:51:05	1987	1977	1989	1983	1985	1993	1983	1980	1977	1984	-0.050
3:51:10	1987	1978	1989	1984	1985	1993	1984	1980	1977	1984	-0.064
3:51:15	1987	1978	1989	1983	1985	1993	1983	1981	1977	1984	-0.080
3:51:20	1987	1978	1989	1984	1985	1994	1984	1981	1977	1984	-0.080
3:51:25	1987	1978	1989	1983	1985	1993	1983	1981	1977	1984	-0.088
3:51:30	1987	1978	1989	1984	1985	1993	1983	1980	1978	1984	-0.085
3:51:35	1987	1978	1989	1983	1985	1993	1983	1980	1977	1984	-0.078
3:51:40	1987	1977	1989	1983	1985	1993	1983	1980	1977	1984	-0.087
3:51:45	1986	1977	1988	1983	1985	1992	1982	1980	1977	1983	-0.082
3:51:50	1986	1977	1988	1983	1985	1992	1982	1979	1976	1983	-0.087
3:51:55	1986	1977	1989	1983	1985	1993	1982	1980	1977	1983	-0.105
3:52:00	1986	1977	1988	1983	1985	1992	1982	1979	1976	1983	-0.080
3:52:05	1985	1977	1988	1983	1985	1992	1981	1979	1976	1983	-0.074
3:52:10	1985	1977	1989	1983	1985	1992	1981	1979	1976	1983	-0.070

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time (h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	Furnace FP 6	FP 7	FP 8	FP 9	Average	Pressure
3:52:15	1986	1977	1988	1983	1984	1992	1982	1979	1976	1983	-0.071
3:52:20	1986	1977	1988	1983	1984	1992	1981	1979	1975	1983	-0.071
3:52:25	1986	1977	1989	1983	1984	1992	1982	1979	1976	1983	-0.075
3:52:30	1986	1976	1988	1983	1984	1992	1982	1979	1976	1983	-0.069
3:52:35	1986	1977	1988	1983	1984	1992	1982	1979	1976	1983	-0.069
3:52:40	1986	1977	1989	1984	1985	1992	1982	1979	1976	1983	-0.072
3:52:45	1986	1977	1988	1984	1985	1991	1982	1979	1976	1983	-0.069
3:52:50	1986	1977	1989	1984	1985	1991	1982	1979	1976	1983	-0.070
3:52:55	1986	1977	1989	1984	1986	1992	1983	1979	1976	1984	-0.078
3:53:00	1986	1977	1989	1984	1986	1992	1983	1979	1976	1984	-0.071
3:53:05	1986	1977	1989	1984	1986	1992	1982	1979	1976	1984	-0.074
3:53:10	1987	1978	1989	1984	1986	1992	1983	1980	1976	1984	-0.077
3:53:15	1987	1978	1989	1984	1986	1992	1982	1979	1976	1984	-0.073
3:53:20	1986	1978	1989	1984	1986	1992	1982	1979	1976	1984	-0.073
3:53:25	1986	1977	1990	1984	1986	1992	1982	1979	1976	1984	-0.080
3:53:30	1986	1977	1989	1984	1986	1992	1982	1979	1976	1984	-0.083
3:53:35	1987	1978	1990	1985	1986	1992	1983	1980	1976	1984	-0.075
3:53:40	1987	1977	1989	1984	1985	1992	1982	1979	1975	1983	-0.072
3:53:45	1987	1977	1989	1984	1985	1992	1983	1979	1976	1984	-0.067
3:53:50	1987	1977	1989	1984	1985	1992	1982	1979	1976	1983	-0.074
3:53:55	1987	1977	1989	1984	1985	1992	1982	1979	1976	1983	-0.073
3:54:00	1986	1977	1989	1984	1985	1992	1982	1979	1976	1984	-0.075
3:54:05	1986	1977	1989	1984	1985	1993	1983	1980	1976	1984	-0.079
3:54:10	1987	1977	1989	1984	1985	1993	1983	1980	1977	1984	-0.073
3:54:15	1987	1978	1989	1984	1985	1993	1983	1980	1977	1984	-0.075
3:54:20	1987	1978	1989	1984	1985	1992	1983	1980	1977	1984	-0.076
3:54:25	1987	1978	1990	1984	1985	1992	1983	1980	1976	1984	-0.069
3:54:30	1987	1978	1989	1984	1985	1992	1982	1979	1976	1984	-0.071
3:54:35	1987	1978	1990	1984	1985	1992	1983	1980	1977	1984	-0.074
3:54:40	1988	1978	1990	1985	1985	1992	1983	1980	1977	1984	-0.077
3:54:45	1988	1979	1990	1985	1986	1993	1983	1980	1977	1984	-0.069
3:54:50	1988	1979	1990	1985	1986	1993	1984	1980	1977	1985	-0.081
3:54:55	1988	1979	1990	1986	1986	1993	1984	1980	1977	1985	-0.092
3:55:00	1988	1979	1990	1986	1986	1994	1984	1981	1977	1985	-0.081
3:55:05	1988	1979	1990	1985	1986	1993	1984	1980	1977	1985	-0.075
3:55:10	1988	1979	1990	1985	1986	1993	1983	1980	1977	1985	-0.068
3:55:15	1988	1979	1990	1986	1986	1994	1984	1981	1978	1985	-0.071
3:55:20	1988	1979	1990	1985	1986	1993	1984	1981	1977	1985	-0.070
3:55:25	1988	1979	1990	1986	1987	1993	1984	1981	1978	1985	-0.071
3:55:30	1988	1979	1991	1986	1987	1994	1984	1981	1978	1985	-0.084
3:55:35	1989	1979	1990	1986	1987	1994	1984	1981	1978	1985	-0.087
3:55:40	1988	1979	1990	1986	1987	1994	1984	1981	1978	1985	-0.078
3:55:45	1988	1980	1990	1986	1987	1994	1984	1981	1978	1985	-0.077
3:55:50	1988	1980	1991	1986	1987	1994	1984	1982	1978	1986	-0.080
3:55:55	1988	1979	1990	1986	1986	1994	1984	1981	1978	1985	-0.075
3:56:00	1989	1979	1990	1986	1987	1994	1984	1982	1979	1986	-0.076
3:56:05	1988	1979	1991	1986	1987	1994	1984	1981	1978	1985	-0.076
3:56:10	1988	1979	1991	1986	1987	1994	1984	1981	1978	1985	-0.073
3:56:15	1988	1980	1991	1986	1987	1994	1984	1982	1978	1986	-0.075
3:56:20	1988	1980	1991	1986	1987	1994	1984	1981	1978	1986	-0.074
3:56:25	1988	1980	1991	1986	1987	1995	1984	1982	1978	1986	-0.070
3:56:30	1988	1980	1992	1987	1988	1995	1985	1982	1979	1986	-0.065
3:56:35	1988	1980	1991	1986	1988	1995	1985	1982	1979	1986	-0.067
3:56:40	1989	1981	1992	1987	1988	1995	1985	1982	1979	1987	-0.072
3:56:45	1989	1980	1992	1986	1988	1995	1985	1982	1979	1986	-0.068
3:56:50	1990	1980	1992	1987	1988	1995	1985	1983	1979	1987	-0.064
3:56:55	1990	1980	1992	1987	1988	1996	1985	1983	1979	1987	-0.066
3:57:00	1990	1981	1993	1988	1989	1997	1986	1983	1980	1987	-0.065
3:57:05	1991	1982	1993	1988	1990	1997	1986	1984	1981	1988	-0.071
3:57:10	1992	1982	1994	1988	1990	1997	1987	1984	1981	1988	-0.070
3:57:15	1993	1983	1995	1989	1991	1998	1988	1985	1982	1989	-0.070
3:57:20	1993	1983	1995	1990	1991	1999	1988	1986	1982	1990	-0.068
3:57:25	1994	1984	1996	1990	1992	2000	1989	1986	1983	1990	-0.063

Thermomass

Furnace Temperature (°F), and Furnace Pressure (in. water)

TEST DATE: November 9, 2011 **SwRI PROJECT NO.: 01.13918.01.301a**

FILE ID: 11-313Composite.csv **TEST TYPE: ASTM E 119**

Time	Furnace										
(h:m:s)	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	FP 8	FP 9	Average	Pressure
3:57:30	1994	1985	1997	1991	1992	2000	1990	1986	1984	1991	-0.062
3:57:35	1995	1986	1997	1992	1993	2001	1990	1987	1984	1992	-0.071
3:57:40	1996	1986	1997	1992	1994	2001	1991	1988	1985	1992	-0.071
3:57:45	1996	1986	1998	1993	1994	2002	1991	1988	1985	1993	-0.065
3:57:50	1997	1987	1999	1993	1995	2002	1992	1989	1986	1993	-0.062
3:57:55	1997	1988	2000	1994	1995	2003	1992	1989	1986	1994	-0.068
3:58:00	1998	1989	2000	1994	1995	2003	1993	1990	1986	1994	-0.061
3:58:05	1998	1989	2001	1995	1996	2004	1994	1990	1987	1995	-0.058
3:58:10	1999	1990	2001	1995	1997	2004	1994	1991	1988	1995	-0.060
3:58:15	1999	1990	2001	1996	1997	2004	1994	1991	1988	1996	-0.062
3:58:20	1999	1991	2001	1997	1997	2005	1995	1991	1988	1996	-0.064
3:58:25	1999	1991	2002	1997	1998	2005	1995	1992	1989	1996	-0.067
3:58:30	2000	1992	2003	1998	1999	2006	1996	1992	1989	1997	-0.060
3:58:35	2000	1991	2002	1997	1999	2006	1996	1992	1989	1997	-0.058
3:58:40	2000	1991	2003	1998	1999	2006	1996	1992	1990	1997	-0.060
3:58:45	2001	1992	2003	1998	2000	2006	1996	1993	1990	1998	-0.061
3:58:50	2001	1992	2003	1999	2000	2007	1997	1993	1990	1998	-0.060
3:58:55	2001	1992	2003	1999	2000	2007	1997	1993	1991	1998	-0.056
3:59:00	2001	1993	2004	1999	2001	2008	1997	1994	1991	1999	-0.061
3:59:05	2001	1993	2004	2000	2001	2008	1997	1994	1991	1999	-0.056
3:59:10	2002	1994	2004	2000	2001	2008	1998	1994	1992	1999	-0.062
3:59:15	2003	1993	2004	2000	2001	2008	1998	1994	1992	1999	-0.058
3:59:20	2003	1994	2005	2001	2001	2009	1998	1995	1992	2000	-0.054
3:59:25	2003	1995	2005	2001	2002	2009	1999	1995	1993	2000	-0.058
3:59:30	2003	1995	2006	2001	2002	2009	1999	1995	1993	2000	-0.060
3:59:35	2004	1995	2006	2001	2002	2009	2000	1996	1994	2001	-0.074
3:59:40	2004	1995	2006	2001	2002	2009	1999	1995	1993	2000	-0.061
3:59:45	2004	1995	2006	2002	2002	2009	2000	1996	1994	2001	-0.058
3:59:50	2004	1995	2006	2002	2002	2009	2000	1996	1994	2001	-0.062
3:59:55	2004	1995	2006	2002	2003	2009	2000	1996	1994	2001	-0.054
4:00:00	2004	1996	2007	2002	2003	2010	2001	1997	1994	2001	-0.062
4:00:05	2005	1996	2007	2002	2003	2010	2001	1997	1994	2002	-0.063
4:00:10	2005	1996	2008	2003	2003	2010	2001	1997	1994	2002	-0.087
0:00:00	2001	1994	2004	1999	2001	2005	1999	1994	1992	1999	-0.338

APPENDIX B

PHOTOGRAPHS

(CONSISTING OF 7 PAGES)

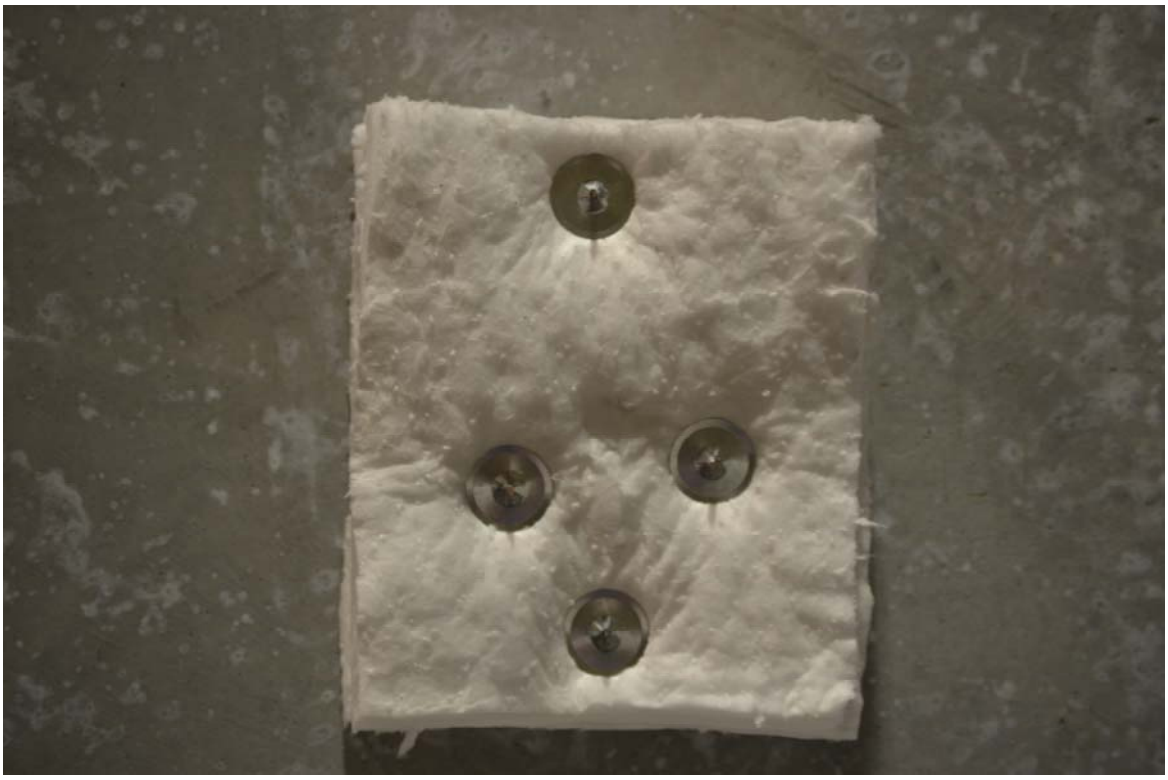

Figure B-1. Eyelet Protected with Ceramic Fiber Blanket.

Figure B-2. Close-Up of Unexposed Side of Wall prior to Testing.

Figure B-3. Close-Up of Unexposed Side of Wall prior to Testing Showing Steel Clip.

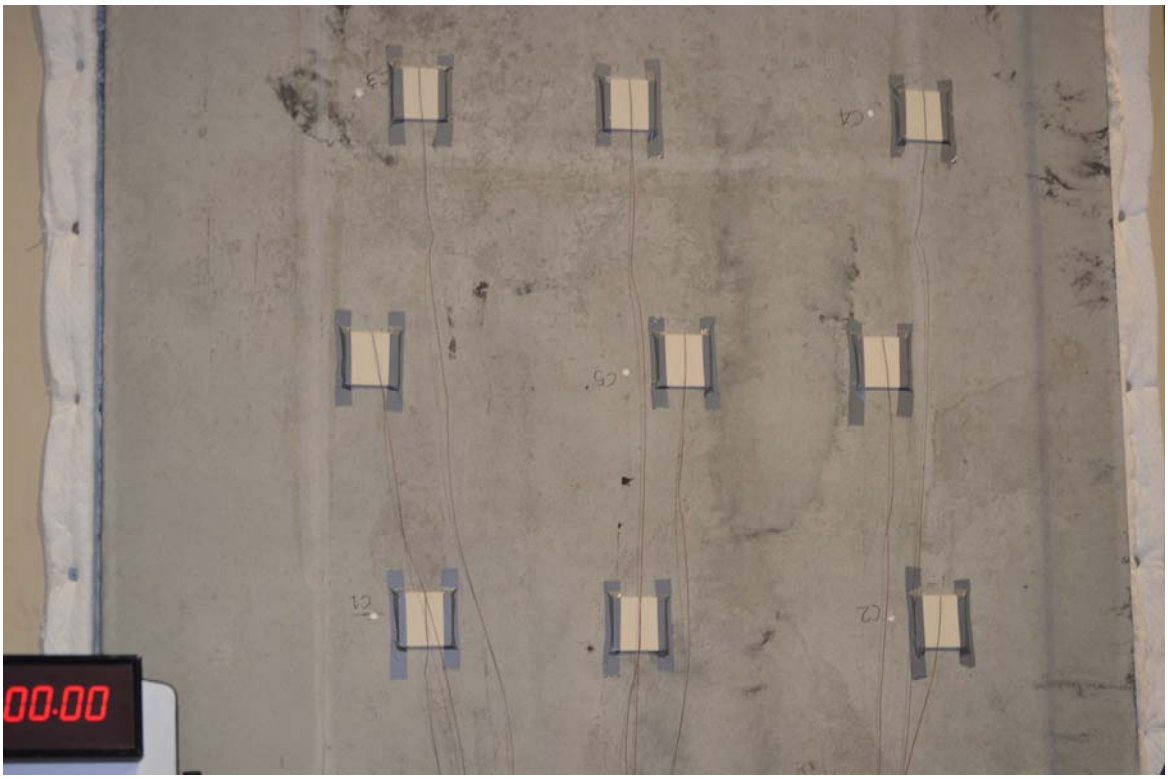

Figure B-4. View of Unexposed Side of Wall prior to Testing.

Figure B-5. View of Wall at 44 min.

Figure B-6. View of Wall Showing Steam Escaping from Left Side at 48 min.

Figure B-7. Close-Up Showing the Unexposed Wall Resting on the Test Frame at 136 min.

Figure B-8. Unexposed Wall at End of 4-hr Fire Test.

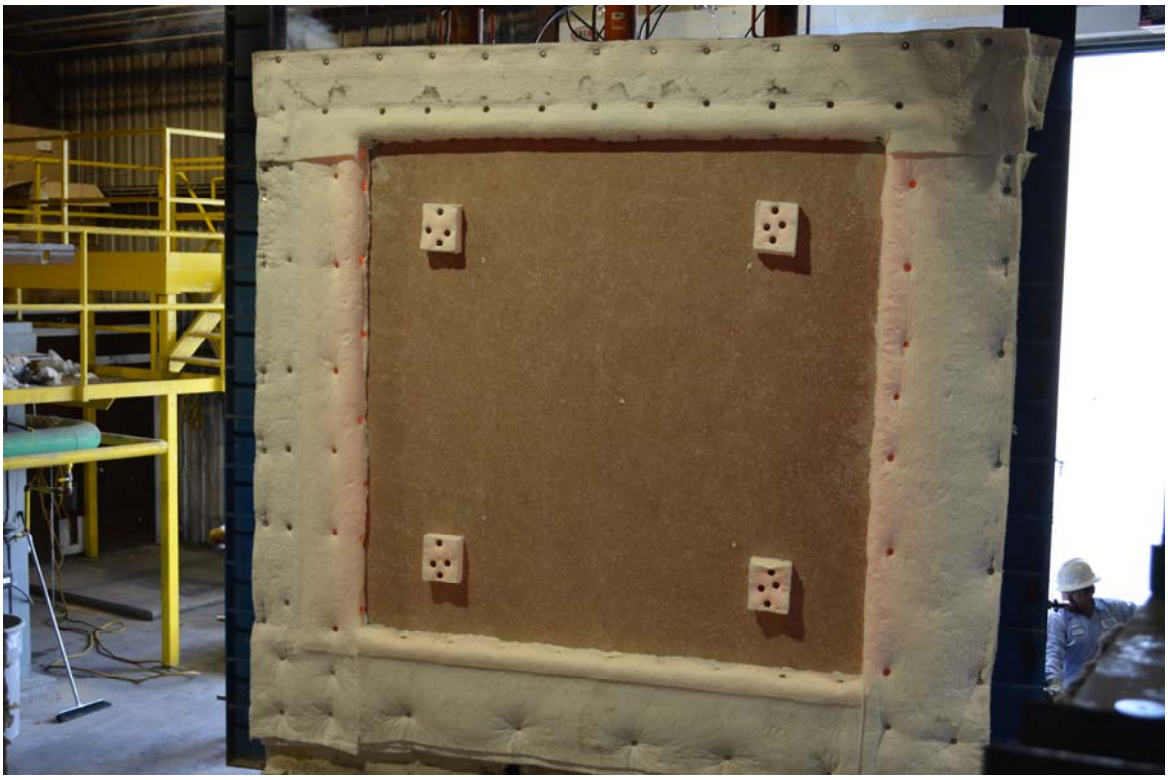

Figure B-9. Exposed Wall immediately following the Furnace Exposure.

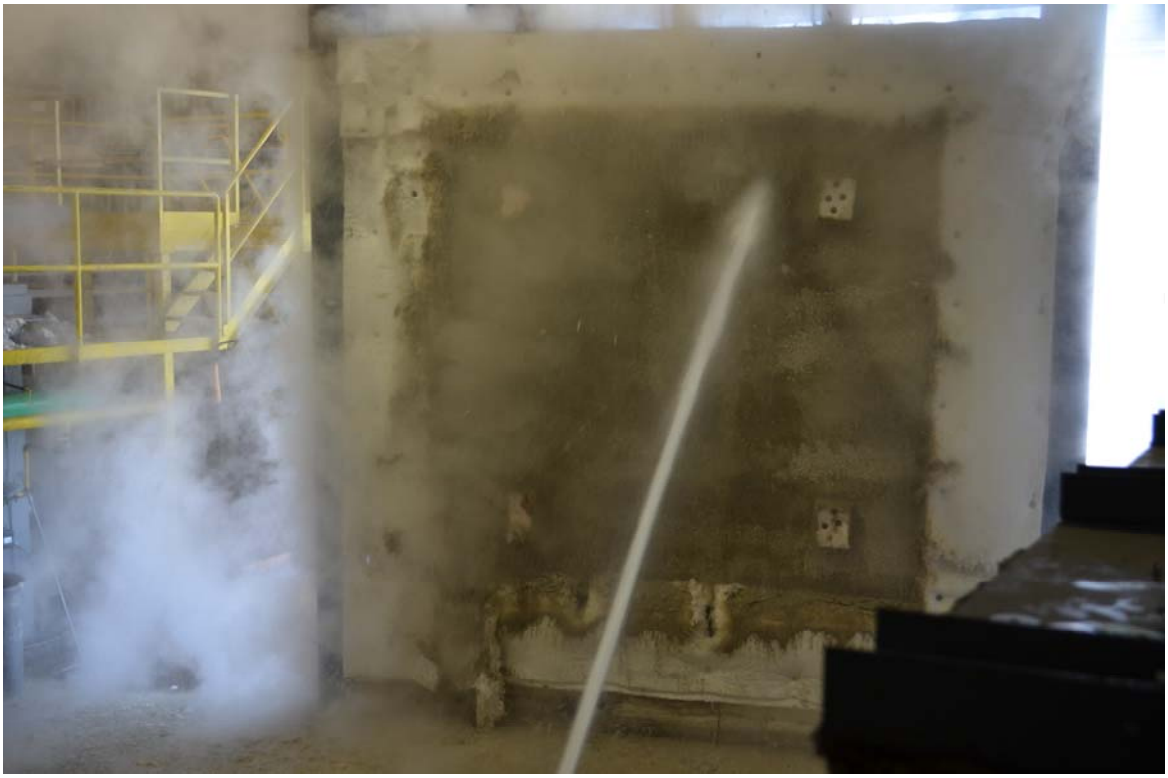

Figure B-10. Hose Stream Test

Figure B-11. Exposed Face following the Hose Stream Test.

Figure B-12. Unexposed Face following the Hose Stream Test.

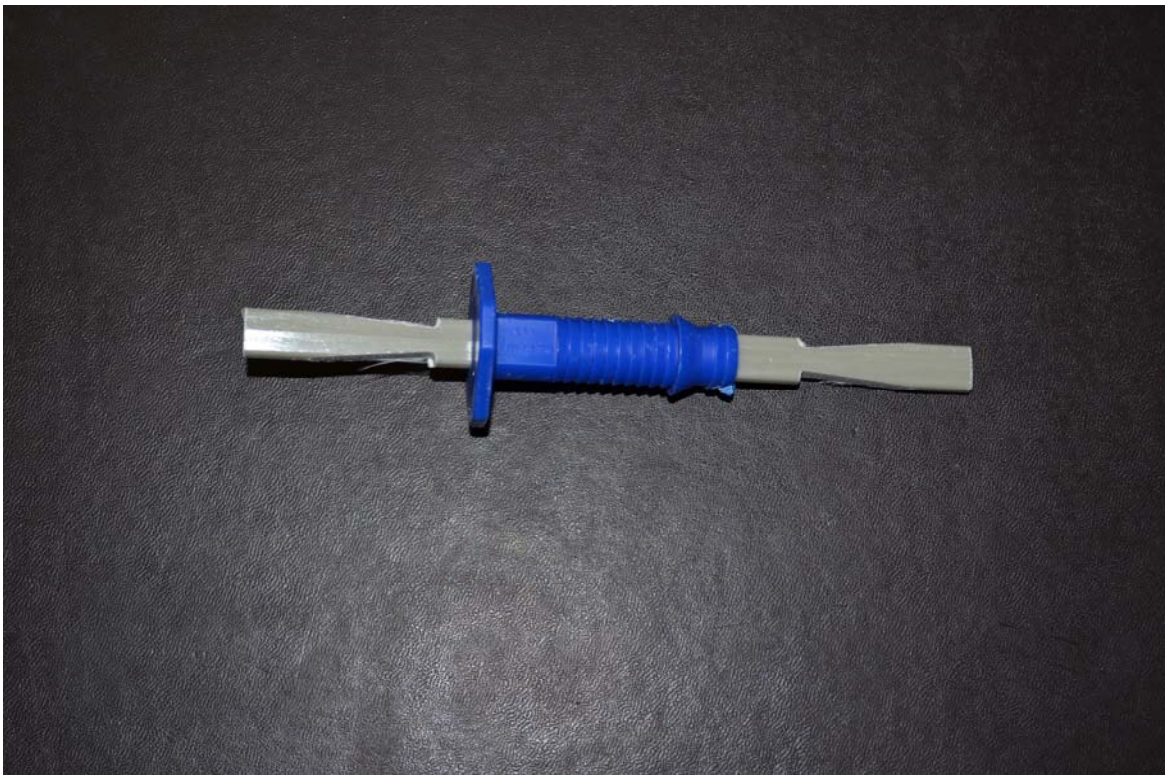

Figure B-13. View of *Thermomass MC/MS Connector.*

APPENDIX C

CLIENT-PROVIDED DRAWINGS

(CONSISTING OF 1 PAGE)

SECTION
FASCIA WYTHE
REINFORCING
STRUCTURAL WYTHE
REINFORCING
10'-0"
6x6-W2.9xW2.9
W.W.F.
4x4-W4.0xW4.0
W.W.F.
9'-11 3/4" x 3'-11"
9'-11 3/4" x 2'-1 3/4"
APPROVED
PROJECT: ASTM E119 FIRE TEST
INSULATION LAYOUT
SCALE: 3/16"=1'-0"
DRAWN BY: CMB
CHECKED BY: VS
PROJECT NO.: -
DATE: 06/05/08
REV.: N/A
PANEL DIMENSIONS SHOWN REPRESENT THE ACTUAL CONSTRUCTION DIMENSIONS. THE INSULATION DIMENSIONS HAVE BEEN ADJUSTED FOR A 1/4in. TOLERANCE AT ALL PANEL EDGES.
THIS PANEL DRAWING IS BASED ON THE USE OF FULLY FABRICATED INSULATION SHEETS. INSULATION PURCHASED WITHOUT FULL FABRICATION WILL HAVE TOLERANCES OF -1/16in. to +3/4in.
① ø 3/4" SCREW LIFTING INSERT (2)
© NON-STANDARD HOLE PATTERN
PANEL DESIGN INFORMATION
PANEL NO.: -
QUANTITY: 1
CONFIGURATION: 2 / 2 / 5
NET INSULATED AREA: 99.58 sq.ft.
INSULATION SYSTEM DESIGN INFORMATION
CONNECTION DESIGN: MS 20/50
CONNECTION QUANTITY: 64 pcs.
INSULATION SHEET SIZE: 48 x 120
INSULATION QUANTITY: TOTAL: 3 pcs. FULL: 0 pcs.
THERMOMASS