

Report No. FRA-OR&D 75-37

# **RAILROAD TANK CAR FIRE TEST: TEST NO.7**

**Charles Anderson  
William Townsend  
John Zook  
William Wright  
Gregory Cowgill**



**DECEMBER 1973  
FINAL REPORT**

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**Prepared For  
U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION  
Office of Research, Development, and Demonstrations  
Washington, D.C. 20590**

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1. Report No. FRA-OR&D 75-37		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle RAILROAD TANK CAR FIRE TEST: TEST NO, 7				5. Report Date December 1973	
				6. Performing Organization Code	
7. Author(s) Charles Anderson, William Townsend, John Zook, William Wright, Gregory Cowgill				8. Performing Organization Report No.	
9. Performing Organization Name and Address U.S. Army Ballistic Research Laboratories Aberdeen Proving Ground, Maryland 21005				10. Work Unit No. (TRAIS)	
				11. Contract or Grant No. DOT-AR-30026	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Federal Railroad Administration Office of Research, Development and Demonstrations Washington, D.C. 20590				13. Type of Report and Period Covered  FINAL REPORT	
				14. Sponsoring Agency Code	
15. Supplementary Notes					
16. Abstract  A fire test was conducted on a one-fifth scale model pressurized railroad tank car on 7 February 1973. The test, designated as Test Number 7, was conducted by the Ballistic Research Laboratories for the Federal Railroad Administration of the United States Department of Transportation at the White Sands Missile Range. The tank car model had a thermal insulation of four inches (10.16 cm) of polyurethane encased in a 0.125 inch (0.318 cm) steel jacket. The model was loaded with propane and then engulfed in a JP-4 jet fuel fire.					
17. Key Words Liquefied Petroleum gases, Fire Research, Tank Cars			18. Distribution Statement Document is available to the public through the National Technical Information Service, Springfield, Virginia 22161		
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No. of Pages 160	22. Price



TABLE OF CONTENTS

	Page
LIST OF TABLES . . . . .	7
LIST OF FIGURES . . . . .	9
I. INTRODUCTION . . . . .	11
II. OBJECTIVES . . . . .	11
III. THE MODEL AND INSTRUMENTATION . . . . .	12
IV. TEST PROCEDURES . . . . .	20
V. TEST RESULTS . . . . .	22
VI. DATA ANALYSIS . . . . .	29
VII. CONCLUSIONS . . . . .	43
VIII. ACKNOWLEDGMENT . . . . .	43
APPENDIX A: Temperature Versus Time Data . . . . .	45
APPENDIX B: Cross-sectional Diagrams of Thermocouple Temperatures versus Position . . . . .	141



LIST OF TABLES

Table		Page
I.	Test No. 7 - Grid and Manway Thermocouple Positions . . . . .	16
II.	Test No. 7 - Inner Wall Thermocouple Positions . . . . .	17
III.	Test No. 7 - Outer Wall Thermocouple Positions . . . . .	18
IV.	Test No. 7 - Fire Thermocouple Positions . . . . .	19
V.	Test No. 7 - Calorimeter Identification . . . . .	19
VI.	Example of Tabulation of Temperature as a Function of Channel Number . . . . .	23
VII.	Test No. 7 - Pressure Gauge Calibration Data . . . . .	25
VIII.	Test No. 7 - Tabulated Pressure Data . . . . .	26
IX.	Test No. 7 - Heat Flux into Lading . . . . .	40





## LIST OF FIGURES

Figure		Page
1	Test No. 7 - Relative Locations of Thermocouples and Pressure Gauges . . .	13
2	Test No. 7 - Cross-sectional View of Relative Thermocouple Positions and Their Respective Vidar Channel Numbers .	14
3	Vapor Pressure of Propane as a Function of Temperature . . . . .	21
4.	Typical Thermocouple Temperature Versus Time . . . . .	24
5.	Test No. 7 - Internal Pressure as a Function of Time . . . . .	31
6.	Grid Temperatures - Center . . . . .	32
7.	Grid Temperatures - Center . . . . .	33
8.	Inner Wall Temperatures - Right Wall . . . . .	35
9.	Inner Wall Temperatures - Left Wall . . . . .	36
10.	Test No. 7 - Liquid Level as a Function of Time . . . . .	37
11.	Test No. 7 - Thermocouple Temperature as a Function of Time Which Indicates Shell Full Conditions . . . . .	41



## I. INTRODUCTION

The Ballistic Research Laboratories are conducting a series of field tests with scaled and standard size railroad tank cars at the request of the Federal Railroad Administration of the Department of Transportation. This effort is part of an extensive research program, under the direction of the Federal Railroad Administration, designed to develop methods to minimize personal injury and property damage resulting from the rupture of railroad tank cars filled with flammable materials.

The situation under investigation is an unperforated railroad tank car filled with liquid propane and engulfed in a large external fire. The intense heat of the external fire is conducted through the tank car's shell and into the propane lading thereby increasing the internal pressure. This, in combination with a reduced burst strength of the tank car shell caused by elevated temperatures, can lead to a rupture of the shell with resulting injuries and extensive property damage.

## II. OBJECTIVES

The ultimate goal of the Federal Railroad Administration is to eliminate the rupture and development of fires from derailed tank cars transporting flammable materials. The more immediate goal is to prevent the spread of fire from one tank car to another by preventing the rupture of the second tank car caught in the flames of a burning tank car thus providing time for minimizing damage to the surroundings.

The Ballistic Research Laboratories are conducting field tests which include instrumenting the experimental tank car and performing appropriate measurements. Subsequently, these data are to be analyzed by the BRL for the purpose of determining tank car failure modes and for providing empirical information needed in the development of a theoretical model.

Under investigation in the one-fifth scale model tests are the rate and mechanism of heat transfer into the lading and the operation of the safety relief valve in a fire environment. Also, the scale model tests provide information useful in the development of appropriate test procedures and instrumentation for application to a full scale tank car test.

For the specific test reported herein, the one-fifth scaled model had a thermal insulation consisting of polyurethane foam four inches (10.16 cm) thick covered with a 0.125 inch (0.318 cm) steel jacket.

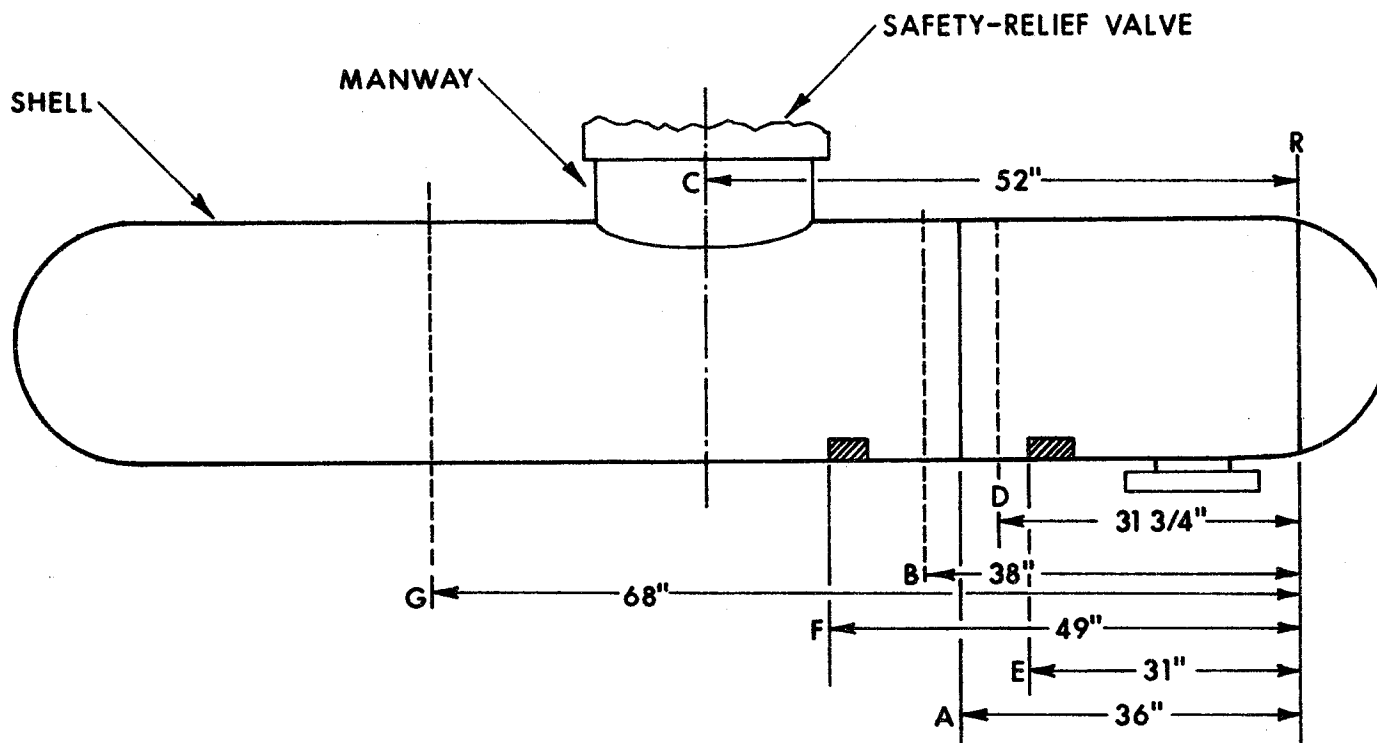
The objective was to evaluate this thermal insulation in terms of its ability to reduce the heat flux into the lading and the related effect on the operation of the safety relief valve.

### III. THE MODEL AND INSTRUMENTATION

The one-fifth scale model railroad tank car utilized in Test Number 7 had dimensions of twelve feet (3.658 m) in length and two feet (0.610 m) O.D. Its steel shell was 0.625 inches (1.588 cm) thick, the same as a full size tank car. Identical shell thickness was used in order to simulate the heat flux into a full size tank car. The model had a manway located at the top and centered lengthwise similar to a full scale car. Mounted on the manway cover were a safety relief valve (Midland Model A-3480), a loading valve, a vapor valve, and a gauging device. A steel dome was bolted on top of the manway. Unique to this test was the thermal insulation covering the model - a four inch (10.16 cm) thick layer of polyurethane foam encased in a 0.125 inch (0.318 cm) steel jacket. The steel jacket not only contained the polyurethane, but also acted as a radiation shield. The tank car model and the propane lading were provided by the Railway Progress Institute - Association of American Railroads.

Since the damage mechanism is the heat transferred from the exterior fire, measurements of temperature were essential. The model was instrumented with chromel-alumel thermocouples. The schematic drawing in Figure 1 shows a sideview of the model and the locations of the planes of thermocouples relative to a reference plane denoted by R. The numbers shown give distances measured in inches from the reference plane. Thermocouples were positioned in the lading (grid thermocouples), on the inner wall (inner wall thermocouples), on the outside wall but inside the thermal insulation (outer wall thermocouples), on the inside wall of the manway (manway thermocouples), and in the fire about six inches from the steel jacket (fire thermocouples). There were two planes of fire thermocouples with the front-fire thermocouples positioned 38 inches (96.52 cm) from the reference plane and the rear-fire thermocouples 68 inches (1.727 m) from the reference plane.

The thermocouples attached to the inner wall were installed by enclosing them in a copper bead and potting them with Sauereisen cement. The thermocouples positioned in the lading were placed in a grid network. Figure 2 presents a cross-sectional view of the tank car model and the relative locations of thermocouples with respect to the vertical direction (12:00) and the model structure. (Note that the manway is not in the same plane as the wall and grid thermocouples.)



- A INNER WALL/OUTER WALL THERMOCOUPLE PLANE
- B FRONT FIRE THERMOCOUPLE PLANE
- C MANWAY THERMOCOUPLES
- D GRID THERMOCOUPLE PLANE
- E FRONT FACE OF PRESSURE GAUGE #1
- F FRONT FACE OF PRESSURE GAUGE #2
- G REAR FIRE THERMOCOUPLE PLANE
- R REFERENCE PLANE

Figure 1-Test No. 7-Relative Locations of Thermocouples and Pressure Gauges

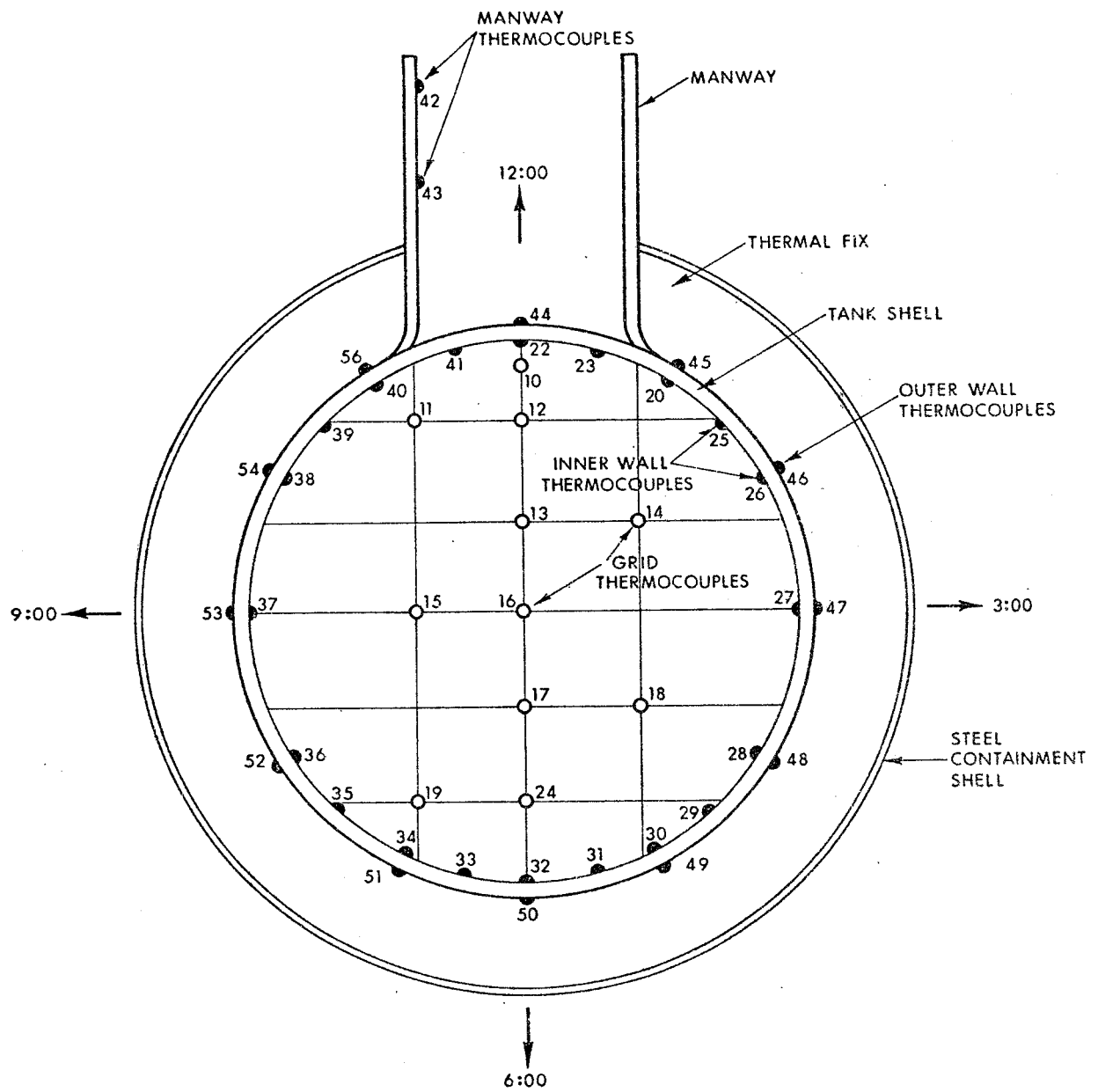


Figure 2- Test No.7- Cross-Sectional View of Relative Thermocouple Positions and Their Respective Vidar Channel Numbers

The tank was instrumented with a total of fifty-four thermocouples. There were 12 grid thermocouples, 2 manway thermocouples, 20 inner wall thermocouples, 12 outer wall thermocouples, and 8 fire thermocouples. The 12 outer wall thermocouples were positioned at one hour increments around the circumference and directly opposite the inner wall thermocouples. The fire thermocouples were located in two planes with four thermocouples in each plane positioned at 90° intervals (refer to Figure 1).

Two pressure gauges were installed in the tank in the positions indicated in Figure 1. These gauges were included to measure internal pressures as a function of time.

The safety relief valve is designed to vent vapor when the interior pressure exceeds a predetermined value. Since the operation of this valve and its effect on the test were critical, two linear differential transformer devices were installed to measure the lift of the valve.

Two calorimeters were placed in the exterior fire to obtain heat flux values. The "copper kettle" calorimeter bottle furnished by the Railway Progress Institute measured the temperature rise of a specific quantity of water by using a thermocouple. The other calorimeter, called the heat flux calorimeter, measured a temperature difference between two points inside the calorimeter housing.

The thermocouples and teflon coated wires from the other instrumentation were welded to extension wires which were fed through an underground conduit system. The conduit system led from the immediate test area to an instrumentation bunker which contained all of the data recording equipment. The data from the thermocouples (i.e., e.m.f. readings) were recorded digitally on magnetic tape by a Vidar recording system. The method of identifying the data recorded by the Vidar system is by the Vidar channel number. Figure 2 is a cross-sectional view of the tank model, and it presents the thermocouple positions as denoted by their respective Vidar channel numbers. A more detailed description of all the instrumentation and the corresponding Vidar channel numbers is presented in Tables I, II, III, IV, and V. The data from the two pressure gauges and the LDT devices were recorded on a Brush Instrument Pen Chart Recorder.

TABLE I

## TEST NUMBER 7 - GRID AND MANWAY THERMOCOUPLE POSITIONS

Vidar Channel Number	Distance From Tank Top	
	(Inches)	(cm)
10	1.00	2.54
11	3.15	8.00
12	3.15	8.00
13	7.15	18.16
14	7.15	18.16
15	11.20	28.45
16	11.20	28.45
17	15.20	38.61
18	15.20	38.61
19	19.20	48.77
24	19.20	48.77
21	21.45	54.48

NOTE: Refer to Figure 2 for the relative position of the thermocouple at each level.

Vidar Channel Number	Distance from Manway Top	
	(Inches)	(cm)
42	1.00	2.54
43	6.00	15.24



TABLE II

## TEST NUMBER 7 - INNER WALL THERMOCOUPLE POSITIONS

Vidar Channel Number	Circumferential Position (Clock Reference)	Vertical Distance from Tank Top (Inches)	(cm)
22	12:00	0.63	1.60
23	12:30	1.01	2.56
20	1:00	2.15	5.46
25	1:30	3.96	10.06
26	2:00	6.31	16.03
27	3:00	12.00	30.48
28	4:00	17.69	44.93
29	4:30	20.04	50.90
30	5:00	21.85	55.50
31	5:30	22.99	58.39
32	6:00	23.38	59.38
33	6:30	22.99	58.39
34	7:00	21.85	55.50
35	7:30	20.04	50.90
36	8:00	17.69	44.93
37	9:00	12.00	30.48
38	10:00	6.31	16.03
39	10:30	3.96	10.06
40	11:00	2.15	5.46
41	11:30	1.01	2.56

TABLE III

## TEST NUMBER 7 - OUTER WALL THERMOCOUPLE POSITIONS

Vidar Channel Number	Circumferential Position (Clock Reference)	Vertical Distance from Tank Top (Inches)	Vertical Distance from Tank Top (cm)
44	12:00	0.00	0.00
45	1:00	1.61	4.09
46	2:00	6.00	15.24
47	3:00	12.00	30.48
48	4:00	18.00	45.72
49	5:00	22.39	56.87
50	6:00	24.00	60.96
51	7:00	22.39	56.87
52	8:00	18.00	45.72
53	9:00	12.00	30.48
54	10:00	6.00	15.24
56	11:00	1.61	4.09

NOTE: These thermocouples are located between the tank shell and the insulation coating.

TABLE IV

TEST NUMBER 7 - FIRE THERMOCOUPLE POSITIONS

Vidar Channel Number	Circumferential Position (Clock Reference)	Relative Position
55	12:00	Tank
57	3:00	Front
60	6:00	
61	9:00	
62	12:00	
63	3:00	Tank
		Rear
64	6:00	
65	9:00	

NOTE: These thermocouples are located approximately six inches from the outer surface. Refer to Figure 1 for relative location along the length of the tank.

TABLE V

TEST NUMBER 7 - CALORIMETER IDENTIFICATION

Vidar Channel Number	Identification
58	"Copper kettle" calorimeter bottle (Furnished by RPI - AAR)
59	Hy-Cal Heat Flux Calorimeter (Furnished by NASA)

#### IV. TEST PROCEDURES

The test consisted of simulating real conditions (as could be encountered in a railway accident and a subsequent fire) by engulfing a propane filled model of a railroad tank car in an extensive fire, and then recording data that described important aspects of the test.

One end of the model was removed and the instrumentation installed. After instrumentation, the "head end" was welded on and the model was transferred to an excavation and positioned and levelled on a stand above a pool of JP-4 jet fuel. The JP-4 fuel, which provided the energy for the exterior fire, was contained in a pit thirty feet by thirty feet (9.14 m x 9.14 m) and one-half foot (0.152 m) in depth. The test was performed inside an excavation which was fifty feet by fifty feet (15.24 m x 15.24 m) and twelve feet (3.66 m) deep.

A four-inch (10.16 cm) pipeline fed additional JP-4 fuel into the pit from a 30,000 gallon (113.6 kiloliters) storage tank located 570 feet (173.7 m) from the excavation. The fuel flow rate was controlled remotely so that a minimum of four inches (10.16 cm) of fuel remained in the pit during the test. The JP-4 jet fuel burned at a rate of about one-third inch per minute (0.847 cm/min.).

Prior to the propane (and JP-4) fuel loading, a pretest examination of the model and its instrumentation was performed. To test the operation of the safety relief valve, the model was pressurized with nitrogen. At 270 PSIG, the valve opened, and based on measurements from both position transducers (LDT's), the valve opened  $0.125 \pm 0.010$  inches ( $0.318 \pm 0.025$  cm). After reducing the pressure to 200 PSIG, a locking bar was placed over the valve. The pressure was increased to 400 PSIG and retained for twenty-four hours, during which time no leakage occurred. The pressure readings on the chart recorder compared well with a calibrated dial gauge located in the nitrogen feedline. The model was then vented to the atmosphere reducing the pressure to 20 PSIG of nitrogen. The 20 PSIG of nitrogen was retained until the propane was loaded into the tank in order to ensure that no oxygen could enter. Prior to loading the propane, the remaining nitrogen was purged by loading some propane into the tank and purging to the atmosphere. This procedure was repeated three times to ensure that the tank contained only propane. The model was then loaded with 226 gallons (855.4 liters) of liquid propane. The temperature of the propane was  $42^{\circ}\text{F}$  ( $5.56^{\circ}\text{C}$ ) and the internal pressure was  $90 \pm 10$  PSIG. The upper solid curve in Figure 3 was representative of the vapor pressure as a function of the temperature of the propane utilized in the test.

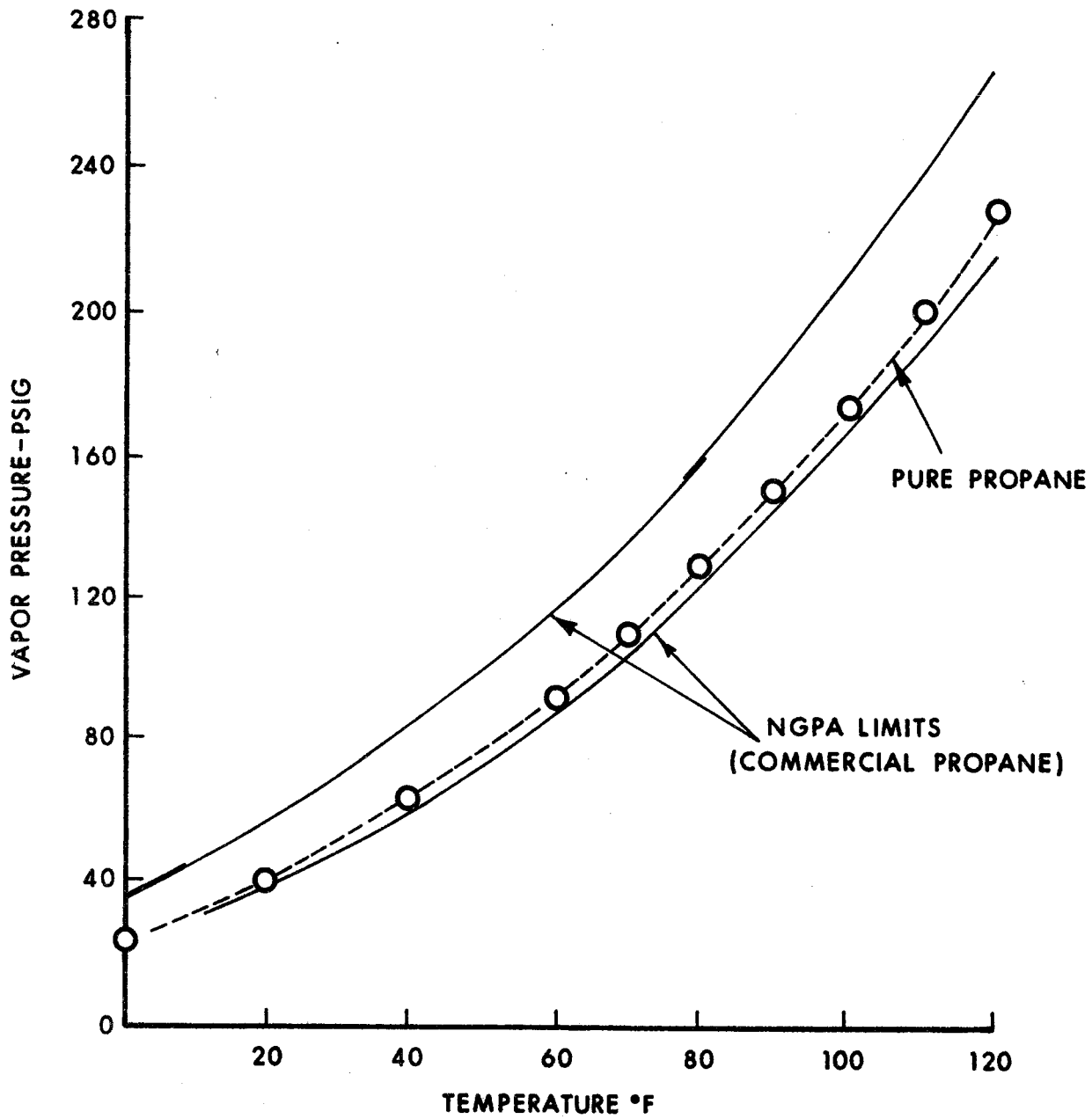


Figure 3 Vapor Pressure of Propane as a Function of Temperature

On 7 February 1973, with the atmospheric wind conditions being calm, i.e. approximately 3 knots, the test was conducted. All instrumentation was operating satisfactorily according to pre-test analysis. At approximately 1928 hours the fire was ignited by firing four thermite grenades into the pit. The thermite grenades were used to obtain a rapid and uniform build-up of the fire.

## V. TEST RESULTS

The data recorded by the Vidar unit are digital microvolt emf values. These were transferred to magnetic tape and later converted to temperatures at the BRL. The standard reference table for chromel-alumel thermocouples was incorporated in the data processing program. An adjustment quantity was added to the values for each channel so that the initial temperature was 42°F (5.56°C). This procedure was adopted since the test was performed at night when the temperature for all of the thermocouples would be expected to be uniformly ambient.

The temperature data, listed in tabular form over the entire test time, is included as a portion of Appendix A. A portion of this table is presented in Table VI. The first two columns identify each thermocouple by Vidar channel number and position. Except for the last column, the remaining columns give values of temperature for each thermocouple as a function of time. However, the times in the column headings are the times for which the data from channel 10 were sampled. To determine the time corresponding to a particular temperature from another channel, the value from the TIME ADJUST ADD column must be added to the time given in the column heading. For example, consider channels 10 and 55. At 91.43 seconds, channel 10 recorded a temperature of 39.4°F. Using the value from the TIME ADJUST ADD column, channel 55 recorded its temperature of 1681.2°F at 101.23 seconds after ignition.

A plot of temperature as a function of time for a typical thermocouple in Figure 4 shows a sharp temperature rise at about 63 minutes. This is attributed to the melting of the insulation around the thermocouple lead wires at a point exterior to the tank but in the fire. Therefore the measurements over the last 30 minutes were of the JP-4 fuel fire. Similar figures for all of the thermocouple temperatures are presented in Appendix A, but the graphs were truncated at 60 minutes. This permitted the presentation of more detail over the time period of interest; that is, the measurements prior to the time that the thermocouple lead wires shorted out.

Appendix B contains a set of cross-sectional diagrams showing the temperature values for the thermocouples at specific times. The adjust times, as given in Appendix A, were used to linearly interpolate

TABLE VI

THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	TIME (SEC) = LOCATION	.00	13.06	26.12	39.19	52.25	65.31	78.37	91.43	104.50	117.56	TIME
												ADJUST
10	( GRID AT 1. IN. )	42.1	42.1	42.0	41.9	41.6	40.6	40.6	39.4	39.0	38.9	.00
11	( GRID AT 3.15 INS. )	42.1	42.0	41.9	41.8	41.7	41.7	41.1	41.3	41.4	41.6	.22
12	( GRID AT 3.15 INS. )	42.1	41.6	41.5	41.1	42.0	42.6	41.1	44.0	43.5	43.3	.44
13	( GRID AT 7.15 INS. )	42.1	41.5	41.4	42.3	41.8	39.5	42.8	37.3	37.9	39.1	.65
14	( GRID AT 7.15 INS. )	42.1	42.0	41.9	42.0	41.6	39.8	41.3	38.8	39.2	39.0	.87
16	( GRID AT 11.2 INS. )	42.1	42.0	41.9	41.8	41.7	41.0	41.2	40.1	40.0	39.6	1.31
17	( GRID AT 15.2 INS. )	42.1	42.0	41.8	41.7	41.4	40.2	41.2	39.2	39.5	39.3	1.52
18	( GRID AT 15.2 INS. )	42.1	42.0	41.8	41.7	41.7	41.3	41.7	41.0	40.8	40.9	1.74
19	( GRID AT 19.2 INS. )	42.1	41.9	41.9	41.9	41.6	41.4	40.9	40.1	40.2	40.5	1.96
24	( GRID AT 19.2 INS. )	42.1	42.0	42.0	42.0	42.1	42.2	43.2	41.8	41.7	41.6	3.05
21	( GRID AT 21.45 INS. )	42.1	42.1	42.0	43.5	46.2	45.9	43.5	43.6	43.3	42.8	2.39
22	( INSIDE AT 12 00 )	42.1	42.0	41.9	43.4	44.3	44.2	42.3	41.4	40.6	39.9	2.61
23	( INSIDE AT 12 30 )	94.2	94.0	93.7	93.5	92.3	96.3	77.3	74.4	70.5	67.4	2.83
20	( INSIDE AT 1 00 )	42.1	42.0	41.8	41.2	41.3	40.5	39.2	39.0	38.4	37.3	2.18
25	( INSIDE AT 1 30 )	42.1	42.0	42.0	41.9	41.6	41.2	40.1	40.4	40.4	40.6	3.27
26	( INSIDE AT 2 00 )	42.1	42.1	41.4	41.4	41.9	41.6	41.2	40.9	41.2	42.6	3.48
27	( INSIDE AT 3 00 )	42.1	42.0	41.8	41.7	41.7	41.7	41.2	40.9	41.1	42.2	3.70
28	( INSIDE AT 4 00 )	42.1	41.9	41.8	42.0	42.4	38.6	34.5	32.8	32.9	33.0	3.92
29	( INSIDE AT 4 30 )	42.1	41.3	41.3	42.4	42.4	38.0	36.5	34.4	33.7	33.4	4.14
31	( INSIDE AT 5 30 )	42.1	42.1	41.4	41.3	41.3	41.8	41.7	42.1	41.8	43.2	4.57
32	( INSIDE AT 6 00 )	42.1	42.0	41.8	41.8	41.6	41.3	41.6	41.1	41.1	40.8	4.79
33	( INSIDE AT 6 30 )	42.1	41.8	41.6	41.3	41.6	41.5	41.4	42.1	42.5	45.4	5.01
34	( INSIDE AT 7 00 )	42.1	42.0	41.9	41.9	41.8	40.7	38.9	39.5	39.3	43.4	5.22
35	( INSIDE AT 7 30 )	42.1	41.9	41.8	42.0	42.0	41.1	39.3	39.7	39.6	43.1	5.44
36	( INSIDE AT 8 00 )	42.1	41.9	41.7	41.8	42.3	41.9	36.4	37.4	36.5	43.2	5.66
37	( INSIDE AT 9 00 )	42.1	41.9	41.8	41.8	41.9	40.9	38.0	38.5	38.4	42.1	5.88
38	( INSIDE AT 10 00 )	42.1	41.9	41.8	41.1	41.4	41.9	35.8	35.7	37.2	44.6	6.10
39	( INSIDE AT 10 30 )	42.1	42.0	41.9	41.9	41.6	39.3	36.1	37.7	39.1	46.1	6.31
40	( INSIDE AT 11 00 )	42.1	42.0	41.7	41.6	41.3	42.2	42.3	42.8	42.9	45.0	6.53
41	( INSIDE AT 11 30 )	42.1	41.9	41.8	41.7	41.7	42.1	39.7	40.5	40.6	43.2	6.75
44	( OUTSIDE AT 12 00 )	42.1	41.9	41.7	41.9	41.2	25.2	15.1	3.5	-9.7	21.4	7.40
45	( OUTSIDE AT 1 00 )	42.1	42.0	41.2	41.7	41.5	39.0	30.1	24.1	22.4	53.1	7.62
46	( OUTSIDE AT 2 00 )	42.1	41.9	41.7	42.4	42.9	38.7	30.1	22.9	24.2	51.7	7.84
47	( OUTSIDE AT 3 00 )	42.1	41.9	41.7	42.0	42.0	40.5	36.5	34.6	32.0	2.0	8.05
48	( OUTSIDE AT 4 00 )	42.1	42.1	42.6	41.9	41.7	40.5	36.0	35.5	33.6	47.5	8.27
49	( OUTSIDE AT 5 00 )	42.1	42.0	41.9	42.7	42.6	34.8	29.4	29.8	12.0	46.8	8.49
50	( OUTSIDE AT 6 00 )	94.1	93.2	92.6	93.0	93.1	69.7	39.6	28.3	-8.6	-35.0	8.71
51	( OUTSIDE AT 7 00 )	292.8	292.3	291.5	291.9	300.7	111.3	122.7	116.0	32.5	34.5	8.93
52	( OUTSIDE AT 8 00 )	167.6	167.1	166.1	165.7	167.6	130.2	81.0	74.6	55.6	91.0	9.14
53	( OUTSIDE AT 9 00 )	119.2	119.0	118.0	117.8	119.0	91.3	64.3	55.8	16.3	85.2	9.36
54	( OUTSIDE AT 10 00 )	132.3	132.0	131.0	129.5	130.6	99.4	63.6	30.6	24.6	99.5	9.58
56	( OUTSIDE AT 11 00 )	112.4	111.5	111.4	110.9	110.7	86.8	56.5	24.6	14.4	78.1	10.01
42	( MANWAY AT 1. IN. )	42.1	42.1	41.9	41.9	42.7	44.0	46.6	49.4	52.1	53.8	6.97
43	( MANWAY AT 6. INS. )	42.1	41.9	41.8	46.1	56.0	65.1	64.6	69.7	71.0	77.7	7.18
55	( FIRE AT 12 00 FORE )	42.1	42.8	93.2	1452.4	1731.7	1722.0	1701.5	1681.2	1693.6	1763.9	9.80
57	( FIRE AT 3 00 FORE )	123.8	123.2	281.4	1239.7	1630.4	1656.2	1640.4	1600.4	1610.0	1818.2	10.23
60	( FIRE AT 6 00 FORE )	-127.4	-125.9	262.2	1453.0	1637.1	1715.6	1653.7	1616.6	1813.1	1623.0	10.89
61	( FIRE AT 9 00 FORE )	-10.7	-12.8	1209.3	1706.4	1726.4	1611.6	1909.6	1950.4	2255.6	1556.6	11.10
62	( FIRE AT 12 00 AFT )	42.1	41.2	51.7	54.9	56.4	45.5	-44.1	1.1	214.6	11.32	11.32
63	( FIRE AT 3 00 AFT )	209.1	208.7	612.1	1356.9	1711.3	1740.7	1584.7	1577.5	1581.2	1858.6	11.54
64	( FIRE AT 6 00 AFT )	103.5	106.7	384.2	1206.8	1477.3	1570.6	1576.2	1561.4	1597.8	1633.1	11.76
65	( FIRE AT 9 00 AFT )	42.1	41.1	420.6	1192.0	1516.9	1693.5	1646.2	1601.3	1725.6	1732.2	11.97

508293

VIDAR CHANNEL 10 OF TEST NUMBER 7  
(LOCATION IS GRID AT 1. IN.)

24

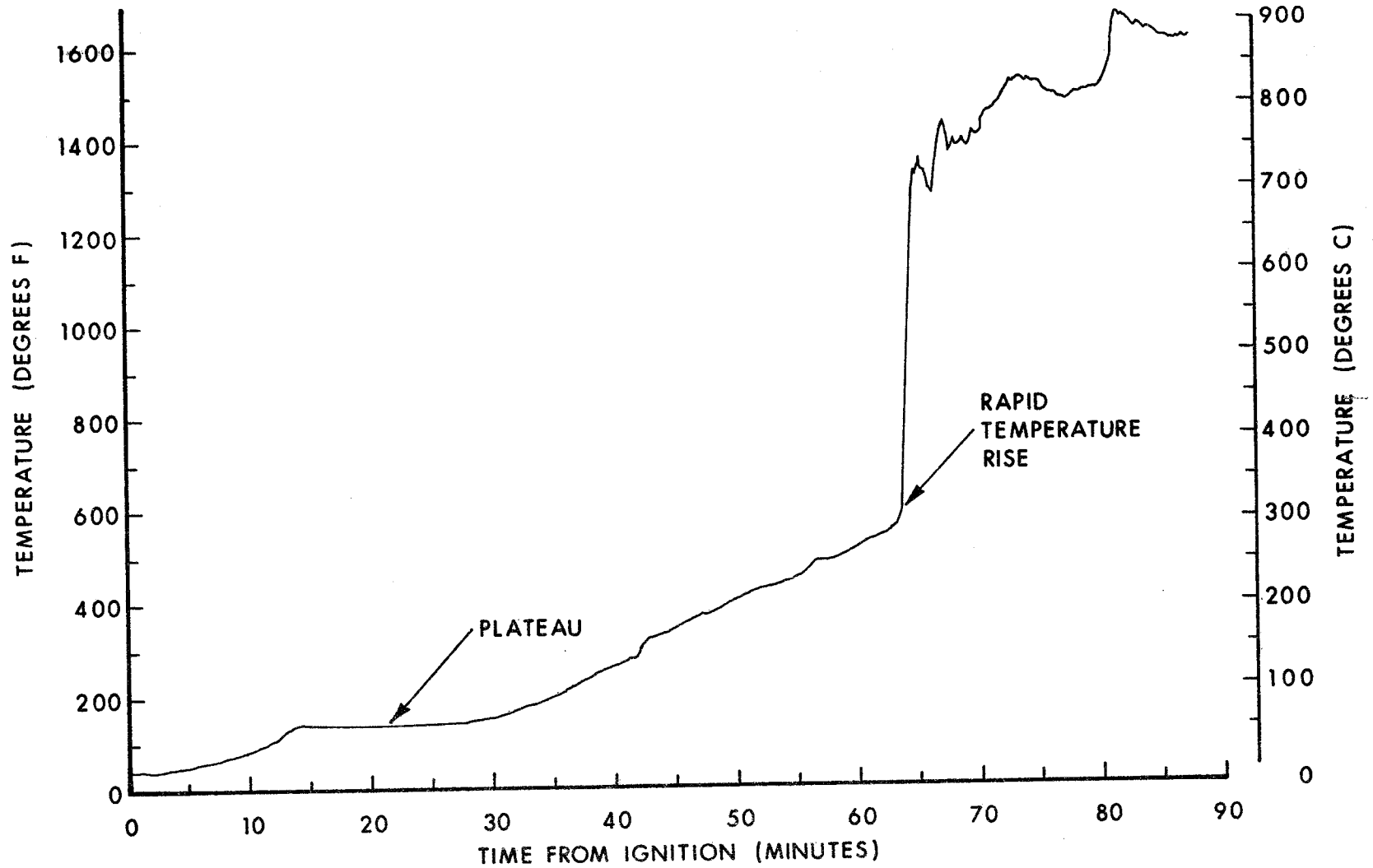


Figure 4-Typical Thermocouple Temperature vs Time



the temperatures for all the thermocouples to the desired time. These plots are especially suitable for visually comparing the values of the thermocouples relative to other positions. Also, the liquid level values, approximated from the inner wall thermocouple data, are indicated on each diagram.

Table VII contains the calibration data for the pressure gauges. These data were utilized to obtain the pressure data tabulated in Table VIII. Pressure gauge P<sub>1</sub> gave erroneous readings, as will be discussed in Section VI on Data Analysis.

Fire heat flux data measured by the calorimeters indicated that both calorimeters, or the Vidar recorders, malfunctioned. The expected values for the RPI - AAR calorimeter should have had an initial value of 42<sup>o</sup>F (5.6<sup>o</sup>C) and increased to the boiling point of water (212<sup>o</sup>F, 100<sup>o</sup>C). However, temperature values averaged around 150<sup>o</sup>F (65.6<sup>o</sup>C) and did not vary by more than + 10<sup>o</sup>F (5.5<sup>o</sup>C) from this number. A compilation of the output of the HYCAL heat flux calorimeter furnished by the National Aeronautics and Space Administration is unavailable.

The chart recording of the linear differential transformers showed no variation, indicating that the safety relief valve did not open during the test. This was verified by visual observation and motion picture records where the plume from the burning propane, extending up from the manway, was seen to burn continuously. Therefore, it was concluded that the seal around one or more of the valves (loading valve, vapor valve, or relief valve) had burned out due to the intense heat from the fire (~1600<sup>o</sup>F, 871<sup>o</sup>C) before the internal pressure could rise to 270 PSIG - the pressure required to force open the relief valve.

## VI. DATA ANALYSIS

Temperatures of the fire recorded by 7 of the 8 fire thermocouples averaged around 1600<sup>o</sup>F (871<sup>o</sup>C), a comparable value to previous tests.<sup>1</sup> The one thermocouple which yielded a generally low temperature may have reflected the effect of a flame variation caused by a slight wind.

Several of the outer wall thermocouples indicated abnormally high temperatures for the first few minutes of the test. Thereafter, the values were slightly higher than corresponding inner wall temperature measurements. Early high values of outer wall thermocouple measurements have been noted in previous tests, but no explanation for this anomaly has been developed to date.

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<sup>1</sup>References are listed on page 44.

TABLE VII

TEST NUMBER 7 - PRESSURE GAUGE CALIBRATION DATA

Pressure (psig)	Voltage (emf) (millivolts)	
	P <sub>1</sub>	P <sub>2</sub>
0	3	1
50	8	6
100	13	10
150	17	14
200	22	18
250	27	22
300	32	27
350	36	32
400	40	35
450	44	39

TABLE VIII

## TEST NUMBER 7 - TABULATED PRESSURE DATA

Time (sec)	Time (min)	$P_1$		$P_2$	
		Emf (mv)	Pressure (psig)	Emf (mv)	Pressure (psig)
0	0	3	0	1	0
100	1.67	3	0	1	0
200	3.33	3	0	1	0
300	5.00	3	0	1	0
400	6.67	4	10	1	0
500	8.33	54	575	1	0
600	10.00	53	562	15	162
700	11.67	50	525	20	225
800	13.33	28	260	17	188
900	15.00	25	230	17	188
1000	16.67	27	250	20	225
1100	18.33	28	260	21	238
1200	20.00	28	260	20	225
1300	21.67	28	260	20	225
1400	23.33	29	270	21	238
1500	25.00	28	260	21	238
1600	26.67	27	250	21	238
1700	28.33	28	260	23	260
1800	30.00	33	312	23	260
1900	31.67	44	450	22	250
2000	33.33	50	525	21	238
2100	35.00	50	525	21	238

TABLE VIII (Continued)

Time (sec)	Time (min)	P <sub>1</sub>		P <sub>2</sub>	
		Emf (mv)	Pressure (psig)	Emf (mv)	Pressure (psig)
2200	36.67	48	500	21	238
2300	38.33	46	475	21	238
2400	40.00	44	450	21	238
2500	41.67	43	438	22	250
2600	43.33	42	425	22	250
2700	45.00	40	400	23	260
2800	46.67	39	388	24	270
2900	48.33	38	375	24	270
3000	50.00	38	375	24	270
3100	51.67	38	375	24	270
3200	53.33	37	362	24	270
3300	55.00	36	350	24	270
3400	56.67	35	338	25	280
3500	58.33	32	300	25	280
3600	60.00	26	240	25	280
3700	61.67	25	230	26	290
3800	63.33	24	220	24	270
3900	65.00	22	200	24	270
4000	66.67	22	200	25	280
4100	68.33	24	220	24	270
4200	70.00	30	280	24	270
4300	71.67	31	290	23	260

TABLE VIII (continued)

(sec)	Time (min)	Emf (mv)	P <sub>1</sub> Pressure (psig)	Emf (mv)	P <sub>2</sub> Pressure (psig)
4400	73.33	21	190	15	138
4500	75.00	16	138	11	112

The pressure transducer data for both transducers given in Figure 5 show zero pressure up to 320 seconds (5.3 minutes) indicating an equipment malfunction. During the next 400 seconds both pressure recordings show erratic fluctuations. After 320 seconds, the malfunction was corrected, and the recorder then required several minutes to stabilize from the effect of a surge of current.

The  $P_2$  pressure transducer data shown in Figure 5 reflects the true pressure inside the model. As in previous tests, the plateaus of the temperature curves occur at a temperature of approximately  $140^{\circ}\text{F}$  ( $60^{\circ}\text{C}$ ), indicating that under saturation conditions the pressure should be about 270 PSIG. As the  $P_2$  curve in Figure 5 indicates, once the recorder stabilized, the internal pressure was slightly under 270 PSIG.

The temperatures of the liquid and vapor are given by the measurements of the grid thermocouples. The curves shown in Figure 6 are plots of temperatures as a function of time measured by the grid thermocouples positioned along the vertical diameter of the model. To facilitate discussion, the  $140^{\circ}\text{F}$  ( $60.0^{\circ}\text{C}$ ) value is represented in the figure by a horizontal line. The value of  $140^{\circ}\text{F}$  ( $60.0^{\circ}\text{C}$ ) is important since the vaporization of propane at 270 PSIG occurs at that temperature. However, the  $140^{\circ}\text{F}$  ( $60.0^{\circ}\text{C}$ ) value only approximates the point of transformation of the liquid to vapor, since the vapor and liquid are approximately the same temperature near the vapor-liquid interface.

Figure 6 clearly demonstrates that, except for the initial temperature, at no time was the liquid isothermal. In general, those thermocouples from 11.2" (28.45 cm) down to 21.45" (54.48 cm) from the top of the tank remained cool while the higher positioned thermocouples experienced higher temperatures; that is, the higher positioned thermocouple recorded that the liquid temperature rose to  $140^{\circ}\text{F}$  ( $60.0^{\circ}\text{C}$ ) rather rapidly in time compared to the lower positioned thermocouples. This temperature gradient was attributed to convection currents generated by the upward movement of the hot liquid and the downward movement of the cooler liquid. Essentially, the convection currents were caused by density variations - warmer liquid propane, being less dense, moved upward while the cooler, more dense liquid, fell. Similar data for Test Number 6, presented in Figure 7, also showed a definite temperature gradient in the liquid, but the entire liquid reached the neighborhood of  $140^{\circ}\text{F}$  ( $60.0^{\circ}\text{C}$ ) in a much shorter time. In that test, where the model had no thermal insulation, the heat flux into the liquid was of a much higher magnitude causing the mixing to be relatively more effective.

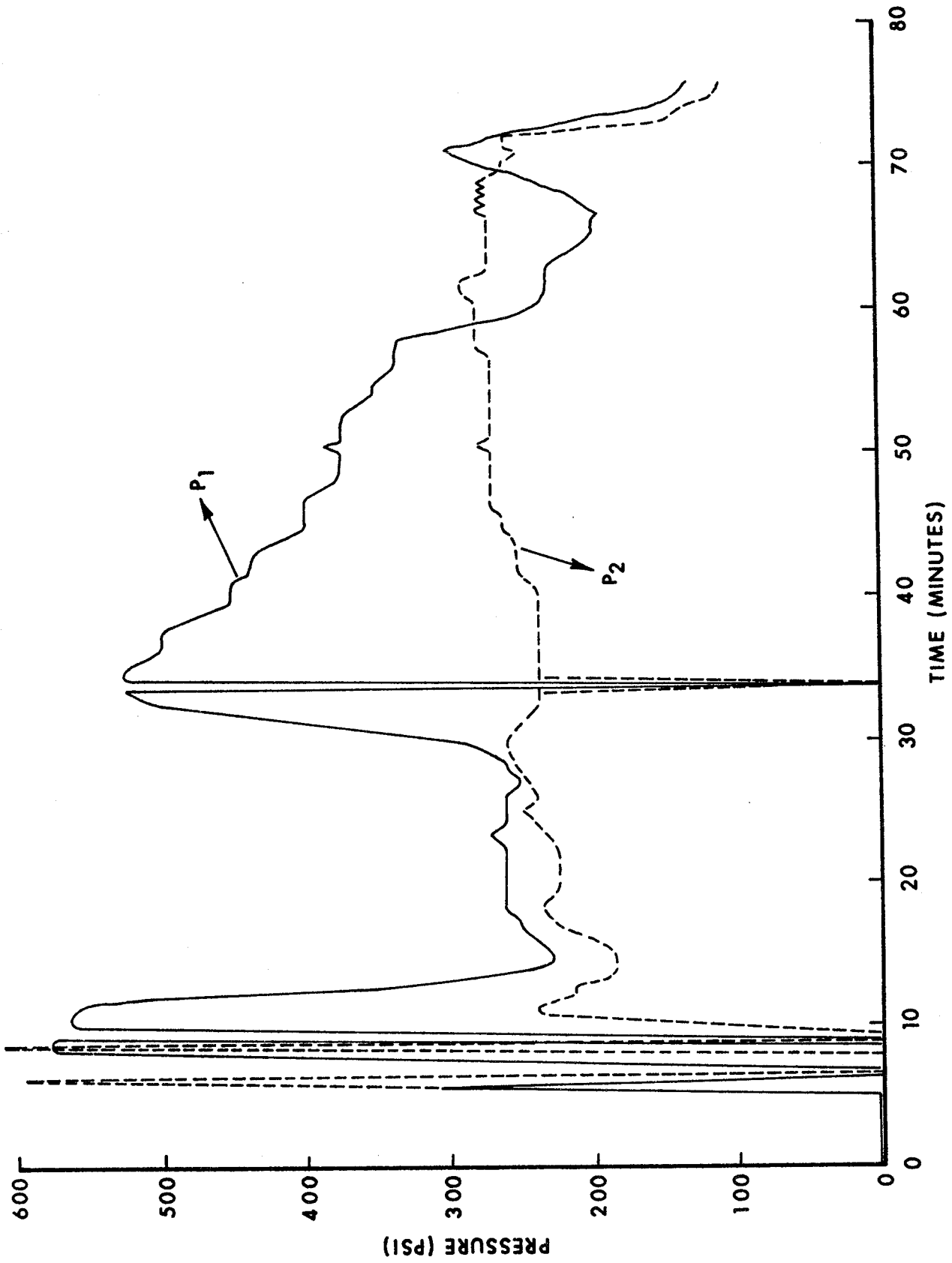
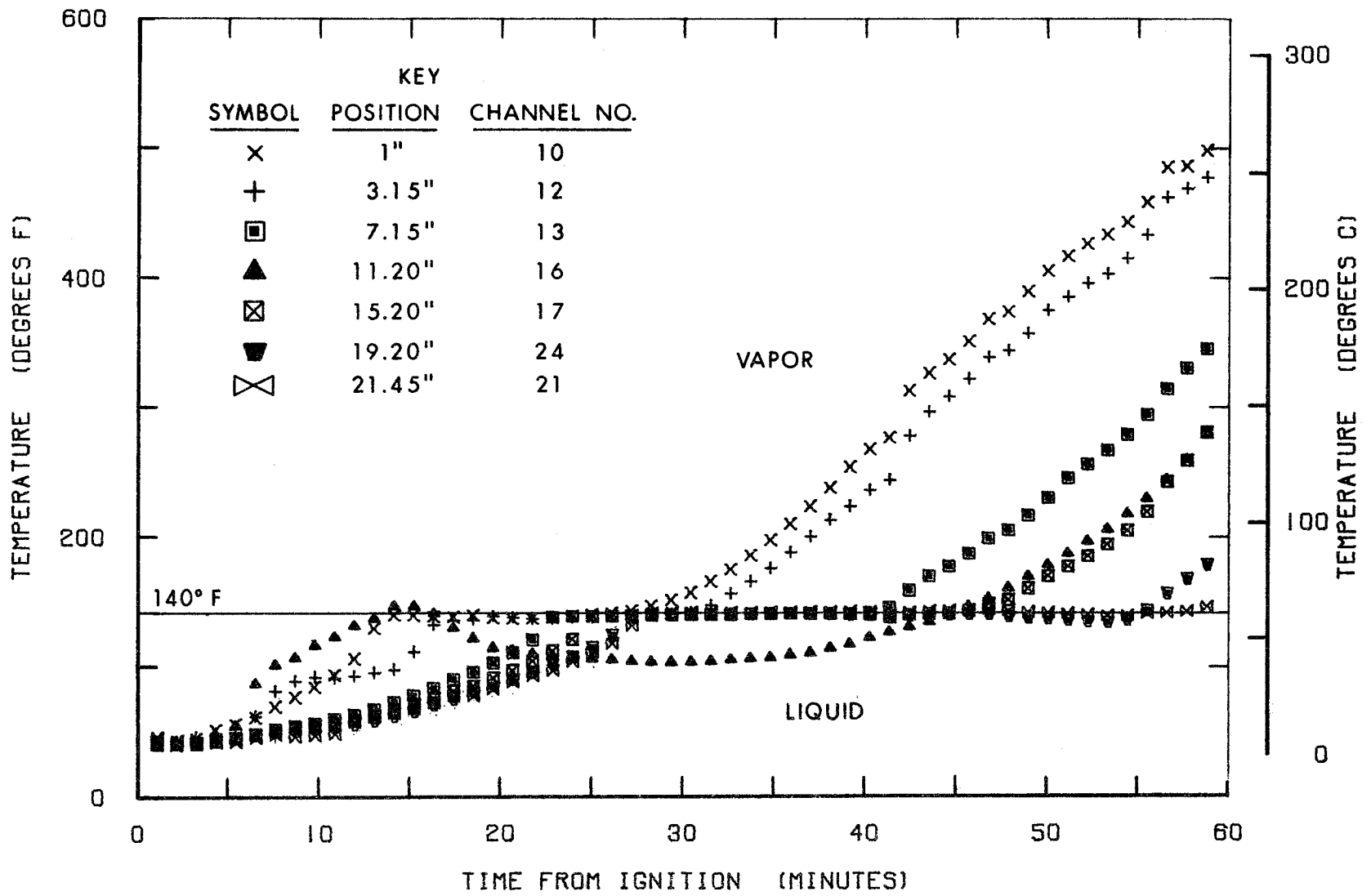


Figure 5 - Test No. 7 - Internal Pressure as a Function of Time



32

FIGURE 6 GRID TEMPERATURES - CENTER



TEST NUMBER 6

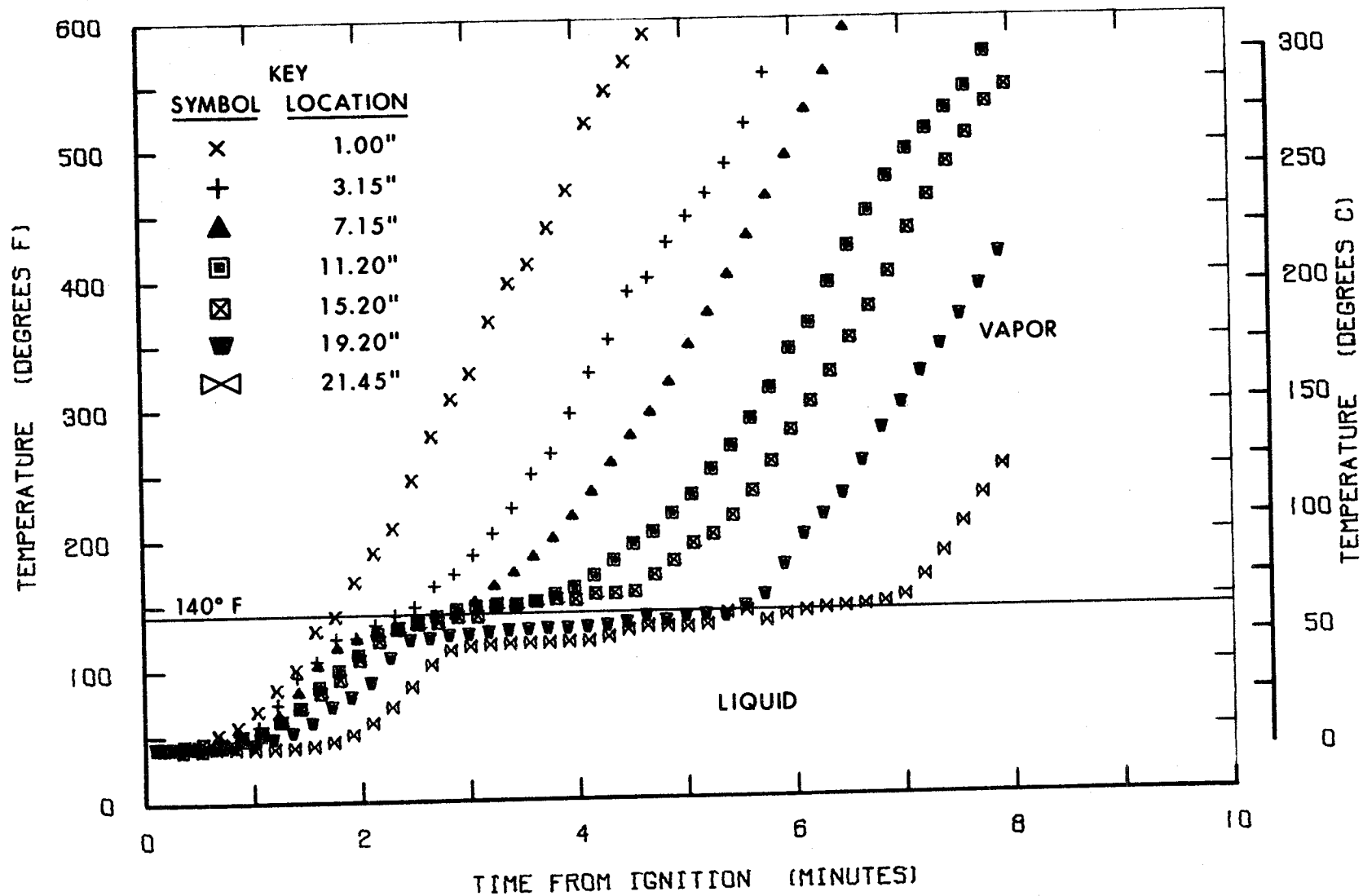


FIGURE 7 GRID TEMPERATURES - CENTER

In both tests, 6 and 7, the ullage had pronounced temperature gradients. The temperature ranged from about 140°F (60.0°C) near the liquid - vapor interface to a maximum at the top of the tank. The vapor in Test Number 7 was superheated, but not to the degree that it was in Test Number 6. This can be illustrated by the fact that when the liquid level was approximately eight inches (20.32 cm) from the top (about 2:30), as shown in Figure B9, the grid thermocouple located one inch from the top registered 163°F (72.8°C) for Test Number 7 compared to 195°F (90.6°C) for Test Number 6. Similar comparisons can be made at other positions and times. Evidently, the thermal coating was sufficiently effective to reduce the degree of superheating.

The liquid levels as a function of time are required for computing heat flux into the lading. A fundamental characteristic of the temperature profiles for the inner wall thermocouples provides a procedure for inferring the liquid levels. For some internal pressure under saturation conditions, the temperature of the liquid will reach a maximum at which point the liquid will be boiling. As long as liquid propane is in contact with the inner wall, the temperature of the wall will remain at this boiling point even though a high heat flux exists. Thus, as the heat is effectively absorbed by the change of phase of liquid to vapor, the inner wall thermocouple records a constant wall temperature and a plateau appears in the temperature versus time plot for each thermocouple. For a specific thermocouple this condition will be retained until the liquid level drops below the thermocouple, at which time the wall temperature quickly rises, thus terminating the plateau. The rapid temperature rise is due to the fact that vapor is unable to dissipate the high heat flux from the interior wall. Therefore, by reading the time at which the plateau ends for each inner wall thermocouple and plotting this datum against the corresponding thermocouple position, a curve of liquid level as a function of time is generated. It is most convenient to express the liquid level in terms of the angle  $\theta$ , where  $\theta$  is the number of degrees between 12:00 and a line drawn from the center of a cross-section of the tank to the point where the liquid surface intersects the circumference.

Figures 8 and 9 are plots of the temperature profiles of the inner wall thermocouples as a function of time. The ends of the plateaus are denoted by vertical lines. As shown, all of the plateaus are characterized by the same temperature value, in this case about 140°F (60.0°C). Figure 10 contains the plot of the liquid level as a function of time.

The heat flux into the lading can be calculated by utilizing the following formula:

$$q = \frac{2Vh_v \rho \ell}{S(t_2 - t_1)} \int_{\theta_1}^{\theta_2} \frac{\sin^2 \theta d\theta}{\pi - \theta}$$

TEST NUMBER 7

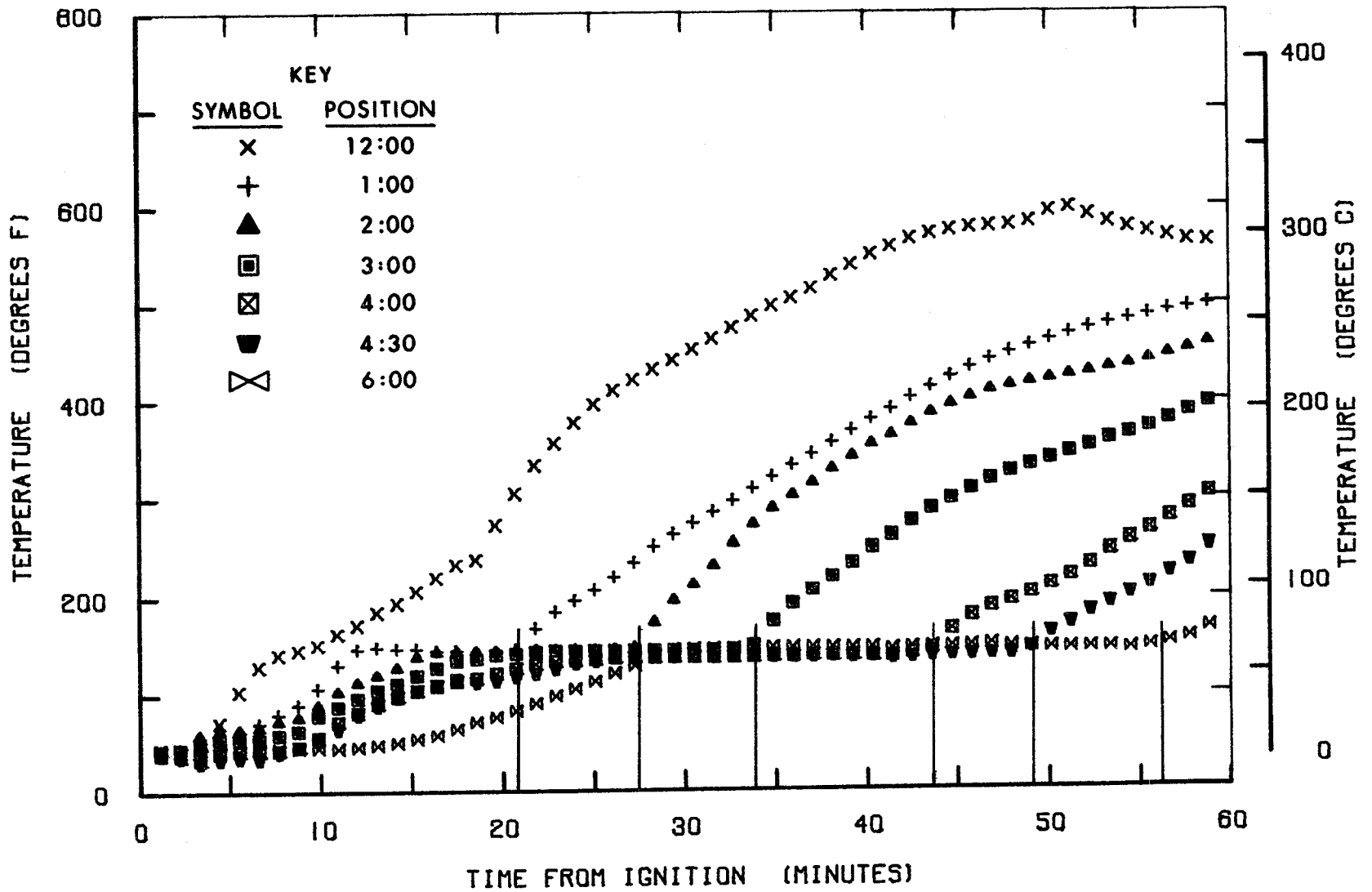


FIGURE 8 INNER WALL TEMPERATURES - RIGHT WALL

TEST NUMBER 7

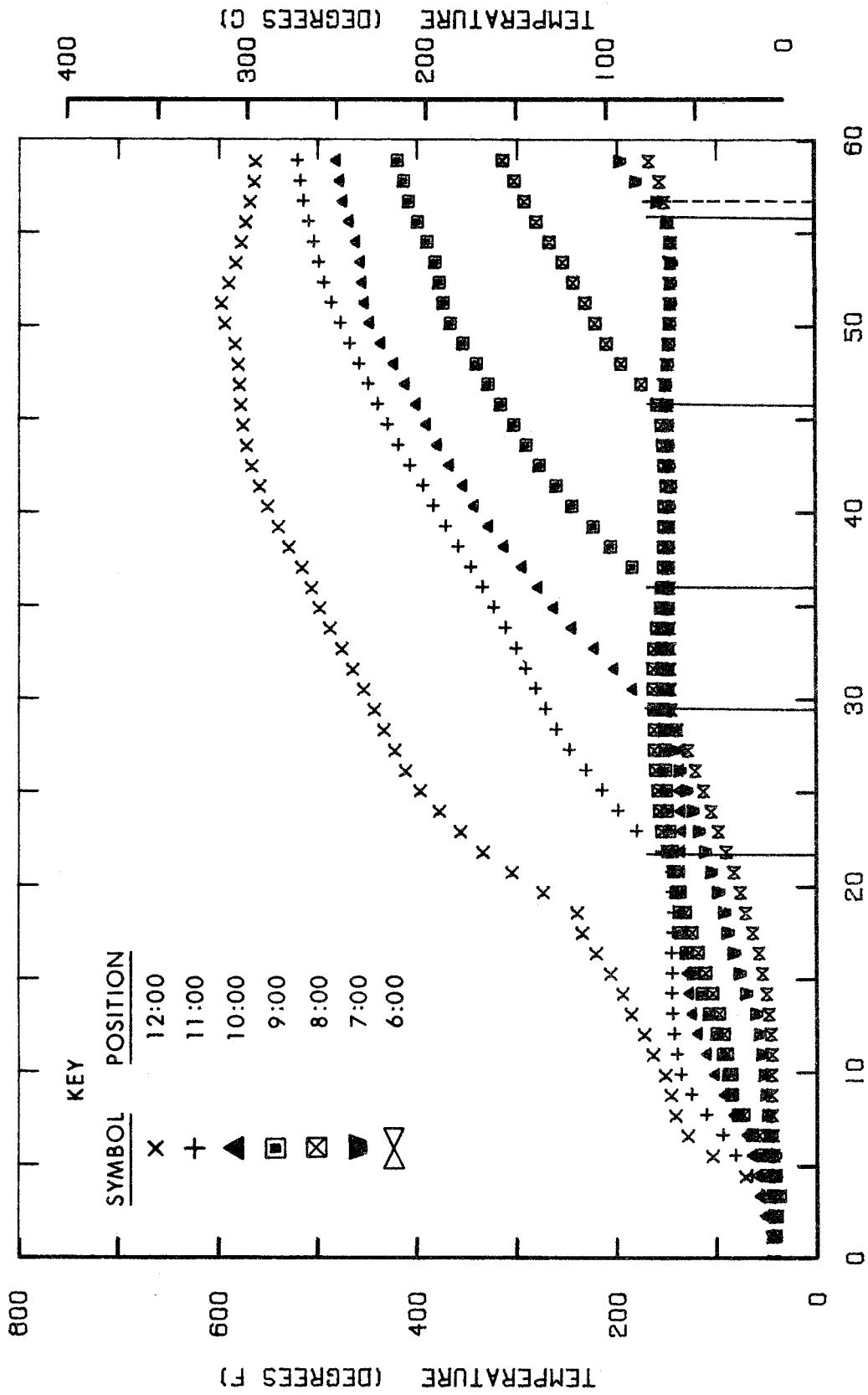


FIGURE 9 INNER WALL TEMPERATURES - LEFT WALL

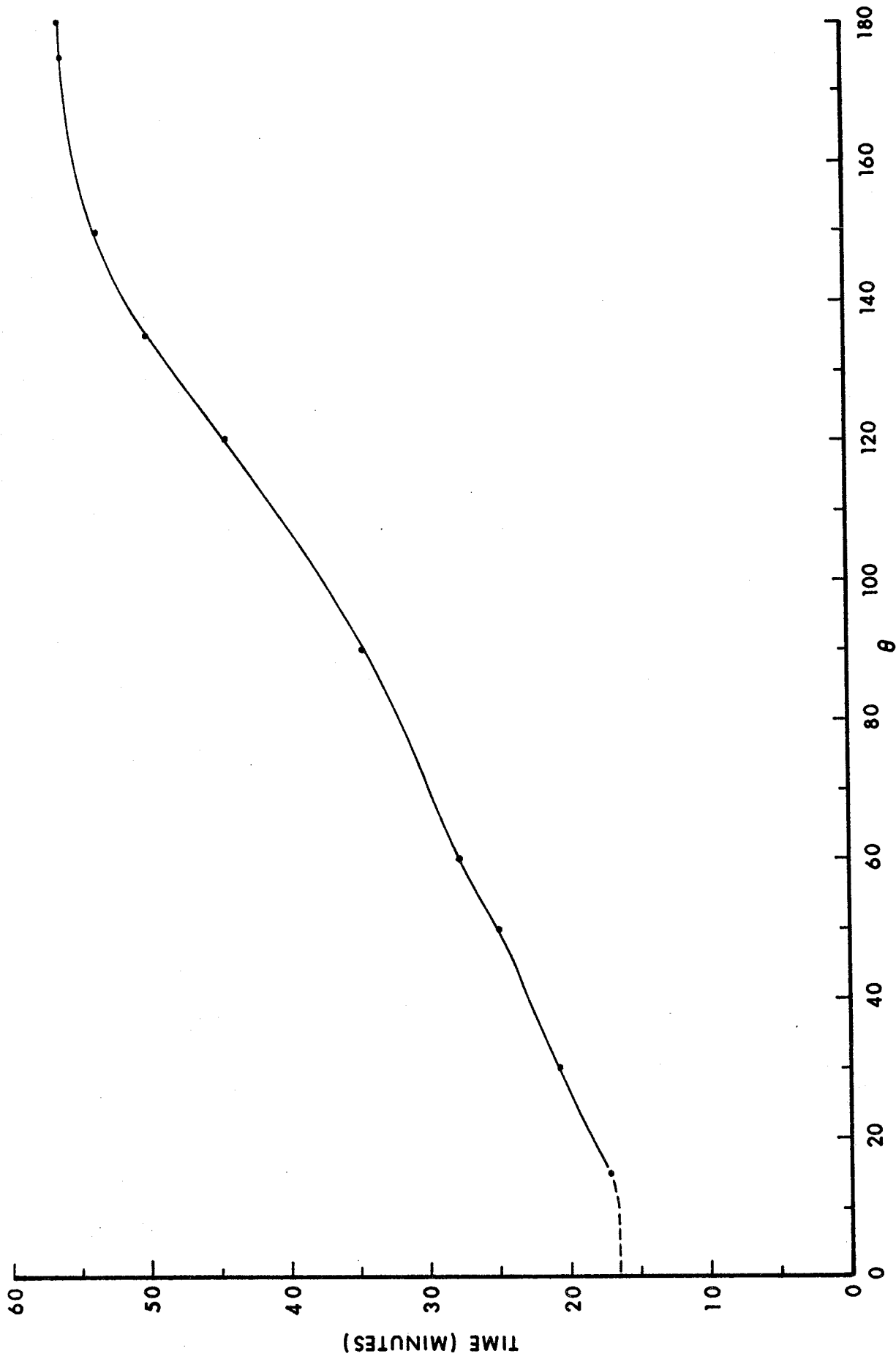


Figure 10 Test No. 7 -Liquid Level as a Function of Time

where:

$q$  = uniform heat rate per unit area into the lading (heat flux);  
BTU/hr-ft<sup>2</sup>

$V$  = volume of the tank, ft<sup>3</sup>;

$\rho_l$  = density of the liquid, lbs/ft<sup>3</sup>;

$h_v$  = latent heat of vaporization, BTU/lb;

$S$  = surface area of the tank, ft<sup>2</sup>;

$\theta_1, \theta_2$  = angles to the liquid level at times  $t_1$  and  $t_2$ .

The derivation of this formula and the numerical evaluation of the integral over  $\theta$  have been reported previously.<sup>1</sup> The numerical method for evaluating the integral was Simpson's rule with a relative error tolerance of  $1.0 \times 10^{-10}$ .

This formula assumes that the heat flux into the tank is going completely into vaporizing the liquid propane, and that the heat is being transmitted only through the surface area wetted by the liquid. Hence, this formulation can only be applied when all of the liquid propane has been heated to its boiling temperature, i.e., no heat is being used to raise the temperature of the liquid. Also, the heat utilized to raise the temperature of the vapor is negligible compared to the heat required to vaporize the liquid. Considering that it requires 117 BTU for every pound of propane vaporized (65 cal/gm °C) as compared to 0.43 BTU for every pound of vapor raised one degree Fahrenheit (0.43 cal/gm °C) and the great difference in density of the two phases of propane (approximately a factor of nine), this last assumption is valid until the tank is almost empty. This approach of calculating the heat flux into the lading ignores any heating of the liquid by the vapor or heating due to radiation from the walls exposed to vapor. That is, it ignores any heating that takes place at the liquid-vapor interface. This assumption is valid until the wall temperature becomes extremely high.

To evaluate the heat flux expression for Test Number 7, the liquid level as a function of time given in Figure 10 was utilized. The values used for the constants are as follows:

$$\begin{aligned} \rho_l &= 27.01 \text{ lb/ft}^3 \text{ (0.433 gm/cm}^3\text{)}; \\ V &= 33.35 \text{ ft}^3 \text{ (0.9444 m}^3\text{)}; \\ h_v &= 117 \text{ BTU/lb (65.0 cal/gm)}; \\ S &= 70.5 \text{ ft}^2 \text{ (6.550 m}^2\text{)}; \end{aligned}$$

Table IX presents the heat flux into the lading in increments of ten degrees. The thermal coating, because of its thermal insulating properties, kept the heat flux to a relatively low value compared to the bare tank. The average heat flux over the entire time period to empty the model tank of liquid was 5904 BTU/hr-ft<sup>2</sup> (0.444 cal/sec-cm<sup>2</sup>), compared with 44,832 BTU/hr-ft<sup>2</sup> for Test Number 6.<sup>1</sup> The thermal insulation reduced the heat input to the lading by a factor of 7.59. This reduction factor can be regarded as a measure of the effectiveness of the thermal insulation.

Another way to interpret the effectiveness of the insulation is to compare the times it took to empty the tank of liquid. The tank emptied in approximately 7.75 minutes in Test Number 3, as compared to 56.5 minutes for this test, a factor of 7.29.<sup>2</sup> (Test Number 6 cannot be compared timewise because in that test, the relief valve was positioned 90° to the vertical.) Since the two numbers are comparable, 7.59 and 7.29 (i.e., within 4%), this would seem to indicate that either method is a fairly objective and an accurate measurement of the effectiveness of a thermal insulation.

An important aspect of a liquified petroleum gas (LPG) railroad tank car test in a fire environment is whether or not the tank car goes shell full due to thermal expansion of the lading. Under shell full conditions, the interior tank wall experiences a pressure due to the hydraulic forces of an incompressible liquid. Hence, the interior pressure under this condition increases rapidly and if the relief valve fails to discharge sufficient liquid, the tank car will rupture. Also, when the tank car is shell full, the entire inside surface area is wetted by liquid thus permitting a maximum amount of heat to be transmitted to the lading while simultaneously keeping the entire tank car shell relatively cool. The significance of this is that the tensile strength of the steel shell is temperature dependent.

No specific instrumentation was installed in the model to directly indicate shell full conditions. However, this information can be inferred from available data, namely the temperature curves plotted in Figure 11. In Figure 11 the curves were translated vertically to line up the plateaus with a temperature of 140°F (60.0°C) in order to facilitate

TABLE IX

## TEST NUMBER 7 - HEAT FLUX INTO LADING

$\theta_1$ Degrees	$\theta_2$ Degrees	$t_1$ Minutes	$t_2$ Minutes	$\int_{\theta_1}^{\theta_2} \frac{\sin^2 \theta d\theta}{\pi - \theta}$	$q$ BTU/hr-ft <sup>2</sup>
20	30	18.5	20.9	.0117	874
30	40	20.9	23.0	.0228	1948
40	50	23.0	25.0	.0371	3328
50	60	25.0	27.9	.0537	3322
60	70	27.9	30.0	.0714	6099
70	80	30.0	32.1	.0888	7586
80	90	32.1	34.9	.1043	6682
90	100	34.9	37.7	.1166	7470
100	110	37.7	41.0	.1242	6752
110	120	41.0	44.2	.1261	7069
120	130	44.2	48.0	.1217	5745
130	140	48.0	51.5	.1108	5679
140	150	51.5	53.8	.0938	7316
150	160	53.8	55.2	.0713	9136
160	170	55.2	56.0	.0446	10001
170	180	56.0	56.5	.0152	5453



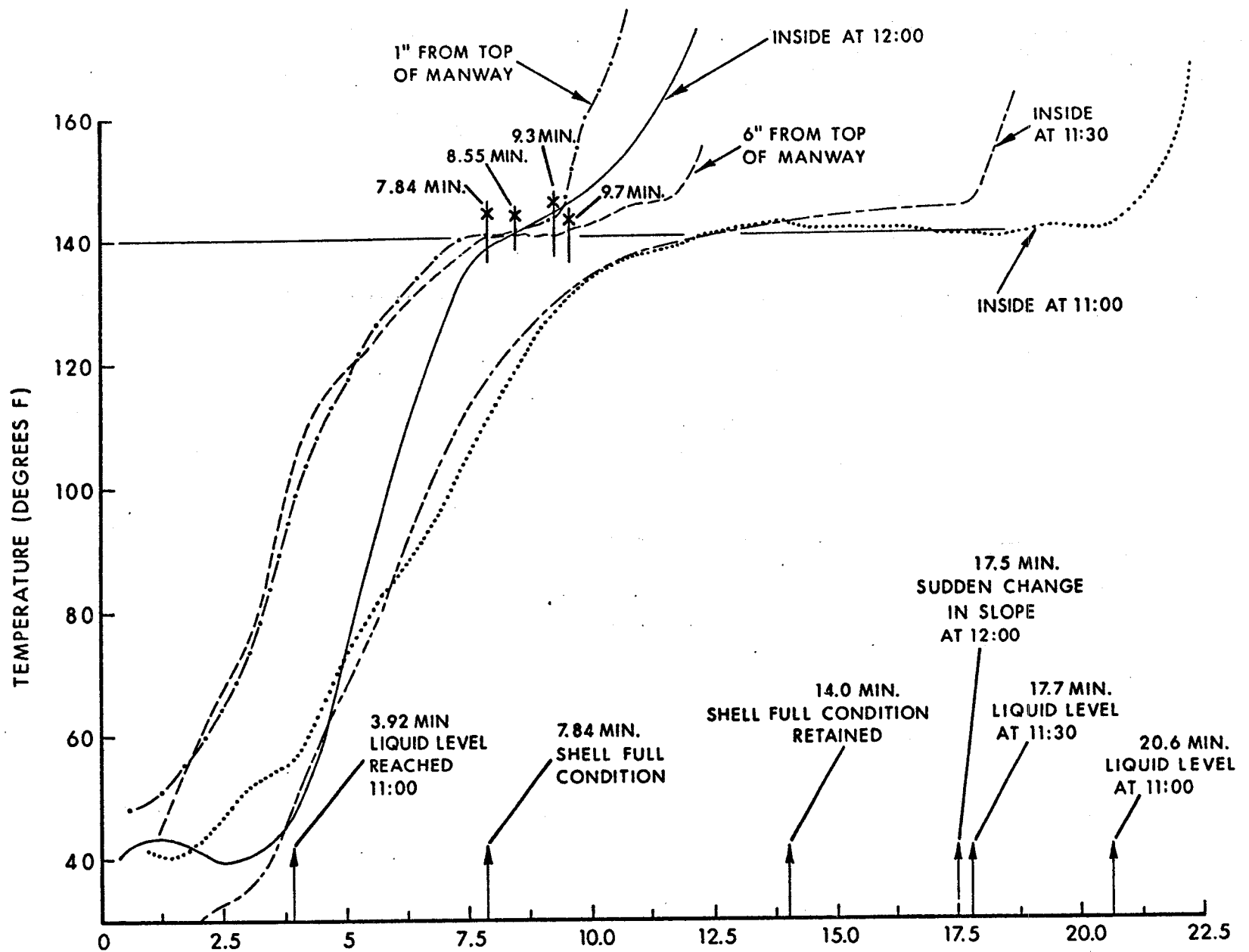


Figure 11 Test No. 7- Thermocouple Temperature as a Function of Time which Indicate Shell Full Conditions.

comparisons. As explained previously, the termination of a plateau for a wall thermocouple indicates the approximate time at which the liquid level recedes below that particular thermocouple. Since there are obvious plateaus in both manway thermocouple curves, the liquid level rose up into the manway. The manway thermocouples were of course above the inner wall thermocouples. Based on liquid expansion calculations, the liquid level reached the 11:00 inner wall thermocouple at about 3.9 minutes after fire initiation. Shell full conditions prevailed at 7.84 minutes after initiation. At that point, liquid must have been forced out of the tank through a ruptured seal around one of the valves. Then at approximately 9.3 minutes, the liquid level dropped below the manway thermocouples located one inch from the top, as indicated by the increase in temperature. The liquid level dropped below the inner wall thermocouple for the 11:30 position at 17.7 minutes, and the 11:00 position at 20.6 minutes. The recession of the liquid level from 9.3 minutes to 20.6 minutes was due to vaporization and subsequent escape of the vapor through the broken seal.

An anomaly appears in the shape of the plot of the temperature as recorded by the inner wall thermocouple at 12:00. Even though the tank went shell full, no plateau appears in the temperature curve for 12:00, which implies that the liquid level did not rise to that position and hence a contradiction. A possible explanation is that the 12:00 thermocouple was encased in a vapor bubble. Recalling that the plane of the inner wall thermocouples was positioned about a third of the distance from the end of the model and not at the location of the manway, it is easy to visualize that vapor could have been trapped. From the 12:00 inner wall thermocouple curve, two slopes are dominant. The first one, from about 3.92 minutes to 7.84 minutes, gives the rate of temperature increase when the vapor space was relatively large. From 7.84 minutes to 17.5 minutes, during shell full conditions, the rate of temperature increase was significantly less but did continue, thus signifying that a vapor "space" existed but was relatively small. At 17.5 minutes the slope changes again and becomes essentially the same as before shell full conditions. The origin of the vapor bubble is probably caused by the interplay of two factors. First, the propane was not 100% pure, and the impurities would alter the boiling point. Secondly, the physical presence of the thermocouple provided a point on which bubbles could cling. Also, it is possible that the tank was not perfectly level.

## VII. CONCLUSIONS

The seal around one of the valves failed, permitting the propane vapor to escape, and allowed it to escape at a rate sufficiently rapid to keep the pressure from building up to a value sufficient to open the valve. However, the test results are still valid and useful for application in model development.

For the purpose of reducing the heat flux into the lading the four inch (10.16 cm) thick polyurethane foam plus the steel containment shield provided effective thermal insulation. More specifically, the effectiveness of the coating, referred to in the text as the effectiveness factor, was determined to be 7.4. That is, the heat flux into the tank was decreased by a factor of 7.4 compared to the uncoated test model.

Considerable evidence indicated that the model went shell full during the test due to thermal expansion of the propane liquid.

## VIII. ACKNOWLEDGMENT

The authors wish to acknowledge the technical assistance and helpful advice of Mr. Edward O. Baicy, Chief of the Flame and Incendiary Effects Branch, BRL. Also, Mr. Donald Levine of the Department of Transportation provided valuable technical and administrative assistance needed to ensure the success of the project. The personnel of the White Sands Missile Range are to be commended for their excellent cooperation and support of this work.

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APPENDIX A: TEMPERATURE VERSUS TIME DATA



TABLE A I  
THERMOCOUPLE TEMPERATURES (DEG. F.) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) =											TIME	
		.00	13.06	26.12	39.19	52.25	65.31	78.37	91.43	104.50	117.56	ADJUST	ACC	
10	( GRID AT 1. IN. )	42.1	42.1	42.0	41.9	41.6	40.6	40.6	39.4	39.0	38.9	.00		
11	( GRID AT 3.15 INS. )	42.1	42.0	41.9	41.8	41.7	41.7	41.1	41.3	41.4	41.6	.22		
12	( GRID AT 3.15 INS. )	42.1	41.6	41.5	41.1	42.0	42.6	41.1	44.0	43.5	43.3	.44		
13	( GRID AT 7.15 INS. )	42.1	41.5	41.4	42.3	41.8	39.5	42.8	37.3	37.9	39.1	.65		
14	( GRID AT 7.15 INS. )	42.1	42.0	41.9	42.0	41.6	39.8	41.3	38.8	39.2	39.0	.87		
16	( GRID AT 11.2 INS. )	42.1	42.0	41.9	41.8	41.7	41.0	41.2	40.1	40.0	39.6	1.31		
17	( GRID AT 15.2 INS. )	42.1	42.0	41.8	41.7	41.4	40.2	41.2	39.2	39.5	39.3	1.52		
18	( GRID AT 15.2 INS. )	42.1	42.0	41.8	41.7	41.7	41.3	41.7	41.0	40.8	40.9	1.74		
19	( GRID AT 19.2 INS. )	42.1	41.9	41.9	41.9	41.6	41.4	40.9	40.1	40.2	40.5	1.96		
24	( GRID AT 19.2 INS. )	42.1	42.0	42.0	42.0	42.1	42.2	43.2	41.8	41.7	41.6	3.05		
21	( GRID AT 21.45 INS. )	42.1	42.1	42.0	43.5	46.2	45.9	43.5	43.6	43.3	42.8	2.39		
22	( INSIDE AT 12 00 )	42.1	42.0	41.9	43.4	44.3	44.2	42.3	41.4	40.6	39.9	2.61		
23	( INSIDE AT 12 30 )	94.2	94.0	93.7	93.5	92.3	96.3	77.3	74.4	70.5	67.4	2.83		
20	( INSIDE AT 1 00 )	42.1	42.0	41.8	41.2	41.3	40.5	39.2	39.0	38.4	37.3	2.18		
25	( INSIDE AT 1 30 )	42.1	42.0	42.0	41.9	41.6	41.2	40.1	40.4	40.4	40.6	3.27		
26	( INSIDE AT 2 00 )	42.1	42.1	41.4	41.4	41.9	41.6	41.2	40.9	41.2	42.6	3.48		
27	( INSIDE AT 3 00 )	42.1	42.0	41.8	41.7	41.7	41.7	41.2	40.9	41.1	42.2	3.70		
28	( INSIDE AT 4 00 )	42.1	41.9	41.8	42.0	42.4	38.6	34.5	32.8	32.9	33.0	3.92		
29	( INSIDE AT 4 30 )	42.1	41.3	41.3	42.4	42.4	38.0	36.5	34.4	33.7	33.4	4.14		
31	( INSIDE AT 5 30 )	42.1	42.1	41.4	41.3	41.3	41.8	41.7	42.1	41.8	43.2	4.57		
32	( INSIDE AT 6 00 )	42.1	42.0	41.8	41.8	41.6	41.3	41.6	41.1	41.1	40.8	4.79		
33	( INSIDE AT 6 30 )	42.1	41.8	41.6	41.3	41.6	41.5	41.4	42.1	42.5	45.4	5.01		
34	( INSIDE AT 7 00 )	42.1	42.0	41.9	41.9	41.8	40.7	38.9	39.5	39.3	43.4	5.22		
35	( INSIDE AT 7 30 )	42.1	41.9	41.8	42.0	42.0	41.1	39.3	39.7	39.6	43.1	5.44		
36	( INSIDE AT 8 00 )	42.1	41.9	41.7	41.8	42.3	41.9	36.4	37.4	36.5	43.2	5.66		
37	( INSIDE AT 9 00 )	42.1	41.9	41.8	41.8	41.9	40.9	38.0	38.5	38.4	42.1	5.88		
38	( INSIDE AT 10 00 )	42.1	41.9	41.8	41.1	41.4	41.9	35.8	35.7	37.2	44.6	6.10		
39	( INSIDE AT 10 30 )	42.1	42.0	41.9	41.9	41.6	39.3	36.1	37.7	39.1	46.1	6.31		
40	( INSIDE AT 11 00 )	42.1	42.0	41.7	41.6	41.3	42.2	42.3	42.8	42.9	45.0	6.53		
41	( INSIDE AT 11 30 )	42.1	41.9	41.8	41.7	41.7	42.1	39.7	40.5	40.6	43.2	6.75		
44	( OUTSIDE AT 12 00 )	42.1	41.9	41.7	41.9	41.2	25.2	15.1	3.5	-9.7	21.4	7.40		
45	( OUTSIDE AT 1 00 )	42.1	42.0	41.2	41.7	41.5	39.0	30.1	24.1	22.4	53.1	7.62		
46	( OUTSIDE AT 2 00 )	42.1	41.9	41.7	42.4	42.9	38.7	30.1	22.9	24.2	51.7	7.84		
47	( OUTSIDE AT 3 00 )	42.1	41.9	41.7	42.0	42.0	40.5	36.5	34.6	32.0	2.0	8.05		
48	( OUTSIDE AT 4 00 )	42.1	42.1	42.6	41.9	41.7	40.5	36.0	35.5	33.6	47.5	8.27		
49	( OUTSIDE AT 5 00 )	42.1	42.0	41.9	42.7	42.6	34.8	29.4	29.8	12.0	46.8	8.49		
50	( OUTSIDE AT 6 00 )	94.1	93.2	92.6	93.0	93.1	69.7	39.6	28.3	-8.6	-35.0	8.71		
51	( OUTSIDE AT 7 00 )	292.8	292.3	291.5	291.9	300.7	111.3	122.7	116.0	32.5	34.5	8.93		
52	( OUTSIDE AT 8 00 )	167.6	167.1	166.1	165.7	167.6	130.2	83.0	74.6	55.6	91.0	9.14		
53	( OUTSIDE AT 9 00 )	119.2	119.0	118.0	117.8	119.0	91.3	64.3	55.8	16.3	85.2	9.36		
54	( OUTSIDE AT 10 00 )	132.3	132.0	131.0	129.5	130.6	99.4	63.6	30.6	24.6	99.5	9.58		
56	( OUTSIDE AT 11 00 )	112.4	111.5	111.4	110.9	110.7	86.8	56.5	24.6	14.4	78.1	10.01		
42	( MANWAY AT 1. IN. )	42.1	42.1	41.9	41.9	42.7	44.0	46.6	49.4	52.1	53.8	6.97		
43	( MANWAY AT 6. INS. )	42.1	41.9	41.8	46.1	56.0	65.1	64.6	69.7	71.0	77.7	7.18		
55	( FIRE AT 12 00 FORE )	42.1	42.8	93.2	1452.4	1731.7	1722.0	1701.5	1681.2	1693.6	1763.9	9.80		
57	( FIRE AT 3 00 FORE )	123.8	123.2	281.4	1239.7	1630.4	1656.2	1640.4	1600.4	1610.0	1818.2	10.23		
60	( FIRE AT 6 00 FORE )	-127.4	-125.9	262.2	1453.0	1637.1	1715.6	1653.7	1616.6	1813.1	1623.0	10.89		
61	( FIRE AT 9 00 FORE )	-10.7	-12.8	1209.3	1706.4	1726.4	1611.6	1909.6	1950.4	2255.6	1956.6	11.10		
62	( FIRE AT 12 00 AFT )	42.1	41.2	51.7	54.9	56.4	45.5	-44.1	-75.3	1.1	214.6	11.32		
63	( FIRE AT 3 00 AFT )	209.1	208.7	612.1	1356.9	1711.3	1740.7	1584.7	1577.5	1581.2	1858.6	11.54		
64	( FIRE AT 6 00 AFT )	103.5	106.7	384.2	1206.8	1477.3	1570.6	1576.2	1561.4	1597.8	1633.1	11.76		
65	( FIRE AT 9 00 AFT )	42.1	41.1	420.6	1192.0	1516.9	1693.5	1646.2	1601.3	1725.6	1732.2	11.97		

47

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TABLE A II

		THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7										
CHANNEL NUMBER	LOCATION	TIME (SEC) = 130.62	143.68	156.74	169.81	182.87	195.93	208.99	222.05	235.12	248.18	TIME ADJUST
10	( GRID AT 1. IN. )	39.7	41.3	40.8	44.0	44.6	44.8	46.4	46.8	48.2	49.7	.00
11	( GRID AT 3.15 INS. )	41.7	41.9	43.0	44.0	45.0	45.9	46.9	47.9	48.8	49.8	.22
12	( GRID AT 3.15 INS. )	40.2	40.2	41.6	44.8	45.8	46.2	45.6	45.9	46.0	48.2	.44
13	( GRID AT 7.15 INS. )	42.5	40.9	40.7	39.4	40.1	40.6	42.7	43.5	43.6	42.2	.65
14	( GRID AT 7.15 INS. )	39.9	39.2	39.6	39.2	39.8	40.5	41.6	42.5	43.4	43.3	.87
16	( GRID AT 11.2 INS. )	40.5	40.1	40.5	40.1	40.3	40.7	41.4	41.8	42.2	42.4	1.31
17	( GRID AT 15.2 INS. )	40.4	39.8	40.1	39.3	39.8	40.5	41.1	42.0	42.4	42.2	1.52
18	( GRID AT 15.2 INS. )	40.7	40.5	40.6	40.8	40.9	40.9	41.0	41.0	41.6	42.1	1.74
19	( GRID AT 19.2 INS. )	42.0	42.0	42.3	40.6	41.1	41.7	42.9	44.0	44.0	43.7	1.96
24	( GRID AT 19.2 INS. )	41.3	41.7	43.1	41.9	41.9	42.1	41.9	42.4	42.6	43.0	3.05
21	( GRID AT 21.45 INS. )	43.3	42.8	40.7	41.1	40.9	40.7	41.3	41.0	41.5	41.5	2.39
22	( INSIDE AT 12 00 )	41.5	41.6	41.2	42.2	44.3	46.6	49.5	53.0	58.7	64.0	2.61
23	( INSIDE AT 12 30 )	78.1	81.3	71.5	67.4	65.6	67.6	69.7	69.9	77.1	77.7	2.83
20	( INSIDE AT 1 00 )	36.7	37.8	40.5	39.7	41.2	43.3	43.6	46.5	46.4	48.3	2.18
25	( INSIDE AT 1 30 )	42.0	43.7	44.7	46.8	48.1	49.3	50.9	52.5	54.0	54.5	3.27
26	( INSIDE AT 2 00 )	44.1	46.9	49.3	53.6	56.3	57.9	59.0	60.2	61.4	61.9	3.48
27	( INSIDE AT 3 00 )	44.5	45.6	47.3	48.0	49.3	50.5	52.0	52.7	53.8	53.7	3.70
28	( INSIDE AT 4 00 )	37.4	35.8	32.2	32.2	32.5	33.0	35.8	36.3	39.9	40.0	3.92
29	( INSIDE AT 4 30 )	36.2	33.4	29.4	30.5	30.5	30.4	31.8	31.9	33.8	33.5	4.14
31	( INSIDE AT 5 30 )	42.2	42.2	41.3	41.5	42.1	42.2	42.5	42.0	42.4	42.5	4.57
32	( INSIDE AT 6 00 )	41.4	41.5	41.6	41.3	41.4	41.4	42.1	41.7	42.1	42.1	4.79
33	( INSIDE AT 6 30 )	41.6	41.6	43.2	41.8	41.6	41.7	40.6	41.4	41.2	41.5	5.01
34	( INSIDE AT 7 00 )	40.6	40.5	39.0	39.5	39.5	39.6	40.2	40.7	40.6	40.3	5.22
35	( INSIDE AT 7 30 )	41.5	41.2	40.1	40.3	40.5	40.8	41.5	42.1	42.1	41.6	5.44
36	( INSIDE AT 8 00 )	39.6	39.0	35.5	36.1	38.7	36.4	38.2	40.4	40.9	40.4	5.66
37	( INSIDE AT 9 00 )	40.9	41.6	40.1	41.4	43.6	43.6	45.5	47.2	48.5	48.3	5.88
38	( INSIDE AT 10 00 )	50.1	54.8	54.2	54.8	55.9	55.3	56.5	57.2	57.9	57.0	6.10
39	( INSIDE AT 10 30 )	45.9	48.3	48.3	50.6	52.8	53.0	54.1	56.2	56.9	58.1	6.31
40	( INSIDE AT 11 00 )	46.4	48.4	50.8	52.9	53.5	54.8	55.3	56.1	58.2	61.4	6.53
41	( INSIDE AT 11 30 )	43.5	44.8	44.6	46.0	48.1	50.6	53.2	57.2	61.4	65.6	6.75
44	( OUTSIDE AT 12 00 )	21.4	17.9	11.4	17.2	21.1	22.9	29.9	50.7	61.0	74.5	7.40
45	( OUTSIDE AT 1 00 )	44.1	44.8	15.3	26.7	36.0	37.1	52.1	64.4	56.5	52.1	7.62
46	( OUTSIDE AT 2 00 )	49.8	53.2	22.9	31.5	41.8	44.5	66.5	75.9	69.9	63.1	7.84
47	( OUTSIDE AT 3 00 )	-12.7	-4.9	29.2	39.7	47.8	49.0	22.8	19.4	49.4	49.8	8.05
48	( OUTSIDE AT 4 00 )	42.8	43.1	34.3	36.7	40.8	47.2	43.7	48.8	45.4	44.8	8.27
49	( OUTSIDE AT 5 00 )	39.0	39.7	14.8	20.4	30.9	36.0	40.9	47.8	43.1	40.2	8.49
50	( OUTSIDE AT 6 00 )	-31.0	-19.1	-23.1	-22.7	-25.3	-23.5	-7.5	58.8	49.2	59.1	8.71
51	( OUTSIDE AT 7 00 )	-137.7	-43.2	-97.9	-91.4	-69.5	-44.8	-35.9	33.6	35.3	30.6	8.93
52	( OUTSIDE AT 8 00 )	79.7	53.5	16.2	14.3	20.4	36.0	46.4	95.6	97.1	95.0	9.14
53	( OUTSIDE AT 9 00 )	80.3	65.6	29.6	30.4	36.7	51.0	62.1	105.5	109.1	103.4	9.36
54	( OUTSIDE AT 10 00 )	106.3	93.7	53.4	52.1	57.4	67.7	76.7	117.3	120.1	116.9	9.58
56	( OUTSIDE AT 11 00 )	79.3	67.0	33.7	32.2	37.8	49.0	58.6	95.3	102.7	105.4	10.01
42	( MANNWAY AT 1. IN. )	56.3	59.3	63.2	66.9	72.0	75.9	81.3	87.7	94.0	98.4	6.97
43	( MANNWAY AT 6. INS. )	79.1	84.5	85.3	90.1	95.5	100.9	107.3	118.1	122.0	126.3	7.18
55	( FIRE AT 12 00 FORE )	1666.3	1562.0	1462.2	1438.2	1416.2	1507.7	1515.9	1511.1	1488.3	1437.5	9.80
57	( FIRE AT 3 00 FORE )	1783.5	1878.3	1730.8	1711.7	1837.7	1731.7	1769.4	1774.4	1741.1	1716.6	10.23
60	( FIRE AT 6 00 FORE )	1477.4	1462.2	1553.9	1532.3	1562.9	1580.6	1596.6	1586.3	1546.0	1478.5	10.89
61	( FIRE AT 9 00 FORE )	1758.3	1659.9	1591.8	1539.9	1565.5	1630.9	1559.3	1583.9	1531.4	1455.9	11.10
62	( FIRE AT 12 00 AFT )	234.0	251.2	215.4	212.8	226.7	276.0	290.7	320.3	332.8	335.0	11.32
63	( FIRE AT 3 00 AFT )	1596.8	1737.4	1687.9	1727.3	1669.3	1545.9	1597.1	1661.7	1491.6	1609.5	11.54
64	( FIRE AT 6 00 AFT )	1703.2	1639.5	1601.6	1672.7	1586.7	1632.2	1562.5	1584.5	1482.7	1525.1	11.76
65	( FIRE AT 9 00 AFT )	1627.1	1604.9	1463.6	1535.6	1434.3	1642.7	1550.9	1559.5	1507.7	1423.4	11.97



TABLE A III

THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) =										TIME ADJUST ACC
		261.24	274.30	287.36	300.43	313.49	326.55	339.61	352.67	365.74	378.80	
10	( GRID AT 1. IN. )	51.5	51.9	52.1	53.5	54.4	55.7	57.0	58.2	59.2	60.5	.00
11	( GRID AT 3.15 INS. )	50.5	51.2	51.8	52.2	52.7	53.3	54.3	54.7	55.5	57.1	.22
12	( GRID AT 3.15 INS. )	49.0	49.9	50.9	52.2	52.9	52.6	53.2	54.1	55.3	58.4	.44
13	( GRID AT 7.15 INS. )	42.5	42.6	44.2	45.8	49.2	54.7	62.2	69.6	77.4	82.6	.65
14	( GRID AT 7.15 INS. )	44.0	44.5	45.3	46.1	46.7	47.7	48.6	49.4	50.7	51.5	.87
16	( GRID AT 11.2 INS. )	43.0	43.4	43.9	44.4	45.0	45.7	46.3	46.8	47.3	47.7	1.31
17	( GRID AT 15.2 INS. )	42.6	43.0	43.5	43.8	44.5	45.0	45.4	46.0	46.8	47.2	1.52
18	( GRID AT 15.2 INS. )	42.6	42.8	43.3	43.9	44.6	45.7	47.0	48.3	49.4	52.6	1.74
19	( GRID AT 19.2 INS. )	43.8	44.1	44.3	44.6	45.0	45.4	45.9	46.3	46.4	46.9	1.96
24	( GRID AT 19.2 INS. )	43.2	43.5	44.0	44.1	44.5	44.9	45.4	46.1	46.4	47.0	3.05
21	( GRID AT 21.45 INS. )	41.8	41.8	41.9	41.9	42.2	42.1	41.0	40.8	42.7	44.1	2.39
22	( INSIDE AT 12 00 )	71.2	77.3	83.8	90.1	96.3	103.5	109.9	115.4	119.7	124.1	2.61
23	( INSIDE AT 12 30 )	82.3	83.0	83.7	85.0	86.2	86.6	87.4	86.8	90.0	89.2	2.83
20	( INSIDE AT 1 00 )	50.7	52.3	54.5	56.9	59.3	61.3	63.2	65.1	67.1	68.6	2.18
25	( INSIDE AT 1 30 )	55.7	56.6	57.7	58.7	59.8	60.8	61.7	62.6	63.7	64.8	3.27
26	( INSIDE AT 2 00 )	62.2	61.8	62.1	62.2	63.0	63.1	63.4	63.8	64.3	64.4	3.48
27	( INSIDE AT 3 00 )	53.1	53.3	53.4	53.6	53.7	53.9	54.1	54.2	54.3	53.9	3.70
28	( INSIDE AT 4 00 )	39.6	39.4	39.7	40.2	40.9	41.9	43.0	42.9	42.6	42.1	3.92
29	( INSIDE AT 4 30 )	33.3	33.2	33.7	33.9	34.2	34.7	35.1	34.6	33.9	33.7	4.14
31	( INSIDE AT 5 30 )	42.7	42.1	42.3	42.4	43.3	43.6	44.0	44.2	44.7	44.3	4.57
32	( INSIDE AT 6 00 )	42.3	42.4	42.5	42.6	42.6	42.6	42.8	43.0	43.0	43.0	4.79
33	( INSIDE AT 6 30 )	41.0	41.3	41.4	41.6	41.8	42.3	42.6	43.0	43.6	44.0	5.01
34	( INSIDE AT 7 00 )	40.4	40.3	40.5	40.6	40.9	41.4	41.8	42.5	43.2	44.0	5.22
35	( INSIDE AT 7 30 )	41.6	41.6	41.7	42.1	42.2	42.6	43.5	44.1	44.6	44.9	5.44
36	( INSIDE AT 8 00 )	40.6	41.0	41.8	43.0	44.9	47.2	49.6	51.5	53.8	55.5	5.66
37	( INSIDE AT 9 00 )	49.2	49.7	50.4	51.5	52.6	54.0	55.6	57.2	60.7	63.0	5.88
38	( INSIDE AT 10 00 )	58.2	58.3	58.8	60.2	61.3	63.1	64.5	65.1	66.7	67.8	6.10
39	( INSIDE AT 10 30 )	59.9	61.6	63.5	65.9	68.9	72.5	75.8	78.5	81.9	84.7	6.31
40	( INSIDE AT 11 00 )	64.6	67.8	71.9	75.3	78.5	81.2	83.7	86.5	88.9	91.2	6.53
41	( INSIDE AT 11 30 )	69.4	73.7	77.7	81.3	85.0	88.5	92.1	96.3	101.1	105.4	6.75
44	( OUTSIDE AT 12 00 )	77.8	89.7	96.7	106.2	114.3	124.0	132.2	137.6	140.8	156.9	7.40
45	( OUTSIDE AT 1 00 )	61.0	59.6	67.4	72.1	80.0	86.2	88.2	88.6	90.2	91.8	7.62
46	( OUTSIDE AT 2 00 )	69.9	68.7	71.8	72.1	73.2	75.4	76.1	75.7	77.2	79.2	7.84
47	( OUTSIDE AT 3 00 )	.3	4.5	15.8	13.9	13.4	9.8	4.3	7.6	19.4	24.3	8.05
48	( OUTSIDE AT 4 00 )	45.6	46.1	45.9	44.1	43.0	43.4	38.3	35.7	35.7	34.4	8.27
49	( OUTSIDE AT 5 00 )	40.9	42.4	43.6	45.0	44.4	48.0	48.8	50.3	53.5	52.6	8.49
50	( OUTSIDE AT 6 00 )	67.3	69.8	74.0	76.5	82.8	94.3	101.8	106.4	108.7	116.6	8.71
51	( OUTSIDE AT 7 00 )	29.4	30.6	27.2	28.6	34.4	42.9	49.8	52.9	47.2	40.5	8.93
52	( OUTSIDE AT 8 00 )	89.9	90.4	86.9	86.9	91.2	96.7	103.8	103.7	100.4	94.7	9.14
53	( OUTSIDE AT 9 00 )	98.3	98.9	99.3	100.9	105.6	108.0	116.6	119.8	118.2	124.1	9.36
54	( OUTSIDE AT 10 00 )	115.7	118.4	121.3	125.7	130.0	136.8	141.9	142.4	140.9	144.7	9.58
56	( OUTSIDE AT 11 00 )	108.4	113.1	118.3	123.3	132.4	139.4	144.0	145.2	145.3	153.8	10.01
42	( MANWAY AT 1. IN. )	103.8	108.1	110.1	113.1	116.3	118.9	121.8	123.8	126.1	128.3	6.97
43	( MANWAY AT 6. INS. )	130.3	134.0	134.9	136.5	137.5	139.6	142.3	144.3	146.9	148.4	7.18
55	( FIRE AT 12 00 FORE )	1396.8	1391.3	1484.2	1513.1	1475.6	1531.2	1564.9	1505.4	1464.1	1442.3	9.80
57	( FIRE AT 3 00 FORE )	1694.5	1706.3	1733.0	1735.4	1746.5	1758.0	1736.0	1694.3	1703.1	1709.9	10.23
60	( FIRE AT 6 00 FORE )	1412.4	1389.3	1477.2	1519.9	1469.3	1533.4	1551.7	1468.6	1410.6	1379.6	10.89
61	( FIRE AT 9 00 FORE )	1351.8	1362.1	1451.6	1508.4	1488.8	1536.3	1586.0	1467.4	1394.1	1399.4	11.10
62	( FIRE AT 12 00 AFT )	306.9	314.3	337.9	341.2	335.4	342.3	330.5	361.7	294.2	287.7	11.32
63	( FIRE AT 3 00 AFT )	1662.0	1710.8	1726.2	1744.0	1854.2	1811.3	1713.9	1802.0	1767.1	1718.1	11.54
64	( FIRE AT 6 00 AFT )	1530.8	1614.8	1689.4	1730.6	1844.8	1823.8	1781.2	1738.4	1716.0	1701.5	11.76
65	( FIRE AT 9 00 AFT )	1365.6	1373.3	1445.5	1493.8	1432.9	1536.7	1530.1	1426.8	1377.6	1404.9	11.97

103989

TABLE A IV

		THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7											
		TIME (SEC) =	391.86	404.92	417.98	431.05	444.11	457.17	470.23	483.29	496.36	509.42	TIME
CHANNEL NUMBER	LOCATION												ADJUST
10	( GRID AT 1. IN. )	61.2	63.2	64.3	65.6	67.2	69.2	71.0	72.4	74.0	75.1	.00	
11	( GRID AT 3.15 INS. )	57.7	58.4	59.3	60.5	60.9	62.0	63.1	64.2	64.9	66.1	.22	
12	( GRID AT 3.15 INS. )	62.0	66.8	69.8	73.9	76.8	80.9	82.5	82.9	85.0	86.7	.44	
13	( GRID AT 7.15 INS. )	86.3	89.1	93.5	96.5	99.4	100.7	102.2	103.8	104.2	105.2	.65	
14	( GRID AT 7.15 INS. )	52.6	53.7	54.8	55.0	56.3	57.9	58.7	59.3	59.8	60.4	.87	
16	( GRID AT 11.2 INS. )	48.6	49.5	50.1	50.8	51.6	52.2	52.4	53.1	53.5	53.8	1.31	
17	( GRID AT 15.2 INS. )	47.7	48.4	49.2	49.7	50.6	51.1	51.5	51.8	52.2	52.6	1.52	
18	( GRID AT 15.2 INS. )	54.3	55.2	57.2	56.9	57.0	57.1	57.5	57.2	57.2	57.3	1.74	
19	( GRID AT 19.2 INS. )	47.2	47.6	48.1	48.5	48.8	49.0	49.4	49.7	50.3	50.6	1.96	
24	( GRID AT 19.2 INS. )	47.4	48.0	48.5	48.9	49.3	49.7	49.9	50.3	50.6	50.8	3.05	
21	( GRID AT 21.45 INS. )	45.2	45.7	45.8	45.9	47.5	47.6	46.8	47.6	47.2	46.9	2.39	
22	( INSIDE AT 12 00 )	128.7	132.3	135.5	138.5	139.9	141.2	142.5	142.5	143.0	143.9	2.61	
23	( INSIDE AT 12 30 )	89.4	91.6	92.0	92.9	103.7	104.1	107.5	110.6	114.7	115.7	2.83	
20	( INSIDE AT 1 00 )	70.5	72.6	74.2	75.4	78.0	79.8	81.7	83.7	85.4	87.2	2.18	
25	( INSIDE AT 1 30 )	66.1	67.6	68.8	70.8	72.2	73.7	74.9	76.3	77.4	78.3	3.27	
26	( INSIDE AT 2 00 )	65.3	66.3	67.4	69.2	70.7	71.8	72.8	73.7	74.7	74.9	3.48	
27	( INSIDE AT 3 00 )	54.2	54.7	55.9	56.8	57.1	57.9	58.3	59.3	59.7	60.8	3.70	
28	( INSIDE AT 4 00 )	41.6	41.7	41.5	42.0	42.1	42.3	42.6	43.2	43.8	43.6	3.92	
29	( INSIDE AT 4 30 )	33.6	34.3	35.8	37.6	39.0	40.1	41.0	42.6	43.4	44.5	4.14	
31	( INSIDE AT 5 30 )	44.8	45.8	46.5	47.4	47.9	48.8	49.1	49.5	52.4	51.2	4.57	
32	( INSIDE AT 6 00 )	43.1	43.3	43.5	44.0	44.1	44.0	44.0	44.1	44.3	44.3	4.79	
33	( INSIDE AT 6 30 )	43.8	44.1	44.5	44.8	45.0	45.6	45.9	46.3	46.7	46.7	5.01	
34	( INSIDE AT 7 00 )	44.9	45.7	46.3	47.1	47.6	48.1	48.5	48.9	49.3	49.6	5.22	
35	( INSIDE AT 7 30 )	45.6	46.4	47.3	48.5	49.5	50.4	51.2	52.4	53.5	54.5	5.44	
36	( INSIDE AT 8 00 )	57.4	60.3	63.4	67.2	70.8	73.3	75.5	77.8	79.8	80.8	5.66	
37	( INSIDE AT 9 00 )	64.3	66.5	69.5	73.1	75.9	78.7	80.7	82.8	84.0	84.1	5.88	
38	( INSIDE AT 10 00 )	68.5	70.7	73.2	76.5	79.2	81.5	83.5	86.1	88.7	90.1	6.10	
39	( INSIDE AT 10 30 )	87.0	92.1	98.2	102.3	104.8	107.4	109.9	112.7	114.7	116.3	6.31	
40	( INSIDE AT 11 00 )	93.7	96.4	99.5	102.6	106.5	109.5	112.7	116.2	118.5	122.0	6.53	
41	( INSIDE AT 11 30 )	109.0	113.6	117.3	120.7	124.1	127.2	129.7	131.6	133.4	134.7	6.75	
44	( OUTSIDE AT 12 00 )	161.3	165.2	169.1	167.0	170.9	177.0	181.4	181.4	182.1	178.9	7.40	
45	( OUTSIDE AT 1 00 )	92.6	93.4	95.3	96.8	99.5	103.0	106.8	108.1	112.5	117.8	7.62	
46	( OUTSIDE AT 2 00 )	79.3	78.0	80.3	81.6	83.0	84.3	85.8	86.1	88.6	91.0	7.84	
47	( OUTSIDE AT 3 00 )	22.4	87.0	96.3	106.4	118.9	125.7	129.9	127.6	129.8	90.5	8.05	
48	( OUTSIDE AT 4 00 )	31.8	27.2	31.0	36.0	35.1	38.3	37.7	37.7	49.2	50.6	8.27	
49	( OUTSIDE AT 5 00 )	51.7	54.4	55.9	55.9	57.7	58.2	58.6	59.6	60.8	62.1	8.49	
50	( OUTSIDE AT 6 00 )	121.7	128.8	134.5	143.2	152.6	152.0	155.7	153.1	156.7	161.6	8.71	
51	( OUTSIDE AT 7 00 )	44.5	48.2	45.3	53.9	51.7	52.8	51.0	56.2	56.9	64.4	8.93	
52	( OUTSIDE AT 8 00 )	97.5	96.2	101.8	111.9	115.0	118.3	122.8	130.2	132.0	138.8	9.14	
53	( OUTSIDE AT 9 00 )	133.5	137.8	146.1	148.9	156.0	163.3	162.9	162.2	162.7	166.5	9.36	
54	( OUTSIDE AT 10 00 )	147.3	160.3	170.9	173.8	178.5	183.9	186.7	189.2	191.4	192.7	9.58	
56	( OUTSIDE AT 11 00 )	157.0	163.6	171.4	181.0	190.2	193.3	198.7	203.0	205.3	207.5	10.01	
42	( MANWAY AT 1. IN. )	130.6	132.1	132.7	135.0	136.1	136.5	136.0	135.7	135.9	135.9	6.97	
43	( MANWAY AT 6. INS. )	149.7	151.1	152.2	154.3	155.9	157.8	158.0	158.2	158.2	158.3	7.18	
55	( FIRE AT 12 00 FORE )	1471.0	1492.8	1497.6	1516.7	1489.3	1430.2	1421.0	1327.6	1384.6	1376.9	9.80	
57	( FIRE AT 3 00 FORE )	1698.3	1691.4	1653.8	1643.9	1624.5	1621.0	1622.4	1612.8	1650.6	1669.4	10.23	
60	( FIRE AT 6 00 FORE )	1423.7	1423.1	1462.8	1515.7	1451.8	1374.3	1352.0	1289.2	1244.2	1365.2	10.89	
61	( FIRE AT 9 00 FORE )	1491.1	1457.0	1530.7	1539.5	1505.7	1338.8	1413.6	1318.8	1445.6	1519.3	11.10	
62	( FIRE AT 12 00 AFT )	304.9	301.9	351.7	401.4	350.9	312.5	320.7	330.5	237.0	343.6	11.32	
63	( FIRE AT 3 00 AFT )	1733.6	1643.3	1618.1	1591.2	1552.3	1488.3	1440.0	1447.2	1387.9	1521.6	11.54	
64	( FIRE AT 6 00 AFT )	1732.1	1594.8	1566.8	1534.7	1514.5	1446.3	1411.4	1425.3	1401.3	1523.4	11.76	
65	( FIRE AT 9 00 AFT )	1399.1	1432.6	1464.1	1449.8	1444.2	1376.3	1343.8	1314.8	1357.6	1355.3	11.97	

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TABLE A V

CHANNEL NUMBER	LOCATION	THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7										TIME ADJUST ACC
		TIME (SEC) = 522.48	535.54	548.60	561.67	574.73	587.79	600.85	613.91	626.98	640.04	
10	( GRID AT 1. IN. )	76.5	77.8	80.0	81.7	82.3	84.3	86.4	87.7	88.8	91.5	.00
11	( GRID AT 3.15 INS. )	67.5	68.2	69.9	70.7	72.0	73.1	74.4	75.3	76.7	78.1	.22
12	( GRID AT 3.15 INS. )	88.7	88.1	89.5	90.5	92.3	91.9	92.0	90.8	90.7	90.0	.44
13	( GRID AT 7.15 INS. )	106.3	108.5	112.0	113.5	114.0	115.6	117.0	118.5	119.7	121.0	.65
14	( GRID AT 7.15 INS. )	61.2	61.8	63.2	62.7	63.3	64.1	65.0	65.9	66.6	67.1	.87
16	( GRID AT 11.2 INS. )	54.6	55.1	55.7	56.1	56.7	56.7	57.4	58.1	58.3	59.1	1.31
17	( GRID AT 15.2 INS. )	53.2	53.6	54.1	54.5	54.6	54.8	55.1	55.8	56.0	56.2	1.52
18	( GRID AT 15.2 INS. )	57.2	57.6	57.8	57.8	58.8	59.2	59.2	60.1	59.9	60.9	1.74
19	( GRID AT 19.2 INS. )	50.9	51.4	51.7	52.4	53.3	53.4	53.7	54.0	54.5	54.6	1.96
24	( GRID AT 19.2 INS. )	51.0	51.6	51.9	52.2	52.4	52.4	52.7	52.9	52.9	53.6	3.05
21	( GRID AT 21.45 INS. )	46.3	47.2	47.3	47.2	47.5	47.1	47.7	48.2	48.9	48.0	2.39
22	( INSIDE AT 12 00 )	145.5	146.3	147.7	149.0	149.7	151.2	153.1	155.5	157.9	160.7	2.61
23	( INSIDE AT 12 30 )	117.8	123.5	126.2	126.7	128.1	128.0	130.2	133.3	135.0	136.8	2.83
20	( INSIDE AT 1 00 )	89.5	92.0	94.8	98.7	102.6	106.4	111.4	117.0	121.5	126.9	2.18
25	( INSIDE AT 1 30 )	79.6	81.2	83.0	85.0	88.7	91.4	93.5	95.6	97.5	100.1	3.27
26	( INSIDE AT 2 00 )	75.9	76.5	78.4	80.4	84.5	88.3	91.7	94.7	97.7	100.7	3.48
27	( INSIDE AT 3 00 )	62.3	64.1	67.1	71.3	74.6	78.2	81.5	84.3	85.8	87.3	3.70
28	( INSIDE AT 4 00 )	45.4	47.7	49.9	51.7	53.8	55.7	59.7	63.5	67.0	69.8	3.92
29	( INSIDE AT 4 30 )	46.2	47.8	49.9	51.2	52.7	53.7	56.0	57.6	59.8	60.6	4.14
31	( INSIDE AT 5 30 )	51.0	52.0	52.1	52.9	53.9	52.6	53.0	53.4	53.7	54.3	4.57
32	( INSIDE AT 6 00 )	44.2	44.0	44.1	44.1	44.1	44.3	44.6	44.5	44.3	43.8	4.79
33	( INSIDE AT 6 30 )	47.1	47.5	47.8	47.9	48.7	47.8	48.3	48.3	48.6	49.1	5.01
34	( INSIDE AT 7 00 )	49.6	50.2	50.6	50.9	51.2	51.6	52.1	52.8	52.9	53.2	5.22
35	( INSIDE AT 7 30 )	55.3	56.5	57.2	57.6	57.9	58.2	58.9	59.6	60.3	61.0	5.44
36	( INSIDE AT 8 00 )	85.2	82.6	84.5	84.8	85.1	85.3	85.4	85.9	87.1	88.6	5.66
37	( INSIDE AT 9 00 )	84.6	85.6	86.3	86.8	87.2	87.9	88.7	89.7	90.7	91.9	5.88
38	( INSIDE AT 10 00 )	91.0	93.4	95.0	97.1	98.3	100.3	101.5	103.4	105.2	106.9	6.10
39	( INSIDE AT 10 30 )	117.1	118.7	120.3	121.7	123.2	124.5	124.7	125.6	126.4	128.1	6.31
40	( INSIDE AT 11 00 )	125.0	127.3	130.4	132.0	134.0	135.5	136.7	137.5	138.9	138.8	6.53
41	( INSIDE AT 11 30 )	136.6	139.3	141.4	143.3	145.3	146.0	146.9	147.7	148.4	150.4	6.75
44	( OUTSIDE AT 12 00 )	176.3	176.6	178.9	180.7	181.4	183.4	189.1	193.3	198.6	204.2	7.40
45	( OUTSIDE AT 1 00 )	122.8	125.6	129.7	135.8	140.1	148.2	155.7	163.2	170.5	175.5	7.62
46	( OUTSIDE AT 2 00 )	93.5	95.6	98.5	101.9	108.3	112.0	120.1	125.1	130.9	136.5	7.84
47	( OUTSIDE AT 3 00 )	94.5	92.1	90.5	103.0	248.5	94.3	195.0	-21.6	-32.0	34.4	8.05
48	( OUTSIDE AT 4 00 )	53.9	75.9	92.0	94.4	105.8	111.7	115.3	116.7	112.0	108.9	8.27
49	( OUTSIDE AT 5 00 )	65.0	63.4	63.5	70.6	73.8	75.9	78.3	75.2	74.0	77.4	8.49
50	( OUTSIDE AT 6 00 )	169.6	173.4	188.6	203.5	218.9	226.3	233.3	218.4	205.2	195.4	8.71
51	( OUTSIDE AT 7 00 )	62.4	69.3	68.5	66.8	70.0	73.4	76.7	76.2	75.4	76.8	8.93
52	( OUTSIDE AT 8 00 )	142.1	147.7	147.4	145.5	145.8	147.7	151.2	152.5	154.9	158.0	9.14
53	( OUTSIDE AT 9 00 )	166.8	168.2	168.9	171.0	171.9	173.1	177.6	180.6	186.0	189.3	9.36
54	( OUTSIDE AT 10 00 )	194.3	198.0	200.2	206.0	208.6	212.5	217.6	221.1	225.4	228.7	9.58
56	( OUTSIDE AT 11 00 )	209.7	210.4	210.1	215.4	214.2	215.2	216.6	218.4	218.8	217.6	10.01
42	( MANWAY AT 1. IN. )	136.1	137.9	137.5	138.7	147.5	153.4	157.5	160.0	163.6	169.5	6.97
43	( MANWAY AT 6. INS. )	158.5	158.4	158.0	158.3	157.1	159.4	159.2	160.7	161.4	161.3	7.18
55	( FIRE AT 12 00 FORE )	1504.0	1629.0	1673.1	1681.7	1695.9	1653.8	1662.6	1663.8	1646.8	1662.8	9.80
57	( FIRE AT 3 00 FORE )	1675.4	1671.9	1682.1	1707.3	1709.1	1721.2	1723.7	1733.0	1721.1	1707.3	10.23
60	( FIRE AT 6 00 FORE )	1453.8	1586.2	1644.3	1632.9	1660.8	1627.2	1632.4	1641.7	1613.0	1640.1	10.89
61	( FIRE AT 9 00 FORE )	1609.6	1676.3	1757.9	1673.4	1681.4	1644.6	1692.7	1652.2	1593.4	1632.9	11.10
62	( FIRE AT 12 00 AFT )	311.9	317.3	415.7	412.6	457.7	448.4	457.6	441.3	437.8	448.4	11.32
63	( FIRE AT 3 00 AFT )	1490.3	1521.8	1611.2	1613.4	1648.7	1652.2	1674.8	1656.5	1639.4	1641.4	11.54
64	( FIRE AT 6 00 AFT )	1501.8	1539.9	1616.4	1626.4	1659.5	1661.6	1679.3	1658.3	1636.2	1648.5	11.76
65	( FIRE AT 9 00 AFT )	1461.8	1606.2	1628.5	1633.3	1631.9	1611.2	1633.3	1646.3	1606.8	1652.5	11.97

51

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TABLE A VI

CHANNEL NUMBER	LOCATION	THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7										TIME ADJUST ACC
		TIME (SEC) = 653.10	666.16	679.22	692.29	705.35	718.41	731.47	744.53	757.60	770.66	
10	( GRID AT 1. IN. )	93.5	95.4	98.1	101.0	103.2	106.0	108.7	113.6	118.3	123.0	.00
11	( GRID AT 3.15 INS. )	79.8	80.5	81.8	83.3	84.9	86.3	87.8	89.0	90.7	92.4	.22
12	( GRID AT 3.15 INS. )	91.1	91.0	90.2	91.0	90.2	92.6	93.5	93.9	93.6	94.6	.44
13	( GRID AT 7.15 INS. )	122.1	123.8	126.6	128.0	131.0	130.9	130.8	133.3	134.6	135.7	.65
14	( GRID AT 7.15 INS. )	67.3	68.3	69.0	68.7	70.7	71.7	72.4	73.5	74.5	76.0	.87
16	( GRID AT 11.2 INS. )	59.9	60.5	61.4	61.7	62.7	63.4	63.9	64.7	65.6	66.7	1.31
17	( GRID AT 15.2 INS. )	56.5	57.1	57.4	57.8	58.6	59.1	59.4	60.2	60.6	61.5	1.52
18	( GRID AT 15.2 INS. )	61.2	61.2	62.7	62.9	64.1	64.5	65.0	65.6	66.1	67.2	1.74
19	( GRID AT 19.2 INS. )	55.4	55.4	55.7	56.1	56.6	56.9	57.5	58.4	58.9	59.2	1.96
24	( GRID AT 19.2 INS. )	53.8	54.4	54.5	55.0	55.2	55.8	56.5	57.1	57.4	58.2	3.05
21	( GRID AT 21.45 INS. )	48.2	48.8	48.5	48.7	51.9	57.5	59.8	60.8	61.7	63.2	2.39
22	( INSIDE AT 12 00 )	163.3	166.7	168.3	169.7	169.9	171.8	172.3	175.7	180.0	182.2	2.61
23	( INSIDE AT 12 30 )	138.4	140.5	140.0	140.2	140.5	141.2	141.5	142.1	142.8	143.8	2.83
20	( INSIDE AT 1 00 )	130.6	133.6	138.5	141.2	145.2	146.8	147.6	148.8	148.3	149.9	2.18
25	( INSIDE AT 1 30 )	102.5	105.1	108.1	110.5	112.4	114.0	115.6	117.1	118.7	120.5	3.27
26	( INSIDE AT 2 00 )	102.4	104.8	106.0	107.4	109.5	111.7	112.9	114.5	116.0	117.4	3.48
27	( INSIDE AT 3 00 )	87.4	89.0	90.2	91.3	93.9	96.1	98.0	99.8	101.1	102.5	3.70
28	( INSIDE AT 4 00 )	71.6	73.2	75.6	76.7	79.1	81.4	83.1	85.1	86.8	88.5	3.92
29	( INSIDE AT 4 30 )	64.0	65.4	71.0	72.5	76.3	79.0	80.5	82.7	84.2	85.9	4.14
31	( INSIDE AT 5 30 )	54.7	54.6	55.6	55.5	56.0	57.6	57.9	58.2	58.8	59.4	4.57
32	( INSIDE AT 6 00 )	43.9	44.1	44.1	44.5	45.0	45.3	45.4	45.9	46.2	46.7	4.79
33	( INSIDE AT 6 30 )	49.1	49.8	50.4	50.6	51.6	50.7	50.9	50.9	51.2	51.4	5.01
34	( INSIDE AT 7 00 )	54.0	54.7	55.1	55.6	56.1	56.6	56.9	58.3	58.3	58.9	5.22
35	( INSIDE AT 7 30 )	61.6	62.2	63.0	63.4	63.9	64.6	65.9	67.9	69.5	71.6	5.44
36	( INSIDE AT 8 00 )	89.7	90.9	91.6	91.8	92.5	92.9	93.3	94.3	94.8	96.0	5.66
37	( INSIDE AT 9 00 )	93.0	94.3	95.3	96.0	97.8	99.7	100.9	102.4	104.0	105.7	5.88
38	( INSIDE AT 10 00 )	108.5	110.4	112.3	114.2	116.1	117.5	118.9	120.3	121.2	122.3	6.10
39	( INSIDE AT 10 30 )	128.6	129.3	130.5	131.5	132.7	134.5	135.3	136.8	137.8	138.9	6.31
40	( INSIDE AT 11 00 )	139.7	140.1	140.5	141.0	141.7	142.4	143.2	143.4	143.9	144.1	6.53
41	( INSIDE AT 11 30 )	150.2	150.3	150.8	151.3	151.6	151.9	152.5	152.1	153.0	153.1	6.75
44	( OUTSIDE AT 12 00 )	205.0	208.5	210.0	211.0	213.8	214.0	217.2	221.3	225.7	231.4	7.40
45	( OUTSIDE AT 1 00 )	181.2	184.9	186.6	189.8	195.4	199.4	199.7	202.2	201.0	203.0	7.62
46	( OUTSIDE AT 2 00 )	139.7	142.2	153.4	161.4	166.3	169.9	166.2	161.7	161.3	160.2	7.84
47	( OUTSIDE AT 3 00 )	-53.4	-83.8	143.2	153.7	153.3	157.6	151.6	-48.5	-27.5	3.7	8.05
48	( OUTSIDE AT 4 00 )	99.5	96.3	101.3	102.7	105.0	106.3	105.4	104.7	106.1	110.3	8.27
49	( OUTSIDE AT 5 00 )	77.2	79.4	85.4	89.7	94.0	94.6	94.3	92.4	94.0	94.3	8.49
50	( OUTSIDE AT 6 00 )	186.0	179.8	180.0	173.8	170.9	167.7	161.3	156.3	152.6	152.4	8.71
51	( OUTSIDE AT 7 00 )	82.1	87.0	87.2	86.0	92.5	90.2	88.0	92.1	95.9	102.2	8.93
52	( OUTSIDE AT 8 00 )	161.0	166.8	166.8	166.4	169.4	166.0	166.9	171.9	175.8	179.4	9.14
53	( OUTSIDE AT 9 00 )	193.1	195.4	196.6	196.5	200.0	198.2	203.0	207.2	211.4	216.8	9.36
54	( OUTSIDE AT 10 00 )	232.4	236.0	237.2	239.1	246.4	245.3	246.9	250.9	254.2	255.0	9.58
56	( OUTSIDE AT 11 00 )	217.5	216.5	217.1	216.0	218.9	218.1	220.0	223.3	225.6	226.0	10.01
42	( MANWAY AT 1. IN. )	173.0	176.2	178.9	182.5	186.7	190.5	195.0	200.2	205.7	211.3	6.97
43	( MANWAY AT 6. INS. )	163.2	164.0	163.6	163.7	165.0	166.7	174.0	193.4	224.8	246.7	7.18
55	( FIRE AT 12 00 FORE )	1702.4	1595.8	1653.3	1675.2	1677.7	1680.5	1728.3	1762.8	1728.0	1686.5	9.80
57	( FIRE AT 3 00 FORE )	1700.8	1705.1	1697.8	1683.3	1664.0	1651.2	1649.1	1636.6	1628.6	1613.7	10.23
60	( FIRE AT 6 00 FORE )	1678.4	1556.2	1626.4	1649.4	1650.1	1651.6	1683.2	1674.8	1616.3	1501.9	10.89
61	( FIRE AT 9 00 FORE )	1668.9	1557.7	1603.2	1622.5	1612.7	1610.6	1634.1	1599.0	1543.0	1450.5	11.10
62	( FIRE AT 12 00 AFT )	460.4	435.2	462.4	476.4	482.3	486.2	495.9	517.4	513.5	496.7	11.32
63	( FIRE AT 3 00 AFT )	1648.5	1620.2	1634.8	1633.2	1606.4	1619.3	1600.3	1569.7	1522.2	1492.8	11.54
64	( FIRE AT 6 00 AFT )	1649.5	1623.6	1638.6	1637.7	1627.9	1610.3	1589.5	1548.7	1525.4	1504.5	11.76
65	( FIRE AT 9 00 AFT )	1682.0	1660.5	1639.1	1674.0	1675.6	1697.4	1725.4	1758.8	1723.7	1684.7	11.97

52

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TABLE A VII

CHANNEL NUMBER	LOCATION	THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7										TIME ADJUST ACC
		TIME (SEC) = 783.72	796.78	809.84	822.91	835.97	849.03	862.09	875.15	888.22	901.28	
10	( GRID AT 1. IN. )	129.1	131.0	134.9	138.4	140.2	139.4	139.4	139.6	139.7	139.4	.00
11	( GRID AT 3.15 INS. )	93.6	95.3	98.7	99.9	102.0	103.4	105.4	108.1	110.2	113.1	.22
12	( GRID AT 3.15 INS. )	95.2	95.0	97.5	96.5	98.1	97.6	97.8	100.2	103.1	106.6	.44
13	( GRID AT 7.15 INS. )	136.6	138.1	137.9	142.1	142.5	146.3	147.9	148.3	147.8	146.9	.65
14	( GRID AT 7.15 INS. )	78.2	79.7	80.9	82.1	83.4	84.9	85.5	86.4	89.1	90.3	.87
16	( GRID AT 11.2 INS. )	67.6	68.5	69.4	70.8	71.7	72.7	73.8	74.7	75.5	76.6	1.31
17	( GRID AT 15.2 INS. )	61.9	62.7	63.6	64.3	65.1	65.9	66.6	67.5	68.3	69.3	1.52
18	( GRID AT 15.2 INS. )	67.6	68.9	70.4	71.7	72.3	73.4	73.8	74.8	75.6	76.7	1.74
19	( GRID AT 19.2 INS. )	60.0	60.8	61.4	62.2	62.8	63.8	64.3	65.0	65.8	66.5	1.96
24	( GRID AT 19.2 INS. )	58.8	60.0	60.3	61.2	61.9	62.4	62.8	63.6	64.5	64.9	3.05
21	( GRID AT 21.45 INS. )	63.1	62.7	63.1	63.6	64.1	64.1	64.9	65.4	66.3	67.0	2.39
22	( INSIDE AT 12 00 )	185.4	187.0	188.0	190.1	192.2	194.0	197.0	200.0	202.3	205.6	2.61
23	( INSIDL AT 12 30 )	144.3	144.7	145.6	145.8	146.0	145.7	146.5	146.8	147.3	148.0	2.83
20	( INSIDE AT 1 00 )	148.7	149.7	150.1	148.3	148.0	147.3	146.9	146.4	147.2	146.9	2.18
25	( INSIDE AT 1 30 )	122.2	124.2	126.3	128.0	129.9	131.8	133.5	135.3	137.0	138.1	3.27
26	( INSIDE AT 2 00 )	119.0	120.7	122.3	123.4	125.1	126.8	129.0	131.0	133.1	135.1	3.48
27	( INSIDE AT 3 00 )	104.3	105.8	106.7	108.1	109.8	111.3	113.4	115.2	116.7	117.8	3.70
28	( INSIDE AT 4 00 )	90.3	91.9	92.7	94.1	95.6	97.4	99.0	100.3	101.6	102.8	3.92
29	( INSIDE AT 4 30 )	87.7	88.7	90.6	92.3	94.4	96.6	98.0	99.8	100.6	102.0	4.14
31	( INSIDE AT 5 30 )	60.2	60.7	61.4	62.2	62.3	63.5	65.1	65.9	67.1	68.3	4.57
32	( INSIDE AT 6 00 )	47.2	47.8	48.2	48.5	49.0	49.6	50.2	50.8	51.3	52.4	4.79
33	( INSIDE AT 6 30 )	52.7	53.4	54.5	55.8	57.2	59.0	60.3	62.2	64.0	64.7	5.01
34	( INSIDE AT 7 00 )	60.2	61.8	63.8	66.0	67.9	69.9	72.0	73.4	74.5	75.6	5.22
35	( INSIDE AT 7 30 )	73.1	74.1	75.0	75.6	76.3	77.3	78.3	79.7	81.0	82.6	5.44
36	( INSIDE AT 8 00 )	97.2	98.0	99.3	100.8	102.0	103.7	106.2	107.1	108.5	109.2	5.66
37	( INSIDE AT 9 00 )	107.2	108.7	110.2	111.7	112.7	114.3	116.8	118.6	120.3	121.8	5.88
38	( INSIDE AT 10 00 )	123.0	124.3	124.4	124.5	125.8	126.3	127.1	127.8	128.3	128.7	6.10
39	( INSIDE AT 10 30 )	139.5	140.3	140.9	141.2	141.7	142.4	143.6	144.0	144.3	144.6	6.31
40	( INSIDE AT 11 00 )	144.1	145.0	144.7	144.6	145.0	144.7	144.7	144.7	144.6	144.6	6.53
41	( INSIDE AT 11 30 )	153.5	153.2	153.3	154.2	153.2	153.7	154.3	156.0	156.0	156.1	6.75
44	( OUTSIDE AT 12 00 )	235.5	242.5	247.1	248.5	251.6	254.6	258.6	262.3	265.0	267.7	7.40
45	( OUTSIDE AT 1 00 )	202.0	202.4	201.1	201.4	202.1	204.0	206.4	208.3	209.5	210.2	7.62
46	( OUTSIDE AT 2 00 )	162.6	163.6	166.2	167.0	169.0	170.7	172.5	176.3	178.4	180.0	7.84
47	( OUTSIDE AT 3 00 )	-5.2	16.9	-.1	-.3	9.5	27.2	23.9	31.5	43.6	51.7	8.05
48	( OUTSIDE AT 4 00 )	113.0	115.9	118.5	119.9	121.4	124.0	124.5	127.0	128.0	128.5	8.27
49	( OUTSIDE AT 5 00 )	97.2	98.0	100.0	101.3	102.5	104.2	105.5	107.6	108.2	109.3	8.49
50	( OUTSIDE AT 6 00 )	152.4	152.3	153.3	153.5	153.6	153.4	152.3	153.3	152.6	152.2	8.71
51	( OUTSIDE AT 7 00 )	106.2	108.8	112.1	115.3	120.3	122.6	124.3	124.3	125.3	126.7	8.93
52	( OUTSIDE AT 8 00 )	181.7	183.3	188.0	190.9	196.8	199.0	202.7	203.8	205.8	208.9	9.14
53	( OUTSIDE AT 9 00 )	219.1	219.4	222.7	224.1	228.2	230.0	230.8	234.2	237.2	243.4	9.36
54	( OUTSIDE AT 10 00 )	255.8	256.7	259.6	260.2	261.9	262.2	261.0	260.4	261.0	261.9	9.58
56	( OUTSIDE AT 11 00 )	228.0	228.3	229.6	230.8	232.5	233.9	235.5	236.3	236.6	237.3	10.01
42	( MANWAY AT 1. IN. )	217.2	223.2	228.1	233.2	238.4	247.5	254.0	260.2	266.2	272.2	6.97
43	( MANWAY AT 6. INS. )	262.5	278.0	291.8	313.7	336.1	355.2	371.6	386.0	397.8	407.7	7.18
55	( FIRE AT 12 00 FORE )	1689.6	1592.8	1694.6	1719.5	1682.4	1702.6	1719.7	1703.3	1670.5	1666.6	9.80
57	( FIRE AT 3 00 FORE )	1617.1	1618.3	1601.5	1596.4	1594.5	1591.8	1593.4	1604.7	1612.4	1602.2	10.23
60	( FIRE AT 6 00 FORE )	1511.7	1429.8	1512.3	1500.1	1376.3	1329.6	1230.4	1235.0	1153.5	1103.1	10.89
61	( FIRE AT 9 00 FORE )	1487.1	1396.7	1453.1	1397.5	1317.9	1232.4	1112.7	1162.6	1082.5	1099.3	11.10
62	( FIRE AT 12 00 AFT )	494.5	472.3	512.3	548.4	551.0	512.6	540.7	518.7	506.2	487.6	11.32
63	( FIRE AT 3 00 AFT )	1489.5	1460.4	1466.8	1458.1	1452.1	1410.0	1382.1	1428.9	1441.1	1455.4	11.54
64	( FIRE AT 6 00 AFT )	1508.4	1473.3	1473.2	1479.1	1464.7	1444.9	1400.8	1452.5	1455.3	1479.9	11.76
65	( FIRE AT 9 00 AFT )	1681.7	1601.8	1737.7	1738.8	1722.0	1735.6	1751.7	1738.5	1699.1	1696.6	11.97

53

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TABLE A VIII

THERMOCOUPLE TEMPERATURES (CEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) =	914.34	927.40	940.46	953.53	966.59	979.65	992.71	1005.77	1018.84	1031.90	TIME	
														ADJUST
10	( GRID AT 1. IN. )	139.3	139.0	138.8	139.1	138.8	138.4	138.7	138.0	138.1	137.7			.00
11	( GRID AT 3.15 INS. )	118.1	120.6	126.4	129.7	133.7	134.6	135.7	135.7	136.0	135.3			.22
12	( GRID AT 3.15 INS. )	111.1	118.5	127.0	131.3	130.6	131.6	131.6	132.5	133.0	134.6			.44
13	( GRID AT 7.15 INS. )	146.5	144.8	144.0	142.2	143.6	140.8	138.9	136.9	134.3	130.6			.65
14	( GRID AT 7.15 INS. )	91.8	93.4	95.1	96.1	97.8	100.5	102.3	104.1	106.7	109.1			.87
16	( GRID AT 11.2 INS. )	77.8	78.9	79.9	81.1	82.5	83.5	84.9	86.0	87.7	89.0			1.31
17	( GRID AT 15.2 INS. )	70.7	71.6	72.6	73.4	74.6	75.7	76.5	77.7	78.7	80.0			1.52
18	( GRID AT 15.2 INS. )	77.4	78.0	79.5	80.4	80.8	81.9	82.6	83.3	84.0	85.0			1.74
19	( GRID AT 19.2 INS. )	67.5	68.2	68.9	69.9	71.0	71.7	72.7	73.5	74.3	75.3			1.96
24	( GRID AT 19.2 INS. )	65.9	66.7	67.8	68.5	69.5	70.6	71.8	72.6	73.3	74.1			3.05
21	( GRID AT 21.45 INS. )	67.7	68.7	69.4	69.9	70.9	72.2	73.1	74.2	75.0	76.4			2.39
22	( INSIDE AT 12 00 )	206.4	208.9	210.7	214.5	218.0	221.0	224.3	227.4	230.5	232.1			2.61
23	( INSIDE AT 12 30 )	149.2	149.0	149.4	150.0	150.7	151.6	152.8	154.2	155.5	156.7			2.83
20	( INSIDE AT 1 00 )	147.1	146.1	146.3	145.6	145.2	144.9	145.8	145.7	145.1	145.3			2.18
25	( INSIDE AT 1 30 )	139.2	139.8	140.7	141.0	141.3	141.2	141.6	141.7	141.2	141.2			3.27
26	( INSIDE AT 2 00 )	137.8	139.2	140.9	141.9	142.4	142.6	142.9	143.3	143.3	143.2			3.48
27	( INSIDE AT 3 00 )	119.7	121.0	123.1	124.5	126.0	127.2	128.7	130.3	131.8	133.0			3.70
28	( INSIDE AT 4 00 )	103.8	104.6	105.6	106.7	107.4	108.3	109.7	110.6	111.5	112.3			3.92
29	( INSIDE AT 4 30 )	103.7	104.7	106.7	107.7	109.1	109.5	110.8	111.8	113.1	113.9			4.14
31	( INSIDE AT 5 30 )	69.3	70.7	71.9	72.7	74.7	75.5	77.0	78.2	78.9	80.0			4.57
32	( INSIDE AT 6 00 )	53.5	54.2	55.1	55.6	56.4	57.3	58.4	59.6	60.7	62.0			4.79
33	( INSIDE AT 6 30 )	65.4	66.5	67.3	67.4	68.3	69.1	71.0	71.6	72.4	73.3			5.01
34	( INSIDE AT 7 00 )	76.7	77.7	78.7	79.8	81.0	82.3	83.5	84.7	85.9	87.1			5.22
35	( INSIDE AT 7 30 )	84.2	85.8	87.4	88.8	90.2	91.6	93.0	94.4	95.8	97.1			5.44
36	( INSIDE AT 8 00 )	110.4	111.9	113.3	115.6	116.4	117.9	119.2	120.3	121.7	123.2			5.66
37	( INSIDE AT 9 00 )	123.3	124.3	125.7	127.7	129.2	130.6	131.9	132.9	134.2	134.8			5.88
38	( INSIDE AT 10 00 )	128.5	128.9	129.8	130.2	130.7	131.2	131.4	131.6	131.4	131.6			6.10
39	( INSIDE AT 10 30 )	144.3	144.7	145.1	146.3	147.5	148.0	148.2	147.9	147.9	147.9			6.31
40	( INSIDE AT 11 00 )	144.4	144.9	144.3	144.5	144.3	145.0	144.4	144.2	144.3	144.1			6.53
41	( INSIDE AT 11 30 )	155.5	155.6	155.7	156.1	156.5	157.1	156.9	156.9	156.8	156.7			6.75
44	( OUTSIDE AT 12 00 )	269.3	271.0	274.5	275.8	275.9	278.6	281.9	284.2	287.8	289.2			7.40
45	( OUTSIDE AT 1 00 )	210.3	208.1	208.0	209.1	209.5	209.9	208.4	208.0	205.6	204.0			7.62
46	( OUTSIDE AT 2 00 )	182.3	183.2	184.7	186.7	187.7	188.6	188.4	188.6	187.6	187.0			7.84
47	( OUTSIDE AT 3 00 )	52.6	99.9	133.5	78.1	82.8	71.7	72.1	73.5	85.0	89.1			8.05
48	( OUTSIDE AT 4 00 )	127.1	129.3	133.0	134.0	133.3	135.6	138.3	135.6	139.3	140.3			8.27
49	( OUTSIDE AT 5 00 )	107.8	108.2	109.1	112.2	112.9	114.0	114.3	113.7	114.7	116.8			8.49
50	( OUTSIDE AT 6 00 )	148.8	146.8	148.2	150.8	150.6	150.3	151.1	148.7	148.4	150.0			8.71
51	( OUTSIDE AT 7 00 )	126.6	128.1	130.4	132.3	130.7	133.3	135.0	141.0	152.3	153.7			8.93
52	( OUTSIDE AT 8 00 )	210.3	212.1	215.2	217.7	214.1	219.0	218.1	223.6	231.7	231.9			9.14
53	( OUTSIDE AT 9 00 )	246.7	248.1	248.8	251.4	250.5	250.4	247.1	249.6	253.3	253.2			9.36
54	( OUTSIDE AT 10 00 )	259.6	256.8	257.8	256.2	253.3	251.7	251.1	251.8	253.2	252.2			9.58
56	( OUTSIDE AT 11 00 )	235.7	235.0	234.7	235.1	234.1	233.0	233.7	233.8	235.4	234.2			10.01
42	( MANWAY AT 1. IN. )	277.8	283.1	288.9	294.5	300.4	306.3	312.8	319.7	325.7	331.3			6.97
43	( MANWAY AT 6. INS. )	416.7	428.6	441.2	450.6	461.7	473.4	482.9	489.4	496.2	502.1			7.18
55	( FIRE AT 12 00 FORE )	1647.4	1673.9	1647.0	1689.8	1697.5	1717.1	1701.3	1692.1	1686.8	1681.5			9.80
57	( FIRE AT 3 00 FORE )	1605.0	1607.0	1605.9	1595.5	1597.5	1603.8	1596.7	1598.7	1609.3	1602.0			10.23
60	( FIRE AT 6 00 FORE )	1145.8	1044.9	1100.5	1088.3	1067.2	1118.2	1082.7	1122.5	1152.7	1164.9			10.89
61	( FIRE AT 9 00 FORE )	1042.8	955.6	1042.2	959.3	1046.8	1064.2	1042.5	1090.7	1135.1	1152.9			11.10
62	( FIRE AT 12 00 AFT )	463.0	491.3	501.1	487.3	479.9	489.3	519.5	500.6	494.1	487.4			11.32
63	( FIRE AT 3 00 AFT )	1397.3	1358.6	1425.8	1381.4	1360.5	1366.8	1333.8	1367.8	1385.2	1416.2			11.54
64	( FIRE AT 6 00 AFT )	1398.6	1379.2	1456.3	1405.5	1387.6	1401.8	1361.5	1401.4	1425.2	1397.0			11.76
65	( FIRE AT 9 00 AFT )	1702.7	1677.9	1669.9	1679.4	1702.9	1715.8	1706.0	1704.6	1711.3	1691.3			11.97

54

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TABLE A IX

THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) =										TIME ADJUST ACC
		1044.96	1058.02	1071.08	1084.15	1097.21	1110.27	1123.33	1136.39	1149.46	1162.52	
10	( GRID AT 1. IN. )	138.0	138.3	138.3	138.7	139.7	139.6	138.4	137.9	137.4	137.2	.60
11	( GRID AT 3.15 INS. )	135.9	135.6	136.1	136.1	136.3	136.3	136.4	136.7	136.7	136.6	.22
12	( GRID AT 3.15 INS. )	135.4	136.2	136.6	137.0	136.2	135.7	139.3	140.2	140.0	138.5	.44
13	( GRID AT 7.15 INS. )	129.0	126.7	124.0	121.9	121.0	120.5	114.3	113.3	113.2	113.8	.65
14	( GRID AT 7.15 INS. )	110.5	112.6	114.8	117.7	120.0	122.1	122.2	124.7	130.7	138.0	.87
16	( GRID AT 11.2 INS. )	90.3	91.5	92.6	93.6	94.6	95.7	94.9	96.7	99.0	100.8	1.31
17	( GRID AT 15.2 INS. )	81.0	81.9	83.2	84.0	85.5	84.8	86.7	87.5	88.7	90.1	1.52
18	( GRID AT 15.2 INS. )	85.8	86.6	87.6	88.5	89.9	93.4	92.1	93.4	94.2	94.9	1.74
19	( GRID AT 19.2 INS. )	76.3	77.2	78.1	79.0	80.0	79.3	81.3	82.3	83.4	84.7	1.96
24	( GRID AT 19.2 INS. )	75.1	75.9	77.2	77.9	79.0	80.5	80.8	81.7	82.8	83.6	3.05
21	( GRID AT 21.45 INS. )	77.5	78.7	79.7	80.7	81.7	77.3	79.0	79.8	80.1	81.9	2.39
22	( INSIDE AT 12 00 )	234.5	236.0	238.7	245.3	250.0	239.7	251.0	256.2	260.1	267.4	2.61
23	( INSIDE AT 12 30 )	158.0	160.3	164.4	172.0	177.4	178.8	183.8	188.1	192.3	197.1	2.83
20	( INSIDE AT 1 00 )	145.1	145.0	144.3	144.8	144.7	140.7	140.8	140.3	139.6	139.7	2.18
25	( INSIDE AT 1 30 )	141.3	141.1	140.9	140.7	140.6	139.4	139.8	139.6	139.4	139.4	3.27
26	( INSIDE AT 2 00 )	143.7	143.5	143.9	144.6	144.7	143.6	143.7	143.6	143.3	143.6	3.48
27	( INSIDE AT 3 00 )	134.5	135.8	136.7	138.2	139.7	136.3	138.5	138.7	139.0	140.1	3.70
28	( INSIDE AT 4 00 )	113.1	114.1	114.8	116.0	117.7	115.8	117.0	118.0	118.3	119.8	3.92
29	( INSIDE AT 4 30 )	115.4	115.5	115.6	116.1	116.6	111.8	112.0	112.2	111.9	112.9	4.14
31	( INSIDE AT 5 30 )	81.4	82.6	84.3	85.6	86.8	87.2	87.7	89.1	90.4	92.3	4.57
32	( INSIDE AT 6 00 )	63.6	65.1	66.5	68.1	69.7	70.8	71.8	72.3	73.5	74.7	4.79
33	( INSIDE AT 6 30 )	74.3	74.7	76.0	77.4	79.4	81.6	82.3	83.3	84.5	84.7	5.01
34	( INSIDE AT 7 00 )	88.3	89.5	90.7	91.8	92.8	91.5	93.0	94.0	95.1	96.5	5.22
35	( INSIDE AT 7 30 )	98.4	99.9	101.0	102.1	103.2	103.5	105.0	106.1	107.3	108.4	5.44
36	( INSIDE AT 8 00 )	124.3	126.5	127.0	128.3	129.6	131.1	131.6	132.9	134.0	134.9	5.66
37	( INSIDE AT 9 00 )	135.9	137.1	138.7	139.8	140.5	137.4	137.8	138.0	138.6	140.0	5.88
38	( INSIDE AT 10 00 )	132.4	133.1	133.6	135.9	134.6	135.0	133.8	135.7	135.0	135.7	6.10
39	( INSIDE AT 10 30 )	149.0	149.5	149.3	149.3	148.2	145.0	145.4	145.7	145.5	146.4	6.31
40	( INSIDE AT 11 00 )	143.8	143.3	143.3	143.2	143.1	142.7	143.2	143.6	143.6	144.0	6.53
41	( INSIDE AT 11 30 )	155.8	156.7	157.0	157.8	159.0	159.1	163.0	173.2	183.6	191.1	6.75
44	( OUTSIDE AT 12 00 )	293.7	293.7	291.8	295.4	297.8	289.0	290.6	296.1	301.6	306.9	7.40
45	( OUTSIDE AT 1 00 )	204.6	204.5	204.1	204.3	202.5	182.1	176.5	179.7	177.9	178.2	7.62
46	( OUTSIDE AT 2 00 )	187.2	187.0	186.4	187.5	186.6	172.3	167.7	169.4	167.6	168.4	7.84
47	( OUTSIDE AT 3 00 )	96.5	98.3	102.7	97.4	100.0	131.0	144.2	145.3	150.7	159.7	8.05
48	( OUTSIDE AT 4 00 )	143.1	142.6	141.8	143.2	145.7	136.5	136.1	141.1	144.4	148.4	8.27
49	( OUTSIDE AT 5 00 )	117.6	119.4	121.9	123.0	123.7	115.0	113.7	116.5	118.3	122.8	8.49
50	( OUTSIDE AT 6 00 )	147.9	152.0	153.9	155.0	154.6	136.4	133.2	135.2	132.8	134.5	8.71
51	( OUTSIDE AT 7 00 )	158.1	159.3	158.9	159.4	157.9	117.6	102.4	95.7	108.0	109.6	8.93
52	( OUTSIDE AT 8 00 )	235.7	235.1	234.9	235.9	233.8	201.9	190.3	185.4	192.9	195.0	9.14
53	( OUTSIDE AT 9 00 )	255.1	253.5	253.0	255.6	253.7	226.4	219.9	209.9	214.8	215.7	9.36
54	( OUTSIDE AT 10 00 )	253.6	252.7	251.4	253.5	251.8	225.4	219.8	211.7	215.7	215.7	9.58
56	( OUTSIDE AT 11 00 )	236.0	235.2	235.9	235.7	234.2	216.0	214.3	207.2	211.1	213.1	10.01
42	( MANWAY AT 1. IN. )	337.9	343.5	348.6	354.6	360.0	362.2	368.9	373.0	378.3	383.3	6.97
43	( MANWAY AT 6. INS. )	508.0	512.6	516.9	522.4	527.9	523.5	528.7	533.3	537.0	540.3	7.18
55	( FIRE AT 12 00 FORE )	1632.4	1658.2	1619.1	1598.3	1630.4	1666.6	1660.3	1656.8	1666.1	1647.6	9.80
57	( FIRE AT 3 00 FORE )	1601.5	1599.9	1599.5	1584.7	1593.1	1566.4	1559.6	1552.4	1561.9	1591.4	10.23
60	( FIRE AT 6 00 FORE )	1042.8	1129.3	1071.0	1014.3	1180.5	1280.5	1256.4	1268.1	1290.6	1243.6	10.89
61	( FIRE AT 9 00 FORE )	1020.6	1128.7	1034.8	1019.9	1187.6	1254.1	1228.0	1236.3	1266.6	1233.8	11.10
62	( FIRE AT 12 00 AFT )	435.1	466.0	436.9	452.6	482.0	464.6	457.6	456.8	454.0	450.9	11.32
63	( FIRE AT 3 00 AFT )	1354.4	1397.5	1327.3	1334.7	1434.1	1406.5	1389.8	1383.7	1429.4	1449.3	11.54
64	( FIRE AT 6 00 AFT )	1368.8	1424.7	1338.7	1345.9	1478.2	1444.4	1421.0	1408.9	1449.4	1480.1	11.76
65	( FIRE AT 9 00 AFT )	1637.6	1676.9	1631.2	1619.0	1637.5	1649.3	1657.8	1646.9	1652.7	1631.6	11.97

55

502609

TABLE A X

THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) =										TIME ADJUST ACC
		1175.58	1188.64	1201.70	1214.77	1227.83	1240.89	1253.95	1267.01	1280.08	1293.14	
10	( GRID AT 1. IN. )	137.1	136.8	136.9	137.0	136.7	136.6	136.7	136.8	137.0	136.7	.00
11	( GRID AT 3.15 INS. )	137.0	137.1	137.0	137.0	136.8	137.0	137.1	137.1	137.0	137.1	.22
12	( GRID AT 3.15 INS. )	138.5	137.1	136.8	137.1	137.2	137.6	137.3	137.3	137.3	136.8	.44
13	( GRID AT 7.15 INS. )	113.3	112.6	112.2	111.6	111.4	111.3	110.6	110.2	109.4	109.1	.65
14	( GRID AT 7.15 INS. )	138.4	138.7	138.8	136.7	138.4	138.2	138.1	137.6	138.1	138.5	.87
16	( GRID AT 11.2 INS. )	102.6	103.9	105.6	107.2	108.9	110.4	112.2	113.7	115.9	117.9	1.31
17	( GRID AT 15.2 INS. )	91.2	92.3	93.3	94.6	96.0	97.0	98.8	100.0	101.7	102.9	1.52
18	( GRID AT 15.2 INS. )	95.9	96.8	97.8	98.7	99.7	101.0	102.6	103.9	105.1	106.3	1.74
19	( GRID AT 19.2 INS. )	85.8	87.1	88.3	89.4	90.5	91.5	92.6	93.6	94.5	95.3	1.96
24	( GRID AT 19.2 INS. )	84.9	86.0	86.8	88.1	89.0	90.0	91.3	92.1	93.2	94.1	3.05
21	( GRID AT 21.45 INS. )	82.5	83.7	84.6	85.8	86.7	87.9	88.7	89.8	90.8	91.7	2.39
22	( INSIDE AT 12 00 )	273.3	280.7	286.9	292.9	299.1	304.6	310.2	315.8	321.7	327.9	2.61
23	( INSIDE AT 12 30 )	201.6	207.4	212.8	217.9	222.8	228.2	233.2	238.3	245.8	250.7	2.83
20	( INSIDE AT 1 00 )	139.7	140.1	140.8	142.0	143.9	146.3	150.6	156.7	160.9	164.8	2.18
25	( INSIDE AT 1 30 )	139.3	139.5	139.5	139.7	139.8	139.9	139.9	139.9	140.0	140.0	3.27
26	( INSIDE AT 2 00 )	143.8	144.7	144.8	145.0	145.3	144.5	144.7	145.0	145.4	145.5	3.48
27	( INSIDE AT 3 00 )	140.2	141.4	141.7	142.0	141.7	141.7	142.0	142.3	143.0	143.3	3.70
28	( INSIDE AT 4 00 )	121.0	122.7	123.5	124.9	125.8	126.3	127.7	127.9	128.7	130.3	3.92
29	( INSIDE AT 4 30 )	113.3	113.3	114.0	115.1	116.4	117.0	117.8	118.6	119.3	119.7	4.14
31	( INSIDE AT 5 30 )	93.8	95.0	96.0	96.8	97.8	98.3	100.0	102.0	103.0	104.5	4.57
32	( INSIDE AT 6 00 )	75.9	77.1	78.3	79.9	81.2	82.6	84.0	85.8	87.2	88.7	4.79
33	( INSIDE AT 6 30 )	86.0	87.7	88.7	89.7	90.2	91.9	92.5	93.8	95.2	96.9	5.01
34	( INSIDE AT 7 00 )	97.7	99.1	100.4	101.6	102.9	104.2	105.4	106.6	108.0	109.3	5.22
35	( INSIDE AT 7 30 )	109.6	110.7	111.9	113.1	114.2	115.4	116.6	117.7	119.0	120.2	5.44
36	( INSIDE AT 8 00 )	136.3	137.9	138.2	139.3	140.9	142.6	143.3	144.6	146.4	146.3	5.66
37	( INSIDE AT 9 00 )	140.7	141.0	141.4	141.3	141.8	142.3	143.4	143.8	144.3	144.5	5.88
38	( INSIDE AT 10 00 )	136.0	134.1	134.9	135.0	135.1	135.1	135.9	135.9	135.9	134.7	6.10
39	( INSIDE AT 10 30 )	146.3	145.9	145.4	145.4	145.4	145.4	146.0	146.6	146.1	145.7	6.31
40	( INSIDE AT 11 00 )	143.9	144.2	144.3	144.4	144.5	145.0	145.7	146.7	148.7	150.2	6.53
41	( INSIDE AT 11 30 )	198.4	205.0	211.3	217.3	222.7	227.7	232.4	236.6	244.3	248.8	6.75
44	( OUTSIDE AT 12 00 )	311.1	317.9	323.7	328.3	333.6	338.6	343.1	349.7	354.7	359.5	7.40
45	( OUTSIDE AT 1 00 )	176.5	177.6	179.8	180.9	183.0	186.6	187.4	194.0	196.5	199.8	7.62
46	( OUTSIDE AT 2 00 )	166.2	166.8	169.0	170.9	171.0	174.9	176.2	178.9	179.4	184.5	7.84
47	( OUTSIDE AT 3 00 )	162.0	178.7	185.3	193.5	177.7	192.6	183.2	189.2	180.0	219.3	8.05
48	( OUTSIDE AT 4 00 )	148.2	148.6	149.2	150.9	152.1	152.7	153.3	154.7	154.8	154.8	8.27
49	( OUTSIDE AT 5 00 )	122.7	122.9	123.5	126.8	126.0	128.4	130.4	131.4	133.6	135.5	8.49
50	( OUTSIDE AT 6 00 )	133.7	134.7	135.0	137.8	135.0	139.8	141.3	143.7	144.0	148.3	8.71
51	( OUTSIDE AT 7 00 )	107.8	113.3	115.1	114.6	118.5	119.6	121.0	122.6	124.8	126.2	8.93
52	( OUTSIDE AT 8 00 )	195.5	197.7	199.1	198.6	201.9	203.1	204.5	205.6	207.2	209.7	9.14
53	( OUTSIDE AT 9 00 )	215.7	216.7	216.7	214.4	217.0	217.3	217.8	219.0	218.3	217.8	9.36
54	( OUTSIDE AT 10 00 )	215.8	216.6	215.9	212.4	213.1	213.9	214.3	214.9	213.8	214.1	9.58
56	( OUTSIDE AT 11 00 )	213.2	214.2	213.0	210.4	210.7	209.9	210.1	211.5	211.1	211.4	10.01
42	( MANWAY AT 1. IN. )	388.5	393.6	398.3	402.7	407.4	411.7	416.2	420.3	424.6	428.4	6.97
43	( MANWAY AT 6. INS. )	541.9	545.1	547.1	549.3	552.1	555.1	558.2	560.8	563.2	566.1	7.18
55	( FIRE AT 12 00 FORE )	1701.2	1675.3	1678.8	1685.2	1667.8	1642.2	1688.1	1710.2	1713.3	1687.4	9.80
57	( FIRE AT 3 00 FORE )	1580.5	1587.5	1589.7	1606.2	1599.7	1606.4	1603.2	1606.5	1604.9	1615.2	10.23
60	( FIRE AT 6 00 FORE )	1250.5	1264.7	1281.0	1326.4	1313.3	1295.5	1348.9	1372.8	1365.1	1330.9	10.89
61	( FIRE AT 9 00 FORE )	1245.7	1268.1	1271.0	1312.7	1296.9	1288.1	1344.4	1352.7	1357.5	1320.4	11.10
62	( FIRE AT 12 00 AFT )	450.5	448.9	444.7	446.6	440.4	436.6	454.3	458.5	466.9	474.3	11.32
63	( FIRE AT 3 00 AFT )	1460.1	1447.6	1478.3	1485.3	1485.7	1469.7	1477.4	1491.4	1475.6	1479.0	11.54
64	( FIRE AT 6 00 AFT )	1463.3	1481.3	1498.8	1488.6	1478.4	1467.9	1497.0	1498.5	1501.5	1498.7	11.76
65	( FIRE AT 9 00 AFT )	1670.7	1654.3	1655.0	1658.9	1649.1	1638.2	1669.7	1682.4	1676.7	1655.1	11.97

56

503282



TABLE A XI

THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) = 1306.20	1319.26	1332.32	1345.39	1358.45	1371.51	1384.57	1397.63	1410.70	1423.76	TIME ADJUST	ACC
		10	( GRID AT 1. IN. )	136.8	137.0	137.0	137.0	137.3	137.3	137.6	137.9	138.1	138.3
11	( GRID AT 3.15 INS. )	137.1	136.6	136.6	136.6	136.6	136.6	136.6	136.5	136.6	136.5	.22	
12	( GRID AT 3.15 INS. )	136.6	136.7	137.0	136.6	136.4	136.6	136.3	136.7	136.6	137.0	.44	
13	( GRID AT 7.15 INS. )	108.9	109.1	108.7	108.3	107.5	107.3	107.3	106.7	106.7	106.8	.65	
14	( GRID AT 7.15 INS. )	138.2	138.6	137.0	137.7	138.4	138.0	137.5	138.0	138.0	138.0	.87	
16	( GRID AT 11.2 INS. )	120.0	124.4	132.7	136.3	137.5	138.0	138.2	137.8	138.5	138.6	1.31	
17	( GRID AT 15.2 INS. )	104.0	105.8	107.5	108.4	110.5	111.6	113.6	114.8	115.9	118.1	1.52	
18	( GRID AT 15.2 INS. )	107.7	109.1	110.8	112.2	113.9	115.0	116.5	118.4	119.8	122.4	1.74	
19	( GRID AT 19.2 INS. )	96.3	97.3	98.4	99.9	101.3	102.8	103.7	104.8	106.0	107.5	1.96	
24	( GRID AT 19.2 INS. )	95.2	96.1	97.3	98.3	99.8	101.3	102.5	103.8	104.6	106.0	3.05	
21	( GRID AT 21.45 INS. )	92.8	93.4	94.2	95.0	95.7	96.9	98.1	100.3	101.7	102.5	2.39	
22	( INSIDE AT 12 00 )	333.7	338.8	343.2	347.5	351.8	356.0	359.7	364.8	369.2	373.0	2.61	
23	( INSIDE AT 12 30 )	255.2	259.8	264.3	269.2	273.8	278.2	282.8	287.5	292.0	296.1	2.83	
20	( INSIDE AT 1 00 )	168.5	172.0	175.5	178.9	181.8	184.7	187.3	189.7	192.0	194.3	2.18	
25	( INSIDE AT 1 30 )	140.1	140.0	140.0	139.9	140.0	140.0	140.3	140.4	140.9	141.6	3.27	
26	( INSIDE AT 2 00 )	145.7	145.6	144.8	144.8	145.3	145.4	144.9	145.6	145.7	145.7	3.48	
27	( INSIDE AT 3 00 )	143.7	143.4	143.9	144.0	144.7	144.9	144.5	145.1	145.2	144.7	3.70	
28	( INSIDE AT 4 00 )	130.6	131.3	131.4	131.9	132.9	133.0	133.0	133.5	134.0	134.1	3.92	
29	( INSIDE AT 4 30 )	120.7	121.6	123.0	124.0	124.4	125.8	127.1	128.1	128.5	129.4	4.14	
31	( INSIDE AT 5 30 )	105.2	106.4	107.8	109.7	111.0	112.3	113.7	115.3	116.1	117.3	4.57	
32	( INSIDE AT 6 00 )	90.1	91.6	92.7	93.7	96.0	97.5	98.1	99.7	101.8	103.2	4.79	
33	( INSIDE AT 6 30 )	98.0	99.3	99.8	101.0	102.7	103.6	104.4	105.9	107.7	109.1	5.01	
34	( INSIDE AT 7 00 )	110.5	111.8	113.0	114.3	115.5	116.7	118.0	119.3	120.6	121.8	5.22	
35	( INSIDE AT 7 30 )	121.4	122.7	123.9	125.1	126.4	127.6	128.8	129.9	131.1	132.2	5.44	
36	( INSIDE AT 8 00 )	148.4	149.8	151.1	152.4	153.3	154.2	155.2	155.7	156.1	156.7	5.66	
37	( INSIDE AT 9 00 )	144.3	144.6	145.7	146.9	147.4	148.8	149.1	148.8	149.0	149.0	5.88	
38	( INSIDE AT 10 00 )	134.6	135.0	135.0	136.2	134.9	134.2	136.1	134.9	134.9	134.8	6.10	
39	( INSIDE AT 10 30 )	145.7	146.1	146.1	146.6	146.0	145.4	146.1	146.3	147.1	146.0	6.31	
40	( INSIDE AT 11 00 )	153.8	160.8	166.5	171.3	175.7	179.8	183.9	188.0	191.8	195.4	6.53	
41	( INSIDE AT 11 30 )	253.2	257.7	262.0	266.3	270.3	274.3	278.3	282.2	285.9	289.6	6.75	
44	( OUTSIDE AT 12 00 )	364.6	367.9	372.4	375.0	379.4	384.1	387.7	393.0	398.4	400.9	7.40	
45	( OUTSIDE AT 1 00 )	203.8	209.8	210.2	217.2	219.0	221.3	224.5	227.2	229.0	231.4	7.62	
46	( OUTSIDE AT 2 00 )	186.3	188.8	186.6	190.3	189.6	190.6	191.5	191.9	193.2	194.0	7.84	
47	( OUTSIDE AT 3 00 )	205.4	219.2	203.4	219.6	212.1	211.3	208.7	200.7	205.0	202.3	8.05	
48	( OUTSIDE AT 4 00 )	155.1	156.3	157.6	157.2	156.3	157.9	159.2	159.1	159.5	160.0	8.27	
49	( OUTSIDE AT 5 00 )	136.4	138.2	140.6	141.7	142.9	144.2	147.1	148.3	149.1	150.1	8.49	
50	( OUTSIDE AT 6 00 )	148.0	150.2	153.8	155.9	158.0	157.5	159.4	160.7	161.2	162.6	8.71	
51	( OUTSIDE AT 7 00 )	127.5	127.5	130.0	131.8	133.0	135.0	135.0	137.1	140.6	140.4	8.93	
52	( OUTSIDE AT 8 00 )	210.8	210.9	213.2	215.3	216.0	217.3	217.7	220.0	222.0	221.3	9.14	
53	( OUTSIDE AT 9 00 )	219.0	216.0	217.2	217.8	219.2	218.8	218.9	219.1	222.2	219.8	9.36	
54	( OUTSIDE AT 10 00 )	213.4	213.0	212.9	213.1	213.2	213.2	212.3	212.3	214.0	212.8	9.58	
56	( OUTSIDE AT 11 00 )	215.0	218.4	222.5	225.7	229.3	232.0	236.3	239.9	245.9	248.8	10.01	
42	( MANWAY AT 1. IN. )	432.4	436.1	440.3	443.6	447.2	451.2	455.0	458.9	462.6	466.4	6.97	
43	( MANWAY AT 6. INS. )	569.4	572.9	576.3	579.5	583.7	588.6	591.5	594.7	597.7	600.3	7.18	
55	( FIRE AT 12 00 FORE )	1682.3	1689.7	1689.5	1644.8	1650.0	1635.3	1623.1	1638.5	1640.7	1635.4	9.80	
57	( FIRE AT 3 00 FORE )	1610.4	1605.6	1602.9	1610.7	1631.3	1633.8	1621.0	1630.9	1630.2	1638.7	10.23	
60	( FIRE AT 6 00 FORE )	1355.0	1358.9	1377.1	1328.0	1343.2	1345.9	1327.3	1348.7	1376.6	1383.4	10.89	
61	( FIRE AT 9 00 FORE )	1353.3	1355.4	1378.2	1319.0	1341.5	1340.8	1338.7	1355.1	1376.7	1385.9	11.10	
62	( FIRE AT 12 00 AFT )	470.6	472.7	472.0	474.0	505.3	500.3	495.3	499.3	493.4	483.0	11.32	
63	( FIRE AT 3 00 AFT )	1483.5	1491.9	1495.7	1497.2	1536.2	1535.2	1527.7	1535.1	1547.3	1559.3	11.54	
64	( FIRE AT 6 00 AFT )	1506.6	1511.4	1515.3	1512.8	1556.1	1529.8	1544.7	1555.4	1561.9	1558.6	11.76	
65	( FIRE AT 9 00 AFT )	1659.4	1654.8	1655.5	1609.3	1618.4	1600.6	1592.2	1600.7	1608.9	1601.1	11.97	

57

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TABLE A XII

THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) = 1436.82	1449.88	1462.94	1476.01	1489.07	1502.13	1515.19	1528.25	1541.32	1554.38	TIME ADJUST	ACC
10	( GRID AT 1. IN. )	138.7	139.0	139.5	139.8	139.8	139.9	139.6	140.2	140.3	140.7	.00	
11	( GRID AT 3.15 INS. )	136.6	136.7	136.8	136.6	136.6	136.9	137.0	137.1	137.1	137.4	.22	
12	( GRID AT 3.15 INS. )	137.0	136.7	136.8	136.9	136.8	137.5	137.6	137.7	137.5	138.4	.44	
13	( GRID AT 7.15 INS. )	106.4	106.3	105.5	105.3	105.0	105.4	105.1	105.0	104.4	104.3	.65	
14	( GRID AT 7.15 INS. )	137.3	137.3	137.6	137.7	137.5	137.5	137.0	136.7	137.7	137.7	.87	
16	( GRID AT 11.2 INS. )	138.7	138.1	138.7	138.6	138.6	138.6	138.6	138.1	138.7	138.8	1.31	
17	( GRID AT 15.2 INS. )	120.2	123.6	128.3	136.3	137.1	138.4	138.0	138.4	138.5	138.6	1.52	
18	( GRID AT 15.2 INS. )	123.6	126.0	130.3	137.8	139.4	141.6	140.8	141.7	141.6	141.9	1.74	
19	( GRID AT 19.2 INS. )	108.4	109.8	110.9	112.6	113.3	115.0	116.3	117.3	119.4	121.0	1.96	
24	( GRID AT 19.2 INS. )	107.2	108.7	109.9	111.0	112.1	114.1	115.3	116.8	118.5	120.5	3.05	
21	( GRID AT 21.45 INS. )	103.4	104.7	106.5	107.6	109.0	110.3	111.2	112.6	114.2	115.7	2.39	
22	( INSIDE AT 12 00 )	377.3	381.0	385.6	389.5	393.7	396.2	399.4	402.3	405.1	408.4	2.61	
23	( INSIDE AT 12 30 )	300.2	304.4	308.5	312.2	315.3	318.7	322.1	325.5	328.8	331.4	2.83	
20	( INSIDE AT 1 00 )	196.3	198.4	200.6	202.8	205.0	207.3	209.7	212.3	215.1	218.1	2.18	
25	( INSIDE AT 1 30 )	142.5	143.3	144.5	145.8	149.6	157.0	160.7	163.7	166.6	169.3	3.27	
26	( INSIDE AT 2 00 )	145.1	145.0	145.6	145.5	145.4	145.3	144.5	144.7	145.4	145.6	3.48	
27	( INSIDE AT 3 00 )	144.5	144.5	145.0	144.9	144.7	144.7	144.6	144.6	144.6	144.6	3.70	
28	( INSIDE AT 4 00 )	133.9	134.2	134.8	134.7	134.8	135.2	135.2	135.9	136.9	136.5	3.92	
29	( INSIDE AT 4 30 )	130.8	131.6	132.3	132.2	132.7	133.0	134.1	134.4	134.6	134.3	4.14	
31	( INSIDE AT 5 00 )	118.2	119.8	121.3	122.6	123.7	124.7	126.0	127.6	128.8	130.0	4.57	
32	( INSIDE AT 6 00 )	104.7	105.6	107.1	109.2	110.8	112.5	114.1	115.0	116.7	118.7	4.79	
33	( INSIDE AT 6 30 )	110.7	111.6	113.0	114.8	116.1	117.6	118.4	120.1	121.6	123.6	5.01	
34	( INSIDE AT 7 00 )	123.1	124.4	125.8	127.1	128.3	129.6	131.0	132.1	133.6	134.9	5.22	
35	( INSIDE AT 7 30 )	133.2	134.2	135.2	136.2	137.2	138.0	139.0	139.7	140.3	141.1	5.44	
36	( INSIDE AT 8 00 )	156.5	157.4	157.7	157.7	157.9	158.2	158.6	159.1	159.5	159.7	5.66	
37	( INSIDE AT 9 00 )	149.4	150.1	149.6	149.5	149.7	150.0	150.3	151.1	151.2	150.6	5.88	
38	( INSIDE AT 10 00 )	135.0	136.2	134.1	134.6	134.6	136.0	134.7	136.0	134.7	134.7	6.10	
39	( INSIDE AT 10 30 )	146.7	146.8	147.4	146.4	148.0	148.1	148.9	150.7	152.5	156.3	6.31	
40	( INSIDE AT 11 00 )	198.7	202.1	205.4	208.5	211.7	214.9	218.0	221.0	223.9	227.9	6.53	
41	( INSIDE AT 11 30 )	293.3	297.1	300.7	304.0	307.1	310.6	313.6	316.9	319.8	322.8	6.75	
44	( OUTSIDE AT 12 00 )	404.9	408.8	412.4	414.9	418.3	421.6	424.6	427.7	429.9	432.1	7.40	
45	( OUTSIDE AT 1 00 )	233.2	238.0	239.1	243.8	246.4	248.2	250.8	256.2	259.4	264.4	7.62	
46	( OUTSIDE AT 2 00 )	194.6	196.5	196.0	197.6	198.1	198.7	199.2	200.3	200.6	202.0	7.84	
47	( OUTSIDE AT 3 00 )	195.7	203.7	188.6	198.8	196.4	192.4	187.4	184.3	181.2	181.1	8.05	
48	( OUTSIDE AT 4 00 )	161.0	161.9	161.5	161.9	162.0	162.1	163.1	163.0	162.6	162.3	8.27	
49	( OUTSIDE AT 5 00 )	152.9	156.1	154.7	158.3	159.0	161.0	163.0	163.9	164.5	165.9	8.49	
50	( OUTSIDE AT 6 00 )	163.0	167.5	168.8	172.3	175.4	176.7	178.9	182.7	185.3	191.0	8.71	
51	( OUTSIDE AT 7 00 )	143.2	144.4	145.3	147.3	148.7	149.2	152.0	153.4	157.7	158.1	8.93	
52	( OUTSIDE AT 8 00 )	222.9	223.9	223.2	224.5	224.7	225.7	227.1	227.1	228.4	229.4	9.14	
53	( OUTSIDE AT 9 00 )	219.8	221.1	220.5	222.2	222.7	217.7	223.0	223.5	225.1	224.8	9.36	
54	( OUTSIDE AT 10 00 )	214.1	213.6	213.4	212.4	210.7	208.9	210.2	209.7	209.2	207.1	9.58	
56	( OUTSIDE AT 11 00 )	252.2	256.7	259.3	261.0	264.0	265.4	268.4	272.4	273.8	276.2	10.01	
42	( MANWAY AT 1. IN. )	470.1	473.6	477.0	480.5	484.1	487.5	491.0	494.6	498.2	501.6	6.97	
43	( MANWAY AT 6. INS. )	603.1	606.3	609.6	612.6	616.2	619.6	623.9	628.4	631.8	635.6	7.18	
55	( FIRE AT 12 00 FORE )	1618.1	1650.4	1652.1	1657.6	1659.3	1629.5	1652.4	1658.1	1669.3	1675.3	9.80	
57	( FIRE AT 3 00 FORE )	1636.1	1627.8	1634.0	1645.8	1631.6	1617.1	1605.8	1601.3	1594.0	1637.2	10.23	
60	( FIRE AT 6 00 FORE )	1365.9	1420.8	1439.2	1464.5	1475.7	1451.4	1491.4	1509.5	1519.6	1532.1	10.89	
61	( FIRE AT 9 00 FORE )	1363.6	1425.1	1430.3	1459.0	1472.7	1448.0	1492.4	1499.1	1518.8	1531.4	11.10	
62	( FIRE AT 12 00 AFT )	472.6	472.5	468.7	468.4	467.9	457.9	462.4	467.0	472.2	469.7	11.32	
63	( FIRE AT 3 00 AFT )	1535.6	1560.6	1577.4	1576.5	1563.8	1542.1	1557.1	1560.4	1561.9	1612.7	11.54	
64	( FIRE AT 6 00 AFT )	1551.1	1587.2	1594.9	1609.0	1592.1	1580.1	1603.4	1614.0	1623.5	1643.6	11.76	
65	( FIRE AT 9 00 AFT )	1580.0	1609.7	1604.5	1617.4	1615.2	1595.8	1617.9	1621.7	1629.1	1630.1	11.97	

58

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TABLE A XIII

THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) = 1567.44	1580.50	1593.56	1606.63	1619.69	1632.75	1645.81	1658.87	1671.94	1685.00	TIME ADJUST ACC
10	( GRID AT 1. IN. )	141.1	141.1	141.3	141.9	141.7	142.7	142.9	143.9	145.2	147.0	.00
11	( GRID AT 3.15 INS. )	137.6	137.7	138.0	138.1	138.3	138.2	138.2	138.3	138.6	138.5	.22
12	( GRID AT 3.15 INS. )	138.0	138.7	139.0	139.2	138.6	138.7	138.7	139.3	139.5	138.8	.44
13	( GRID AT 7.15 INS. )	104.7	104.4	104.3	104.3	103.6	103.5	103.9	103.7	103.6	103.0	.65
14	( GRID AT 7.15 INS. )	137.7	137.1	137.2	137.4	137.9	138.2	138.2	137.6	137.7	138.3	.87
16	( GRID AT 11.2 INS. )	138.8	138.9	139.0	138.4	139.0	139.0	139.2	139.2	138.6	139.3	1.31
17	( GRID AT 15.2 INS. )	138.6	138.9	138.6	138.8	139.0	138.8	139.3	139.3	139.2	139.3	1.52
18	( GRID AT 15.2 INS. )	141.8	141.6	141.8	141.6	141.7	142.1	142.2	142.2	142.2	142.2	1.74
19	( GRID AT 19.2 INS. )	123.2	125.1	128.7	134.9	140.8	140.0	141.1	140.4	140.9	141.2	1.96
24	( GRID AT 19.2 INS. )	123.5	127.6	134.0	136.7	137.2	137.7	139.0	139.3	139.3	139.3	3.05
21	( GRID AT 21.45 INS. )	117.1	118.5	120.3	122.0	124.9	130.9	136.4	139.4	140.0	140.3	2.39
22	( INSIDE AT 12 00 )	411.1	413.0	415.8	417.7	420.0	422.0	423.2	425.8	428.3	431.5	2.61
23	( INSIDE AT 12 30 )	334.1	336.8	339.8	342.9	345.6	348.6	350.6	352.9	355.5	357.8	2.83
20	( INSIDE AT 1 00 )	221.0	224.0	227.0	230.2	233.0	235.9	238.5	243.8	246.6	249.5	2.18
25	( INSIDE AT 1 30 )	171.9	174.6	177.2	179.9	182.5	185.0	187.6	190.1	192.5	195.0	3.27
26	( INSIDE AT 2 00 )	145.6	145.7	145.3	145.5	146.4	147.5	149.1	152.1	158.3	166.5	3.48
27	( INSIDE AT 3 00 )	144.5	144.5	144.6	144.7	144.6	144.6	144.8	144.8	144.7	144.8	3.70
28	( INSIDE AT 4 00 )	136.6	136.3	136.4	136.6	137.1	136.6	136.4	136.2	136.2	137.1	3.92
29	( INSIDE AT 4 30 )	136.5	135.8	136.3	136.9	136.9	136.8	137.5	137.5	137.6	137.5	4.14
31	( INSIDE AT 5 30 )	131.3	132.3	134.2	136.0	137.6	138.5	140.0	142.1	145.1	146.5	4.57
32	( INSIDE AT 6 00 )	120.7	122.4	123.4	124.9	126.2	128.4	129.9	131.7	133.8	136.5	4.79
33	( INSIDE AT 6 30 )	125.0	126.3	127.3	128.9	130.1	132.1	133.6	134.6	137.3	139.7	5.01
34	( INSIDE AT 7 00 )	136.3	137.5	138.8	140.1	141.3	142.6	144.1	145.9	147.2	147.7	5.22
35	( INSIDE AT 7 30 )	141.5	142.0	142.6	143.6	144.7	145.0	144.8	145.0	145.1	145.1	5.44
36	( INSIDE AT 8 00 )	160.4	161.0	161.3	160.9	161.4	161.4	161.5	161.7	161.7	161.7	5.66
37	( INSIDE AT 9 00 )	150.7	150.8	151.5	151.2	151.7	151.1	151.0	150.8	152.0	152.0	5.88
38	( INSIDE AT 10 00 )	135.8	136.0	136.1	136.2	134.9	135.0	135.1	136.1	135.2	135.1	6.10
39	( INSIDE AT 10 30 )	161.4	168.9	173.9	178.0	181.7	185.0	188.5	191.9	195.4	198.5	6.31
40	( INSIDE AT 11 00 )	230.7	233.7	236.7	239.5	244.8	247.3	249.8	252.5	255.2	257.5	6.53
41	( INSIDE AT 11 30 )	325.6	328.3	330.7	333.4	335.4	337.8	339.8	342.3	344.6	346.5	6.75
44	( OUTSIDE AT 12 00 )	434.1	437.2	440.5	442.1	444.0	446.6	448.9	451.0	452.7	454.3	7.40
45	( OUTSIDE AT 1 00 )	268.8	273.0	278.0	282.9	286.7	291.7	294.9	298.6	301.3	303.8	7.62
46	( OUTSIDE AT 2 00 )	203.0	203.7	206.0	208.0	210.2	214.0	217.6	222.1	226.0	229.1	7.84
47	( OUTSIDE AT 3 00 )	180.0	174.0	173.7	170.4	171.4	174.8	175.0	181.4	192.5	200.5	8.05
48	( OUTSIDE AT 4 00 )	163.7	165.3	167.1	168.7	169.2	172.1	174.3	178.1	180.5	182.5	8.27
49	( OUTSIDE AT 5 00 )	168.0	170.2	170.6	172.2	173.2	174.4	175.3	178.0	178.4	178.9	8.49
50	( OUTSIDE AT 6 00 )	195.7	199.2	204.4	209.1	213.8	217.7	224.1	233.5	245.0	254.3	8.71
51	( OUTSIDE AT 7 00 )	159.8	160.8	164.5	164.4	168.2	169.1	170.0	171.4	172.4	173.8	8.93
52	( OUTSIDE AT 8 00 )	229.6	230.4	233.0	234.0	236.1	237.0	236.5	237.3	238.0	239.4	9.14
53	( OUTSIDE AT 9 00 )	225.3	226.4	228.3	229.5	233.3	231.6	230.7	231.2	233.1	235.6	9.36
54	( OUTSIDE AT 10 00 )	206.8	207.0	208.8	209.1	210.1	209.5	209.1	208.8	209.0	208.8	9.58
56	( OUTSIDE AT 11 00 )	279.6	284.8	289.2	295.7	301.7	305.7	309.2	313.2	317.1	319.4	10.01
42	( MANWAY AT 1. IN. )	505.0	508.1	511.5	514.7	517.7	520.8	523.8	526.6	530.1	533.3	6.97
43	( MANWAY AT 6. INS. )	640.2	644.8	649.3	652.6	655.3	656.9	660.3	664.6	667.8	670.6	7.18
55	( FIRE AT 12 00 FORE )	1662.0	1670.3	1651.9	1669.4	1641.6	1653.7	1668.6	1674.0	1671.6	1662.6	9.80
57	( FIRE AT 3 00 FORE )	1633.5	1634.5	1675.7	1731.8	1707.8	1756.4	1775.8	1744.4	1696.0	1776.3	10.23
60	( FIRE AT 6 00 FORE )	1525.8	1546.2	1528.7	1554.6	1534.4	1547.5	1558.2	1572.3	1570.4	1568.2	10.89
61	( FIRE AT 9 00 FORE )	1523.1	1540.0	1525.2	1549.5	1521.0	1542.7	1558.1	1568.6	1567.3	1562.1	11.10
62	( FIRE AT 12 00 AFT )	472.2	473.7	469.9	472.7	470.0	475.6	478.1	481.2	484.8	485.6	11.32
63	( FIRE AT 3 00 AFT )	1591.1	1610.0	1612.7	1645.8	1591.2	1634.0	1675.2	1621.4	1634.3	1693.2	11.54
64	( FIRE AT 6 00 AFT )	1691.8	1708.1	1734.5	1723.3	1726.2	1773.8	1776.6	1813.8	1864.9	1942.2	11.76
65	( FIRE AT 9 00 AFT )	1616.7	1622.2	1608.2	1623.8	1597.7	1609.7	1615.1	1619.8	1616.3	1607.6	11.97

59

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TABLE A XIV

THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) =	1698.06	1711.12	1724.18	1737.25	1750.31	1763.37	1776.43	1789.49	1802.56	1815.62	TIME	
														ACJUST
10	( GRID AT 1. IN. )		146.6	147.3	147.5	149.3	150.3	151.1	151.7	151.0	154.1	155.4		.00
11	( GRID AT 3.15 INS. )		138.7	138.6	138.6	138.7	138.8	138.9	138.9	139.0	139.2	139.3		.22
12	( GRID AT 3.15 INS. )		139.1	139.4	139.8	139.7	139.7	140.2	140.1	140.8	140.6	140.7		.44
13	( GRID AT 7.15 INS. )		102.9	102.9	103.3	103.2	102.7	102.7	102.7	103.2	103.2	102.9		.65
14	( GRID AT 7.15 INS. )		138.2	138.3	137.8	138.0	138.4	138.5	138.6	138.7	138.2	138.8		.87
16	( GRID AT 11.2 INS. )		139.3	139.3	139.5	138.9	139.4	139.4	139.5	139.5	139.0	139.7		1.31
17	( GRID AT 15.2 INS. )		139.3	139.4	139.5	139.5	139.5	139.6	139.6	139.7	139.7	139.8		1.52
18	( GRID AT 15.2 INS. )		142.2	142.3	142.3	142.3	142.4	142.5	143.1	142.5	142.6	142.7		1.74
19	( GRID AT 19.2 INS. )		141.7	141.9	142.0	141.4	142.0	142.0	142.0	142.0	141.5	142.2		1.96
24	( GRID AT 19.2 INS. )		139.5	139.5	139.7	140.2	139.7	139.7	139.8	139.9	139.8	140.0		3.05
21	( GRID AT 21.45 INS. )		140.9	141.3	141.3	141.3	141.5	141.5	141.5	141.4	141.4	141.6		2.39
22	( INSIDE AT 12 00 )		432.8	434.5	436.6	438.1	440.4	442.6	444.4	446.2	448.8	450.7		2.61
23	( INSIDE AT 12 30 )		359.9	361.9	363.8	366.0	368.2	370.2	371.8	373.9	375.9	378.2		2.83
20	( INSIDE AT 1 00 )		252.2	254.5	257.0	259.3	261.6	263.7	265.8	268.1	270.1	272.3		2.18
25	( INSIDE AT 1 30 )		197.4	199.7	202.1	204.3	206.0	208.6	211.0	213.4	215.1	217.3		3.27
26	( INSIDE AT 2 00 )		173.4	178.5	182.5	187.0	191.0	195.7	198.5	200.9	203.4	207.2		3.48
27	( INSIDE AT 3 00 )		144.7	144.8	144.7	144.7	144.8	144.7	144.7	144.7	144.9	144.9		3.70
28	( INSIDE AT 4 00 )		136.9	136.7	136.8	136.6	137.0	137.1	136.9	136.4	136.7	137.3		3.92
29	( INSIDE AT 4 30 )		137.1	137.0	138.3	137.7	137.5	137.0	137.0	137.7	138.3	137.6		4.14
31	( INSIDE AT 5 30 )		147.3	147.9	147.8	148.5	148.4	148.3	147.7	148.0	148.7	148.4		4.57
32	( INSIDE AT 6 00 )		139.3	141.2	142.6	143.2	144.1	145.3	145.6	145.9	145.4	145.5		4.79
33	( INSIDE AT 6 30 )		142.4	143.4	144.3	143.6	144.4	145.0	144.8	144.9	144.7	144.7		5.01
34	( INSIDE AT 7 00 )		148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.1		5.22
35	( INSIDE AT 7 30 )		145.1	145.2	145.1	145.0	145.0	145.0	144.9	144.9	144.9	144.8		5.44
36	( INSIDE AT 8 00 )		161.7	161.8	162.0	162.0	162.0	162.2	162.3	162.5	162.6	162.7		5.66
37	( INSIDE AT 9 00 )		151.7	151.7	151.9	152.7	152.8	152.3	152.4	152.0	152.7	152.8		5.88
38	( INSIDE AT 10 00 )		137.6	139.6	143.2	149.1	154.2	160.0	164.7	169.3	173.7	178.3		6.10
39	( INSIDE AT 10 30 )		201.8	205.1	208.3	211.3	214.4	217.4	219.9	222.4	224.8	227.7		6.31
40	( INSIDE AT 11 00 )		259.8	262.1	264.6	266.7	268.9	270.8	272.9	274.9	276.9	278.9		6.53
41	( INSIDE AT 11 30 )		348.5	350.3	352.5	354.3	356.0	358.0	359.9	361.5	363.4	365.0		6.75
44	( OUTSIDE AT 12 00 )		456.1	457.5	459.0	459.0	461.6	463.8	465.7	467.8	469.9	472.2		7.40
45	( OUTSIDE AT 1 00 )		306.9	310.1	312.9	316.0	318.6	320.5	322.7	325.0	328.6	330.9		7.62
46	( OUTSIDE AT 2 00 )		233.2	235.7	238.3	242.9	244.9	245.8	249.1	253.0	258.4	264.5		7.84
47	( OUTSIDE AT 3 00 )		208.5	215.7	224.2	231.1	244.5	235.0	244.0	246.8	256.3	269.8		8.05
48	( OUTSIDE AT 4 00 )		185.6	189.4	195.0	198.5	203.4	204.3	208.8	212.3	218.9	227.9		8.27
49	( OUTSIDE AT 5 00 )		179.6	181.0	182.2	183.9	185.0	186.2	186.4	187.5	191.1	195.3		8.49
50	( OUTSIDE AT 6 00 )		262.6	274.1	287.0	298.0	310.3	316.3	325.5	335.2	349.5	374.7		8.71
51	( OUTSIDE AT 7 00 )		177.0	177.7	176.2	177.7	178.6	178.0	180.3	180.0	180.0	181.9		8.93
52	( OUTSIDE AT 8 00 )		242.9	243.3	243.7	244.9	246.4	246.5	247.4	247.7	247.8	248.8		9.14
53	( OUTSIDE AT 9 00 )		237.4	237.3	238.0	243.0	245.3	245.2	245.9	245.2	245.8	247.6		9.36
54	( OUTSIDE AT 10 00 )		209.1	210.0	210.6	214.6	218.1	219.1	224.2	227.6	231.7	235.5		9.58
56	( OUTSIDE AT 11 00 )		321.6	324.6	326.7	331.5	334.7	339.4	336.2	338.9	343.4	346.2		10.01
42	( MANWAY AT 1. IN. )		536.7	539.9	542.7	545.7	548.9	552.0	555.0	558.1	561.5	565.1		6.97
43	( MANWAY AT 6. INS. )		673.3	676.4	679.6	683.3	686.8	688.6	690.3	694.1	697.5	701.9		7.18
55	( FIRE AT 12 00 FORE )		1631.5	1652.0	1655.1	1662.2	1655.8	1653.9	1644.7	1637.2	1657.0	1659.1		9.80
57	( FIRE AT 3 00 FORE )		1771.6	1815.5	1750.0	1714.2	1670.9	1726.7	1736.4	1726.9	1775.5	1728.7		10.23
60	( FIRE AT 6 00 FORE )		1540.3	1560.7	1568.5	1580.8	1574.5	1567.7	1558.2	1561.1	1572.9	1583.1		10.89
61	( FIRE AT 9 00 FORE )		1536.2	1559.9	1562.5	1580.2	1574.3	1568.7	1551.1	1558.1	1577.2	1579.3		11.10
62	( FIRE AT 12 00 AFT )		488.4	490.8	495.1	499.1	501.2	507.9	505.6	508.0	506.2	498.6		11.32
63	( FIRE AT 3 00 AFT )		1682.4	1741.5	1800.5	1687.6	1550.7	1711.9	1786.2	1781.9	1763.2	1710.3		11.54
64	( FIRE AT 6 00 AFT )		1902.2	1844.1	1981.4	1900.5	1904.8	1946.6	1944.4	2006.8	1977.6	1908.8		11.76
65	( FIRE AT 9 00 AFT )		1590.9	1602.3	1600.7	1610.2	1603.8	1604.2	1586.0	1590.5	1604.3	1606.4		11.97

60

500000

TABLE A XV

THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) =										TIME	
		1828.68	1841.74	1854.80	1867.87	1880.93	1893.99	1907.05	1920.11	1933.18	1946.24	ADJUST	ACC
10	( GRID AT 1. IN. )	157.0	157.5	160.0	161.4	163.5	165.3	168.5	168.5	171.0	173.0		.00
11	( GRID AT 3.15 INS. )	139.1	140.0	140.0	140.8	142.3	142.6	143.3	145.3	147.6	149.3		.22
12	( GRID AT 3.15 INS. )	141.3	142.9	143.3	144.5	147.1	147.2	148.2	149.7	152.6	154.9		.44
13	( GRID AT 7.15 INS. )	103.0	103.6	103.7	103.7	103.9	103.5	103.6	103.8	104.6	104.6		.65
14	( GRID AT 7.15 INS. )	138.7	138.8	138.3	138.4	138.6	139.3	139.3	139.3	138.8	139.0		.87
16	( GRID AT 11.2 INS. )	139.5	139.7	139.7	139.8	139.3	139.9	139.9	140.0	140.1	140.0		1.31
17	( GRID AT 15.2 INS. )	139.8	139.8	139.9	139.9	140.0	140.1	140.1	140.1	140.2	140.2		1.52
18	( GRID AT 15.2 INS. )	142.6	142.6	142.7	142.8	142.8	142.9	142.8	142.8	142.9	142.7		1.74
19	( GRID AT 19.2 INS. )	142.3	142.2	142.3	141.7	141.8	142.4	142.5	142.5	142.5	142.0		1.96
24	( GRID AT 19.2 INS. )	140.0	140.0	140.1	140.0	140.1	140.1	140.2	140.2	140.4	140.3		3.05
21	( GRID AT 21.45 INS. )	141.6	141.5	141.5	141.4	141.6	141.7	141.7	141.7	141.6	141.8		2.39
22	( INSIDE AT 12 00 )	453.2	454.7	457.2	459.7	461.6	464.2	466.6	468.7	470.3	473.2		2.61
23	( INSIDE AT 12 30 )	380.4	382.2	384.6	386.8	389.3	391.6	393.5	395.8	398.1	400.4		2.83
20	( INSIDE AT 1 00 )	274.5	276.8	278.9	280.9	283.4	285.4	287.8	289.9	292.1	294.4		2.18
25	( INSIDE AT 1 30 )	219.5	221.9	224.0	226.6	229.0	231.4	234.0	236.7	239.2	244.5		3.27
26	( INSIDE AT 2 00 )	211.9	215.9	219.5	223.8	228.0	232.2	236.8	243.3	246.7	250.4		3.48
27	( INSIDE AT 3 00 )	145.0	145.0	145.0	145.1	145.2	145.2	145.2	145.3	145.5	145.7		3.70
28	( INSIDE AT 4 00 )	137.1	137.0	136.7	136.8	137.1	137.3	137.1	137.5	136.8	137.2		3.92
29	( INSIDE AT 4 30 )	136.9	136.9	137.4	137.4	137.6	136.8	136.8	137.1	137.6	137.6		4.14
31	( INSIDE AT 5 30 )	149.0	148.7	148.4	148.9	148.8	148.7	148.0	147.9	147.9	147.8		4.57
32	( INSIDE AT 6 00 )	146.1	146.1	146.1	145.7	145.7	146.3	146.4	146.5	146.5	146.2		4.79
33	( INSIDE AT 6 30 )	145.2	144.9	144.5	144.7	144.9	145.5	145.3	145.1	145.2	144.8		5.01
34	( INSIDE AT 7 00 )	148.2	148.1	148.2	148.1	148.3	148.3	148.3	148.4	148.3	148.3		5.22
35	( INSIDE AT 7 30 )	144.8	144.8	144.8	144.8	144.8	144.8	144.8	144.8	144.7	144.7		5.44
36	( INSIDE AT 8 00 )	162.6	162.6	162.7	162.8	162.2	162.8	162.8	162.6	162.5	162.4		5.66
37	( INSIDE AT 9 00 )	152.8	152.9	153.2	153.3	153.7	153.9	154.0	154.2	154.5	154.1		5.88
38	( INSIDE AT 10 00 )	182.6	186.9	190.8	194.5	198.2	201.9	205.7	209.5	213.7	217.7		6.10
39	( INSIDE AT 10 30 )	230.1	232.8	235.4	237.9	242.8	245.3	247.9	250.3	253.0	255.4		6.31
40	( INSIDE AT 11 00 )	280.8	282.7	284.6	286.7	288.7	290.6	292.5	294.4	296.6	298.7		6.53
41	( INSIDE AT 11 30 )	366.7	368.6	370.2	372.4	374.4	376.4	378.2	380.2	382.4	384.7		6.75
44	( OUTSIDE AT 12 00 )	474.8	477.2	480.2	480.7	482.3	484.6	486.5	488.7	490.9	493.7		7.40
45	( OUTSIDE AT 1 00 )	333.3	336.2	338.9	341.2	344.3	347.2	350.0	353.5	356.6	359.6		7.62
46	( OUTSIDE AT 2 00 )	270.1	275.4	281.1	287.8	294.7	300.2	305.8	310.7	316.1	320.6		7.84
47	( OUTSIDE AT 3 00 )	284.4	295.7	297.3	294.2	309.2	314.9	324.4	321.6	339.7	345.6		8.05
48	( OUTSIDE AT 4 00 )	238.7	250.6	255.7	256.8	267.0	276.6	283.9	287.3	301.9	310.8		8.27
49	( OUTSIDE AT 5 00 )	202.4	210.0	210.5	207.9	213.1	216.4	219.5	220.1	227.8	232.9		8.49
50	( OUTSIDE AT 6 00 )	404.7	431.7	436.6	421.5	452.6	471.5	483.0	485.9	509.5	527.0		8.71
51	( OUTSIDE AT 7 00 )	183.2	183.7	183.5	184.0	185.1	185.4	186.2	186.4	186.2	185.9		8.93
52	( OUTSIDE AT 8 00 )	250.0	251.0	250.9	251.8	253.4	254.6	255.7	256.1	256.3	256.7		9.14
53	( OUTSIDE AT 9 00 )	248.8	250.5	253.0	252.6	255.4	257.4	258.1	259.7	259.9	260.7		9.36
54	( OUTSIDE AT 10 00 )	238.6	244.0	245.3	247.5	251.8	257.4	263.7	270.7	276.7	282.6		9.58
56	( OUTSIDE AT 11 00 )	347.5	347.4	349.6	352.0	355.8	358.1	360.5	361.5	362.6	365.9		10.01
42	( MANWAY AT 1. IN. )	568.7	571.7	575.2	579.0	582.7	586.3	589.6	593.2	597.2	600.7		6.97
43	( MANWAY AT 6. INS. )	705.4	708.3	711.8	715.3	718.6	722.3	725.4	729.0	732.1	736.1		7.18
55	( FIRE AT 12 00 FORE )	1654.3	1662.8	1656.7	1646.8	1660.1	1639.5	1644.7	1640.4	1650.0	1649.0		9.80
57	( FIRE AT 3 00 FORE )	1743.5	1869.8	1818.1	1788.8	1803.2	1736.9	1865.0	1855.2	1751.7	1837.2		10.23
60	( FIRE AT 6 00 FORE )	1580.0	1591.8	1580.9	1572.2	1592.8	1576.2	1580.2	1570.0	1582.5	1587.5		10.89
61	( FIRE AT 9 00 FORE )	1576.2	1593.7	1576.0	1572.4	1588.3	1571.8	1575.4	1568.9	1580.5	1586.2		11.10
62	( FIRE AT 12 00 AFT )	497.5	489.4	475.3	470.2	471.2	475.8	480.1	477.5	473.0	471.2		11.32
63	( FIRE AT 3 00 AFT )	1750.0	1690.7	1783.0	1789.4	1815.3	1848.1	1774.0	1828.0	1783.0	1908.6		11.54
64	( FIRE AT 6 00 AFT )	1957.1	1949.7	2053.9	1970.0	2046.2	2033.5	1993.7	2081.7	1992.9	2032.8		11.76
65	( FIRE AT 9 00 AFT )	1604.4	1611.0	1597.7	1594.3	1601.8	1588.1	1592.9	1582.4	1592.0	1595.6		11.97

61

508272

TABLE A XVI

THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) =	1959.30	1972.36	1985.42	1998.49	2011.55	2024.61	2037.67	2050.73	2063.80	2076.86	TIME	
														ADJUST
10	( GRID AT 1. IN. )		174.6	177.4	179.6	181.3	184.1	185.7	187.3	189.8	192.7	194.4		.00
11	( GRID AT 3.15 INS. )		150.4	152.2	152.8	154.8	158.0	159.0	161.5	162.7	164.6	167.0		.22
12	( GRID AT 3.15 INS. )		156.4	157.0	159.3	161.4	164.1	165.4	167.3	169.8	171.2	173.5		.44
13	( GRID AT 7.15 INS. )		104.7	104.3	104.5	104.7	105.4	105.7	106.0	106.3	105.9	106.1		.65
14	( GRID AT 7.15 INS. )		139.0	139.7	139.7	139.8	139.2	139.4	139.4	139.6	140.5	140.9		.87
16	( GRID AT 11.2 INS. )		139.5	140.2	140.2	140.3	140.3	140.3	139.8	139.7	140.4	140.4		1.31
17	( GRID AT 15.2 INS. )		140.3	140.3	140.2	140.3	140.3	140.4	140.5	140.6	140.6	140.6		1.52
18	( GRID AT 15.2 INS. )		142.6	142.5	142.4	143.0	142.3	142.2	142.3	142.2	142.2	142.2		1.74
19	( GRID AT 19.2 INS. )		142.0	142.7	142.7	142.7	142.7	142.1	142.2	142.2	142.8	142.8		1.96
24	( GRID AT 19.2 INS. )		140.4	140.4	140.4	140.6	140.5	140.5	141.2	140.7	140.6	140.7		3.05
21	( GRID AT 21.45 INS. )		141.7	141.7	141.8	141.8	142.3	141.7	141.7	141.8	141.9	141.9		2.39
22	( INSIDE AT 12 00 )		475.6	477.9	480.4	482.8	485.1	487.5	489.9	492.2	494.5	496.2		2.61
23	( INSIDE AT 12 30 )		402.8	405.2	407.7	409.7	412.1	414.6	417.1	419.7	421.9	424.2		2.83
20	( INSIDE AT 1 00 )		296.7	299.2	301.6	304.0	306.6	309.2	311.6	314.1	316.5	319.0		2.18
25	( INSIDE AT 1 30 )		247.1	250.4	253.3	256.2	259.0	262.1	265.2	268.2	271.2	274.1		3.27
26	( INSIDE AT 2 00 )		254.2	258.1	262.4	265.9	268.6	272.3	275.8	278.9	282.1	285.1		3.48
27	( INSIDE AT 3 00 )		146.0	146.3	146.7	147.3	148.2	149.9	151.6	156.3	164.3	170.9		3.70
28	( INSIDE AT 4 00 )		137.3	137.9	137.8	137.7	137.3	137.7	137.7	137.7	138.6	138.5		3.92
29	( INSIDE AT 4 30 )		137.5	136.9	136.9	137.0	137.6	137.7	137.6	137.5	137.6	137.0		4.14
31	( INSIDE AT 5 30 )		148.4	148.5	148.1	147.9	148.4	148.9	148.7	148.4	148.7	148.9		4.57
32	( INSIDE AT 6 00 )		146.2	146.3	147.1	146.4	148.0	146.6	146.6	146.0	146.8	146.9		4.79
33	( INSIDE AT 6 30 )		145.1	145.0	145.6	145.4	145.5	145.0	145.2	145.3	145.4	145.5		5.01
34	( INSIDE AT 7 00 )		148.3	148.3	148.3	148.3	148.2	148.2	148.2	148.1	148.1	148.7		5.22
35	( INSIDE AT 7 30 )		144.7	144.7	144.7	144.6	144.6	144.5	144.3	144.3	144.3	144.3		5.44
36	( INSIDE AT 8 00 )		162.1	161.8	161.3	160.8	160.0	159.1	158.2	157.4	156.8	156.0		5.66
37	( INSIDE AT 9 00 )		154.9	155.0	155.0	154.7	154.5	154.1	153.9	153.5	153.4	153.0		5.88
38	( INSIDE AT 10 00 )		221.5	225.5	229.4	233.4	237.5	243.9	247.8	251.6	255.2	258.6		6.10
39	( INSIDE AT 10 30 )		258.0	260.6	263.3	265.8	268.2	270.8	273.5	276.5	279.1	281.6		6.31
40	( INSIDE AT 11 00 )		300.6	302.8	304.7	307.0	309.1	311.4	313.7	315.9	318.3	320.6		6.53
41	( INSIDE AT 11 30 )		387.0	389.0	391.2	393.6	395.7	398.6	400.8	402.9	405.2	407.5		6.75
44	( OUTSIDE AT 12 00 )		496.3	499.2	501.5	503.4	505.7	508.2	510.7	512.5	514.6	516.5		7.40
45	( OUTSIDE AT 1 00 )		362.2	364.5	367.5	370.3	373.5	376.5	379.3	381.3	382.6	385.0		7.62
46	( OUTSIDE AT 2 00 )		324.9	328.6	332.7	336.5	341.4	346.0	349.0	352.9	355.5	357.7		7.84
47	( OUTSIDE AT 3 00 )		359.6	355.2	357.2	360.4	384.5	390.4	397.8	407.0	424.2	423.3		8.05
48	( OUTSIDE AT 4 00 )		323.5	324.9	333.9	342.1	357.1	370.6	380.2	392.2	400.6	406.1		8.27
49	( OUTSIDE AT 5 00 )		245.2	236.6	249.7	252.4	259.5	267.6	274.0	281.0	286.6	292.2		8.49
50	( OUTSIDE AT 6 00 )		552.6	544.0	563.8	575.3	592.3	614.9	628.9	641.9	653.0	659.6		8.71
51	( OUTSIDE AT 7 00 )		187.8	180.5	189.0	189.0	187.4	187.6	187.6	188.6	190.1	190.7		8.93
52	( OUTSIDE AT 8 00 )		258.6	260.3	261.3	261.2	261.4	261.8	262.8	263.5	265.6	266.7		9.14
53	( OUTSIDE AT 9 00 )		263.8	266.1	268.4	269.6	270.0	272.5	275.7	279.2	283.0	286.6		9.36
54	( OUTSIDE AT 10 00 )		289.1	294.8	300.0	305.2	309.6	314.8	319.2	324.0	327.3	330.4		9.58
56	( OUTSIDE AT 11 00 )		369.4	372.2	375.1	377.7	381.1	383.9	385.8	386.7	388.7	391.1		10.01
42	( MANWAY AT 1. IN. )		604.0	607.9	611.6	615.2	618.9	622.9	626.4	630.0	633.4	637.0		6.97
43	( MANWAY AT 6. INS. )		740.2	744.2	748.3	752.9	757.7	763.2	766.7	768.1	770.7	773.4		7.18
55	( FIRE AT 12 00 FORE )		1642.7	1637.3	1643.8	1625.0	1639.8	1645.2	1647.0	1651.6	1648.3	1646.0		9.80
57	( FIRE AT 3 00 FORE )		1819.4	1852.9	1870.9	1873.2	1727.5	1700.7	1673.7	1742.6	1859.3	1864.5		10.23
60	( FIRE AT 6 00 FORE )		1581.1	1572.6	1581.4	1565.1	1579.4	1586.2	1588.1	1595.8	1596.2	1593.1		10.89
61	( FIRE AT 9 00 FORE )		1580.6	1569.6	1582.4	1562.4	1581.3	1590.7	1590.4	1598.1	1597.3	1595.0		11.10
62	( FIRE AT 12 00 AFT )		460.1	449.2	441.6	434.5	434.5	432.0	429.8	434.5	437.4	438.9		11.32
63	( FIRE AT 3 00 AFT )		1774.8	1842.8	1873.6	1839.3	1804.9	1701.3	1745.4	1702.3	1852.4	1868.1		11.54
64	( FIRE AT 6 00 AFT )		1974.5	2012.3	1960.5	1979.2	1968.5	1913.4	1983.2	1938.8	1961.5	2012.3		11.76
65	( FIRE AT 9 00 AFT )		1591.3	1578.9	1586.2	1573.0	1584.7	1589.4	1589.2	1594.3	1595.9	1592.3		11.97

62

010000

TABLE A XVII

THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) =										TIME	
		2089.92	2102.98	2116.04	2129.11	2142.17	2155.23	2168.29	2181.35	2194.42	2207.48	ADJUST	ACC
10	( GRID AT 1. IN. )	197.7	200.6	201.9	205.3	207.7	210.4	213.4	215.1	218.4	220.1	.00	
11	( GRID AT 3.15 INS. )	168.7	170.8	172.9	175.1	177.7	180.2	182.4	184.8	187.0	189.3	.22	
12	( GRID AT 3.15 INS. )	175.6	178.4	181.2	183.3	185.7	188.0	190.7	193.2	195.7	197.7	.44	
13	( GRID AT 7.15 INS. )	106.3	106.5	107.4	107.7	108.0	108.3	108.7	109.0	109.4	109.3	.65	
14	( GRID AT 7.15 INS. )	141.2	141.9	143.1	144.4	145.9	147.6	149.1	150.9	152.4	154.8	.87	
16	( GRID AT 11.2 INS. )	140.5	140.6	140.6	140.6	140.6	140.7	140.7	140.6	140.6	140.6	1.31	
17	( GRID AT 15.2 INS. )	140.7	140.7	140.7	140.7	140.6	140.7	140.8	140.8	140.8	140.9	1.52	
18	( GRID AT 15.2 INS. )	142.2	142.2	142.1	142.2	142.2	142.2	142.2	142.1	142.1	142.2	1.74	
19	( GRID AT 19.2 INS. )	142.9	142.9	143.5	142.4	142.3	142.3	142.4	142.4	142.3	142.9	1.96	
24	( GRID AT 19.2 INS. )	140.7	140.8	140.7	140.7	140.8	140.6	140.7	140.5	140.6	140.6	3.05	
21	( GRID AT 21.45 INS. )	141.9	141.9	141.8	141.8	141.8	141.8	141.9	141.9	142.0	142.0	2.39	
22	( INSIDE AT 12 00 )	497.8	499.8	501.2	503.0	504.7	506.0	507.6	509.0	510.6	512.8	2.61	
23	( INSIDE AT 12 30 )	426.0	428.2	430.1	432.4	434.5	436.6	438.4	440.4	442.3	444.4	2.83	
20	( INSIDE AT 1 00 )	321.4	323.6	326.0	328.2	330.6	333.1	335.3	337.5	339.8	341.9	2.18	
25	( INSIDE AT 1 30 )	276.9	279.4	282.4	284.9	287.5	290.3	292.8	295.2	297.7	300.2	3.27	
26	( INSIDE AT 2 00 )	288.5	291.3	294.1	296.3	299.0	301.5	303.9	306.3	308.9	311.5	3.48	
27	( INSIDE AT 3 00 )	175.4	179.5	182.7	186.4	189.7	192.9	195.8	198.6	201.3	204.0	3.70	
28	( INSIDE AT 4 00 )	138.3	138.6	138.0	138.1	138.2	138.2	138.3	138.5	138.4	139.2	3.92	
29	( INSIDE AT 4 30 )	137.0	137.0	136.9	137.4	137.4	137.3	137.4	137.5	137.4	137.7	4.14	
31	( INSIDE AT 5 30 )	148.0	148.0	147.8	147.9	148.1	148.2	147.9	148.5	148.6	148.6	4.57	
32	( INSIDE AT 6 00 )	147.5	147.7	147.6	147.7	147.6	147.2	147.1	146.7	147.4	147.7	4.79	
33	( INSIDE AT 6 30 )	146.7	146.1	146.1	146.7	145.7	145.8	145.9	146.6	146.3	146.3	5.01	
34	( INSIDE AT 7 00 )	148.0	148.0	148.0	147.9	147.9	147.9	147.9	147.8	147.8	147.9	5.22	
35	( INSIDE AT 7 30 )	144.2	144.1	144.0	144.0	143.9	143.7	143.7	143.5	143.5	143.5	5.44	
36	( INSIDE AT 8 00 )	155.3	154.9	154.4	154.0	153.6	153.3	153.3	152.9	152.6	152.6	5.66	
37	( INSIDE AT 9 00 )	153.0	152.9	153.0	153.2	153.5	154.5	156.7	159.8	165.8	178.5	5.88	
38	( INSIDE AT 10 00 )	261.9	265.2	268.3	271.5	274.6	277.6	280.6	283.6	286.8	289.9	6.10	
39	( INSIDE AT 10 30 )	284.1	286.6	289.1	291.7	294.2	296.6	299.3	301.9	304.7	307.4	6.31	
40	( INSIDE AT 11 00 )	322.8	324.9	327.0	329.3	331.6	333.8	336.0	338.2	340.6	343.1	6.53	
41	( INSIDE AT 11 30 )	409.6	411.8	413.9	416.0	417.9	419.9	421.8	423.8	425.9	427.8	6.75	
44	( OUTSIDE AT 12 00 )	517.8	519.9	521.4	522.5	523.8	525.5	527.3	530.3	535.7	537.0	7.40	
45	( OUTSIDE AT 1 00 )	387.3	389.7	391.5	393.4	395.1	397.3	400.0	401.1	403.4	407.5	7.62	
46	( OUTSIDE AT 2 00 )	360.4	363.7	365.9	368.0	370.1	373.0	375.3	377.1	379.7	382.7	7.84	
47	( OUTSIDE AT 3 00 )	422.2	446.9	460.9	473.0	473.7	483.4	488.4	479.1	425.6	434.5	8.05	
48	( OUTSIDE AT 4 00 )	405.1	418.9	434.3	449.4	454.3	464.8	475.8	476.2	451.6	457.0	8.27	
49	( OUTSIDE AT 5 00 )	277.6	285.1	289.3	294.4	292.2	299.7	305.1	297.3	267.4	273.5	8.49	
50	( OUTSIDE AT 6 00 )	638.3	664.8	675.1	678.3	678.6	679.4	690.3	675.7	579.8	604.5	8.71	
51	( OUTSIDE AT 7 00 )	191.7	191.9	191.1	192.1	193.4	193.7	194.0	194.4	195.7	196.0	8.93	
52	( OUTSIDE AT 8 00 )	267.0	266.6	268.5	269.5	270.7	271.9	272.6	272.0	271.4	272.2	9.14	
53	( OUTSIDE AT 9 00 )	288.1	290.5	293.7	298.1	303.9	309.0	312.4	316.7	317.3	319.7	9.36	
54	( OUTSIDE AT 10 00 )	333.2	336.2	339.2	342.4	345.3	349.4	354.0	359.5	366.7	369.0	9.58	
56	( OUTSIDE AT 11 00 )	392.9	395.3	397.3	400.0	402.2	406.7	410.9	415.1	420.0	423.9	10.01	
42	( MANWAY AT 1. IN. )	640.7	644.7	648.1	651.5	655.3	658.7	662.2	666.0	669.4	673.1	6.97	
43	( MANWAY AT 6. INS. )	776.4	779.5	781.0	784.0	786.9	790.9	795.2	797.8	801.9	808.1	7.18	
55	( FIRE AT 12 00 FORE )	1640.4	1647.4	1660.4	1658.0	1642.2	1646.7	1646.0	1644.5	1636.7	1632.0	9.80	
57	( FIRE AT 3 00 FORE )	1819.8	1652.6	1679.5	1711.8	1780.3	1818.0	1726.0	1864.6	1923.2	1874.6	10.23	
60	( FIRE AT 6 00 FORE )	1587.9	1596.4	1611.8	1610.5	1593.8	1600.4	1602.8	1600.9	1598.5	1591.8	10.89	
61	( FIRE AT 9 00 FORE )	1589.7	1599.9	1616.0	1613.2	1595.1	1600.6	1602.3	1601.1	1595.8	1591.1	11.10	
62	( FIRE AT 12 00 AFT )	431.3	428.7	428.6	427.8	426.0	428.6	430.2	437.4	435.3	426.9	11.32	
63	( FIRE AT 3 00 AFT )	1839.6	1598.4	1725.5	1823.2	1695.8	1913.4	1789.0	2038.8	1958.2	1832.5	11.54	
64	( FIRE AT 6 00 AFT )	2046.2	1868.6	1941.9	2014.2	1934.4	1988.5	1933.7	2060.6	2002.6	1945.6	11.76	
65	( FIRE AT 9 00 AFT )	1588.4	1595.5	1605.8	1603.7	1591.1	1592.7	1593.9	1594.1	1591.5	1587.1	11.97	

63

503217

TABLE A XVIII

THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) =										TIME	
		2220.54	2233.60	2246.66	2259.73	2272.79	2285.85	2298.91	2311.97	2325.04	2338.10	ADJUST	ACC
10	( GRID AT 1. IN. )	223.9	226.9	230.3	232.1	236.0	238.1	243.2	245.5	248.4	251.6		.00
11	( GRID AT 3.15 INS. )	191.4	194.4	196.5	198.7	201.5	204.0	206.4	208.4	211.0	212.7		.22
12	( GRID AT 3.15 INS. )	200.4	203.0	205.2	207.6	210.7	213.4	216.3	218.5	220.7	222.2		.44
13	( GRID AT 7.15 INS. )	109.9	110.5	111.0	111.6	112.6	113.3	113.9	114.6	114.8	115.7		.65
14	( GRID AT 7.15 INS. )	156.2	158.6	160.2	162.1	163.6	165.4	166.7	167.9	169.4	171.8		.87
16	( GRID AT 11.2 INS. )	140.7	140.7	140.7	140.6	140.7	140.6	140.5	140.5	140.4	140.5		1.31
17	( GRID AT 15.2 INS. )	140.8	140.8	140.9	140.9	140.8	140.8	140.7	140.6	140.5	140.5		1.52
18	( GRID AT 15.2 INS. )	142.2	142.3	142.3	142.3	142.3	142.3	142.3	142.3	142.3	142.3		1.74
19	( GRID AT 19.2 INS. )	143.0	142.9	142.8	142.8	142.8	142.3	142.2	142.2	142.0	142.7		1.96
24	( GRID AT 19.2 INS. )	140.5	140.4	140.5	140.3	140.4	140.3	140.3	140.3	140.0	140.0		3.05
21	( GRID AT 21.45 INS. )	142.1	142.1	142.3	142.3	142.4	142.3	142.5	142.5	142.5	142.5		2.39
22	( INSIDE AT 12 00 )	515.5	518.2	521.4	524.0	526.6	528.9	531.0	532.9	535.3	537.4		2.61
23	( INSIDE AT 12 30 )	446.5	448.9	451.2	453.4	455.8	458.2	460.7	463.2	465.5	467.9		2.83
20	( INSIDE AT 1 00 )	344.3	346.7	349.0	351.4	354.0	356.5	359.0	361.3	363.7	366.1		2.18
25	( INSIDE AT 1 30 )	302.6	305.2	308.0	310.6	313.4	316.1	318.7	321.2	323.5	326.1		3.27
26	( INSIDE AT 2 00 )	314.4	317.3	320.7	323.7	325.9	328.6	331.1	333.6	336.4	338.8		3.48
27	( INSIDE AT 3 00 )	206.7	210.0	212.9	215.8	218.1	220.9	223.7	226.5	229.3	232.1		3.70
28	( INSIDE AT 4 00 )	139.3	139.1	139.3	139.1	138.9	138.9	138.9	138.6	139.0	139.6		3.92
29	( INSIDE AT 4 30 )	137.0	137.1	137.1	137.3	138.0	138.0	137.7	138.2	137.7	137.7		4.14
31	( INSIDE AT 5 30 )	148.7	148.6	147.7	147.7	147.7	148.2	148.2	148.2	148.3	148.2		4.57
32	( INSIDE AT 6 00 )	147.7	148.2	148.1	148.1	148.0	147.5	147.5	147.3	147.5	147.2		4.79
33	( INSIDE AT 6 30 )	146.3	146.7	146.8	146.9	146.0	146.2	146.3	146.4	147.0	146.4		5.01
34	( INSIDE AT 7 00 )	147.8	147.8	147.8	147.7	147.8	147.7	147.7	147.7	147.6	147.6		5.22
35	( INSIDE AT 7 30 )	143.5	143.4	143.3	143.3	143.3	143.2	143.2	143.1	143.0	143.0		5.44
36	( INSIDE AT 8 00 )	152.4	152.3	152.1	152.1	152.1	152.0	152.0	152.0	152.0	152.0		5.66
37	( INSIDE AT 9 00 )	184.5	190.1	195.2	199.1	202.8	206.4	209.7	212.8	216.7	220.3		5.88
38	( INSIDE AT 10 00 )	293.5	297.2	301.0	304.9	308.6	312.1	315.5	318.5	321.4	324.4		6.10
39	( INSIDE AT 10 30 )	310.5	313.6	316.8	320.0	323.2	326.2	329.1	331.8	334.6	337.4		6.31
40	( INSIDE AT 11 00 )	345.4	347.9	350.5	353.0	355.9	358.5	361.3	363.8	366.3	368.8		6.53
41	( INSIDE AT 11 30 )	430.2	432.7	435.2	437.9	440.4	442.9	445.5	447.8	450.1	452.3		6.75
44	( OUTSIDE AT 12 00 )	538.9	541.9	547.0	551.1	551.6	552.5	559.4	561.8	563.5	564.8		7.40
45	( OUTSIDE AT 1 00 )	413.0	417.2	419.7	421.9	425.1	428.9	433.3	436.2	439.4	443.1		7.62
46	( OUTSIDE AT 2 00 )	388.3	392.5	396.4	399.7	402.7	405.6	409.3	412.1	414.8	418.4		7.84
47	( OUTSIDE AT 3 00 )	499.4	496.5	515.1	535.2	541.3	548.1	549.8	553.0	556.8	569.5		8.05
48	( OUTSIDE AT 4 00 )	478.7	494.3	515.0	535.2	557.9	573.8	576.6	576.3	577.7	584.3		8.27
49	( OUTSIDE AT 5 00 )	294.0	301.5	318.6	327.1	349.7	363.3	365.5	362.8	359.4	358.5		8.49
50	( OUTSIDE AT 6 00 )	683.6	696.0	716.4	731.0	746.2	751.7	750.8	748.1	751.8	761.0		8.71
51	( OUTSIDE AT 7 00 )	196.3	196.1	196.1	194.5	196.3	196.7	195.4	196.7	196.9	197.7		8.93
52	( OUTSIDE AT 8 00 )	272.5	273.0	272.5	268.2	272.8	275.6	271.0	272.0	273.7	275.2		9.14
53	( OUTSIDE AT 9 00 )	324.1	327.8	337.8	354.5	366.7	380.9	391.0	399.8	407.8	416.0		9.36
54	( OUTSIDE AT 10 00 )	373.1	376.6	381.9	386.8	390.3	392.2	398.3	402.9	405.5	408.4		9.58
56	( OUTSIDE AT 11 00 )	429.3	433.5	435.9	438.5	439.5	440.5	447.4	451.0	454.7	459.5		10.01
42	( MANWAY AT 1. IN. )	676.7	680.2	683.6	687.1	691.1	694.0	697.2	700.6	704.0	707.3		6.97
43	( MANWAY AT 6. INS. )	813.1	817.3	820.8	824.3	826.9	828.6	831.2	835.9	839.0	843.2		7.18
55	( FIRE AT 12 00 FORE )	1632.8	1636.1	1642.3	1650.9	1657.4	1656.1	1644.5	1642.3	1643.7	1643.9		9.80
57	( FIRE AT 3 00 FORE )	1757.9	1776.3	1732.4	1741.9	1749.0	1862.9	1897.9	1845.8	1857.2	1726.1		10.23
60	( FIRE AT 6 00 FORE )	1588.8	1592.9	1600.8	1610.6	1615.9	1611.0	1603.4	1596.0	1596.9	1598.2		10.89
61	( FIRE AT 9 00 FORE )	1588.7	1593.9	1602.8	1613.0	1618.7	1612.6	1605.3	1597.9	1599.4	1600.6		11.10
62	( FIRE AT 12 00 AFT )	426.1	424.9	426.8	427.4	430.3	429.4	427.6	425.1	425.0	423.9		11.32
63	( FIRE AT 3 00 AFT )	1751.9	1745.0	1702.3	1714.0	1791.6	1892.9	1815.5	1820.7	1891.6	1748.2		11.54
64	( FIRE AT 6 00 AFT )	1918.0	1876.5	1891.5	1859.3	1937.6	2015.4	1968.9	1935.0	1939.3	1934.1		11.76
65	( FIRE AT 9 00 AFT )	1583.1	1587.5	1591.7	1599.7	1605.3	1599.9	1593.7	1588.2	1589.3	1588.4		11.97

64

503335



TABLE A XIX

THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) =										TIME ADJUST ACC	
		2351.16	2364.22	2377.28	2390.35	2403.41	2416.47	2429.53	2442.59	2455.66	2468.72		
10	( GRID AT 1. IN. )	254.1	256.5	259.3	262.3	264.7	267.8	269.0	271.4	274.1	277.0	.00	
11	( GRID AT 3.15 INS. )	215.6	217.2	219.5	222.4	224.4	226.6	229.2	229.9	231.4	232.6	.22	
12	( GRID AT 3.15 INS. )	223.9	226.0	228.7	231.7	234.5	236.4	238.3	239.4	242.6	243.5	.44	
13	( GRID AT 7.15 INS. )	116.5	117.4	118.3	119.8	120.7	121.5	122.5	123.6	123.8	124.7	.65	
14	( GRID AT 7.15 INS. )	173.2	175.4	177.6	179.0	181.0	182.6	184.4	185.4	187.0	188.3	.87	
16	( GRID AT 11.2 INS. )	140.5	140.5	140.7	140.9	141.2	141.7	142.4	143.2	144.2	145.0	1.31	
17	( GRID AT 15.2 INS. )	140.4	140.3	140.2	140.2	140.0	139.8	139.6	139.2	138.9	138.2	1.52	
18	( GRID AT 15.2 INS. )	142.1	142.0	142.0	142.2	142.0	141.9	141.8	141.3	141.1	140.6	1.74	
19	( GRID AT 19.2 INS. )	142.5	142.4	142.4	142.5	142.3	142.1	141.3	140.9	141.2	140.7	1.96	
24	( GRID AT 19.2 INS. )	139.9	139.8	139.8	139.9	139.6	139.4	139.1	138.6	138.3	137.9	3.05	
21	( GRID AT 21.45 INS. )	142.5	142.4	142.3	142.3	142.0	141.8	141.7	141.2	141.0	140.5	2.39	
22	( INSIDE AT 12 00 )	539.7	542.0	544.2	546.5	548.6	550.3	552.3	553.8	555.2	556.5	2.61	
23	( INSIDE AT 12 30 )	470.3	472.7	475.0	477.2	479.5	481.8	483.9	485.9	487.7	489.7	2.83	
20	( INSIDE AT 1 00 )	368.4	370.8	373.2	375.7	378.0	380.3	382.5	384.9	386.8	388.9	2.18	
25	( INSIDE AT 1 30 )	328.6	331.3	333.9	336.5	338.8	341.1	343.5	345.5	347.5	349.1	3.27	
26	( INSIDE AT 2 00 )	341.3	343.9	347.1	349.8	351.4	353.5	355.6	357.5	359.3	361.3	3.48	
27	( INSIDE AT 3 00 )	234.8	238.2	243.3	245.9	247.8	250.4	253.0	255.2	257.6	259.7	3.70	
28	( INSIDE AT 4 00 )	139.4	139.3	139.3	139.3	139.3	138.5	138.6	138.2	138.7	138.4	3.92	
29	( INSIDE AT 4 30 )	137.1	137.2	137.1	137.2	137.2	137.4	137.4	136.9	136.7	136.2	4.14	
31	( INSIDE AT 5 30 )	148.1	147.4	146.9	146.6	146.6	146.3	146.9	147.0	146.6	146.1	4.57	
32	( INSIDE AT 6 00 )	147.4	148.0	148.0	148.0	147.2	147.7	147.0	146.6	146.4	146.0	4.79	
33	( INSIDE AT 6 30 )	147.0	147.0	146.8	146.8	146.8	146.7	146.2	145.6	146.0	146.0	5.01	
34	( INSIDE AT 7 00 )	147.5	147.5	147.5	147.5	147.4	147.2	147.0	146.7	146.4	146.0	5.22	
35	( INSIDE AT 7 30 )	143.0	142.9	142.8	142.8	142.7	142.5	142.3	141.9	141.7	141.1	5.44	
36	( INSIDE AT 8 00 )	151.8	151.7	151.7	151.7	151.7	151.7	151.4	151.0	150.7	150.3	5.66	
37	( INSIDE AT 9 00 )	223.7	227.5	231.0	234.6	238.6	244.7	248.2	251.4	254.6	257.6	5.88	
38	( INSIDE AT 10 00 )	327.4	330.4	333.5	336.4	339.1	341.6	344.2	346.4	348.4	350.5	6.10	
39	( INSIDE AT 10 30 )	340.0	343.0	345.8	348.6	351.0	353.6	356.3	358.7	361.0	363.0	6.31	
40	( INSIDE AT 11 00 )	371.2	373.4	375.9	378.3	380.6	383.2	385.4	387.6	389.5	391.6	6.53	
41	( INSIDE AT 11 30 )	454.8	457.2	459.7	462.1	464.4	466.6	468.7	470.6	472.7	474.4	6.75	
44	( OUTSIDE AT 12 00 )	566.7	568.2	569.8	570.9	572.7	573.5	574.8	576.1	575.9	576.8	7.40	
45	( OUTSIDE AT 1 00 )	448.1	450.9	451.9	452.8	455.5	456.1	458.2	459.5	462.3	466.2	7.62	
46	( OUTSIDE AT 2 00 )	423.0	425.3	427.5	429.3	431.6	433.2	434.2	434.4	436.8	440.1	7.84	
47	( OUTSIDE AT 3 00 )	573.3	563.9	554.2	568.8	556.3	547.4	529.9	508.7	522.1	519.1	8.05	
48	( OUTSIDE AT 4 00 )	589.5	583.6	578.2	580.7	573.7	569.0	566.2	548.6	545.1	544.0	8.27	
49	( OUTSIDE AT 5 00 )	359.6	343.3	339.1	337.8	323.2	314.7	314.8	299.2	296.8	298.4	8.49	
50	( OUTSIDE AT 6 00 )	764.8	756.7	744.7	752.8	743.1	737.3	723.3	692.5	705.9	707.0	8.71	
51	( OUTSIDE AT 7 00 )	198.6	199.0	199.0	199.7	199.7	200.1	201.0	201.0	201.9	201.5	8.93	
52	( OUTSIDE AT 8 00 )	276.8	278.0	279.2	279.7	280.5	282.0	283.2	284.2	284.6	285.6	9.14	
53	( OUTSIDE AT 9 00 )	425.4	434.0	441.5	447.4	454.9	462.2	469.6	473.0	479.0	485.1	9.36	
54	( OUTSIDE AT 10 00 )	411.9	414.6	417.4	420.4	423.0	426.9	430.4	435.5	438.1	440.5	9.58	
56	( OUTSIDE AT 11 00 )	462.5	463.9	464.0	466.7	469.9	469.4	472.1	475.0	478.2	480.4	10.01	
42	( MANWAY AT 1. IN. )	710.5	713.9	717.2	720.7	723.3	726.3	729.6	731.9	734.9	737.0	6.97	
43	( MANWAY AT 6. INS. )	847.4	850.8	853.2	855.4	856.9	857.8	857.8	857.8	859.3	861.6	7.18	
55	( FIRE AT 12 00 FORE )	1645.1	1645.8	1642.5	1641.8	1649.0	1650.4	1647.4	1635.3	1638.7	1639.9	9.80	
57	( FIRE AT 3 00 FORE )	1723.4	1716.6	1716.6	1565.9	1754.2	1780.5	1832.9	1793.4	1792.1	1809.9	10.23	
60	( FIRE AT 6 00 FORE )	1601.7	1603.0	1596.7	1597.0	1606.0	1606.6	1602.5	1590.2	1593.3	1594.7	10.89	
61	( FIRE AT 9 00 FORE )	1603.6	1607.7	1599.3	1599.7	1610.8	1610.6	1605.1	1592.1	1594.7	1597.9	11.10	
62	( FIRE AT 12 00 AFT )	424.0	424.0	425.1	425.3	426.5	429.0	429.2	426.0	426.9	430.3	11.32	
63	( FIRE AT 3 00 AFT )	1760.5	1715.6	1642.1	1666.3	1677.6	1830.5	1874.5	1776.8	1755.3	1907.0	11.54	
64	( FIRE AT 6 00 AFT )	1916.8	1876.9	1901.1	1948.9	1853.2	1947.6	2005.0	1941.1	1935.9	2018.7	11.76	
65	( FIRE AT 9 00 AFT )	1590.4	1593.0	1586.8	1587.7	1595.4	1596.0	1591.3	1582.4	1582.4	1583.2	11.97	

65

503275

TABLE A XX

		THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7											
		TIME (SEC) = 2481.78	2494.84	2507.90	2520.97	2534.03	2547.09	2560.15	2573.21	2586.28	2599.34	TIME	
CHANNEL NUMBER	LOCATION											ADJUST	ACC
10	( GRID AT 1. IN. )	276.9	277.6	280.2	283.9	308.0	312.9	314.3	318.0	321.0	323.8		.00
11	( GRID AT 3.15 INS. )	233.6	234.7	236.7	243.0	258.0	264.8	269.2	273.3	277.4	280.3		.22
12	( GRID AT 3.15 INS. )	244.2	245.5	247.4	253.5	270.6	278.0	282.8	287.7	290.7	293.8		.44
13	( GRID AT 7.15 INS. )	125.6	126.6	127.7	128.6	129.4	130.0	130.5	131.0	131.7	132.4		.65
14	( GRID AT 7.15 INS. )	189.0	190.2	192.0	197.0	206.7	211.4	216.7	220.5	224.0	226.8		.87
16	( GRID AT 11.2 INS. )	145.8	146.6	147.8	150.4	155.2	158.8	162.1	164.4	166.6	168.0		1.31
17	( GRID AT 15.2 INS. )	137.6	137.3	136.9	138.5	139.4	139.7	140.1	140.2	140.2	140.3		1.52
18	( GRID AT 15.2 INS. )	140.0	139.7	139.3	141.1	141.9	142.2	142.7	142.9	142.9	143.0		1.74
19	( GRID AT 19.2 INS. )	140.1	139.7	139.4	139.7	141.3	141.9	142.3	142.4	142.5	142.5		1.96
24	( GRID AT 19.2 INS. )	137.3	136.8	136.5	136.9	138.5	139.0	139.4	139.6	139.7	139.7		3.05
21	( GRID AT 21.45 INS. )	140.0	139.6	139.3	139.7	141.0	141.8	142.2	142.5	142.5	142.6		2.39
22	( INSIDE AT 12 00 )	558.4	559.8	561.3	562.5	565.5	566.2	567.5	568.5	569.6	570.5		2.61
23	( INSIDE AT 12 30 )	491.5	493.3	495.3	497.5	500.0	502.0	503.9	505.6	507.4	509.3		2.83
20	( INSIDE AT 1 00 )	390.8	392.6	394.6	397.0	400.7	403.1	405.5	407.7	409.6	411.7		2.18
25	( INSIDE AT 1 30 )	351.0	352.8	354.9	357.7	361.9	364.9	367.5	370.0	372.4	374.6		3.27
26	( INSIDE AT 2 00 )	363.0	365.0	366.8	369.3	372.3	375.0	377.3	379.8	381.8	383.9		3.48
27	( INSIDE AT 3 00 )	261.9	264.2	267.1	269.8	273.2	276.1	278.7	281.3	283.7	286.0		3.70
28	( INSIDE AT 4 00 )	138.0	137.7	137.6	139.0	140.3	141.1	142.8	142.4	143.1	143.8		3.92
29	( INSIDE AT 4 30 )	135.9	135.4	134.5	135.2	136.3	136.7	137.1	137.3	137.5	137.7		4.14
31	( INSIDE AT 5 30 )	145.6	144.9	144.8	145.6	145.9	146.3	146.7	147.1	147.2	147.3		4.57
32	( INSIDE AT 6 00 )	145.5	145.3	145.5	146.6	147.3	147.6	148.0	148.1	148.2	148.3		4.79
33	( INSIDE AT 6 30 )	145.0	144.8	144.8	145.7	146.7	147.3	147.7	148.0	148.3	148.4		5.01
34	( INSIDE AT 7 00 )	145.5	145.1	144.8	145.9	146.7	147.0	147.4	147.6	147.7	147.9		5.22
35	( INSIDE AT 7 30 )	140.6	140.2	139.8	140.9	141.6	142.0	142.4	142.7	142.8	142.9		5.44
36	( INSIDE AT 8 00 )	149.8	149.3	149.1	150.1	150.9	151.4	151.9	152.1	152.4	152.5		5.66
37	( INSIDE AT 9 00 )	260.5	263.3	266.2	269.8	273.6	277.2	279.9	282.7	285.2	287.7		5.88
38	( INSIDE AT 10 00 )	352.6	354.7	356.9	359.7	363.4	366.4	369.3	371.9	374.3	376.5		6.10
39	( INSIDE AT 10 30 )	364.9	367.3	369.5	372.4	375.6	378.5	381.3	384.1	386.6	389.0		6.31
40	( INSIDE AT 11 00 )	393.4	395.6	397.5	400.4	403.9	406.7	409.1	411.5	413.9	416.0		6.53
41	( INSIDE AT 11 30 )	476.4	478.3	480.2	483.0	485.9	488.2	490.2	492.2	494.2	496.0		6.75
44	( CUTSIDE AT 12 00 )	578.0	578.8	579.7	580.7	581.4	582.6	583.7	584.0	585.4	586.4		7.40
45	( CUTSIDE AT 1 00 )	469.8	472.3	475.3	477.7	479.7	482.8	484.5	488.4	489.1	490.8		7.62
46	( CUTSIDE AT 2 00 )	442.5	444.8	447.3	449.5	451.2	453.6	455.5	458.2	459.4	461.3		7.84
47	( CUTSIDE AT 3 00 )	522.8	509.7	495.7	478.2	459.3	443.5	422.8	413.9	398.4	391.3		8.05
48	( CUTSIDE AT 4 00 )	543.2	536.3	529.2	520.0	513.4	504.6	497.4	486.5	472.8	468.5		8.27
49	( CUTSIDE AT 5 00 )	293.2	283.7	277.4	272.1	268.8	261.7	258.2	251.9	246.9	244.9		8.49
50	( CUTSIDE AT 6 00 )	706.6	696.3	692.8	678.9	668.3	661.0	651.5	639.3	622.4	606.2		8.71
51	( CUTSIDE AT 7 00 )	201.5	201.5	202.2	202.7	203.6	205.1	206.2	207.2	208.9	210.0		8.93
52	( CUTSIDE AT 8 00 )	286.7	287.8	289.2	291.1	292.7	295.0	296.7	297.8	300.6	301.9		9.14
53	( CUTSIDE AT 9 00 )	491.6	496.8	503.6	509.8	515.5	522.2	527.5	533.9	540.7	545.4		9.36
54	( CUTSIDE AT 10 00 )	443.6	445.5	447.9	450.0	453.1	456.2	459.3	462.3	464.9	467.7		9.58
56	( CUTSIDE AT 11 00 )	481.3	482.8	483.6	484.0	485.3	487.9	489.8	489.6	491.9	494.2		10.01
42	( MANWAY AT 1. IN. )	739.7	742.6	745.6	750.2	756.1	759.1	761.8	764.3	766.4	768.3		6.97
43	( MANWAY AT 6. INS. )	862.8	863.7	863.6	866.1	868.1	868.9	869.0	869.8	869.4	868.3		7.18
55	( FIRE AT 12 00 FORE )	1639.7	1637.2	1639.9	1645.3	1642.5	1643.9	1645.9	1646.8	1648.2	1646.4		9.80
57	( FIRE AT 3 00 FORE )	1794.5	1697.4	1781.8	1701.1	1682.6	1798.1	1728.1	1692.7	1613.3	1486.0		10.23
60	( FIRE AT 6 00 FORE )	1595.3	1594.8	1598.2	1603.2	1599.0	1603.1	1604.3	1604.7	1605.9	1604.3		10.89
61	( FIRE AT 9 00 FORE )	1598.5	1596.7	1600.8	1607.0	1602.5	1605.8	1608.4	1608.2	1609.0	1607.0		11.10
62	( FIRE AT 12 00 AFT )	430.9	431.0	431.2	432.5	434.2	434.1	434.3	433.5	433.4	432.2		11.32
63	( FIRE AT 3 00 AFT )	1703.8	1672.7	1666.2	1621.6	1657.0	1795.0	1679.3	1637.1	1594.7	1460.4		11.54
64	( FIRE AT 6 00 AFT )	1914.2	1922.0	1864.9	1899.9	1874.6	1851.6	1893.1	1887.1	1844.0	1780.0		11.76
65	( FIRE AT 9 00 AFT )	1584.0	1582.6	1583.9	1587.0	1583.2	1587.2	1588.9	1587.9	1587.9	1587.6		11.97

96

122802

TABLE A XXI

THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) =										TIME ADJUST
		2612.40	2625.46	2638.52	2651.59	2664.65	2677.71	2690.77	2703.83	2716.90	2729.96	
10	( GRID AT 1. IN. )	326.5	327.7	330.0	332.1	334.0	336.8	340.8	343.2	346.6	349.1	.00
11	( GRID AT 3.15 INS. )	283.0	285.1	288.3	290.4	292.9	295.4	297.6	300.3	303.5	305.9	.22
12	( GRID AT 3.15 INS. )	296.6	299.3	301.4	303.2	305.7	308.5	310.5	312.5	316.4	320.0	.44
13	( GRID AT 7.15 INS. )	133.9	135.1	136.6	138.1	139.5	140.7	141.2	142.4	143.5	145.7	.65
14	( GRID AT 7.15 INS. )	229.8	232.4	235.7	239.4	244.6	247.3	249.8	252.2	254.2	257.0	.87
16	( GRID AT 11.2 INS. )	169.6	171.1	172.6	174.2	175.7	177.1	178.7	180.5	182.6	184.9	1.31
17	( GRID AT 15.2 INS. )	140.3	140.4	140.3	140.4	140.6	140.6	140.7	141.0	141.5	142.2	1.52
18	( GRID AT 15.2 INS. )	143.2	143.9	143.5	143.7	144.1	144.4	144.5	144.8	146.7	145.8	1.74
19	( GRID AT 19.2 INS. )	142.5	142.6	142.7	142.2	142.1	142.2	142.2	142.2	142.4	142.4	1.96
24	( GRID AT 19.2 INS. )	139.7	139.8	139.8	139.9	139.7	139.8	139.9	139.9	140.0	140.0	3.05
21	( GRID AT 21.45 INS. )	142.7	142.8	143.0	143.0	143.0	143.1	143.3	143.4	143.5	143.6	2.39
22	( INSIDE AT 12 00 )	571.5	572.2	573.1	573.9	574.6	575.1	575.6	576.3	576.7	577.1	2.61
23	( INSIDE AT 12 30 )	510.8	512.2	514.1	515.6	517.1	518.4	519.7	521.0	522.1	523.2	2.83
20	( INSIDE AT 1 00 )	413.9	416.3	418.3	420.3	422.2	424.3	426.2	428.1	430.0	431.9	2.18
25	( INSIDE AT 1 30 )	376.8	379.1	381.3	383.3	385.3	387.4	389.4	391.3	393.3	395.2	3.27
26	( INSIDE AT 2 00 )	385.9	387.7	389.6	391.5	393.1	394.7	396.5	398.1	399.5	401.1	3.48
27	( INSIDE AT 3 00 )	288.3	290.0	292.1	294.2	296.3	298.4	300.4	302.4	304.3	306.4	3.70
28	( INSIDE AT 4 00 )	146.2	148.3	151.6	158.0	162.7	166.4	169.8	172.6	175.2	177.7	3.92
29	( INSIDE AT 4 30 )	137.8	140.2	138.6	138.7	138.7	138.8	138.7	138.8	138.9	139.1	4.14
31	( INSIDE AT 5 30 )	147.6	147.6	147.4	147.7	148.4	148.7	148.9	148.8	148.8	149.4	4.57
32	( INSIDE AT 6 00 )	148.6	148.6	148.8	148.3	148.3	148.4	148.7	148.8	148.8	149.3	4.79
33	( INSIDE AT 6 30 )	148.5	148.9	149.0	148.9	149.2	149.2	149.3	149.6	149.7	150.0	5.01
34	( INSIDE AT 7 00 )	147.9	148.0	148.3	148.3	148.5	148.6	148.4	148.7	148.9	149.1	5.22
35	( INSIDE AT 7 30 )	143.0	143.0	143.1	143.3	143.3	143.3	143.5	143.6	143.7	143.9	5.44
36	( INSIDE AT 8 00 )	152.8	153.0	153.3	153.7	154.0	154.5	155.0	155.6	156.5	157.5	5.66
37	( INSIDE AT 9 00 )	290.3	293.0	295.6	298.2	300.5	303.0	305.5	308.0	310.6	313.2	5.88
38	( INSIDE AT 10 00 )	378.6	380.7	382.9	385.1	387.2	389.3	391.3	393.4	395.4	397.5	6.10
39	( INSIDE AT 10 30 )	391.3	393.4	395.6	397.9	400.1	402.3	404.4	406.6	408.8	410.9	6.31
40	( INSIDE AT 11 00 )	418.2	420.4	422.6	424.7	426.9	429.1	431.2	433.3	435.3	437.2	6.53
41	( INSIDE AT 11 30 )	497.7	499.6	501.2	502.8	504.4	506.0	507.4	509.0	510.5	511.9	6.75
44	( OUTSIDE AT 12 00 )	587.6	589.0	589.8	590.7	592.0	593.4	595.8	596.6	597.6	598.9	7.40
45	( OUTSIDE AT 1 00 )	491.3	494.0	496.1	499.1	502.5	503.2	502.6	505.0	506.3	506.1	7.62
46	( OUTSIDE AT 2 00 )	462.1	463.9	465.7	467.6	469.8	470.2	469.4	470.2	470.6	470.6	7.84
47	( OUTSIDE AT 3 00 )	373.1	376.7	371.1	366.7	366.7	361.1	353.1	353.1	348.1	343.6	8.05
48	( OUTSIDE AT 4 00 )	453.3	453.5	448.2	446.2	440.9	431.5	416.0	407.8	392.4	376.3	8.27
49	( OUTSIDE AT 5 00 )	234.9	236.7	233.4	231.0	227.0	222.4	216.2	214.4	210.6	206.4	8.49
50	( OUTSIDE AT 6 00 )	564.7	564.6	548.4	536.9	525.6	509.1	475.4	459.2	435.9	414.1	8.71
51	( OUTSIDE AT 7 00 )	210.9	211.5	212.4	214.0	215.0	216.7	217.4	218.7	220.7	222.6	8.93
52	( OUTSIDE AT 8 00 )	303.9	305.5	306.9	308.9	311.3	314.1	316.3	318.5	321.0	324.7	9.14
53	( OUTSIDE AT 9 00 )	551.2	556.1	562.1	568.3	575.4	582.1	588.9	593.0	598.4	606.3	9.36
54	( OUTSIDE AT 10 00 )	470.5	472.7	474.9	478.0	481.5	485.1	490.2	493.2	495.7	499.4	9.58
56	( OUTSIDE AT 11 00 )	496.3	499.0	500.9	504.3	506.5	508.7	509.1	511.5	514.6	517.7	10.01
42	( MANWAY AT 1. IN. )	770.6	773.0	775.0	777.1	779.2	781.3	783.6	785.4	787.3	789.3	6.97
43	( MANWAY AT 6. INS. )	867.7	867.3	867.0	867.7	866.6	866.2	864.3	862.4	861.9	860.9	7.18
55	( FIRE AT 12 00 FORE )	1642.5	1641.9	1641.8	1640.8	1642.6	1640.9	1638.0	1638.3	1636.2	1637.1	9.80
57	( FIRE AT 3 00 FORE )	1614.9	1661.1	1752.0	1742.9	1804.1	1750.8	1691.9	1500.5	1562.3	1559.3	10.23
60	( FIRE AT 6 00 FORE )	1599.5	1596.0	1597.5	1597.2	1599.1	1598.4	1594.1	1595.6	1594.2	1593.8	10.89
61	( FIRE AT 9 00 FORE )	1600.3	1598.8	1599.8	1599.3	1601.5	1600.2	1595.2	1595.7	1594.6	1594.3	11.10
62	( FIRE AT 12 00 AFT )	432.5	431.5	432.1	431.6	431.0	429.7	427.8	428.4	428.9	428.1	11.32
63	( FIRE AT 3 00 AFT )	1759.0	1695.5	1631.8	1526.7	1614.3	1467.8	1665.7	1689.8	1469.4	1442.9	11.54
64	( FIRE AT 6 00 AFT )	1937.3	1864.4	1834.3	1841.2	1822.1	1803.1	1875.2	1874.7	1806.0	1762.1	11.76
65	( FIRE AT 9 00 AFT )	1581.9	1580.2	1582.4	1582.4	1584.1	1583.6	1579.7	1579.6	1578.2	1575.8	11.97

67

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TABLE A XXII

		THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7										TIME	
		2743.02	2756.08	2769.14	2782.21	2795.27	2808.33	2821.39	2834.45	2847.52	2860.58	ADJUST	ACC
CHANNEL NUMBER	LOCATION												
10	( GRID AT 1. IN. )	351.1	354.6	359.1	361.4	364.2	368.3	370.6	373.8	374.2	372.7		.00
11	( GRID AT 3.15 INS. )	309.0	311.9	315.6	318.9	321.7	324.7	328.1	332.0	331.1	329.8		.22
12	( GRID AT 3.15 INS. )	321.8	325.2	329.6	332.7	335.3	338.7	342.3	347.0	345.1	342.3		.44
13	( GRID AT 7.15 INS. )	146.2	146.7	148.5	149.5	150.7	152.1	153.5	155.6	157.0	158.7		.65
14	( GRID AT 7.15 INS. )	259.7	261.6	264.1	267.4	270.8	273.7	277.0	280.6	279.7	280.7		.87
16	( GRID AT 11.2 INS. )	187.3	190.0	192.8	195.3	197.4	199.1	200.8	203.0	204.0	204.5		1.31
17	( GRID AT 15.2 INS. )	143.1	144.2	145.1	146.1	147.1	148.6	150.0	151.4	152.2	150.7		1.52
18	( GRID AT 15.2 INS. )	147.6	149.0	149.9	152.1	153.6	154.7	155.9	157.0	156.9	157.0		1.74
19	( GRID AT 19.2 INS. )	147.5	147.7	147.3	147.5	147.5	147.6	147.6	147.5	147.3	147.4		1.96
24	( GRID AT 19.2 INS. )	140.0	140.1	140.3	140.2	140.1	140.2	140.4	140.1	139.0	138.4		3.05
21	( GRID AT 21.45 INS. )	143.8	144.0	144.1	144.2	144.3	144.4	144.5	144.4	143.3	142.9		2.39
22	( INSIDE AT 12 00 )	577.5	577.8	578.0	578.1	578.2	578.6	579.0	579.2	579.5	579.6		2.61
23	( INSIDE AT 12 30 )	524.2	525.3	526.4	527.2	528.0	528.6	529.3	529.9	530.7	531.3		2.83
20	( INSIDE AT 1 00 )	433.8	435.6	437.4	439.1	440.9	442.5	444.1	445.8	447.1	448.3		2.18
25	( INSIDE AT 1 30 )	397.2	399.0	400.9	402.7	404.4	406.2	408.0	409.6	410.7	411.7		3.27
26	( INSIDE AT 2 00 )	402.6	404.1	405.5	407.0	408.4	409.5	410.9	412.0	412.5	413.2		3.48
27	( INSIDE AT 3 00 )	308.3	310.3	312.2	314.7	316.7	318.6	320.5	321.7	323.2	324.7		3.70
28	( INSIDE AT 4 00 )	179.9	182.7	184.9	186.7	188.6	189.3	191.1	192.3	193.7	194.3		3.92
29	( INSIDE AT 4 30 )	139.3	139.5	138.9	139.3	139.3	139.7	140.0	140.0	140.0	139.8		4.14
31	( INSIDE AT 5 30 )	149.3	149.4	149.4	149.7	149.8	149.4	149.6	149.2	148.8	148.6		4.57
32	( INSIDE AT 6 00 )	149.3	149.5	151.2	150.6	150.7	150.9	151.1	151.0	150.2	148.0		4.79
33	( INSIDE AT 6 30 )	150.7	150.7	151.5	151.3	151.7	152.2	152.3	152.1	150.3	151.4		5.01
34	( INSIDE AT 7 00 )	149.2	149.3	149.4	149.6	149.7	149.9	149.9	149.7	149.0	148.6		5.22
35	( INSIDE AT 7 30 )	144.1	144.3	144.4	144.4	144.5	144.7	144.7	144.5	143.7	143.3		5.44
36	( INSIDE AT 8 00 )	159.0	160.9	163.2	166.0	170.2	174.7	180.5	184.8	188.6	192.2		5.66
37	( INSIDE AT 9 00 )	315.8	318.5	321.0	323.5	326.2	328.5	331.2	333.7	335.6	337.7		5.88
38	( INSIDE AT 10 00 )	399.6	401.7	404.0	406.2	408.4	410.9	413.3	415.6	417.9	419.9		6.10
39	( INSIDE AT 10 30 )	413.0	415.2	417.3	419.4	421.5	423.8	426.1	428.3	429.9	431.9		6.31
40	( INSIDE AT 11 00 )	439.2	441.2	443.2	445.1	447.0	448.9	450.9	452.7	454.4	456.0		6.53
41	( INSIDE AT 11 30 )	513.4	514.9	516.2	517.4	518.8	520.1	521.5	522.8	523.8	524.7		6.75
44	( OUTSIDE AT 12 00 )	601.1	602.3	603.6	604.9	606.6	607.7	608.5	609.9	612.4	614.8		7.40
45	( OUTSIDE AT 1 00 )	511.4	507.9	505.3	506.7	505.7	506.7	505.5	504.5	505.8	507.0		7.62
46	( OUTSIDE AT 2 00 )	472.7	470.4	468.5	468.4	467.9	468.1	467.7	467.4	467.8	468.2		7.84
47	( OUTSIDE AT 3 00 )	339.6	332.4	327.8	327.6	326.0	326.2	326.4	326.8	327.7	328.6		8.05
48	( OUTSIDE AT 4 00 )	349.1	324.2	309.6	300.4	290.6	280.6	276.0	271.9	268.8	266.4		8.27
49	( OUTSIDE AT 5 00 )	198.4	192.1	187.9	186.1	184.0	181.9	179.4	177.5	175.7	175.3		8.49
50	( OUTSIDE AT 6 00 )	371.9	339.2	320.6	309.4	296.6	287.3	280.8	272.5	268.6	265.0		8.71
51	( OUTSIDE AT 7 00 )	225.7	227.4	229.6	230.7	232.4	234.1	234.2	236.7	238.3	238.7		8.93
52	( OUTSIDE AT 8 00 )	328.8	331.8	335.1	338.3	341.8	345.3	347.7	351.4	356.2	359.8		9.14
53	( OUTSIDE AT 9 00 )	613.6	620.4	626.2	633.4	641.8	650.1	656.9	663.3	672.2	679.5		9.36
54	( OUTSIDE AT 10 00 )	504.1	507.7	510.8	513.5	517.6	521.5	525.4	530.3	535.2	540.9		9.58
56	( OUTSIDE AT 11 00 )	520.1	523.2	528.3	532.6	536.8	537.5	542.7	549.7	555.0	559.5		10.01
42	( MANWAY AT 1. IN. )	791.4	793.3	795.5	797.3	799.1	800.7	802.8	804.5	804.5	806.0		6.97
43	( MANWAY AT 6. INS. )	860.7	860.6	863.2	865.9	868.7	872.6	875.1	878.7	882.2	884.3		7.18
55	( FIRE AT 12 00 FORE )	1635.9	1631.2	1624.9	1625.0	1623.8	1623.6	1616.7	1612.3	1615.9	1616.1		9.80
57	( FIRE AT 3 00 FORE )	1507.3	1410.3	1472.7	1410.9	1253.4	1445.7	1308.3	1268.3	1194.0	1193.1		10.23
60	( FIRE AT 6 00 FORE )	1593.7	1587.1	1581.6	1584.6	1579.5	1580.0	1571.4	1569.0	1573.0	1573.2		10.89
61	( FIRE AT 9 00 FORE )	1594.1	1586.8	1579.9	1583.8	1578.2	1578.9	1569.2	1567.3	1570.9	1573.1		11.10
62	( FIRE AT 12 00 AFT )	429.9	429.1	429.0	429.7	426.9	429.4	430.8	430.5	433.3	433.0		11.32
63	( FIRE AT 3 00 AFT )	1404.5	1444.6	1404.3	1412.3	1400.6	1492.1	1385.6	1315.4	1360.7	1294.1		11.54
64	( FIRE AT 6 00 AFT )	1756.1	1822.1	1778.2	1803.8	1829.6	1881.0	1801.2	1739.6	1738.5	1672.1		11.76
65	( FIRE AT 9 00 AFT )	1575.8	1570.8	1565.6	1567.1	1561.0	1560.5	1552.5	1552.4	1554.8	1556.4		11.97

TABLE A XXIII

THERMOCOUPLE TEMPERATURES (CEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) = 2873.64	2886.70	2899.76	2912.83	2925.89	2938.95	2952.01	2965.07	2978.14	2991.20	TIME ADJUST ACC
10	( GRID AT 1. IN. )	374.2	377.3	381.1	383.5	387.1	389.8	393.4	396.9	400.0	402.7	.00
11	( GRID AT 3.15 INS. )	331.9	334.8	337.1	339.6	341.6	344.5	348.6	351.6	355.0	358.0	-.22
12	( GRID AT 3.15 INS. )	343.7	347.2	350.1	353.3	355.1	357.3	361.3	364.7	368.6	371.1	-.44
13	( GRID AT 7.15 INS. )	160.1	161.7	163.3	165.4	167.3	168.9	170.1	171.8	173.6	176.2	-.65
14	( GRID AT 7.15 INS. )	282.8	284.1	285.9	287.6	290.0	293.1	296.5	300.1	303.3	306.2	-.87
16	( GRID AT 11.2 INS. )	205.4	207.0	209.4	212.2	214.8	217.0	220.1	222.6	225.2	227.8	1.31
17	( GRID AT 15.2 INS. )	151.6	154.9	156.3	157.8	158.5	160.1	162.3	164.0	166.2	168.2	1.52
18	( GRID AT 15.2 INS. )	158.0	160.3	161.5	162.7	163.7	165.2	167.0	168.9	170.7	172.8	1.74
19	( GRID AT 19.2 INS. )	141.8	141.7	141.5	141.3	141.0	140.4	140.3	140.9	140.8	140.6	1.96
24	( GRID AT 19.2 INS. )	138.2	138.1	138.0	137.7	137.4	137.1	137.0	137.0	136.7	136.6	3.05
21	( GRID AT 21.45 INS. )	141.0	142.8	142.7	143.1	142.1	142.0	141.9	141.9	141.7	141.8	2.39
22	( INSIDE AT 12 00 )	580.0	580.6	581.3	582.0	582.7	583.3	584.5	587.2	589.8	591.7	2.61
23	( INSIDE AT 12 30 )	532.0	532.9	533.6	534.3	535.4	536.3	537.5	538.8	540.2	541.4	2.83
20	( INSIDE AT 1 00 )	449.6	451.2	452.5	453.8	455.1	456.4	457.7	459.0	460.4	461.5	2.18
25	( INSIDE AT 1 30 )	412.9	414.6	416.1	417.4	418.6	420.0	421.3	422.6	423.9	425.1	3.27
26	( INSIDE AT 2 00 )	414.1	415.1	415.9	416.5	417.1	417.9	418.8	419.1	420.0	420.7	3.48
27	( INSIDE AT 3 00 )	326.0	328.0	329.3	330.0	331.4	332.8	334.1	335.4	337.4	338.6	3.70
28	( INSIDE AT 4 00 )	195.7	197.5	199.6	200.2	201.8	203.4	204.6	208.8	210.5	210.5	3.92
29	( INSIDE AT 4 30 )	139.7	140.2	141.1	142.6	144.7	146.4	149.7	153.1	157.1	159.9	4.14
31	( INSIDE AT 5 30 )	148.6	148.6	147.7	147.3	146.8	147.9	147.1	147.0	146.0	145.9	4.57
32	( INSIDE AT 6 00 )	148.4	149.3	149.2	148.3	147.5	147.3	147.4	147.6	147.1	147.1	4.79
33	( INSIDE AT 6 30 )	150.1	150.5	149.9	148.8	149.3	148.3	148.8	149.3	149.2	149.0	5.01
34	( INSIDE AT 7 00 )	148.3	148.2	148.0	147.7	147.4	147.3	147.1	147.0	147.0	146.7	5.22
35	( INSIDE AT 7 30 )	143.1	143.0	142.9	142.4	142.2	142.2	142.1	142.0	141.8	141.8	5.44
36	( INSIDE AT 8 00 )	195.5	198.8	202.0	205.0	207.7	210.3	212.6	214.8	217.2	219.4	5.66
37	( INSIDE AT 9 00 )	340.0	342.8	345.5	348.1	350.8	353.6	356.3	358.9	361.7	364.1	5.88
38	( INSIDE AT 10 00 )	422.3	425.1	427.7	430.2	432.8	435.3	437.8	440.2	442.6	444.5	6.10
39	( INSIDE AT 10 30 )	434.1	436.6	438.9	441.0	443.3	445.4	447.6	449.9	452.0	454.0	6.31
40	( INSIDE AT 11 00 )	457.8	459.6	461.6	463.6	465.5	467.6	469.6	471.6	473.4	475.3	6.53
41	( INSIDE AT 11 30 )	526.0	527.1	528.3	529.6	530.9	532.3	533.8	535.4	537.3	539.2	6.75
44	( OUTSIDE AT 12 00 )	617.1	618.8	621.0	623.3	626.4	629.6	633.6	635.1	632.0	630.4	7.40
45	( OUTSIDE AT 1 00 )	509.3	511.1	511.5	510.1	510.0	510.1	510.5	510.1	510.9	513.3	7.62
46	( OUTSIDE AT 2 00 )	469.1	469.9	469.6	469.0	468.2	468.0	467.5	467.2	467.5	468.6	7.84
47	( OUTSIDE AT 3 00 )	329.5	330.2	331.3	331.7	331.9	332.9	334.6	335.7	339.2	340.8	8.05
48	( OUTSIDE AT 4 00 )	266.1	265.4	264.7	263.8	263.3	263.5	263.7	263.5	265.0	268.2	8.27
49	( OUTSIDE AT 5 00 )	173.4	173.0	172.5	171.5	170.9	170.2	169.2	168.4	168.4	168.7	8.49
50	( OUTSIDE AT 6 00 )	262.2	257.1	253.0	248.7	245.7	244.5	242.5	238.0	237.6	237.2	8.71
51	( OUTSIDE AT 7 00 )	242.7	243.8	244.7	246.4	247.7	249.8	251.4	246.7	238.4	234.9	8.93
52	( OUTSIDE AT 8 00 )	364.9	369.4	373.5	378.4	382.4	387.2	393.9	394.2	395.1	396.8	9.14
53	( OUTSIDE AT 9 00 )	687.6	695.0	702.3	711.8	719.5	727.4	732.3	713.8	692.5	679.6	9.36
54	( OUTSIDE AT 10 00 )	546.2	549.8	554.3	559.1	562.9	566.6	570.1	567.9	564.4	562.0	9.58
56	( OUTSIDE AT 11 00 )	560.1	560.5	561.9	566.6	567.8	570.2	568.1	560.2	551.3	546.5	10.01
42	( MANWAY AT 1. IN. )	807.9	809.9	811.7	813.2	814.4	815.8	817.4	818.5	819.0	819.7	6.97
43	( MANWAY AT 6. INS. )	885.7	886.0	885.7	885.4	884.6	883.3	881.2	875.8	869.3	862.9	7.18
55	( FIRE AT 12 00 FORE )	1617.3	1615.9	1616.5	1614.2	1614.1	1612.9	1608.8	1594.1	1575.6	1565.5	9.80
57	( FIRE AT 3 00 FORE )	1169.8	1181.8	1058.0	1017.8	1167.3	1160.7	1571.3	1659.3	1655.2	1682.6	10.23
60	( FIRE AT 6 00 FORE )	1575.7	1575.6	1574.7	1571.8	1572.9	1570.9	1552.7	1534.8	1510.9	1493.3	10.89
61	( FIRE AT 9 00 FORE )	1575.8	1573.9	1574.0	1570.9	1572.0	1570.5	1561.5	1535.8	1513.6	1498.6	11.10
62	( FIRE AT 12 00 AFT )	434.4	435.5	436.6	436.9	438.8	439.8	436.2	426.9	419.9	417.6	11.32
63	( FIRE AT 3 00 AFT )	1358.3	1264.9	1195.9	1265.5	1304.2	1203.7	1543.0	1564.1	1621.7	1551.9	11.54
64	( FIRE AT 6 00 AFT )	1727.3	1685.9	1642.3	1682.4	1752.6	1672.1	1988.5	2029.3	2021.6	2050.9	11.76
65	( FIRE AT 9 00 AFT )	1557.4	1556.6	1555.4	1553.5	1554.3	1553.4	1545.8	1528.7	1515.1	1503.2	11.97

60

503272

TABLE A XXIV

THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) = 3004.26	3017.32	3030.38	3043.45	3056.51	3069.57	3082.63	3095.69	3108.76	3121.82	TIME ADJUST ACC
10	( GRID AT 1. IN. )	405.5	407.6	411.3	412.6	414.8	416.9	419.0	421.0	423.3	424.9	.00
11	( GRID AT 3.15 INS. )	361.3	363.7	366.0	368.3	369.8	371.0	373.9	376.3	378.5	381.2	.22
12	( GRID AT 3.15 INS. )	374.9	377.7	379.4	381.6	383.9	385.4	388.2	388.7	391.6	393.4	.44
13	( GRID AT 7.15 INS. )	177.9	179.2	181.0	182.8	184.5	187.0	189.0	190.9	191.3	194.5	.65
14	( GRID AT 7.15 INS. )	310.4	313.4	316.5	319.1	321.7	324.0	326.2	328.2	330.0	332.4	.87
16	( GRID AT 11.2 INS. )	230.5	233.3	236.1	238.6	243.4	245.7	247.9	249.9	252.1	254.2	1.31
17	( GRID AT 15.2 INS. )	169.5	171.1	172.6	174.1	175.5	176.9	178.3	180.0	181.6	183.4	1.52
18	( GRID AT 15.2 INS. )	174.5	176.1	178.4	180.4	181.1	183.0	184.8	186.3	187.7	189.7	1.74
19	( GRID AT 19.2 INS. )	140.5	139.7	140.2	139.7	139.5	139.6	139.4	139.2	139.2	138.4	1.96
24	( GRID AT 19.2 INS. )	136.4	136.3	135.9	135.6	135.4	135.3	135.2	135.1	135.0	134.8	3.05
21	( GRID AT 21.45 INS. )	141.6	141.4	141.2	141.1	141.0	140.7	140.5	140.4	140.3	140.2	2.39
22	( INSIDE AT 12 00 )	593.4	595.9	597.1	597.3	597.6	597.1	596.0	594.6	592.9	591.3	2.61
23	( INSIDE AT 12 30 )	542.9	544.0	545.5	546.6	547.4	548.3	548.6	548.9	549.3	549.4	2.83
20	( INSIDE AT 1 00 )	462.9	464.3	465.3	466.6	467.7	468.8	470.0	471.1	472.2	473.3	2.18
25	( INSIDE AT 1 30 )	426.4	427.5	428.6	429.8	430.9	432.0	433.1	434.1	435.2	436.2	3.27
26	( INSIDE AT 2 00 )	421.1	421.8	422.6	423.3	424.0	424.6	425.2	425.8	426.7	427.4	3.48
27	( INSIDE AT 3 00 )	339.3	340.8	341.9	343.2	345.0	345.7	347.1	348.4	349.7	351.0	3.70
28	( INSIDE AT 4 00 )	212.0	214.6	215.7	218.0	220.4	221.0	223.3	226.0	228.1	230.1	3.92
29	( INSIDE AT 4 30 )	162.7	164.9	167.2	168.6	170.7	172.2	174.9	176.9	179.0	181.8	4.14
31	( INSIDE AT 5 30 )	145.7	146.0	146.1	145.9	144.6	144.8	144.9	144.9	144.9	144.4	4.57
32	( INSIDE AT 6 00 )	146.5	146.3	146.1	146.7	146.9	146.0	147.3	146.8	147.0	146.3	4.79
33	( INSIDE AT 6 30 )	148.4	149.2	148.4	148.8	148.6	148.9	149.1	149.0	149.3	147.0	5.01
34	( INSIDE AT 7 00 )	146.6	146.4	146.2	146.0	145.8	145.7	145.6	145.5	145.5	145.3	5.22
35	( INSIDE AT 7 30 )	141.7	141.5	141.5	141.5	141.7	141.9	142.3	142.8	143.8	145.0	5.44
36	( INSIDE AT 8 00 )	221.7	223.7	225.7	227.6	229.6	231.6	233.5	235.4	237.3	239.2	5.66
37	( INSIDE AT 9 00 )	366.4	368.3	369.8	371.3	372.5	373.5	374.6	375.2	376.2	376.9	5.88
38	( INSIDE AT 10 00 )	446.5	448.0	449.1	450.1	450.9	451.6	452.2	452.7	453.3	453.7	6.10
39	( INSIDE AT 10 30 )	455.9	457.6	459.3	460.8	462.2	463.5	464.8	466.0	467.2	468.2	6.31
40	( INSIDE AT 11 00 )	477.3	479.3	481.1	482.8	484.6	486.2	487.8	489.3	490.9	492.4	6.53
41	( INSIDE AT 11 30 )	541.0	542.9	544.6	546.0	547.3	548.4	549.4	550.1	550.8	551.1	6.75
44	( OUTSIDE AT 12 00 )	631.5	629.8	627.5	626.3	623.0	619.8	616.2	612.9	609.9	609.3	7.40
45	( OUTSIDE AT 1 00 )	516.4	517.0	517.1	518.5	519.3	518.6	518.9	519.1	519.7	520.3	7.62
46	( OUTSIDE AT 2 00 )	470.1	470.7	470.4	470.9	471.5	470.9	471.0	470.9	471.4	472.0	7.84
47	( OUTSIDE AT 3 00 )	341.2	342.6	344.0	343.4	344.9	344.6	346.1	346.9	348.8	352.5	8.05
48	( OUTSIDE AT 4 00 )	270.9	272.8	273.8	276.1	278.1	279.2	280.7	281.6	284.4	286.5	8.27
49	( OUTSIDE AT 5 00 )	169.4	169.7	169.1	169.4	170.0	170.0	170.7	171.0	171.7	173.1	8.49
50	( OUTSIDE AT 6 00 )	237.3	238.0	237.4	236.1	235.3	234.6	234.0	233.7	234.4	234.6	8.71
51	( OUTSIDE AT 7 00 )	231.8	229.8	229.2	229.0	227.3	225.5	224.7	223.1	222.8	224.4	8.93
52	( OUTSIDE AT 8 00 )	396.8	397.2	398.8	402.4	401.5	401.5	401.9	401.1	401.1	404.8	9.14
53	( OUTSIDE AT 9 00 )	664.6	652.5	646.3	642.0	633.1	623.2	617.1	605.6	598.4	603.7	9.36
54	( OUTSIDE AT 10 00 )	559.6	558.5	556.9	554.3	552.4	550.0	548.2	546.3	544.5	545.1	9.58
56	( OUTSIDE AT 11 00 )	542.6	540.9	540.2	539.5	538.6	537.1	537.0	536.5	535.6	537.7	10.01
42	( MANWAY AT 1. IN. )	820.0	820.2	820.3	820.3	820.2	819.7	819.6	819.1	819.0	818.6	6.97
43	( MANWAY AT 6. INS. )	856.7	850.6	844.8	837.9	830.6	824.5	820.4	815.3	813.7	813.4	7.18
55	( FIRE AT 12 00 FGRE )	1557.2	1555.7	1545.8	1533.9	1531.0	1525.9	1525.2	1518.2	1528.2	1533.1	9.80
57	( FIRE AT 3 00 FGRE )	1691.2	1613.3	1685.4	1673.8	1663.2	1667.0	1724.1	1685.3	1263.1	1170.4	10.23
60	( FIRE AT 6 00 FGRE )	1486.1	1478.8	1468.0	1457.1	1451.3	1439.8	1438.7	1427.4	1449.3	1465.6	10.89
61	( FIRE AT 9 00 FGRE )	1488.9	1480.9	1470.3	1463.8	1456.1	1444.6	1444.6	1433.6	1455.7	1471.1	11.10
62	( FIRE AT 12 00 AFT )	416.3	413.5	413.2	414.6	413.7	417.7	419.5	425.3	431.2	432.9	11.32
63	( FIRE AT 3 00 AFT )	1603.6	1546.4	1579.8	1589.4	1490.1	1415.6	1834.0	1637.5	1168.2	1340.3	11.54
64	( FIRE AT 6 00 AFT )	2040.2	2026.3	2043.6	2075.6	2004.1	1926.4	1973.0	2041.4	1635.9	1809.4	11.76
65	( FIRE AT 9 00 AFT )	1494.7	1489.6	1480.3	1472.6	1468.0	1465.0	1462.7	1454.7	1470.3	1477.7	11.97

70

110009

TABLE XXV

THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) = 3134.88										TIME ADJUST	ADD
		3147.94	3161.00	3174.07	3187.13	3200.19	3213.25	3226.31	3239.38	3252.44			
10	( GRID AT 1. IN. )	426.9	428.0	429.9	431.4	432.9	434.0	436.2	437.6	439.9	441.7		
11	( GRID AT 3.15 INS. )	381.7	381.4	383.6	385.2	387.5	388.5	390.5	392.0	395.4	396.4		.00
12	( GRID AT 3.15 INS. )	395.9	398.1	398.1	400.3	402.5	403.2	405.7	408.1	411.0	412.6		.22
13	( GRID AT 7.15 INS. )	196.5	198.5	199.8	201.8	203.9	205.8	208.7	211.0	213.3	215.4		.44
14	( GRID AT 7.15 INS. )	334.3	335.8	337.3	339.0	340.8	342.6	345.4	348.0	349.5	352.9		.65
16	( GRID AT 11.2 INS. )	256.2	258.1	260.2	262.3	264.5	267.0	269.3	271.6	273.9	276.4		.87
17	( GRID AT 15.2 INS. )	185.2	187.2	189.2	190.9	192.6	194.4	196.4	198.3	200.3	202.6		1.31
18	( GRID AT 15.2 INS. )	190.9	193.0	194.6	196.7	197.7	199.9	201.2	203.1	205.3	207.7		1.52
19	( GRID AT 19.2 INS. )	138.3	138.1	137.5	138.3	138.1	138.0	138.1	138.1	138.3	138.0		1.74
24	( GRID AT 19.2 INS. )	134.3	134.1	133.7	133.4	133.6	133.7	133.8	134.2	134.8	135.0		1.96
21	( GRID AT 21.45 INS. )	140.0	139.8	139.7	139.8	139.4	139.3	139.0	139.0	138.8	138.8		3.05
22	( INSIDE AT 12 00 )	589.6	588.1	586.6	585.2	583.8	582.4	581.0	579.8	578.8	577.7		2.39
23	( INSIDE AT 12 30 )	549.4	549.5	549.4	549.3	549.1	548.7	548.5	548.1	547.9	547.8		2.61
20	( INSIDE AT 1 00 )	474.3	475.4	476.2	477.1	478.1	479.2	479.9	480.8	481.7	482.5		2.83
25	( INSIDE AT 1 30 )	437.1	438.2	439.1	440.1	441.2	442.2	443.1	444.1	445.1	446.1		2.18
26	( INSIDE AT 2 00 )	428.0	429.1	429.8	430.3	431.2	432.2	432.6	433.3	434.0	434.9		3.27
27	( INSIDE AT 3 00 )	352.2	353.5	354.8	356.1	357.5	359.2	359.9	361.0	362.2	363.5		3.48
28	( INSIDE AT 4 00 )	233.0	235.7	237.4	239.3	245.8	247.4	249.3	251.3	253.0	255.4		3.70
29	( INSIDE AT 4 30 )	183.7	186.0	187.7	189.5	191.0	192.5	194.5	196.0	197.7	200.2		3.92
31	( INSIDE AT 5 30 )	145.2	145.2	144.8	144.7	144.5	144.0	143.9	143.8	143.9	144.6		4.14
32	( INSIDE AT 6 00 )	146.2	146.2	146.0	145.7	146.3	146.2	146.9	146.6	145.7	145.1		4.57
33	( INSIDE AT 6 30 )	148.2	147.6	148.0	148.2	148.3	149.0	149.4	149.3	149.0	149.1		4.79
34	( INSIDE AT 7 00 )	145.3	145.1	145.0	145.0	145.0	145.0	145.1	145.1	145.3	145.5		5.01
35	( INSIDE AT 7 30 )	146.7	149.1	153.4	160.0	164.4	168.2	171.6	174.9	178.1	181.4		5.22
36	( INSIDE AT 8 00 )	243.5	245.5	247.6	249.6	251.8	254.1	256.6	259.1	261.7	264.3		5.44
37	( INSIDE AT 9 00 )	377.6	378.2	378.8	379.7	380.5	381.8	383.1	384.6	386.0	387.7		5.66
38	( INSIDE AT 10 00 )	453.9	454.2	454.4	454.7	455.1	455.6	456.4	457.2	458.3	459.2		5.88
39	( INSIDE AT 10 30 )	469.2	470.2	471.3	472.2	473.1	474.0	475.1	476.2	477.3	478.3		6.10
40	( INSIDE AT 11 00 )	493.7	494.9	496.0	496.9	497.9	498.9	499.7	500.8	501.7	502.8		6.31
41	( INSIDE AT 11 30 )	551.5	551.7	551.9	551.8	551.9	551.9	552.0	551.9	551.9	551.8		6.53
44	( OUTSIDE AT 12 00 )	609.0	609.6	610.4	611.2	612.1	609.9	608.3	609.9	609.9	610.0		6.75
45	( OUTSIDE AT 1 00 )	520.7	520.8	519.3	520.0	519.3	517.6	518.7	518.6	519.5	517.8		7.40
46	( OUTSIDE AT 2 00 )	472.0	472.0	471.2	471.4	471.0	470.2	471.0	471.2	471.7	471.0		7.62
47	( OUTSIDE AT 3 00 )	353.1	352.2	351.8	352.4	352.1	354.0	357.0	357.6	357.8	359.1		7.84
48	( OUTSIDE AT 4 00 )	288.2	290.0	290.7	292.5	293.2	293.5	295.7	297.2	299.1	299.4		8.05
49	( OUTSIDE AT 5 00 )	173.5	174.3	174.8	175.4	176.4	177.8	179.8	181.6	184.1	185.9		8.27
50	( OUTSIDE AT 6 00 )	235.0	235.0	234.1	233.7	231.3	231.0	231.5	232.0	232.1	231.7		8.49
51	( OUTSIDE AT 7 00 )	226.3	228.2	231.0	234.5	236.9	235.1	235.1	238.6	242.9	244.3		8.71
52	( OUTSIDE AT 8 00 )	409.6	414.8	420.8	426.8	433.0	431.9	434.5	441.0	446.3	450.1		8.93
53	( OUTSIDE AT 9 00 )	610.8	618.9	628.6	640.1	649.4	643.8	645.5	656.7	667.1	671.5		9.14
54	( OUTSIDE AT 10 00 )	546.4	547.2	549.3	551.3	552.3	552.1	552.8	555.9	558.9	560.8		9.36
56	( OUTSIDE AT 11 00 )	540.6	544.7	547.0	550.3	552.3	552.5	553.4	556.8	559.6	561.9		9.58
42	( MANWAY AT 1. IN. )	818.4	818.1	817.9	817.8	817.6	817.7	817.6	817.6	817.7	817.7		10.01
43	( MANWAY AT 6. INS. )	813.4	812.8	812.6	814.1	814.4	813.1	815.6	816.7	817.3	818.7		6.97
55	( FIRE AT 12 00 FORE )	1536.8	1540.5	1544.5	1547.7	1545.1	1537.9	1541.6	1544.4	1547.2	1541.7		7.18
57	( FIRE AT 3 00 FORE )	1225.3	1103.8	1069.7	1103.9	1401.9	1413.1	1126.8	1038.5	1009.5	1337.3		9.80
60	( FIRE AT 6 00 FORE )	1476.3	1486.5	1490.8	1497.0	1488.4	1484.0	1488.8	1489.5	1493.7	1480.3		10.23
61	( FIRE AT 9 00 FORE )	1480.7	1488.6	1492.9	1499.1	1492.8	1485.2	1490.2	1492.8	1495.3	1483.6		10.89
62	( FIRE AT 12 00 AFT )	433.2	433.4	435.2	435.9	432.1	433.7	434.2	435.5	436.7	432.1		11.10
63	( FIRE AT 3 00 AFT )	1148.2	1183.6	1184.2	1242.5	1604.0	1546.3	1215.1	1142.8	1251.2	1733.1		11.32
64	( FIRE AT 6 00 AFT )	1662.8	1693.4	1691.4	1698.1	1876.3	1881.8	1650.2	1662.8	1756.6	1876.9		11.54
65	( FIRE AT 9 00 AFT )	1482.8	1485.8	1487.1	1489.4	1483.6	1482.5	1481.3	1482.7	1483.8	1474.6		11.76
													11.97

TABLE A XXVI

THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) =										TIME ADJUST	ACC
		3265.50	3278.56	3291.62	3304.69	3317.75	3330.81	3343.87	3356.93	3370.00	3383.06		
10	( GRID AT 1. IN. )	444.1	446.5	449.1	452.8	456.1	459.3	462.9	468.5	473.3	481.0	.CC	
11	( GRID AT 3.15 INS. )	400.0	401.4	404.4	406.9	411.0	415.9	420.7	425.3	430.1	438.0	.22	
12	( GRID AT 3.15 INS. )	415.2	419.1	422.1	425.5	429.7	433.7	438.4	444.3	449.9	457.9	.44	
13	( GRID AT 7.15 INS. )	217.7	219.3	221.7	224.3	226.1	229.4	232.0	234.4	236.7	238.7	.65	
14	( GRID AT 7.15 INS. )	355.0	358.2	361.6	363.6	367.2	370.5	374.7	378.6	382.2	387.9	.87	
16	( GRID AT 11.2 INS. )	278.9	282.0	285.2	288.7	291.9	294.4	297.7	301.5	305.4	310.0	1.31	
17	( GRID AT 15.2 INS. )	205.2	207.9	210.6	213.4	216.4	219.7	223.3	227.0	230.9	236.4	1.52	
18	( GRID AT 15.2 INS. )	210.4	213.2	215.8	218.7	221.8	225.1	228.7	232.4	236.4	243.9	1.74	
19	( GRID AT 19.2 INS. )	138.3	138.9	140.1	140.7	141.7	142.6	143.0	144.2	145.7	147.7	1.96	
24	( GRID AT 19.2 INS. )	135.7	136.6	138.0	139.4	141.2	143.3	145.3	147.4	149.4	153.2	3.05	
21	( GRID AT 21.45 INS. )	139.1	139.2	139.6	139.9	140.3	140.9	141.3	140.9	141.0	141.7	2.39	
22	( INSIDE AT 12 00 )	576.9	576.0	575.1	574.2	573.2	572.3	571.5	570.8	570.0	569.1	2.61	
23	( INSIDE AT 12 30 )	547.5	547.4	547.2	547.0	546.6	546.4	546.4	546.1	546.1	546.0	2.83	
20	( INSIDE AT 1 00 )	483.4	484.3	485.1	485.9	486.7	487.5	488.7	489.4	490.3	491.1	2.18	
25	( INSIDE AT 1 30 )	447.1	448.1	449.3	450.4	451.5	452.8	454.0	455.3	456.4	457.7	3.27	
26	( INSIDE AT 2 00 )	435.8	436.5	437.5	438.5	439.7	440.7	441.7	442.7	443.9	445.1	3.48	
27	( INSIDE AT 3 00 )	364.7	366.0	367.2	368.5	370.5	371.3	372.8	374.3	376.0	377.6	3.70	
28	( INSIDE AT 4 00 )	257.8	260.0	261.4	264.5	265.8	267.1	270.5	272.2	274.5	277.1	3.92	
29	( INSIDE AT 4 30 )	202.0	204.7	206.5	208.7	210.1	212.0	214.6	216.5	218.6	221.7	4.14	
31	( INSIDE AT 5 30 )	144.9	145.0	146.0	145.8	145.8	146.4	146.9	148.0	148.5	149.6	4.57	
32	( INSIDE AT 6 00 )	145.3	145.6	146.0	147.0	147.3	148.0	148.2	149.0	149.9	151.2	4.79	
33	( INSIDE AT 6 30 )	150.1	150.6	151.6	152.3	152.7	152.9	153.0	153.6	154.7	155.9	5.01	
34	( INSIDE AT 7 00 )	146.0	146.5	146.7	147.4	148.2	149.1	150.2	151.5	153.9	156.5	5.22	
35	( INSIDE AT 7 30 )	184.7	187.8	190.9	193.7	196.5	199.1	201.7	204.2	206.7	209.3	5.44	
36	( INSIDE AT 8 00 )	267.1	270.0	272.7	275.1	277.7	280.5	283.0	285.4	287.8	290.2	5.66	
37	( INSIDE AT 9 00 )	389.4	391.4	393.4	395.3	397.1	399.3	401.1	403.1	405.0	406.8	5.88	
38	( INSIDE AT 10 00 )	460.4	461.7	463.0	464.4	465.7	467.2	468.5	469.8	471.1	472.4	6.10	
39	( INSIDE AT 10 30 )	479.5	480.7	482.0	483.3	484.5	485.8	487.0	488.2	489.5	490.8	6.31	
40	( INSIDE AT 11 00 )	503.7	504.4	505.3	506.3	507.3	508.6	509.4	510.6	511.7	512.8	6.53	
41	( INSIDE AT 11 30 )	551.8	551.9	552.0	552.0	552.0	552.2	552.2	552.3	552.5	552.7	6.75	
44	( OUTSIDE AT 12 00 )	607.4	604.4	600.1	596.3	592.4	588.5	584.6	580.9	578.1	575.1	7.40	
45	( OUTSIDE AT 1 00 )	519.6	521.4	520.6	520.1	520.0	520.3	520.6	520.8	521.2	521.2	7.62	
46	( OUTSIDE AT 2 00 )	472.3	473.4	472.9	472.7	472.7	473.2	473.5	473.8	474.2	474.8	7.84	
47	( OUTSIDE AT 3 00 )	361.3	361.7	360.7	360.4	360.0	360.1	360.7	361.8	362.8	364.8	8.05	
48	( OUTSIDE AT 4 00 )	301.1	303.0	303.8	304.9	306.4	308.1	309.4	310.9	312.5	313.5	8.27	
49	( OUTSIDE AT 5 00 )	188.5	190.5	191.7	193.4	195.4	197.7	200.0	201.8	203.9	205.2	8.49	
50	( OUTSIDE AT 6 00 )	232.8	233.0	232.7	231.7	231.7	232.1	232.6	233.4	234.1	233.7	8.71	
51	( OUTSIDE AT 7 00 )	242.7	239.0	237.0	236.4	235.0	233.4	233.1	232.6	232.4	233.3	8.93	
52	( OUTSIDE AT 8 00 )	450.5	450.8	449.6	449.4	448.0	446.5	445.8	443.5	441.4	438.9	9.14	
53	( OUTSIDE AT 9 00 )	665.4	656.0	644.5	635.3	625.3	617.0	608.5	599.1	591.7	582.8	9.36	
54	( OUTSIDE AT 10 00 )	560.6	560.7	559.7	557.4	556.4	555.5	553.6	552.8	552.1	551.8	9.58	
56	( OUTSIDE AT 11 00 )	560.7	558.5	555.4	553.0	551.1	550.1	548.7	548.3	549.1	548.4	10.01	
42	( MANWAY AT 1. IN. )	817.9	818.0	818.1	818.1	817.9	817.5	817.3	816.7	816.4	816.0	6.97	
43	( MANWAY AT 6. INS. )	818.7	814.8	809.5	804.3	799.2	795.3	790.7	785.8	781.2	777.9	7.18	
55	( FIRE AT 12 00 FCRE )	1531.5	1508.0	1493.9	1478.9	1470.3	1463.7	1455.2	1450.3	1449.6	1439.3	9.80	
57	( FIRE AT 3 00 FCRE )	1439.7	1585.6	1621.2	1662.9	1678.3	1646.4	1664.7	1535.4	1593.4	1708.8	10.23	
60	( FIRE AT 6 00 FCRE )	1460.3	1441.0	1427.6	1412.9	1399.8	1392.5	1383.7	1376.7	1374.8	1365.3	10.89	
61	( FIRE AT 9 00 FCRE )	1467.6	1443.3	1426.5	1410.8	1397.7	1389.3	1380.9	1374.2	1373.2	1363.2	11.10	
62	( FIRE AT 12 00 AFT )	427.6	422.1	420.9	418.2	416.7	416.1	415.8	414.2	415.4	415.2	11.32	
63	( FIRE AT 3 00 AFT )	1390.1	1394.2	1396.0	1450.0	1468.7	1431.0	1365.0	1298.5	1429.2	1748.4	11.54	
64	( FIRE AT 6 00 AFT )	1802.6	1744.3	1809.7	1689.7	1815.0	1788.6	1808.2	1773.0	1818.5	1930.4	11.76	
65	( FIRE AT 9 00 AFT )	1463.9	1444.4	1426.9	1414.7	1403.0	1397.7	1389.5	1383.0	1382.6	1374.1	11.97	

72



TABLE A XXVII

		THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7											
TIME (SEC) = 3396.12		3409.18	3422.24	3435.31	3448.37	3461.43	3474.49	3487.55	3500.62	3513.68			
CHANNEL NUMBER	LOCATION											TIME	
											ACJUST	ADD	
10	( GRID AT 1. IN. )	485.7	484.9	484.9	485.3	486.3	486.5	487.3	490.0	491.9	494.6	.00	
11	( GRID AT 3.15 INS. )	440.4	442.3	443.0	445.4	448.2	449.2	449.2	452.0	453.7	457.1	.22	
12	( GRID AT 3.15 INS. )	462.8	465.9	468.0	468.1	468.3	469.6	472.3	472.8	473.5	475.5	.44	
13	( GRID AT 7.15 INS. )	243.8	246.5	247.8	252.1	255.6	259.4	263.4	267.6	272.0	276.5	.65	
14	( GRID AT 7.15 INS. )	390.0	392.0	393.9	397.4	399.0	401.5	403.4	405.4	406.6	408.6	.87	
16	( GRID AT 11.2 INS. )	314.2	317.9	321.6	324.6	327.3	330.0	332.8	335.8	338.9	341.9	1.31	
17	( GRID AT 15.2 INS. )	242.7	246.0	250.4	253.5	256.1	259.0	262.5	266.3	271.0	275.5	1.52	
18	( GRID AT 15.2 INS. )	248.3	251.4	254.5	257.4	260.7	264.0	267.4	271.2	275.7	281.0	1.74	
19	( GRID AT 19.2 INS. )	149.7	152.1	153.9	155.9	159.9	160.5	163.4	165.6	168.6	171.7	1.96	
24	( GRID AT 19.2 INS. )	156.3	159.5	161.6	163.6	165.5	167.4	168.0	169.8	172.5	174.9	3.05	
21	( GRID AT 21.45 INS. )	141.7	142.8	142.7	142.6	142.6	142.7	143.6	144.5	144.2	144.7	2.39	
22	( INSIDE AT 12 00 )	568.1	567.1	566.0	565.3	564.4	563.6	563.1	562.9	562.7	562.7	2.61	
23	( INSIDE AT 12 30 )	545.8	545.5	545.0	544.7	544.4	544.1	544.0	543.8	543.7	543.4	2.83	
20	( INSIDE AT 1 00 )	492.1	492.9	493.7	494.1	494.4	495.0	495.5	496.1	496.7	497.4	2.18	
25	( INSIDE AT 1 30 )	459.0	460.1	461.1	462.1	463.0	463.9	464.7	465.7	466.7	468.0	3.27	
26	( INSIDE AT 2 00 )	446.3	447.5	448.4	449.5	450.5	451.7	452.9	453.9	455.1	456.5	3.48	
27	( INSIDE AT 3 00 )	379.4	381.2	382.5	384.5	386.0	387.6	389.3	390.9	392.7	394.4	3.70	
28	( INSIDE AT 4 00 )	279.4	282.0	284.6	286.0	289.1	290.7	292.8	295.6	298.3	300.8	3.92	
29	( INSIDE AT 4 30 )	223.9	226.3	227.9	230.2	232.6	234.8	237.4	239.7	245.1	247.8	4.14	
31	( INSIDE AT 5 30 )	150.7	151.5	152.2	154.2	157.0	161.0	166.3	171.4	177.0	181.1	4.57	
32	( INSIDE AT 6 00 )	152.3	153.2	153.7	154.6	155.7	156.7	158.3	160.2	162.2	163.4	4.79	
33	( INSIDE AT 6 30 )	157.5	158.8	159.0	159.9	160.5	161.5	162.2	164.2	165.8	168.7	5.01	
34	( INSIDE AT 7 00 )	158.7	163.1	167.6	171.5	176.7	180.5	183.8	187.1	190.4	193.5	5.22	
35	( INSIDE AT 7 30 )	211.8	214.3	216.7	219.0	221.4	223.6	226.0	228.4	230.9	233.4	5.44	
36	( INSIDE AT 8 00 )	292.4	294.4	296.5	298.5	300.4	302.4	304.6	306.9	309.4	311.7	5.66	
37	( INSIDE AT 9 00 )	408.3	409.3	410.4	411.4	412.4	413.2	414.5	415.7	417.0	418.2	5.88	
38	( INSIDE AT 10 00 )	473.6	474.4	475.1	475.7	476.4	476.9	477.6	478.3	479.0	479.7	6.10	
39	( INSIDE AT 10 30 )	492.2	493.1	494.1	494.9	495.6	496.3	497.0	497.7	498.4	499.4	6.31	
40	( INSIDE AT 11 00 )	514.0	514.7	515.3	516.2	516.7	517.1	517.7	518.2	518.8	519.3	6.53	
41	( INSIDE AT 11 30 )	552.8	552.5	552.1	551.9	551.6	551.4	551.0	550.7	550.6	550.5	6.75	
44	( OUTSIDE AT 12 00 )	573.0	572.2	571.0	570.8	569.5	567.8	566.6	565.8	565.5	565.0	7.40	
45	( OUTSIDE AT 1 00 )	520.9	521.9	522.4	521.7	522.7	523.0	523.9	525.9	527.7	528.9	7.62	
46	( OUTSIDE AT 2 00 )	475.5	476.7	477.6	478.4	479.6	480.6	481.6	483.4	485.1	486.6	7.84	
47	( OUTSIDE AT 3 00 )	367.6	370.4	371.9	374.6	376.5	377.6	379.1	380.3	380.9	381.6	8.05	
48	( OUTSIDE AT 4 00 )	315.1	317.1	319.4	320.9	323.0	325.2	327.2	330.4	333.6	336.6	8.27	
49	( OUTSIDE AT 5 00 )	206.9	208.7	210.5	211.6	212.0	213.0	214.7	216.4	220.2	224.5	8.49	
50	( OUTSIDE AT 6 00 )	235.6	235.6	236.6	237.0	237.5	238.4	239.5	244.2	246.0	248.6	8.71	
51	( OUTSIDE AT 7 00 )	232.9	235.0	236.7	239.2	243.0	243.9	246.4	247.8	249.7	251.5	8.93	
52	( OUTSIDE AT 8 00 )	434.4	434.2	433.0	433.1	432.7	430.6	431.5	431.7	432.8	433.6	9.14	
53	( OUTSIDE AT 9 00 )	573.2	569.3	568.5	567.0	562.8	557.8	555.3	553.2	553.1	551.3	9.36	
54	( OUTSIDE AT 10 00 )	551.0	550.9	551.0	551.2	551.1	551.6	551.9	552.0	552.3	553.8	9.58	
56	( OUTSIDE AT 11 00 )	548.4	549.1	549.8	550.9	551.0	551.1	551.2	550.6	551.5	552.0	10.01	
42	( MANWAY AT 1. IN. )	815.4	814.5	813.7	813.0	812.5	811.9	811.4	811.1	810.5	810.3	6.97	
43	( MANWAY AT 6. INS. )	775.7	776.9	774.5	777.7	778.8	776.5	780.1	779.0	775.3	771.8	7.18	
55	( FIRE AT 12 00 FORE )	1448.2	1443.7	1453.5	1451.4	1435.3	1435.6	1426.1	1411.5	1398.7	1389.6	9.80	
57	( FIRE AT 3 00 FORE )	1379.8	1672.9	1354.3	1612.7	1747.7	1585.0	1725.7	1753.2	1712.7	1724.4	10.23	
60	( FIRE AT 6 00 FORE )	1384.7	1375.2	1389.7	1383.4	1364.5	1363.4	1353.8	1340.5	1330.6	1319.9	10.89	
61	( FIRE AT 9 00 FORE )	1380.7	1373.1	1385.3	1380.6	1362.5	1362.0	1353.9	1339.4	1327.8	1316.7	11.10	
62	( FIRE AT 12 00 AFT )	419.4	419.6	423.5	423.0	418.5	422.1	419.8	419.9	415.6	415.8	11.32	
63	( FIRE AT 3 00 AFT )	1472.4	1408.6	1279.5	1574.1	1477.8	1927.7	1623.1	1498.1	1366.9	1343.1	11.54	
64	( FIRE AT 6 00 AFT )	1807.0	1811.5	1828.3	1845.1	1887.2	1957.0	1743.6	1750.8	1712.6	1740.3	11.76	
65	( FIRE AT 9 00 AFT )	1387.8	1379.0	1389.5	1384.5	1367.8	1364.7	1362.0	1347.1	1334.9	1324.2	11.97	

TABLE A XXVIII

		THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7												
		TIME (SEC) =	3526.74	3539.80	3552.86	3565.93	3578.99	3592.05	3605.11	3618.17	3631.24	3644.30		
CHANNEL NUMBER	LOCATION												TIME ADJUST	ACC
10	( GRID AT 1. IN. )	498.3	501.0	504.7	509.2	511.3	515.6	518.7	521.1	523.4	526.8		.00	
11	( GRID AT 3.15 INS. )	460.6	464.4	467.5	469.8	473.6	479.7	485.3	489.0	493.2	497.2		.22	
12	( GRID AT 3.15 INS. )	477.9	482.0	485.7	488.5	488.8	493.5	498.3	502.8	505.3	504.3		.44	
13	( GRID AT 7.15 INS. )	280.8	285.3	290.3	295.4	301.2	307.6	314.6	321.7	328.1	336.2		.65	
14	( GRID AT 7.15 INS. )	411.4	414.0	418.1	423.5	428.5	433.5	439.2	445.2	450.8	455.0		.87	
16	( GRID AT 11.2 INS. )	345.0	348.6	352.1	356.1	360.6	365.4	370.2	375.9	381.6	386.4		1.31	
17	( GRID AT 15.2 INS. )	280.9	286.9	292.6	298.0	304.5	311.4	318.6	325.3	331.8	338.3		1.52	
18	( GRID AT 15.2 INS. )	286.6	293.0	299.0	305.4	312.2	318.8	326.3	333.3	339.4	344.3		1.74	
19	( GRID AT 19.2 INS. )	174.6	177.0	178.7	181.8	185.2	189.2	193.1	198.1	204.8	212.0		1.96	
24	( GRID AT 19.2 INS. )	178.3	181.6	184.6	188.8	193.7	199.1	204.8	210.3	217.2	224.7		3.05	
21	( GRID AT 21.45 INS. )	146.3	148.5	150.3	155.7	159.3	161.7	164.0	166.5	170.5	176.0		2.39	
22	( INSIDE AT 12 00 )	562.2	561.8	561.3	561.1	560.5	559.8	559.4	559.0	558.7	558.7		2.61	
23	( INSIDE AT 12 30 )	543.4	543.2	543.1	543.1	542.7	542.7	542.6	542.6	542.7	542.7		2.83	
20	( INSIDE AT 1 00 )	497.9	498.6	499.4	500.2	500.9	501.7	502.8	504.2	506.1	508.1		2.18	
25	( INSIDE AT 1 30 )	469.3	470.6	471.9	473.4	474.9	476.4	477.9	479.4	480.9	482.4		3.27	
26	( INSIDE AT 2 00 )	457.8	459.0	460.5	462.0	463.9	466.0	467.6	469.7	471.5	473.4		3.48	
27	( INSIDE AT 3 00 )	396.3	398.3	400.4	402.3	404.6	406.8	408.9	411.2	413.3	415.5		3.70	
28	( INSIDE AT 4 00 )	303.8	306.5	309.2	311.9	314.4	317.5	320.2	323.4	326.9	330.0		3.92	
29	( INSIDE AT 4 30 )	250.9	254.5	257.8	261.2	264.1	267.3	270.6	273.7	277.2	281.2		4.14	
31	( INSIDE AT 5 30 )	185.1	189.0	193.4	197.0	201.1	205.8	209.5	214.4	217.6	221.0		4.57	
32	( INSIDE AT 6 00 )	167.2	169.4	174.8	180.8	187.4	195.0	199.7	204.0	209.0	214.5		4.79	
33	( INSIDE AT 6 30 )	171.8	176.0	183.3	191.4	198.3	206.7	214.2	221.0	228.2	235.0		5.01	
34	( INSIDE AT 7 00 )	196.7	199.8	202.5	205.1	207.6	210.3	213.5	217.0	220.4	223.7		5.22	
35	( INSIDE AT 7 30 )	235.9	238.2	243.1	245.5	248.1	250.8	253.8	256.8	259.7	262.7		5.44	
36	( INSIDE AT 8 00 )	313.9	316.3	318.6	320.9	323.2	325.3	327.9	330.5	333.1	335.6		5.66	
37	( INSIDE AT 9 00 )	419.7	420.9	422.0	423.4	424.9	426.2	427.5	429.3	431.3	433.3		5.88	
38	( INSIDE AT 10 00 )	480.5	481.5	482.5	483.6	484.7	485.8	486.9	488.0	489.0	490.1		6.10	
39	( INSIDE AT 10 30 )	500.2	501.1	502.1	502.9	503.8	504.6	505.5	506.7	507.4	508.4		6.31	
40	( INSIDE AT 11 00 )	520.0	520.7	521.4	522.3	523.0	523.8	524.3	525.5	526.2	527.0		6.53	
41	( INSIDE AT 11 30 )	550.4	550.6	550.8	551.0	551.3	551.6	551.5	551.6	551.7	551.9		6.75	
44	( OUTSIDE AT 12 00 )	563.1	561.3	560.4	559.0	558.7	557.9	557.5	557.8	557.8	557.8		7.40	
45	( OUTSIDE AT 1 00 )	531.3	532.9	534.5	535.1	534.6	534.5	536.2	539.4	540.2	543.8		7.62	
46	( OUTSIDE AT 2 00 )	488.5	490.5	492.5	494.0	495.2	496.4	498.4	501.0	503.1	505.8		7.84	
47	( OUTSIDE AT 3 00 )	383.4	385.8	389.0	390.8	392.8	394.2	396.8	399.5	402.0	404.3		8.05	
48	( OUTSIDE AT 4 00 )	339.5	342.3	344.6	347.1	349.3	351.5	354.9	358.5	361.5	365.3		8.27	
49	( OUTSIDE AT 5 00 )	228.0	231.2	234.5	236.3	239.4	244.7	248.3	252.5	256.2	260.4		8.49	
50	( OUTSIDE AT 6 00 )	250.9	254.0	256.9	260.1	264.3	268.1	274.9	282.0	290.2	297.8		8.71	
51	( OUTSIDE AT 7 00 )	251.6	252.6	253.0	252.6	254.7	256.0	259.5	262.6	267.5	272.2		8.93	
52	( OUTSIDE AT 8 00 )	432.4	431.8	431.1	428.9	429.1	429.4	431.6	433.0	435.7	436.7		9.14	
53	( OUTSIDE AT 9 00 )	545.6	540.0	535.6	529.8	528.5	529.0	531.5	533.3	535.8	536.8		9.36	
54	( OUTSIDE AT 10 00 )	553.0	552.6	552.0	550.8	551.0	551.1	552.5	552.8	554.5	555.2		9.58	
56	( OUTSIDE AT 11 00 )	551.5	551.7	551.2	551.3	551.9	552.1	553.3	554.5	555.5	556.3		10.01	
42	( MANWAY AT 1. IN. )	809.9	810.0	810.5	810.9	811.7	812.6	814.1	815.2	816.5	817.9		6.97	
43	( MANWAY AT 6. INS. )	771.0	772.1	773.9	776.0	783.3	790.3	795.0	798.2	801.9	807.3		7.18	
55	( FIRE AT 12 00 FORE )	1386.8	1388.3	1382.6	1393.0	1406.0	1409.1	1407.0	1407.7	1407.8	1412.6		9.80	
57	( FIRE AT 3 00 FORE )	1697.3	1823.2	1821.4	1666.3	1779.8	1831.3	1774.9	1579.4	1720.6	1746.3		10.23	
60	( FIRE AT 6 00 FORE )	1311.3	1313.4	1303.7	1326.8	1341.8	1347.6	1348.7	1349.9	1352.1	1362.8		10.89	
61	( FIRE AT 9 00 FORE )	1311.1	1313.3	1305.4	1325.4	1339.2	1345.2	1347.4	1347.6	1349.0	1358.0		11.10	
62	( FIRE AT 12 00 AFT )	418.1	421.6	425.9	433.2	438.6	440.9	444.1	441.3	444.9	447.8		11.32	
63	( FIRE AT 3 00 AFT )	1288.9	1488.7	1490.1	1419.2	1468.2	1597.3	1436.9	1380.5	1344.5	1513.6		11.54	
64	( FIRE AT 6 00 AFT )	1803.2	1829.8	1929.1	1886.2	1904.4	1993.1	1911.7	1853.8	1874.3	1998.8		11.76	
65	( FIRE AT 9 00 AFT )	1318.8	1322.3	1312.3	1329.6	1337.4	1345.3	1347.0	1347.0	1346.8	1353.5		11.97	

74

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TABLE A XXIX

THRMCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) =										TIME ADJUST	ACC
		3657.36	3670.42	3683.48	3696.55	3709.61	3722.67	3735.73	3748.79	3761.86	3774.92		
10	( GRID AT 1. IN. )	528.9	531.4	533.3	535.9	538.7	542.4	545.5	548.8	552.7	557.1	.00	
11	( GRID AT 3.15 INS. )	500.9	504.5	507.3	510.3	512.3	514.7	517.9	521.2	523.9	527.2	.22	
12	( GRID AT 3.15 INS. )	506.8	510.5	513.9	516.4	519.9	523.1	525.7	528.6	530.9	528.9	.44	
13	( GRID AT 7.15 INS. )	343.9	351.8	360.9	371.6	384.0	397.1	412.8	429.8	449.4	475.8	.65	
14	( GRID AT 7.15 INS. )	458.8	465.3	470.2	476.2	480.0	484.0	488.1	492.3	496.1	498.7	.87	
16	( GRID AT 11.2 INS. )	390.1	394.5	399.9	405.9	412.3	419.0	425.7	431.5	438.1	445.1	1.31	
17	( GRID AT 15.2 INS. )	344.3	349.8	354.9	359.7	364.3	368.5	372.0	376.3	380.7	385.3	1.52	
18	( GRID AT 15.2 INS. )	349.8	356.4	361.9	366.8	371.1	375.0	378.8	379.4	381.9	383.5	1.74	
19	( GRID AT 19.2 INS. )	219.0	225.2	231.2	237.3	244.6	250.4	257.8	266.2	283.7	337.0	1.96	
24	( GRID AT 19.2 INS. )	231.8	238.9	248.3	254.5	261.3	268.9	281.9	319.0	422.9	584.0	3.05	
21	( GRID AT 21.45 INS. )	180.8	185.4	189.7	194.2	199.3	206.0	217.8	286.4	397.8	519.4	2.39	
22	( INSIDE AT 12 00 )	558.5	558.4	558.4	558.6	559.0	560.0	560.8	562.8	570.5	615.7	2.61	
23	( INSIDE AT 12 30 )	542.9	542.8	543.4	545.1	548.7	550.2	556.8	562.8	570.5	615.7	2.61	
20	( INSIDE AT 1 00 )	510.6	513.9	520.0	531.7	555.0	594.1	656.6	733.2	824.0	1021.5	2.83	
25	( INSIDE AT 1 30 )	483.9	485.3	486.8	488.4	489.9	491.5	493.8	497.0	503.0	517.3	3.27	
26	( INSIDE AT 2 00 )	475.2	477.1	479.1	481.3	483.5	485.9	489.1	494.8	511.5	563.7	3.48	
27	( INSIDE AT 3 00 )	417.8	419.9	422.2	424.7	427.3	431.1	437.3	447.5	467.4	516.3	3.70	
28	( INSIDE AT 4 00 )	333.2	335.5	339.5	343.1	348.1	354.2	360.9	366.5	372.3	389.3	3.92	
29	( INSIDE AT 4 30 )	284.6	287.7	291.6	296.0	301.6	308.3	317.2	334.0	416.3	628.2	4.14	
31	( INSIDE AT 5 30 )	224.6	227.9	232.0	235.8	242.9	247.6	250.7	255.1	271.2	337.0	4.57	
32	( INSIDE AT 6 00 )	220.4	226.4	232.0	236.9	243.8	248.6	253.4	259.2	269.2	297.1	4.79	
33	( INSIDE AT 6 30 )	242.7	248.8	254.0	257.9	263.7	269.6	274.3	279.5	283.9	288.9	5.01	
34	( INSIDE AT 7 00 )	227.3	230.0	234.0	238.0	244.6	249.0	253.5	258.2	263.0	268.2	5.22	
35	( INSIDE AT 7 30 )	266.0	269.3	272.6	275.9	279.4	283.0	286.8	290.5	294.5	298.7	5.44	
36	( INSIDE AT 8 00 )	338.2	340.8	343.4	346.1	349.0	351.6	354.4	357.4	360.5	363.9	5.66	
37	( INSIDE AT 9 00 )	435.2	437.1	439.2	441.6	444.1	446.8	449.8	452.8	456.2	460.0	5.88	
38	( INSIDE AT 10 00 )	491.4	492.7	493.9	495.3	496.8	498.4	500.1	502.1	504.4	507.2	6.10	
39	( INSIDE AT 10 30 )	509.6	510.6	511.6	512.7	513.8	514.9	516.2	517.7	519.5	521.5	6.31	
40	( INSIDE AT 11 00 )	527.8	528.4	529.3	529.7	530.7	531.5	532.6	533.7	534.5	535.8	6.53	
41	( INSIDE AT 11 30 )	552.1	552.3	552.6	553.1	553.5	554.0	554.7	555.5	556.5	557.8	6.75	
44	( OUTSIDE AT 12 00 )	560.1	562.9	567.2	572.7	581.0	591.9	605.2	623.7	648.5	677.1	7.40	
45	( OUTSIDE AT 1 00 )	544.3	544.9	549.5	549.1	551.6	555.1	561.1	570.8	583.6	597.2	7.62	
46	( OUTSIDE AT 2 00 )	507.9	510.2	513.9	516.3	519.3	523.0	527.5	532.7	542.6	575.6	7.84	
47	( OUTSIDE AT 3 00 )	406.2	409.1	412.5	416.9	421.6	427.8	435.3	443.6	450.9	459.3	8.05	
48	( OUTSIDE AT 4 00 )	368.3	371.6	376.6	379.9	384.2	388.7	394.8	402.6	413.1	425.0	8.27	
49	( OUTSIDE AT 5 00 )	264.0	268.6	273.6	277.7	282.2	287.7	293.4	299.9	307.0	314.5	8.49	
50	( OUTSIDE AT 6 00 )	303.2	310.4	317.2	322.3	329.2	335.8	343.4	350.3	357.9	364.2	8.71	
51	( OUTSIDE AT 7 00 )	276.1	281.6	287.4	293.3	300.9	309.7	326.0	358.0	423.4	551.8	8.93	
52	( OUTSIDE AT 8 00 )	437.7	439.8	443.3	447.1	452.6	459.3	468.5	477.4	487.3	497.1	9.14	
53	( OUTSIDE AT 9 00 )	538.7	541.0	547.9	555.7	566.3	579.1	596.3	613.6	633.7	657.5	9.36	
54	( OUTSIDE AT 10 00 )	555.8	557.7	560.2	563.1	568.1	577.8	602.5	644.4	696.9	758.6	9.58	
56	( OUTSIDE AT 11 00 )	556.4	558.5	561.8	565.1	569.7	576.1	586.7	600.0	614.9	628.3	10.01	
42	( MANWAY AT 1. IN. )	819.2	820.7	822.6	824.5	826.5	828.6	831.0	833.7	836.6	839.9	6.97	
43	( MANWAY AT 6. INS. )	814.6	825.5	835.2	845.8	868.5	885.5	904.8	934.7	989.7	1067.1	7.18	
55	( FIRE AT 12 00 FORE )	1422.1	1436.2	1453.9	1469.8	1476.8	1473.4	1467.4	1465.8	1473.4	1478.3	9.80	
57	( FIRE AT 3 00 FORE )	1809.2	1733.3	1704.1	1823.5	1880.1	1812.7	1925.2	1887.6	1868.5	1895.6	10.23	
60	( FIRE AT 6 00 FORE )	1386.3	1409.3	1428.2	1440.1	1438.2	1436.5	1433.0	1427.5	1437.5	1441.7	10.89	
61	( FIRE AT 9 00 FORE )	1379.1	1400.6	1423.2	1439.1	1441.3	1436.1	1429.6	1425.5	1433.6	1438.7	11.10	
62	( FIRE AT 12 00 AFT )	458.4	458.8	458.1	458.7	459.4	461.8	468.1	474.2	480.2	481.5	11.32	
63	( FIRE AT 3 00 AFT )	1984.7	1536.8	1567.7	1651.0	1912.1	1770.4	1940.2	1952.6	1667.0	1849.4	11.54	
64	( FIRE AT 6 00 AFT )	2054.5	1846.9	1849.6	1864.3	1916.2	1945.4	1938.0	1959.8	1908.9	1888.5	11.76	
65	( FIRE AT 9 00 AFT )	1369.3	1385.4	1403.8	1412.8	1414.0	1409.6	1406.4	1404.4	1412.2	1416.9	11.97	

75

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TABLE A XXX

		THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7											
		TIME (SEC) = 3787.98	3801.04	3814.10	3827.17	3840.23	3853.29	3866.35	3879.41	3892.48	3905.54	TIME ADJUST ACC	
CHANNEL NUMBER	LOCATION												
10	( GRID AT 1. IN. )	562.0	569.5	588.0	677.4	871.7	1036.0	1170.1	1289.3	1329.8	1326.6		.00
11	( GRID AT 3.15 INS. )	530.6	537.9	569.3	724.0	983.4	1165.6	1252.1	1328.7	1332.4	1289.3		.22
12	( GRID AT 3.15 INS. )	514.0	522.3	582.5	754.1	935.4	1060.5	1166.8	1344.8	1449.1	1515.3		.44
13	( GRID AT 7.15 INS. )	524.8	571.2	655.3	755.9	857.8	989.0	1102.3	1136.9	1089.9	1027.6		.65
14	( GRID AT 7.15 INS. )	506.2	586.6	865.7	1160.5	1278.3	1336.6	1372.9	1427.3	1397.8	1343.9		.87
16	( GRID AT 11.2 INS. )	454.0	481.1	594.1	829.2	1044.1	1186.2	1276.4	1376.3	1382.5	1355.2		1.31
17	( GRID AT 15.2 INS. )	393.9	416.6	494.6	720.4	1035.1	1208.0	1265.4	1284.4	1345.8	1343.8		1.52
18	( GRID AT 15.2 INS. )	386.6	391.5	399.1	407.5	416.3	423.6	305.7	278.3	298.1	510.3		1.74
19	( GRID AT 19.2 INS. )	512.4	737.4	892.6	1008.1	1077.9	1117.3	967.6	739.0	910.4	612.1		1.96
24	( GRID AT 19.2 INS. )	741.9	844.2	918.7	980.0	1008.5	1027.7	541.2	-101.3	-457.6	-1330.4		3.05
21	( GRID AT 21.45 INS. )	565.6	556.9	523.9	506.0	499.0	522.9	621.5	772.5	875.8	967.5		2.39
22	( INSIDE AT 12 00 )	811.5	1042.5	1166.2	1239.9	1267.8	1274.8	910.2	362.1	285.1	-824.6		2.61
23	( INSIDE AT 12 30 )	1121.5	1167.1	1195.4	1214.8	1195.1	1176.3	728.6	430.9	411.8	-71.0		2.83
20	( INSIDE AT 1 00 )	959.4	996.1	1016.9	1038.2	1050.8	1083.8	1179.1	1216.3	1260.9	1223.3		2.18
25	( INSIDE AT 1 30 )	557.3	634.6	726.4	830.4	896.6	921.7	943.7	922.7	1108.9	1187.3		3.27
26	( INSIDE AT 2 00 )	683.5	965.2	1233.7	1315.8	1346.4	1360.5	1360.3	1339.1	1342.9	1378.2		3.48
27	( INSIDE AT 3 00 )	628.9	876.7	1162.3	1299.6	1333.1	1355.3	1368.4	1372.5	1392.7	1421.4		3.70
28	( INSIDE AT 4 00 )	436.7	719.8	1283.3	1350.6	1366.8	1371.9	1367.3	1368.2	1378.8	1408.7		3.92
29	( INSIDE AT 4 30 )	877.6	1059.5	1178.8	1248.8	1282.8	1319.2	1340.9	1354.6	1323.5	1296.5		4.14
31	( INSIDE AT 5 30 )	505.1	854.4	1198.2	1320.8	1355.1	1380.4	1389.6	1374.6	1366.2	1372.0		4.57
32	( INSIDE AT 6 00 )	452.5	789.3	1104.4	1244.2	1275.3	1292.6	1307.7	1308.9	1273.8	1274.7		4.79
33	( INSIDE AT 6 30 )	305.9	457.0	1077.9	1281.8	1355.3	1360.1	1376.8	1347.6	1363.0	1416.3		5.01
34	( INSIDE AT 7 00 )	274.1	283.6	311.3	358.0	393.7	421.6	439.2	457.2	665.4	866.3		5.22
35	( INSIDE AT 7 30 )	302.8	307.0	311.4	316.8	325.1	342.5	369.5	440.0	533.9	679.7		5.44
36	( INSIDE AT 8 00 )	367.7	371.3	374.2	377.5	381.7	386.5	400.0	404.7	442.3	644.2		5.66
37	( INSIDE AT 9 00 )	464.7	471.1	485.9	532.6	575.3	612.1	633.7	665.5	655.1	751.7		5.88
38	( INSIDE AT 10 00 )	510.7	515.6	527.7	602.3	665.4	744.9	769.4	774.8	1030.6	1162.7		6.10
39	( INSIDE AT 10 30 )	524.1	527.3	532.0	544.0	558.5	568.5	572.1	584.8	944.4	1233.3		6.31
40	( INSIDE AT 11 00 )	537.1	538.8	540.4	542.9	545.2	548.1	553.7	558.1	572.5	652.1		6.53
41	( INSIDE AT 11 30 )	559.6	561.7	563.1	567.8	577.4	600.1	617.2	704.1	668.3	655.6		6.75
44	( OUTSIDE AT 12 00 )	707.8	744.0	778.2	806.3	842.2	879.2	1086.1	1065.1	1191.3	1226.6		7.40
45	( OUTSIDE AT 1 00 )	609.9	629.7	659.8	747.9	910.7	1084.3	1238.1	1304.8	1272.0	1257.3		7.62
46	( OUTSIDE AT 2 00 )	677.7	871.8	1055.6	1283.8	1315.8	1313.8	1345.9	1341.8	1251.2	1217.5		7.84
47	( OUTSIDE AT 3 00 )	475.5	501.2	591.5	776.5	1005.6	1165.6	1215.1	1281.9	1189.9	1207.4		8.05
48	( OUTSIDE AT 4 00 )	442.1	479.7	565.1	742.9	924.0	1041.1	1130.6	1216.9	1150.0	1128.8		8.27
49	( OUTSIDE AT 5 00 )	325.3	347.1	390.2	500.7	689.8	882.1	1242.0	1195.5	1497.2	1582.5		8.49
50	( OUTSIDE AT 6 00 )	369.8	380.1	409.1	494.7	650.6	844.9	1033.2	1173.5	1067.5	1014.1		8.71
51	( OUTSIDE AT 7 00 )	722.2	875.5	1047.5	1191.4	1255.3	1296.5	1309.7	1317.3	1173.6	1154.3		8.93
52	( OUTSIDE AT 8 00 )	508.5	517.0	528.1	545.4	553.6	540.5	501.2	549.7	568.4	502.6		9.14
53	( OUTSIDE AT 9 00 )	679.7	693.1	705.5	722.3	730.1	740.9	715.6	770.9	791.9	656.5		9.36
54	( OUTSIDE AT 10 00 )	801.1	841.2	907.0	987.5	1053.7	1100.9	1060.2	1154.6	1090.3	965.7		9.58
56	( OUTSIDE AT 11 00 )	631.4	635.6	641.7	649.4	656.3	670.3	718.2	812.2	824.0	852.6		10.01
42	( MANWAY AT 1. IN. )	844.2	854.6	971.2	1251.0	1279.9	1296.0	1322.1	1341.3	1302.0	1305.4		6.97
43	( MANWAY AT 6. INS. )	1141.9	1186.3	1223.2	1255.7	1270.4	1286.4	1318.1	1285.4	1355.6	1455.4		7.18
55	( FIRE AT 12 00 FORE )	1483.9	1477.9	1472.9	1465.6	1454.4	1448.5	1471.5	1473.1	1457.4	1577.6		9.80
57	( FIRE AT 3 00 FORE )	1930.4	1921.5	1874.8	1860.5	1698.2	1562.6	1464.2	1403.4	1260.0	1208.4		10.23
60	( FIRE AT 6 00 FORE )	1444.8	1436.9	1430.9	1424.1	1403.2	1379.3	1406.7	1379.8	1371.7	1396.0		10.89
61	( FIRE AT 9 00 FORE )	1440.2	1429.4	1414.9	1359.3	1365.8	1319.8	1328.2	1289.5	1250.8	1246.5		11.10
62	( FIRE AT 12 00 AFT )	499.7	518.0	522.3	527.2	512.6	514.5	553.8	575.2	901.9	1167.3		11.32
63	( FIRE AT 3 00 AFT )	1970.9	1837.9	1833.4	1951.9	1885.2	1725.7	1854.9	1757.4	1788.7	2120.7		11.54
64	( FIRE AT 6 00 AFT )	1965.0	1919.8	1905.0	1794.1	1891.1	1623.3	1747.4	1590.1	1590.9	1799.2		11.76
65	( FIRE AT 9 00 AFT )	1421.0	1415.6	1410.4	1401.5	1388.7	1390.9	1411.3	1418.2	1422.9	1443.5		11.97

TABLE A XXXI

THERMOCOUPLE TEMPERATURES (CEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) = 3918.60	3931.66	3944.72	3957.79	3970.85	3983.91	3996.97	4010.03	4023.10	4036.16	TIME ACJUST ACC
10	( GRID AT 1. IN. )	1354.8	1328.4	1328.1	1311.1	1289.5	1283.4	1353.3	1390.6	1419.9	1432.5	.00
11	( GRID AT 3.15 INS. )	1313.7	1290.6	1278.6	1257.3	1254.0	1296.2	1359.2	1391.5	1399.4	1413.4	.22
12	( GRID AT 3.15 INS. )	1615.7	1534.1	1445.8	1344.8	1394.9	1501.8	1589.1	1618.6	1527.1	1482.9	.44
13	( GRID AT 7.15 INS. )	1008.0	975.8	991.3	1109.9	1100.7	1078.7	1136.8	1205.6	1363.4	1432.8	.65
14	( GRID AT 7.15 INS. )	1368.6	1334.9	1308.2	1240.9	1213.1	1233.4	1306.1	1357.0	1421.2	1432.5	.87
16	( GRID AT 11.2 INS. )	1358.2	1308.5	1270.2	1199.4	1181.3	1222.1	1297.6	1358.6	1416.8	1441.7	1.31
17	( GRID AT 15.2 INS. )	1371.6	1339.9	1325.1	1277.1	1281.0	1326.8	1354.3	1391.5	1440.5	1440.6	1.52
18	( GRID AT 15.2 INS. )	384.8	495.6	593.5	934.6	1182.3	1358.7	1423.7	1378.2	1410.9	1434.0	1.74
19	( GRID AT 19.2 INS. )	701.5	818.8	936.8	1083.7	1132.7	1236.6	1295.7	1338.5	1395.9	1418.7	1.96
24	( GRID AT 19.2 INS. )	-1066.3	-548.7	-275.1	444.0	842.1	1100.5	1237.8	1411.1	1451.2	1471.7	3.05
21	( GRID AT 21.45 INS. )	1035.7	1046.3	1028.6	1102.5	1260.5	1412.1	1382.4	1316.5	1392.0	1441.9	2.39
22	( INSIDE AT 12 00 )	-604.8	-385.8	-199.8	495.4	898.9	1187.5	1270.7	1346.4	1454.0	1488.6	2.61
23	( INSIDE AT 12 30 )	262.6	432.8	622.2	1058.0	1293.8	1452.0	1462.3	1470.3	1506.4	1491.2	2.83
20	( INSIDE AT 1 00 )	256.3	101.1	326.3	711.8	900.0	1105.9	1250.7	1277.6	1405.8	1414.0	2.18
25	( INSIDE AT 1 30 )	247.0	195.3	419.1	792.5	866.0	968.2	963.8	1037.8	1248.1	1395.9	3.27
26	( INSIDE AT 2 00 )	1401.9	1377.8	1361.9	1334.4	1338.0	1362.9	1362.9	1348.8	1315.2	1310.6	3.48
27	( INSIDE AT 3 00 )	1421.6	1395.6	1373.6	1325.6	1315.8	1352.0	1329.7	1330.3	1321.0	1333.1	3.70
28	( INSIDE AT 4 00 )	1430.7	1412.4	1399.9	1375.0	1377.4	1395.6	1369.3	1339.2	1345.9	1367.5	3.92
29	( INSIDE AT 4 30 )	1272.1	1243.5	1216.3	1163.8	1139.0	1157.9	1263.1	1389.7	1463.5	1468.4	4.14
31	( INSIDE AT 5 30 )	1371.8	1346.1	1323.9	1290.2	1284.2	1378.1	1381.1	1417.1	1404.1	1411.5	4.57
32	( INSIDE AT 6 00 )	1293.1	1297.5	1309.7	1308.5	1312.6	1356.3	1412.1	1467.0	1420.3	1416.0	4.79
33	( INSIDE AT 6 30 )	1440.9	1424.2	1422.5	1418.8	1418.7	1431.6	1397.3	1400.9	1389.1	1395.8	5.01
34	( INSIDE AT 7 00 )	798.7	813.4	840.7	831.5	851.4	1070.8	1190.7	1201.5	1181.3	1179.8	5.22
35	( INSIDE AT 7 30 )	790.5	839.0	833.5	901.0	980.0	1039.6	1025.4	1043.5	1224.6	1259.2	5.44
36	( INSIDE AT 8 00 )	947.2	969.3	867.3	812.9	894.1	1124.3	1255.8	1295.0	1239.3	1204.8	5.66
37	( INSIDE AT 9 00 )	735.4	671.6	676.7	663.0	728.4	928.7	1090.0	1141.2	1143.6	1122.1	5.88
38	( INSIDE AT 10 00 )	1085.0	1136.4	1247.0	1208.0	1128.7	1220.8	1234.3	1218.5	1290.0	1293.6	6.10
39	( INSIDE AT 10 30 )	1173.1	1168.3	1180.7	1235.4	1303.9	1359.1	1340.7	1271.2	1221.0	1208.4	6.31
40	( INSIDE AT 11 00 )	647.8	708.4	817.2	875.1	918.1	972.3	1013.4	1055.5	1066.5	1075.6	6.53
41	( INSIDE AT 11 30 )	676.2	725.2	800.4	828.0	973.9	1155.4	1247.9	1309.7	1347.3	1363.5	6.75
44	( OUTSIDE AT 12 00 )	1210.4	1234.5	1344.1	1397.7	1364.8	1318.6	1306.8	1328.4	1343.8	1366.1	7.40
45	( OUTSIDE AT 1 00 )	1212.2	1223.4	1188.0	1174.5	1183.7	1294.7	1318.3	1332.9	1334.7	1336.5	7.62
46	( OUTSIDE AT 2 00 )	1205.6	1209.0	1211.4	1220.7	1253.8	1283.5	1312.2	1345.5	1362.0	1372.0	7.84
47	( OUTSIDE AT 3 00 )	1182.9	1179.5	1112.3	1065.1	1075.7	1146.4	1172.3	1222.5	1280.6	1300.5	8.05
48	( OUTSIDE AT 4 00 )	1103.3	1104.9	1095.6	1097.3	1125.6	1274.8	1293.6	1340.3	1373.2	1408.9	8.27
49	( OUTSIDE AT 5 00 )	1476.8	1493.3	1408.3	1330.3	1285.2	1315.2	1352.8	1392.4	1381.0	1395.7	8.49
50	( OUTSIDE AT 6 00 )	986.2	919.8	790.0	671.7	727.9	829.2	892.5	965.2	1129.5	1154.6	8.71
51	( OUTSIDE AT 7 00 )	1164.3	1171.1	1017.3	932.7	877.3	907.5	934.6	1166.1	1217.0	1238.4	8.93
52	( OUTSIDE AT 8 00 )	509.4	721.1	747.0	666.6	636.3	556.9	525.1	838.6	963.3	1053.9	9.14
53	( OUTSIDE AT 9 00 )	835.7	881.1	699.8	546.4	533.2	824.0	884.7	1193.9	1187.5	1182.6	9.36
54	( OUTSIDE AT 10 00 )	1051.2	1070.5	945.8	895.7	918.5	957.2	978.3	1186.1	1205.9	1206.6	9.58
56	( OUTSIDE AT 11 00 )	878.8	932.1	827.4	717.6	718.5	866.8	898.0	1091.9	1128.1	1112.2	10.01
42	( MANWAY AT 1. IN. )	1304.5	1318.8	1334.8	1349.6	1353.9	1357.2	1395.9	1436.8	1445.7	1449.9	6.97
43	( MANWAY AT 6. INS. )	1531.1	1599.0	1816.3	2050.5	1998.7	1909.0	1797.3	1641.1	1691.2	1473.8	7.18
55	( FIRE AT 12 00 FORE )	1549.6	1523.9	1528.4	1586.2	1616.1	1611.8	1560.2	1432.4	1426.6	1440.0	9.80
57	( FIRE AT 3 00 FORE )	1197.1	1156.6	1058.3	1014.6	1014.2	1045.8	1060.9	1160.3	1206.0	1199.3	10.23
60	( FIRE AT 6 00 FORE )	1381.9	1438.0	1501.4	1529.1	1488.5	1464.2	1417.1	1300.8	1327.8	1318.8	10.89
61	( FIRE AT 9 00 FORE )	1220.4	1222.4	1185.6	1168.6	1149.4	1140.7	1144.5	1150.9	1176.9	1179.3	11.10
62	( FIRE AT 12 00 AFT )	1322.5	1222.8	1142.5	1098.5	958.1	807.8	796.2	952.0	1089.5	1154.1	11.32
63	( FIRE AT 3 00 AFT )	2123.6	2259.3	2500.6	2634.0	2329.2	2138.4	1854.2	1480.9	1357.0	1325.0	11.54
64	( FIRE AT 6 00 AFT )	1868.0	1990.5	2237.6	2349.0	1991.1	2060.0	1874.6	1588.3	1296.4	1254.5	11.76
65	( FIRE AT 9 00 AFT )	1431.8	1436.2	1397.9	1375.9	1362.7	1340.4	1314.5	1309.1	1321.6	1319.9	11.97

77

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TABLE A XXXII

THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) =										TIME ADJUST
		4049.22	4062.28	4075.34	4088.41	4101.47	4114.53	4127.59	4140.65	4153.72	4166.78	
10	( GRID AT 1. IN. )	1399.2	1368.6	1375.5	1393.7	1382.5	1384.4	1392.4	1389.5	1380.8	1390.8	.C0
11	( GRID AT 3.15 INS. )	1393.3	1364.5	1376.6	1392.9	1384.5	1386.0	1395.2	1392.7	1382.4	1394.4	.22
12	( GRID AT 3.15 INS. )	1444.0	1392.4	1419.0	1420.4	1406.9	1410.7	1403.9	1458.8	1449.3	1473.2	.44
13	( GRID AT 7.15 INS. )	1416.1	1396.5	1383.9	1411.8	1413.1	1407.3	1439.4	1380.1	1367.6	1371.3	.65
14	( GRID AT 7.15 INS. )	1412.9	1376.0	1378.7	1390.4	1387.2	1387.2	1398.1	1396.8	1388.7	1400.5	.87
16	( GRID AT 11.2 INS. )	1411.6	1376.7	1388.8	1402.2	1399.7	1397.9	1408.7	1410.7	1403.6	1417.3	1.31
17	( GRID AT 15.2 INS. )	1431.0	1396.3	1402.6	1421.4	1421.7	1418.6	1433.8	1429.6	1420.5	1432.9	1.52
18	( GRID AT 15.2 INS. )	1420.4	1375.5	1414.4	1434.5	1435.9	1438.6	1446.2	1448.9	1426.9	1452.0	1.74
19	( GRID AT 19.2 INS. )	1369.7	1325.1	1339.4	1355.2	1343.5	1341.5	1356.9	1352.8	1345.0	1365.4	1.96
24	( GRID AT 19.2 INS. )	1397.7	1375.1	1358.4	1361.8	1346.4	1344.6	1350.6	1345.5	1339.7	1348.5	3.05
21	( GRID AT 21.45 INS. )	1372.7	1336.4	1360.5	1374.3	1359.9	1369.1	1377.6	1372.9	1363.7	1377.8	2.39
22	( INSIDE AT 12 00 )	1421.7	1375.0	1377.4	1382.9	1367.7	1367.6	1374.9	1370.4	1365.8	1375.3	2.61
23	( INSIDE AT 12 30 )	1414.4	1377.1	1389.5	1397.9	1386.2	1389.3	1397.0	1394.8	1394.4	1408.5	2.83
20	( INSIDE AT 1 00 )	1357.6	1313.6	1323.4	1339.5	1334.6	1341.5	1363.3	1366.4	1360.4	1386.8	2.18
25	( INSIDE AT 1 30 )	1350.4	1347.0	1384.8	1408.5	1411.5	1404.8	1402.9	1384.5	1371.0	1383.1	3.27
26	( INSIDE AT 2 00 )	1314.4	1305.4	1337.7	1357.4	1371.1	1384.9	1402.3	1408.1	1408.9	1425.1	3.48
27	( INSIDE AT 3 00 )	1323.7	1306.8	1312.5	1324.6	1320.9	1324.6	1334.6	1337.4	1337.3	1350.8	3.70
28	( INSIDE AT 4 00 )	1353.1	1331.1	1330.5	1344.1	1343.8	1351.2	1366.9	1375.1	1377.1	1395.6	3.92
29	( INSIDE AT 4 30 )	1396.1	1356.6	1387.0	1409.8	1403.0	1410.3	1418.8	1414.5	1408.5	1428.7	4.14
31	( INSIDE AT 5 30 )	1395.9	1367.9	1380.8	1395.5	1387.1	1394.9	1406.1	1400.4	1404.5	1423.8	4.57
32	( INSIDE AT 6 00 )	1393.9	1361.2	1379.5	1400.9	1384.5	1405.1	1421.8	1415.9	1423.2	1441.4	4.79
33	( INSIDE AT 6 30 )	1373.9	1354.2	1374.6	1394.4	1383.1	1396.8	1411.0	1408.5	1414.6	1433.1	5.01
34	( INSIDE AT 7 00 )	1147.8	1094.9	1096.6	1090.7	1068.2	1059.3	1051.4	1040.0	1041.7	1069.9	5.22
35	( INSIDE AT 7 30 )	1237.6	1200.9	1225.3	1241.0	1241.9	1256.8	1272.5	1276.3	1283.8	1301.9	5.44
36	( INSIDE AT 8 00 )	1171.1	1125.6	1117.4	1086.4	1046.0	1023.7	1008.6	996.5	986.8	972.7	5.66
37	( INSIDE AT 9 00 )	1100.7	1068.5	1048.7	1027.1	1008.9	992.6	978.9	957.3	938.6	927.0	5.88
38	( INSIDE AT 10 00 )	1268.5	1228.5	1239.7	1244.5	1242.3	1248.1	1258.5	1260.6	1266.5	1286.0	6.10
39	( INSIDE AT 10 30 )	1180.8	1141.4	1141.9	1139.3	1135.2	1135.2	1140.7	1144.2	1150.3	1169.5	6.31
40	( INSIDE AT 11 00 )	1058.7	1043.0	1056.9	1056.8	1053.9	1058.2	1067.7	1063.8	1066.7	1081.2	6.53
41	( INSIDE AT 11 30 )	1331.7	1309.6	1331.3	1335.0	1329.7	1335.4	1338.1	1334.7	1338.2	1351.5	6.75
44	( OUTSIDE AT 12 00 )	1319.0	1289.1	1322.8	1345.1	1343.6	1366.9	1373.5	1377.8	1386.7	1399.3	7.40
45	( OUTSIDE AT 1 00 )	1307.9	1274.8	1287.5	1294.1	1296.6	1309.4	1325.4	1334.7	1342.7	1366.1	7.62
46	( OUTSIDE AT 2 00 )	1356.0	1344.7	1361.5	1366.0	1364.9	1378.3	1385.8	1391.8	1400.2	1416.3	7.84
47	( OUTSIDE AT 3 00 )	1273.9	1244.3	1245.2	1249.1	1278.7	1287.7	1294.7	1298.1	1301.7	1311.8	8.05
48	( OUTSIDE AT 4 00 )	1337.7	1298.5	1324.6	1344.5	1343.5	1371.4	1387.5	1395.3	1403.4	1432.8	8.27
49	( OUTSIDE AT 5 00 )	1346.5	1323.2	1354.3	1377.0	1363.4	1389.1	1393.3	1392.7	1399.9	1420.1	8.49
50	( OUTSIDE AT 6 00 )	1144.9	1118.1	1128.0	1133.5	1134.1	1166.7	1201.8	1224.0	1253.2	1294.2	8.71
51	( OUTSIDE AT 7 00 )	1223.3	1201.0	1232.3	1237.4	1216.1	1245.0	1256.3	1268.6	1311.2	1349.7	8.93
52	( OUTSIDE AT 8 00 )	1082.7	1065.8	1098.1	1116.4	1123.6	1159.5	1188.8	1203.5	1237.0	1278.2	9.14
53	( OUTSIDE AT 9 00 )	1164.3	1124.5	1130.6	1141.5	1140.8	1172.6	1210.5	1229.3	1262.7	1306.9	9.36
54	( OUTSIDE AT 10 00 )	1207.1	1185.0	1190.8	1187.0	1177.3	1194.4	1200.1	1200.4	1217.4	1245.3	9.58
56	( OUTSIDE AT 11 00 )	1109.1	1091.8	1087.6	1081.1	1076.5	1093.1	1106.2	1113.8	1137.0	1169.4	10.01
42	( MANWAY AT 1. IN. )	1412.2	1396.1	1428.9	1443.2	1436.3	1456.6	1459.4	1458.3	1468.0	1489.4	6.97
43	( MANWAY AT 6. INS. )	1355.0	1379.4	1357.2	1335.1	1344.3	1417.5	1497.8	1542.0	1531.2	1519.0	7.18
55	( FIRE AT 12 00 FORE )	1372.6	1364.7	1385.1	1403.8	1403.4	1433.2	1455.1	1453.6	1473.9	1502.4	9.80
57	( FIRE AT 3 00 FORE )	1206.1	1189.6	1205.4	1202.5	1203.2	1230.5	1243.2	1251.8	1281.7	1317.9	10.23
60	( FIRE AT 6 00 FORE )	1313.8	1333.4	1351.0	1358.4	1368.1	1376.6	1370.2	1360.4	1376.4	1409.9	10.89
61	( FIRE AT 9 00 FORE )	1181.8	1206.0	1195.4	1214.6	1229.2	1270.7	1299.0	1300.2	1297.5	1245.2	11.10
62	( FIRE AT 12 00 AFT )	1154.3	1197.1	1240.6	1280.0	1292.6	1322.6	1330.5	1339.7	1417.2	1609.5	11.32
63	( FIRE AT 3 00 AFT )	1312.2	1336.5	1346.0	1348.3	1353.9	1382.2	1389.9	1380.3	1393.1	1418.6	11.54
64	( FIRE AT 6 00 AFT )	1258.1	1318.9	1323.1	1310.3	1337.9	1366.1	1371.6	1361.9	1351.1	1324.4	11.76
65	( FIRE AT 9 00 AFT )	1289.0	1293.1	1312.7	1322.2	1322.6	1339.5	1344.5	1338.2	1360.1	1388.4	11.97

78

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TABLE A XXXIII

THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) = 4179.84 4192.90 4205.96 4219.03 4232.09 4245.15 4258.21 4271.27 4284.34 4297.40										TIME ADJUST ACC
10	( GRID AT 1. IN. )	1411.2	1404.6	1407.0	1419.4	1441.2	1454.6	1456.4	1457.7	1460.7	1469.2	.00
11	( GRID AT 3.15 INS. )	1409.7	1404.2	1404.1	1411.7	1434.7	1447.9	1446.9	1447.0	1450.7	1460.8	.22
12	( GRID AT 3.15 INS. )	1498.9	1504.7	1445.1	1445.1	1521.0	1524.9	1525.1	1479.1	1462.6	1464.2	.44
13	( GRID AT 7.15 INS. )	1378.3	1372.0	1439.2	1450.2	1416.9	1452.7	1448.6	1497.7	1520.4	1539.3	.65
14	( GRID AT 7.15 INS. )	1419.4	1417.4	1419.9	1426.5	1446.7	1467.3	1465.0	1470.7	1476.3	1496.0	.87
16	( GRID AT 11.2 INS. )	1436.4	1437.4	1442.0	1448.8	1471.8	1485.9	1485.4	1482.8	1485.8	1495.0	1.31
17	( GRID AT 15.2 INS. )	1448.8	1441.9	1448.0	1450.2	1464.2	1483.0	1479.8	1488.5	1491.8	1502.7	1.52
18	( GRID AT 15.2 INS. )	1475.6	1461.1	1462.6	1465.7	1489.2	1500.6	1494.6	1498.1	1500.9	1514.4	1.74
19	( GRID AT 19.2 INS. )	1392.1	1388.1	1402.5	1413.9	1453.9	1477.4	1480.1	1488.2	1496.0	1519.3	1.96
24	( GRID AT 19.2 INS. )	1371.1	1361.0	1367.4	1372.9	1405.3	1415.0	1412.6	1418.8	1431.9	1451.8	3.05
21	( GRID AT 21.45 INS. )	1401.0	1372.2	1374.6	1380.0	1415.4	1414.4	1408.7	1404.1	1406.2	1420.6	2.39
22	( INSIDE AT 12 00 )	1389.2	1381.8	1384.7	1384.3	1398.7	1405.2	1403.6	1405.8	1417.0	1427.3	2.61
23	( INSIDE AT 12 30 )	1434.1	1431.5	1446.0	1460.5	1494.7	1510.6	1515.8	1522.4	1534.6	1546.1	2.83
20	( INSIDE AT 1 00 )	1416.3	1408.2	1414.2	1422.1	1464.1	1484.9	1482.6	1481.9	1485.1	1507.5	2.18
25	( INSIDE AT 1 30 )	1407.2	1397.5	1408.9	1415.1	1448.8	1459.9	1455.2	1463.4	1470.3	1488.7	3.27
26	( INSIDE AT 2 00 )	1445.2	1438.8	1446.5	1449.5	1477.4	1497.7	1498.1	1509.7	1518.1	1535.6	3.48
27	( INSIDE AT 3 00 )	1364.3	1359.0	1361.3	1366.4	1386.5	1396.5	1397.5	1404.0	1406.9	1423.4	3.70
28	( INSIDE AT 4 00 )	1417.9	1420.7	1427.0	1436.0	1462.9	1478.3	1484.0	1489.0	1487.4	1500.0	3.92
29	( INSIDE AT 4 30 )	1449.2	1430.1	1438.4	1435.3	1455.3	1455.3	1446.8	1444.9	1442.9	1450.3	4.14
31	( INSIDE AT 5 30 )	1439.6	1435.1	1441.9	1449.1	1485.2	1499.2	1494.1	1496.6	1501.0	1514.5	4.57
32	( INSIDE AT 6 00 )	1452.2	1444.7	1450.5	1451.6	1484.3	1500.0	1500.1	1504.5	1515.5	1532.8	4.79
33	( INSIDE AT 6 30 )	1441.9	1434.4	1441.9	1451.8	1486.8	1503.7	1504.8	1508.3	1516.0	1528.4	5.01
34	( INSIDE AT 7 00 )	1116.7	1126.3	1160.2	1184.9	1233.6	1275.0	1291.2	1312.4	1353.5	1384.7	5.22
35	( INSIDE AT 7 30 )	1322.1	1324.0	1340.1	1356.2	1371.4	1386.7	1389.0	1403.3	1450.3	1462.6	5.44
36	( INSIDE AT 8 00 )	1001.8	1021.0	1049.8	1050.0	1032.8	1028.0	1016.1	1013.6	1030.6	1021.1	5.66
37	( INSIDE AT 9 00 )	912.2	905.3	895.6	892.6	895.4	918.5	939.7	960.8	973.6	975.0	5.88
38	( INSIDE AT 10 00 )	1303.4	1305.4	1312.1	1326.3	1358.9	1379.9	1387.4	1398.8	1423.2	1443.4	6.10
39	( INSIDE AT 10 30 )	1202.5	1224.7	1244.1	1267.1	1321.3	1358.5	1370.8	1390.4	1423.1	1445.8	6.31
40	( INSIDE AT 11 00 )	1086.9	1092.4	1101.4	1124.2	1162.9	1189.6	1203.4	1220.9	1239.2	1258.3	6.53
41	( INSIDE AT 11 30 )	1359.0	1361.0	1358.9	1372.3	1399.1	1411.9	1412.6	1420.3	1426.0	1437.3	6.75
44	( OUTSIDE AT 12 00 )	1405.0	1406.0	1406.8	1411.5	1464.0	1426.8	1418.5	1438.7	1463.8	1473.1	7.40
45	( OUTSIDE AT 1 00 )	1377.8	1376.6	1377.0	1392.3	1419.7	1436.2	1436.8	1432.0	1441.3	1455.9	7.62
46	( OUTSIDE AT 2 00 )	1422.2	1424.2	1424.8	1454.1	1485.6	1503.6	1511.9	1508.1	1521.5	1533.4	7.84
47	( OUTSIDE AT 3 00 )	1321.3	1326.2	1329.5	1355.2	1339.4	1393.4	1402.6	1407.4	1394.9	1405.5	8.05
48	( OUTSIDE AT 4 00 )	1442.8	1431.2	1434.7	1454.4	1481.9	1488.8	1489.3	1489.8	1505.4	1517.8	8.27
49	( OUTSIDE AT 5 00 )	1428.1	1423.3	1426.2	1441.0	1481.6	1463.9	1461.7	1467.1	1490.4	1495.7	8.49
50	( OUTSIDE AT 6 00 )	1322.1	1329.7	1342.5	1372.0	1410.9	1425.6	1431.1	1436.1	1459.1	1478.9	8.71
51	( OUTSIDE AT 7 00 )	1378.5	1390.0	1411.3	1436.6	1475.8	1487.3	1493.7	1501.4	1525.8	1539.3	8.93
52	( OUTSIDE AT 8 00 )	1294.4	1296.9	1298.8	1324.3	1349.2	1360.5	1366.1	1370.6	1388.5	1455.0	9.14
53	( OUTSIDE AT 9 00 )	1335.9	1343.4	1357.1	1385.8	1414.7	1436.2	1454.9	1478.1	1501.2	1516.8	9.36
54	( OUTSIDE AT 10 00 )	1248.9	1245.9	1240.7	1288.8	1314.2	1360.7	1378.2	1381.9	1415.1	1450.7	9.58
56	( OUTSIDE AT 11 00 )	1192.2	1200.3	1203.3	1232.0	1266.1	1285.5	1306.5	1331.1	1376.7	1416.2	10.01
42	( MANKAY AT 1. IN. )	1496.9	1493.7	1482.2	1493.7	1532.4	1554.1	1552.1	1550.1	1533.5	1542.9	6.97
43	( MANKAY AT 6. INS. )	1589.8	1560.8	1231.3	1237.9	1240.2	1346.1	1315.7	1221.0	1198.5	1204.3	7.18
55	( FIRE AT 12 00 FORE )	1512.8	1507.9	1518.8	1545.1	1577.8	1582.7	1585.9	1590.2	1614.1	1634.7	9.80
57	( FIRE AT 3 00 FORE )	1343.0	1357.8	1372.0	1404.4	1441.1	1460.1	1474.0	1485.5	1520.2	1543.8	10.23
60	( FIRE AT 6 00 FORE )	1415.1	1408.7	1394.9	1431.2	1444.6	1381.9	1369.0	1352.6	1382.1	1394.7	10.89
61	( FIRE AT 9 00 FORE )	1262.6	1275.0	1228.1	1290.3	1330.3	1349.4	1379.8	1407.3	1459.0	1431.5	11.10
62	( FIRE AT 12 00 AFT )	1767.6	1822.6	1981.7	1973.3	2108.4	2098.6	2144.5	2543.0	2222.3	1761.2	11.32
63	( FIRE AT 3 00 AFT )	1424.0	1411.6	1409.9	1482.7	1552.7	1552.5	1598.8	1763.6	1714.5	1529.3	11.54
64	( FIRE AT 6 00 AFT )	1305.2	1271.4	1220.7	1300.4	1324.2	1259.1	1257.6	1315.1	1290.4	1265.7	11.76
65	( FIRE AT 9 00 AFT )	1395.0	1394.9	1399.7	1416.9	1432.4	1432.5	1431.9	1435.2	1438.2	1445.4	11.97

79

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TABLE A XXXIV

CHANNEL NUMBER	LOCATION	THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7										TIME ADJUST ACC	
		4310.46	4323.52	4336.58	4349.65	4362.71	4375.77	4388.03	4401.89	4414.96	4428.02		
10	( GRID AT 1. IN. )	1479.0	1481.1	1489.8	1502.6	1519.1	1516.6	1514.3	1519.7	1524.8	1522.1	.00	
11	( GRID AT 3.15 INS. )	1470.5	1472.5	1475.2	1482.9	1492.6	1489.7	1488.8	1497.4	1504.9	1507.6	.22	
12	( GRID AT 3.15 INS. )	1476.2	1486.1	1519.3	1531.4	1542.9	1535.3	1531.5	1540.1	1542.7	1543.5	.44	
13	( GRID AT 7.15 INS. )	1550.8	1538.8	1501.1	1495.4	1495.6	1490.2	1484.1	1491.6	1502.9	1505.5	.65	
14	( GRID AT 7.15 INS. )	1519.3	1515.6	1512.0	1515.2	1526.2	1517.2	1513.2	1529.1	1542.0	1546.6	.87	
16	( GRID AT 11.2 INS. )	1504.2	1503.0	1506.2	1508.3	1515.2	1509.0	1505.1	1512.8	1516.8	1518.9	1.31	
17	( GRID AT 15.2 INS. )	1513.5	1512.5	1510.3	1513.4	1516.2	1510.3	1506.2	1510.3	1513.8	1509.9	1.52	
18	( GRID AT 15.2 INS. )	1524.5	1523.7	1520.1	1521.6	1528.9	1526.7	1525.9	1536.6	1547.6	1547.6	1.74	
19	( GRID AT 19.2 INS. )	1538.2	1532.2	1525.4	1527.8	1537.4	1526.5	1521.7	1539.0	1554.2	1560.4	1.96	
24	( GRID AT 19.2 INS. )	1468.5	1472.9	1479.8	1497.6	1515.7	1507.8	1508.0	1529.7	1548.2	1548.7	3.05	
21	( GRID AT 21.45 INS. )	1428.7	1426.1	1432.2	1441.4	1457.6	1448.6	1449.8	1473.9	1490.8	1490.5	2.39	
22	( INSIDE AT 12 00 )	1440.2	1443.5	1449.1	1459.8	1474.8	1473.0	1477.3	1498.2	1517.1	1523.3	2.61	
23	( INSIDE AT 12 30 )	1556.8	1552.6	1547.1	1551.1	1554.1	1544.4	1539.4	1548.4	1556.5	1557.2	2.83	
20	( INSIDE AT 1 00 )	1521.0	1514.9	1523.6	1527.6	1546.4	1530.8	1526.1	1547.8	1564.2	1564.3	2.18	
25	( INSIDE AT 1 30 )	1501.6	1502.3	1505.8	1517.9	1531.7	1518.4	1516.8	1537.6	1555.8	1555.7	3.27	
26	( INSIDE AT 2 00 )	1548.5	1555.0	1559.2	1567.2	1576.0	1569.0	1565.4	1575.3	1583.5	1583.2	3.48	
27	( INSIDE AT 3 00 )	1439.2	1450.3	1461.3	1474.0	1485.6	1484.2	1485.0	1496.7	1507.8	1511.5	3.70	
28	( INSIDE AT 4 00 )	1505.1	1507.3	1513.5	1520.9	1531.0	1526.6	1525.1	1531.0	1543.7	1542.3	3.92	
29	( INSIDE AT 4 30 )	1457.1	1453.8	1454.7	1463.5	1476.5	1476.0	1486.9	1505.5	1523.5	1531.3	4.14	
31	( INSIDE AT 5 30 )	1527.4	1527.0	1528.7	1529.3	1535.4	1525.2	1522.3	1529.6	1536.7	1533.9	4.57	
32	( INSIDE AT 6 00 )	1550.9	1554.6	1565.3	1569.7	1583.3	1576.0	1579.3	1591.1	1609.8	1611.0	4.79	
33	( INSIDE AT 6 30 )	1541.5	1541.1	1545.1	1545.5	1550.4	1539.8	1537.7	1544.3	1559.0	1559.2	5.01	
34	( INSIDE AT 7 00 )	1428.7	1433.2	1453.8	1456.7	1477.4	1466.1	1476.8	1496.3	1514.5	1514.8	5.22	
35	( INSIDE AT 7 30 )	1487.6	1463.3	1451.6	1455.4	1452.5	1448.1	1452.9	1460.8	1467.1	1467.2	5.44	
36	( INSIDE AT 8 00 )	1024.6	1042.1	1091.3	1115.3	1192.0	1226.5	1249.9	1297.7	1353.3	1395.6	5.66	
37	( INSIDE AT 9 00 )	964.6	943.9	907.0	879.4	857.5	853.0	851.3	846.9	846.5	853.5	5.88	
38	( INSIDE AT 10 00 )	1481.6	1490.8	1515.6	1520.7	1536.0	1526.5	1536.9	1559.9	1580.1	1578.9	6.10	
39	( INSIDE AT 10 30 )	1486.2	1493.8	1519.6	1524.5	1540.0	1528.2	1536.3	1558.8	1579.1	1576.5	6.31	
40	( INSIDE AT 11 00 )	1284.4	1304.8	1328.8	1347.2	1367.7	1373.6	1383.6	1403.2	1424.0	1435.6	6.53	
41	( INSIDE AT 11 30 )	1451.9	1460.1	1476.2	1480.2	1489.4	1487.1	1491.7	1503.7	1514.6	1517.3	6.75	
44	( OUTSIDE AT 12 00 )	1476.6	1482.2	1488.6	1488.3	1492.3	1486.5	1488.8	1497.5	1499.8	1495.2	7.40	
45	( OUTSIDE AT 1 00 )	1466.9	1481.4	1494.1	1501.3	1511.1	1510.0	1516.6	1527.9	1536.5	1538.9	7.62	
46	( OUTSIDE AT 2 00 )	1535.2	1554.9	1568.0	1575.4	1579.6	1574.6	1577.0	1580.2	1577.5	1571.5	7.84	
47	( OUTSIDE AT 3 00 )	1426.8	1406.0	1404.5	1403.6	1400.4	1402.9	1406.6	1398.5	1402.9	1401.1	8.05	
48	( OUTSIDE AT 4 00 )	1527.8	1528.9	1535.7	1538.9	1542.3	1537.7	1541.6	1548.0	1553.9	1552.7	8.27	
49	( OUTSIDE AT 5 00 )	1496.6	1498.5	1500.0	1501.6	1501.8	1496.3	1498.5	1503.9	1505.2	1501.7	8.49	
50	( OUTSIDE AT 6 00 )	1497.5	1507.5	1524.4	1539.6	1552.1	1553.6	1569.1	1588.6	1608.4	1617.2	8.71	
51	( OUTSIDE AT 7 00 )	1554.1	1560.4	1572.4	1587.3	1587.4	1583.1	1594.7	1606.7	1616.5	1615.4	8.93	
52	( OUTSIDE AT 8 00 )	1460.2	1461.8	1465.6	1471.6	1464.3	1456.8	1464.4	1473.2	1479.8	1480.6	9.14	
53	( OUTSIDE AT 9 00 )	1526.1	1530.5	1540.8	1551.8	1557.2	1556.8	1568.8	1581.3	1595.6	1602.9	9.36	
54	( OUTSIDE AT 10 00 )	1465.7	1494.3	1516.3	1532.7	1536.9	1533.7	1549.7	1566.2	1580.7	1582.8	9.58	
56	( OUTSIDE AT 11 00 )	1440.2	1453.4	1477.0	1481.8	1482.9	1482.3	1500.8	1514.3	1528.2	1528.5	10.01	
42	( MANWAY AT 1. IN. )	1544.3	1563.3	1587.8	1588.5	1599.6	1592.2	1593.3	1602.2	1608.5	1604.9	6.97	
43	( MANWAY AT 6. INS. )	1255.9	1260.0	1259.0	1260.3	1259.8	1278.8	1286.9	1244.1	1270.1	1285.1	7.18	
55	( FIRE AT 12 00 FORE )	1650.4	1664.1	1684.9	1705.4	1714.1	1713.0	1724.6	1737.6	1749.6	1750.9	9.80	
57	( FIRE AT 3 00 FORE )	1555.4	1558.8	1569.2	1575.6	1573.9	1569.4	1581.4	1591.3	1602.1	1602.2	10.23	
60	( FIRE AT 6 00 FORE )	1419.1	1446.6	1454.3	1461.1	1460.3	1447.8	1450.6	1461.4	1466.7	1468.8	10.89	
61	( FIRE AT 9 00 FORE )	1403.5	1470.9	1426.5	1433.1	1477.5	1429.6	1440.0	1537.7	1564.0	1567.7	11.10	
62	( FIRE AT 12 00 AFT )	1415.4	1430.0	1428.9	1430.8	1427.4	1424.9	1422.4	1436.0	1442.8	1443.5	11.32	
63	( FIRE AT 3 00 AFT )	1407.3	1465.5	1447.2	1454.1	1445.2	1436.2	1440.5	1485.3	1497.6	1505.1	11.54	
64	( FIRE AT 6 00 AFT )	1300.1	1501.2	1431.6	1454.6	1490.2	1434.9	1410.2	1554.3	1594.7	1615.2	11.76	
65	( FIRE AT 9 00 AFT )	1441.3	1436.8	1442.0	1442.9	1438.0	1436.6	1443.1	1450.2	1455.8	1456.1	11.97	

80

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TABLE A XXXV

THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) =										TIME ADJUST	
		4441.08	4454.14	4467.20	4480.27	4493.33	4506.39	4519.45	4532.51	4545.58	4558.64	ACC	ADD
10	( GRID AT 1. IN. )	1515.6	1520.6	1519.4	1517.2	1518.0	1514.6	1513.3	1508.6	1493.1	1490.8		.00
11	( GRID AT 3.15 INS. )	1503.4	1509.4	1508.5	1507.0	1508.0	1505.5	1506.0	1501.8	1487.8	1486.1		.22
12	( GRID AT 3.15 INS. )	1535.2	1543.7	1546.6	1546.7	1549.6	1548.8	1550.5	1546.9	1528.2	1526.2		.44
13	( GRID AT 7.15 INS. )	1503.8	1509.5	1509.9	1510.7	1511.9	1510.0	1511.2	1508.6	1495.2	1493.6		.65
14	( GRID AT 7.15 INS. )	1542.9	1560.7	1568.5	1573.4	1579.5	1579.4	1582.8	1579.9	1558.8	1557.4		.87
16	( GRID AT 11.2 INS. )	1516.0	1524.8	1528.7	1530.3	1534.5	1535.6	1539.9	1537.8	1526.9	1526.2		1.31
17	( GRID AT 15.2 INS. )	1504.1	1507.9	1508.0	1507.1	1507.8	1506.8	1506.8	1504.2	1492.8	1489.7		1.52
18	( GRID AT 15.2 INS. )	1542.8	1547.9	1549.5	1549.1	1549.1	1547.0	1547.4	1547.6	1540.3	1559.3		1.74
19	( GRID AT 19.2 INS. )	1559.7	1579.5	1590.3	1597.9	1609.2	1614.2	1625.1	1626.5	1603.4	1601.7		1.96
24	( GRID AT 19.2 INS. )	1545.6	1562.7	1568.3	1573.7	1578.5	1574.6	1586.7	1574.2	1561.9	1568.6		3.05
21	( GRID AT 21.45 INS. )	1488.5	1506.6	1512.3	1521.4	1533.6	1535.5	1553.1	1546.4	1532.5	1536.3		2.39
22	( INSIDE AT 12 00 )	1524.6	1540.1	1548.2	1555.9	1563.4	1565.0	1574.8	1571.9	1556.5	1555.1		2.61
23	( INSIDE AT 12 30 )	1555.4	1566.1	1572.0	1578.2	1583.7	1586.8	1592.6	1592.0	1578.4	1576.1		2.83
20	( INSIDE AT 1 00 )	1558.7	1578.1	1582.6	1584.6	1591.5	1588.1	1598.1	1587.6	1563.7	1563.5		2.18
25	( INSIDE AT 1 30 )	1553.3	1570.5	1576.2	1581.0	1584.7	1587.9	1591.2	1574.5	1559.9	1560.5		3.27
26	( INSIDE AT 2 00 )	1579.3	1587.7	1591.2	1592.9	1595.1	1591.8	1594.8	1586.4	1572.0	1567.2		3.48
27	( INSIDE AT 3 00 )	1509.6	1515.6	1517.0	1517.8	1518.2	1514.9	1516.1	1511.5	1501.0	1498.5		3.70
28	( INSIDE AT 4 00 )	1538.3	1540.1	1538.8	1535.4	1529.5	1518.8	1513.5	1518.0	1488.0	1484.3		3.92
29	( INSIDE AT 4 30 )	1537.0	1556.1	1568.6	1568.2	1569.0	1560.7	1569.4	1551.6	1541.1	1538.2		4.14
31	( INSIDE AT 5 30 )	1527.4	1532.4	1532.3	1531.1	1529.8	1524.3	1526.3	1516.4	1506.4	1504.5		4.57
32	( INSIDE AT 6 00 )	1608.8	1615.4	1614.7	1612.7	1609.1	1598.7	1601.8	1582.6	1570.2	1568.2		4.79
33	( INSIDE AT 6 30 )	1557.6	1563.2	1563.1	1563.1	1561.5	1554.1	1551.8	1537.7	1525.1	1519.1		5.01
34	( INSIDE AT 7 00 )	1515.8	1537.1	1550.8	1557.1	1565.7	1560.2	1579.5	1554.5	1545.4	1549.0		5.22
35	( INSIDE AT 7 30 )	1466.5	1473.0	1478.7	1479.5	1481.6	1480.1	1482.4	1473.2	1461.4	1455.8		5.44
36	( INSIDE AT 8 00 )	1414.3	1436.8	1447.0	1466.8	1475.8	1478.6	1484.3	1478.2	1464.1	1457.7		5.66
37	( INSIDE AT 9 00 )	864.1	876.9	890.4	905.0	924.3	943.0	959.4	974.2	987.4	1005.8		5.88
38	( INSIDE AT 10 00 )	1583.9	1605.4	1622.3	1629.6	1641.2	1635.2	1655.9	1623.5	1610.7	1619.4		6.10
39	( INSIDE AT 10 30 )	1580.9	1601.7	1617.2	1623.7	1633.8	1626.4	1646.4	1614.0	1601.3	1606.8		6.31
40	( INSIDE AT 11 00 )	1445.0	1465.1	1483.5	1500.0	1515.7	1524.1	1537.9	1538.2	1529.1	1528.6		6.53
41	( INSIDE AT 11 30 )	1524.1	1534.5	1542.7	1549.3	1556.4	1556.4	1565.0	1554.8	1549.1	1550.1		6.75
44	( OUTSIDE AT 12 00 )	1494.2	1490.2	1488.5	1485.7	1485.5	1482.4	1490.2	1481.7	1483.5	1494.3		7.40
45	( OUTSIDE AT 1 00 )	1545.8	1553.6	1560.9	1567.1	1578.3	1587.0	1608.5	1620.7	1648.3	1686.1		7.62
46	( OUTSIDE AT 2 00 )	1572.4	1567.4	1561.8	1556.1	1552.8	1546.1	1547.5	1528.6	1526.7	1532.6		7.84
47	( OUTSIDE AT 3 00 )	1403.9	1416.3	1431.0	1436.8	1448.1	1454.0	1463.0	1449.4	1445.1	1445.7		8.05
48	( OUTSIDE AT 4 00 )	1555.2	1560.8	1564.3	1564.5	1566.6	1564.0	1570.0	1553.0	1547.9	1549.8		8.27
49	( OUTSIDE AT 5 00 )	1502.4	1502.6	1501.6	1499.4	1498.6	1495.7	1500.1	1487.0	1488.6	1496.5		8.49
50	( OUTSIDE AT 6 00 )	1632.3	1651.3	1669.7	1684.7	1702.1	1710.1	1731.9	1710.3	1711.4	1720.6		8.71
51	( OUTSIDE AT 7 00 )	1624.0	1632.7	1640.3	1644.3	1649.4	1649.4	1657.1	1637.0	1631.4	1631.8		8.93
52	( OUTSIDE AT 8 00 )	1491.9	1498.5	1503.0	1508.4	1511.8	1512.5	1518.8	1507.3	1507.0	1508.6		9.14
53	( OUTSIDE AT 9 00 )	1615.1	1632.4	1647.3	1660.5	1672.8	1679.2	1690.5	1683.9	1677.0	1675.4		9.36
54	( OUTSIDE AT 10 00 )	1598.6	1614.7	1627.8	1640.0	1650.5	1656.1	1669.1	1642.7	1643.5	1646.7		9.58
56	( OUTSIDE AT 11 00 )	1547.3	1561.3	1572.8	1584.6	1592.1	1598.3	1608.7	1583.4	1586.4	1590.3		10.01
42	( MANWAY AT 1. IN. )	1607.9	1612.6	1614.4	1613.6	1615.8	1608.7	1616.0	1606.2	1615.6	1637.5		6.97
43	( MANWAY AT 6. INS. )	1293.2	1311.3	1343.3	1360.8	1370.3	1378.3	1388.6	1387.9	1388.6	1398.8		7.18
55	( FIRE AT 12 00 FORE )	1757.2	1767.4	1775.9	1780.4	1785.9	1786.9	1793.8	1780.4	1769.9	1766.8		9.80
57	( FIRE AT 3 00 FORE )	1610.8	1620.4	1628.1	1634.9	1640.1	1642.0	1649.5	1634.4	1629.1	1628.9		10.23
60	( FIRE AT 6 00 FORE )	1479.0	1485.9	1492.8	1514.9	1520.8	1516.2	1527.1	1515.4	1519.3	1519.3		10.89
61	( FIRE AT 9 00 FORE )	1577.3	1579.7	1605.4	1602.1	1594.8	1582.2	1588.9	1569.6	1574.2	1568.5		11.10
62	( FIRE AT 12 00 AFT )	1451.8	1455.1	1471.8	1476.2	1477.1	1471.0	1479.5	1463.2	1470.2	1469.6		11.32
63	( FIRE AT 3 00 AFT )	1512.5	1524.3	1536.1	1546.5	1546.6	1541.1	1555.2	1544.9	1558.0	1560.4		11.54
64	( FIRE AT 6 00 AFT )	1634.3	1645.1	1716.3	1725.1	1712.9	1700.7	1722.1	1704.6	1719.4	1708.6		11.76
65	( FIRE AT 9 00 AFT )	1462.8	1467.7	1473.4	1477.7	1481.8	1483.3	1487.4	1476.3	1476.7	1480.5		11.97

TABLE A XXXVI

CHANNEL NUMBER	LOCATION	THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7										TIME ADJUST ACC	
		TIME (SEC) = 4571.70	4584.76	4597.82	4610.89	4623.95	4637.01	4650.07	4663.13	4676.20	4689.26		
10	( GRID AT 1. IN. )	1491.3	1490.5	1489.0	1482.0	1479.6	1478.1	1479.9	1484.9	1489.3	1493.9	.00	
11	( GRID AT 3.15 INS. )	1487.7	1489.2	1489.8	1485.5	1485.4	1485.5	1488.6	1494.3	1500.4	1507.1	.22	
12	( GRID AT 3.15 INS. )	1528.4	1529.5	1529.5	1522.7	1519.8	1518.4	1521.4	1528.0	1536.5	1545.3	.44	
13	( GRID AT 7.15 INS. )	1497.0	1499.6	1500.5	1495.3	1494.3	1493.6	1497.3	1504.0	1512.0	1521.9	.65	
14	( GRID AT 7.15 INS. )	1562.3	1566.7	1570.9	1568.1	1570.4	1575.1	1585.1	1600.4	1620.7	1645.7	.87	
16	( GRID AT 11.2 INS. )	1532.0	1536.6	1540.4	1539.2	1540.8	1542.7	1549.4	1559.4	1572.9	1589.2	1.31	
17	( GRID AT 15.2 INS. )	1491.4	1492.3	1493.0	1489.8	1489.1	1489.6	1493.5	1459.4	1506.2	1513.0	1.52	
18	( GRID AT 15.2 INS. )	1581.1	1589.2	1597.3	1597.2	1603.2	1609.3	1620.1	1632.7	1645.7	1657.8	1.74	
19	( GRID AT 19.2 INS. )	1611.1	1617.8	1624.0	1618.7	1617.8	1619.4	1627.3	1640.8	1655.8	1672.5	1.96	
24	( GRID AT 19.2 INS. )	1584.7	1600.9	1613.5	1616.3	1630.5	1642.3	1659.1	1677.1	1696.7	1716.5	3.05	
21	( GRID AT 21.45 INS. )	1547.9	1554.4	1558.2	1549.0	1553.0	1556.9	1571.0	1590.1	1610.8	1636.4	2.39	
22	( INSIDE AT 12 00 )	1562.3	1569.3	1576.6	1576.7	1580.1	1583.9	1592.0	1604.0	1618.1	1635.1	2.61	
23	( INSIDE AT 12 30 )	1581.3	1586.4	1591.3	1590.6	1592.8	1596.2	1603.6	1615.8	1627.9	1642.6	2.83	
20	( INSIDE AT 1 00 )	1579.8	1593.6	1608.0	1599.9	1599.6	1599.0	1607.5	1622.8	1639.1	1657.6	2.18	
25	( INSIDE AT 1 30 )	1570.7	1583.3	1591.1	1590.0	1599.0	1607.8	1626.0	1647.7	1673.2	1698.8	3.27	
26	( INSIDE AT 2 00 )	1572.6	1572.7	1570.9	1563.8	1561.0	1559.1	1561.7	1588.3	1576.3	1585.2	3.48	
27	( INSIDE AT 3 00 )	1501.7	1506.0	1511.0	1512.8	1517.5	1524.5	1536.0	1549.6	1562.5	1575.1	3.70	
28	( INSIDE AT 4 00 )	1489.7	1494.8	1498.7	1499.0	1504.3	1511.7	1522.4	1533.6	1549.8	1581.4	3.92	
29	( INSIDE AT 4 30 )	1545.9	1547.1	1543.7	1537.1	1536.6	1537.7	1543.5	1555.7	1569.4	1587.5	4.14	
31	( INSIDE AT 5 30 )	1510.2	1515.9	1521.0	1521.6	1526.6	1534.1	1544.2	1556.4	1570.7	1590.3	4.57	
32	( INSIDE AT 6 00 )	1569.7	1571.7	1573.0	1569.1	1572.2	1582.1	1601.5	1634.2	1676.5	1719.2	4.79	
33	( INSIDE AT 6 30 )	1517.6	1517.7	1517.5	1516.4	1519.1	1523.2	1533.3	1555.2	1589.0	1633.1	5.01	
34	( INSIDE AT 7 00 )	1557.5	1565.3	1567.5	1560.9	1564.5	1572.4	1581.8	1597.1	1614.6	1635.6	5.22	
35	( INSIDE AT 7 30 )	1454.5	1452.2	1450.0	1444.0	1440.9	1438.2	1437.8	1441.1	1447.9	1458.8	5.44	
36	( INSIDE AT 8 00 )	1458.1	1459.8	1462.2	1459.1	1459.3	1461.0	1465.0	1472.5	1482.6	1494.2	5.66	
37	( INSIDE AT 9 00 )	1022.3	1038.9	1056.4	1074.1	1096.2	1110.1	1127.0	1144.9	1168.0	1194.0	5.88	
38	( INSIDE AT 10 00 )	1619.8	1634.6	1633.7	1623.2	1624.7	1636.0	1644.8	1661.0	1679.2	1697.4	6.10	
39	( INSIDE AT 10 30 )	1608.5	1620.5	1620.2	1609.3	1610.6	1619.4	1628.0	1643.7	1660.8	1678.5	6.31	
40	( INSIDE AT 11 00 )	1533.0	1539.9	1545.0	1544.0	1545.6	1549.8	1557.1	1568.7	1583.2	1600.1	6.53	
41	( INSIDE AT 11 30 )	1550.5	1554.9	1556.3	1553.1	1552.9	1555.9	1559.1	1565.4	1572.9	1580.4	6.75	
44	( OUTSIDE AT 12 00 )	1507.3	1521.8	1532.7	1537.7	1543.7	1550.0	1554.1	1560.5	1566.8	1571.3	7.40	
45	( OUTSIDE AT 1 00 )	1712.2	1730.0	1740.7	1741.8	1748.2	1757.9	1767.1	1781.1	1795.3	1809.3	7.62	
46	( OUTSIDE AT 2 00 )	1540.8	1552.6	1564.7	1575.0	1589.6	1611.4	1628.2	1638.9	1645.0	1647.5	7.84	
47	( OUTSIDE AT 3 00 )	1447.6	1452.7	1454.6	1453.0	1458.3	1471.6	1487.6	1521.6	1581.1	1631.2	8.05	
48	( OUTSIDE AT 4 00 )	1552.0	1558.0	1561.5	1563.4	1576.0	1599.4	1629.5	1664.6	1699.5	1729.2	8.27	
49	( OUTSIDE AT 5 00 )	1506.7	1521.5	1533.2	1541.0	1552.4	1564.2	1573.6	1580.2	1586.0	1588.8	8.49	
50	( OUTSIDE AT 6 00 )	1727.0	1737.5	1738.9	1734.5	1738.7	1747.3	1758.2	1773.4	1791.1	1805.1	8.71	
51	( OUTSIDE AT 7 00 )	1633.7	1636.6	1634.2	1629.4	1629.7	1634.0	1640.1	1648.9	1660.4	1666.1	8.93	
52	( OUTSIDE AT 8 00 )	1512.5	1518.8	1522.3	1523.8	1528.6	1536.4	1545.7	1557.0	1568.3	1577.2	9.14	
53	( OUTSIDE AT 9 00 )	1676.3	1679.2	1679.8	1676.2	1675.7	1677.9	1682.2	1689.6	1699.3	1708.8	9.36	
54	( OUTSIDE AT 10 00 )	1652.1	1659.1	1656.3	1651.1	1652.0	1656.2	1662.6	1671.5	1682.5	1686.6	9.58	
56	( OUTSIDE AT 11 00 )	1595.1	1601.6	1599.2	1596.7	1595.6	1597.9	1603.0	1608.6	1618.0	1621.2	10.01	
42	( MANWAY AT 1. IN. )	1653.8	1660.7	1660.5	1654.0	1653.1	1657.3	1661.0	1669.7	1678.2	1685.7	6.97	
43	( MANWAY AT 6. INS. )	1417.7	1442.3	1469.8	1496.4	1518.3	1534.1	1543.6	1552.6	1566.0	1579.0	7.18	
55	( FIRE AT 12 00 FORE )	1767.8	1771.0	1770.6	1765.5	1764.0	1766.2	1771.3	1779.8	1790.7	1802.6	9.80	
57	( FIRE AT 3 00 FORE )	1631.3	1635.0	1633.9	1630.4	1631.2	1634.7	1641.1	1649.0	1659.8	1666.3	10.23	
60	( FIRE AT 6 00 FORE )	1523.4	1530.5	1527.8	1520.0	1515.0	1511.2	1524.7	1566.2	1608.8	1632.3	10.89	
61	( FIRE AT 9 00 FORE )	1572.0	1578.0	1578.3	1576.4	1575.4	1576.4	1584.3	1598.3	1627.8	1656.2	11.10	
62	( FIRE AT 12 00 AFT )	1471.3	1475.9	1481.2	1492.2	1510.8	1537.1	1558.4	1575.5	1595.7	1611.5	11.32	
63	( FIRE AT 3 00 AFT )	1567.2	1580.2	1589.6	1597.5	1604.7	1627.8	1661.2	1704.4	1750.5	1782.5	11.54	
64	( FIRE AT 6 00 AFT )	1712.9	1726.5	1731.7	1736.4	1750.0	1793.1	1838.6	1873.0	1895.8	1904.6	11.76	
65	( FIRE AT 9 00 AFT )	1484.5	1489.1	1489.1	1491.6	1493.2	1493.0	1514.6	1559.1	1622.2	1671.0	11.97	

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TABLE A XXXVII

CHANNEL NUMBER	LOCATION	THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7										TIME	
		TIME (SEC) = 4702.32	4715.38	4728.44	4741.51	4754.57	4767.63	4780.69	4793.75	4806.82	4819.88	ADJUST	ACC
10	( GRID AT 1. IN. )	1494.3	1495.6	1496.5	1498.3	1500.3	1502.3	1504.0	1505.5	1507.1	1517.9		.00
11	( GRID AT 3.15 INS. )	1507.9	1512.2	1516.3	1523.1	1531.4	1542.1	1551.6	1560.3	1570.3	1587.1		.22
12	( GRID AT 3.15 INS. )	1549.5	1556.4	1563.5	1571.7	1579.8	1590.2	1601.1	1612.3	1621.5	1642.6		.44
13	( GRID AT 7.15 INS. )	1528.4	1539.5	1553.7	1570.3	1588.6	1608.3	1626.4	1640.4	1652.4	1655.5		.65
14	( GRID AT 7.15 INS. )	1665.9	1688.2	1707.0	1723.6	1737.1	1749.3	1758.5	1763.5	1765.4	1764.1		.87
16	( GRID AT 11.2 INS. )	1604.2	1621.8	1640.8	1661.0	1673.8	1679.6	1683.5	1688.1	1686.4	1685.5		1.31
17	( GRID AT 15.2 INS. )	1517.1	1521.7	1528.7	1536.6	1543.8	1551.6	1560.5	1571.3	1586.0	1609.0		1.52
18	( GRID AT 15.2 INS. )	1662.7	1666.1	1667.7	1673.0	1677.1	1683.8	1691.2	1696.7	1697.6	1695.8		1.74
19	( GRID AT 19.2 INS. )	1678.5	1683.5	1685.0	1690.3	1695.8	1705.2	1714.4	1720.5	1721.6	1718.8		1.96
24	( GRID AT 15.2 INS. )	1721.6	1725.3	1727.4	1733.8	1742.0	1751.0	1760.0	1766.1	1765.1	1761.6		3.05
21	( GRID AT 21.45 INS. )	1646.5	1657.8	1670.3	1688.8	1709.2	1727.1	1740.1	1746.3	1745.3	1741.7		2.39
22	( INSIDE AT 12 00 )	1644.3	1653.6	1662.4	1675.6	1692.1	1712.6	1725.7	1731.2	1732.1	1729.7		2.61
23	( INSIDE AT 12 30 )	1651.5	1658.8	1664.9	1673.6	1683.1	1690.2	1697.2	1700.9	1702.1	1701.2		2.83
20	( INSIDE AT 1 00 )	1661.5	1664.3	1665.1	1671.9	1678.2	1688.1	1698.5	1704.1	1703.1	1698.6		2.18
25	( INSIDE AT 1 30 )	1709.2	1716.0	1719.8	1726.8	1735.7	1744.4	1753.4	1759.7	1757.7	1755.7		3.27
26	( INSIDE AT 2 00 )	1589.3	1594.9	1600.6	1611.8	1631.7	1675.8	1714.8	1725.0	1725.8	1725.4		3.48
27	( INSIDE AT 3 00 )	1584.1	1592.6	1603.0	1617.8	1638.4	1674.4	1718.6	1735.3	1738.7	1738.5		3.70
28	( INSIDE AT 4 00 )	1629.0	1676.0	1698.1	1705.8	1709.9	1714.4	1717.9	1721.3	1722.1	1722.0		3.92
29	( INSIDE AT 4 30 )	1601.3	1618.8	1648.6	1687.6	1713.9	1723.9	1727.0	1732.7	1730.4	1732.9		4.14
31	( INSIDE AT 5 30 )	1608.1	1630.5	1663.0	1697.8	1726.3	1741.7	1747.9	1751.1	1751.6	1751.7		4.57
32	( INSIDE AT 6 00 )	1727.9	1728.8	1731.5	1736.3	1744.0	1749.9	1753.7	1757.0	1757.1	1758.0		4.79
33	( INSIDE AT 6 30 )	1677.7	1708.6	1720.2	1724.7	1729.2	1733.2	1736.2	1738.6	1739.1	1739.3		5.01
34	( INSIDE AT 7 00 )	1644.1	1646.6	1653.2	1661.8	1676.2	1687.4	1696.4	1703.6	1704.5	1707.4		5.22
35	( INSIDE AT 7 30 )	1465.8	1471.6	1477.3	1483.8	1488.6	1495.5	1502.9	1509.3	1513.4	1515.7		5.44
36	( INSIDE AT 8 00 )	1500.5	1504.3	1507.1	1509.7	1513.9	1520.3	1526.0	1533.7	1532.6	1531.2		5.66
37	( INSIDE AT 9 00 )	1222.1	1254.6	1291.4	1328.3	1362.7	1395.5	1423.9	1445.7	1469.8	1488.5		5.88
38	( INSIDE AT 10 00 )	1704.0	1704.5	1708.6	1715.5	1726.2	1735.8	1742.6	1747.9	1745.9	1745.6		6.10
39	( INSIDE AT 10 30 )	1683.9	1684.6	1687.7	1694.5	1704.0	1713.0	1719.6	1724.7	1723.4	1722.3		6.31
40	( INSIDE AT 11 00 )	1610.4	1617.7	1623.6	1631.3	1640.4	1651.5	1661.7	1670.2	1673.4	1674.9		6.53
41	( INSIDE AT 11 30 )	1585.4	1588.0	1590.8	1594.1	1598.6	1603.7	1607.6	1610.6	1611.7	1612.3		6.75
44	( OUTSIDE AT 12 00 )	1574.1	1574.7	1575.3	1576.5	1579.7	1580.9	1579.4	1580.5	1578.7	1577.6		7.40
45	( OUTSIDE AT 1 00 )	1816.2	1818.9	1820.9	1825.0	1831.4	1839.0	1844.7	1849.0	1849.1	1849.4		7.62
46	( OUTSIDE AT 2 00 )	1649.3	1649.0	1648.1	1649.1	1653.3	1654.0	1653.4	1651.9	1648.7	1650.0		7.84
47	( OUTSIDE AT 3 00 )	1643.3	1649.8	1655.0	1662.0	1673.5	1684.5	1691.6	1698.0	1696.6	1699.8		8.05
48	( OUTSIDE AT 4 00 )	1742.8	1749.9	1756.4	1764.7	1775.8	1787.5	1798.6	1808.3	1813.6	1819.6		8.27
49	( OUTSIDE AT 5 00 )	1591.7	1592.4	1592.4	1593.5	1595.8	1595.4	1593.8	1590.7	1587.1	1588.6		8.49
50	( OUTSIDE AT 6 00 )	1814.4	1817.9	1820.6	1825.8	1834.3	1842.5	1848.7	1852.9	1851.4	1853.6		8.71
51	( OUTSIDE AT 7 00 )	1672.1	1673.6	1675.7	1679.3	1686.6	1691.8	1695.6	1696.7	1696.4	1698.6		8.93
52	( OUTSIDE AT 8 00 )	1581.6	1582.2	1581.8	1582.2	1584.0	1586.2	1587.9	1589.2	1586.6	1585.5		9.14
53	( OUTSIDE AT 9 00 )	1715.7	1719.5	1722.2	1725.5	1730.1	1735.6	1740.5	1744.3	1745.6	1746.1		9.36
54	( OUTSIDE AT 10 00 )	1690.3	1689.4	1689.0	1690.8	1696.9	1703.0	1707.8	1710.4	1710.2	1710.8		9.58
56	( OUTSIDE AT 11 00 )	1625.1	1625.3	1625.7	1627.2	1631.9	1635.7	1638.6	1640.2	1639.0	1638.6		10.01
42	( MANWAY AT 1. IN. )	1690.0	1690.4	1692.0	1694.5	1700.9	1706.7	1708.6	1709.8	1709.2	1710.2		6.97
43	( MANWAY AT 6. INS. )	1590.0	1598.7	1605.7	1612.9	1622.1	1631.4	1639.6	1657.0	1654.7	1660.4		7.18
55	( FIRE AT 12 00 FORE )	1808.8	1811.8	1813.6	1816.9	1822.4	1828.8	1834.6	1839.0	1840.0	1840.0		9.80
57	( FIRE AT 3 00 FORE )	1672.2	1675.0	1677.7	1681.0	1687.4	1692.9	1697.1	1699.6	1699.9	1702.1		10.23
60	( FIRE AT 6 00 FORE )	1644.2	1649.6	1655.2	1661.0	1668.6	1674.9	1679.9	1681.1	1685.9	1688.6		10.89
61	( FIRE AT 9 00 FORE )	1671.3	1670.2	1670.0	1672.5	1678.1	1682.9	1685.3	1682.0	1684.6	1688.1		11.10
62	( FIRE AT 12 00 AFT )	1621.4	1627.7	1631.8	1641.6	1648.2	1652.2	1654.8	1648.6	1652.9	1653.4		11.32
63	( FIRE AT 3 00 AFT )	1793.7	1796.5	1800.5	1804.4	1810.1	1813.4	1818.1	1759.4	1817.2	1813.5		11.54
64	( FIRE AT 6 00 AFT )	1908.6	1907.4	1901.0	1904.7	1906.0	1904.8	1901.2	1891.4	1882.2	1874.2		11.76
65	( FIRE AT 9 00 AFT )	1690.0	1693.8	1697.7	1701.1	1707.0	1712.9	1718.2	1720.8	1721.1	1723.6		11.97

213809

TABLE A XXXVIII

THERMOCOUPLE TEMPERATURES (CEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) = 4832.94	4846.00	4859.06	4872.13	4885.19	4898.25	4911.31	4924.37	4937.44	4950.50	TIME ADJUST ACC
10	( GRID AT 1. IN. )	1533.2	1552.4	1587.2	1644.3	1666.3	1667.6	1661.6	1659.0	1655.9	1652.7	.00
11	( GRID AT 3.15 INS. )	1618.7	1654.1	1670.4	1669.6	1667.2	1667.4	1669.7	1668.6	1669.3	1668.9	.22
12	( GRID AT 3.15 INS. )	1675.6	1710.0	1733.1	1735.2	1734.2	1734.7	1738.0	1739.2	1740.7	1743.4	.44
13	( GRID AT 7.15 INS. )	1670.9	1691.1	1701.7	1703.1	1702.2	1703.1	1704.9	1706.4	1708.1	1709.0	.65
14	( GRID AT 7.15 INS. )	1767.8	1773.1	1778.7	1780.0	1779.0	1778.5	1781.1	1784.2	1786.2	1789.5	.87
16	( GRID AT 11.2 INS. )	1688.2	1690.8	1693.0	1692.4	1691.3	1691.7	1693.8	1693.5	1694.6	1695.0	1.31
17	( GRID AT 15.2 INS. )	1636.0	1652.1	1655.8	1654.9	1653.7	1654.5	1656.1	1654.9	1655.7	1655.0	1.52
18	( GRID AT 15.2 INS. )	1700.1	1707.0	1713.2	1714.1	1712.6	1712.2	1716.2	1719.6	1723.0	1726.3	1.74
19	( GRID AT 19.2 INS. )	1723.4	1731.6	1738.9	1739.2	1736.1	1734.9	1739.7	1743.2	1747.2	1751.8	1.96
24	( GRID AT 19.2 INS. )	1766.8	1774.2	1779.9	1779.1	1774.5	1773.1	1777.4	1780.0	1783.2	1786.7	3.05
21	( GRID AT 21.45 INS. )	1751.0	1764.2	1771.8	1769.8	1762.2	1765.0	1776.1	1778.2	1785.8	1793.3	2.39
22	( INSIDE AT 12 00 )	1732.9	1738.8	1743.3	1743.7	1741.4	1740.2	1743.1	1744.7	1747.3	1750.2	2.61
23	( INSIDE AT 12 30 )	1703.1	1706.6	1709.3	1710.1	1709.4	1709.0	1710.3	1711.1	1712.6	1714.0	2.83
20	( INSIDE AT 1 00 )	1705.8	1717.4	1726.0	1724.6	1718.4	1718.6	1726.8	1730.5	1736.3	1743.0	2.18
25	( INSIDE AT 1 30 )	1762.0	1770.3	1776.4	1775.4	1770.4	1770.4	1776.1	1778.2	1782.6	1786.7	3.27
26	( INSIDE AT 2 00 )	1728.2	1732.5	1735.2	1736.3	1736.0	1736.4	1737.7	1739.9	1741.6	1742.1	3.48
27	( INSIDE AT 3 00 )	1741.1	1743.1	1745.7	1746.5	1745.9	1746.3	1748.3	1747.9	1749.4	1750.1	3.70
28	( INSIDE AT 4 00 )	1724.0	1724.7	1726.7	1727.6	1727.4	1727.2	1729.4	1727.9	1728.8	1728.8	3.92
29	( INSIDE AT 4 30 )	1739.4	1743.3	1745.6	1745.2	1741.3	1742.7	1747.5	1747.0	1748.3	1748.7	4.14
31	( INSIDE AT 5 30 )	1754.5	1757.9	1760.5	1761.1	1760.1	1760.3	1762.0	1762.6	1763.8	1764.5	4.57
32	( INSIDE AT 6 00 )	1764.0	1768.7	1772.0	1771.6	1769.7	1770.2	1775.5	1775.2	1778.0	1779.0	4.79
33	( INSIDE AT 6 30 )	1741.5	1743.6	1744.8	1745.3	1744.7	1744.8	1746.4	1745.9	1746.7	1746.7	5.01
34	( INSIDE AT 7 00 )	1715.8	1723.8	1729.4	1728.4	1725.7	1726.5	1731.2	1734.0	1738.8	1743.4	5.22
35	( INSIDE AT 7 30 )	1519.5	1521.9	1525.4	1528.4	1529.9	1534.2	1537.4	1532.7	1534.2	1536.7	5.44
36	( INSIDE AT 8 00 )	1536.6	1547.4	1557.4	1560.7	1560.7	1560.6	1565.8	1589.0	1603.9	1616.5	5.66
37	( INSIDE AT 9 00 )	1505.2	1517.3	1533.6	1547.5	1559.9	1572.2	1585.0	1596.2	1607.6	1619.4	5.88
38	( INSIDE AT 10 00 )	1753.2	1759.5	1763.8	1761.2	1755.6	1755.7	1762.6	1764.2	1769.8	1774.3	6.10
39	( INSIDE AT 10 30 )	1729.4	1735.7	1739.0	1735.8	1730.6	1730.1	1736.1	1737.8	1743.0	1747.3	6.31
40	( INSIDE AT 11 00 )	1682.0	1691.5	1699.7	1701.9	1700.1	1701.3	1707.8	1712.5	1718.8	1725.3	6.53
41	( INSIDE AT 11 30 )	1615.0	1618.4	1621.3	1622.6	1622.1	1622.1	1624.7	1626.4	1628.8	1631.2	6.75
44	( OUTSIDE AT 12 00 )	1576.9	1574.3	1570.3	1567.7	1565.1	1564.3	1564.7	1583.6	1563.5	1562.6	7.40
45	( OUTSIDE AT 1 00 )	1853.5	1858.3	1862.0	1862.8	1860.6	1860.6	1863.4	1864.8	1867.7	1871.0	7.62
46	( OUTSIDE AT 2 00 )	1650.1	1647.4	1646.1	1646.4	1645.0	1645.0	1643.4	1642.4	1638.9	1634.7	7.84
47	( OUTSIDE AT 3 00 )	1708.6	1709.9	1708.4	1703.9	1698.0	1702.1	1700.9	1689.4	1685.1	1681.9	8.05
48	( OUTSIDE AT 4 00 )	1828.1	1837.5	1845.1	1850.2	1851.0	1851.4	1855.1	1857.6	1860.3	1862.4	8.27
49	( OUTSIDE AT 5 00 )	1589.6	1589.4	1588.1	1587.7	1588.0	1588.8	1589.5	1589.6	1589.3	1588.3	8.49
50	( OUTSIDE AT 6 00 )	1858.5	1863.9	1866.5	1866.4	1864.0	1864.8	1868.2	1869.4	1873.2	1876.4	8.71
51	( OUTSIDE AT 7 00 )	1703.6	1707.0	1707.3	1707.0	1705.5	1708.1	1710.3	1712.1	1713.9	1715.0	8.93
52	( OUTSIDE AT 8 00 )	1587.1	1589.1	1589.4	1588.6	1586.9	1585.1	1585.8	1587.5	1588.1	1589.1	9.14
53	( OUTSIDE AT 9 00 )	1748.0	1751.2	1754.2	1755.4	1754.9	1754.6	1755.8	1756.5	1757.6	1759.6	9.36
54	( OUTSIDE AT 10 00 )	1714.3	1718.3	1719.5	1719.5	1718.0	1719.6	1722.5	1723.9	1726.2	1728.7	9.58
56	( OUTSIDE AT 11 00 )	1639.2	1639.6	1638.0	1635.1	1631.5	1630.9	1630.3	1626.5	1625.7	1624.3	10.01
42	( MANWAY AT 1. IN. )	1714.9	1718.4	1717.7	1717.0	1715.8	1716.9	1720.2	1719.9	1721.7	1723.7	6.97
43	( MANWAY AT 6. INS. )	1669.0	1688.7	1697.4	1703.5	1706.4	1704.6	1712.2	1722.2	1728.5	1735.0	7.18
55	( FIRE AT 12 00 FORE )	1842.8	1846.9	1851.3	1853.1	1852.4	1852.3	1854.1	1856.0	1858.3	1860.8	9.80
57	( FIRE AT 3 00 FORE )	1705.0	1709.5	1710.5	1711.1	1711.1	1712.4	1714.8	1716.0	1718.0	1719.8	10.23
60	( FIRE AT 6 00 FORE )	1695.9	1703.4	1709.6	1711.0	1709.4	1709.4	1713.9	1724.1	1729.8	1733.8	10.89
61	( FIRE AT 9 00 FORE )	1711.8	1725.2	1726.7	1724.3	1716.1	1700.3	1702.3	1713.7	1725.1	1725.1	11.10
62	( FIRE AT 12 00 AFT )	1658.6	1663.7	1666.0	1664.5	1659.3	1654.5	1658.0	1669.9	1671.7	1671.7	11.32
63	( FIRE AT 3 00 AFT )	1839.7	1865.3	1870.4	1875.9	1863.9	1824.3	1830.5	1881.9	1883.0	1878.9	11.54
64	( FIRE AT 6 00 AFT )	1930.8	1987.1	1986.1	1977.6	1939.9	1860.4	1861.2	1941.8	1939.6	1933.5	11.76
65	( FIRE AT 9 00 AFT )	1727.0	1730.9	1733.2	1733.6	1733.8	1736.5	1737.6	1738.7	1741.1	1743.7	11.97

84

802255

TABLE A XXXIX

THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) =										TIME	
		4963.56	4976.62	4989.68	5002.75	5015.81	5028.87	5041.93	5054.99	5068.06	5081.12	ADJUST	ACC
10	( GRID AT 1. IN. )	1645.5	1642.3	1638.1	1641.6	1640.1	1634.9	1629.3	1631.2	1628.5	1624.9		.00
11	( GRID AT 3.15 INS. )	1668.4	1667.8	1667.4	1665.7	1666.0	1665.1	1662.6	1662.6	1662.3	1659.4		.22
12	( GRID AT 3.15 INS. )	1747.2	1750.7	1756.7	1760.6	1763.4	1766.2	1768.1	1774.2	1785.3	1774.3		.44
13	( GRID AT 7.15 INS. )	1707.9	1707.2	1703.1	1699.4	1697.2	1697.0	1694.5	1688.6	1677.3	1689.3		.65
14	( GRID AT 7.15 INS. )	1792.6	1795.2	1797.7	1798.7	1799.0	1801.3	1803.3	1803.1	1803.8	1806.6		.87
16	( GRID AT 11.2 INS. )	1695.1	1695.4	1695.4	1695.0	1695.0	1695.6	1694.2	1694.2	1694.1	1694.3		1.31
17	( GRID AT 15.2 INS. )	1654.4	1653.8	1653.3	1652.8	1652.7	1652.5	1650.1	1650.6	1649.9	1648.7		1.52
18	( GRID AT 15.2 INS. )	1729.9	1733.4	1736.2	1737.0	1737.1	1740.9	1743.9	1743.9	1744.6	1749.0		1.74
19	( GRID AT 19.2 INS. )	1757.1	1760.9	1765.4	1766.3	1765.4	1769.4	1773.4	1774.0	1775.8	1779.5		1.96
24	( GRID AT 19.2 INS. )	1790.8	1793.5	1796.7	1797.3	1795.8	1799.2	1802.2	1801.6	1802.6	1806.5		3.05
21	( GRID AT 21.45 INS. )	1801.5	1804.9	1812.4	1813.6	1811.1	1820.8	1825.3	1825.4	1828.9	1838.1		2.39
22	( INSIDE AT 12 00 )	1753.4	1755.6	1758.2	1758.9	1758.6	1761.0	1762.8	1762.2	1763.1	1767.8		2.61
23	( INSIDE AT 12 30 )	1715.4	1716.5	1717.7	1718.4	1718.7	1719.6	1719.7	1719.7	1719.9	1721.5		2.83
20	( INSIDE AT 1 00 )	1750.8	1755.7	1762.3	1763.2	1761.3	1769.6	1775.1	1775.0	1778.1	1786.5		2.18
25	( INSIDE AT 1 30 )	1791.1	1793.7	1797.6	1798.1	1796.5	1801.0	1803.6	1803.3	1805.0	1809.6		3.27
26	( INSIDE AT 2 00 )	1742.4	1742.8	1742.4	1742.8	1739.9	1739.2	1738.2	1738.3	1736.4	1734.4		3.48
27	( INSIDE AT 3 00 )	1750.5	1750.8	1751.2	1751.4	1751.5	1751.2	1749.8	1749.8	1748.6	1748.2		3.70
28	( INSIDE AT 4 00 )	1728.0	1727.7	1726.9	1726.9	1728.0	1726.6	1724.6	1724.0	1722.6	1721.2		3.92
29	( INSIDE AT 4 30 )	1747.6	1749.5	1748.3	1747.4	1749.7	1746.8	1746.9	1745.0	1742.3	1739.5		4.14
31	( INSIDE AT 5 30 )	1764.8	1765.1	1765.0	1764.8	1765.0	1763.7	1762.7	1762.0	1760.7	1759.8		4.57
32	( INSIDE AT 6 00 )	1779.3	1778.2	1777.8	1776.8	1775.7	1775.4	1772.5	1771.5	1770.5	1768.2		4.79
33	( INSIDE AT 6 30 )	1746.6	1746.0	1745.3	1745.0	1746.5	1745.1	1742.8	1741.9	1741.4	1740.0		5.01
34	( INSIDE AT 7 00 )	1748.1	1751.7	1756.8	1759.6	1759.7	1764.1	1767.2	1769.1	1770.5	1775.1		5.22
35	( INSIDE AT 7 30 )	1542.5	1551.5	1560.2	1566.5	1577.3	1584.6	1590.5	1595.2	1598.9	1607.6		5.44
36	( INSIDE AT 8 00 )	1629.7	1638.8	1648.0	1653.5	1649.6	1658.7	1665.2	1676.5	1680.0	1683.5		5.66
37	( INSIDE AT 9 00 )	1630.0	1643.7	1656.5	1666.7	1677.1	1688.4	1699.3	1709.1	1718.3	1729.9		5.88
38	( INSIDE AT 10 00 )	1779.3	1782.3	1786.7	1788.3	1788.7	1793.9	1795.5	1796.2	1798.8	1803.3		6.10
39	( INSIDE AT 10 30 )	1752.6	1755.6	1760.4	1762.3	1762.4	1767.4	1769.6	1770.6	1772.5	1777.0		6.31
40	( INSIDE AT 11 00 )	1732.2	1737.9	1744.1	1747.6	1748.3	1754.6	1758.6	1760.3	1763.9	1768.4		6.53
41	( INSIDE AT 11 30 )	1633.3	1635.6	1637.5	1638.4	1639.9	1641.6	1642.7	1643.6	1645.2	1647.7		6.75
44	( OUTSIDE AT 12 00 )	1560.8	1559.3	1557.1	1553.9	1554.7	1552.6	1550.1	1549.3	1548.9	1547.7		7.40
45	( OUTSIDE AT 1 00 )	1873.7	1875.8	1878.6	1879.7	1879.9	1881.9	1882.5	1882.6	1883.1	1884.9		7.62
46	( OUTSIDE AT 2 00 )	1631.5	1628.4	1625.5	1625.0	1619.9	1613.4	1612.2	1608.8	1601.4	1594.6		7.84
47	( OUTSIDE AT 3 00 )	1673.3	1664.2	1654.0	1654.3	1649.2	1644.5	1636.0	1629.8	1626.2	1625.0		8.05
48	( OUTSIDE AT 4 00 )	1865.4	1867.3	1869.8	1871.5	1869.8	1871.7	1872.1	1873.1	1872.5	1873.7		8.27
49	( OUTSIDE AT 5 00 )	1586.9	1585.7	1585.0	1584.3	1582.6	1580.1	1579.2	1578.1	1574.7	1571.3		8.49
50	( OUTSIDE AT 6 00 )	1879.3	1881.5	1884.3	1885.7	1890.1	1892.1	1892.1	1891.8	1892.1	1896.8		8.71
51	( OUTSIDE AT 7 00 )	1715.5	1716.8	1717.2	1716.5	1722.9	1722.2	1722.0	1722.0	1721.4	1723.6		8.93
52	( OUTSIDE AT 8 00 )	1590.0	1590.7	1591.6	1590.3	1596.8	1598.4	1599.8	1601.5	1601.9	1605.9		9.14
53	( OUTSIDE AT 9 00 )	1761.4	1762.9	1764.5	1766.5	1769.8	1770.1	1770.6	1770.6	1769.7	1772.0		9.36
54	( OUTSIDE AT 10 00 )	1730.1	1731.7	1732.6	1731.5	1736.0	1735.5	1733.8	1732.1	1731.4	1733.4		9.58
56	( OUTSIDE AT 11 00 )	1622.9	1622.2	1621.3	1623.0	1624.9	1622.5	1620.2	1617.5	1616.6	1618.4		10.01
42	( MANWAY AT 1. IN. )	1723.0	1723.2	1722.7	1719.6	1723.1	1723.3	1720.2	1718.9	1720.0	1718.9		6.97
43	( MANWAY AT 6. INS. )	1741.3	1746.5	1752.7	1746.0	1748.3	1751.4	1753.5	1754.3	1756.4	1759.5		7.18
55	( FIRE AT 12 00 FORE )	1863.4	1865.6	1867.9	1869.0	1867.2	1868.3	1869.7	1870.1	1869.9	1869.1		9.80
57	( FIRE AT 3 00 FORE )	1721.3	1722.5	1723.7	1724.7	1729.3	1729.4	1729.7	1729.6	1728.9	1731.1		10.23
60	( FIRE AT 6 00 FORE )	1739.3	1741.1	1743.7	1741.1	1740.1	1740.7	1740.6	1740.7	1739.3	1736.8		10.89
61	( FIRE AT 9 00 FORE )	1727.8	1722.8	1722.1	1704.5	1702.6	1700.4	1707.0	1711.3	1708.4	1703.9		11.10
62	( FIRE AT 12 00 AFT )	1674.9	1674.0	1671.5	1666.5	1665.7	1663.3	1663.6	1661.7	1658.4	1654.7		11.32
63	( FIRE AT 3 00 AFT )	1883.7	1872.5	1867.9	1821.2	1818.8	1818.7	1826.0	1827.8	1810.8	1800.6		11.54
64	( FIRE AT 6 00 AFT )	1939.0	1924.5	1922.3	1855.1	1860.3	1861.7	1883.7	1881.4	1875.0	1868.7		11.76
65	( FIRE AT 9 00 AFT )	1746.1	1748.5	1749.8	1751.5	1752.6	1753.8	1753.9	1754.0	1754.2	1754.4		11.97

85

502809

TABLE A XXXX

THERMOCOUPLE TEMPERATURES (DEG. F) FOR TEST NR. 7

CHANNEL NUMBER	LOCATION	TIME (SEC) =										TIME ADJUST	
		5094.18	5107.24	5120.30	5133.37	5146.43	5159.49	5172.55	5185.61	5198.68	5211.74	ACC	ACC
10	( GRID AT 1. IN. )	1618.9	1615.8	1614.6	1611.8	1611.6	1610.2	1606.9	1607.1	1606.7	1610.4		.00
11	( GRID AT 3.15 INS. )	1656.0	1654.3	1651.4	1650.0	1650.2	1650.4	1647.1	1646.6	1646.2	1647.0		.22
12	( GRID AT 3.15 INS. )	1773.7	1745.9	1763.5	1763.5	1756.9	1756.6	1692.6	1744.6	1767.2	1762.7		.44
13	( GRID AT 7.15 INS. )	1688.4	1716.6	1697.8	1703.5	1705.6	1772.8	1713.3	1688.6	1693.1	1709.7		.65
14	( GRID AT 7.15 INS. )	1807.1	1807.3	1809.6	1809.2	1808.6	1809.6	1807.9	1806.9	1806.3	1805.1		.87
16	( GRID AT 11.2 INS. )	1691.2	1689.8	1689.4	1689.4	1687.9	1688.0	1688.1	1685.5	1684.9	1684.6		1.31
17	( GRID AT 15.2 INS. )	1644.9	1643.4	1641.4	1640.1	1640.6	1640.0	1637.4	1637.5	1637.4	1639.3		1.52
18	( GRID AT 15.2 INS. )	1751.1	1752.2	1755.5	1756.4	1756.1	1758.4	1758.0	1758.2	1758.3	1757.3		1.74
19	( GRID AT 19.2 INS. )	1782.3	1785.0	1786.4	1787.5	1787.4	1788.2	1789.2	1788.7	1788.1	1785.8		1.96
24	( GRID AT 19.2 INS. )	1808.4	1810.4	1812.0	1812.4	1811.6	1811.1	1811.8	1811.5	1810.7	1808.4		3.05
21	( GRID AT 21.45 INS. )	1841.7	1848.4	1850.2	1851.9	1852.2	1853.3	1855.8	1854.8	1853.2	1848.8		2.39
22	( INSIDE AT 12 00 )	1768.5	1770.6	1772.6	1772.8	1772.8	1772.4	1767.7	1772.0	1770.5	1769.7		2.61
23	( INSIDE AT 12 30 )	1720.5	1720.9	1721.5	1721.2	1721.4	1719.0	1720.1	1719.5	1719.0	1718.8		2.83
20	( INSIDE AT 1 00 )	1790.1	1795.1	1797.8	1799.3	1798.6	1798.7	1801.6	1801.1	1800.7	1796.2		2.18
25	( INSIDE AT 1 30 )	1811.1	1812.9	1813.8	1813.7	1812.7	1812.2	1812.8	1813.2	1811.6	1808.6		3.27
26	( INSIDE AT 2 00 )	1732.1	1735.4	1717.2	1714.6	1713.5	1712.7	1709.3	1708.0	1708.5	1709.9		3.48
27	( INSIDE AT 3 00 )	1745.3	1742.7	1743.3	1740.3	1739.1	1737.3	1735.0	1733.5	1732.0	1731.7		3.70
28	( INSIDE AT 4 00 )	1718.3	1713.3	1718.5	1716.4	1715.8	1713.6	1711.5	1710.3	1709.7	1710.9		3.92
29	( INSIDE AT 4 30 )	1738.8	1732.6	1736.8	1735.6	1734.2	1730.7	1729.2	1728.4	1729.5	1731.9		4.14
31	( INSIDE AT 5 30 )	1758.0	1756.1	1753.7	1752.1	1750.7	1748.9	1747.1	1746.2	1745.9	1746.3		4.57
32	( INSIDE AT 6 00 )	1765.5	1762.4	1761.4	1759.7	1758.4	1757.0	1755.2	1754.0	1753.0	1752.4		4.79
33	( INSIDE AT 6 30 )	1736.9	1734.1	1734.5	1732.2	1731.6	1730.0	1727.5	1726.1	1724.8	1724.9		5.01
34	( INSIDE AT 7 00 )	1777.4	1779.6	1781.6	1782.2	1781.8	1781.4	1781.7	1780.9	1779.8	1777.2		5.22
35	( INSIDE AT 7 30 )	1615.9	1616.9	1652.5	1659.1	1665.8	1668.1	1670.0	1669.5	1669.7	1673.5		5.44
36	( INSIDE AT 8 00 )	1687.6	1708.6	1618.2	1612.5	1543.8	1614.9	1621.9	1623.9	1640.2	1629.8		5.66
37	( INSIDE AT 9 00 )	1738.8	1746.5	1742.8	1744.1	1717.2	1740.6	1741.5	1742.4	1741.0	1730.8		5.88
38	( INSIDE AT 10 00 )	1805.2	1808.0	1812.2	1812.3	1814.1	1812.1	1811.5	1809.9	1807.7	1804.2		6.10
39	( INSIDE AT 10 30 )	1778.9	1781.7	1783.8	1784.1	1782.9	1783.0	1783.3	1782.1	1780.7	1777.2		6.31
40	( INSIDE AT 11 00 )	1772.4	1778.0	1783.9	1786.2	1792.9	1790.2	1789.6	1788.8	1787.1	1783.7		6.53
41	( INSIDE AT 11 30 )	1648.8	1650.3	1650.9	1651.2	1650.5	1652.2	1652.0	1652.7	1652.4	1651.4		6.75
44	( OUTSIDE AT 12 00 )	1545.9	1543.8	1542.2	1542.3	1542.4	1543.3	1543.3	1545.9	1548.2	1551.5		7.40
45	( OUTSIDE AT 1 00 )	1684.9	1884.2	1884.7	1882.7	1884.8	1880.3	1879.2	1875.3	1872.8	1869.0		7.62
46	( OUTSIDE AT 2 00 )	1589.2	1580.9	1575.3	1573.6	1570.7	1567.2	1565.9	1545.7	1562.3	1570.3		7.84
47	( OUTSIDE AT 3 00 )	1619.0	1647.9	1724.9	1750.1	1757.7	1732.3	1711.3	1698.8	1908.3	1695.9		8.05
48	( OUTSIDE AT 4 00 )	1873.8	1872.8	1871.5	1870.6	1869.1	1866.1	1865.0	1862.1	1856.5	1856.9		8.27
49	( OUTSIDE AT 5 00 )	1569.2	1564.5	1562.4	1562.9	1563.0	1560.7	1561.2	1561.4	1558.2	1559.2		8.49
50	( OUTSIDE AT 6 00 )	1897.0	1896.3	1899.6	1896.1	1894.5	1893.1	1891.4	1888.9	1873.2	1867.7		8.71
51	( OUTSIDE AT 7 00 )	1722.5	1719.6	1723.4	1723.7	1721.1	1719.8	1720.1	1719.8	1718.2	1704.7		8.93
52	( OUTSIDE AT 8 00 )	1607.5	1610.7	1612.9	1616.1	1616.6	1617.4	1618.4	1621.8	1611.6	1641.6		9.14
53	( OUTSIDE AT 9 00 )	1772.0	1771.2	1773.4	1772.4	1769.9	1769.2	1768.3	1767.2	1764.5	1755.2		9.36
54	( OUTSIDE AT 10 00 )	1731.3	1729.8	1730.6	1726.6	1724.2	1723.9	1722.4	1720.4	1716.8	1702.3		9.58
56	( OUTSIDE AT 11 00 )	1616.9	1617.9	1621.1	1618.0	1613.1	1611.6	1610.0	1608.4	1605.1	1590.2		10.01
42	( MANWAY AT 1. IN. )	1716.9	1715.3	1713.8	1711.3	1710.7	1710.1	1707.4	1706.8	1705.7	1705.1		6.97
43	( MANWAY AT 6. INS. )	1761.2	1775.1	1734.1	1730.8	1701.1	1724.2	1726.1	1730.2	1729.2	1722.5		7.18
55	( FIRE AT 12 00 FORE )	1869.3	1869.5	1868.6	1870.1	1869.1	1866.7	1865.4	1864.1	1864.5	1865.7		9.80
57	( FIRE AT 3 00 FORE )	1730.6	1729.4	1730.3	1730.3	1727.0	1726.1	1726.5	1725.6	1725.6	1707.6		10.23
60	( FIRE AT 6 00 FORE )	1733.6	1727.7	1723.9	1728.0	1730.4	1737.6	1741.0	1742.7	1742.0	1739.7		10.89
61	( FIRE AT 9 00 FORE )	1703.2	1667.8	1616.4	1608.2	1602.3	1603.1	1614.0	1609.9	1605.8	1464.5		11.10
62	( FIRE AT 12 00 AFT )	1640.7	1597.7	1555.2	1527.6	1521.9	1518.1	1535.8	1535.8	1504.0	1219.7		11.32
63	( FIRE AT 3 00 AFT )	1797.8	1683.6	1559.6	1561.5	1550.8	1559.2	1593.9	1612.3	1586.9	1355.0		11.54
64	( FIRE AT 6 00 AFT )	1912.2	1716.7	1518.6	1535.9	1507.3	1514.3	1544.4	1573.7	1555.1	1293.1		11.76
65	( FIRE AT 9 00 AFT )	1753.5	1754.2	1758.4	1758.4	1758.0	1756.2	1754.7	1752.6	1751.4	1750.7		11.97

86

VIDAR CHANNEL 10 OF TEST NUMBER 7  
(LOCATION IS GRID AT 1. IN. )

87

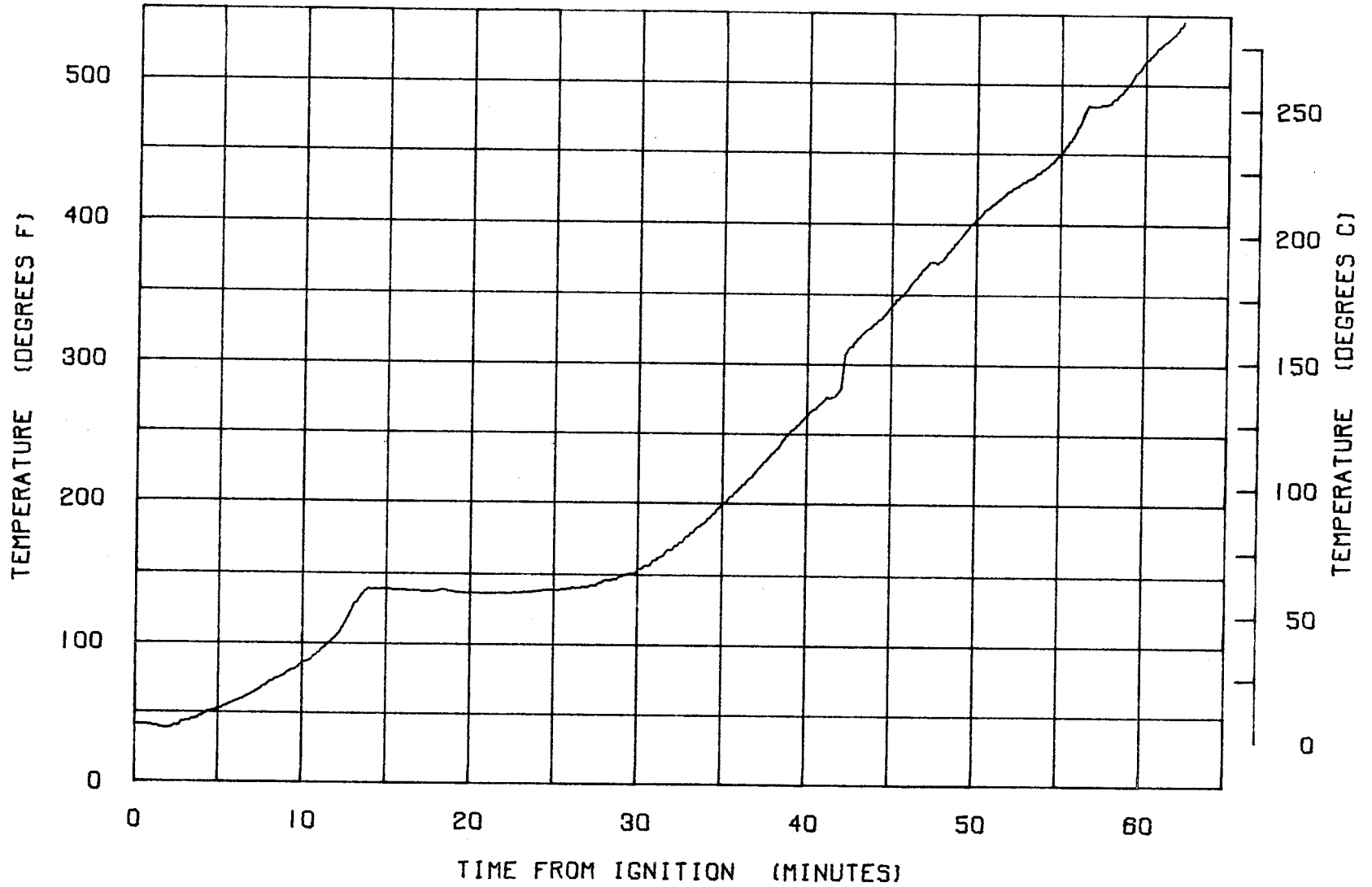


FIGURE A1 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 11 OF TEST NUMBER 7  
(LOCATION IS GRID AT 3.15 INS. )

88

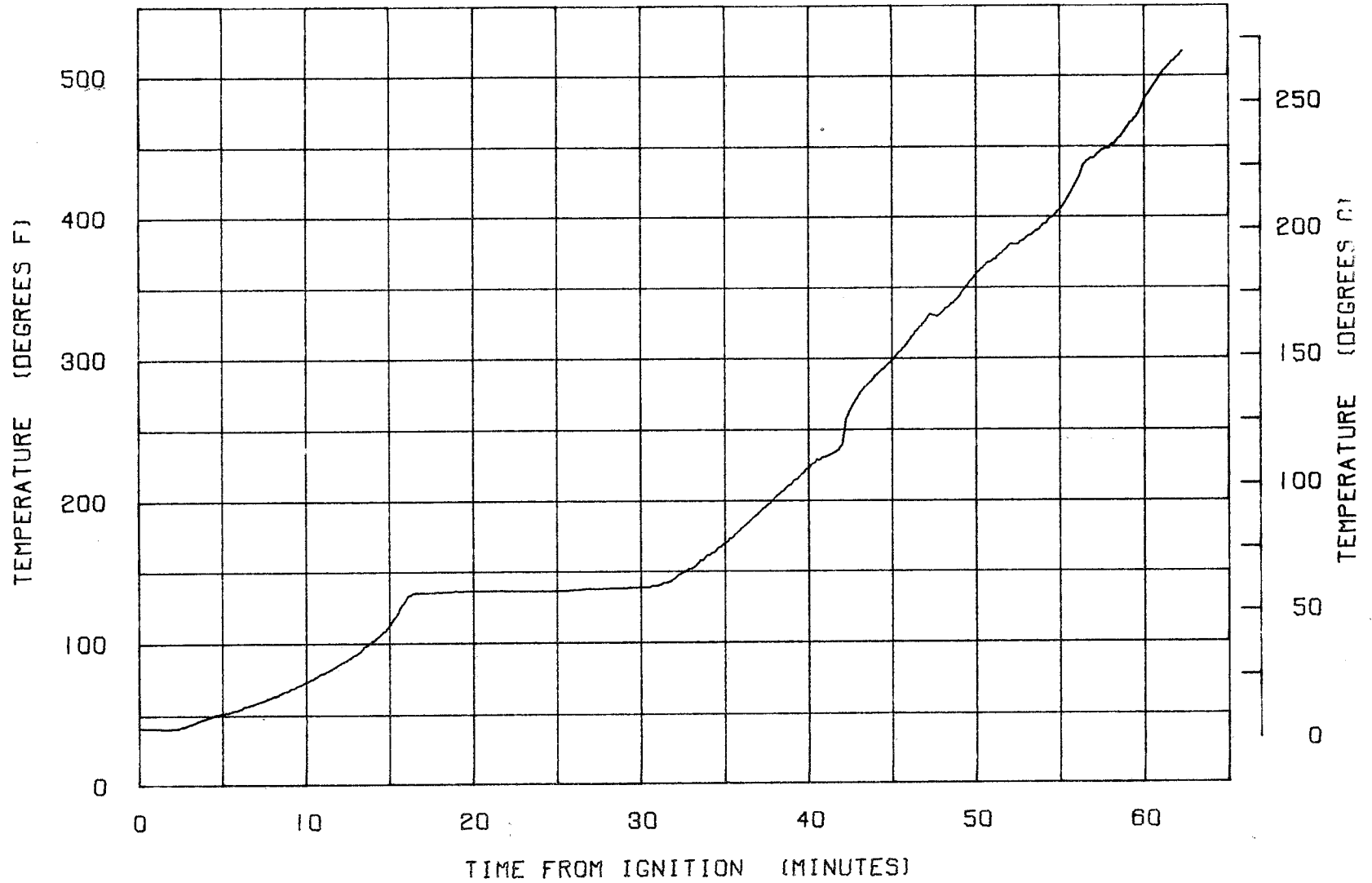


FIGURE A2 THERMOCOUPLE TEMPERATURE VS. TIME



VIDAR CHANNEL 12 OF TEST NUMBER 7  
(LOCATION IS GRID AT 3.15 INS. )

68

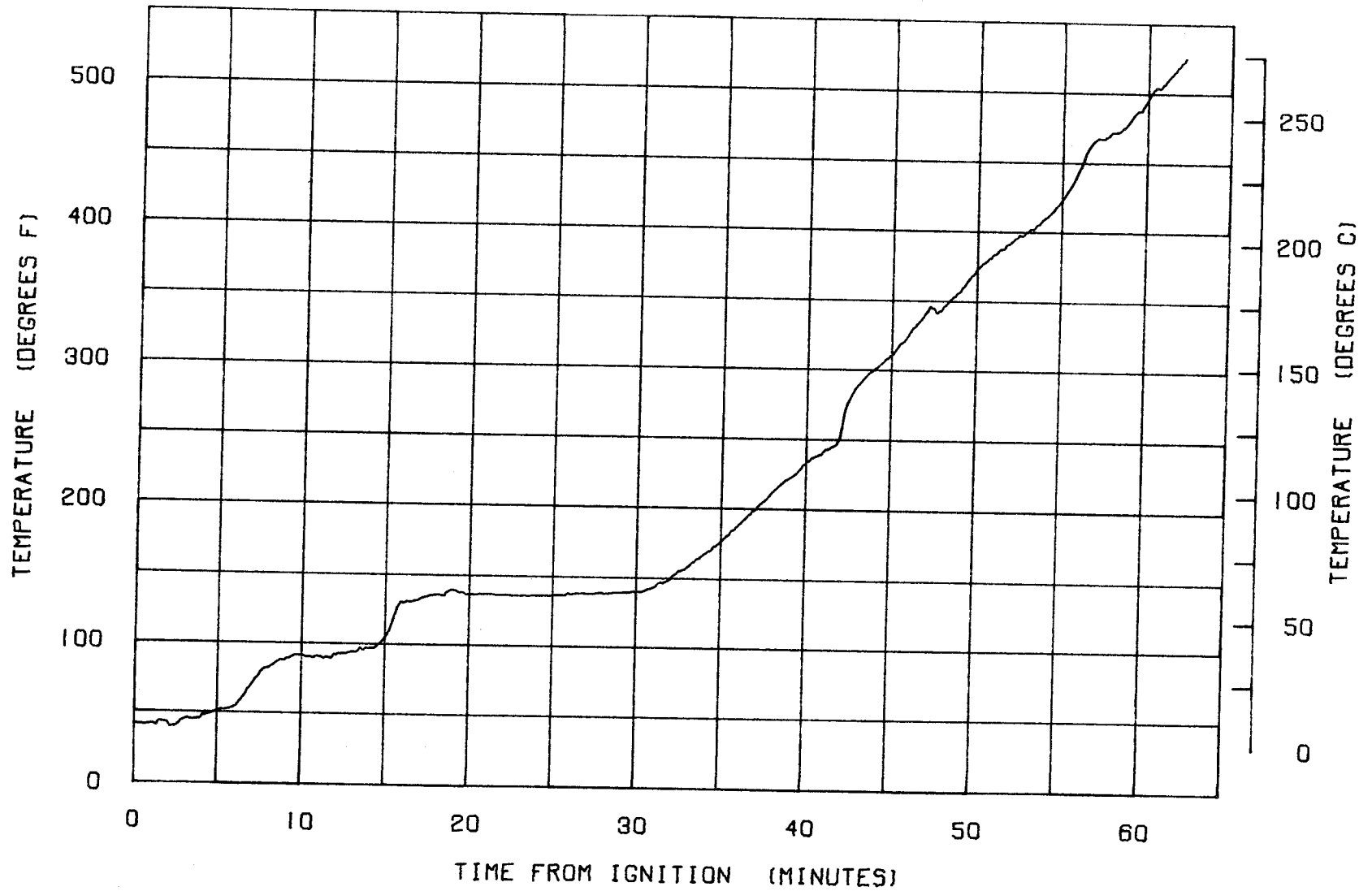


FIGURE A3 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 13 OF TEST NUMBER 7  
(LOCATION IS GRID AT 7.15 INS. )

06

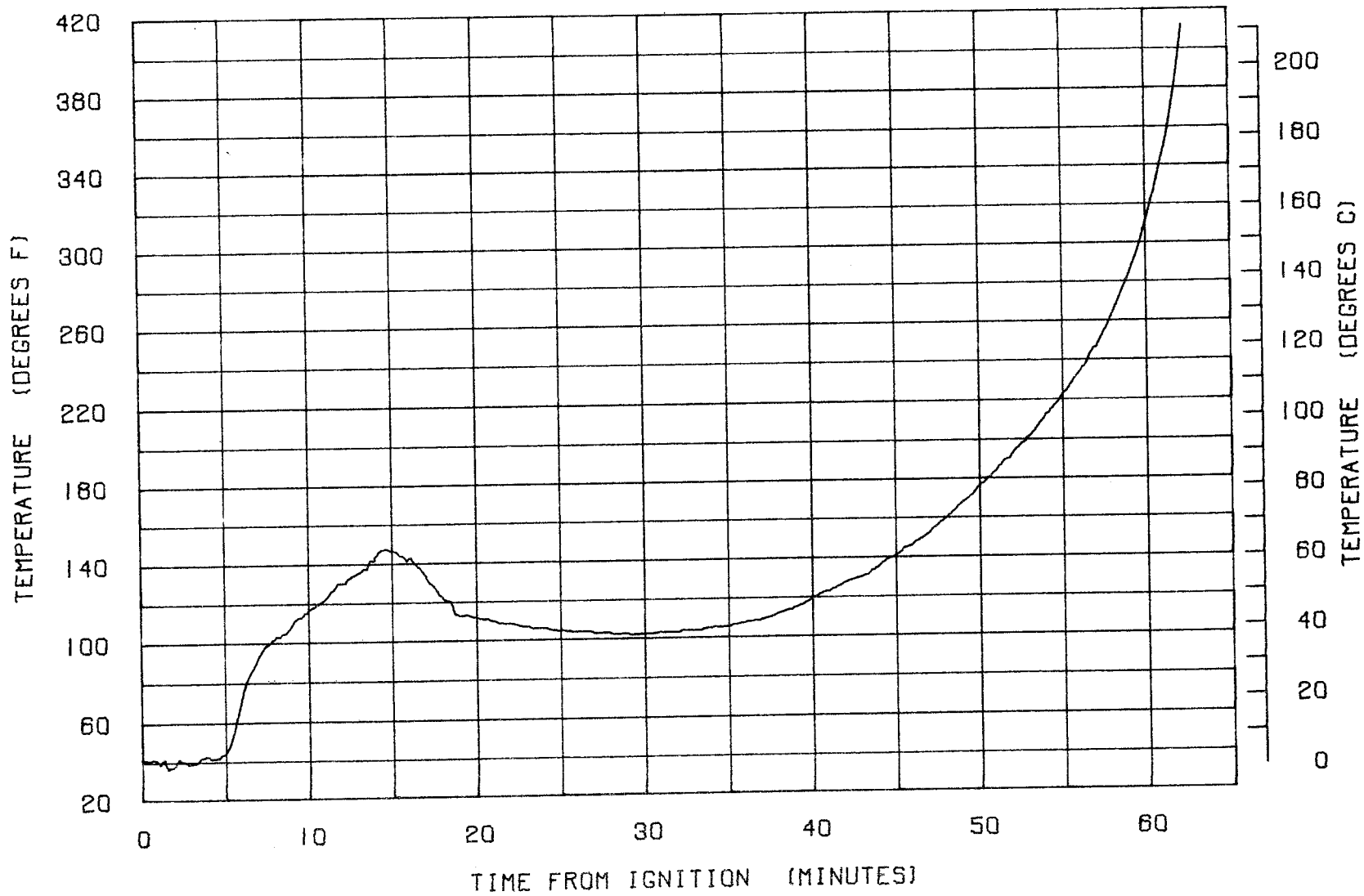


FIGURE A4 THERMOGOUPLER TEMPERATURE VS. TIME

VIDAR CHANNEL 14 OF TEST NUMBER 7  
(LOCATION IS GRID AT 7.15 INS. )

T6

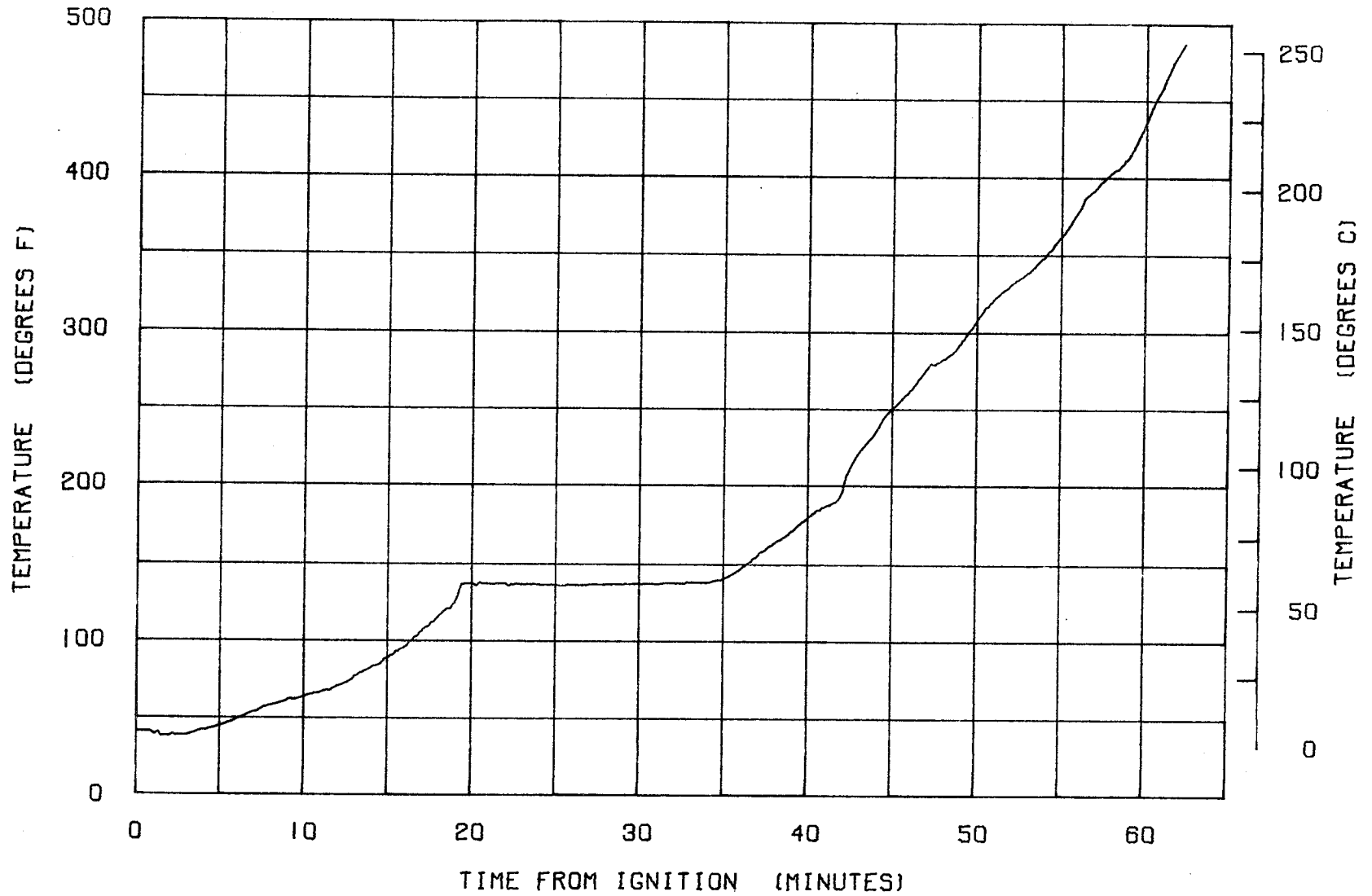


FIGURE A5 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 15 OF TEST NUMBER 7  
(LOCATION IS GRID AT 11.2 INS. )

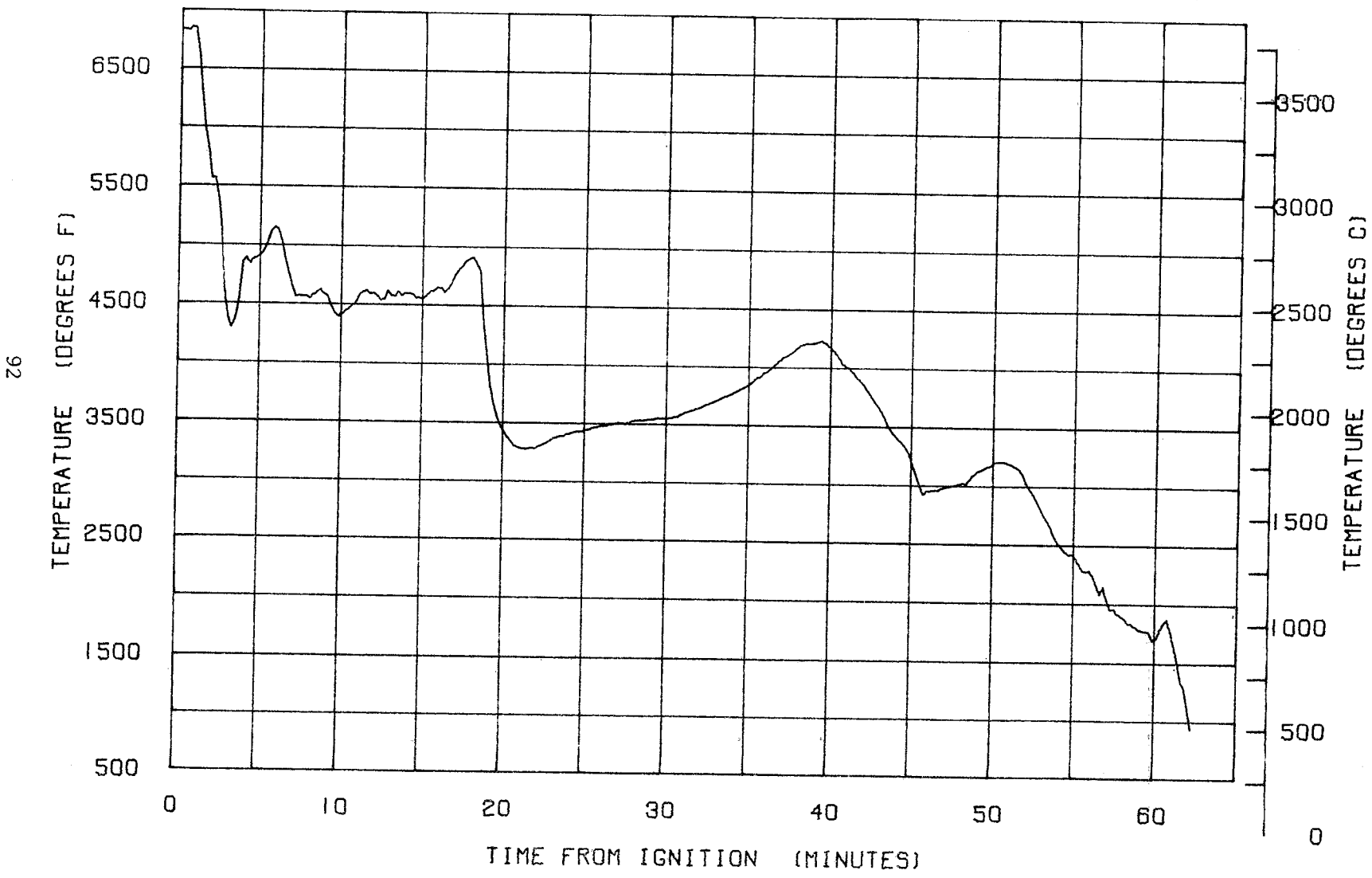


FIGURE A6 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 16 OF TEST NUMBER 7  
(LOCATION IS GRID AT 11.2 INS. )

26

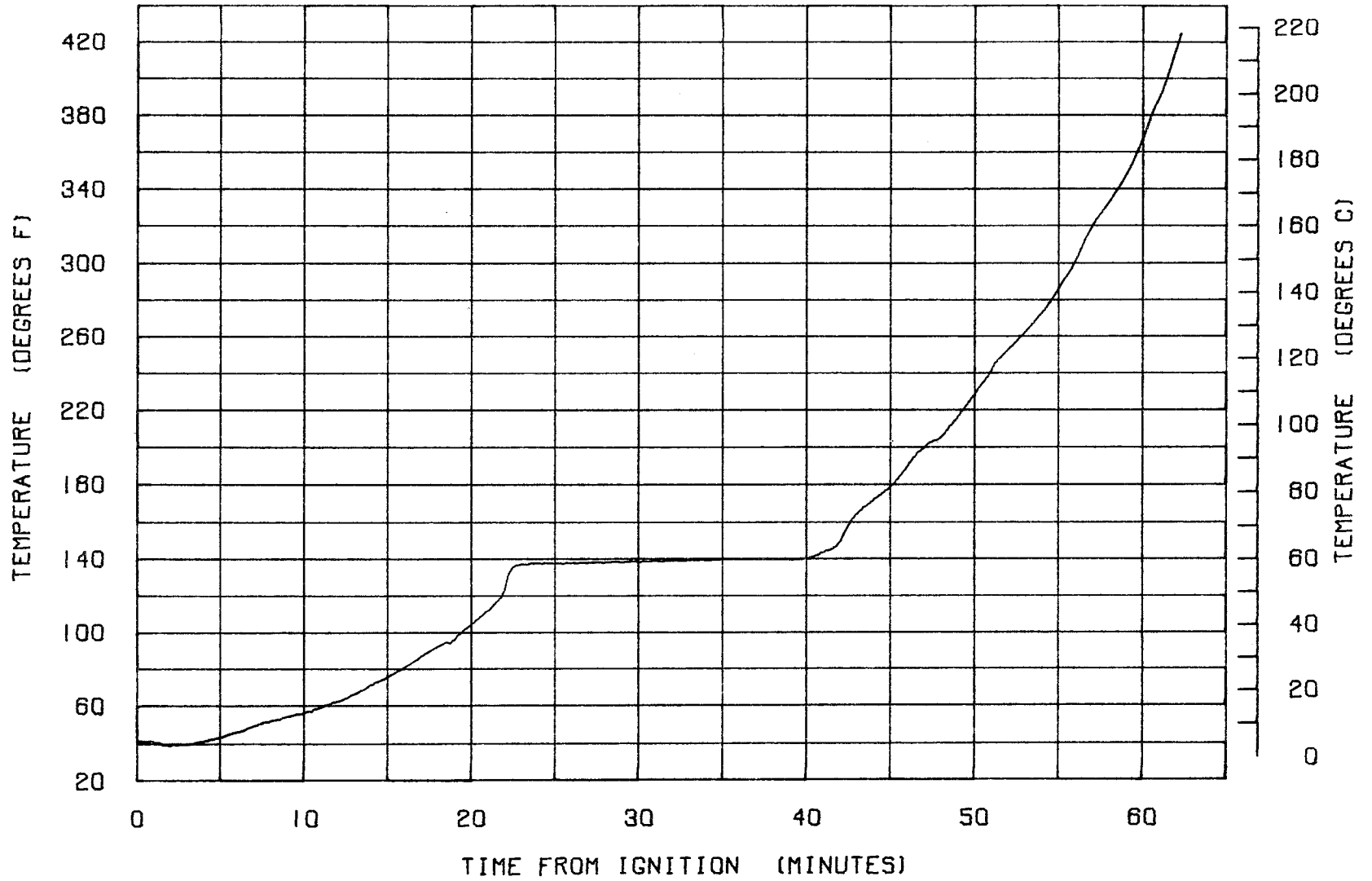


FIGURE A7 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 17 OF TEST NUMBER 7  
(LOCATION IS GRID AT 15.2 INS. )

94

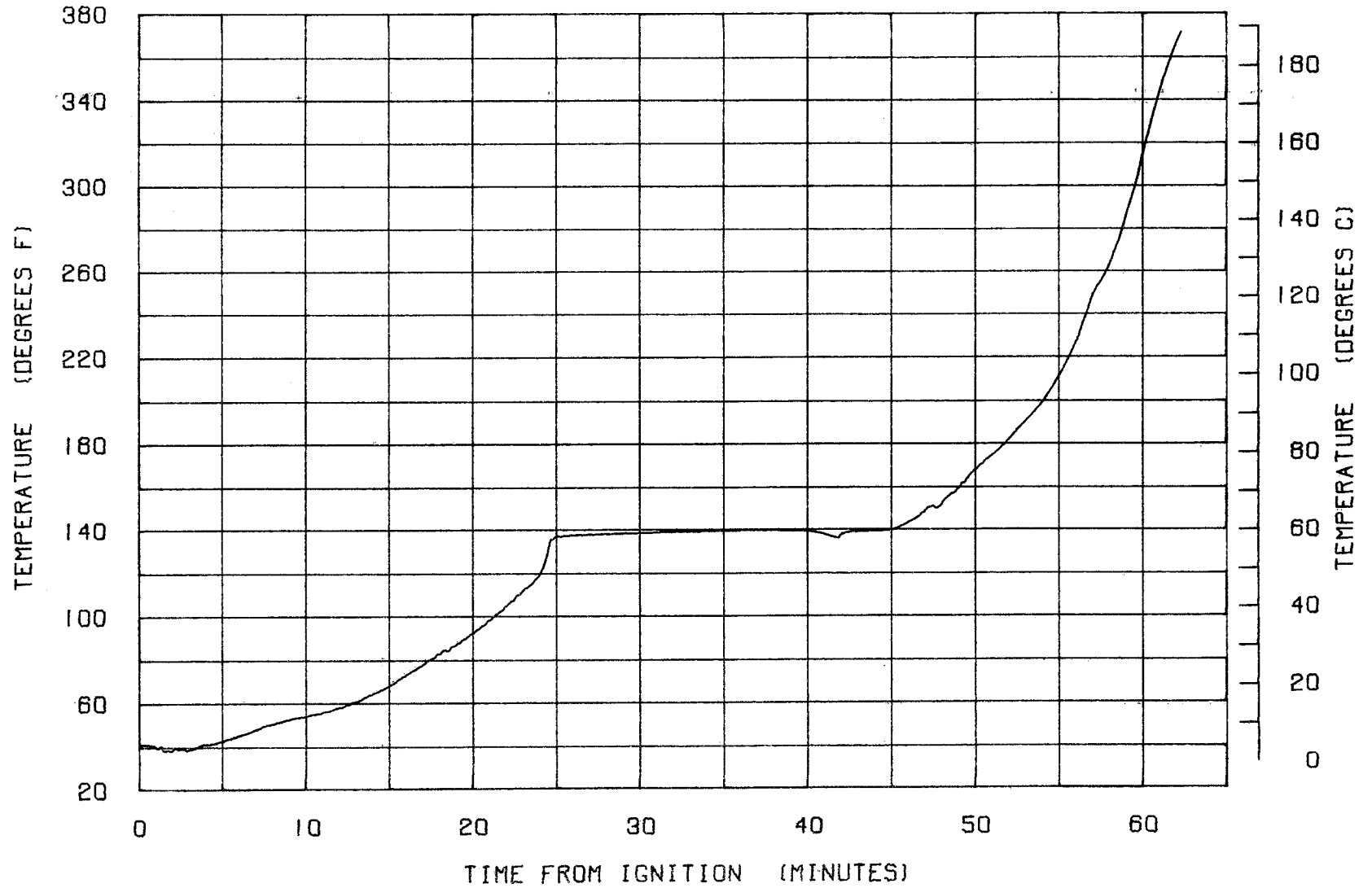


FIGURE A8 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 18 OF TEST NUMBER 7  
(LOCATION IS GRID AT 15.2 INS. )

56

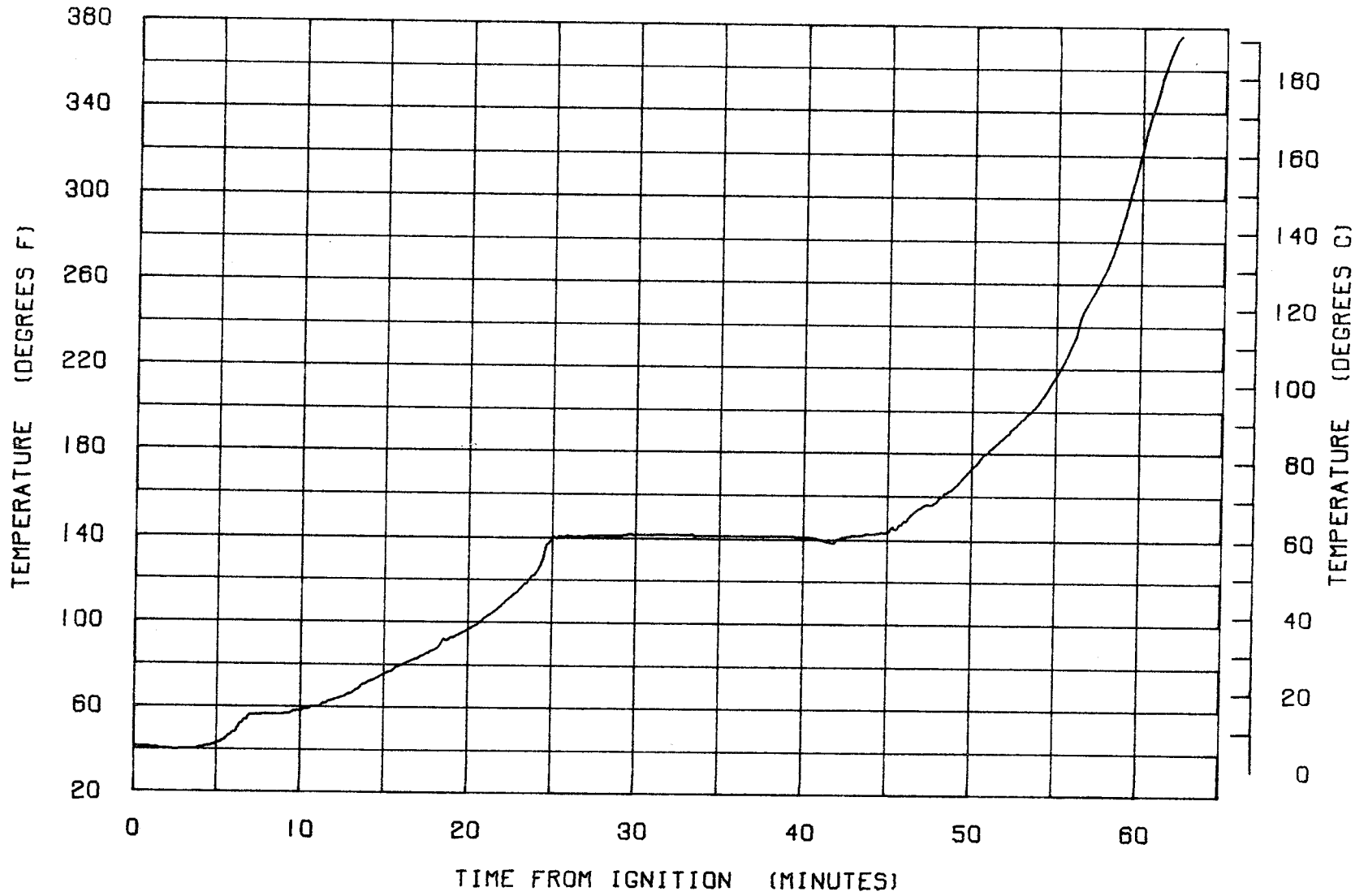


FIGURE A9

THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 19 OF TEST NUMBER 7  
(LOCATION IS GRID AT 19.2 INS. )

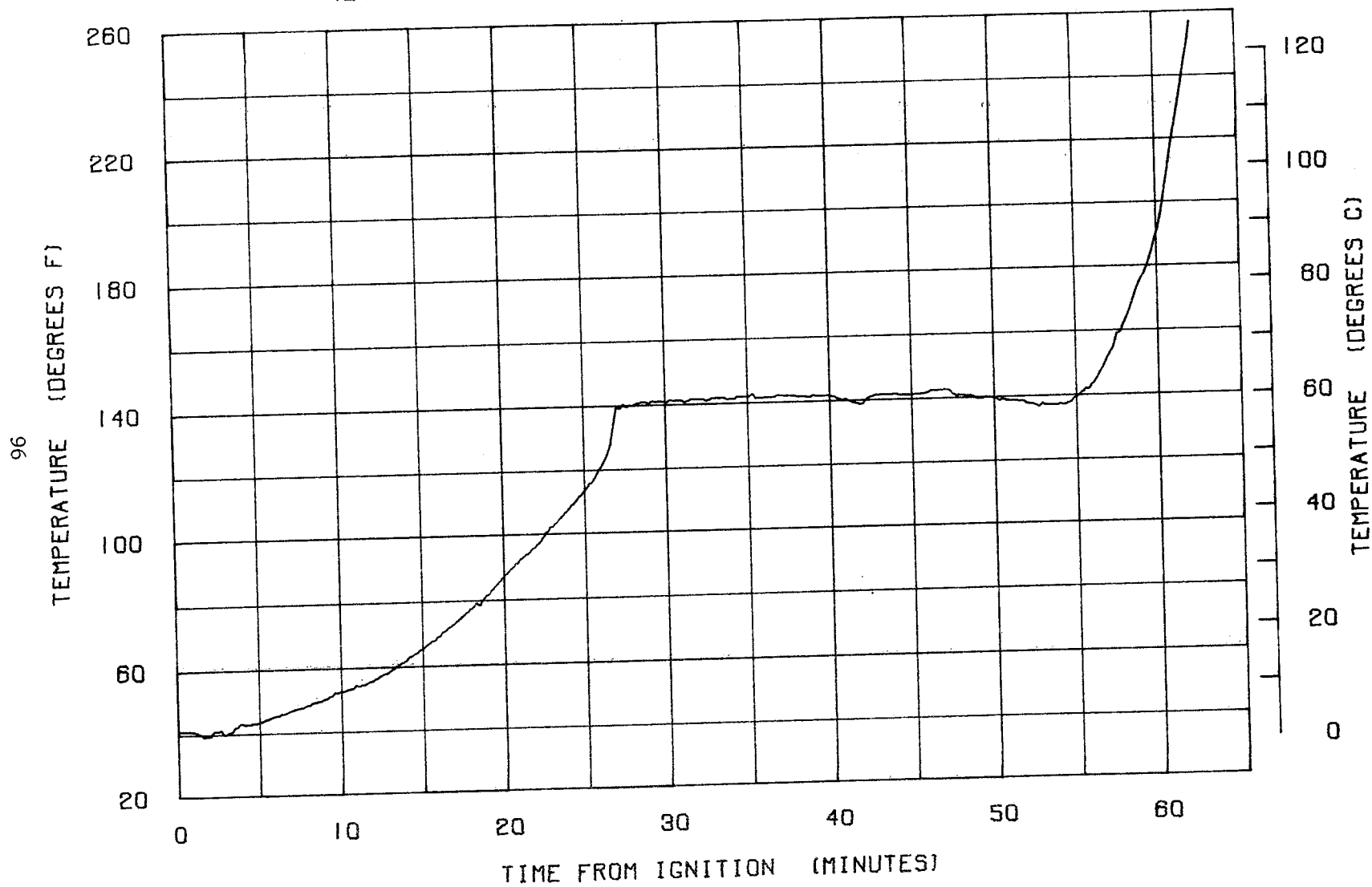


FIGURE A 10 THERMOCOUPLE TEMPERATURE VS. TIME



VIDAR CHANNEL 24 OF TEST NUMBER 7

(LOCATION IS GRID AT 18.2 INS.)

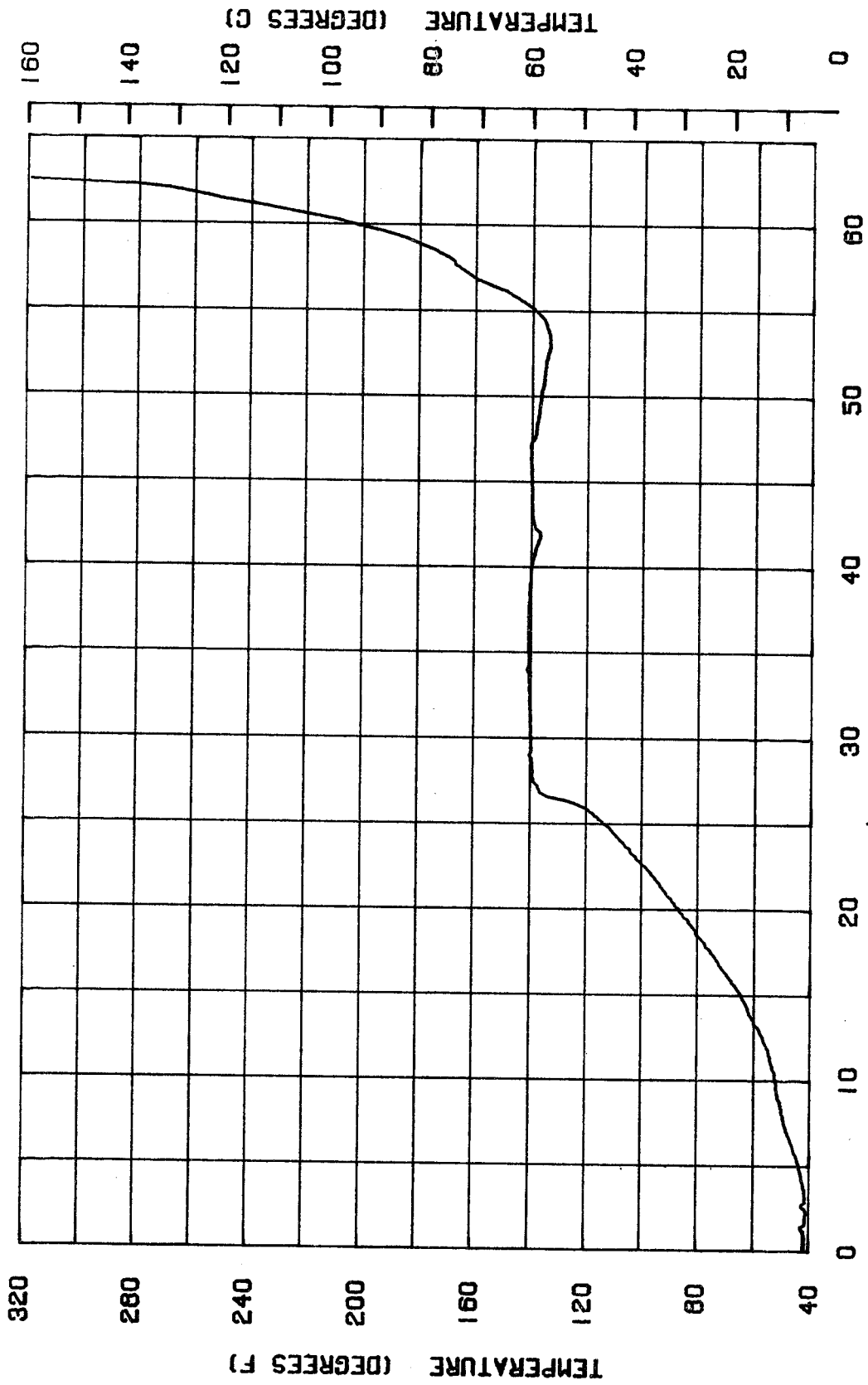


FIGURE A 11 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 21 OF TEST NUMBER 7  
(LOCATION IS GRID AT 21.45 INS.)

86

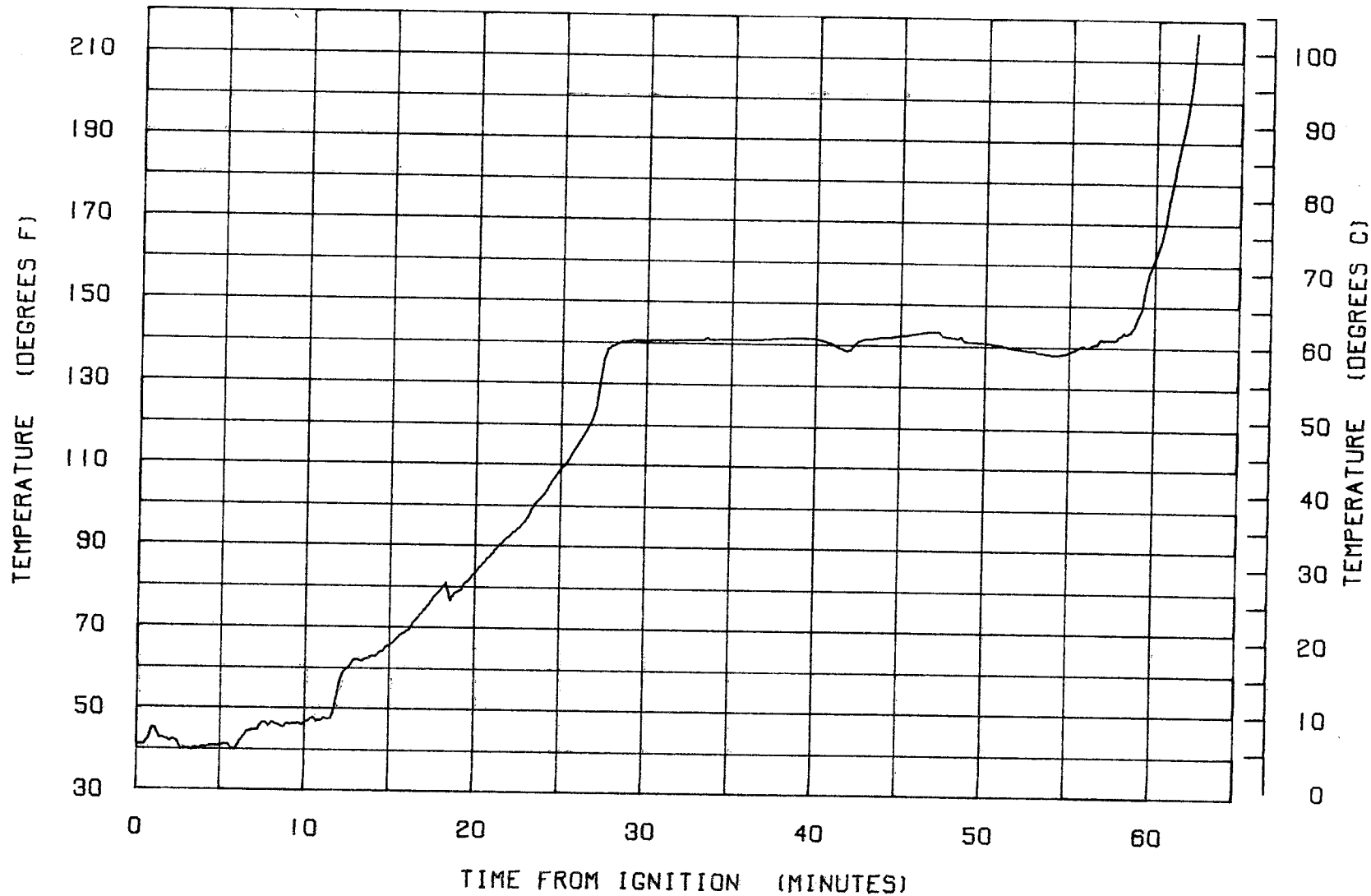


FIGURE A 12 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 22 OF TEST NUMBER 7  
(LOCATION IS INSIDE AT 12:00 )

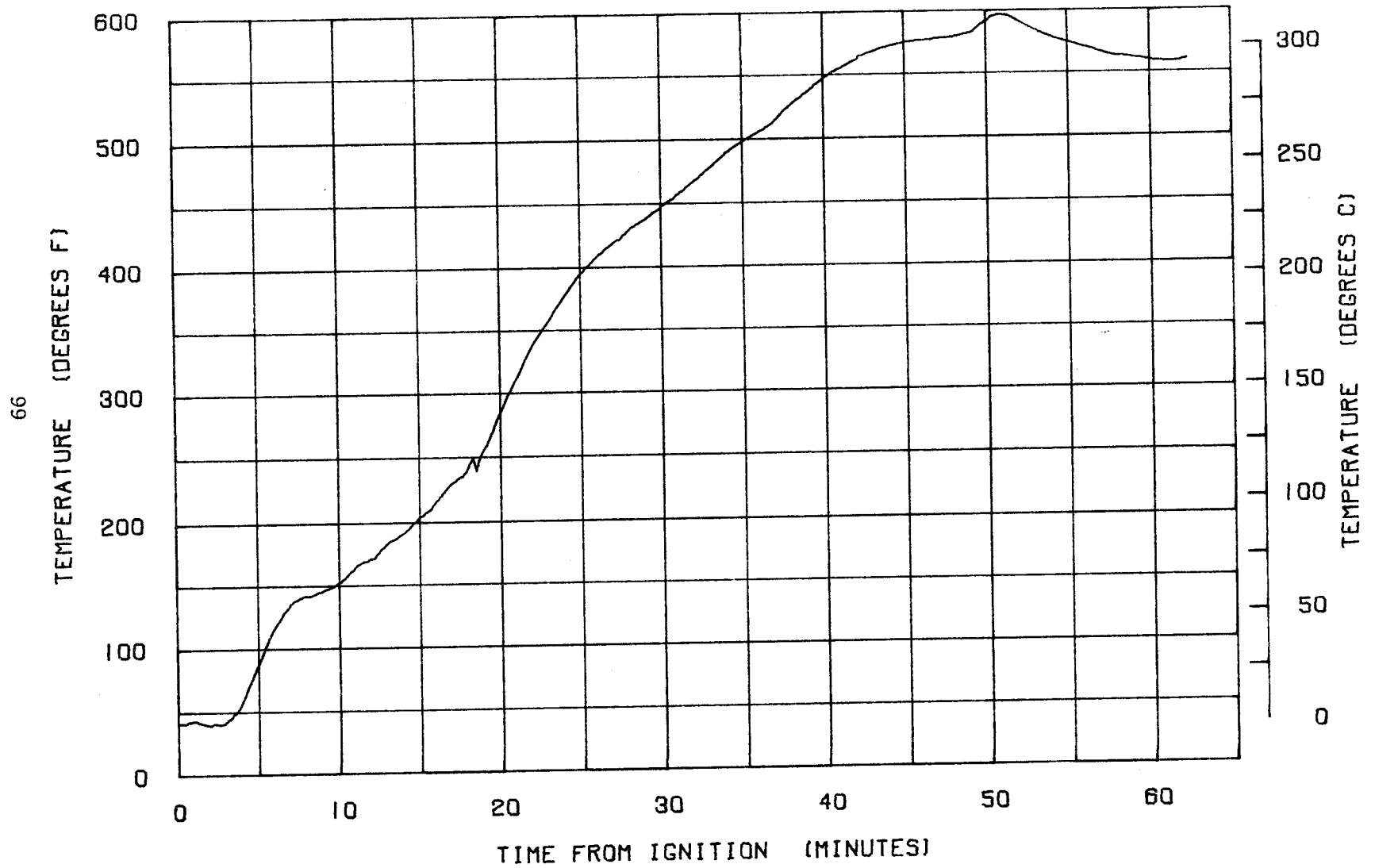


FIGURE A 13 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 23 OF TEST NUMBER 7  
(LOCATION IS INSIDE AT 12.30 )

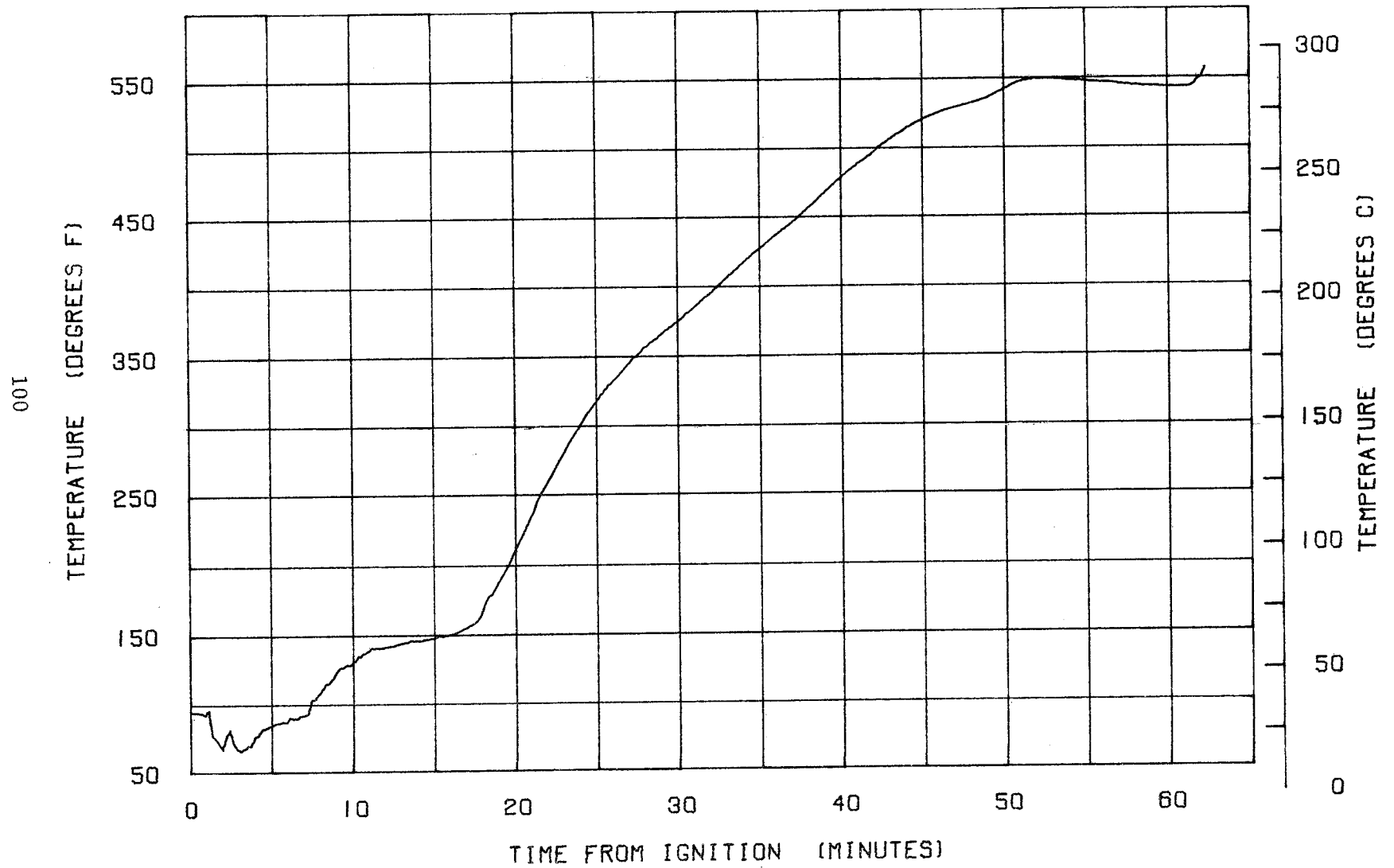


FIGURE A 14 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 20 OF TEST NUMBER 7  
(LOCATION IS INSIDE AT 1.00 )

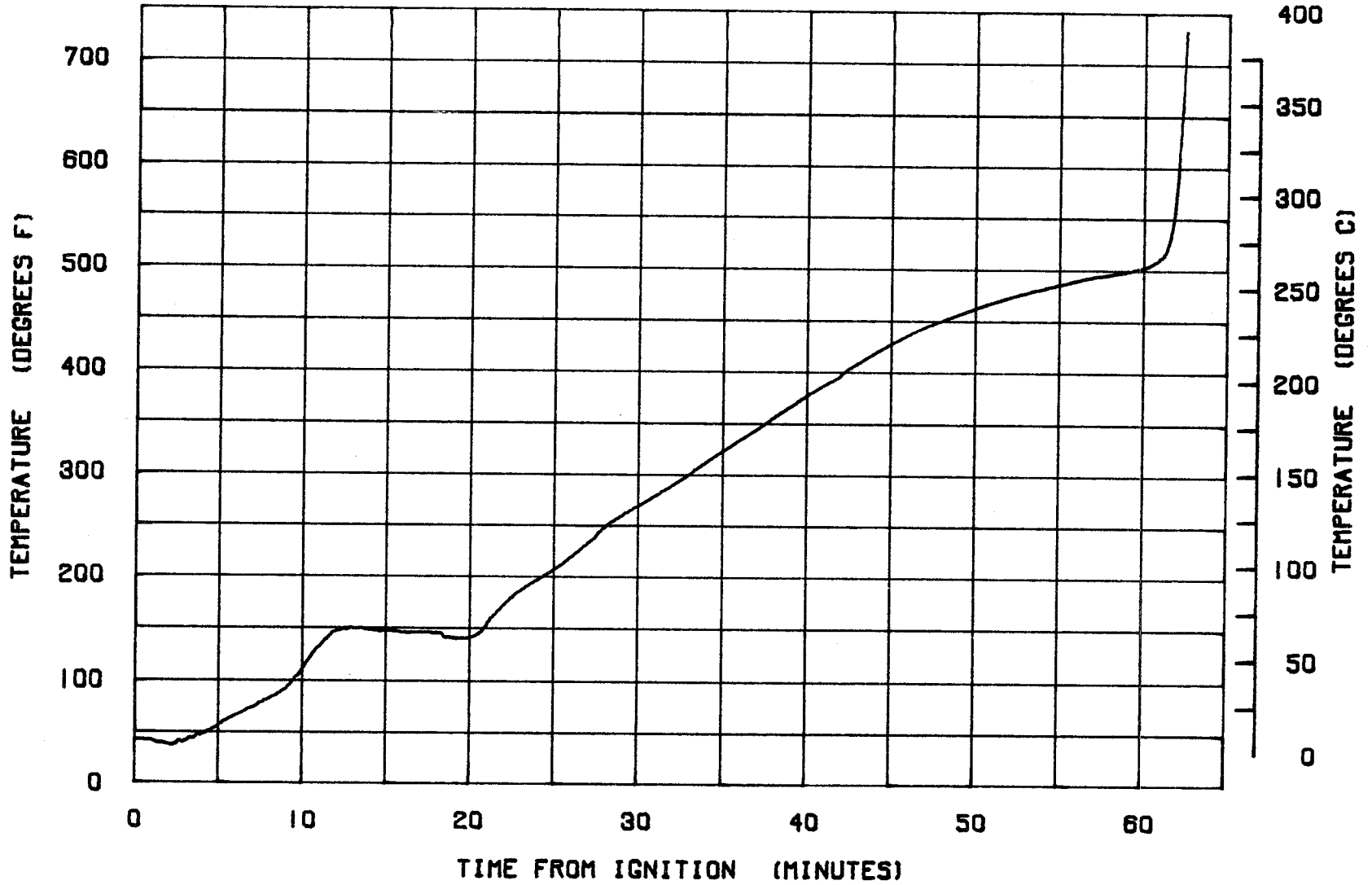


FIGURE A 15 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 25 OF TEST NUMBER 7  
(LOCATION IS INSIDE AT 1.30 )

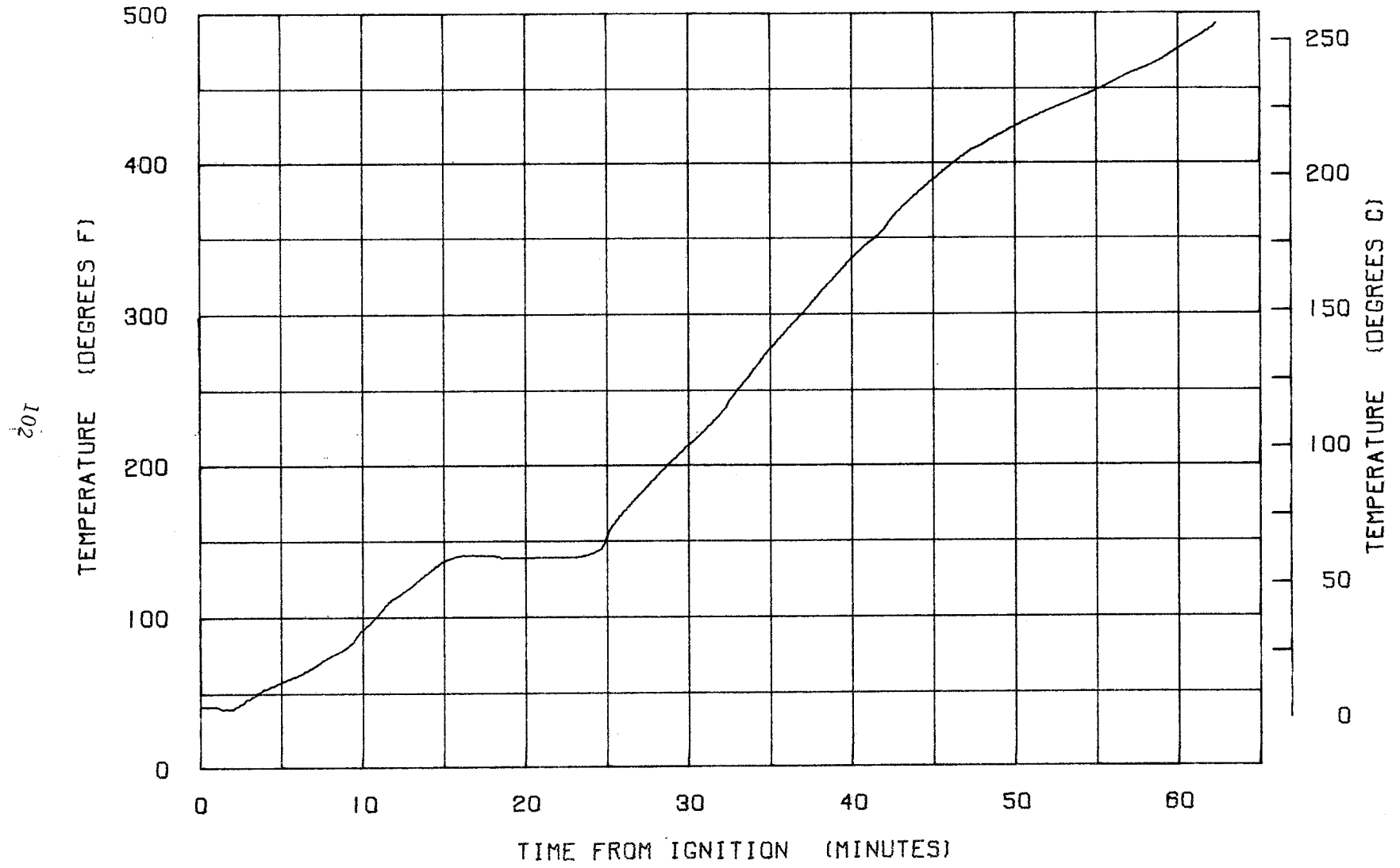


FIGURE A 16 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 26 OF TEST NUMBER 7  
(LOCATION IS INSIDE AT 2.00 )

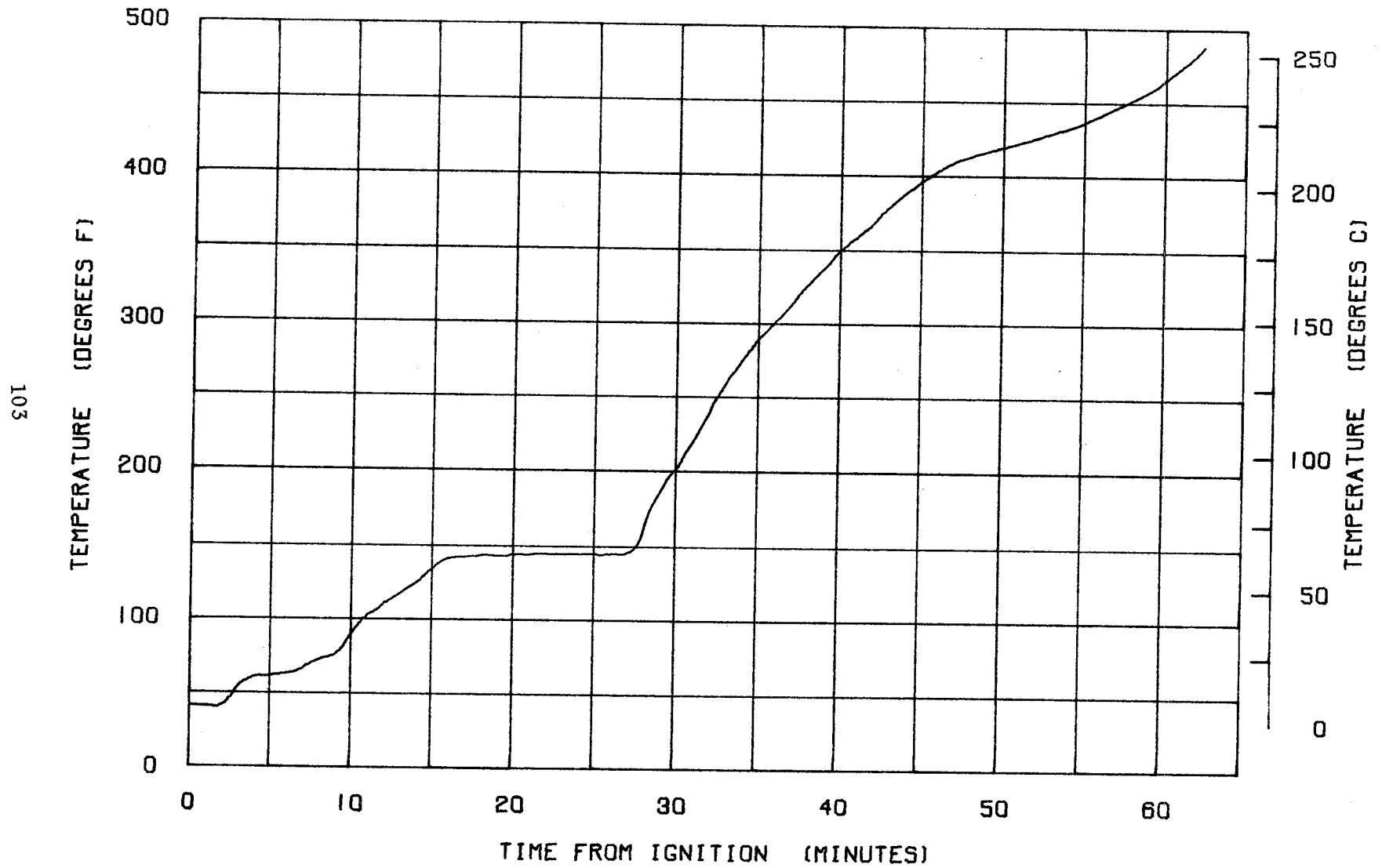


FIGURE A 17 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 27 OF TEST NUMBER 7  
(LOCATION IS INSIDE AT 3.00 )

104

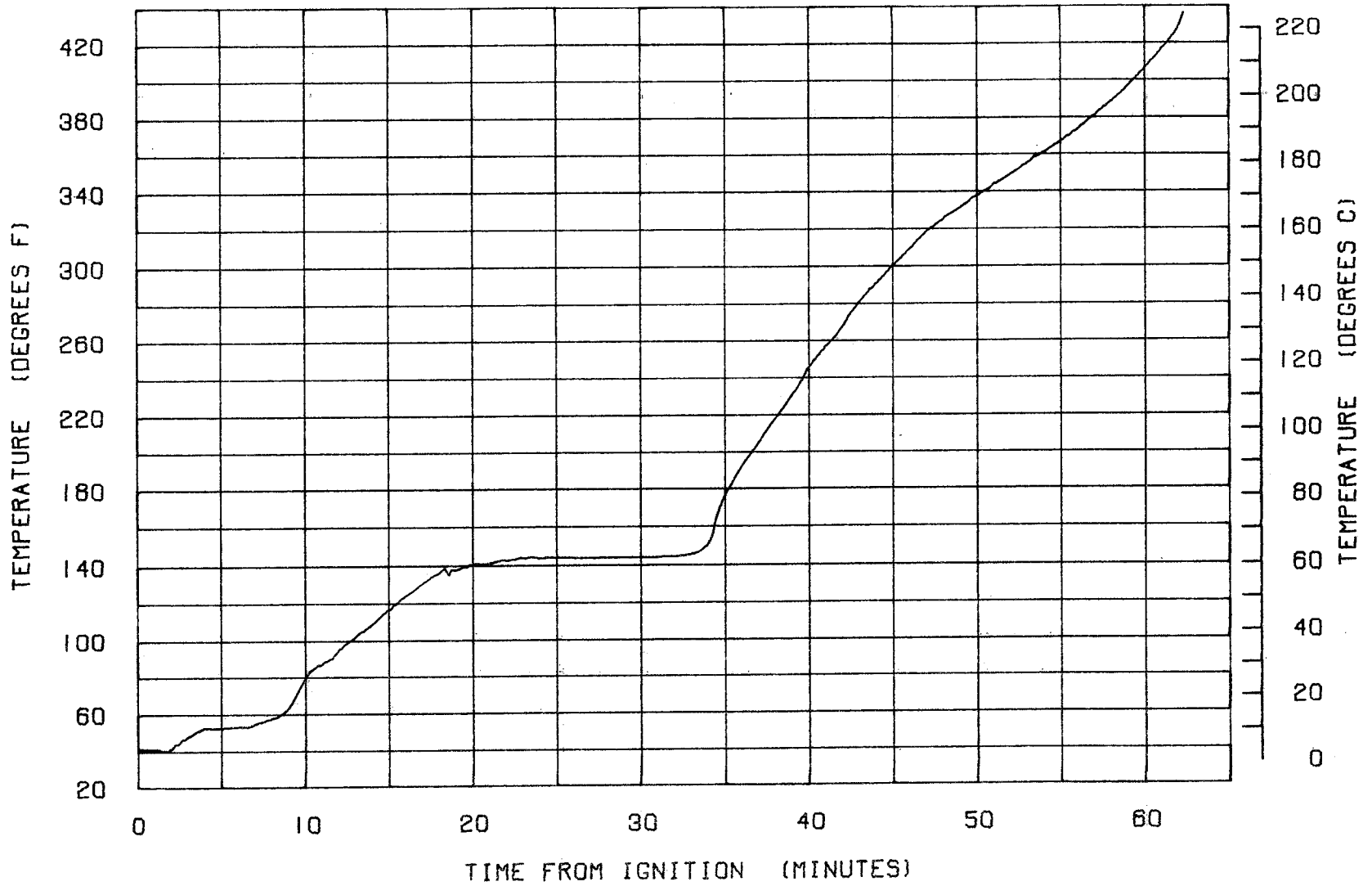


FIGURE A 18 THERMOCOUPLE TEMPERATURE VS. TIME



VIDAR CHANNEL 28 OF TEST NUMBER 7  
(LOCATION IS INSIDE AT 4:00 )

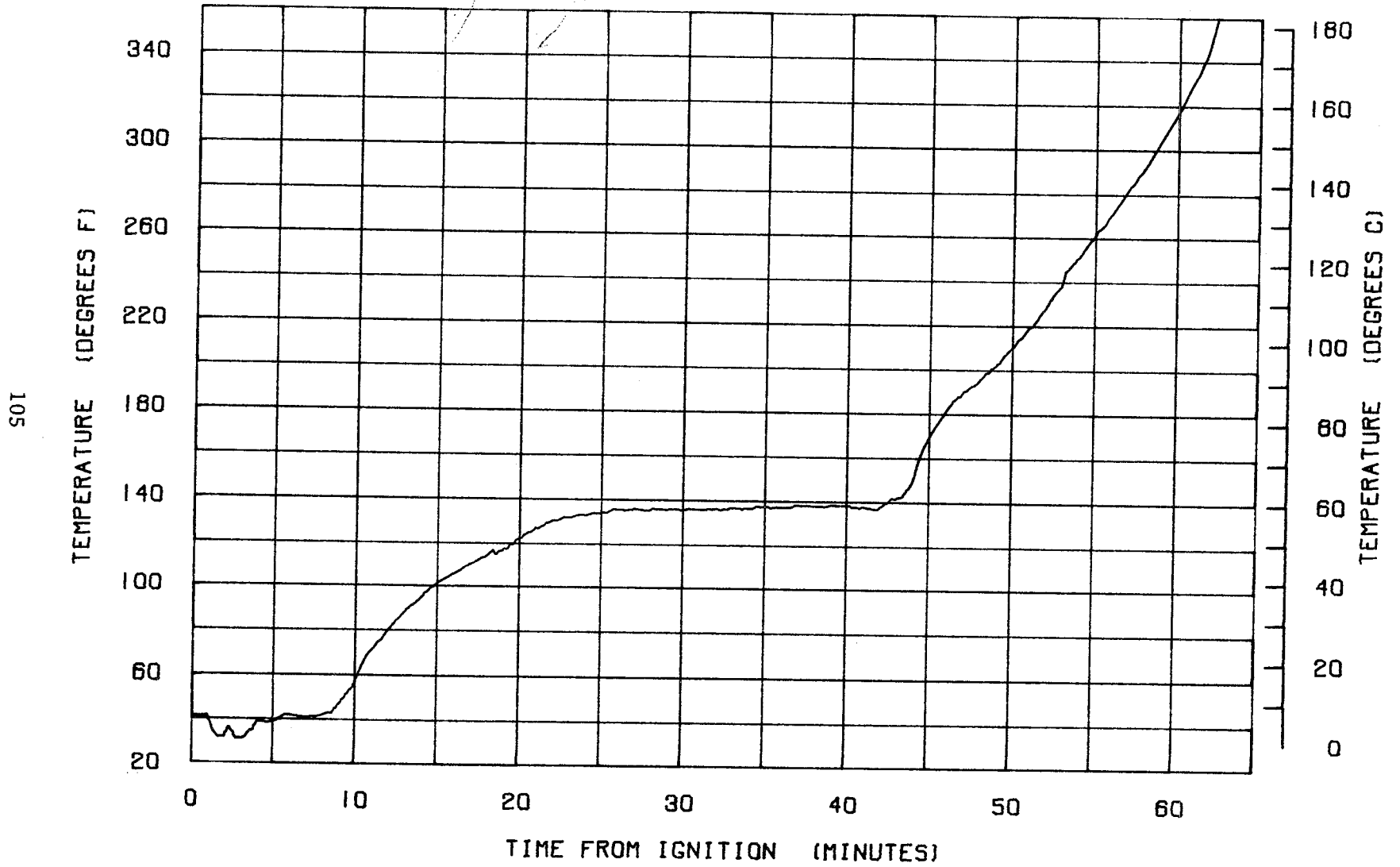


FIGURE A 19 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 29 OF TEST NUMBER 7

(LOCATION IS INSIDE AT 4.30 )

106

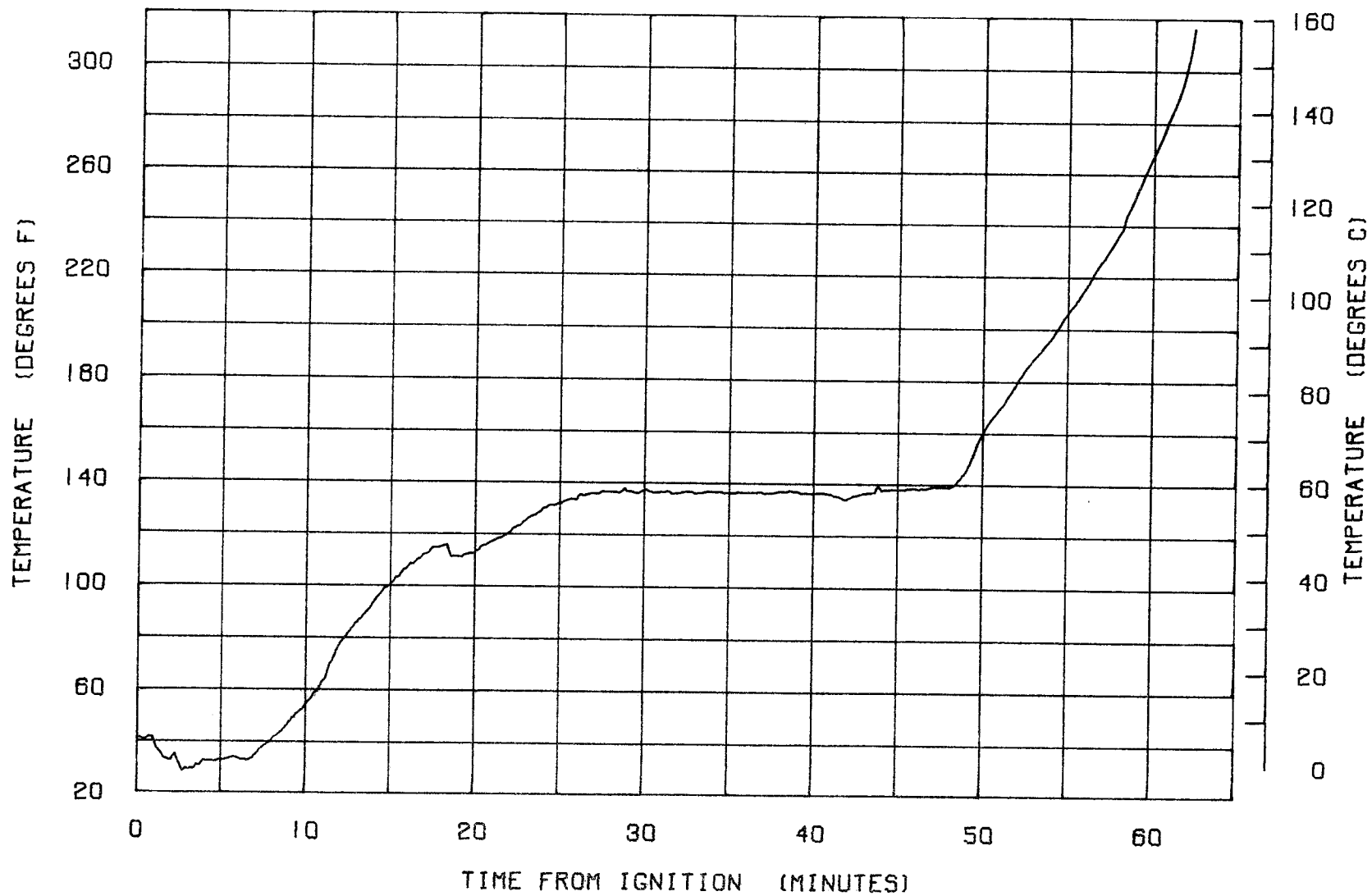


FIGURE A 20 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 30 OF TEST NUMBER 7  
(LOCATION IS INSIDE AT 5.00 )

107

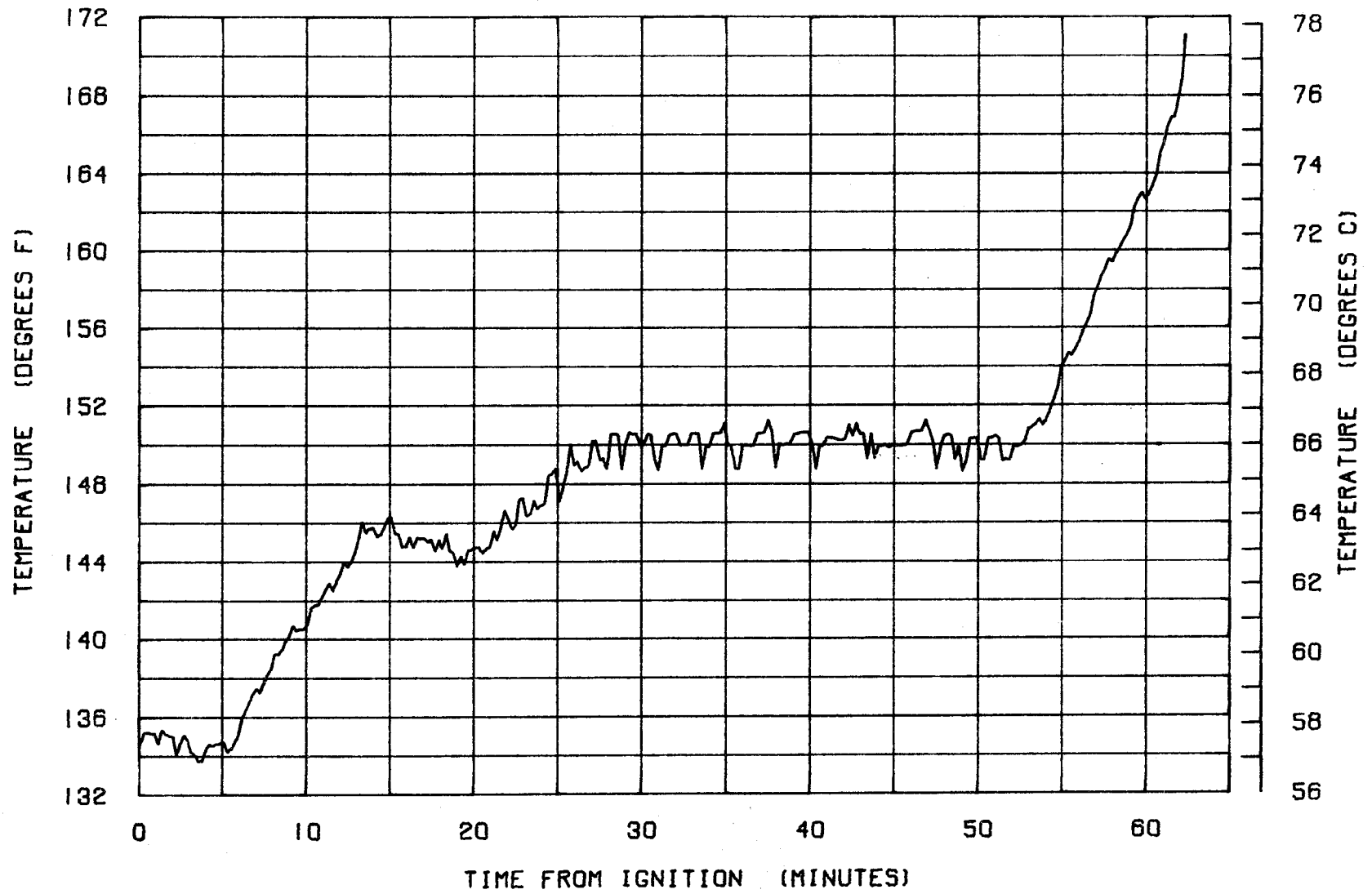


FIGURE A 21 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 31 OF TEST NUMBER 7  
(LOCATION IS INSIDE AT 5.30 )

801

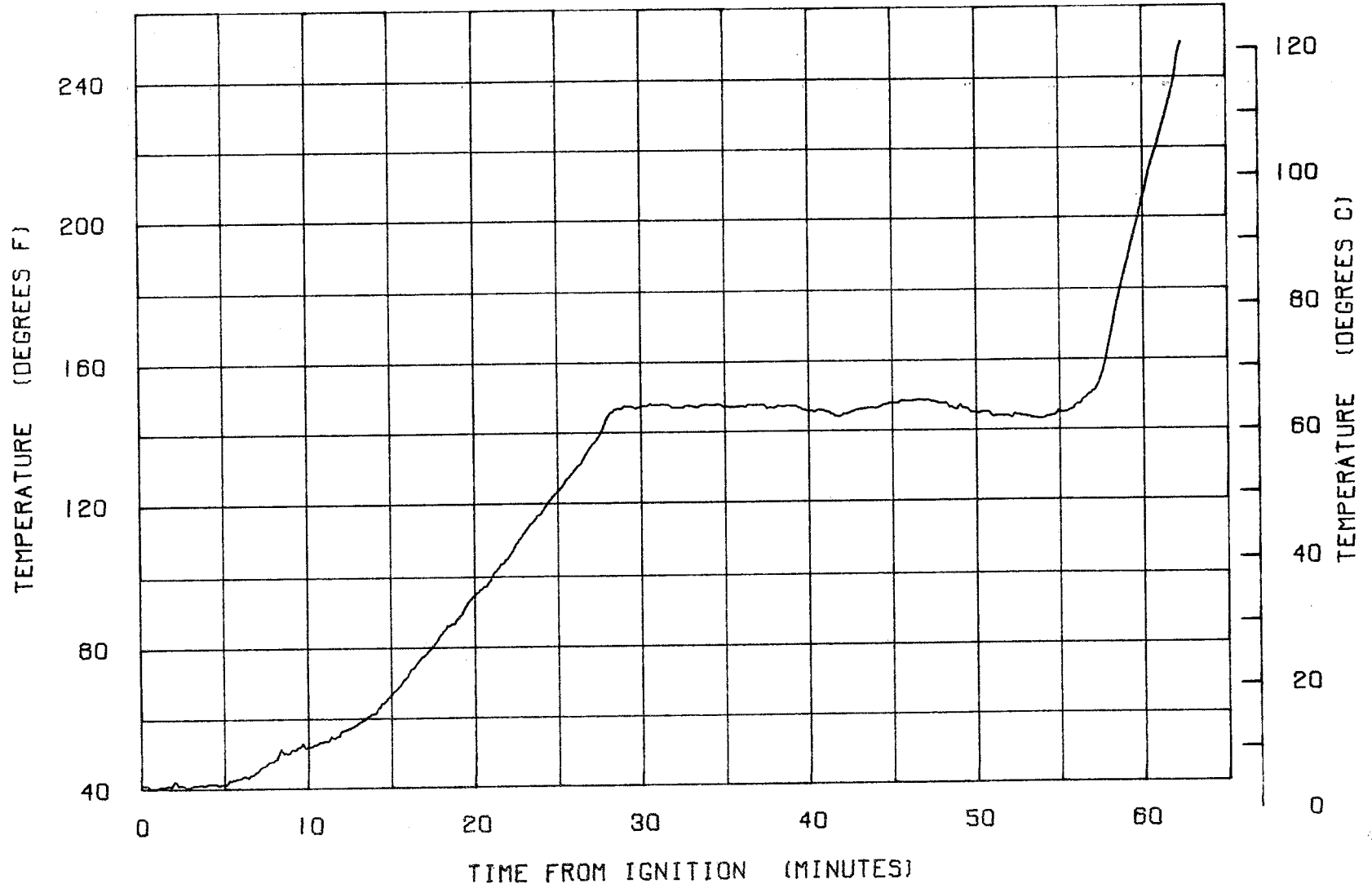


FIGURE A 22 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 32 OF TEST NUMBER 7  
(LOCATION IS INSIDE AT 6.00 )

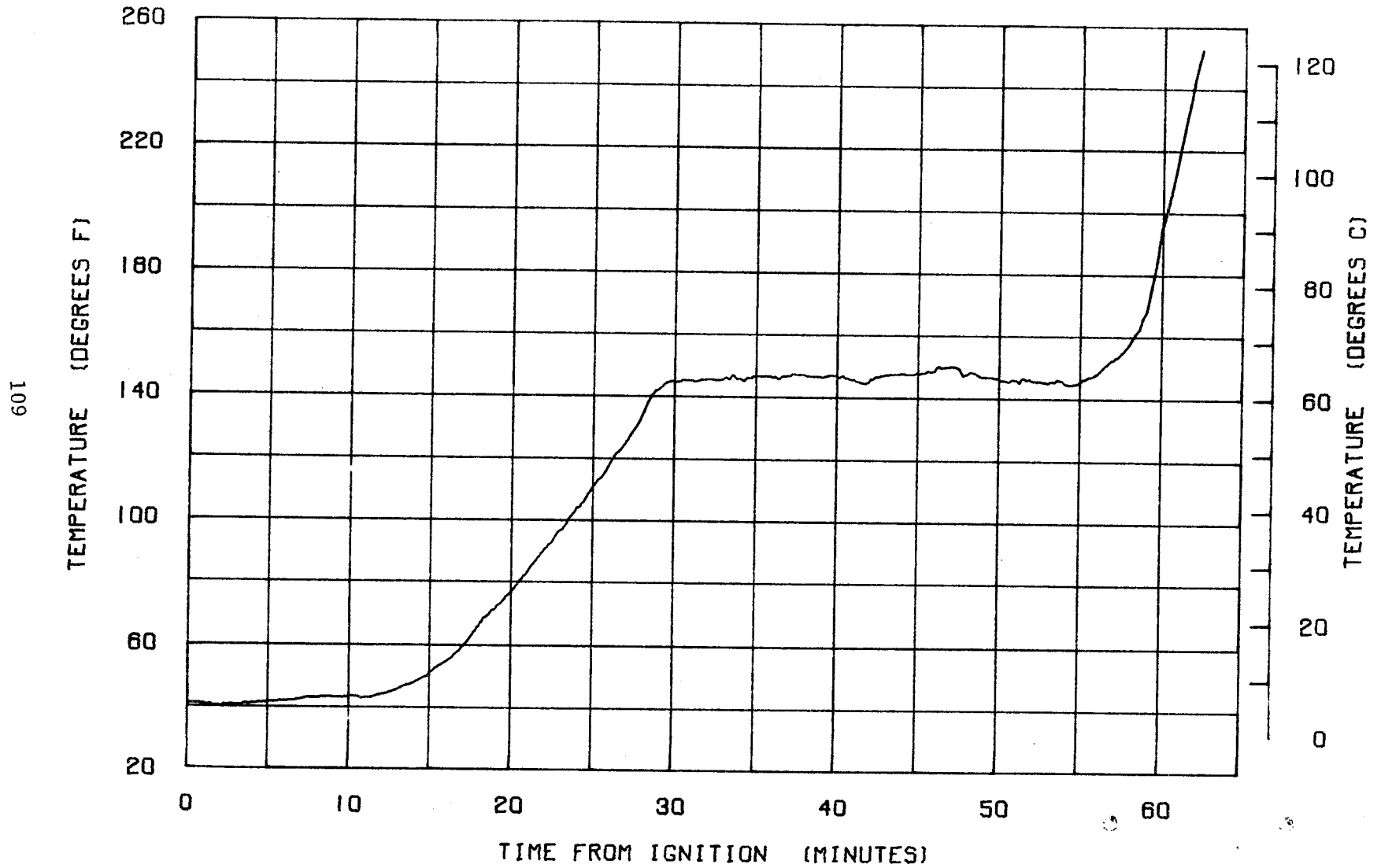


FIGURE A 23 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 33 OF TEST NUMBER 7  
(LOCATION IS INSIDE AT 6.30 )

110

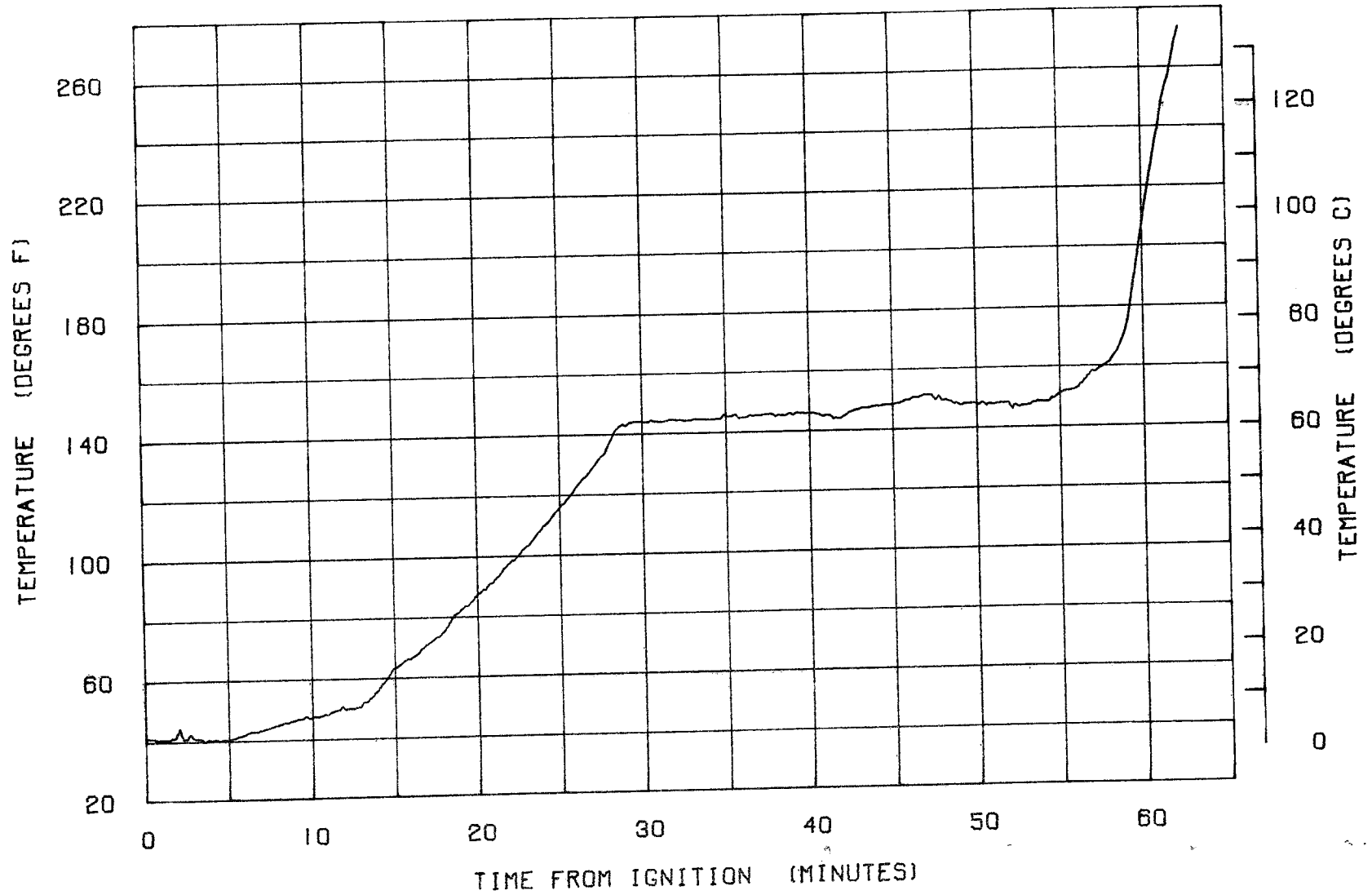


FIGURE A 24 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 34 OF TEST NUMBER 7  
(LOCATION IS INSIDE AT 7:00 )

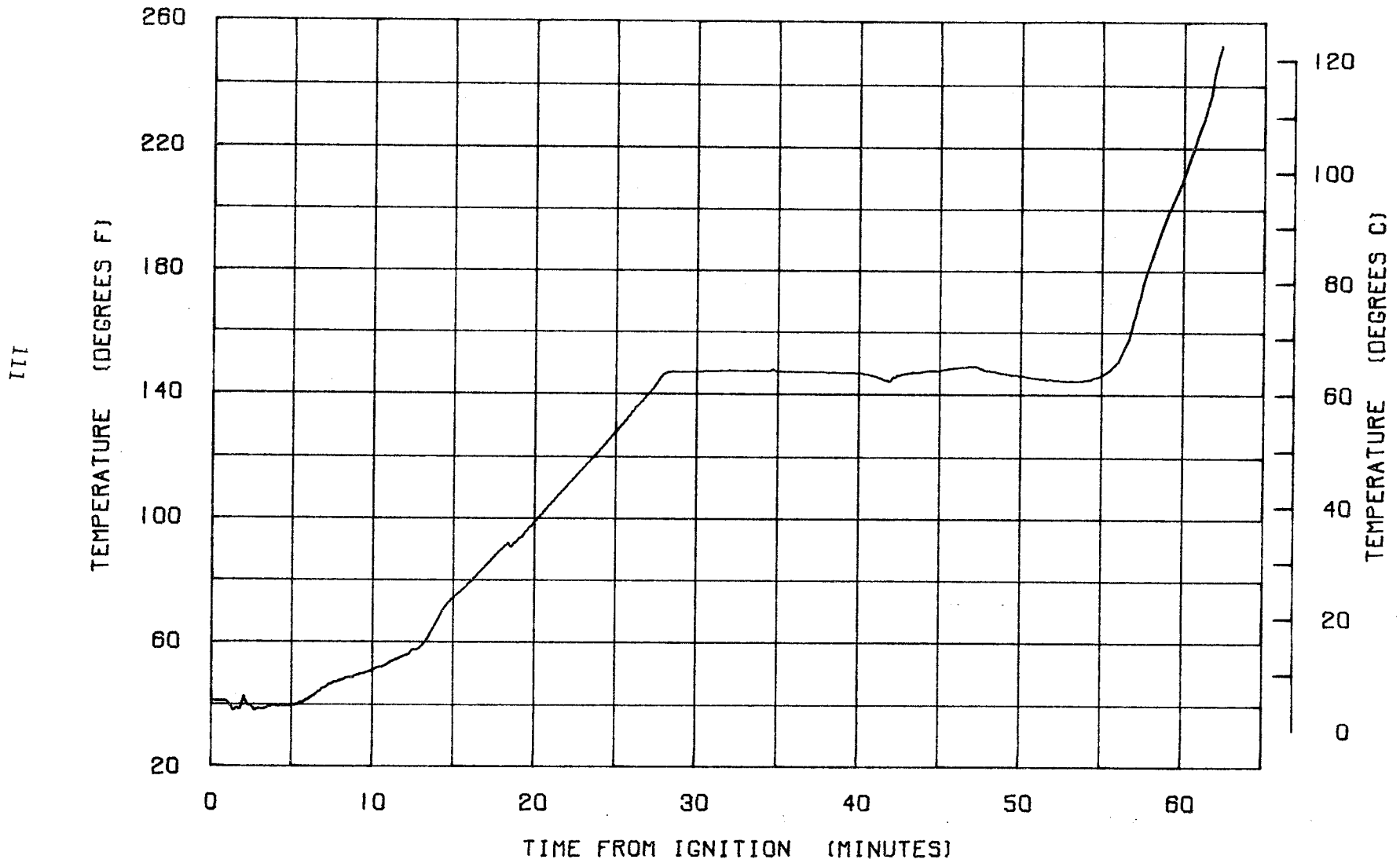
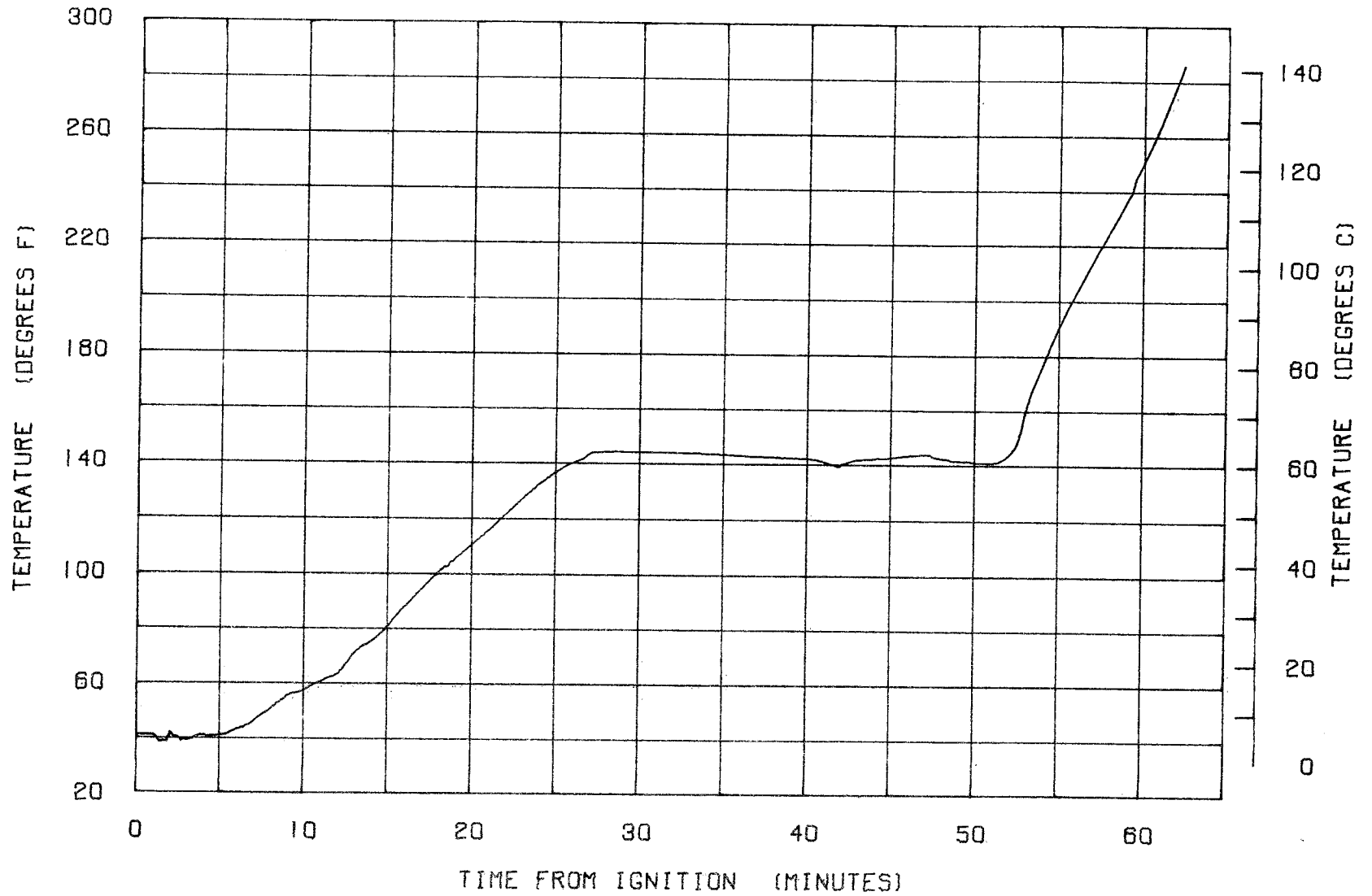


FIGURE A 25 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 35 OF TEST NUMBER 7  
(LOCATION IS INSIDE AT 7.30 )



112

FIGURE A 26 THERMOCOUPLE TEMPERATURE VS. TIME



VIDAR CHANNEL 36 OF TEST NUMBER 7  
(LOCATION IS INSIDE AT 8.00 )

113

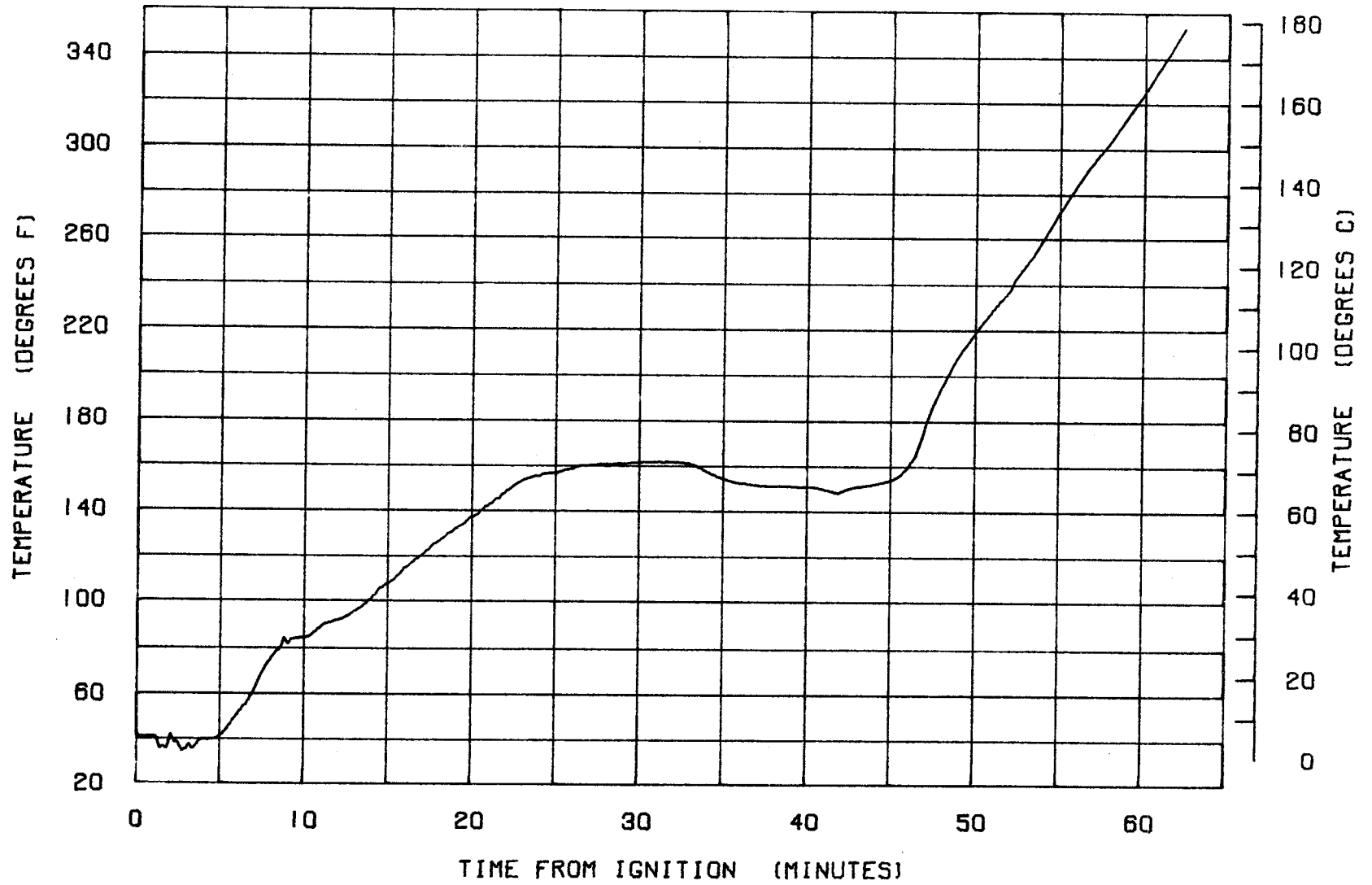


FIGURE A 27 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 37 OF TEST NUMBER 7  
(LOCATION IS INSIDE AT 9.00 )

114

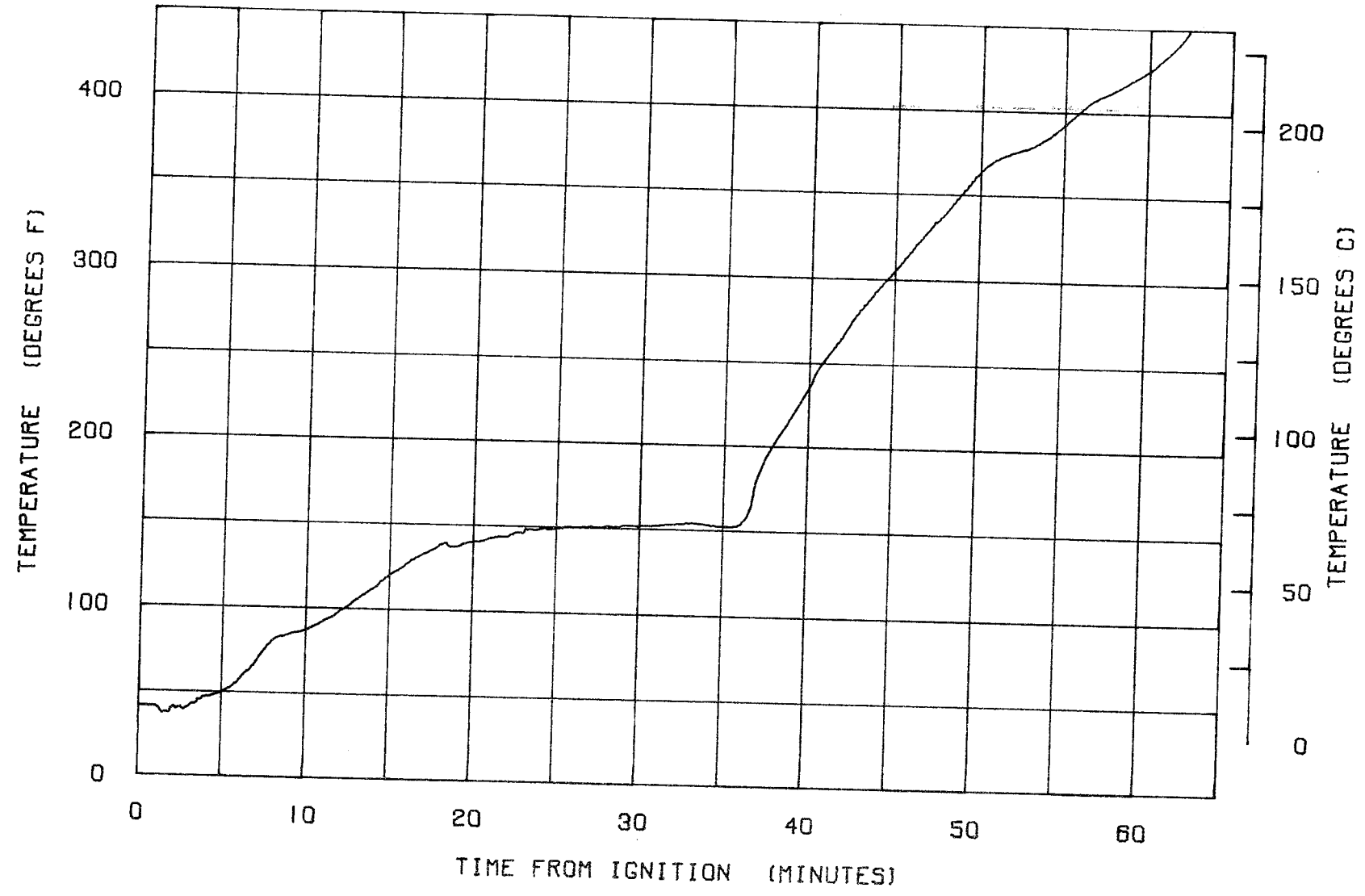


FIGURE A 28 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 38 OF TEST NUMBER 7  
(LOCATION IS INSIDE AT 10.00 )

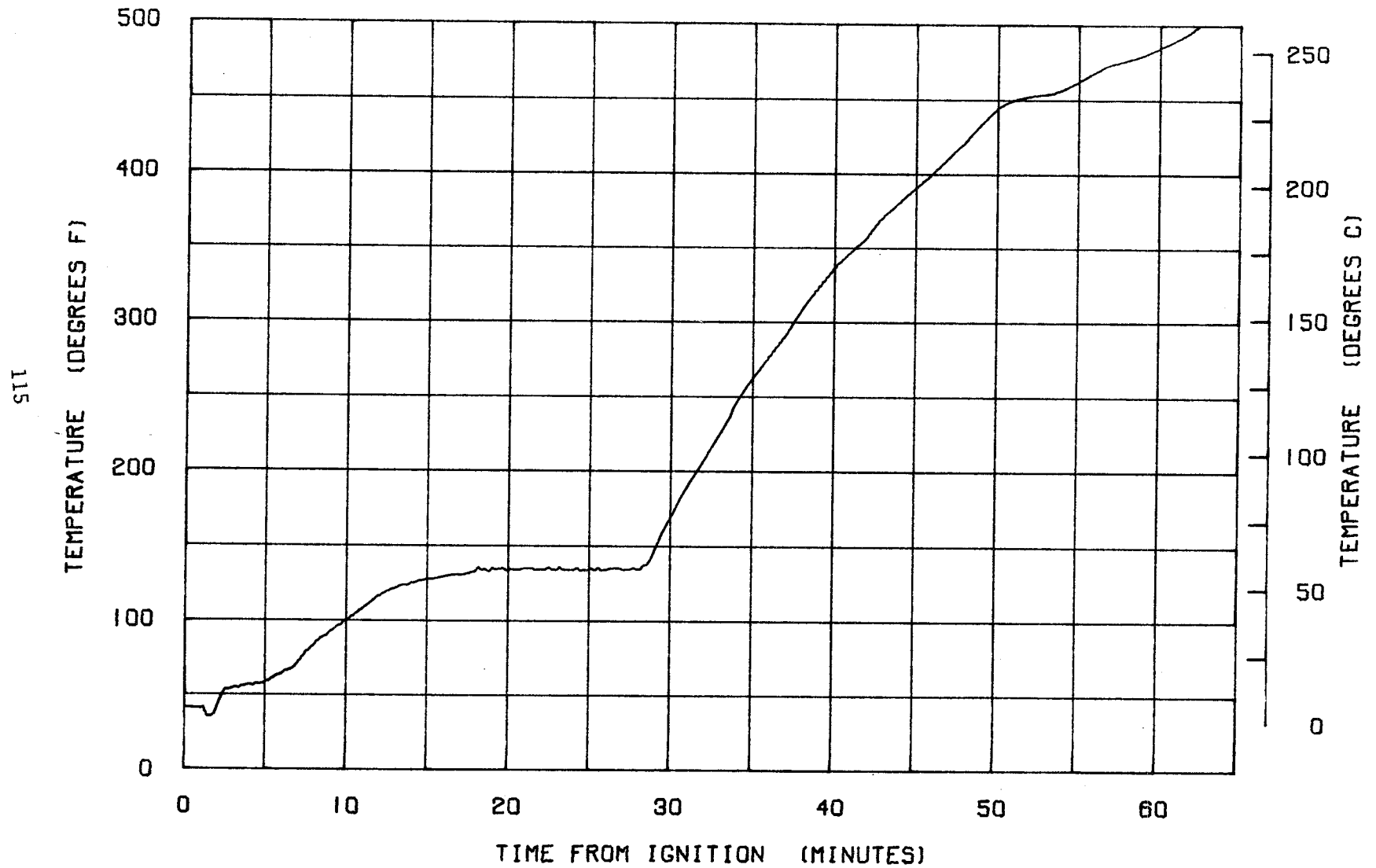


FIGURE A 29 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 39 OF TEST NUMBER 7  
(LOCATION IS INSIDE AT 10.30 )

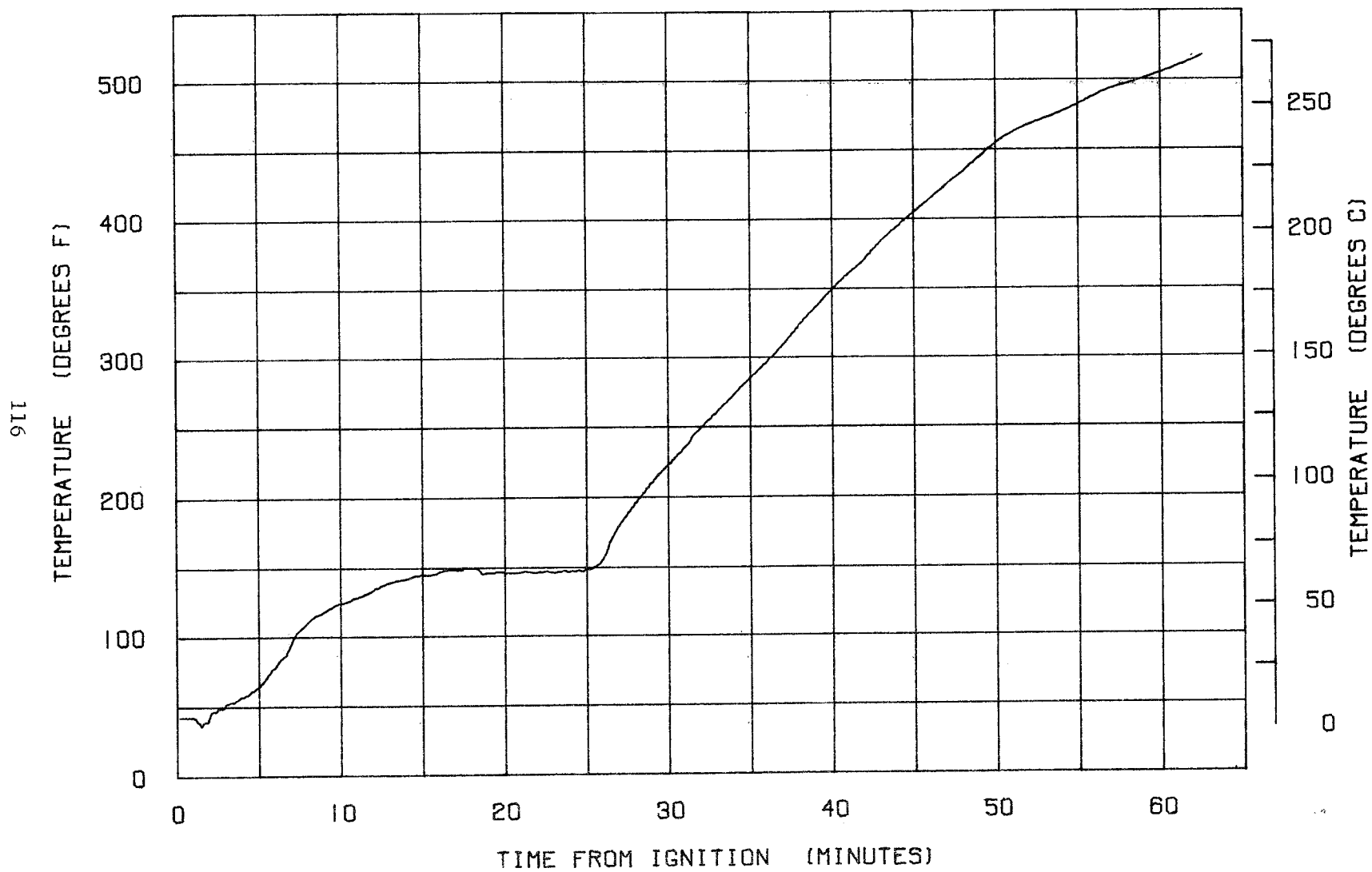


FIGURE A 30 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 40 OF TEST NUMBER 7  
(LOCATION IS INSIDE AT 11.00 )

117

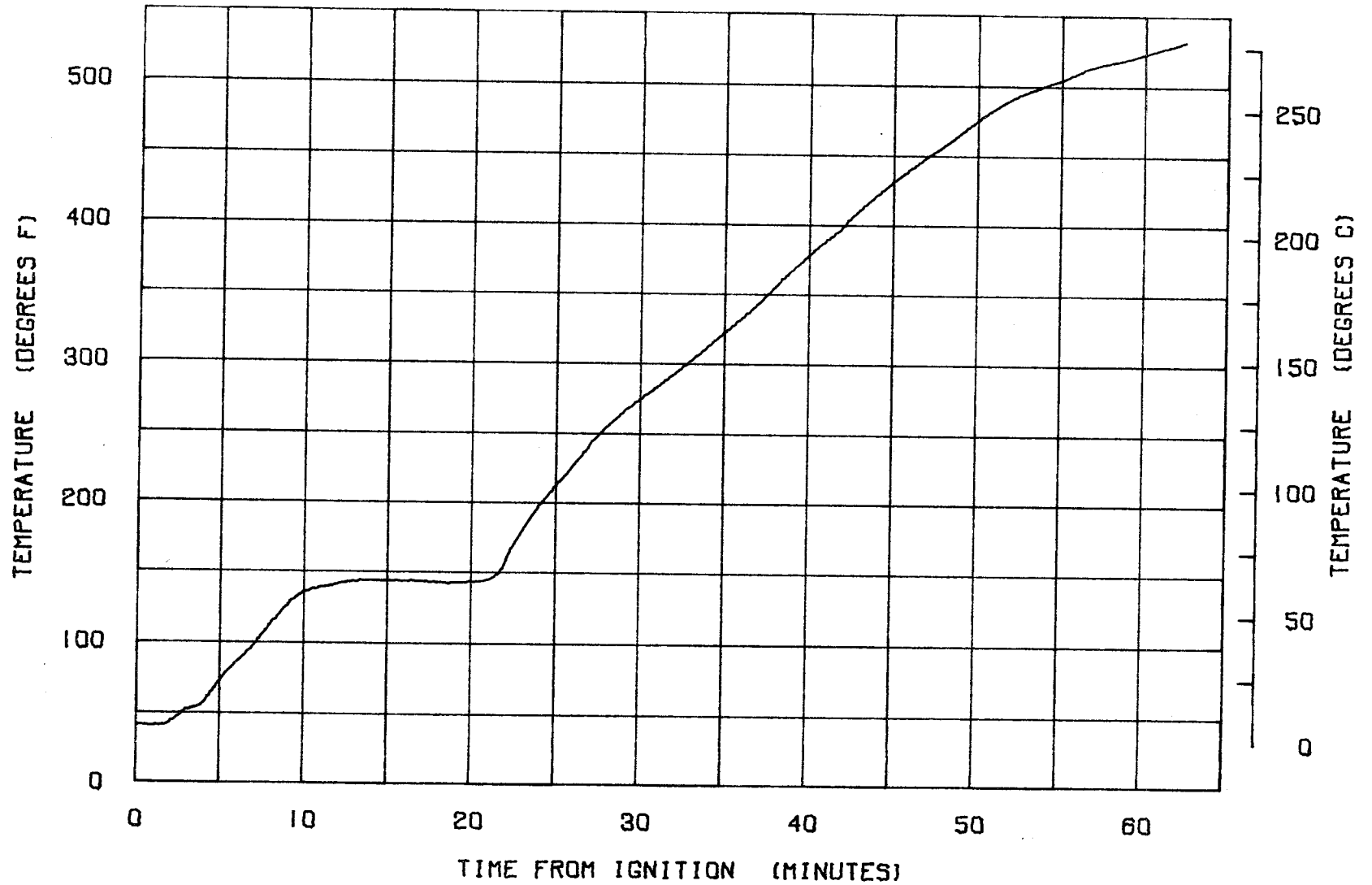


FIGURE A 31 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 41 OF TEST NUMBER 7  
(LOCATION IS INSIDE AT 11.30 )

111

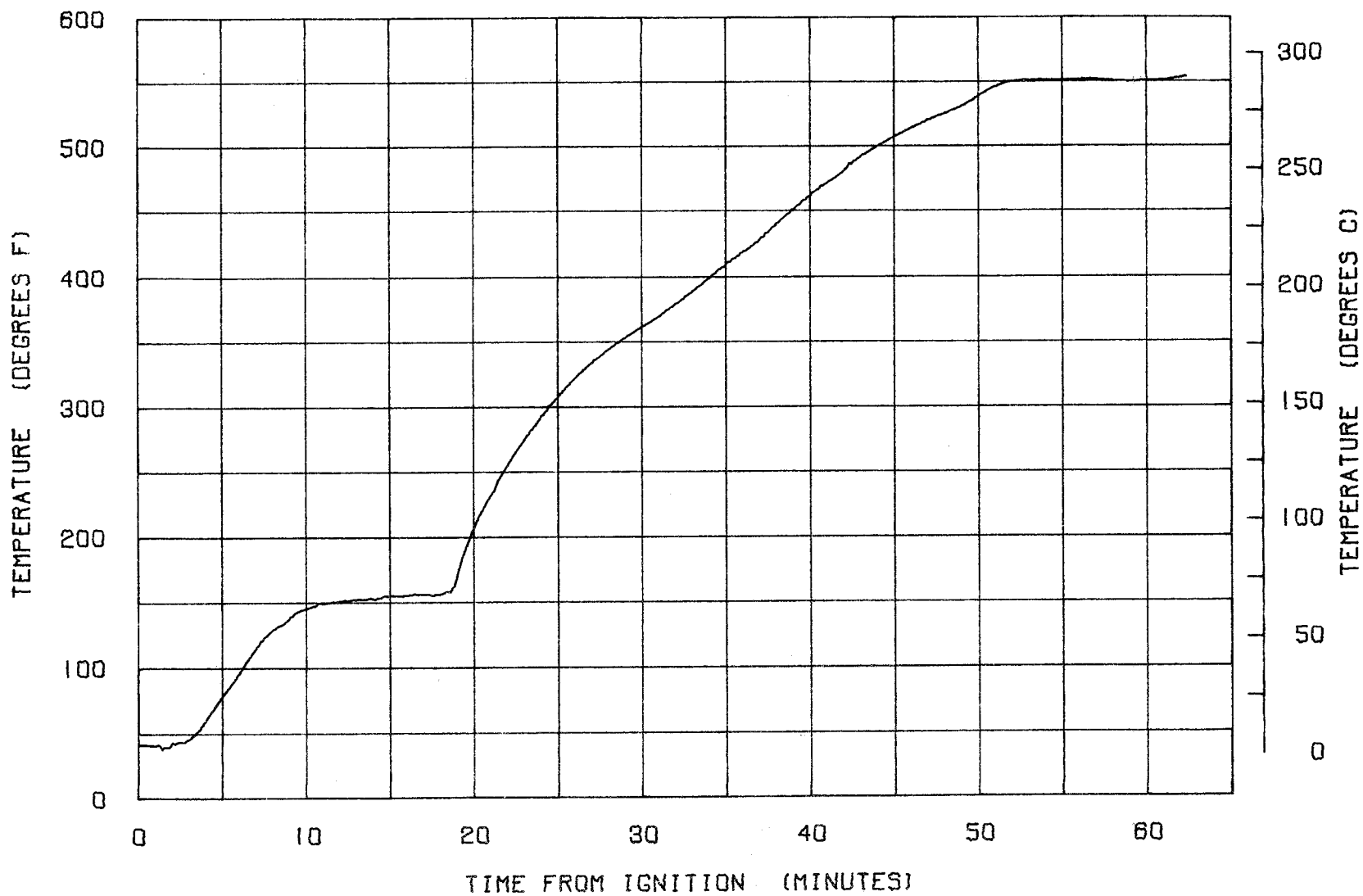
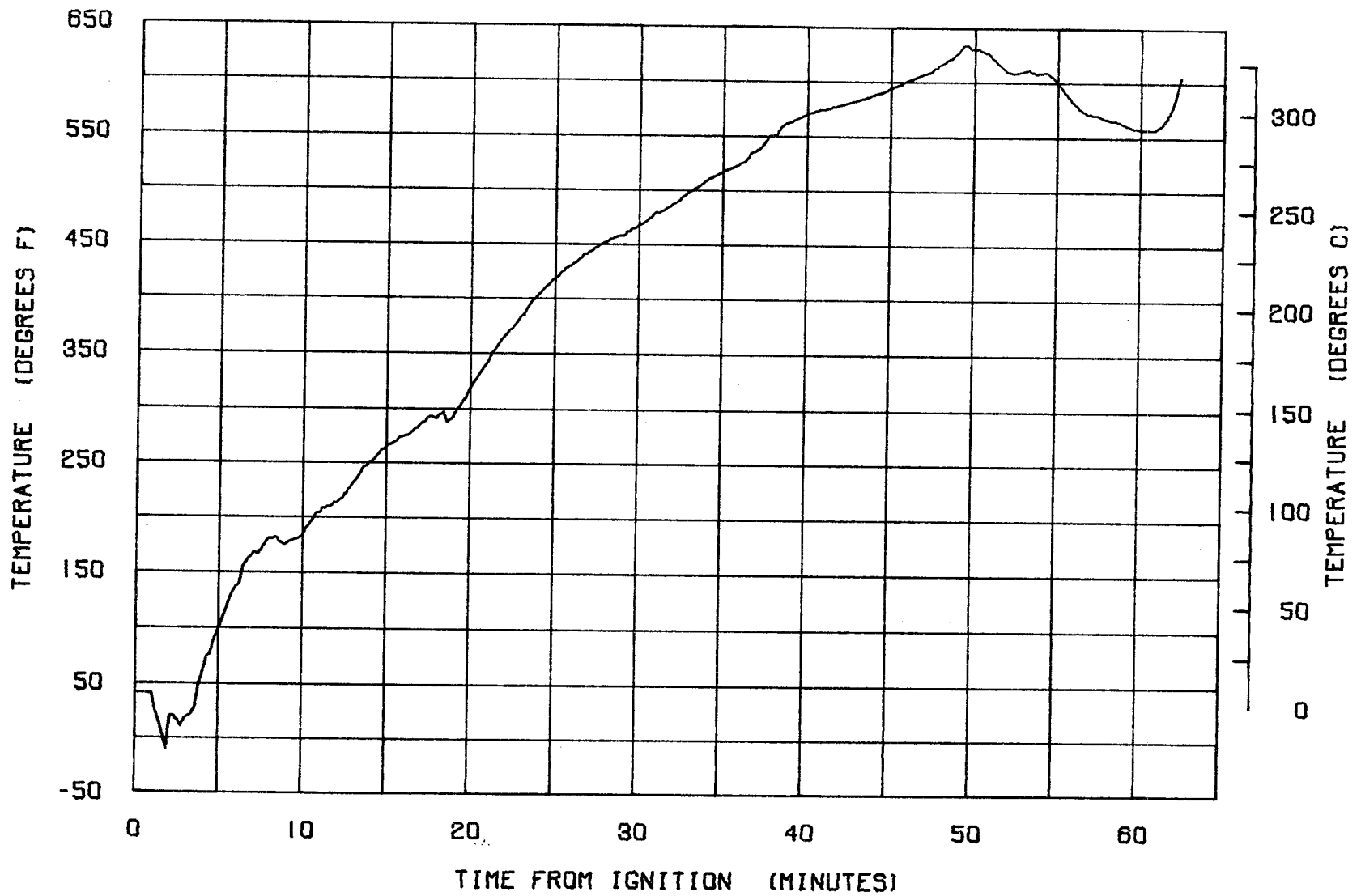


FIGURE A 32 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 44 OF TEST NUMBER 7  
(LOCATION IS OUTSIDE AT 12:00 )



611  
119

FIGURE A 33 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 45 OF TEST NUMBER 7  
(LOCATION IS OUTSIDE AT 1.00 )

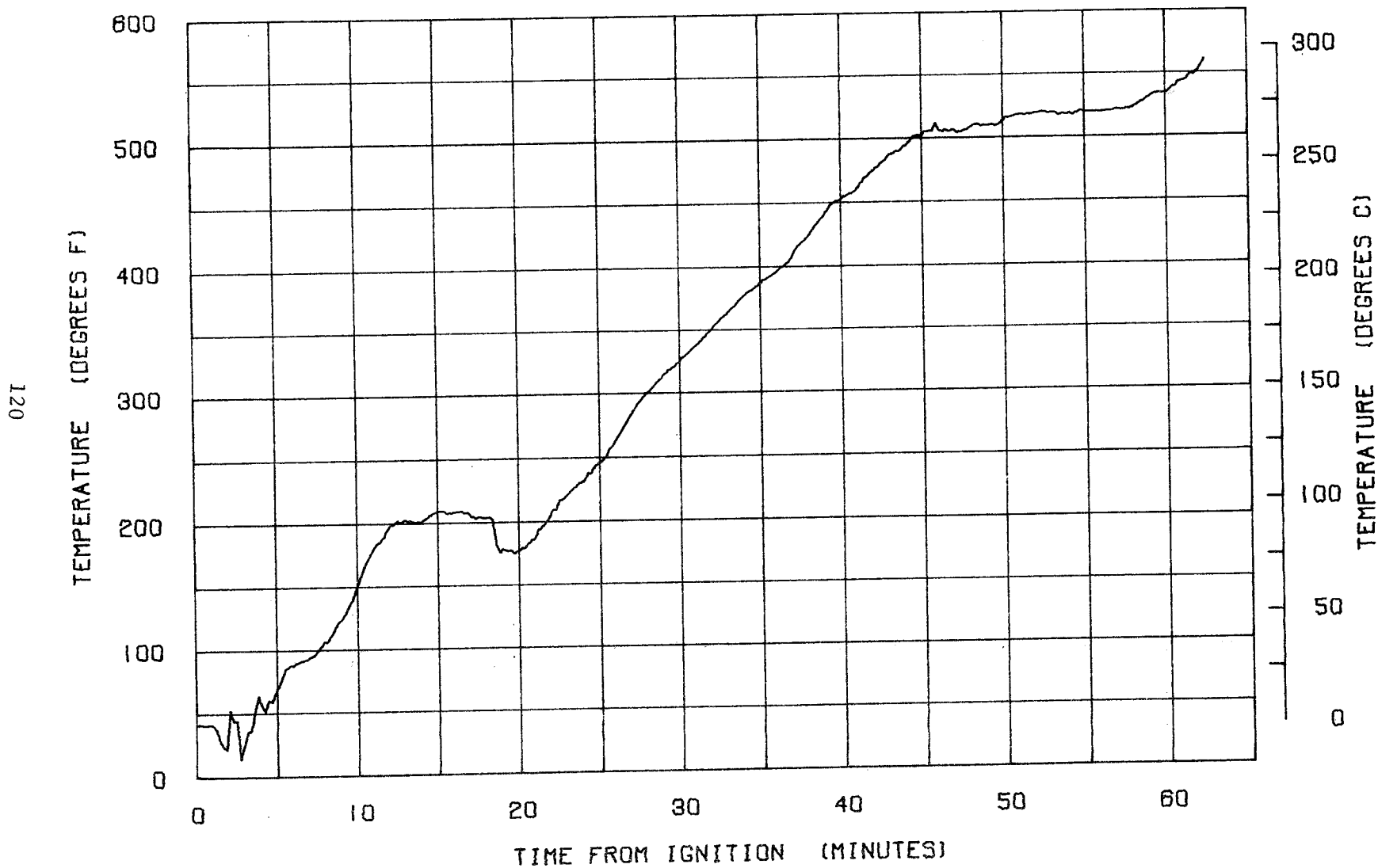


FIGURE A 34 THERMOCOUPLE TEMPERATURE VS. TIME



VIDAR CHANNEL 46 OF TEST NUMBER 7  
(LOCATION IS OUTSIDE AT 2.00 )

121

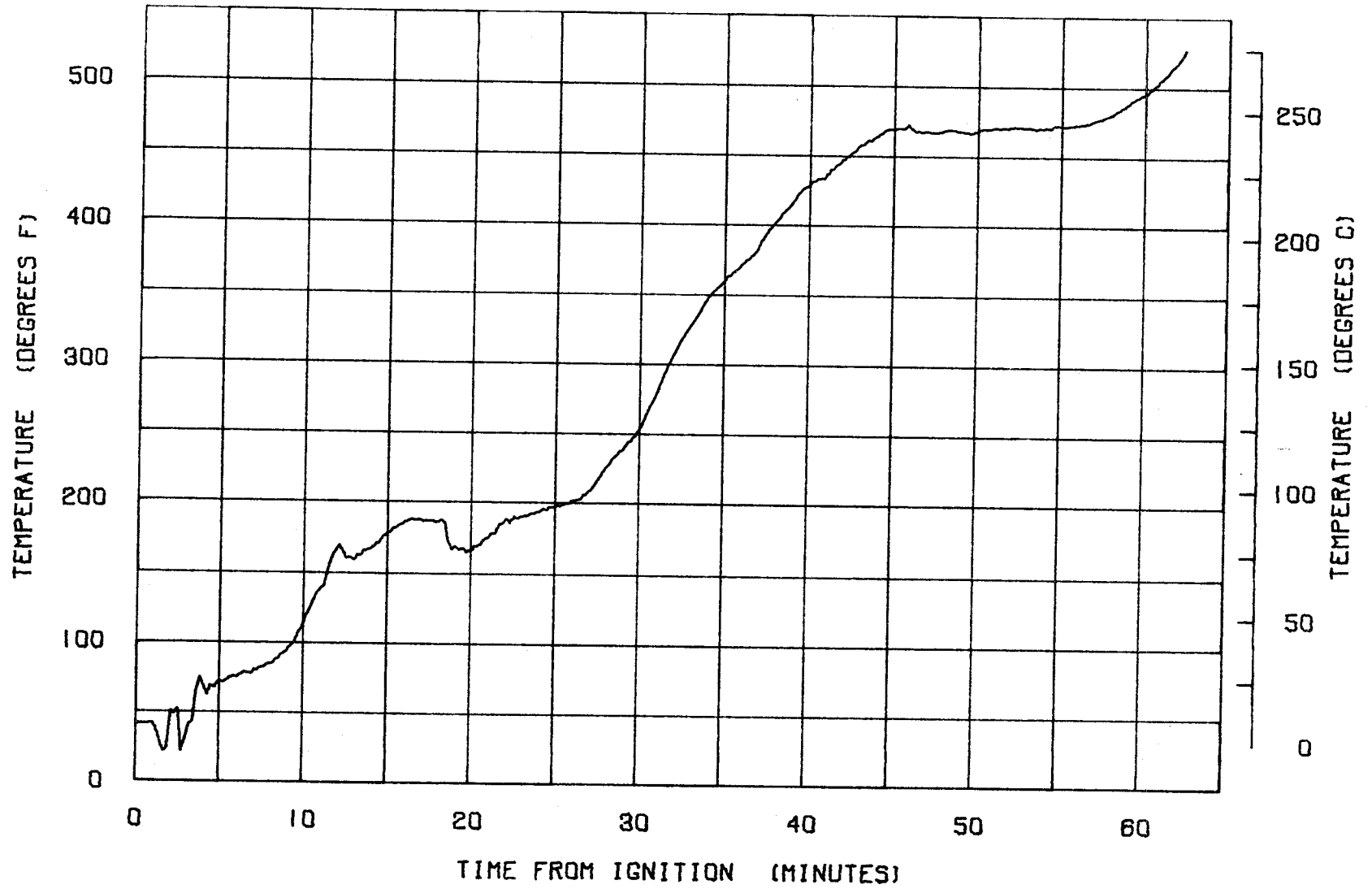


FIGURE A 35 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 47 OF TEST NUMBER 7  
(LOCATION IS OUTSIDE AT 3.00 )

122

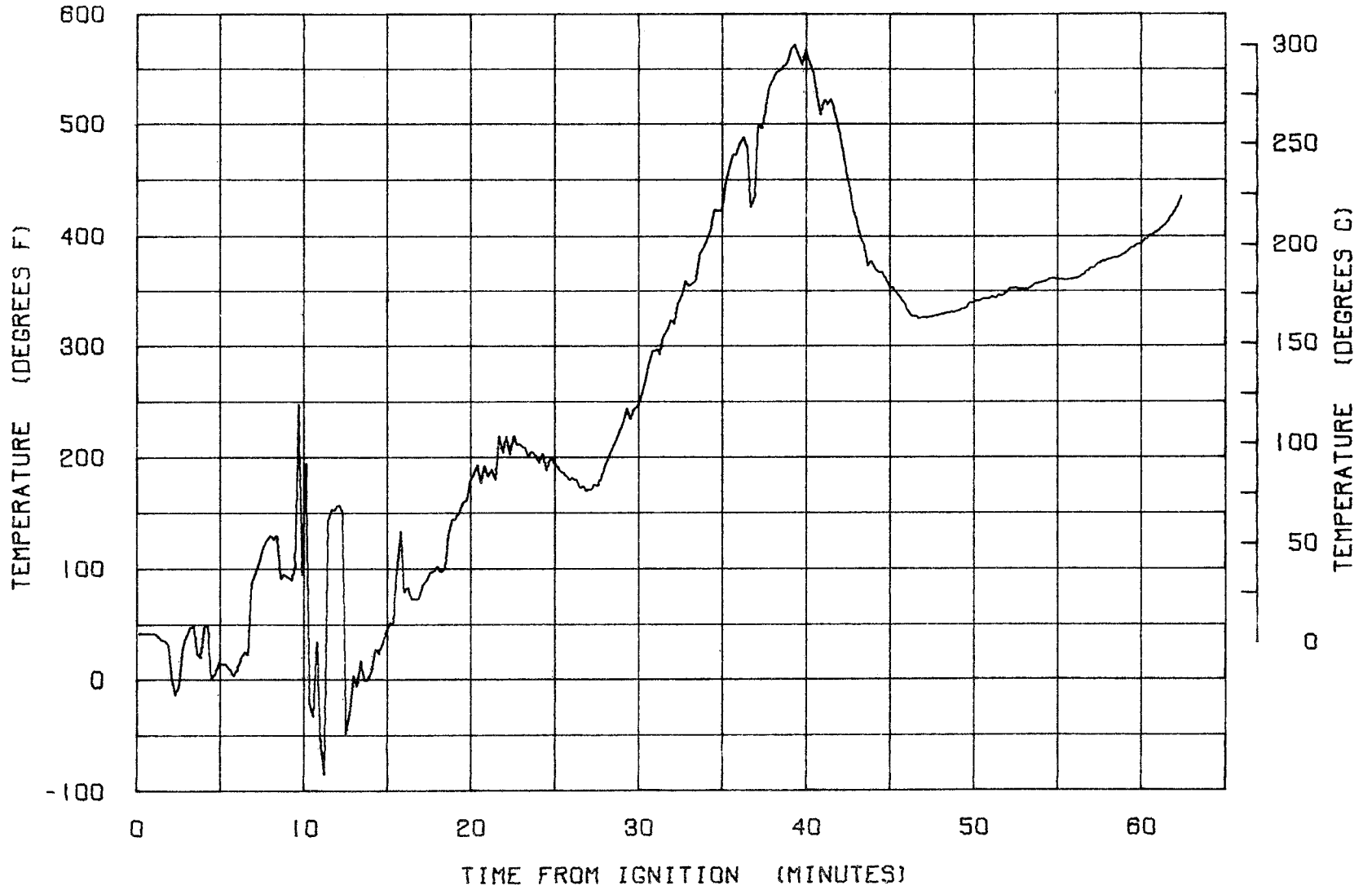


FIGURE A 36 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 48 OF TEST NUMBER 7  
(LOCATION IS OUTSIDE AT 4.00 )

123

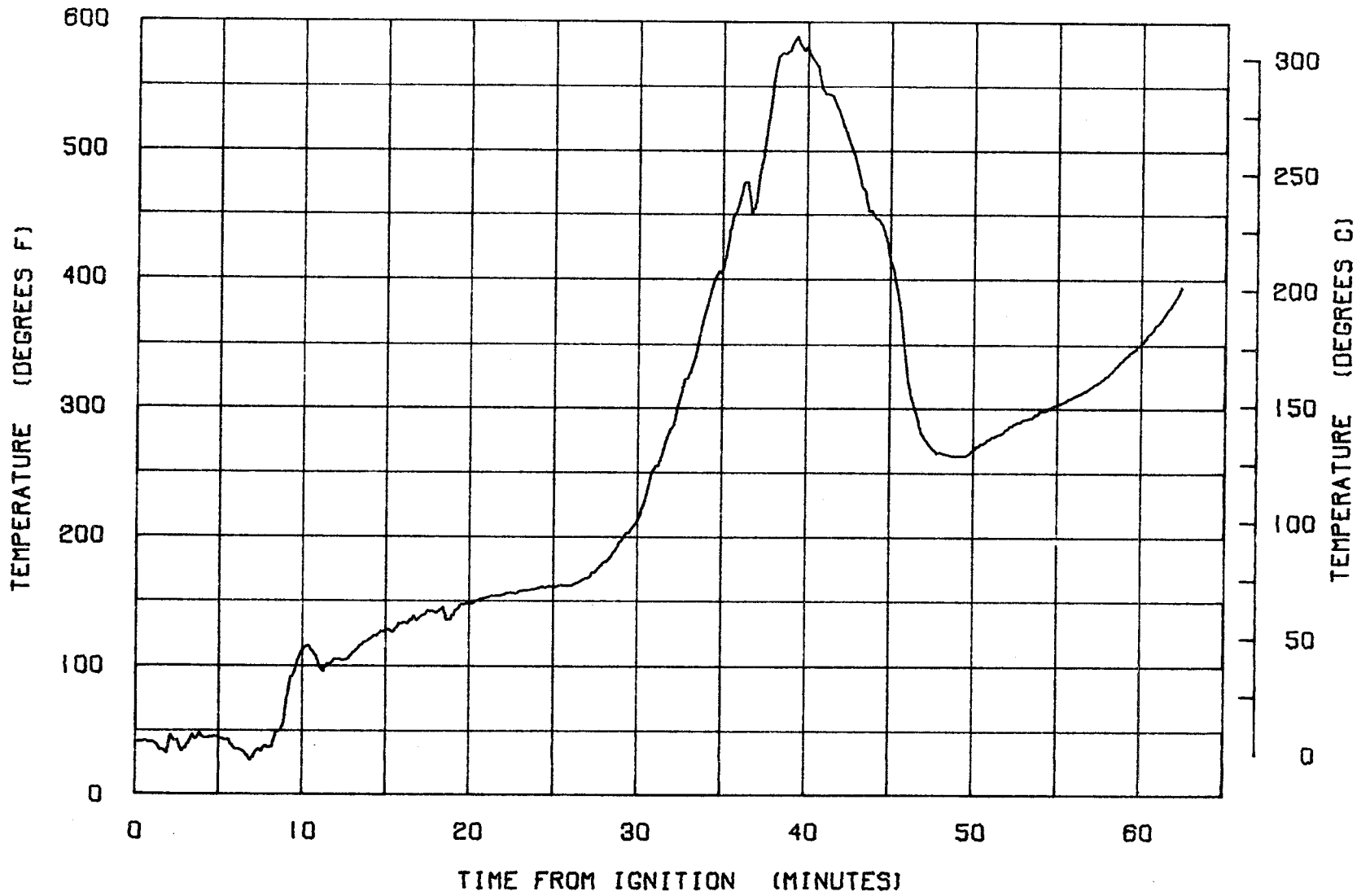


FIGURE A 37 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 49 OF TEST NUMBER 7  
(LOCATION IS OUTSIDE AT 5.00 )

124

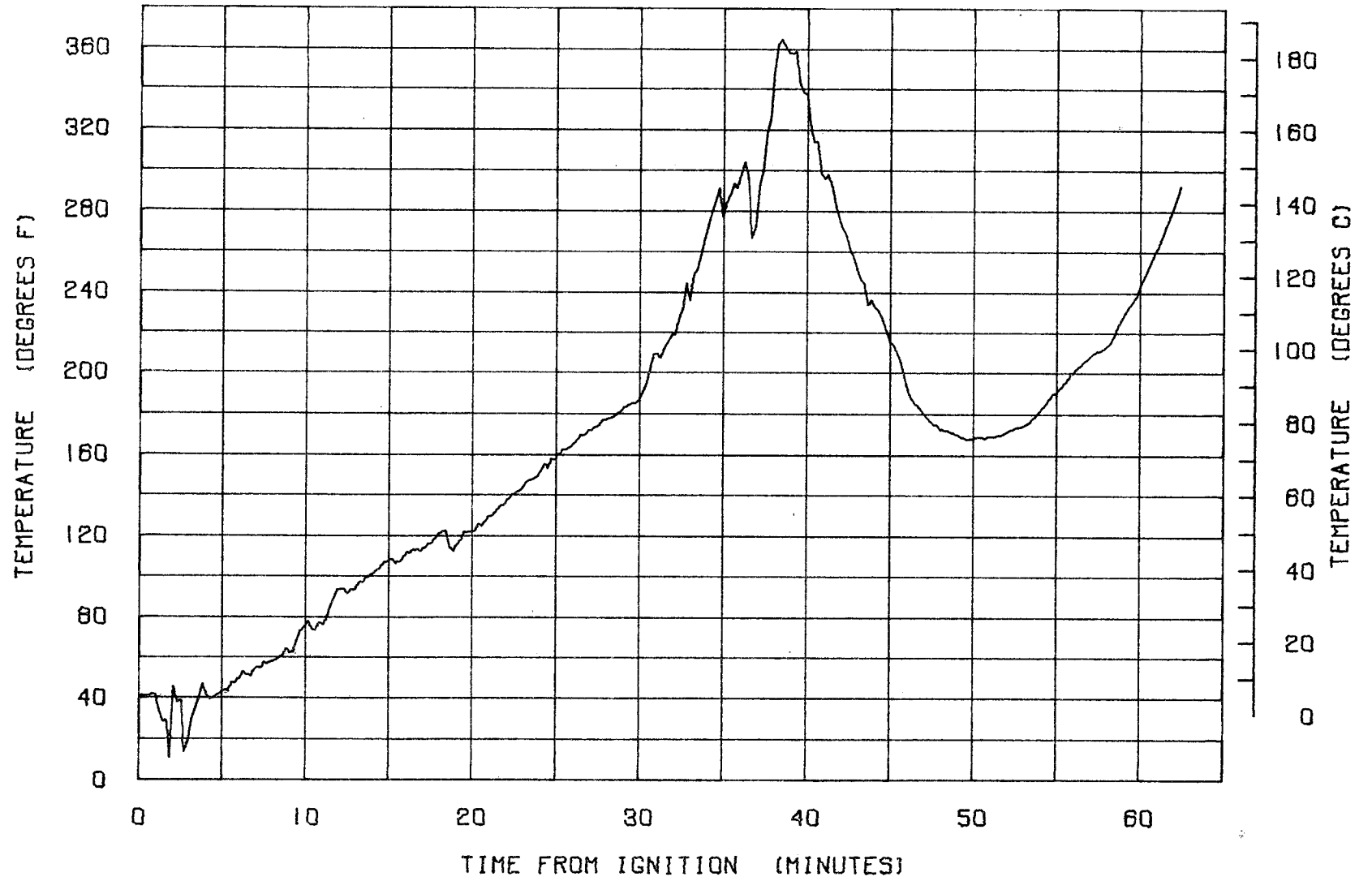


FIGURE A 38 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 50 OF TEST NUMBER 7  
(LOCATION IS OUTSIDE AT 6.00 )

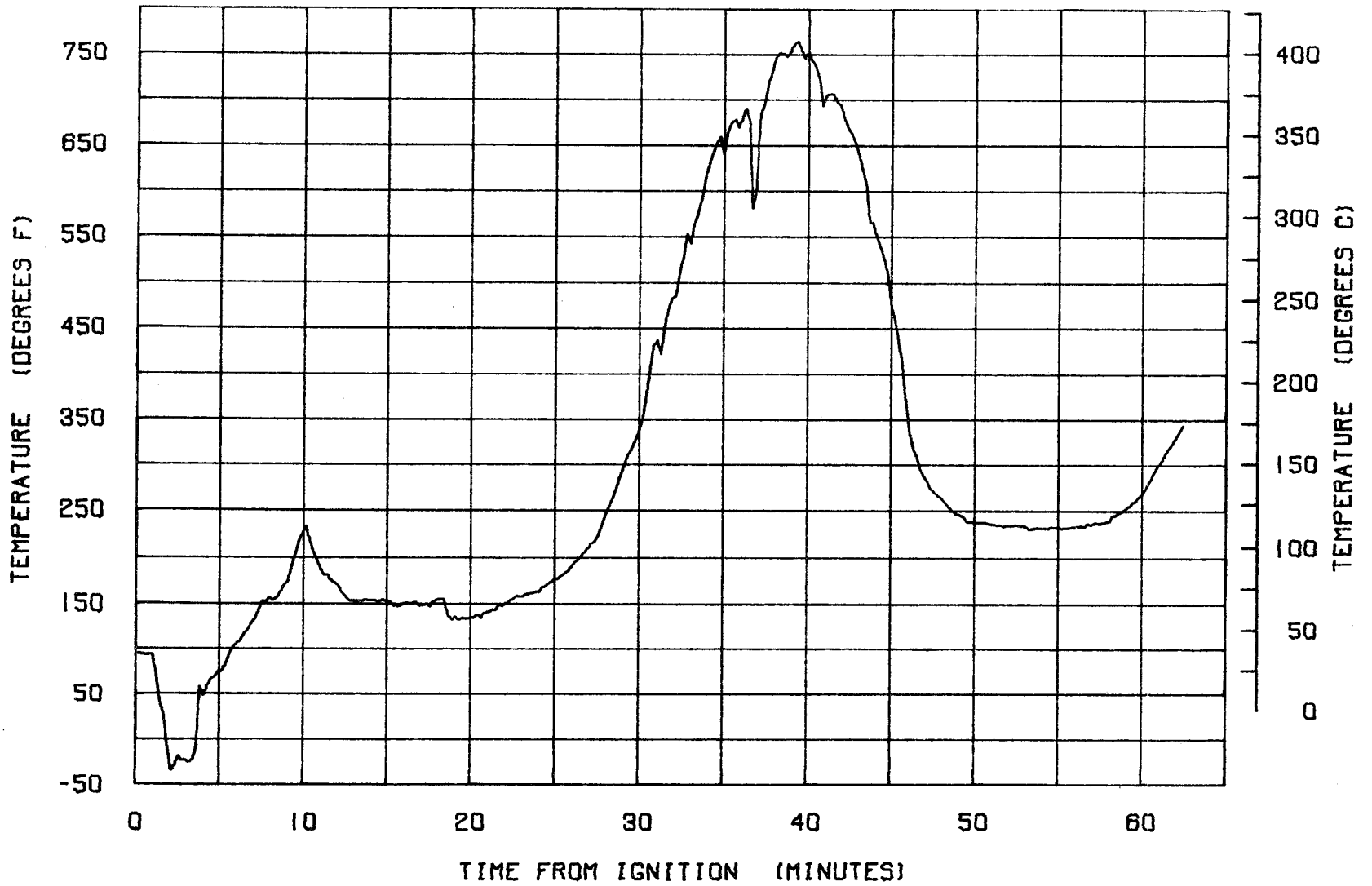


FIGURE A 39 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 51 OF TEST NUMBER 7  
(LOCATION IS OUTSIDE AT 7.00 )

126

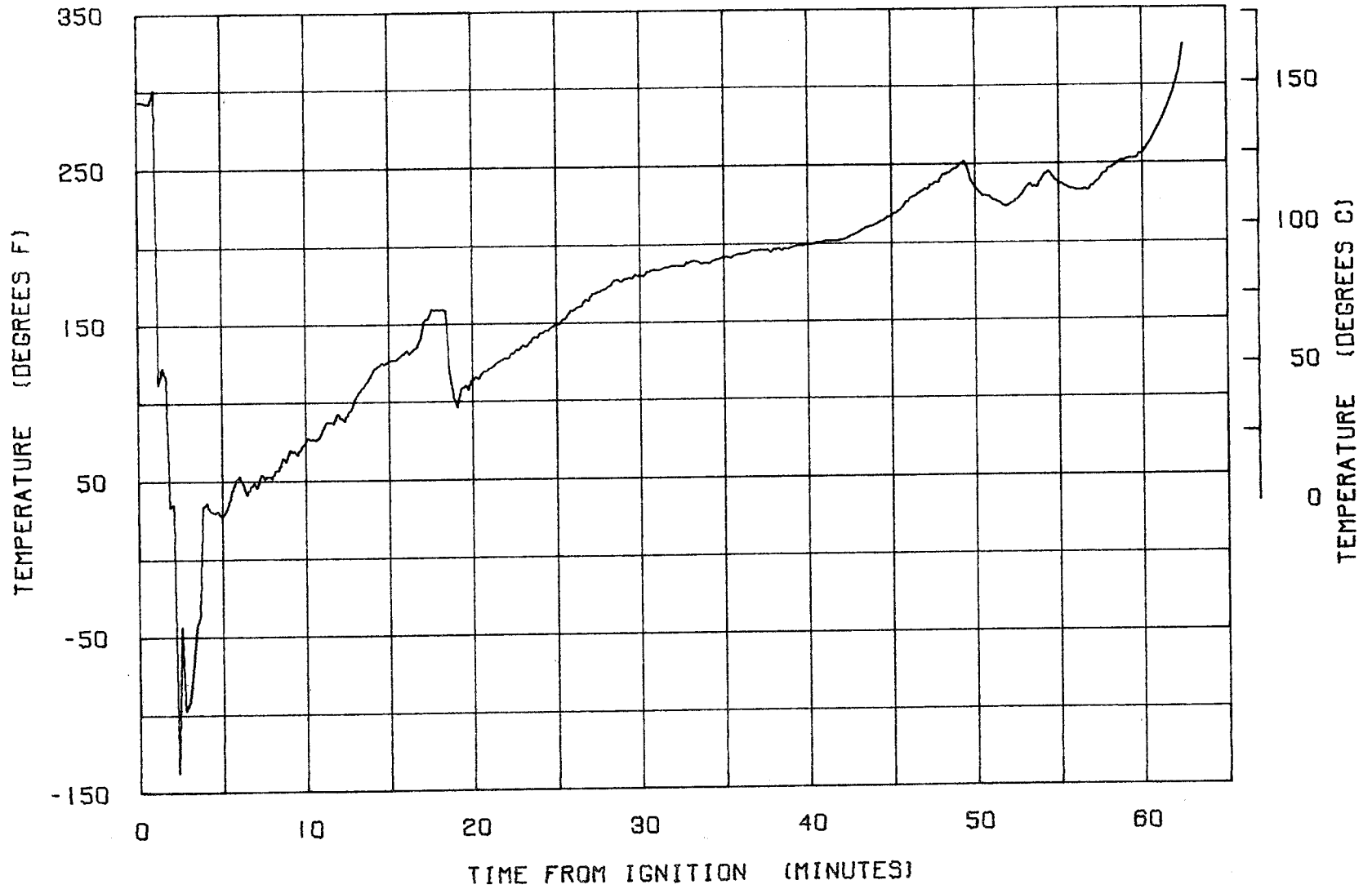


FIGURE A 40 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 52 OF TEST NUMBER 7  
(LOCATION IS OUTSIDE AT 8.00 )

127

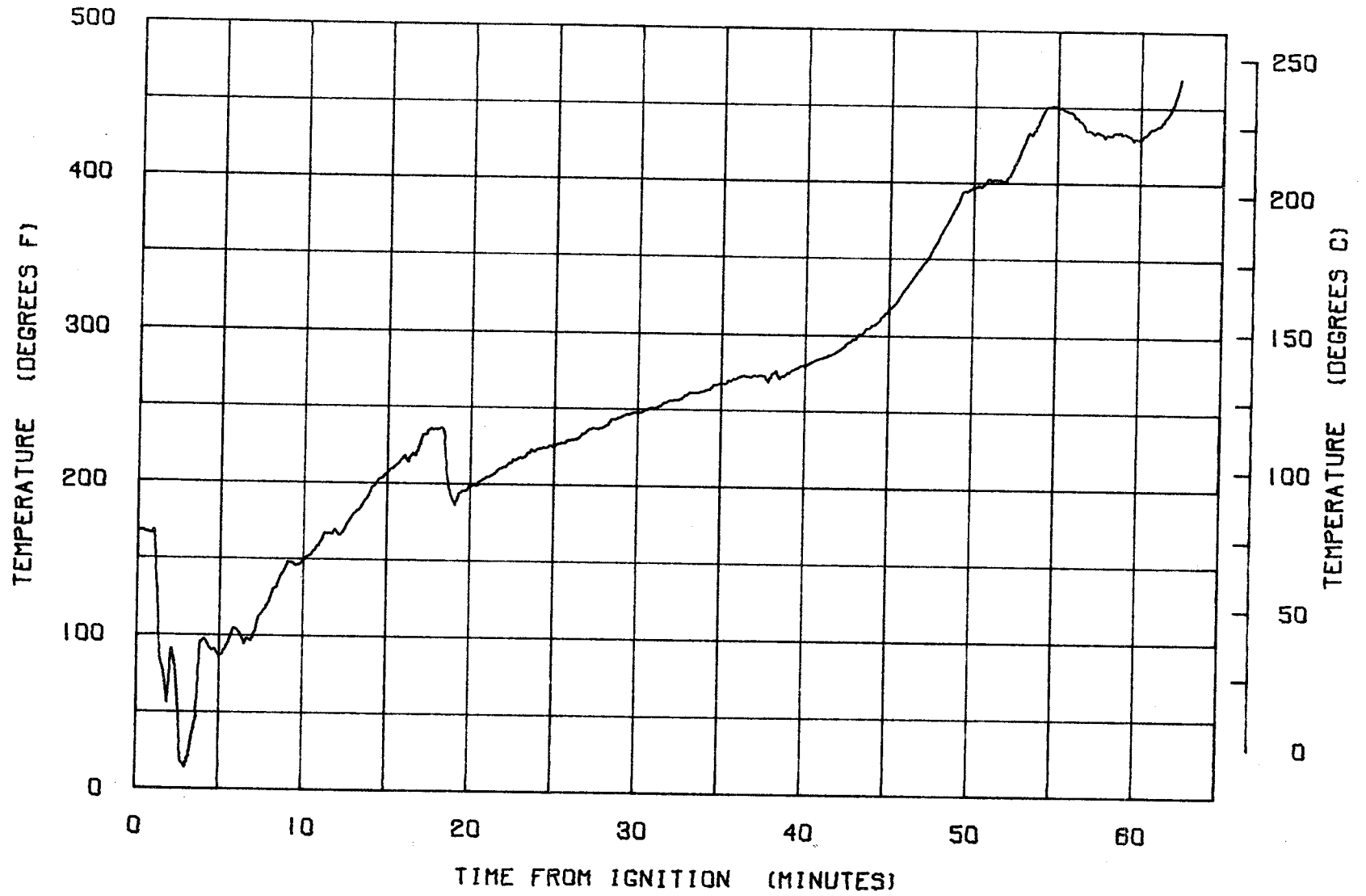


FIGURE A 41 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 53 OF TEST NUMBER 7

(LOCATION IS OUTSIDE AT 8.00)

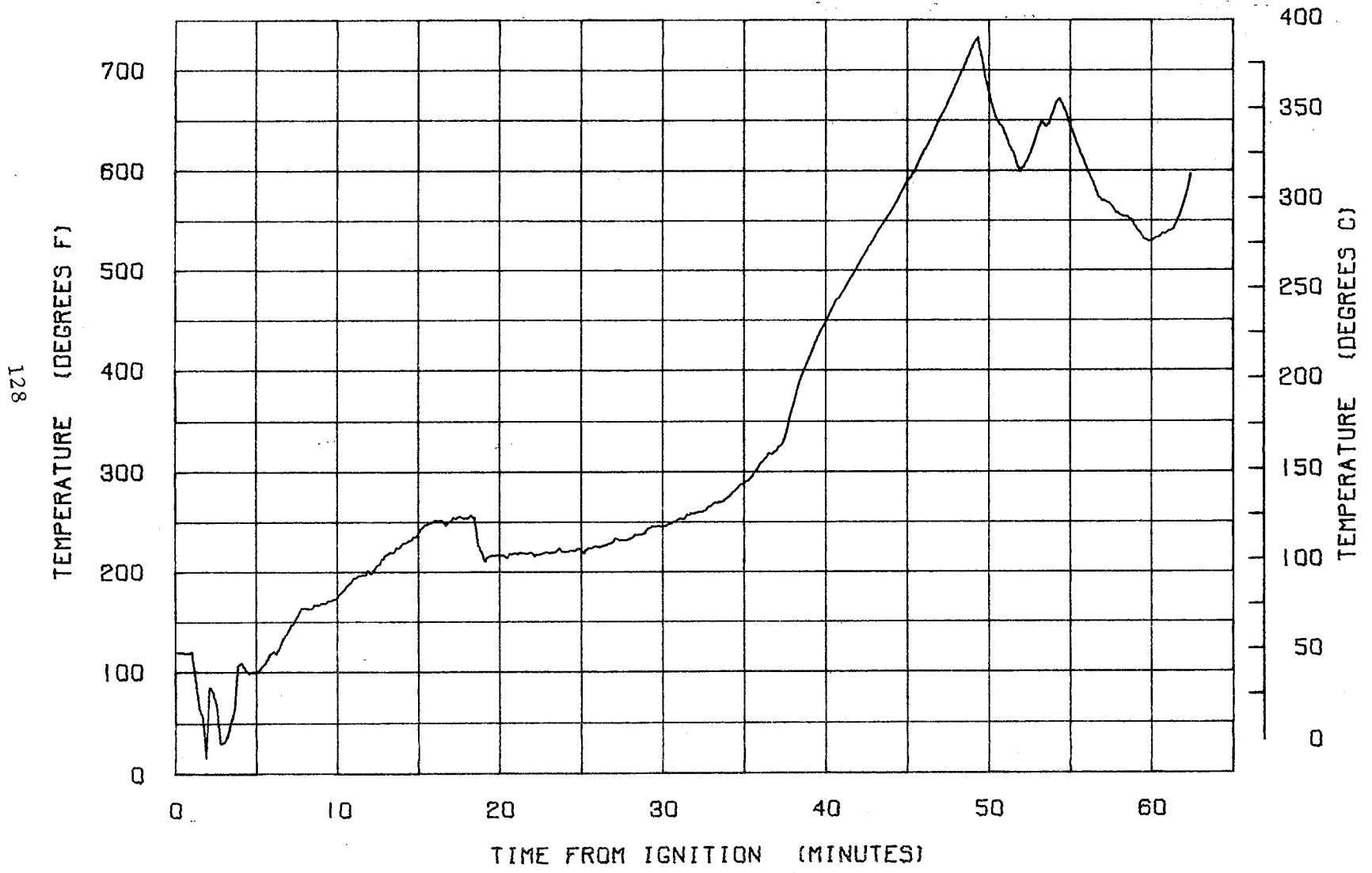


FIGURE A 42 THERMOCOUPLE TEMPERATURE VS. TIME



VIDAR CHANNEL 54 OF TEST NUMBER 7

(LOCATION IS OUTSIDE AT 10.00 )

129

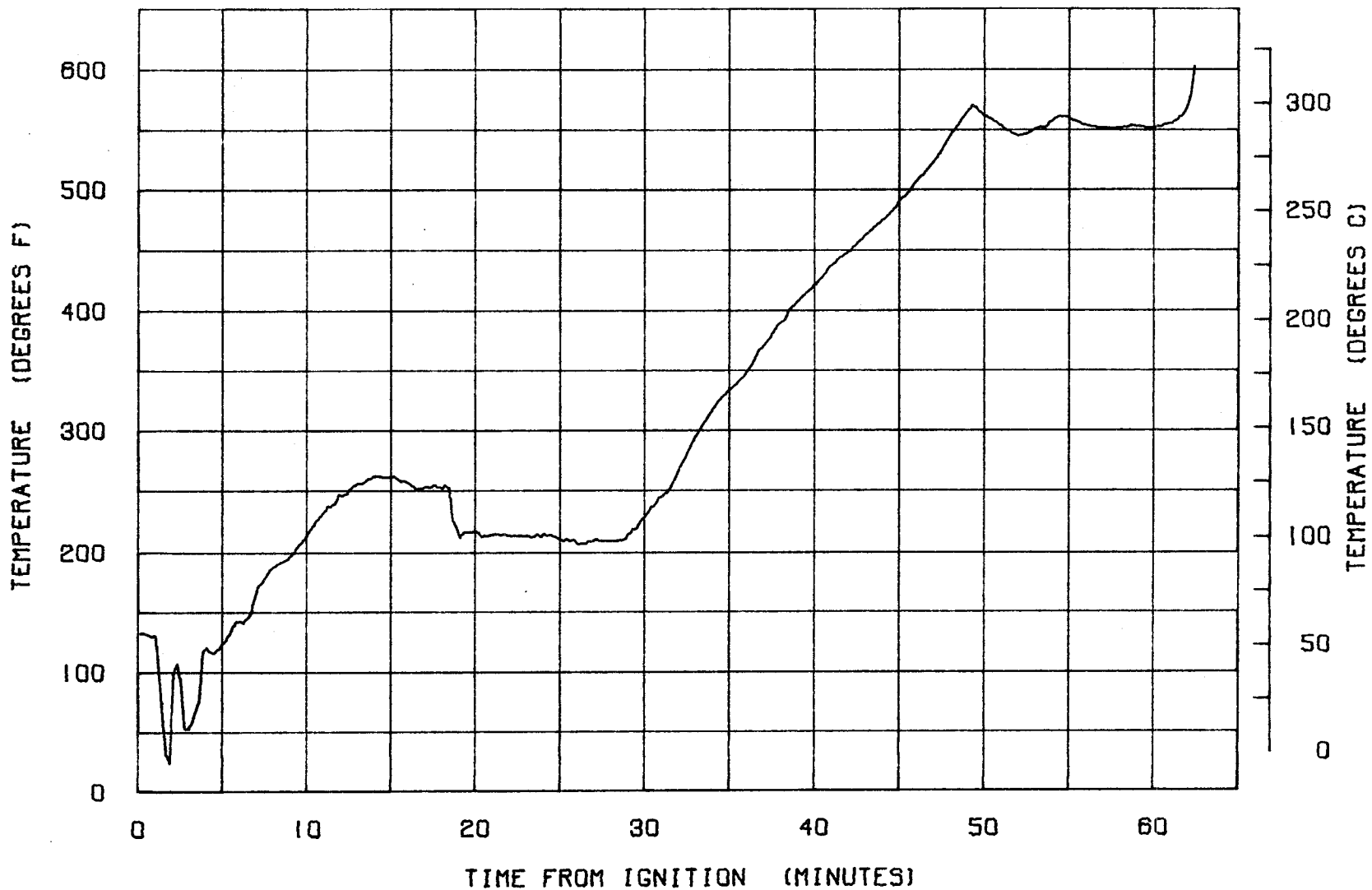


FIGURE A 43 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 56 OF TEST NUMBER 7

(LOCATION IS OUTSIDE AT 11.00 )

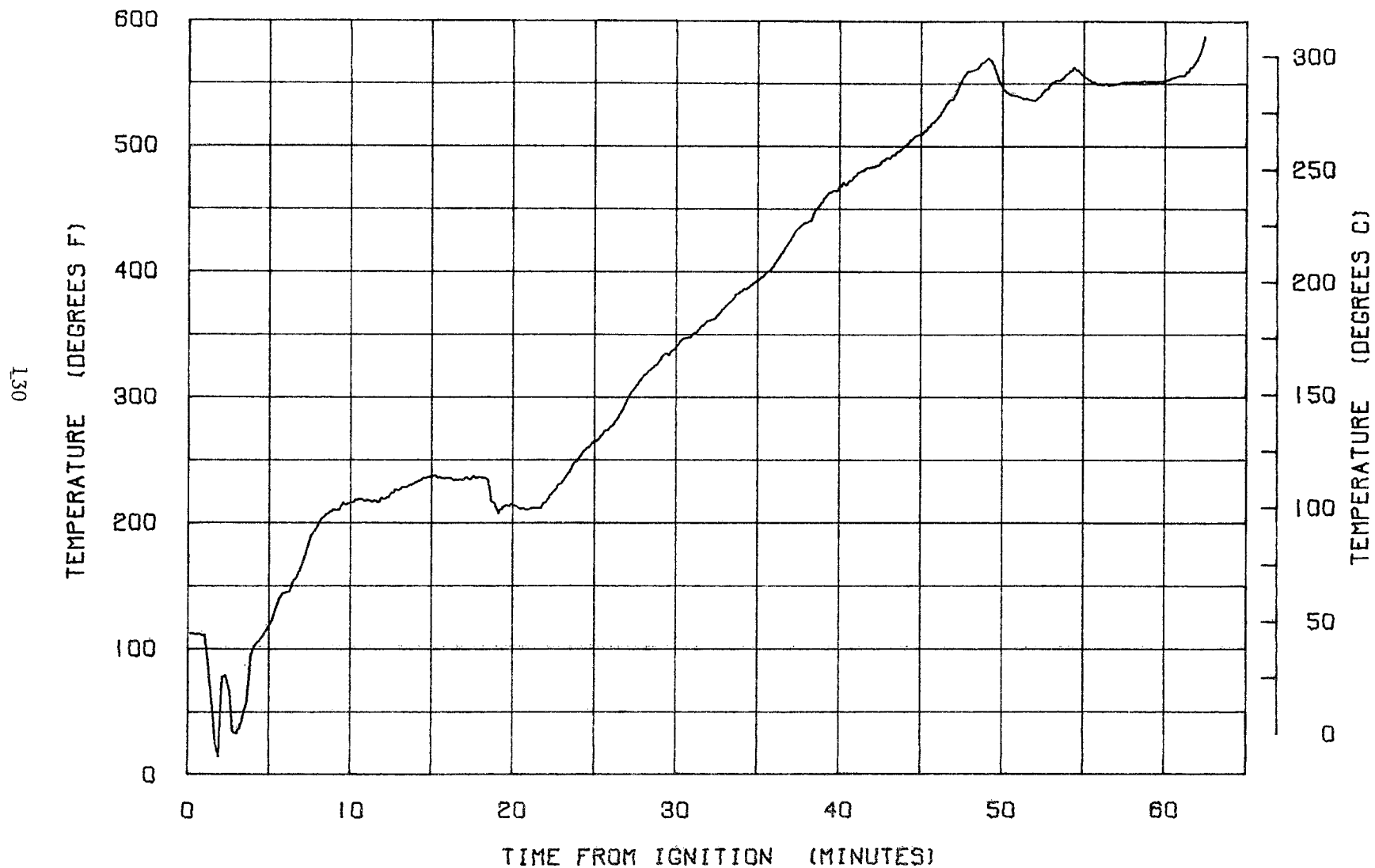


FIGURE A 44 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 42 OF TEST NUMBER 7

(LOCATION IS MANWAY AT 1. IN. )

131

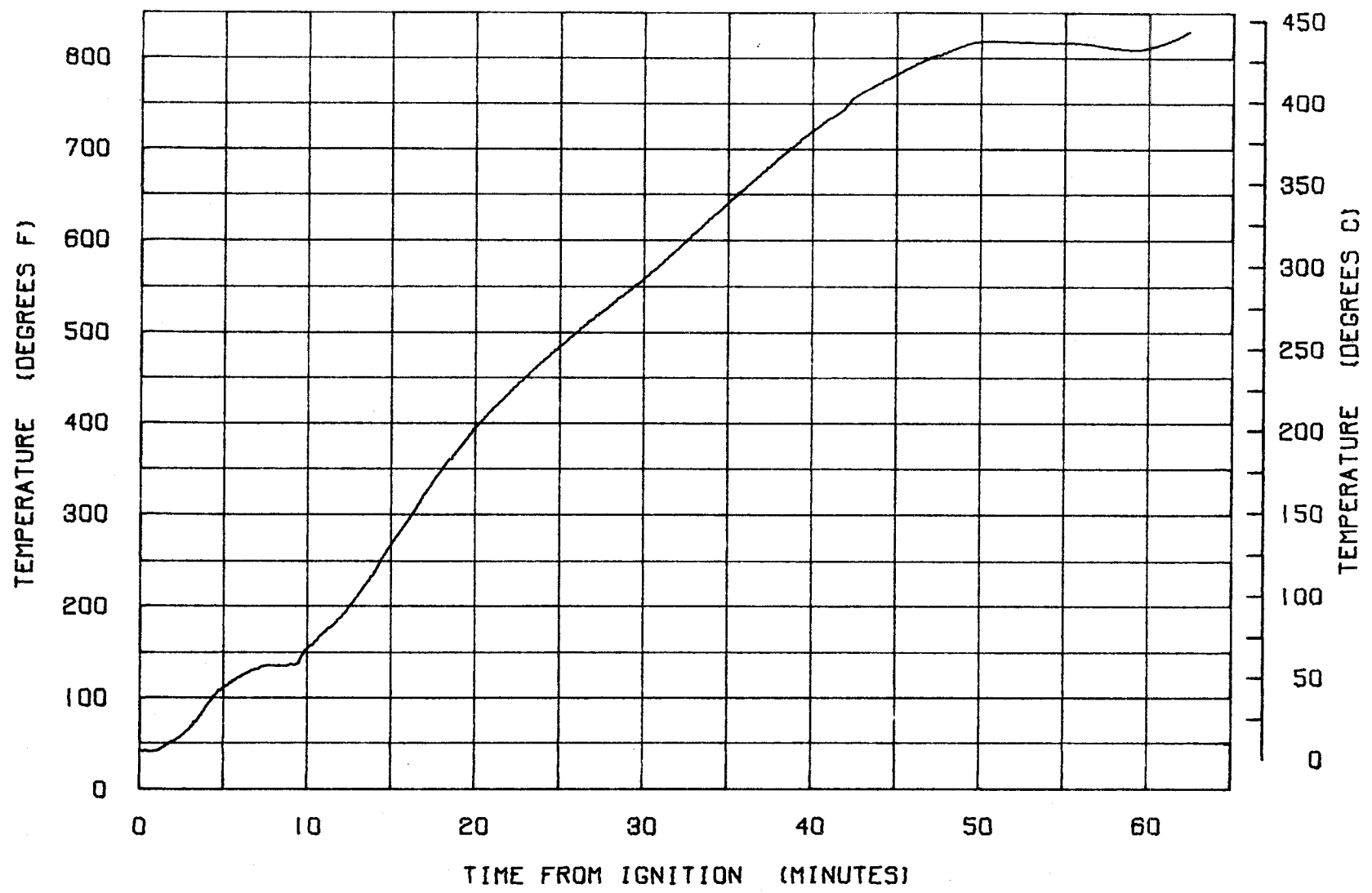


FIGURE A 45 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 43 OF TEST NUMBER 7  
(LOCATION IS MANWAY AT 6. INS.)

132

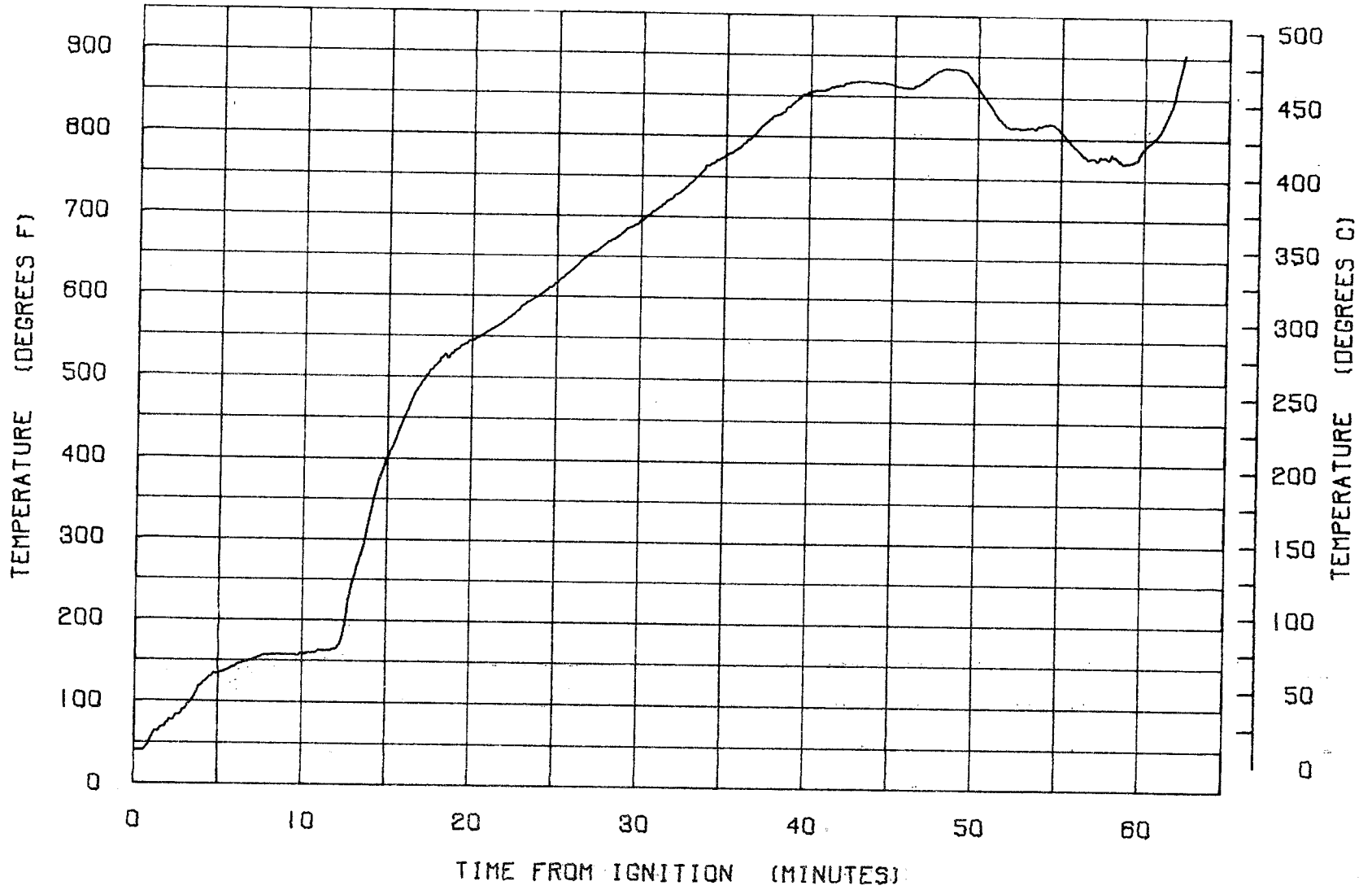


FIGURE A 46 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 55 OF TEST NUMBER 7  
(LOCATION IS FIRE AT 12.00 FORE )

133

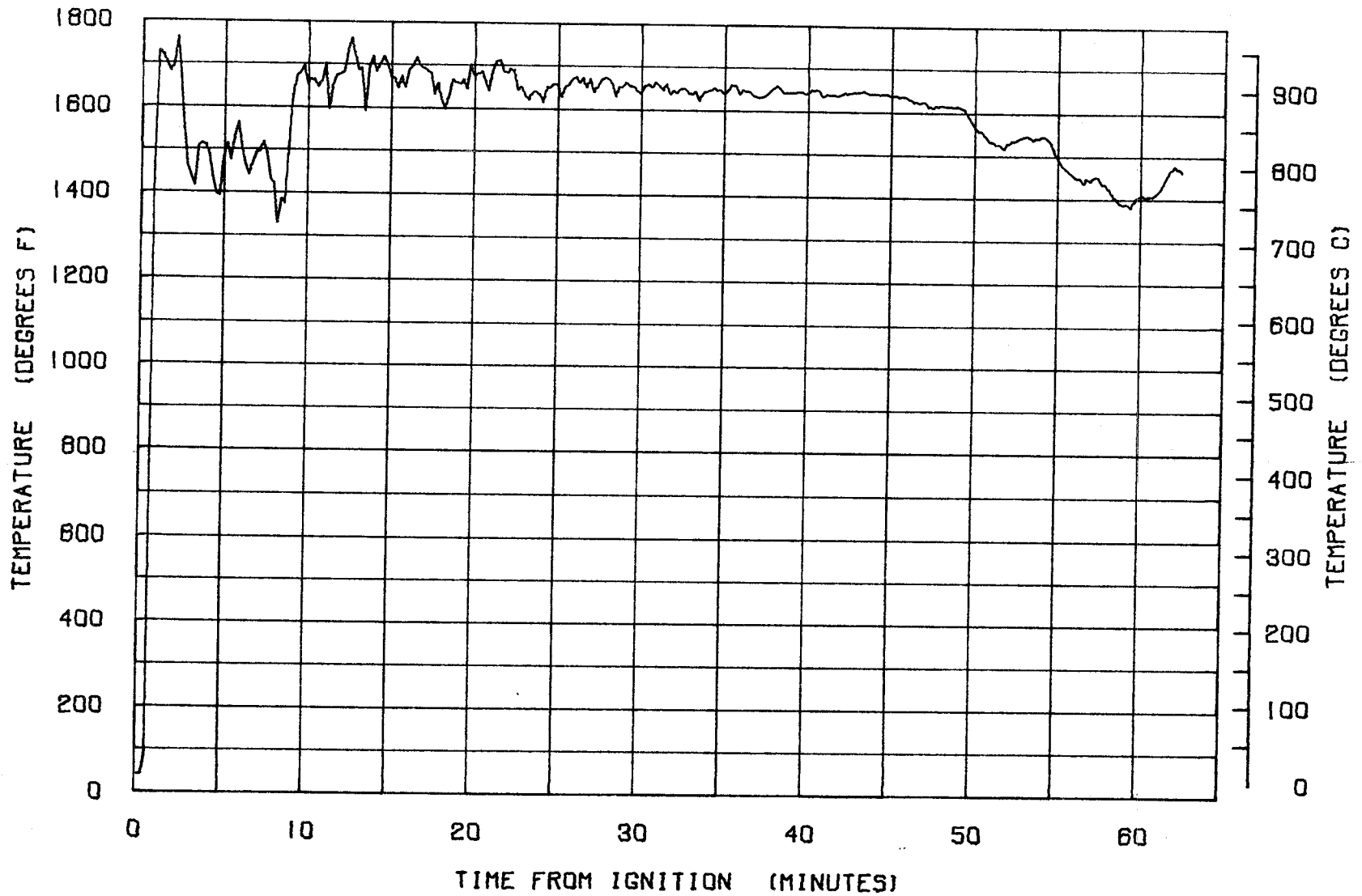


FIGURE A 47 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 57 OF TEST NUMBER 7  
(LOCATION IS FIRE AT 3.00 FORE )

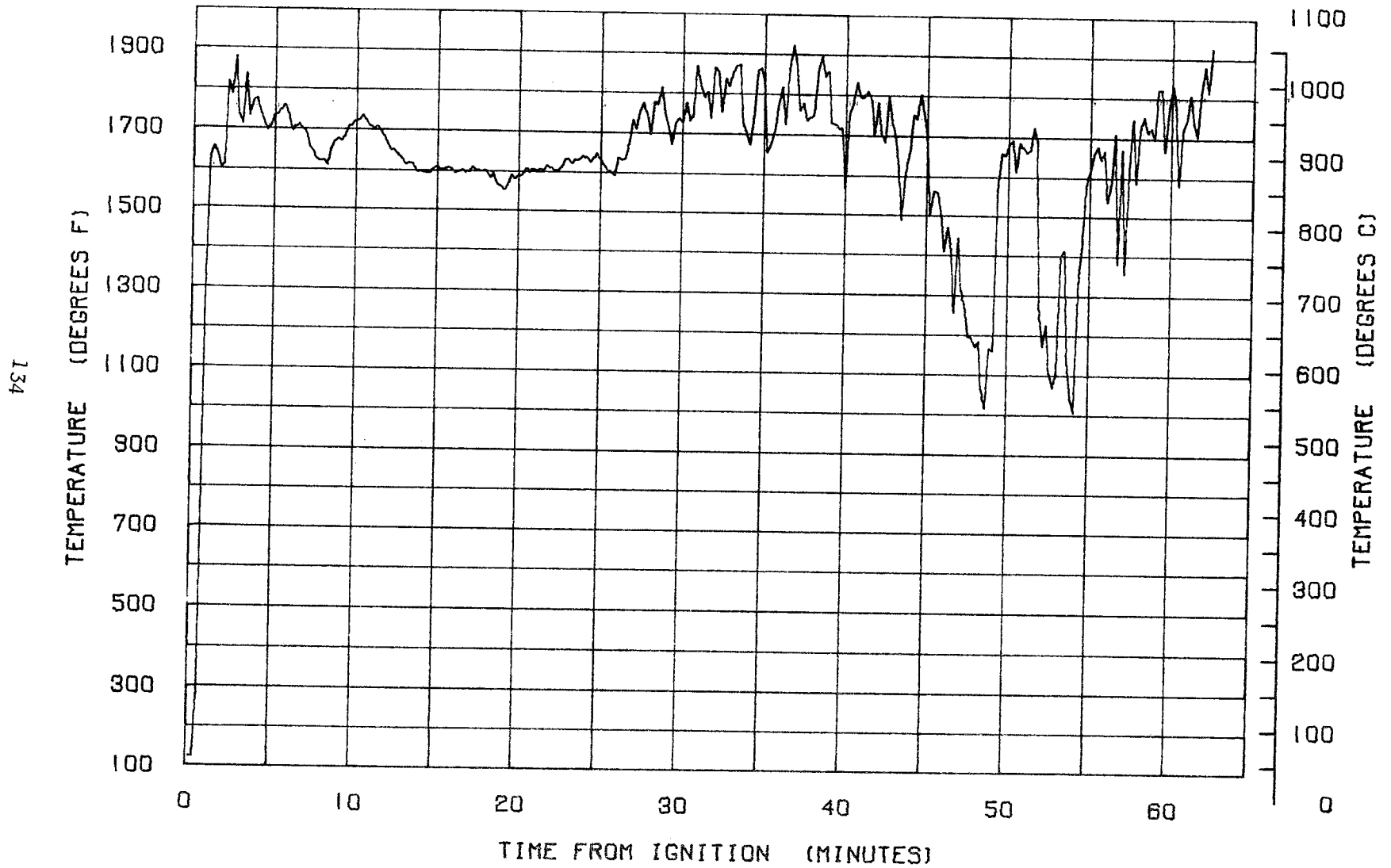


FIGURE A 48 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 60 OF TEST NUMBER 7  
(LOCATION IS FIRE AT 6.00 FORE )

135

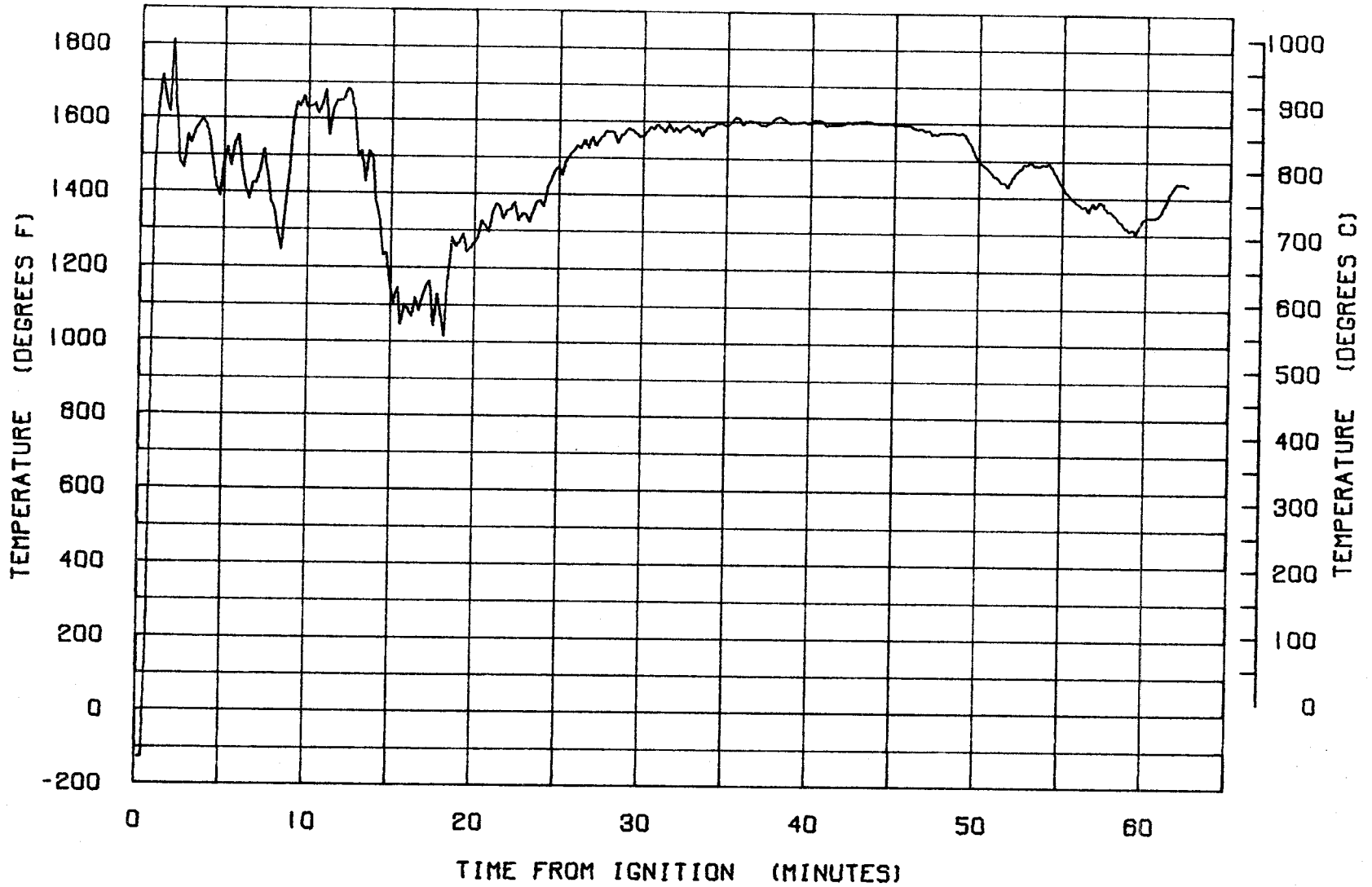


FIGURE A 49 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 61 OF TEST NUMBER 7  
(LOCATION IS FIRE AT 9.00 FORE )

136

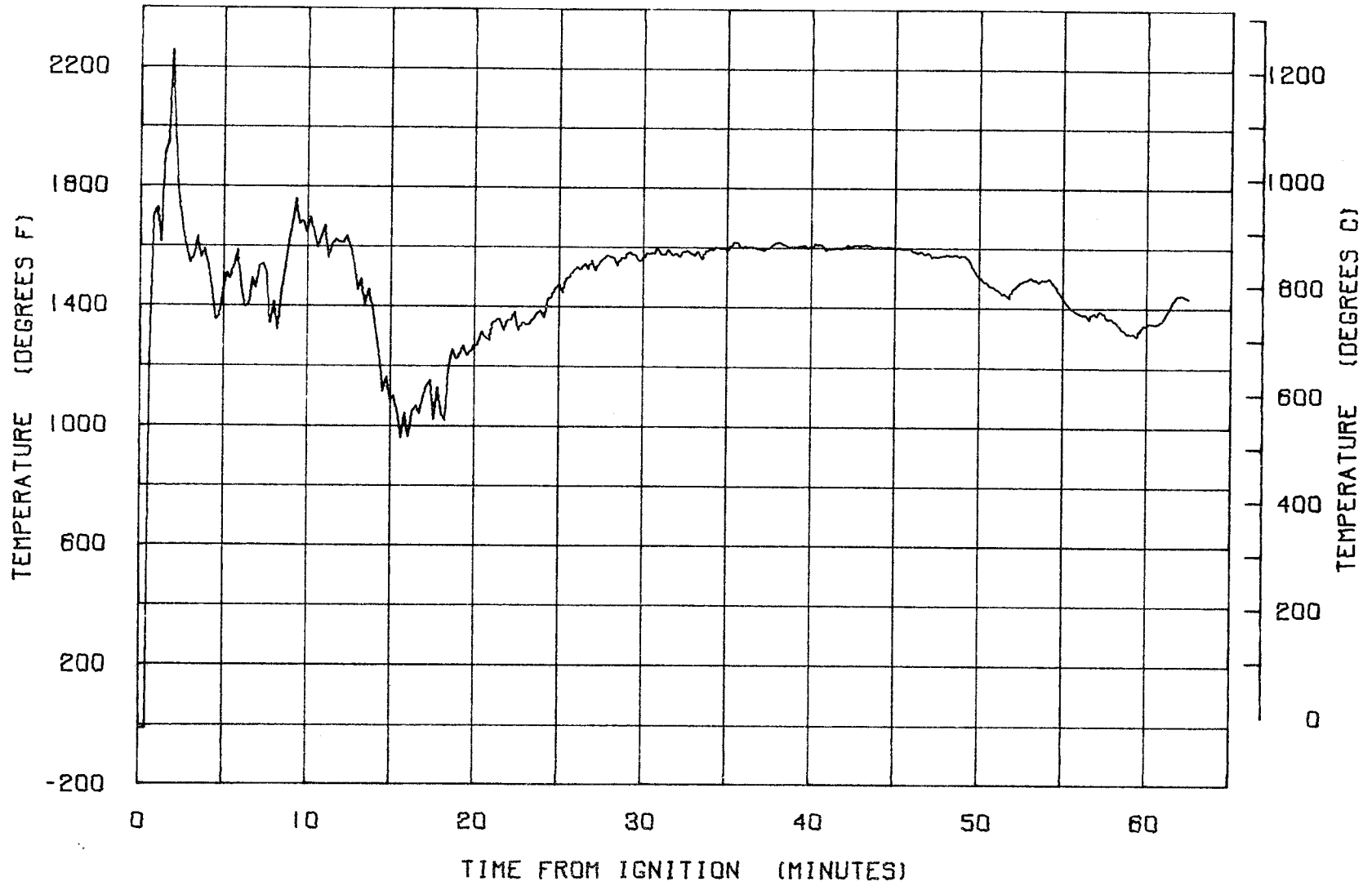


FIGURE A 50 THERMOCOUPLE TEMPERATURE VS. TIME



VIDAR CHANNEL 62 OF TEST NUMBER 7  
(LOCATION IS FIRE AT 12.00 AFT )

137

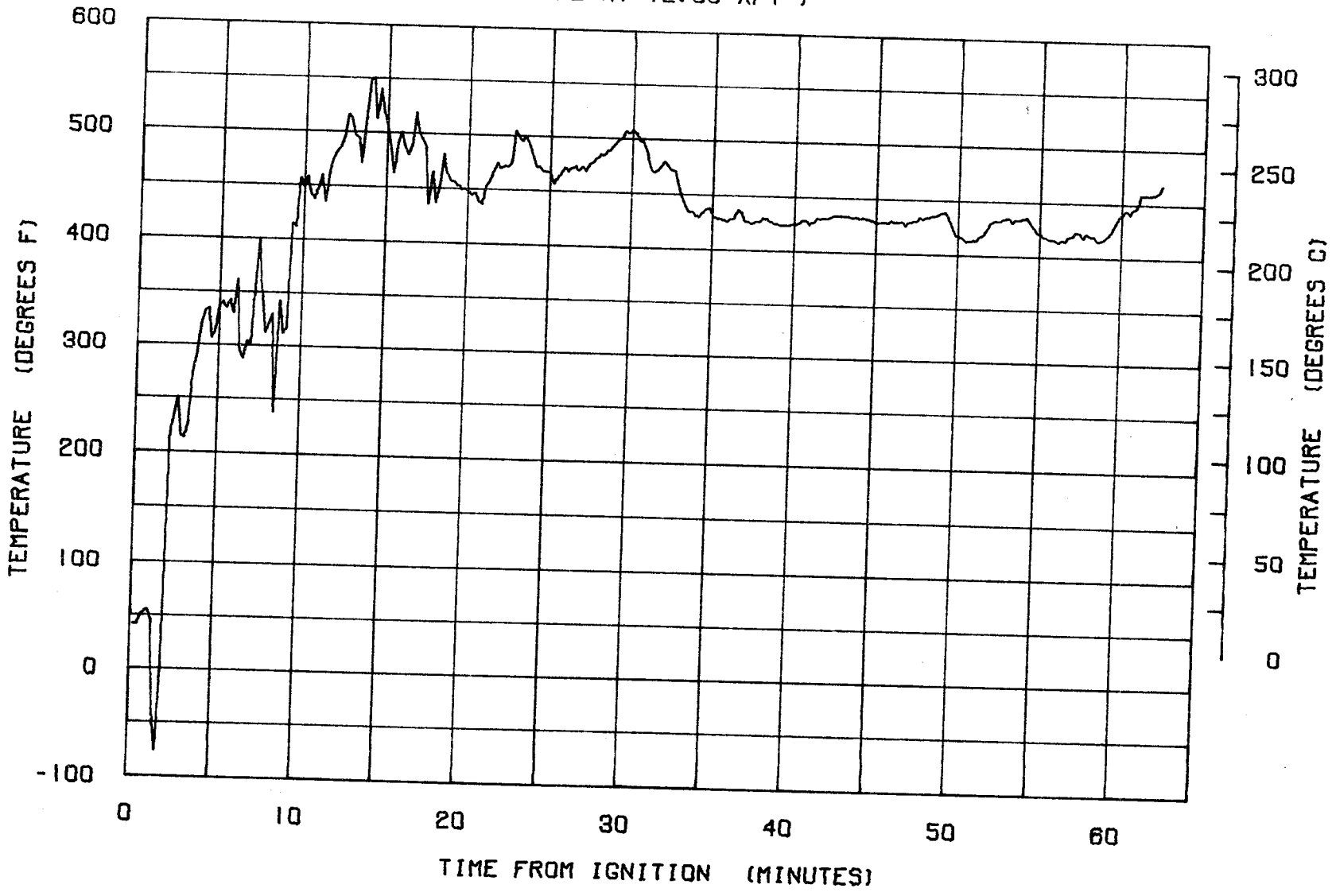


FIGURE A 51 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 63 OF TEST NUMBER 7  
(LOCATION IS FIRE AT 3.00 AFT )

138

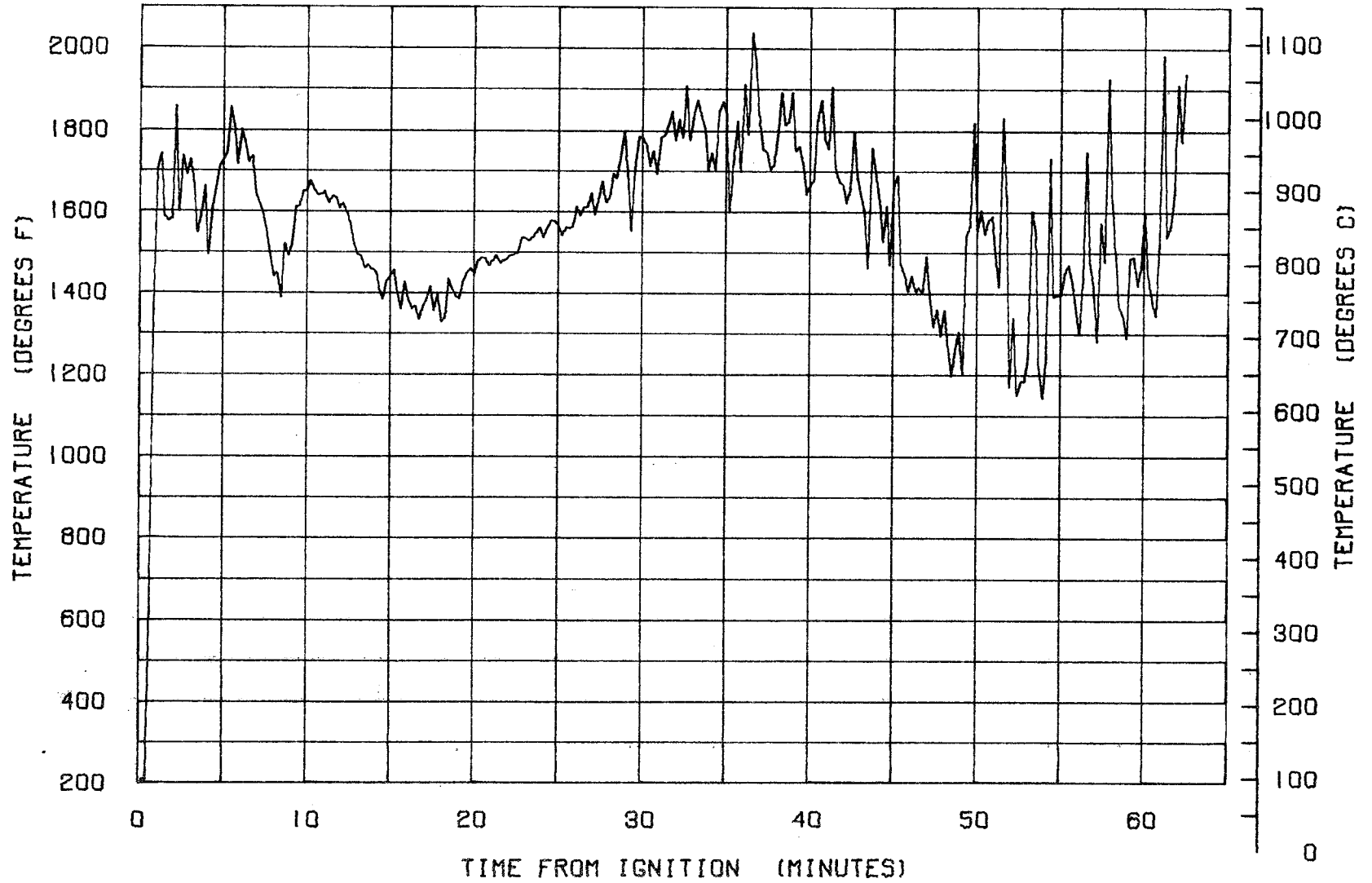


FIGURE A 52 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 64 OF TEST NUMBER 7  
(LOCATION IS FIRE AT 6.00 AFT )

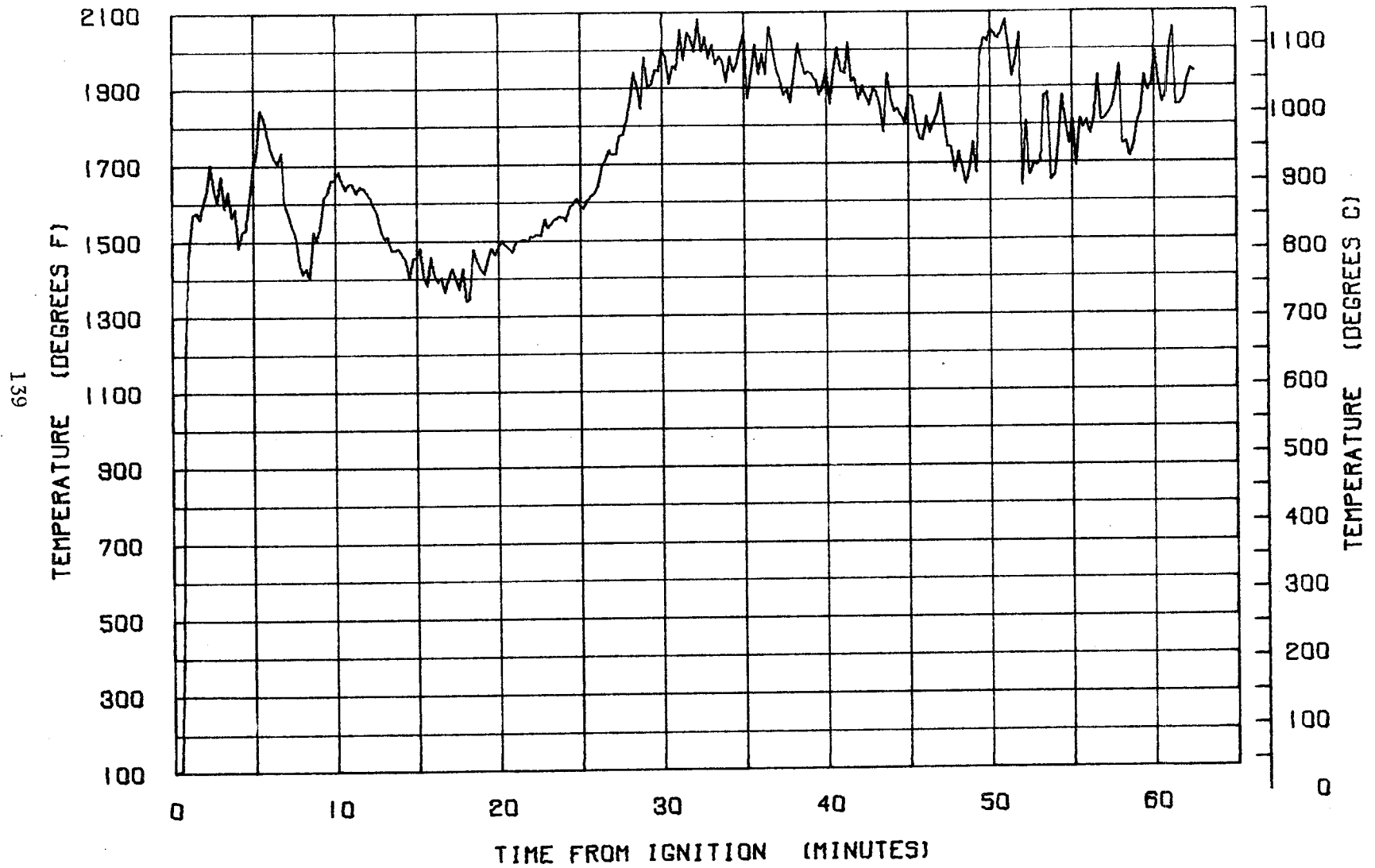


FIGURE A 53 THERMOCOUPLE TEMPERATURE VS. TIME

VIDAR CHANNEL 65 OF TEST NUMBER 7  
(LOCATION IS FIRE AT 9:00 AFT )

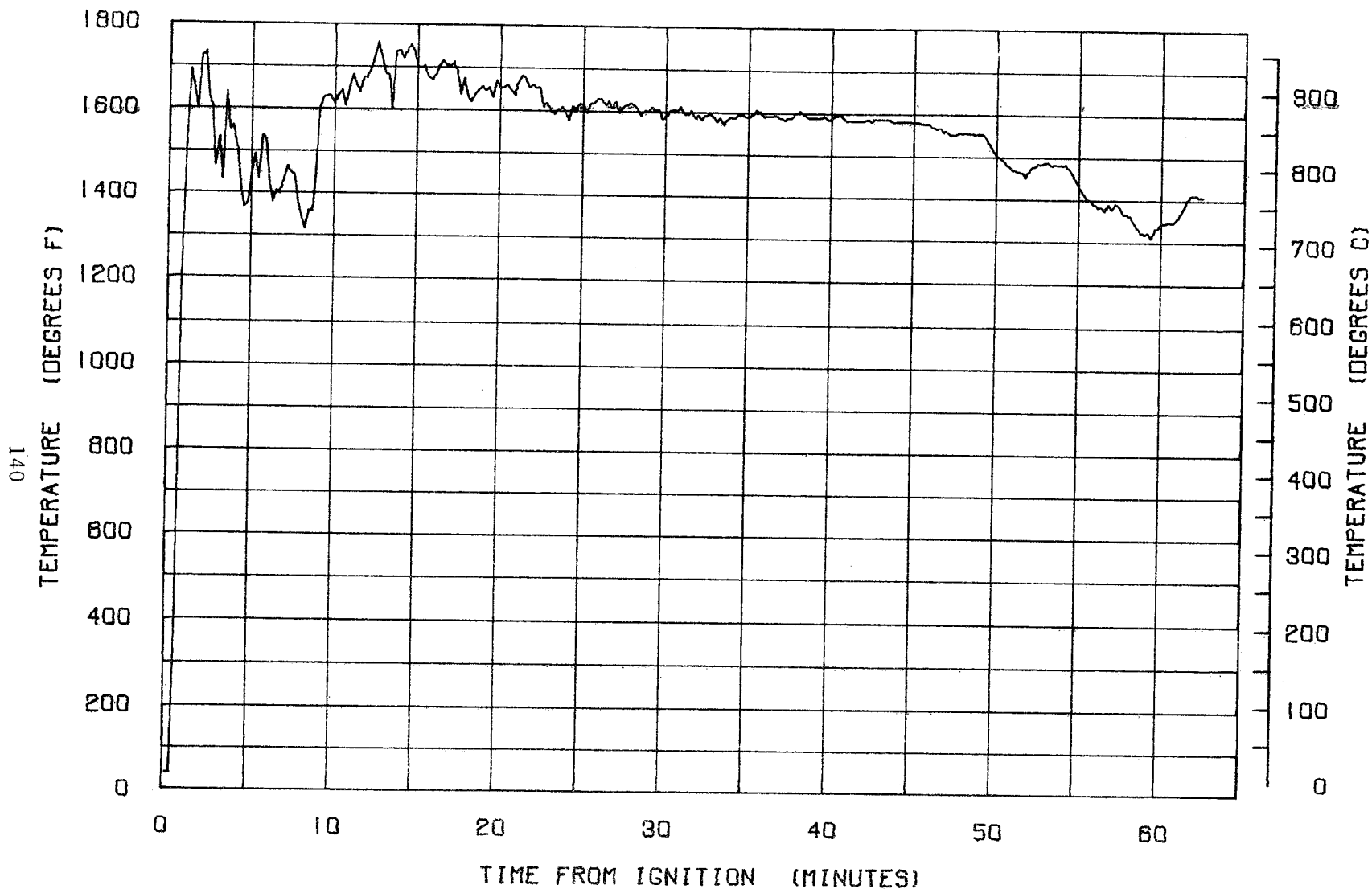


FIGURE A 54 THERMOCOUPLE TEMPERATURE VS. TIME

APPENDIX B: CROSS-SECTIONAL PLOTS OF TEMPERATURE AT  
SPECIFIED TIMES



TABLE B 1

THERMOCOUPLE TEMPERATURES (DEG F) FOR TEST NUMBER 7

CHANNEL NUMBER	LOCATION	TIME (SEC) =															
		0	235	470	705	940	1175	1410	1645	1880	2116	2351	2586	2821	3056	3291	3526
10	GRID AT 1. IN. )	42	48	71	103	138	137	138	142	163	201	254	320	370	414	449	498
11	GRID AT 3.15 INS. )	42	48	63	84	126	136	136	138	142	172	215	277	328	369	404	460
12	GRID AT 3.15 INS. )	42	45	82	90	126	138	136	138	147	181	223	290	342	383	422	477
13	GRID AT 7.15 INS. )	42	43	102	130	144	113	106	103	103	107	116	131	153	184	221	280
14	GRID AT 7.15 INS. )	42	43	58	70	94	138	138	138	138	143	173	223	276	321	361	411
16	GRID AT 11.2 INS. )	42	42	52	62	79	102	138	139	139	140	140	166	200	242	284	344
17	GRID AT 15.2 INS. )	42	42	51	58	72	91	115	139	140	140	140	140	149	175	210	280
18	GRID AT 15.2 INS. )	42	41	57	63	79	95	119	142	142	142	142	142	155	180	215	285
19	GRID AT 19.2 INS. )	42	43	49	56	68	85	105	140	141	143	142	142	143	139	139	174
24	GRID AT 19.2 INS. )	42	42	49	55	67	84	104	138	140	140	139	139	140	135	137	177
21	GRID AT 21.45 INS. )	42	41	46	51	69	82	101	135	141	141	142	142	144	141	139	146
22	INSIDE AT 12 00 )	42	57	142	169	210	272	368	422	461	500	539	569	578	597	575	562
23	INSIDE AT 12 30 )	94	75	106	140	149	200	291	350	388	429	469	507	529	547	547	543
20	INSIDE AT 1 00 )	42	46	81	144	146	139	191	238	283	325	368	409	443	467	484	497
25	INSIDE AT 1 30 )	42	53	74	111	140	139	140	186	228	281	327	371	407	430	448	468
26	INSIDE AT 2 00 )	42	61	72	108	140	143	145	148	226	293	340	381	410	423	437	457
27	INSIDE AT 3 00 )	42	53	58	93	122	140	145	144	145	181	234	283	319	344	366	395
28	INSIDE AT 4 00 )	42	38	42	78	105	120	133	136	137	138	139	142	190	219	260	302
29	INSIDE AT 4 30 )	42	33	40	75	106	113	128	137	137	136	137	137	139	170	205	249
31	INSIDE AT 5 30 )	42	42	48	55	71	93	115	139	148	147	148	147	149	145	145	183
32	INSIDE AT 6 00 )	42	41	44	44	54	75	101	129	145	147	147	148	151	146	145	165
33	INSIDE AT 6 30 )	42	41	45	51	66	85	107	132	144	146	146	148	152	148	151	170
34	INSIDE AT 7 00 )	42	40	48	55	78	97	120	143	148	148	147	147	149	145	146	195
35	INSIDE AT 7 30 )	42	42	50	63	86	109	130	144	144	144	142	142	144	141	189	234
36	INSIDE AT 8 00 )	42	40	74	92	112	135	155	161	162	154	151	152	177	228	271	312
37	INSIDE AT 9 00 )	42	47	79	97	125	140	148	151	153	152	222	284	329	371	392	418
38	INSIDE AT 10 00 )	42	57	82	115	129	135	134	135	196	266	325	373	412	450	462	480
39	INSIDE AT 10 30 )	42	56	108	132	144	146	146	186	240	287	338	385	424	461	481	499
40	INSIDE AT 11 00 )	42	57	111	141	144	143	189	248	287	325	369	412	449	483	504	519
41	INSIDE AT 11 30 )	42	59	128	151	155	194	283	338	373	412	453	493	520	546	551	550
44	OUTSIDE AT 12 00 )	42	55	178	212	272	308	395	447	481	520	565	584	608	624	602	564
45	OUTSIDE AT 1 00 )	42	61	104	192	208	177	227	293	342	390	445	488	506	518	521	529
46	OUTSIDE AT 2 00 )	42	73	84	163	183	167	192	215	290	364	420	458	467	471	473	487
47	OUTSIDE AT 3 00 )	42	30	127	193	112	160	202	174	299	452	570	407	326	343	361	382
48	OUTSIDE AT 4 00 )	42	47	38	103	130	148	159	172	260	424	586	481	278	276	303	337
49	OUTSIDE AT 5 00 )	42	46	58	91	108	122	148	174	209	286	358	250	181	169	190	225
50	OUTSIDE AT 6 00 )	94	55	153	172	147	134	160	219	431	668	762	633	285	235	232	249
51	OUTSIDE AT 7 00 )	292	34	52	88	128	109	138	169	184	191	197	207	234	228	238	251
52	OUTSIDE AT 8 00 )	167	96	115	167	213	195	220	236	252	267	275	298	346	402	450	433
53	OUTSIDE AT 9 00 )	119	106	163	197	248	215	219	231	253	291	418	535	652	639	652	547
54	OUTSIDE AT 10 00 )	132	118	184	241	257	215	212	209	248	336	409	463	527	551	560	553
56	OUTSIDE AT 11 00 )	112	97	194	216	234	213	241	306	357	495	460	490	510	534	557	551
42	MANWAY AT 1. IN. )	42	90	136	184	285	385	460	522	580	646	708	765	801	820	818	810
43	MANWAY AT 6. INS. )	42	119	157	164	434	541	596	658	716	780	845	869	873	834	812	771
55	FIRE AT 12 00 FORE )	42	1505	1427	1675	1667	1660	1639	1657	1650	1650	1644	1647	1621	1533	1504	1388
57	FIRE AT 3 00 FORE )	123	1767	1621	1679	1606	1589	1630	1760	1791	1658	1725	1675	1415	1671	1593	1718
60	FIRE AT 6 00 FORE )	-127	1579	1370	1649	1054	1244	1353	1549	1575	1598	1598	1604	1578	1456	1438	1318
61	FIRE AT 9 00 FORE )	-10	1576	1350	1621	968	1235	1358	1545	1574	1602	1601	1608	1577	1462	1440	1315
62	FIRE AT 12 00 AFT )	42	321	313	477	492	450	498	475	470	428	423	433	429	414	421	416
63	FIRE AT 3 00 AFT )	209	1641	1482	1630	1366	1450	1536	1638	1792	1613	1749	1632	1479	1577	1394	1336
64	FIRE AT 6 00 AFT )	103	1574	1442	1636	1386	1478	1556	1774	1977	1875	1932	1882	1872	2068	1750	1746
65	FIRE AT 9 00 AFT )	42	1555	1373	1674	1677	1634	1601	1610	1594	1596	1588	1587	1559	1472	1442	1323

145

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TABLE B2

		THERMOCOUPLE TEMPERATURES (DEG. C) FOR TEST NR. 7															
CHANNEL NUMBER	TIME (SEC) =	0	235	470	705	940	1175	1410	1645	1880	2116	2351	2586	2821	3056	3291	3526
	LOCATION																
10	( GRID AT 1. IN. )	5	8	21	39	58	58	58	61	72	93	123	159	187	212	231	258
11	( GRID AT 3.15 INS. )	5	8	17	28	52	57	57	58	61	77	101	136	164	187	206	237
12	( GRID AT 3.15 INS. )	5	7	27	32	52	58	57	58	63	82	106	143	172	194	216	247
13	( GRID AT 7.15 INS. )	5	6	38	54	62	45	41	39	39	41	46	55	67	84	104	137
14	( GRID AT 7.15 INS. )	5	6	14	21	34	58	58	58	58	61	78	106	135	160	182	210
16	( GRID AT 11.2 INS. )	5	5	11	16	26	38	58	59	59	60	60	74	93	116	139	173
17	( GRID AT 15.2 INS. )	5	5	10	14	22	32	46	59	60	60	60	60	64	79	98	137
18	( GRID AT 15.2 INS. )	5	4	13	17	26	35	48	61	61	61	61	61	68	82	101	140
19	( GRID AT 19.2 INS. )	5	6	9	13	20	29	40	60	60	61	61	61	61	59	59	78
24	( GRID AT 19.2 INS. )	5	5	9	12	19	28	40	58	60	60	59	59	60	57	58	80
21	( GRID AT 21.45 INS. )	5	4	7	10	20	27	38	57	60	60	61	61	62	60	59	63
22	( INSIDE AT 12 00 )	5	13	61	76	98	133	186	216	238	260	281	298	303	313	301	294
23	( INSIDE AT 12 30 )	34	23	41	60	64	93	143	176	197	220	242	263	276	286	286	283
20	( INSIDE AT 1 00 )	5	7	27	62	63	59	88	114	139	162	186	209	228	241	251	258
25	( INSIDE AT 1 30 )	5	11	23	43	60	59	60	85	108	138	163	188	208	221	231	242
26	( INSIDE AT 2 00 )	5	16	22	42	60	61	62	64	107	144	171	193	209	217	224	236
27	( INSIDE AT 3 00 )	5	11	14	33	50	60	62	62	62	82	112	139	159	173	185	201
28	( INSIDE AT 4 00 )	5	3	5	25	40	48	56	57	58	58	59	61	87	103	126	149
29	( INSIDE AT 4 30 )	5	0	4	23	41	45	53	58	58	57	58	58	59	76	96	120
31	( INSIDE AT 5 30 )	5	5	8	12	21	33	46	59	64	63	64	63	64	62	62	83
32	( INSIDE AT 6 00 )	5	4	6	6	12	23	38	53	62	63	63	64	66	63	62	73
33	( INSIDE AT 6 30 )	5	4	7	10	18	29	41	55	62	63	63	64	66	64	66	76
34	( INSIDE AT 7 00 )	5	4	8	12	25	36	48	61	64	64	63	63	64	62	63	90
35	( INSIDE AT 7 30 )	5	5	9	17	30	42	54	62	62	62	61	61	62	60	87	112
36	( INSIDE AT 8 00 )	5	4	23	33	44	57	68	71	72	67	66	66	80	108	132	155
37	( INSIDE AT 9 00 )	5	8	26	36	51	60	64	66	67	66	105	139	164	188	199	214
38	( INSIDE AT 10 00 )	5	13	27	46	53	57	56	57	91	129	162	189	211	232	238	248
39	( INSIDE AT 10 30 )	5	13	42	55	62	63	63	85	115	141	169	196	217	238	249	259
40	( INSIDE AT 11 00 )	5	13	43	60	62	61	87	119	141	162	187	211	231	250	262	270
41	( INSIDE AT 11 30 )	5	14	53	66	68	89	139	169	189	211	233	256	271	285	288	287
44	( OUTSIDE AT 12 00 )	5	12	81	99	133	153	201	230	249	271	296	306	320	328	316	295
45	( OUTSIDE AT 1 00 )	5	16	40	88	97	80	108	144	172	198	229	253	263	270	271	276
46	( OUTSIDE AT 2 00 )	5	22	28	72	83	74	88	101	143	184	215	236	241	243	244	252
47	( OUTSIDE AT 3 00 )	5	-1	52	67	44	71	94	78	148	233	298	208	163	172	182	194
48	( OUTSIDE AT 4 00 )	5	8	3	39	54	64	70	77	126	217	307	249	136	135	150	169
49	( OUTSIDE AT 5 00 )	5	7	14	32	42	50	64	78	98	141	181	121	82	76	87	107
50	( OUTSIDE AT 6 00 )	34	12	67	77	63	56	71	103	221	353	405	333	140	112	111	120
51	( OUTSIDE AT 7 00 )	144	1	11	31	53	42	58	76	84	88	91	97	112	108	114	121
52	( OUTSIDE AT 8 00 )	74	35	48	74	100	90	104	113	122	130	134	147	174	205	232	222
53	( OUTSIDE AT 9 00 )	48	41	72	91	119	101	103	110	122	143	214	279	344	337	344	287
54	( OUTSIDE AT 10 00 )	55	47	84	116	124	101	99	98	119	168	209	239	272	289	293	289
56	( OUTSIDE AT 11 00 )	44	36	89	102	112	100	116	152	177	201	237	254	281	281	291	288
42	( MANWAY AT 1. IN. )	5	32	57	84	140	196	237	272	304	341	375	407	427	437	436	432
43	( MANWAY AT 6. INS. )	5	48	69	73	223	282	313	347	380	415	451	465	467	445	433	410
55	( FIRE AT 12 00 FORE )	5	818	775	912	908	904	892	902	898	898	895	897	882	833	817	753
57	( FIRE AT 3 00 FORE )	50	963	882	915	874	865	887	960	977	903	940	912	768	910	867	936
60	( FIRE AT 6 00 FORE )	-88	859	743	898	567	673	733	842	857	870	870	873	858	791	781	714
61	( FIRE AT 9 00 FCRE )	-23	857	732	882	520	668	736	840	856	872	871	875	858	794	782	712
62	( FIRE AT 12 00 AFT )	5	160	156	247	255	232	258	246	243	219	217	222	220	212	216	213
63	( FIRE AT 3 00 AFT )	98	893	805	887	741	787	835	892	977	878	953	888	803	858	756	724
64	( FIRE AT 6 00 AFT )	39	856	783	891	752	803	846	967	1080	1023	1055	1027	1022	1131	954	952
65	( FIRE AT 9 00 AFT )	5	846	745	912	913	890	871	876	867	868	864	863	848	800	783	717

144

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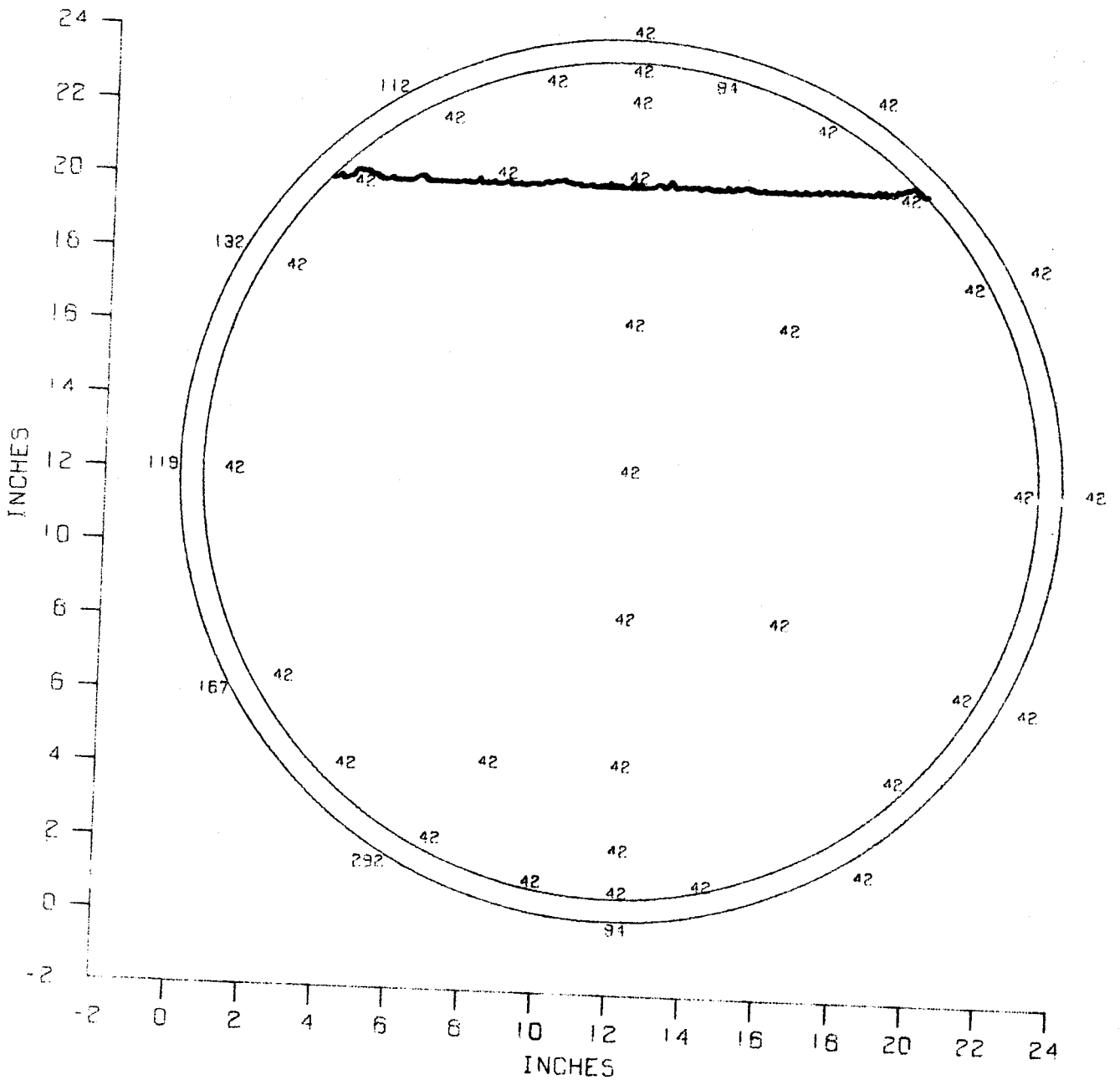


FIGURE B1 THERMOCOUPLE TEMPERATURES (DEG F) VS. POSITION  
 AT 0 SECONDS FROM IGNITION FOR TEST NR. 7  
 AND INDICATING APPROXIMATE LIQUID LEVEL

143

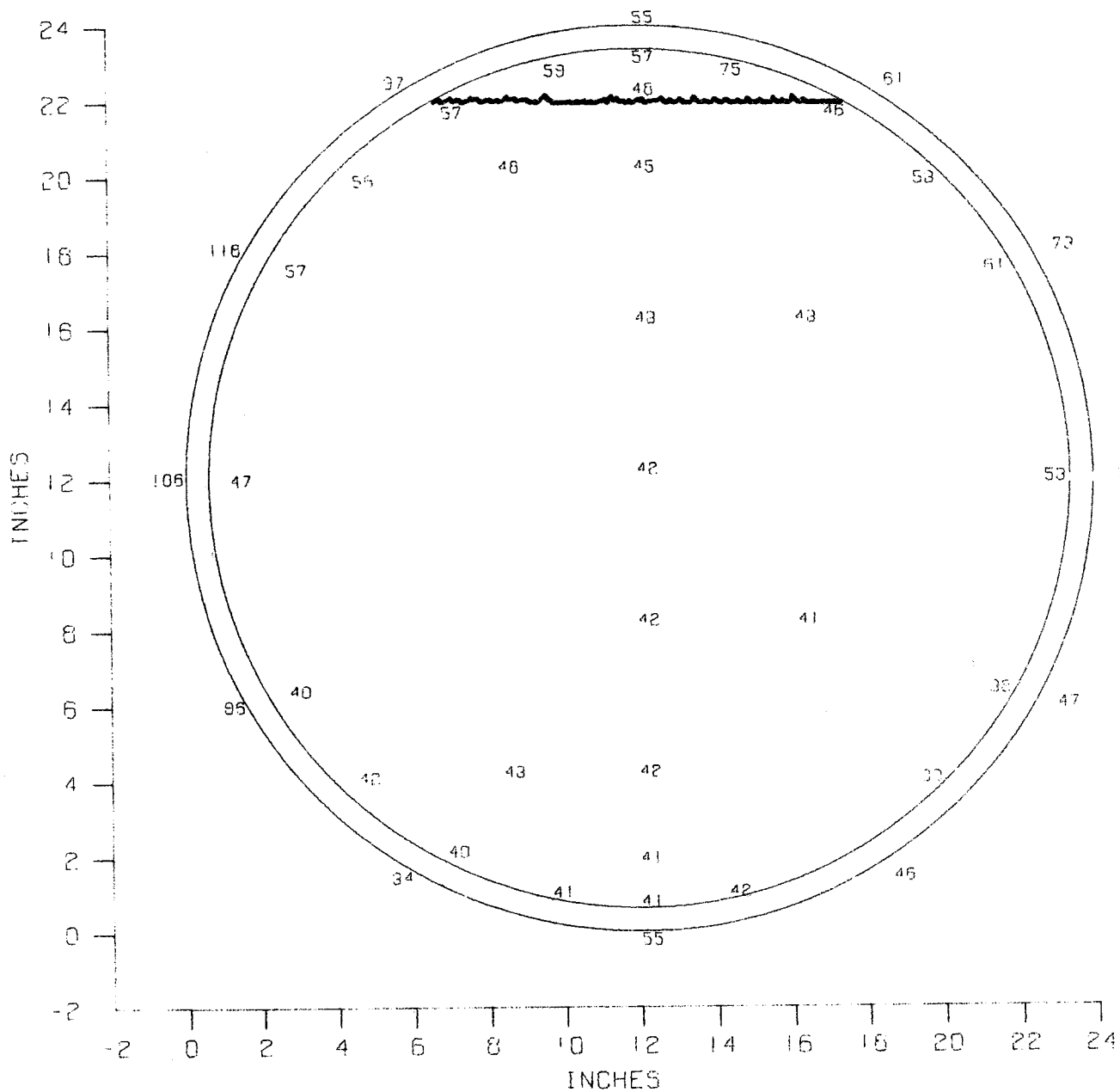


FIGURE B2 THERMOCOUPLE TEMPERATURES (DEG F) VS. POSITION AT 235 SECONDS FROM IGNITION FOR TEST NR. 7 AND INDICATING APPROXIMATE LIQUID LEVEL

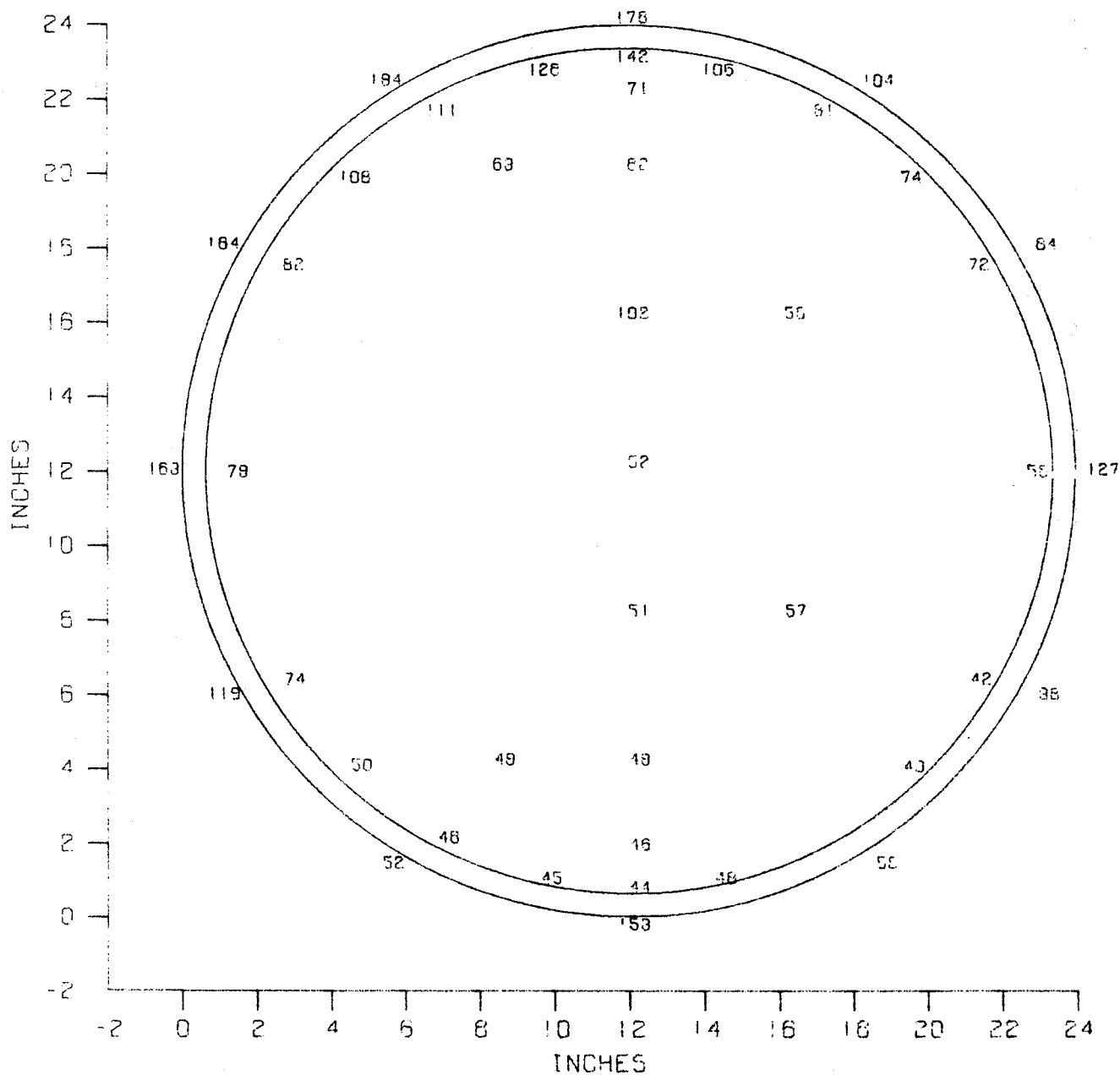


FIGURE B3 THERMOCOUPLE TEMPERATURES (DEG F) VS. POSITION  
 AT 470 SECONDS FROM IGNITION FOR TEST NR. 7  
 CONDITION IS SHELL-FULL

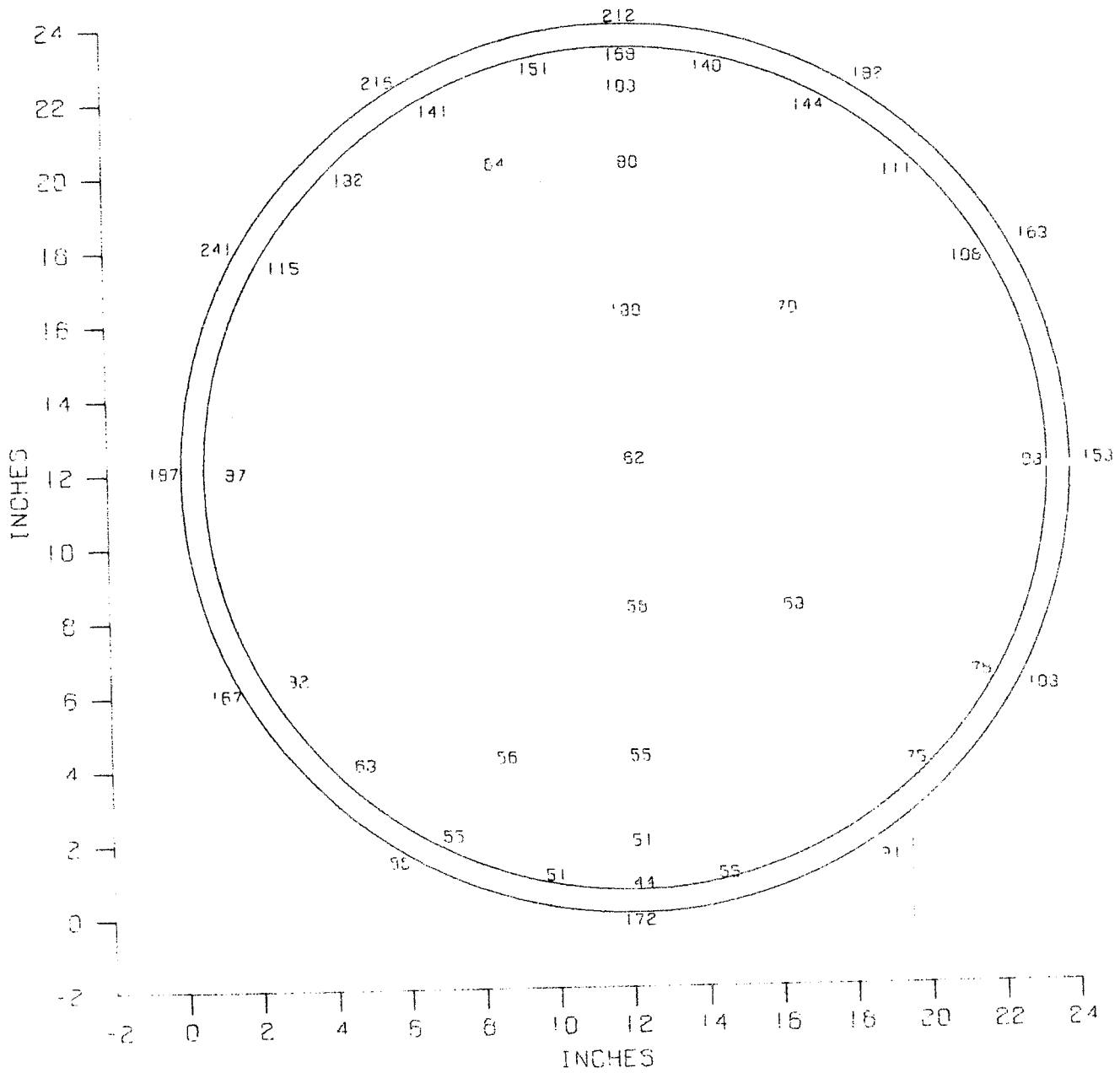


FIGURE B4 THERMOCOUPLE TEMPERATURES (DEG F) VS POSITION AT 705 SECONDS FROM IGNITION FOR TEST NR. 7  
CONDITION IS SHELL-FULL

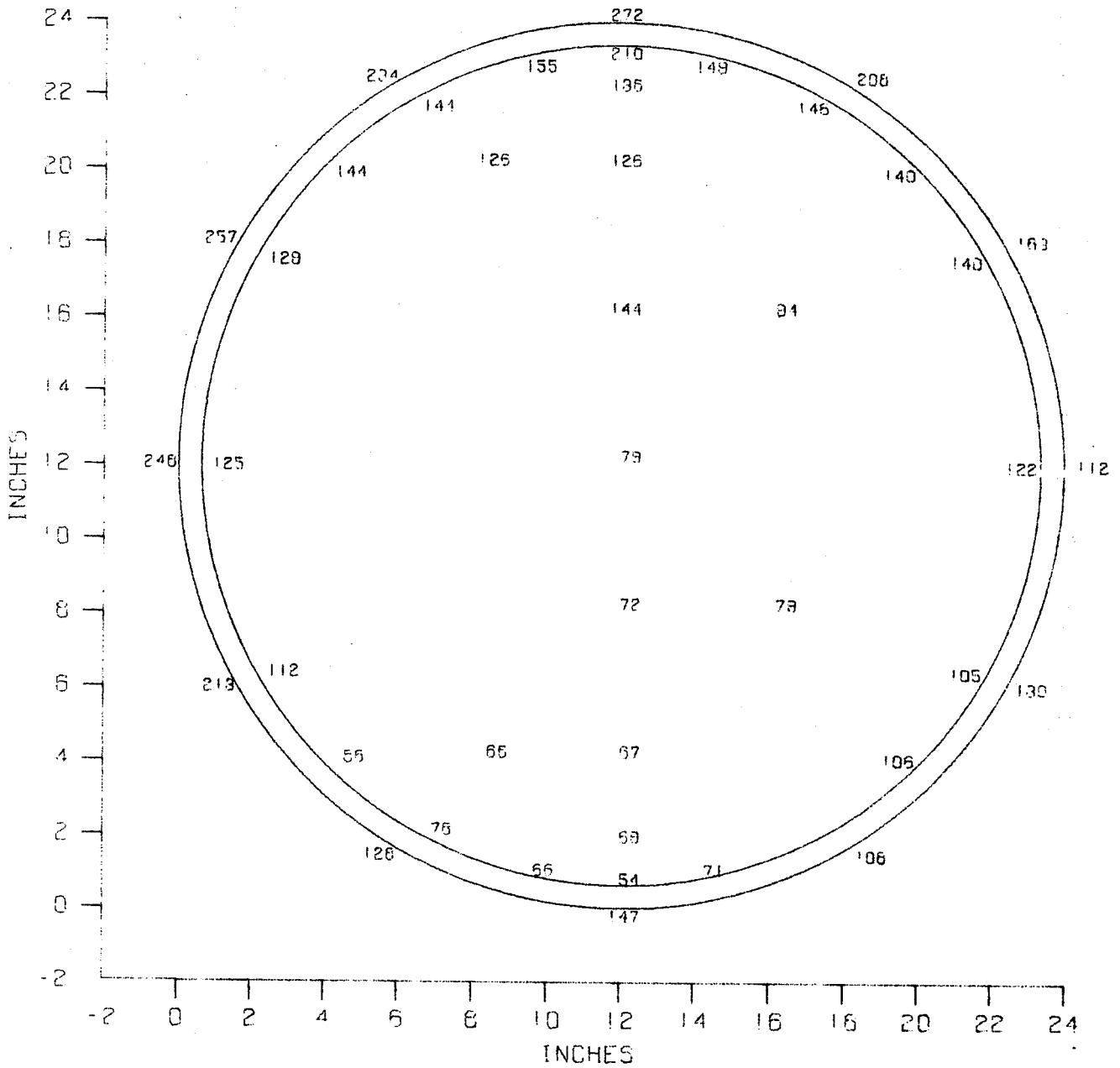


FIGURE B5 THERMOCOUPLE TEMPERATURES (DEG F) VS. POSITION AT 940 SECONDS FROM IGNITION FOR TEST NR. 7  
CONDITION IS SHELL-FULL

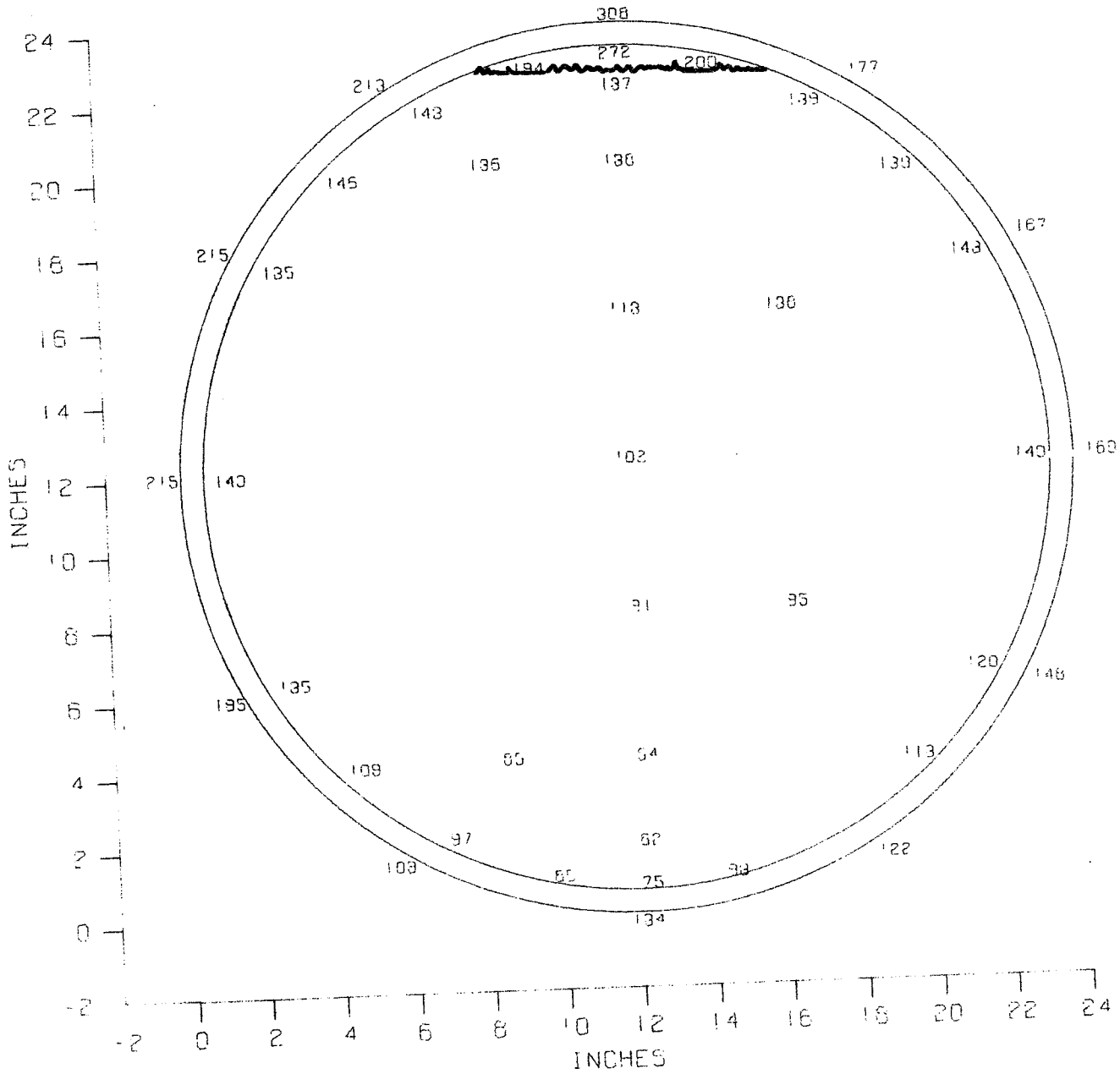


FIGURE B6 THERMOCOUPLE TEMPERATURES (DEG F) VS POSITION AT 1175 SECONDS FROM IGNITION FOR TEST NR. 7 AND INDICATING APPROXIMATE LIQUID LEVEL

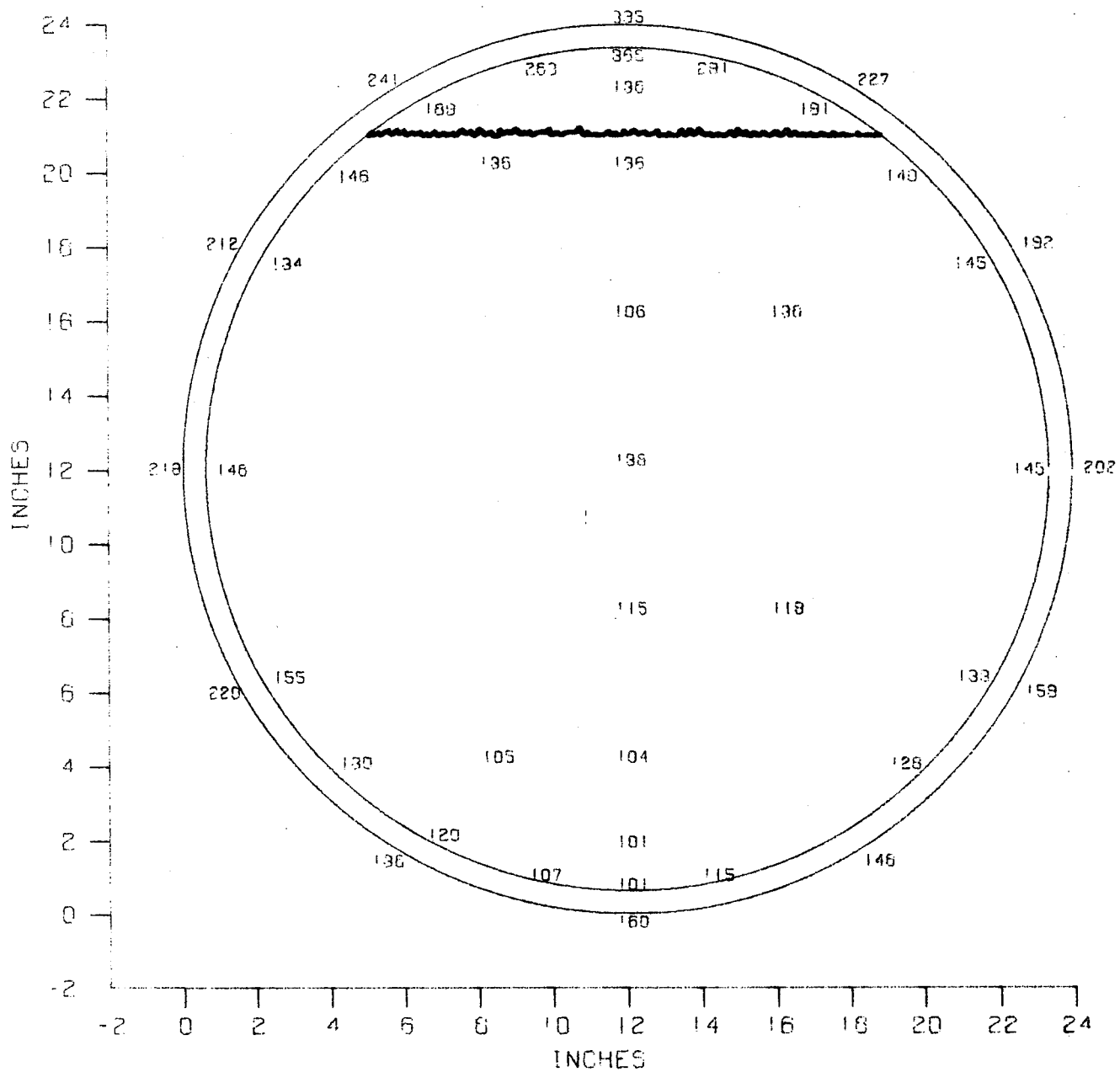


FIGURE B7 THERMOCOUPLE TEMPERATURES (DEG F) VS. POSITION AT 1410 SECONDS FROM IGNITION FOR TEST NR. 7 AND INDICATING APPROXIMATE LIQUID LEVEL

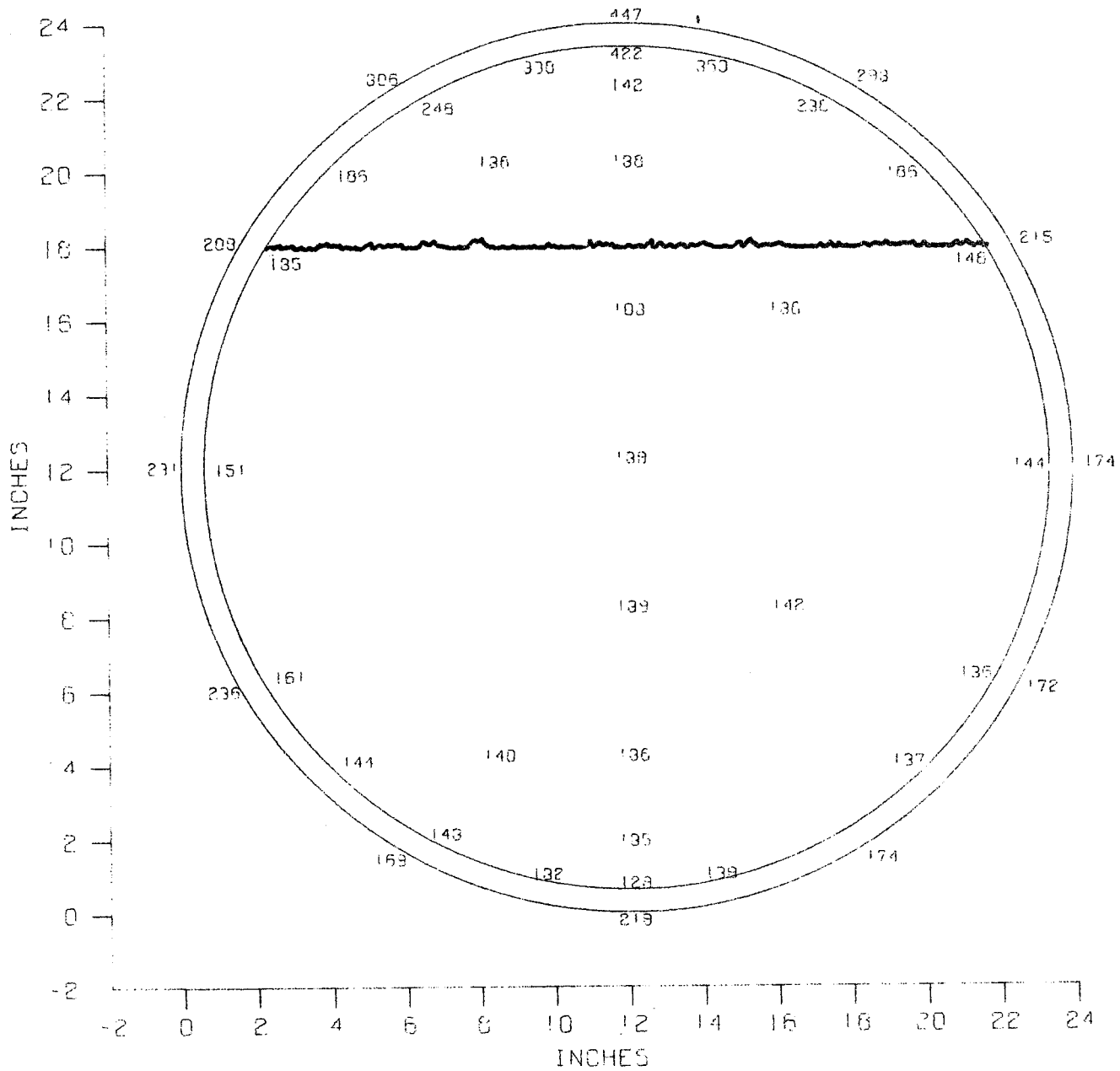


FIGURE B8 THERMOCOUPLE TEMPERATURES (DEG F) VS POSITION AT 1845 SECONDS FROM IGNITION FOR TEST NR. 7 AND INDICATING APPROXIMATE LIQUID LEVEL



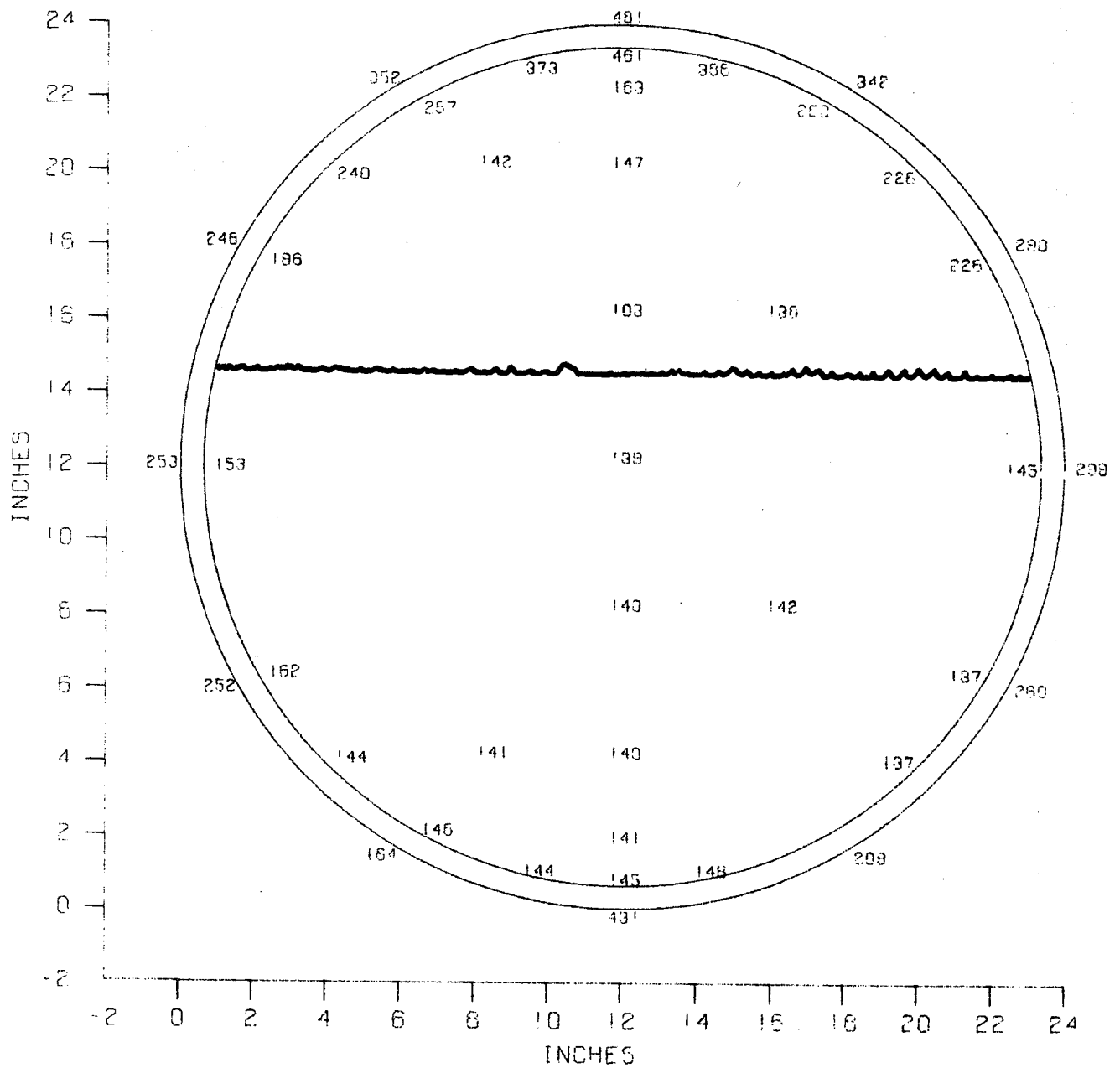
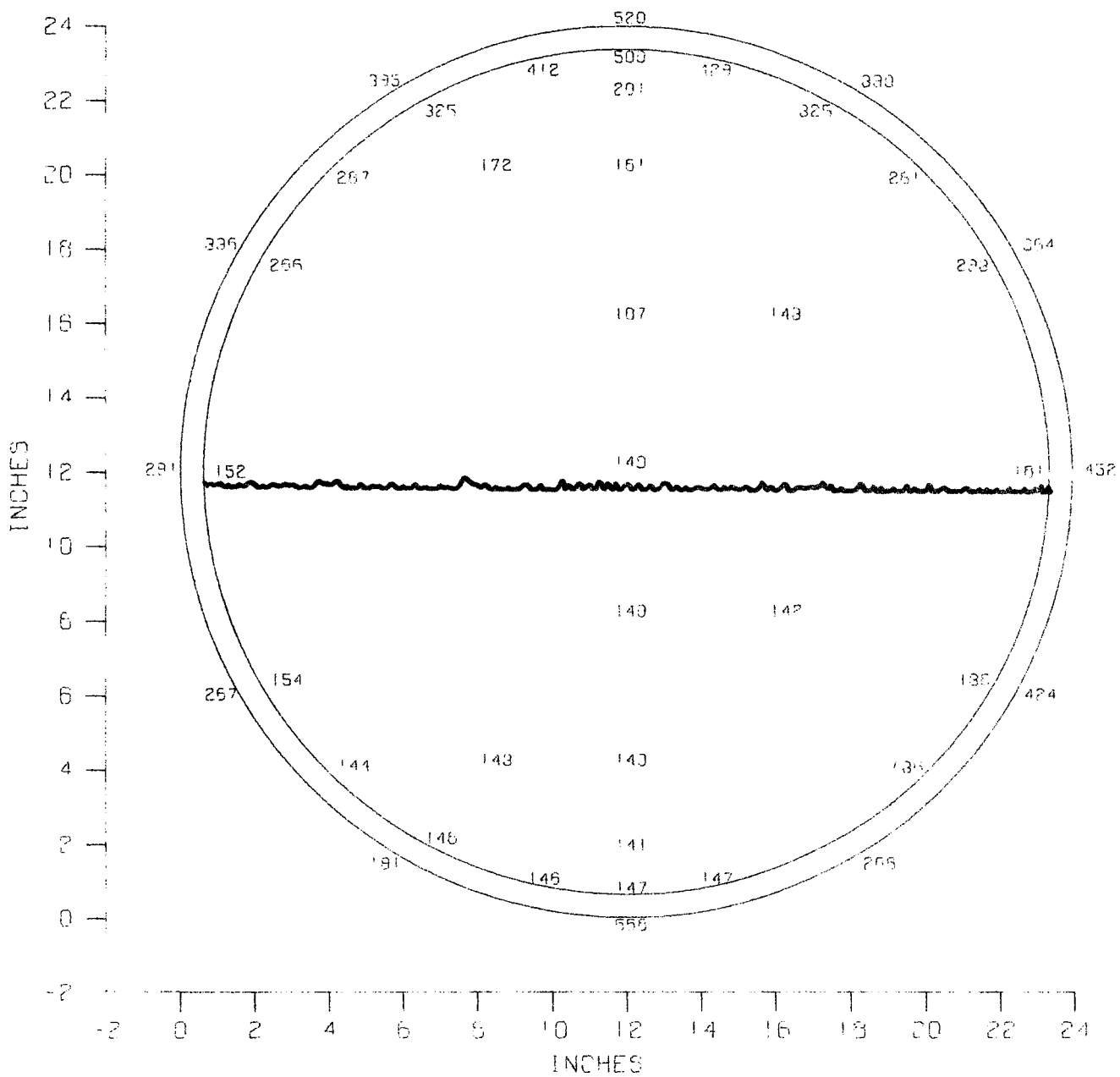


FIGURE B9 THERMOCOUPLE TEMPERATURES (DEG F) VS. POSITION AT 1680 SECONDS FROM IGNITION FOR TEST NR. 7 AND INDICATING APPROXIMATE LIQUID LEVEL



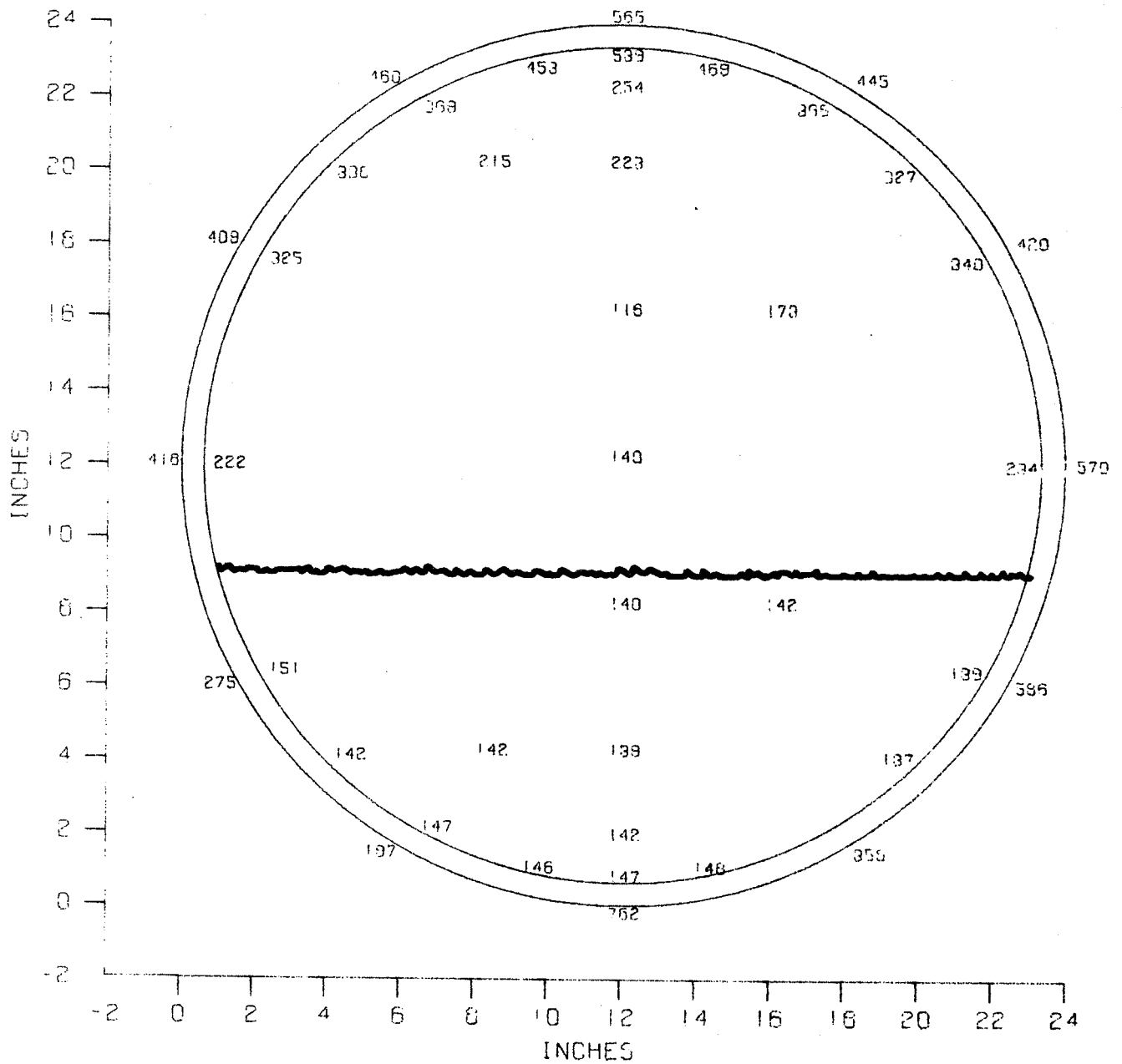


FIGURE B11 THERMOCOUPLE TEMPERATURES (DEG F) VS. POSITION AT 2351 SECONDS FROM IGNITION FOR TEST NR. 7 AND INDICATING APPROXIMATE LIQUID LEVEL

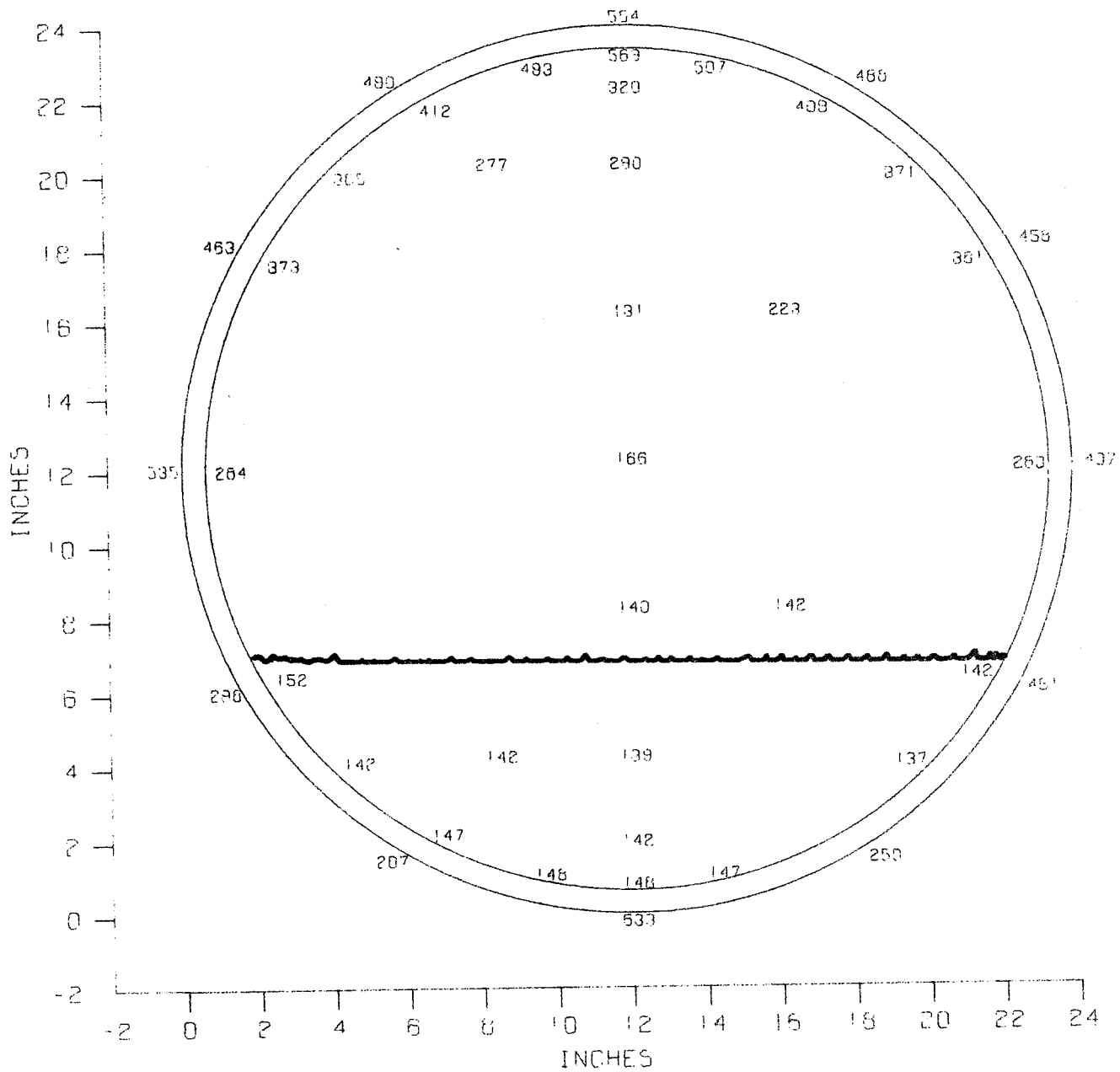


FIGURE B12 THERMOCOUPLE TEMPERATURES (DEG F) VS. POSITION AT 2555 SECONDS FROM IGNITION FOR TEST NR. 7 AND INDICATING APPROXIMATE LIQUID LEVEL

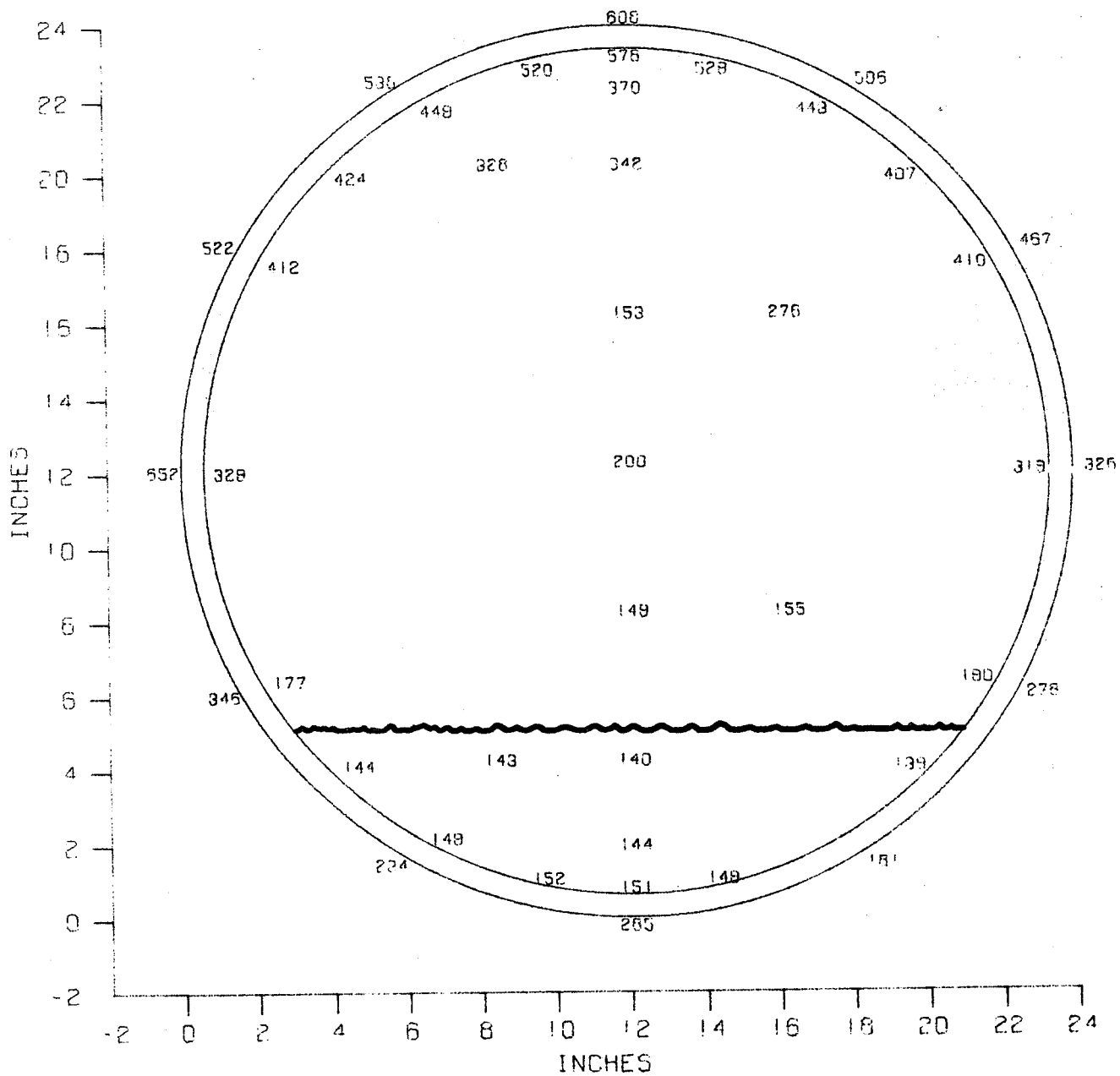


FIGURE B13 THERMOCOUPLE TEMPERATURES (DEG F) VS. POSITION AT 2621 SECONDS FROM IGNITION FOR TEST NR. 7 AND INDICATING APPROXIMATE LIQUID LEVEL

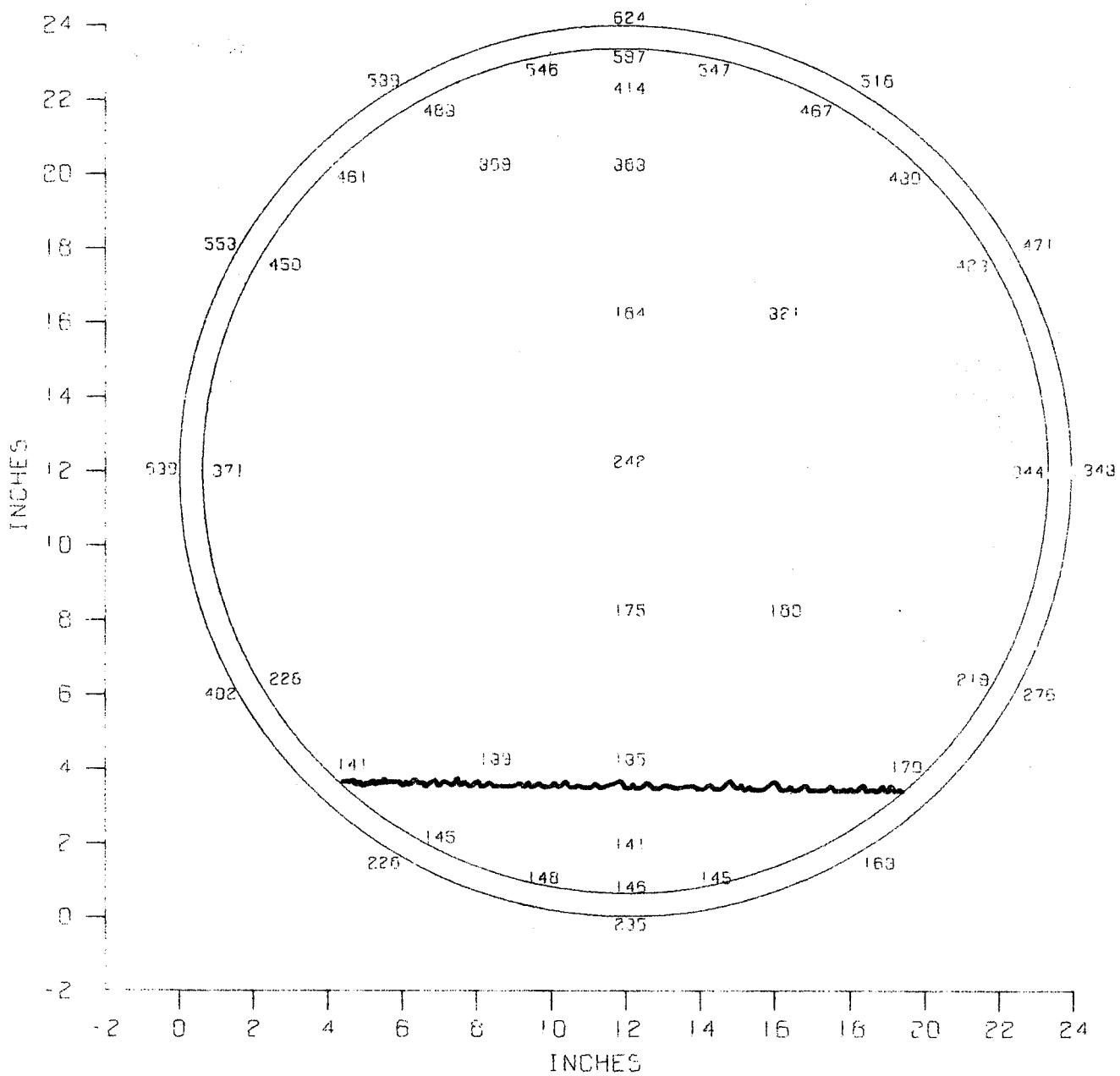


FIGURE B14 THERMOCOUPLE TEMPERATURES (DEG F) VS POSITION AT 3056 SECONDS FROM IGNITION FOR TEST NR. 7 AND INDICATING APPROXIMATE LIQUID LEVEL

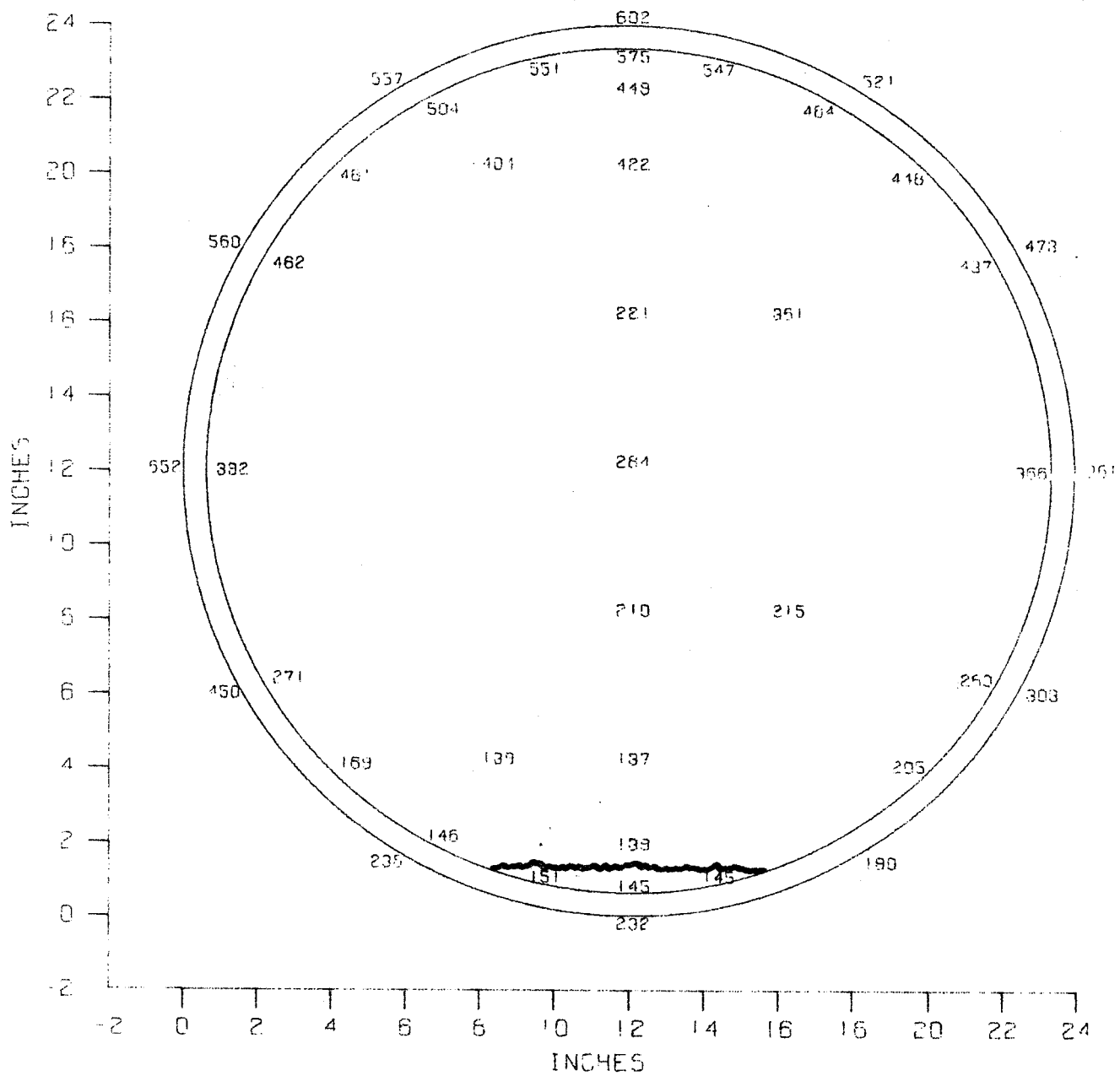


FIGURE B15 THERMOCOUPLE TEMPERATURES (DEG F) VS. POSITION AT 329<sup>1</sup> SECONDS FROM IGNITION FOR TEST NR. 7 AND INDICATING APPROXIMATE LIQUID LEVEL

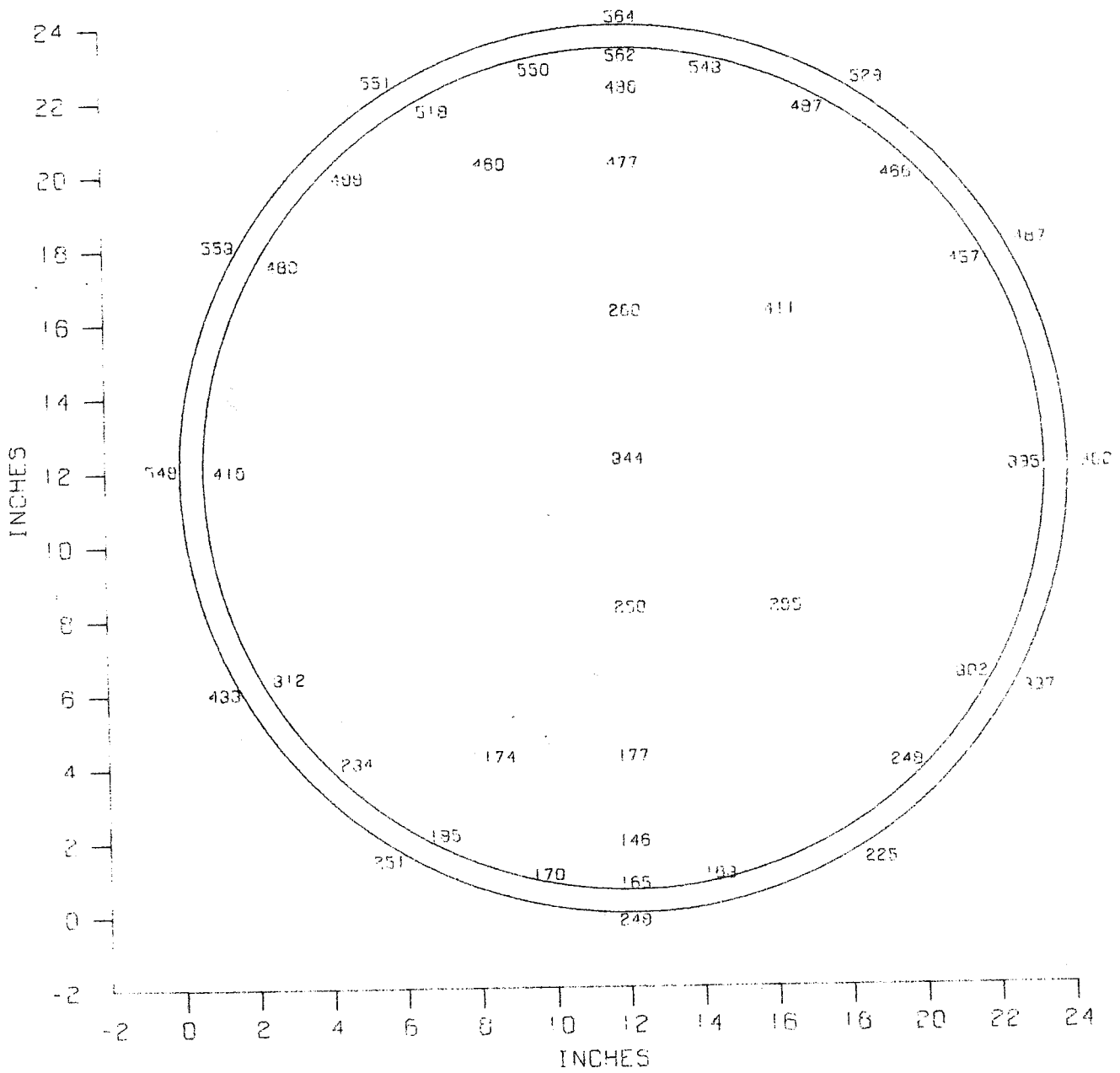


FIGURE B16 THERMOCOUPLE TEMPERATURES (DEG F) VS POSITION AT 3526 SECONDS FROM IGNITION FOR TEST NR. 7  
 LIQUID PHASE HAS TERMINATED