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TECHNICAL MEMORANDUM

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> TITLE MUFAN, A Computer Program for the Analysis of Multi-Loop Fluid Flow Systems

ABSTRACT

MUFAN may be used to determine flow rates, pressures, and pressure drops in systems involving one-dimensional incompressible steady state fluid flow. The system may consist of one or more branches or loops. The program is coded in FORTRAN IV (G) for the IBM 360/65 computer.

Key Words: MUFAN, Fluid Flow, One-Dimensional, Incompressible, Steady-State, Multi-Loop, Piping System

APPROVED:

DEPARTMENT HEAD



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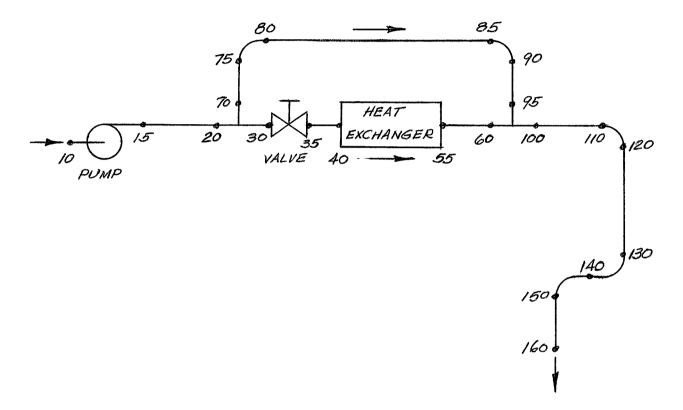
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1.0 INTRODUCTION

MUFAN is a computer program (coded in FORTRAN IV (G) for the IEM 360/65) which solves fluid flow systems involving one or more branches or loops for flow rates, pressure drops and pressures. The program is primarily intended for the analysis of piping systems and the flow is assumed to be one-dimensional, incompressible and steady-state. Friction head loss data for several fittings commonly found in piping systems is built into the program as well as density and viscosity data for liquid water, liquid NaK, liquid mercury and 4P3E.

2.0 USER'S GUIDE

The first step in preparing data for MUFAN is to make a schematic of the system to be analyzed. The schematic should include only the details necessary for the fluid flow analysis. The next step is to indicate nodes (or stations) on the schematic. There must be a node at both ends of each fitting, pump, component, etc. Each node is then assigned a unique number from 1 to 500 (inclusive). The nodes may be numbered in any manner desired; however, it is suggested that, for the sake of readability, the nodes be numbered in increasing order in the direction of fluid flow and that numbers be left out so that, if necessary, additional nodes can be inserted at a later time without disturbing the numbering scheme. An example of a schematic with node numbers appears below.



The next step is to describe each of the members (straight pipes, fittings, pumps, components, etc.) that make up the system. The number of the node at which fluid enters the member and the number of the node at which fluid leaves the member (in that order) must be specified for each member. These pairs of node numbers determine how the members are connected to form the system and also determine the positive direction for fluid flow in each branch of the system. Member data is coded on MEMBER cards which are described in Section 2.1.6. If the member is a pump or component, flow rates are coded on CQ cards (Sec. 2.1.2) and the corresponding Δ P's are coded on CP cards (Sec. 2.1.2).

To complete the description of the system it is necessary to specify the fluid to be used, the fluid temperature at each node point, the elevation at each node point, and the appropriate pressure and fluid flow constraints. The type of fluid to be used is coded on the BEGIN card (Sec. 2.1.1), the temperatures at the nodes and the elevations at the nodes are specified on the NODE cards (Sec. 2.1.7), pressures which are to be fixed are coded on the PRESSURE cards (Sec. 2.1.8), and flow rates to be fixed are coded on the MEMBER card for the first member in the branch for which the flow rate is to be fixed.

The specification of proper fixed pressures and fixed flow rates is crucial to the analysis of the system. MUFAN will reject any system that is either underdetermined or overdetermined. As an example, consider a system which consists of a single straight pipe:

•____• 1 2

If the pressure is fixed at node 1 and node 2, the system can be solved. If, however, only the pressure at node 1 is fixed, the system is underdetermined and cannot be solved. If the pressure is fixed at node 1 only and the flow rate in the pipe is fixed, the system can be solved. If, however, the pressure at node 1, the pressure at node 2, and the flow rate are all fixed, the system is overdetermined and cannot be solved.

2.1 INPUT DATA DECK

The input data for MUFAN is contained on the following types of cards: BEGIN, CP, CQ, END, FD, FT, FV, LABEL, MEMBERS, NØDE, PRESSURE, AND TEMPERATURE. The BEGIN card must be the first card in the data deck and the END card must be the last card in the data deck; the remaining cards may appear in any order in the data deck. The data decks for several cases may be "stacked" so that they will be processed in a single computer run. A sample MUFAN deck set up appears below in Figure 1.

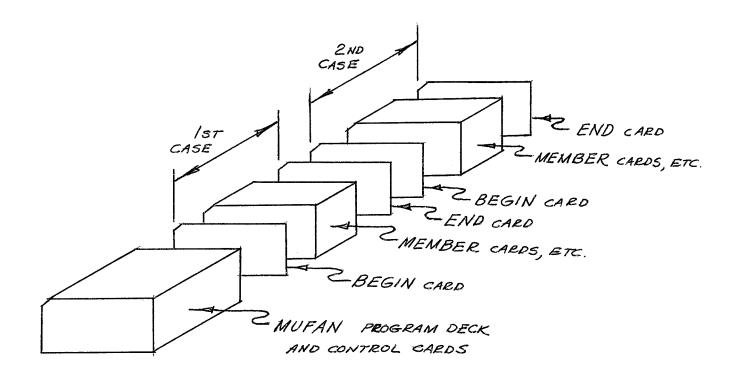


Figure 1 - MUFAN Deck Set-Up

Detailed descriptions of each type of card appear in the sections below. The entries under the heading "Field Type" have the following meanings:

A - alphanumeric data (any legal character). If a letter or group of letters appears in capitals under the "Data" heading for that field, the letter or letters must be coded exactly as shown.

- F floating point (real) data. Must have a decimal point. If the E notation is used (for example 2.0E-6 instead of .000002), the exponent must be coded in the right-most column(s) of the field.
- I Integer data. Must be coded in the right-most columns of the field and must not have a decimal point.
- X blank
- 2.1.1 BEGIN CARD

The BEGIN card must be the first card in the data deck for each case. The format of the card is described below.

CARD COLUMNS	FIELD TYPE	DATA
1	 A	B or blank
2-3	X	blank
4	I	Fluid type
		l = NaK
		2 = Mercury - liquid
		3 = 4P3E
		4 = Not used
		5 = Water - liquid
		6 = Fluid properties input by the user on
		FD, FT, and FV cards
5-14	F	X - acceleration, g's
15-24	F	Y - acceleration, g's
25-34	F	Z - acceleration, g's
35-44	F	Maximum allowable absolute error in flow
		rate (- 1.0 lb/hr if left blank)
45-54	F	Maximum allowable relative error in flow
		rate (=0.01 if left blank)
55 - 58	I	Maximum number of iterations to be performed
		(=50 if left blank)
59	Х	blank
60	I	=0 or blank - lengths, bend radii and elevations
		are in feet
		=1 - lengths, bend radii and elevations are in inches
61-80	X	blank

2.1.2 CP and CQ CARDS

CP cards are used to specify pressure drop versus flow rate for components. The component pressure drop (in psi) for selected flow rates is coded on a CP card and the corresponding flow rates (lb/hr) are coded on a CQ card. For pumps, the head in feet of fluid for selected flow rates is coded on a CP card and the corresponding flow rates (in GPM) are coded on a CQ card. MUFAN uses linear interpolation to find values of pressure drop (or fluid head) that correspond to flow rates between the selected values on the CQ card. If a flow rate is less than the smallest flow rate on a CQ card, the pressure drop (fluid head) corresponding to the smallest flow rate on a CQ card, the pressure drop (fluid head) corresponding to the largest flow rate is used. The flow rates must be coded in increasing order from left to right on each CQ card.

Component or pump data coded on CP and CQ cards is referenced by assigning a component or pump type number on the CP and CQ cards and also coding that type number on any MEMBER cards that represent a member which is that type of pump or component. For example, suppose that in the system to be analyzed we have several check valves that all have the same pressure drop versus flow rate characteristics. We could code the pressure drop versus flow rate data on a pair of CP and CQ cards, assign a component type, number, say 1, and then code that component type number on each MEMBER card that represents one of the check valves.

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CARD COLUMNS	FIELD TYPE	DATA	_
32 - 38	Ŧ	4th P, pump head, or flow rate	
39 - 45	F	5th P, pump head, or flow rate	
46-52	\mathbb{F}	6th P, pump head, or flow rate	
53 - 59	F	7th P, pump head, or flow rate	
60-66	F	8th P, pump head, or flow rate	
67-73	F	9th P, pump head, or flow rate	
74-80	F	loth P, pump head, or flow rate	

2.1.3 END CARD

An END card indicates the end of the data cards for a case and must be the last card in the data deck for each case.

CARD COLUMNS	FIELD TYPE	······································	DATA	
1 - 3	A	END		
4-80	X	blank		

2.1.4 FD, FT, AND FV CARDS

If the user wishes to use a fluid other than those whose properties are built into the program (NaK, liquid mercury, 4P3E, liquid water), he must supply fluid density and viscosity versus temperature on FD, FV, and FT cards. Selected temperature values (degrees F.) are coded on the FT card, increasing from left to right. The fluid density values (pounds per cubic foot) corresponding to each temperature value are coded on the FD card and the fluid viscosity values (lb./hr.-ft.) corresponding to each temperature are coded on the FV card. Interpolation is performed by Subroutine INT4 (see Reference 10).

CARD COLUMNS	FIELD TYPE	DATA
1-2	A	FD or FT or FV
3-10	F	lst density, temperature or viscosity value
11-18	F	2nd density, temperature or viscosity value
19-26	\mathbf{F}	3rd density, temperature or viscosity value

CARD COLUMNS	FIELD TYPE	DATA
27 - 34	F	4th density, temperature or viscosity value
35-42	F	5th density, temperature or viscosity value
43-50	F	6th density, temperature or viscosity value
51 - 58	F	7th density, temperature or viscosity value
59 - 66	F	8th density, temperature or viscosity value
`67-74	F	9th density, temperature or viscosity value
75-80		blank

2.1.5 LABEL CARDS

LABEL cards are used to place title information at the top of each page of MUFAN printout. There may be up to 3 LABEL cards for each case.

	CARD COLUMNS	FIELD TYPE	DATA	
	l	A	L	
	2-80	A	Any title information desired.	
2.1.6	MEMBER	CARDS		

MEMBER cards are used to describe the members (straight pipe, fittings, components, pumps, etc.) that make up the system that is to be analyzed. Each MEMBER card describes one member.

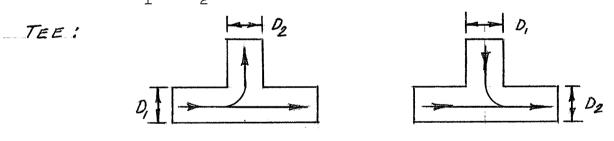
CARD	FIELD	
COLUMNS	TYPE	DATA
l	A	M
2	X	blank
3 - 5	I	Number of the node at which fluid enters the
		member.
6-7	X	blank
8-10	I	Number of the node at which fluid leaves the member.
11-17	X	blank
18 - 24	F	If member is
	••	. Straight pipe, gradual expansion or contraction
		code the length in feet or inches
	••	. A bend code the radius in feet or inches
	••	. None of the above leave blank

CARD COLUMNS	FIELD TYPE	DATA
25-30	F	Upstream outside diameter, D ₁ , inches. (See
		Sect. 2.1.6.1)
31-36	F	Upstream wall thickness, inches
37-41	F	If the member is a bend, code the angle of the
		bend in degrees (maximum bend angle allowed is 180°).
		If the member requires a downstream outside
		diameter (D $_{ ho}$), code the downstream wall thickness.
		If neither of the above apply, leave blank.
42	X	blank
43	I	l If fixed pressure drop (see Sect. 2.1.6.2)
		2 If free pressure drop (see Sect. 2.1.6.2)
		3 If fixed pressure rise (see Sect. 2.1.6.2)
		0 or blank if none of the above
2424	I	l If fixed flow rate (see Sect. 2.1.6.3)
		0 or blank if not
45	I	If the member is a pump, code the type number of
		the pump, otherwise 0 or blank.
46-47	I	If the member is a component, code the type number
		of the component, otherwise 0 or blank
48-49	I	If a K-factor is to be used for the member, enter
		the K-factor code (see Sect. 2.1.6.4), otherwise
		0 or blank.
50-51	I	If an equivalent length (Le/D) is to be used for
		the member, enter the equivalent length code (see
		Sect. 2.1.6.5), otherwise 0 or blank.
52	Х	blank
53-58	F	Depending on what is coded in columns 48-51, enter
		value of K-factor, value of Le/D, diameter of
		orifice (D _o), or blank.
59-65	F	Downstream outside diameter, D ₂ (See Sect. 2.1.6.1)

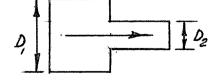
CARD COLUMNS	FIELD TYPE	DATA
66-72	핏	Depending on what is coded in columns 43-44, enter value of fixed flow rate, value of fixed pressure drop, value of fixed pressure rise, or blank.
73-79	F	If the member is a straight pipe or an equivalent length has been selected, enter the roughness in inches, otherwise leave blank
80	Х	blank

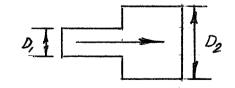
2.1.6.1 OUTSIDE DIAMETER

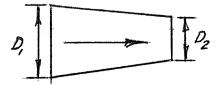
If a member has a constant diameter from inlet to outlet, the outside diameter, D., is coded in columns 25 thru 30 of the member card and the field for D_2 is left blank. If a member has an upstream outside diameter that differs from the downstream outside diameter, the upstream outside diameter (D_1) must be coded in columns 25 thru 30 and the downstream outside diameter (D_2) must be coded in columns 59-65. Pumps require both D_1 and D_2 whereas D_1 need be coded for components only if a printout of Reynolds number based on D_1 is desired. Examples showing D_1 and D_2 appear below.



CHANGES OF SECTION :



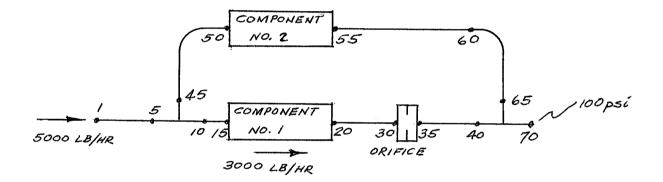






2.1.6.2 PRESSURE DROP CONSTRAINTS

If a fixed pressure drop (or rise) is specified for a member, the pressure drop (or rise) provided by the user in columns 66 thru 72 of the MEMBER card is taken to be the pressure drop (or rise) across the member regardless of the flow rate. If a free pressure drop is specified for a member, MUFAN computes the pressure drop required to satisfy the conditions imposed on the system. As an example of the use of a free pressure drop, consider the system shown below:



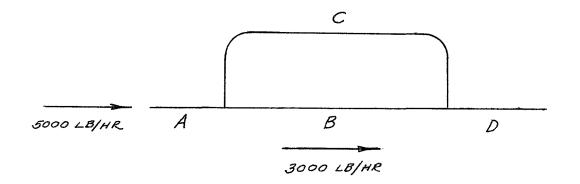
It is desired to size the orifice to obtain the flow distribution shown. To accomplish this, the flow rates shown are coded as fixed and the characteristics of the two components are coded on CP and CQ cards. Member 30-35 is coded as a free pressure drop and the outside diameter is coded in columns 25 thru 30 of the MEMBER card. The remaining members are coded on additional MEMBER cards and the pressure at node 70 is specified on a PRESSURE card. MUFAN will compute the pressure drop from node 30 to node 35 required to obtain that pressure drop. If the outside diameter is left blank on MEMBER card 30-35, the pressure drop will be computed but the orifice diameter will not.

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It should be noted that if a fixed pressure drop (or rise) or a free pressure drop is called for, all but the following data items on the MEMBER card are ignored: the node numbers, the outside diameter (D_1) , the wall thickness, the fixed flow rate flag, and the value of the fixed flow rate (if any).

2.1.6.3 FLOW RATE CONSTRAINTS

If the first member in a branch is coded as having a fixed flow rate, the entire branch is considered to have the same fixed flow rate (to satisfy continuity of mass flow). MUFAN checks to see if the flows fixed by the user imply fixed flows in other branches, and, if so, fixes the flows in these branches. As an example of implicitly fixed flow rates, consider the system shown below:



The flow rates in branches "A" and "B" are fixed at the values shown. To satisfy continuity the flow rate in branch "C" must be 2000 lb/hr. and the flow rate in branch "D" must be 5000 lb/hr., therefore MUFAN would automatically fix the flow rates in these two branches.

2.1.6.4 K-FACTORS

K-factors are used to compute the head loss through bends, fittings, components, etc. according to the relationship:

$$\Delta h = \frac{KV^2}{2g}$$

Where:
h = head loss, ft.
K = K-factor, dimensionless
V = fluid velocity, ft./sec.
g = acceleration of gravity, ft./sec./sec.

If the user chooses to have the program use a K-factor in the head loss computation for a member, he should code one of the numbers listed below, otherwise the field (cols. 48-49) should contain zero or blank. In the descriptions below, "tubing" refers to roughness on the order of smooth tubing while "piping" refers to roughness on the order of cast pipe. See Section 3.1.1 for the K-factor values which are built into the program.

CODE	DESCRIPTION
l	30° or 45° tubing branch-flow out through branch
2	60° tubing branch-flow out through branch
3	90 ⁰ tubing branch-flow out through branch
4	45° branch on a 90° elbow-flow out through branch
5	7° branch on a 90° elbow-flow out through branch
6	15 ⁰ branch on a 155 ⁰ elbow-flow out through branch
7	135 ⁰ tubing branch-flow out through branch
8	45° tubing branch-flow through main
9	90 ⁰ tubing branch-flow through main
10	135 ⁰ tubing branch-flow through main
11	45 ⁰ tubing branch-flow in through branch
12	90 ⁰ tubing branch-flow in through branch
13	135 ⁰ tubing branch-flow in through branch
14	Tubing bend (code the angle of the bend in columns $37-41$)
15	Standard 90 ⁰ pipe elbow
16	Standard 45 ⁰ pipe elbow
17	Long 90 ⁰ pipe elbow
18	Standard pipe tee - flow through main
19	Standard pipe tee - flow through branch
20	Close return bend
21	Gradual contraction
22	Gradual expansion
23	Sudden contraction

CODE

24 Sudden expansion

25 Orifice

99 K-factor provided by the user (K-factor value coded in columns 53-58)

2.1.6.5 EQUIVALENT LENGTHS

Equivalent lengths are used to compute the head loss through bends, fittings, components, etc. according to the relationship:

$$\Delta$$
h = f (Le/D) $\frac{V^2}{2g}$

Where:

 Δ h = head loss, ft.

f = friction factor

Le/D = equivalent length, diameters

V = fluid velocity, ft./sec.

g = gravitational acceleration ft./sec./sec.

If the user chooses to have the program use an equivalent length in the head loss computation for a member, he should code one of the numbers listed below, otherwise the field (columns 50-51) should contain zero or blank. In the descriptions below "tubing" refers to roughness on the order of smooth tubing while "pipe" refers to roughness on the order of cast pipe. See Section 3.1.2 for the equivalent length values which are built into the program.

С	0	DF
~	v.	

DESCRIPTION

1	Straight pipe, code the length (feet or inches) in columns $18-24$
~	and code the roughness (inches) in columns 73-79
2	Tubing bend (code the angle of the bend in columns $37-41$)
3	Standard 90 ⁰ pipe elbow
4	Standard 45 ⁰ pipe elbow
5	Long 90 ⁰ pipe elbow
6	Close return bend
7	Gate Valve
8	Swing check
9	Angle Valve
10	Globe valve

CODE	DESCRIPTION
11	Standard pipe tee - flow thru main
12	Standard pipe tee - flow thru branch
99	Equivalent length (Ie/D) provided by the user in columns $53-58$.
2.1.7	NODE CARDS

NODE cards are used to input elevation and temperature data for the nodes in the system. Temperature data may be coded on TEMPERATURE cards instead of on the NODE cards if desired. If a node does not have elevation data coded for it on a NODE card, the elevation at that node is considered to be X = 0, I = 0, Z = 0. Thus for nodes that have elevation X = 0, Y = 0, Z = 0 the NODE card may be omitted provided that the fluid temperature for that node is coded on a TEMPERATURE card.

CARD COLUMNS	FIELD TYPE	DATA
l	А	Ν
2	Х	blank
3-5	I	Node number
6	Х	blank
7-9	I	If a node number is coded in this field, the elevation
		and temperature data coded on the remainder of the
		card will be assigned to all node numbers from the node
		number coded in columns 3-5 to and including the node
		number coded in this field. If, for ex a mple, 10 is

and temperature coded on the remainder of the card. Any of the consecutive numbers between 10 and 130 that are not actual node numbers assigned by the user are ignored. If columns 7-9 are left blank, the temperature and elevation data re-assigned only to the node whose number appears in columns 3-5.

coded in columns 4 and 5 and 130 is coded in columns

7-9, then nodes 10 thru 130 would all have the elevation

CARD COLUMNS	FIELD TYPE	DATA
10	Х	blank
1 1- 18	F	X-elevation
19 - 26	F	Y-elevation
27 - 34	\mathbf{F}	Z-elevation
35-42	F	Temperature, deg. F.
43-80	X	blank

2.1.8 PRESSURE CARDS

PRESSURE cards are used to fix a pressure at a node.

CARD COLUMNS	FIELD TYPE	DATA
1	А	P
2	Х	blank
3-5	I	Node number
6-8	Х	blank
9-14	F	Pressure, psi (must be a positive number or zero)
15-80	Х	blank

2.1.9 TEMPERATURE CARDS

If no elevation data is to be input (see Sect. 2.1.8), the TEMPERATURE cards are used to specify the fluid temperatures at the nodes. If each node has a different fluid temperature, there will be as many TEMPERATURE cards (with all but the first node number field left blank) as there are nodes -one for each node. If, however, several nodes have the same fluid temperature, those node numbers may be listed on a single TEMPERATURE card. If a number is coded in the first node number field, the second node number field is left blank, and a number is coded in the third node number field, all nodes having consecutive node numbers starting with the number in the first field and up to (and including) the number in the third field will be assigned the temperature that appears in the fluid temperature field of the card. If some of the intermediate numbers are not actual nodes, they are merely ignored.

CARD COLUMNS	FIELD TYPE	DATA
1	А	Т
2-3	X	blank
4-6	I	First node number
7-8	Х	blank
9-11	I	Second node number
12 - 13	Х	blank
14-16	I	Third node number
17-18	Х	blank
19 - 21	I	Fourth node number
22-23	X	blank
24-26	I	Fifth node number
27-28	X	blank
29 - 31	I	Sixth node number
32-33	X	blank
34-36	I	Seventh node number
37 - 38	Х	blank
39-41	I	Eighth node number
42-43	X	blank
44-46	I	Ninth node number
47-48	X	blank
49 - 51	I	Tenth node number
52 - 53	Х	blank
54 - 56	I	Eleventh node number
57 - 58	Х	blank
59 - 61	I	Twelfth node number
62 - 65	X	blank
66-72	F	Fluid temperature, ^O F.
72-80	Х	blank

Examples:

 (a) If a TEMPERATURE card has 16 coded in columns 5 and 6 and 1201.0 coded in columns 66 thru 71, a fluid temperature of 1201.0°F. will be assigned to node 16.

17_

- (b) If a TEMPERATURE card has 10 coded in columns 5, and 6, a 55 coded in columns 10 and 11, a 105 coded in columns 14 thru 16, and 662.5 coded in columns 66 thru 70, then a fluid temperature of 662.5°F. will be assigned to nodes 10, 55, and 105.
- (c) If a TEMPERATURE card has 5 coded in column 6, 200 coded in columns 14 thru 16, and 1152.0 coded in columns 66 thru 71, then all nodes having node numbers between and including 5 and 200 will be assigned a fluid temperature of 1152.0°F.

2.2 PRINTED OUTPUT

MUFAN produces four types of printed output for each case: Card Input Listing, Member Flow Characteristics, Flow and Pressure Drop, and Pressure. Each type of printout is discussed in detail below and the printed output for a sample problem appears in Appendix A. The date (month/day/year) and the time of day (0000-2400) that the problem was run are printed at the top of each page of MUFAN printed output.

2.2.1 CARD INPUT LISTING

The cards in the deck for a case are listed exactly as they are punched. When errors in the data deck are detected by MUFAN, a descriptive error message is printed out and MUFAN skips to the next case (if any).

2.2.2 MEMBER FLOW CHARACTERISTICS

The following information is printed out for each member: member number (in ascending numerical order), type, length, outside diameter (Dl), wall thickness, radius, angle, D2, roughness, Le/D, K-factor. Items in the preceding list that do not apply to a particular member are printed out as asterisks for that member. In the event that errors in the data are detected, MUFAN prints out a descriptive error message and skips to the next case (if any).

2.2.3 FLOW AND PRESSURE DROP

The flow rate (lb/hr) in each branch is printed out immediately followed by the pressure drop through each member on that branch. The pressure drop is also broken down into pressure drop due to changes in elevation

and pressure drop due to friction losses. Cumulative pressure drop along the branch is also printed out. Fixed flow rates, pressure drops and pressure rises are followed by an X. Free pressure drops are enclosed in parentheses.

2.2.4 PRESSURE

The pressure at each node in the system is printed out. Fixed pressures are followed by an X.

2.3 SAMPLE PROBLEM

The schematic for the system to be solved is shown in Figure 2. Node numbers have already been assigned. Additional system data appears in Figure 3.

Figure 4 contains the coding sheets filled out for this problem. The first card coded is the BEGIN card. A l in column 4 indicates that the fluid to be used is NaK, 1.0 in columns 15-17 indicates that there is a 1.0 g acceleration in the Y-direction, and 1 in column 60 indicates that the lengths, bend radii, and elevations are to be coded in inches. The remaining fields are left blank, which means that the default values shown in section 2.1.1 for the absolute error, relative error, and maximum number of iterations will be used. If for a problem which must be solved iteratively (such as this sample problem) it may be necessary to specify different values in order to get a satisfactory solution (see Section 3.3.1).

The next two cards coded are LABEL cards which provide a title to be printed at the top of each page of the printout. Since the HRPMA (185 to 10) is a pump, a pump type number is coded in column 45 of the MEMBER card. The upstream and downstream diameters and wall thicknesses are also coded. A CQ card gives the flow rates (in GPM) and a CP card gives the corresponding heads (in feet) for a type 1 pump. (Note that if there were other identical pumps in the system, they could all have a 1 coded in column 45 of their MEMBER cards and only the single set of

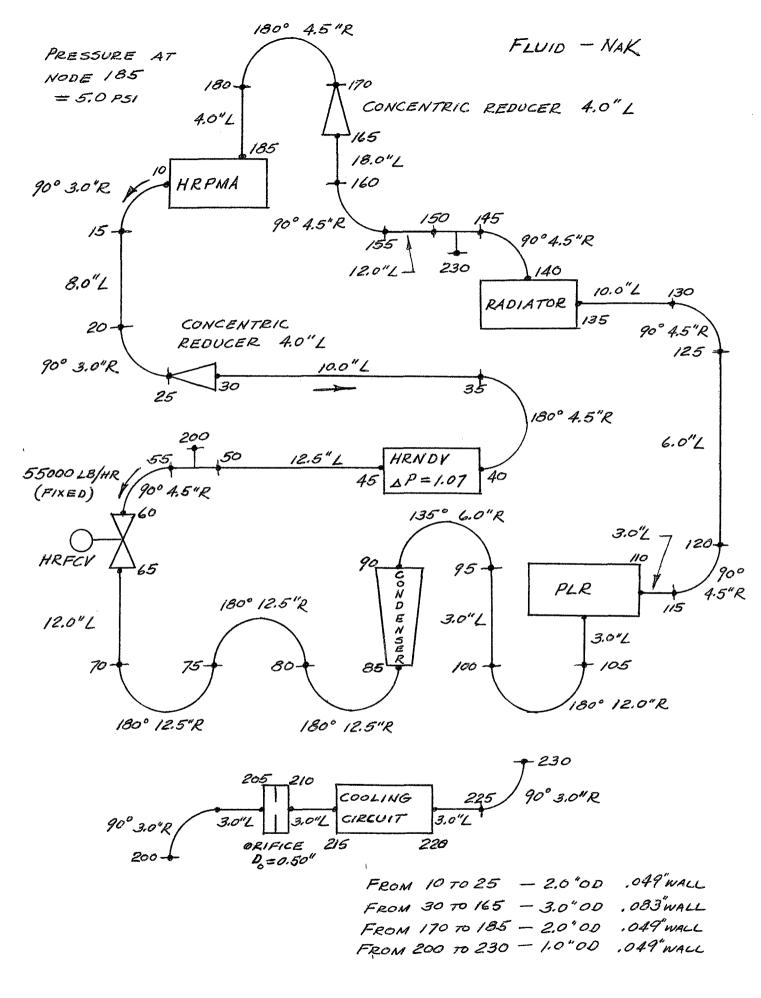


FIGURE 2 SYSTEM SCHEMATIC

FIGURE 3 - ADDITIONAL SYSTEM DATA

	enser
Q, lb/hr	∆ P, psi
30,000 40,000 54,000 70,000	2.3 3.5 6.4 12.5

Radiator		
Q, $1b/hr$	∆ P,psi	
30,000 50,000 70,000	3.0 5.0 7.0	

` <u>Q, GPM</u>	HRPMA	Head, ft.
0 30 60 90 120 150 180		143 142 135 118 93 64 30

Q, lb/hr	PIR <u> A</u> P, psi
32,000	0.33
40,000	0.48
48,000	0.70
56,000	1.00
65,000	1.35
70,000	1.56

Cooling	Circuit
Q, lb/hr	∆ P, psi
0	0
4,000 8,000	16.0
8,000	64.0

Fluid Temperature

Nodes	10 thru 85	417 ⁰ F
Nodes	90 thru 135	490°F
Nodes	140 thru 185	417°F

Y Elevation Node(s)	Y, inches
10 thru 85	40.0
90 thru 95	85.0
100 thru 120	75.0
125 thru 135	120.0
140 thru 185	40.0

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Figure 4

CQ and CP shown would be required.) The concentric reducers are coded as a Gradual Expansion (22 in columns 48-49) in the case of member 25-30, and as a Gradual Contraction (21 in columns 48-49) in the case of member 165-170. The HRNDV is coded as having its K-factor input by the user (99 in columns 48-49); the K-factor is coded in columns 53-58.

Suppose we wish to find the pressure drop needed across the valve HRFCV such that the flow rate in that branch is 55,000 lb/hr. We can fix the flow rate in the branch by indicating a fixed flow rate (a l in column 44) on the MEMBER card for the first member in the branch, 50-55. We can then make member 60-65 a free pressure drop by coding a 2 in column 43 of its MEMBER card, and the program will compute the required pressure drop.

The Condenser, PLR, Radiator, and Cooling Circuit are coded as component types 1, 2, 3 and 4, respectively; and their characteristica are coded on the corresponding CQ and CP cards. Member 205-210 is coded as an orifice by coding 25 in columns 48-49 of its MEMBER card. The orifice diameter (D_0) is coded in columns 53-58 and the outside diameter and wall thickness are coded in columns 25-30 and 31-36 respectively. Fluid temperature data is coded on TEMPERATURE cards and elevation data is coded on NODE cards. The pressure at node is 5.0 psi by a PRESSURE Card. A listing of the MUFAN computer program appears in Appendix A.

Suppose that the system to be analyzed contains liquid bismuth instead of liquid NaK. Liquid bismuth has the properties shown below (Ref. 9):

Temp., ^O F.	ho, lb/ft ³	, lb/sec-ft
600	625	1.09×10^{-3}
800	616	0.90 x 10 ⁻³
1000	608	0.74 x 10 ⁻³
1200	600	0.62 x 10 ⁻³
1400	591	0.53 x 10 ⁻³

A 6 would be coded in column 4 of the BEGIN card and FT, FD, and FV cards would be coded as shown in figure 5. Note that the viscosity data must be converted to lb/hr-ft.

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Figure 5 Input Card for Temperature, Density and Viscosity of Liquid Bismuth

2.4 LIMITATIONS

The following limitations apply to the current version of MUFAN:

- (a) Node numbers must be integers between (and including) 1 and 500.
- (b) The maximum number of members allowed is 600.
- (c) The maximum number of Branches allowed is 150.
- (d) The maximum number of Branch Points allowed is 100.
- (e) Pressure cannot be fixed at a Branch Point.
- (f) An open Branch must have either a fixed flow rate and/or have the pressure at its End Point fixed.

3.0 ANALYSIS

The problems handled by MUFAN are limited to those involving one dimensional incompressible steady state fluid flow. The approach taken involves an application of the Bernoulli equation:

(3.1)
$$Z_1 + \frac{P_1}{144\rho_1} + \frac{V_1^2}{288g} = Z_2 + \frac{P_2}{144\rho_2} + \frac{V_2^2}{288g} + \Delta h_{12}$$

Where: Z = elevation, ft.

P = pressure, psi ρ = weight density, lb/ft³ V = bulk velocity, ft/sec g = gravitational acceleration, ft/sec/sec. Δ h₁₂ = friction head loss between 1 and 2, ft.

Subscript 1 denotes the upstream station and subscript 2 denotes the downstream station. Use is also made of the continuity equation:

(3.2) $\rho_1 A_1 V_1 = \rho_2 A_2 V_2$ Where: A = area, ft²

If we assume that the density is the same at stations 1 and 2, that is:

$$\rho_1 = \rho_2 = \rho_{12}$$

we can rewrite equation 3.1 as:

(3.3)
$$144\rho_{12} Z_1 + P_1 + \rho_{12} V^2_{2g} = 144\rho_{12} Z_2 + P_2 + \rho_{12} V^2_{2g} + \Delta P_{12}$$

Where: $\Delta P_{12} = 144 P_{12} \Delta h_{12} =$ friction head loss, psi

The subscript 12 denotes properties of the member connecting stations 1 and 2. It is convenient to define a fluid resistance, r_{12} , as follows:

(3.4)
$$P_1 + 144\rho_{12} Z_1 = P_2 + 144\rho_{12} Z_2 + r_{12} Q$$

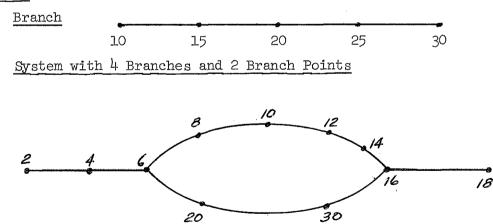
Where: r_{12} = resistance, psi-hr/lb
 Q = weight flow rate, lb/hr
 $= 3600\rho_{12} A_1 V_1 = 3600\rho_{12} A_2 V_2$

Then, from 3.3 and 3.4:

(3.5)
$$r_{12} = \frac{1}{Q} \left[\frac{\rho_{12} (v_2^2 - v_1^2)}{2g} + \Delta P_{12} \right]$$

For members having the areas at stations 1 and 2 equal, 3.5 reduces to: (3.6) $r_{12} = \frac{\Delta P 12}{Q}$

A Branch is a line consisting of one or more members connected end to end. The weight flow rate in each member of a Branch is the same (from continuity; equation 3.2). The system to be analyzed may consist either of a single branch, or, of three or more branches connected to form a network. The points at which three or more branches meet are called Branch points. Examples:



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If a node is connected to only one other node, then it is an End Point. Both examples above have 2 End Points each. The resistances of the members in a Branch may be summed along the Branch to give the total resistance of the Branch, R; and, the elevation head at each node in the branch (relative to the node preceding it in the branch) may be summed to give the elevation head of the end of the branch relative to the beginning of the branch, E:

(3.7)
$$R_{IJ} = \sum_{i=1}^{n-1} r_i, i+1$$

(3.8)
$$E_{IJ} = \sum_{i=1}^{n-1} P_{i, i+1} (Z_{i+1} - Z_{i})$$

The subscripts on R and E indicate that the Branch connects Branch (or End) Point I to Branch (or End) Point J. The fluid conductance of a branch is:

(3.9)
$$G_{IJ} = \frac{1}{R_{IJ}}$$

The net flow out of each Branch Point must be zero. This requirement is satisfied for the $I^{\underline{th}}$ Branch Point if:

(3.10)

$$\sum_{J} G_{IJ} \left[P_{I} - P_{J} \pm (E_{IJ} + \Delta P_{IJ}) \right] - \sum_{K} \pm Q_{IK} = 0$$

$$J \neq K$$
Where: P_{I} = pressure at Branch Point I
 P_{J} = pressure at Branch Point J
 ΔP_{IJ} = pump pressure rise and/or fixed pressure rise on
Branch IJ (if any)
 Q_{IK} = fixed flow rate in Branch IK

The index J runs over all Branch Points (and End Points) connected to Branch Point I by a Branch not having a fixed flow rate; the index K runs over all Branch Points (and End Points) connected to Branch Point I by a Branch having a fixed flow rate. The signs in front of E_{IJ} , ΔP_{IJ} and Q_{IK} are positive if the positive direction of flow in a Branch is from J (or K) to I. The positive direction of flow in a branch depends on how the members are coded (see section 2.0).

The solution of the set of equations 3.10 proceeds as follows:

(a) An initial guess is made for the values of the flow rates in all the Branches with non-fixed flow rates.

(b) In each of the Branches with non-fixed flow rates the current estimate of the flow rate in that Branch is used to compute the conductance of the Branch.

(c) The set of equations (3.10) is set up and solved for the Branch Point pressures.

(d) The new values of the Branch Point pressures along with the current values of the Branch conductances are used to compute a new estimate for the flow rate in each Branch not having a fixed flow rate.

Steps b through d are repeated until successive estimates of each Branch flow rate agree sufficiently.

The sections which follow contain a more detailed discussion of the items discussed.

3.1 FRICTION HEAD LOSS COMPUTATIONS

The method by which the friction head loss through a member is computed depends on the type of member. Three distinct methods are used:

(3.11)
$$\Delta P = K \frac{\rho v^2}{288g}$$

(3.12)
$$\Delta P = f \frac{L}{D} \frac{\rho V^2}{288g}$$

$$(3.13) \qquad \Delta P = F(Q)$$

 Δ P = friction head loss, psi Where: K-factor, dimensionless Κ = f friction factor, dimensionless = L length, ft. = diameter, ft. D = weight density, lb/ft^3 ρ =

V = bulk velocity, ft/sec

g = gravitational acceleration, ft/sec/sec

F(Q) = a relationship between Δ P and Q which is specified by tabular data (see section 2.1.2)

Q = weight flow rate, lb/hr

3.1.1 K-FACTORS

The K-factors listed in Table 1 below are computed by the program from input supplied by the user. In the table below the velocity used to compute the friction head loss in equation 3.11 is identified as either 1 for inlet velocity or 2 for outlet velocity. K-factors which are not given by a constant, a simple table of values, or an algebraic expression are given in Appendix B. In the descriptions below "Tubing" refers to fittings having wall roughness on the order of smooth tubing, while "piping" refers to fittings having wall roughness on the order of cast pipe. Linear interpolation is used in the tables for pipe fittings to determine K-factors for

intermediate values of inside diameter. Fittings with inside diameters less than 0.5 inches are assigned the K-factor for 0.5 inches; fittings with inside diameters greater than 4.0 inches are assigned the K-factor for 4.0 inches.

TABLE 1 - K-FACTORS

Description	Velocity	K-factor	Ref.
30° or 45° Tubing branch -flow out thru branch	l	(See Appendix B)	l
60° fubing branch - flow out thru branch	l	(See Appendix B)	l
90° Tubing branch - flow out thru branch	l	(See Appendix B)	1
45° Tubing branch from 90° elbow - flow out thru branch	1	(See Appendix B)	1
7° Tubing branch from 90° elbow - flow out thru branch	l	(See Appendix B)	1
15° Tubing branch from 155° elbow- flow out thru branch	l	(See Appendix B)	1
135° Tubing branch - flow out thru branch	l	K=3.0	2
45° Tubing branch - flow thru main	l	K=0.15	2 45° 2
90° Tubing branch - flow thru main	l	K=0.1	2
135° Tubing branch - flow thru main	l	K=0.06	2 · 2
45° Tubing branch - flow in thru bran	nch l	K=3.0	2 - 2

•

TABLE	1 -	K-FACTORS ((continued)

Description	Velocity	K-factor	Ref.
90° Tubing branch - flow in thru branch	1	K=1.2 /	2
135° Tubing branch - flow in thru branch	l	к=0.5	2 2
Tubing bend, 0 deg.	l	(See Appendix B)	3
90° standard piping elbow	l	<u>I.D.</u> 0.5 1.0 2.0 L K 0.82 0.68 0.58 (<u>+.0</u> 2 0.50
45° standard piping elbow	l	I.D. 0.5 1.0 2.0 L K 0.43 0.36 0.30 (+ <u>.0</u> 2 0.26
90° long piping elbow	l	I.D. 0.5 1.0 2.0 L K 0.55 0.45 0.38 (+ <u>.0</u> 2 D•33
Standard piping tee - flow thru main	1	I.D. 0.5 1.0 2.0 1 K 0.55 0.45 0.38 (+.0 2 0.33
Standard piping tee - flow thru bran	ch l	I.D. 0.5 1.0 2.0 1 K 1.7 1.4 1.2	<u>+.0</u> 2 1.0
Close return piping bend	l	I.D. 0.5 1.0 2.0 L K 1.4 1.2 0.96 (4 <u>.0</u> 2 0.82
Gradual contraction	2	(See Appendix B)	2
Gradual expansion	l	(See Appendix B)	2
Sudden contraction	2	(See Appendix B)	2
Sudden expansion	l	$K = \left(1 - \frac{A_1}{A_2}\right)^2$	2
Orifice	l	(See Appendix B)	4,7

3.1.2 EQUIVALENT LENGTHS

The equivalent lengths (Le/D) listed in table 2 below are computed by the program from input supplied by the user. The following relationships are used by the program to compute the friction factor: (Reference 6):

(3.14)
$$R = \frac{48Q}{3600 \pi D \mu}$$

(3.15) $f = \frac{64}{R}$ for $R \leq 2100$

$$(3.16) \quad \frac{1}{\sqrt{f}} = 2 \log_{10} \left(\frac{D}{e}\right) + 1.14 - 2 \log_{10} \left[1 + \frac{9.28}{R\left(\frac{e}{D}\right)\sqrt{f}}\right]$$
for $R \leq 4000$

Where: R = Reynold's number

- Q = Weight flow rate, lb/hr
- D = Inside diameter, in.
- μ = Viscosity, lb/ft-hr.
- f = friction factor
- e = Roughness, in.

In the transition region (2100 < R < 4000) interpolation is performed between the value of the friction factor a R=2100 and the friction factor at R=4000.

The equivalent length values in Table 2 are for fully turbulent flow. A correction is made for laminar flow as follows (Reference 4):

$$(3.17) \qquad (Le/D)_{LAMINAR} = \frac{R}{1000} (Le/D)_{TURBULENT}$$
for R < 1000

The equivalent length and friction factor values described above are used in equation 3.12 to compute the friction head loss.

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Description	Le/D	Ref.
Straight pi p e	(Pipe Length)/(Inside diameter)	
Tubing bend, θ deg.	(Le/D)=0.0202 X 0 ^{1.10} R 0.032	5
	<u>r/D 1.0 1.5 2.0 2.5 3.0 4.0</u> X 3.0 1.7 1.3 1.2 1.3 1.8	
	$\frac{r/D}{X} = \frac{5.0}{2.1} = \frac{6.0}{2.7} = \frac{7.5}{3.5}$	
	X = 0.482 r/D for r/D > 7.5	
	r = Bend radius	
	D = inside diameter	
	R = Reynold's number	
90° standard pipe elbow	(Le/D) = 30.0	2
45° standard pipe elbow	(Le/D) = 16.0	2
90° Long pipe elbow	(Le/D) = 20.0	2
Close return pipe bend	(Le/D) = 50.0	2
Gate Valve	(Le/D) = 13.0	2
Swing Check	(Le/D) = 135.0	2
Angle Valve	(Le/D) = 145.0	2
Globe Valve	(Le/D) = 340.0	2
Standard pipe tee - flow thru main	(Le/D) = 20.0	2
Standard pipe tee - flow thru branch	(Le/D) = 60.0	2

3.2 <u>FLUID DENSITY AND VISCOSITY</u>

The density and viscosity (as a function of temperature) of NaK, liquid mercury, and 4P3E used by MUFAN was obtained from reference (8); that of liquid water was obtained from reference (9). The data is coded in tabular form in the program and subroutine INT4 (see ref. 10) is used to perform interpolation in the tables.

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3.3 SOLUTION PROCEDURE

The set of equations represented by (3.10) may be written in matrix form as follows:

Where: \mathbb{N} = number of Branch Points

$$b_{II} = \sum_{J=1}^{N+M} G_{IJ}$$
$$b_{IJ} = -G_{IJ}$$

M = number of End Points

 P_{I} = pressure at Branch Point I

$$F_{I} = -\sum_{\substack{J=1\\J\neq K}}^{N} \pm G_{IJ} (E_{IJ} + \Delta P_{IJ}) + \sum_{K} \pm Q_{IK}$$
$$+ \sum_{\substack{L=N+1\\L\neq K}}^{N+M} G_{IL} \left[P_{L} \pm (E_{IJ} + \Delta P_{IJ}) \right]$$

 P_{L} = fixed pressure at an End Point

Gaussian elimination (with pivoting) is used to solve the system of equations (3.18) for P_1, \ldots, P_N . The new estimate for the flow rate in each Branch not having a fixed flow rate is computed as:

$$(3.19) \quad Q'_{IJ} = \frac{1}{2} \left\{ Q_{IJ} \pm G_{IJ} \left[P_{I} - P_{J} \pm (E_{IJ} + \Delta P_{IJ}) \right] \right\}$$

Where: $Q'_{T,T}$ is the new flow rate estimate

 $Q_{T,T}$ is the old flow rate estimate

The Q_{IJ} are used to compute a new set of G_{IJ} and pump Δ P's which are in turn substituted in the system of equations (3.18) which are solved for a new set of P_I's, . . . etc. This process continues until sufficient convergence of flow rates is obtained.

3.3.1 CONVERGENCE CRITERIA

In any iterative solution process it is necessary to have some method of deciding when a sufficiently accurate solution has been achieved or, failing this, a method of terminating the process after some reasonable number of steps. A good estimate of the accuracy of the solution at any point is the "closeness" of two successive estimates of flow rates. The iterative process is terminated if either of the following relationships hold for each Branch in the system:

$$\begin{vmatrix} Q'_{IJ} - Q_{IJ} \\ or, \end{vmatrix} \stackrel{\leq}{=} e_{A},$$
or,
$$\begin{vmatrix} Q'_{IJ} - Q_{IJ} \\ \hline D \end{vmatrix} \stackrel{\leq}{=} e_{R}$$

Where: $Q'_{T,T}$ is the new estimate for the flow rate in Branch IJ

 Q_{IJ} is the old estimate for the flow rate in Branch IJ ϵ_A is the absolute error tolerance D is the smaller of Q'_{IJ}

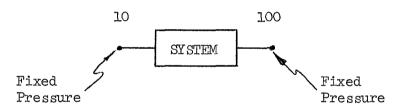
and Q_{IJ}

 $\boldsymbol{\varepsilon}_R^{}$ is the relative error tolerance

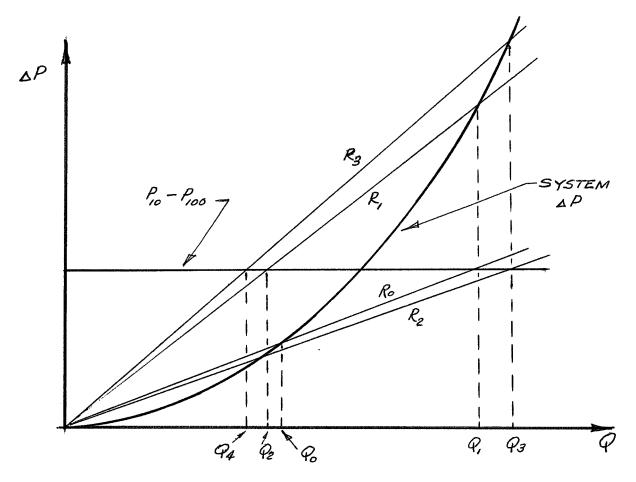
If the criteria given above are not met after the number of iterations specified by the user have been performed, the iteration process is halted and an error message is printed.

3.3.2 STABILITY AND RATE OF CONVERGENCE

As an illustration of the behavior of the iter ion procedure, consider a system with a fixed pressure drop across it.



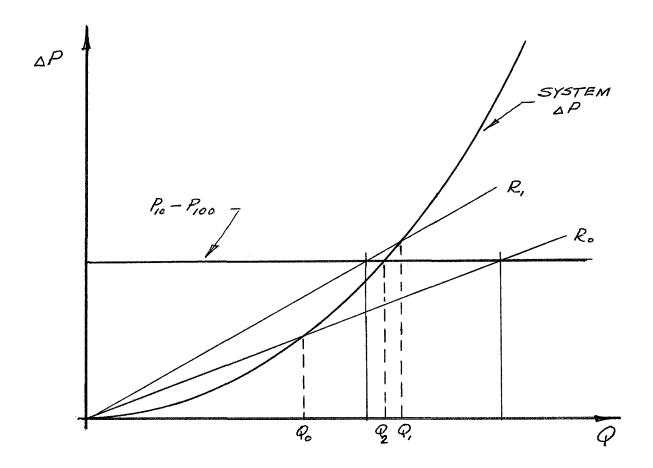
Starting with an initial estimate of the flow rate, Q_0 , the resistance is determined. Using the resistance and the fixed pressure drop a new estimate of the flow rate, Q_1 , is determined, . . . etc. A graphical example of this process follows.



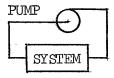
It is evident from the first four iterations that the process is diverging from the solution. In order to remedy this situation, let the new estimate for the flow rate be:

$$Q_{n+1} = \frac{1}{2} (Q_n + Q_{n+1})$$

Where: Q'n+1 is the flow rate determined by the method used above. A graphical example with this new flow rate follows.



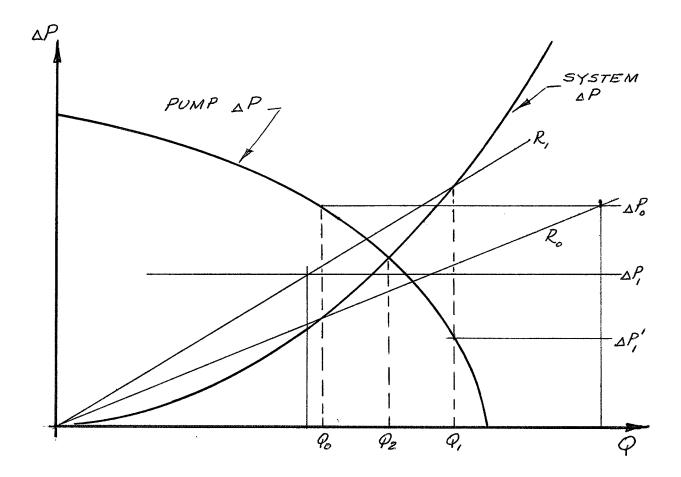
It is evident that this modified iteration procedure converges rapidly to the correct solution. As a further illustration of the behavior of the iteration procedure, consider a system with a pump.



Starting with an initial estimate of the flow rate, Q_0 , the resistance and the pump Δ P are determined. Using the resistance and the pump Δ P a new estimate of the flow rate, Q_1 , is determined, . . . etc. All pump Δ P's after the initial one are computed as:

$$\Delta P_{N+1} = \frac{1}{2} (\Delta P_N + \Delta P'_{N+1})$$

Where Δ P' is the value of pump Δ P which corresponds to $Q_{\rm N+l}.$ A graphical example of this process appears below.



The example indicates that the iteration process converges to the solution rapidly.

4.0 REFERENCES

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- (4) Crane Technical Paper No. 410, "Flow of Fluids", Crane Industrial Products Group, 1957.
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- (6) Streeter, V. L., Handbook of Fluid Dynamics, McGraw Hill, 1961, pp. 3-12, -14.
- (7) Spink, L.K., Principles of Flowmeter Engineering, The Foxboro Co., 1958, p. 25.
- (8) Aerojet-General Corp. Design Manual H-100B, "Properties of Fluids", section IV-2, 19 February 1968.
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APPENDIX A

MUFAN Program Listings

					ومواجعه ومحاجب والمراجع المحاجب والمحاجب والمحاجب والمحاجب والمحاجب والمحاجب والمحاجب والمحاجب والمحاجب		
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120 CUNTINUE 00006800 70. YOUT=Y(I) 00006900 70. 60 TU 150 00007000 70. 00007100 70. 00007100 70. 130 CONTINUE 00007100 70. 00007200 70. YOUT=Y(I)+(XIN-X(I-1))*(Y(I)-Y(I-1))/(X(I)-X(I-1)) 00007200 70. 150 CUNTINUE 00007300 70. 00007300 70. 150 CUNTINUE NU 00007300 70. 00007500 70. 150 CUNTINUE NU 00007300 70. 00007400 70. RETURN END 00007401 70. 00007400 70. SUBROUTINE LNKI EXTERNAL RNAT, VARIT NAI, RHGLI, R4P3ET, V4P3ET, V4P3ET, VH2OT, VH2OT 00007600 70. EXTERNAL RABT, VARBT 00007700 70. 00007700 70.		ADDEU	60 10			000000200	70.29
YOUT=Y(I) GO TU 150 CO TU 150 CO TU 150 CO TO 0007100 YOUT=Y(I-1)+(XIN-X(I-1))*(Y(I)-Y(I-1))/(X(I)-X(I-1)) YOUT=Y(I-1)+(XIN-X(I-1))*(Y(I)-Y(I-1))/(X(I)-X(I-1)) YOUT=Y(I-1)+(XIN-X(I-1))*(Y(I)-Y(I-1))/(X(I)-X(I-1)) YOUT=Y(I-1)+(XIN-X(I-1))*(Y(I)-Y(I-1))/(X(I)-X(I-1)) YOUT=Y(I-1)+(XIN-X(I-1))*(Y(I)-Y(I-1))/(X(I)-X(I-1)) RETURN RETUR		ADDED	-			00006800	70.29
G0 T0 150 00007000 70. 130 C0NTINUE 00007100 70. YOUT=Y(I-1)+(XIN-X(I-1))*(Y(I)-Y(I-1))/(X(I)-X(I-1)) 00007200 70. YOUT=Y(I-1)+(XIN-X(I-1))*(Y(I)-Y(I-1))/(X(I)-X(I-1)) 00007700 70. BETURN EXTERNAL RNAT, VNAT, RHGLT, VHGLT, R4P3ET, V4P3ET, YH2OT, VH2OT 000007500 70. EXTERNAL RNAT, VNAT, NABT 00007700 70. 00007700 70.		AUDED	=			0000000000	70.29
130 CONTINUE 00007100 70. YOUT=Y(I-1)+(XIN-X(I-1))*(Y(I)-Y(I-1))/(X(I)-X(I-1)) 00007200 70. YOUT=Y(I-1)+(XIN-X(I-1))*(Y(I))/(X(I)-X(I-1)) 00007300 70. YOUT=Y(I-1)+(XIN-X(I-1))*(Y(I))*(Y(I))-Y(I-1))/(X(I)-X(I-1)) 00007300 70. YOUT=Y(I-1)+(XIN-X(I-1))*(Y(I))*(Y(I))-Y(I-1))/(X(I))-X(I-1)) 00007300 70. PRD 00007500 70. 00007500 70. END 00007500 70. 00007500 70. EXTERNAL RNAT, VNAT, RHGLT, VHGLT, R4P3ET, V4P3ET, RH2OT, VH2OT 00007700 70. EXTERNAL RNAT, VNAT, RHGLT, VHGLT, R4P3ET, V4P3ET, RH2OT, VH2OT 00007700 70.		ADDED	60 IU			000010000	10.295
YOUT=Y(I-1)+(XIN-X(I-1))*(Y(I)-Y(I-1))/(X(I)-X(I-1)) 00007200 70. I50 CUNTINUE 00007300 70. RETURN 00007400 70. END 00007500 70. SUBROUTINE LNKI 00007500 70. EXTERNAL RNAT, VNAT, RHGLT, VHGLT, R4P3ET, V4P3ET, RH20T, VH20T 00007700 70. EXTERNAL RAKBT, VARBT		ADDEU	30			00001100	70.295
150 CUNTINUE 00007300 70. RETURN 00007400 70. END 00007500 70. SUBROUTINE LNKI 00007500 70. EXTERNAL RNAT, VNAT, RHGLT, VHGLI, R4P3ET, V4P3ET, RH2OT, VH2OT 00007700 70. EXTERNAL RNAT, VABT 00007700 70. EXTERNAL RNAT, VABT 00007700 70.		ADDED	γου T=Υ (I – I) +(XI	$(I-I) \times (X(I) - Y(I-I)) / (X(I) - X(I-I))$		00007200	70.295
RETURN 00007400 70. END 00007500 70. SUBROUTINE LNKI 00007500 70. EXTERNAL RNAT, VNAT, RHGLT, VHGLI, R4P3ET, V4P3ET, RH20T, VH20T 00007700 70. EXTERNAL RAKBT, VARBT 00007700 70.		ADDED				00001300	70.295
END 00007500 70. SUBROUTINE LNKI 00007600 70. EXTERNAL RNAT, VNAT, RHGLT, VHGLT, R4P3ET, V4P3ET, RH2UT, VH2UT 00007700 70. EXTERNAL RARBT, VARBT 00007700 70.		ADDED	RETURN			00001400	
SUBROUTINE LNKI EXTERNAL RNAT, VNAT, RHGLT, VHGLI, R4P3ET, V4P3ET, RH2OT, VH2OT 00007700 70. EXTERNAL RARBT, VARBT 00007800 70.		ADDED				00001500	
EXTERNAL RNAT, VNAT, RHGLT, VHGLT, K4P3ET, V4P3ET, KH2UT, VH2UT 00007700 70. External rakbt, vakbt 00007800 70.		ADDED	NE		1	00001600	
EXTERNAL RARBT, VARBT 00007800 70.2		AUDED		VNAT, RHGLT, VHGLT, R4P3ET, V4P3ET,		00022000	a
		ADUED				00007800	0°2

	01D VOL=5	VUL =SER=004783	DRC UPDATE	NEW	W VOL=SER=007208		
LU SEQ	MESSAGE	FILENAME=MUFAN	DE	DECKNAME= MUFAN			YY.DDI
	ADDED	RFA1 * 8 DATE				0007900	70.29
	AUDED	/MUF				00008000	70.29
	ADDED	A(3),	CUERR,	CUNSTS(3,600)	• 60,	00008100	
	ADDED		1BKAN(850),	IFLUIU,	*	00008200	10.29
Participation of the second strategy of	ADDED	3 LTEMP,	IT YPE(600),	JBRPT(600),	LABEL(20,3),	00008300	70.29
	ADDED		MBKAN(850),	NBCUN(250),	- 14	00008400	10.29
	ADDED		NNMAX,	NPTS(150),	PBRPT(250)	00008500	70.29
	ADDED	6 UBK(IDU);		KHUI OUU) ,	∩ !	00000200	70 201
		COMMON /MUFCOM/	VISCIOUS ; INDUT (100) .	-	NDUMBP. LOOP	00088000	70.29
	ADDED	/PUNT/	MMEM.MNODES, DATE			00008900	70.29
	ADDED	/PUNT/				00060000	70.29
	AUDED	COMM				00160000	
	AUDED	PCHAR(11,50)	• PCMAX (50)		QCHAR(11,50),	00006200	70.29
A	ADDED	MA			TNICOL	00009300	70. 29
	ADDED		IM 74	PUMINIDUI, UCM	INCINITION	00004400	10.29
• • ب	ADED	CUMMON /LICUM	INDUELIZOUL	INDRET 1 2001	MEMNOLI 2001	00460000	70 20
3	AUUEU			12071		00060000	70.00
	AUUEU		DADI EN (ADD)	• • •	TENDITSO 21	00160000	70 20
	AUDEU		VAULEN 1000 1		17015	000000000000000000000000000000000000000	70 201
	AUDEU	4 NENUSICI				00001000	70.20
	AUDEU	LEVEL=U		VIXX	00 13	000101000	10.29
	ADDED		12E NUVE	INDICATES		00101000	70 20
	AUUEU		• 11779	TUNIN	Ā	002010200	10. 201
	AUUEU					0000000000	10. 24
	AUUEU	00041=71 CCT 00				00010400	10.23
	ADDED	0°T-=(71)d				00501000	
	AUUEU	ļ	ann ann an Annaich a bhliach a tha ann an ann an ann ann ann ann ann ann	a na an		000101000	10.29
	ADDED	The second s	5			00101000	10. 24:
	AUUEU		TINFUL			00001000	10. 24
	ADDED	CALL INPUI				00601000	
	ADDED		UNNECTIVITY	UALA INIU ASCENUING	UING UKUEK	00011000	10.24
	ADDED		,JNUDE,INUDE,MEMNU)			00111000	
	ADDED	CALL SORT(3, NMEM	a			00011200	70.29
	ADDED		IE K-FACTORS,		LENGTHS,		
	ADDED		DENSITY AND	5		00011400	
	ADDED	C AN	D PRINT OUT M	CHARAC	ICS.	errot .	
	ADDED	0	T01210,220,230,250	50,250,260), I	FLUID	00011000	ð
	ADDED	Seend				0011	0.2
	ADDED	CALL FORKIRNAT, VNAT)	NAT)			00011800	70.29!

				والمعادمة				
-	OLD VOL=SE	VOL=SER=004783		DRC UPDATE	NEW	1 VOL=SER=007208		
LD SEQ	MESSAGE	FILENAME=MUFAN	JFAN	Ĩ	DECKNAME= MUFAN			YY.DDI
								1
	ADDED	1	6				00611000	70.29
	ADDED	220 CONTINUE					00012000	70.29
	ADDED		FORK(RHGLT, VHGL	3LT)			2	
	ADUED		0				00012200	
	ADDED	1 House and a local sector					00012300	70.29!
	ADDED	_	FORK(R4P3ET,V4P3ET	4P3ET)			00012400	
	ADDED						00012500	
	ADDED	250 CONTINUE					00012600	
	ADDED		FORK(RH20T,VH20	20T)			00012700	
	ADUED	G0 T0 270	0				00012800	70.295
	ADDED	260 CONTINUE					00012900	
	ADDED	CALL FORK	FORK (RARBT, VARB	2BT)			00013000	
	ADDED	270 CONTINUE					00013100	70.29
	ADDED	U	TRACE	BRAN	UP BRANCH	CONNECTIVITY	00013200	70. 29
	ADDED	c	AND (CHECK CONSTRAIN	VTS.		00013300	70.29
A	ADDED	CALL NETWRK	VRK				00013400	70.295
	ADDED	RETURN					00013500	70.29
. 4	ADDED	END					00013600	70.29
	ADDED	SUBROUTINE	VE RESISTIME	12×1			00013700	70.29
	ADDED	c	FLOW	E SI STANCE	SUBROUT INE		00013800	
	ADDED	COMMON /	/MUFCOM/				00013900	70.29
	ADDED	1 A(3),	÷	COERR,	CONSTS(3,600),	60,	00014000	70.29
	ADDFD		IBCON (600) +	IBRAN(850)	IFLUID,	IOPT(10),	00014100	70.29
	ADDED			~	JBRPT(600),	LABEL(20,3),	00014200	70.29
	ADDED			1	NBCON(250),	NBRAN.	00014300	
	ADUED		'S,	NNMAX.	NPTS(150),	PBRPT(250),	00014400	70.29
	ADDED	6 QBR(150)	. 105.	QERR,	RHD(600),	TBULK(500),	00014500	70.29
	ADDED	L L		*	A(00014600	70.29
	ADDED	CUMMON /	FCOM/	INUUTIOON, N	NINUUT, NDUMBP,	LOUP	00014700	70.29
	ADDED	COMMON /	/PQCHAR/				00014800	70.29
	ADDED	I PCHAR	PCHAR(11,50),	PCMAX(50) ,	R(11,5	QCMAX(50)	00014900	
	ADDED	COMMON /	/PQCHAR/		PCMIN(50), QCMI	QCMIN(50)	00015000	70.29
and a second	ADDED	DIMENSION	\$****\$	(3,600)			000121000	70.29
	ADDED	EQUIVALENCE	~	(1*1),	CONSTS(1,1))		00015200	70.29
	ADDED	IFUNIT-EQ.	- U. I) UB= (UI	(((LI)XAMD9+(TI)NIND)	AX(11)/2.0		00015300	70.29!
	ADDED	QB=ABS(Q)	~				00015400	70. 29!
	ADDED	FOLABS=1.0	0.				00015500	70.29
	ADDED	IF(QB.LT.TOLABS	(QB=TOLABS				N
	ADDED	6C=32.17					00015700	0.2
	ADUED	IT=ITYPE(MEM)	(MEM)					70.29

	OLD VOL=S	VOL=SER=004783 DRC UPDATE NEW VOL=SER=007208		
LD SEQ	MESSAGE	FILENAME=MUFAN DECKNAME=MUFAN		YY. DDI
	ADDED		00015900	
	ADDED	60 T0 10	00016000	
	ADDED	o _ `	000191000	
فالإفاد الالاق بيلدى والجارج في أولا بالمالة المتلكة المالية والمالية والمراجع والم	ADDED	SIS	00016200	
	AUDED		00016300	
والمعادية والمحاجب	AUDED	100 CUNIINUE	00016400	10.29
	ADDED		00591000	
	ADDED		000102000	
	ADDED	I 50 CUNIINUE COMPONENT	000101000	70 29:
	AUUEU		00001000	100 00
	AUUEU	IITI/IUUUU Ic/INIT E/ 11 / 08-10/WIN/ITI/I/WAY/ITI//2/0	00691000	10. 201
	AUUEU		000121000	
	ADDED	KEVIN-FUBLELIJAUNAD Co to kon	00111000	10. 201
	ADUCU		00012000	•
Æ	AUUEU			10. 201
4	AUUEU		00012500	
-	AUUEU	-3*48/1V	006/1000	
5	ADDED	IFIINTI.EU.ZJ 6U 1U ZZU	009/ 1000	
	ADDEU		00111000	
	ADDED		00017800	
	ADDED		00611000	٠
	ADDED		00018000	
	AUDED		00018100	
	ADDED		00018200	70.29
	ADDED	260 CONTINUE	00018300	
	ADDED		00018400	70.29
	ADDED	ELDVRD=ELOVRD*RE**0.032	00018500	70.29
	ADDED		00018600	
	ADDED		000181000	
	ADDED	DIFY EQUIVALENT LEN	00018800	
	ADDED	IFIRE.LT.1000.0) ELOVRD=ELOVRD/1000.0	00018900	
	ADDED	280 CONTINUE	00019000	
	ADDED		00161000	
	ADUED	C TEST FOR FLOW REGIME	00019200	70.29
	ADDED	IF(RE.GT.2100) G0 T0 290	00019300	70.29
	AUDED	C LAMINAR FLOW	00019400	
	ADDED	FRICT=64.0/RE	00019500	70.29
	ADDED		and i	~
	ADDED		00019700	0° 0
	ADDED	IF(RE.GE.4000.0) GD TO 300		70.291

	YY•DDf	2	ö	70. 29!		70. 291		70.29		70.29!	70.29	70.29	70.29	70.29	70.295	70.29	70.29	70.29	70.29	70.29	70.29	70.29	70.29	70.29	70.29	70.29	70.29	70.29		70.29		70.29		70.29	ő	2	°	N.	0* 2	70.29
		00661000	00020000	00020100	00202000	00402000	00020500	00020600	00020700	00020800	00020900	00021000	00021100	00021200	00021300	00021400	00021500	00021600	00021700	00021800	00021900	00022000	00022100	00022200	00022300	00022400	00022500	00022600	00022700	00022800	00022900	00023000	00023100	00023200	00023300	00023400	00023500	00023600	00023700	00023800
DRC UPDATE NEW VOL=SER=007208	DECKNAME=MUFAN	TRANSITION REGION - SET FLAG				TURRULENT FLOW - EVALUATE COLERROOK EXDRESSION	ICTION FACTOR		(3,MEM)		(KUFF1+2.28			.0+9.33*RUFF/(R	<pre>XICT)/FRICT.LE.0.01) G0 T0 320</pre>				LATE FOR TRANSITION FRICTION FACTOR	1VRE)-3.32222)*(FRICT03048)/0.27984 + 0.03048		CALCULATE RESISTANCE FUR EQUIVALENT LENGTH TYPE	S	7E-6*FRICT*ELOVRD*QB /(RHO(MEM)*GC*DIN**4)				MEMBERS WITH "K" FACTOR			Ξ.	50	EM, QB, INIT, IT)			1/1000000	10 416		M) •	3,MEM),100000)
VOL = SER = 004783	FILENAME=MUFAN		I T KANS=1	SAVREERE	1			FRICT=0.1	C RUFF=DIN/CONSTS(3,MEM)	RUFF=1.0E+6	• += W	00 310 I = I, 10	SFRICT=FRICT	FRICT=4.0/(TERM-4.0*AL0G10(1			320 CONTINUE	IF(ITRANS.EQ.0)	C		340 CONTINUE	c c	[RESIST=9.00637E	60 10 500	350 CONTINUE	AK=CONSTS(2,MEM)			IF(IT.6T.13) 60	C B	IF(IT.GT.6) 60	RESIST=BRLDSS(MEM,QB	GO TO 500	360 CONTINUE	IB=ICONST(3, MEM)/100	IF(IB.LE.0) GU	QBF=ABS(QBR(IB))	IEXP=MOD(ICONST(3,MEM	DIN=MOD(ICONST(3,MEM
- 107 OLD	MESSAGE	ADDED	ADDED	ADDED	AUDED	AUUEU	AUUEU	ADDED	ADUED	ADDED	ADDED	ADDED	AUDED	ADDED	ADDED	ADDEU	ADDED	ADDED	ADDED	ADDED	ADDED	ADDED	ADDED	ADDED	ADDED	ADDED	ADDED	ADDED	ADDED	ADDED	ADDED	ADDED	ADDED	ADDED	AUDED	ADDED	ADDED	ADUED	ADDED	ADDED
	<u>-D SEQ</u>												and the second se			A	~	6																						

QLU VUL-SEA-GOATB3 DAGE UNL-SEA-GOATB3 DAGE FLEAMARE-NUFANI NY. DDI U0 SEG FLEAMARE-NUFANI DECKNAME-NUFANI NY. DOI NY. DDI ADDED FILLENAME-NUFANI DECKNAME-NUFANI DECKNAME-NUFANI ADDED FILLENAME-NUFANI DECKNAME DECKNAME DECKNAME ADDED FILLENAME DECKNAME DECKNAME DECKNAME DECKNAME ADDED FILLENAME DECKNAME DECKNAME DECKNAME DECKNAME DECKNAME DECKNAME DECKNAME DECK							-
SEG HESAGE FLEENAME=MUFAN DECKNAME=MUFAN YL ADDED UIN=DINT_VIO_JWEIEP 00022400 70 ADDED UIN=DINT_VIO_JWEIEP 00022400 70 ADDED UIN=DINT_VIO_JWEIEP 00022400 70 ADDED UIN=DINT_VIO_JWEIEP 00022400 70 ADDED UIN=DINT_VIE 00022400 70 ADDED UN=CONTANE 00022400 70 ADDED ADDED 00022400 70 ADDED<			ER=004783		VOL		<
0.14=01N/10.0**1EXP 00023900 70. 1F11N1.Eq.10 0002400 70. 0.002400 70. 0002400 70. 0.002400 70. 0002400 70. 0.002400 70. 0002400 70. 0.002400 70. 0002400 70. 0.002400 70. 0002400 70. 0.002400 70. 0002400 70. 0.002400 70. 0002400 70. 0.002400 70. 0002400 70. 0.002400 70. 0002400 70. 0.002400 70. 70. 70. 0.002400 70. 70. 70. 0.002400 70. 70. 70. 0.002400 70. 70. 70. 1.10.61726 70. 70. 70. 1.10.61726 70. 70. 70. 1.10.61726 70. 70. 70. 1.10.61726 70. 70. </td <th></th> <td>MESSAGE</td> <td>FILENAME=MUFAN</td> <td>DECKNAME=M</td> <td>JFAN</td> <td></td> <td>YY.DDI</td>		MESSAGE	FILENAME=MUFAN	DECKNAME=M	JFAN		YY.DDI
District Display <							
If Intri-E4.1) OBF=VISCIMENt*DIN/1.06103E-6 0002400 70. 405 60 10 416 0002400 70. 405 60 10 416 0002400 70. 405 60 10 425 60 10 426 0002400 70. 415 60 10 420 0002400 70. 0002400 70. 415 500 10 420 0002400 70. 0002400 70. 415 500 001 420 0002400 70. 0002400 70. 415 500 01 420 0002400 70. 0002400 70. 5 15 16 10 420 0002400 70. 0002400 70. 6 0001 6 10 420 0002400 70. 0002560 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70.		AUDED	DIN=DIN/10*0**			002	0
06 10 416 0002410 00024500 70. 400 CGUTNUE 00024500 70. 16111.NL25 60 10 415 00024500 70. 70. 00024500 70. 00024500 70. 71.0/5URTURE ICECUNSTS13, MEM , RET N. 00024500 70. 00024500 70. 71.11.NL25 60 10 420 00024500 70. 00024500 70. 71.5 CMITINUE 00024500 70. 00024500 70. 00024500 70. 71.5 CMITINUE 00024500 70. 00024500 70. 00024500 70. 71.5 CMITINUE 0002400 60 70. 00024500 70. 00024500 70. 71.5 CMITINUE 0002400 70.		ADDED	IF(INIT.EQ.1)	SC(MEM)*DIN/I	-6	002	70.29!
400 CONTINUE 50 T0 416 00024500 70. 400 CONTINUE 50 T0 415 00024500 70. FILTI.NE.25 G T0 415 00024500 70. 00024500 70. 011 - CONSTSTATORTECCUNSTSTSTAREN.FED) 00024500 70. 00024500 70. 011 - CONSTSTATORTECCUNSTSTSTAREN.FED) 00024500 70. 00024500 70. 011 - CONSTSTATORTECCUNSTSTSTAREN.FED) 00024500 70. 00024500 70. 011 - CONSTSTATORTECCUNSTSTSTAREN 00024500 70. 00024500 70. 011 - CONSTRUE 00024500 70. 00024500 70. 011 - CONSTSTATORE 00024500 70. 00025400 70. 011 - CONSTRUE 00024500 70. 00025400 70. 011 - CONSTRUE 00025400 70. 00025500 70. 011 - CONSTRUE 00025400 70. 00025500 70. 1 CONTINUE CALCULATE RESTARCE 00025500 70. 1 CONTINUE CALCULATE RESTARCE <t< td=""><th></th><td>ADDED</td><td>QB=QBF**2/QB</td><td></td><td></td><td>00024100</td><td>70.295</td></t<>		ADDED	QB=QBF**2/QB			00024100	70.295
400 CUNINUE 00024400 70. 411 Line.L25 050 2400 70. 00024500 70. 00024400 70. 011n=CONTSI2.#EMJ 00024400 70. 011n=CONTINUE CONRECT YK FUN EVNULDS NO. 00024400 70. 011rivic CURRECT YK FUN 00025500 70. 011rivic CONRECT YK FUN 00025500 70. 011rivic CONRINUE 00025400 70. 011rivic <th></th> <td>ADDED</td> <td>60 10</td> <td></td> <td></td> <td>00024200</td> <td>70.29</td>		ADDED	60 10			00024200	70.29
IF(II: AL: 2): GG T0 415 MEN1. (NS GRT 0H (EF(CUNS)ST3, MEM), KE)) 00024500 70. 0.0024500 To. 00024500 70. 0.01 415 CONTINCE 00024500 70. 0.01 415 CONTINCE 00024500 70. 0.0024500 70. 00024500 70. 0.0024500 70. 00024500 70. 0.0024500 70. 00024500 70. 0.0024500 70. 00024500 70. 0.0024500 70. 00024500 70. 0.10 420 00024500 70. 00025900 70. 0.11 HE.E.COLOID GD 10 420 00025900 70. 00025900 70. 0.11 HE.E.CLULATE REVALDS 00 00025900 70. 00025900 70. 410 GONTINUE CALCULATE RESISTANCE 00025900 70. 00025900 70. 420 ARELSAK VIGURAN VIGCARTINE 00025900 70. 00025900 70. 420 GNTINE CALCULATE RESISTANC		ADDED	CONTINUE			00024300	70.295
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45 G0 T0 420 00024400 70. 416 CONTINUE CONTANUE 00025900 70. 1 FF(T*GE-99) G0 T0 420 00025900 70. 416 CUNTINUE CONTANUE 00025900 70. 7 FF(R*GT:100.0) G0 T0 420 00025900 70. 7 FF(R*GT:100.0) G0 T0 413 00025500 70. 7 FF(R*GT:100.0) G0 T0 413 00025500 70. 7 AF=1.5*AK 00025500 70. 00025500 70. 420 CONTINUE CALCULATE FSTANCE 00025500 70. 420 CONTINUE CALLUATE FSTANCE 00025500 70. 420 CONTINUE CALCULATE FSTANCE 00025500 70. 420 CONTINUE CALLUAN JECC*RHUCMEM)*DIN**4) 00025400 70. 420 CONTINUE CALLUNEX/XQJ 00025500 70. 70. 500 RESIST=50.00336E-6*KK*405 JECC*RHUCMEM)*DIN**4) 00025400 70. 70. 70.		ADDED	DIN=CONSTS(2, M	EM)		00024600	70.295
415 CONTINUE 00024800 70. 415 CUNTINUE 00025400 70. 416 CUNTINUE 00025400 70. 416 CUNTINUE 00025400 70. 416 CUNTINUE 00025400 70. 717 (FF.6T.100.0) 60 T0 4.20 00025400 70. 717 (FF.6T.100.0) 60 T0 4.20 00025400 70. 718 (FF.6T.100.0) 60 T0 4.20 00025400 70. 718 (CUNTINUE 00025400 70. 00025500 70. 718 (CUNTINUE CALCULATE RESISTANCE 00025400 70. 00025500 70. 420 (CUNTINUE CALCULATE RESISTANCE 00025400 70. 00025600 70. 420 (CUNTINUE CALCULATE RESISTANCE 00025600 70. 00025600 70. 420 (CUNTINUE CALCULATE RESISTANCE 00025600 70. 70. 70. 70. 420 (CUNTINUE CALCULATE RESISTANCE 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. </td <th></th> <td>ADDED</td> <td>60 TO</td> <td></td> <td></td> <td>00024700</td> <td>70.29!</td>		ADDED	60 TO			00024700	70.29!
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416 CONTINUE 00025100 70. C IF(RE.GE.2000.0) G0 T0 420 00025500 70. NETERST.100.0) G0 T0 420 00025500 70. ATL.35AK 00025500 70. 00025500 70. 420 CUNTINUE CALCULATE RESISTANCE 00025500 70. AZO AZO 00025500 70. 00025500 70. 420 CONTINUE CALCULATE RESISTANCE 00025500 70. 500 RETURN CALCULATE RESISTANCE 00025500 70. 500 RETURN CALCULATE RESISTANCE 000025600 70. 500 RETURN CALCULATE RESISTANCE 00025600 70. 6 NGCONSTON FORMAN 00025600 70. 70. 700 RETURN FORAXISOI 00025600 70. 70. 70. 70. 70		ADDED	IF(IT.6E.99)	10		00024900	70.29!
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418 G0 10 420 70. 418 CONTINUE 00025500 70. 420 CONTINUE 00025500 70. 420 CONTINUE 00025500 70. 60 C CALLATE RESISTANCE 00025500 70. 70. FOUR CONTINUE 00025500 70. 70. C CALLATE RESISTANCE 00025500 70. 70. FOUR 00025500 70. 00025500 70. 500 REURN FUNCTION PTBLETINDEX.XQ) 00026100 70. 70. 600 COMMON PAGHARI PCMAX1501, 9.00026500 70. 70. 70. COMMON PCHARIII.501, PCMAX1501, 9.00026500 70. 70. 71 PCHARIII.501, PCMAX1501, QCMIN1501, 00026500 70. 70. 7 COMMON PCHARIII.501, PCMAX1501, QCMIN1501, 00026500 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70	A	ADDED	AK=1.5*AK			00025400	70.29
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420 Ak=1.3*AK 00025700 70. 420 CUNTINUE CALCULATE RESISTANCE 00025800 70. 0 ESIST=9.006336E-6*AK*QB /(GC*RHU(MEM)*DIN**4) 00025600 70. 500 REJURN 000256100 70. 000256200 70. 500 RETURN 00026500 70. 00026500 70. 500 RETURN 00026500 70. 00026500 70. 0 PCHAR(11,50) PCMAX(50) QCMAR(11,50) 00026500 70. 1 PCHAR(11,50) PCMAX(50) QCMIN(50) 00026500 70. 2 QCMMUN PQCHAR/ PCMAX(50) QO026600 70. 1 PCHAR(11,50) PCMAX(50) QCMIN(50) 00026600 70. 2 QCMAX(1NDEX) PCMAX(150) QO026600 70. 70. 1 PCMAX(1NDEX) PCMAX(1NDEX) QO026600 70. 70. 70. 2 QCONTINDEX) GO 10 20. PCMAX(1NDEX) 70. 70. 70. 2 PCONT	7	ADDED				00025600	70.29!
420 CONTINUE 00025900 70. C CALCULATE RESISTANCE 000256000 70. FESTISTANCE CALCULATE RESISTANCE 000256000 70. 500 RETURN CALCULAR 00026500 70. 500 RETURN FOND 00026500 70. 500 RETURN 00026501 70. 00026400 70. 6ND FUNCTION PTABLE(INDEX,XQ) PCMAX(50), QCHAR(11,50), 00026400 70. 70. COMMON PQCHAR/ PCMAX(50), QCHAR(11,50), 00026400 70. 1 PCMAX(50), PCMAX(50), QCHAR(11,50), 00026400 70. 1 PCMAX(10) PCMAX(50), QCMIN(50), 00026400 70. 1 PCMAX(10) PCMAX(50), QCMIN(50), 00026400 70. 1 PCMAX(10) PCMAX(10), PCMAX(50), 00026400 70. 1 PCMAX(10) PCMAX(50), QCMIN(50), QCMIN(50), 00026400 70. 1 FEXAX(1NDEX) PCMAX(50), QCMIN(50), QCMIN(50), 00026400 70. <th></th> <td>ADDED</td> <td>AK=1.3*AK</td> <td></td> <td></td> <td>00025700</td> <td>70. 29!</td>		ADDED	AK=1.3*AK			00025700	70. 29!
C CALCULATE RESISTANCE RESIST=9.006336E-6*AK*QB /(GC*RHU(MEM)*DIN**4) 00025000 70. 500 RETURN 00026200 70. END 00026200 70. EUNCTION PTABLE(INDEX,XQ) 00026300 70. COMMON / PQCHAR/ 00026500 70. 1 PCHAR(II,50), QCHAR(II,50), 00026500 70. COMMON / PQCHAR/ 00026500 70. 1 F(X4.LT.QCMAX(INDEX)) GD TD 20 00026500 70. 1 F(X4.LT.QCMAX(INDEX)) GD TD 20 00026500 70. 00026500 70. 00026500 70. 1 F(X4.LT.QCMAX(INDEX)) GD TD 20 00026500 70. 00026500 70. 00026500 70. 00026500 70. 00026500 70. 00026500 70. 00026500 70. 00027100 70. 1 F(X4.LT.QCMAX(INDEX)) GD TD 50 00027100 70. 1 F(X4.LT.NDEX) GD TD 50 00027100 70. 00027100 70. 000027100 70. 00027100 7		ADDED				00025800	70.295
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500 RETURN 00026100 70. END 00026500 70. END 00026400 70. CUMDIN / PABLE(INDEX,XQ) 00026400 70. CUMDIN / PABLE(INDEX,XQ) 00026500 70. CUMDIN / PABLE(INDEX,XQ) 00026400 70. COMMON / PAGLAR/ 00026500 70. 2 QCMAX(50) PCMIN(50). 00026600 70. 2 QCMAX(INDEX) PCMIN(50). 00026600 70. 1 F(Xu.LT.QCMAX(INDEX)) PCMIN(50). 00026700 70. PETAULN PGCMAX(INDEX) PCMIN(50). 00026700 70. PETAULN PGCMAX(INDEX) PCMIN(50). 00026700 70. PETAULN PGCMAX(INDEX) PCMIN(50). 00026700 70. PETURN PGCMAX(INDEX) GU TO 50 00026700 70. PETURN PGC CONTINUE 0002700 70. 70. PETURN PGC CONTINUE 00027700 70. 70. PETURN PGC CONTINUE 00027700 70. 70. PETAUL		ADDED	RESIST=9.006334	~	(5**VIO	00026000	70.29!
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PTABLE = PCMAX(INDEX) 00026900 70. RETURN 00027000 70. 20 CONTINUE 00027100 70. If (XQ.GT.QCMIN(INDEX)) GU TO 50 70. PTABLE = PCMIN(INDEX)) GU TO 50 70. RETURN 00027200 70. PTABLE = PCMIN(INDEX) GU TO 50 70. PTABLE = PCMIN(INDEX) GU TO 50 70. RETURN CON27200 70. PTABLE = PCMIN(INDEX) GU TO 50 70. RETURN CON27400 70. PTABLE = PCMIN(INDEX), PCHAR(I,INDEX), XQ, PQTDUM) 00027500 70. 00027500 70. 00027700 70. PTABLE = PQTDUM 00027700 70. 70. PTABLE = PQTDUM 00027700 70. 70. RETURN 00027700 70. 70. RETURN PTABLE = PQTDUM 00027700 70.		ADDED	IF (XQ.LT.QCMAX)	(X)) 60 TO		00026800	70.29
RETURN 00027000 70. Z0 CONTINUE 00027100 70. If (XQ.GT.QCMIN(INDEX)) GU TO 50 70. 00027200 70. PTABLE=PCMIN(INDEX) GU TO 50 70. 00027700 70. RETURN PTABLE=PCMIN(INDEX) GU TO 50 70. 70. PTABLE=PCMIN(INDEX) GU TO 50 70. 70. 70. RETURN CALL LINT(QCHAR(I,INDEX),PCHAR(I,INDEX),XQ,PQTDUM) 00027500 70. PTABLE=PQTDUM 000277500 70. 70. RETURN CALL LINT(QCHAR(I,INDEX),PCHAR(I,INDEX),XQ,PQTDUM) 000277600 70. RETURN CALL LINT(QCHAR(I,INDEX),PCHAR(I,INDEX),XQ,PQTDUM) 000277600 70. RETURN 000277600 70. 70. 70. PTABLE=PQTDUM 000277600 70. 70. 70. RETURN 000277600 70. 70. 70. PTABLE=PQTDUM 000277600 70. 70. 70. RETURN 70. 70. 70. 70. 70.		ADDED	PTABLE=PCMAX(I)	NDEX)		00026900	70.29
20 CONTINUE 00027100 70. IF(XQ.GT.QCMIN(INDEX)) CU TO 50 00027200 70. PTABLE=PCMIN(INDEX) 00027300 70. RETURN 00027700 70. 50 CONTINUE 00027700 70. CALL LINT(QCHAR(I,INDEX),PCHAR(I,INDEX),XQ,PQTDUM) 00027700 70. PTABLE=PQTDUM 00027700 70. 70. 00027700 70. 71. 00027700 70. 71. 00027700 70. 71. 00027700 70. 71. 00027700 70. 71. 00027700 70. 71. 00027700 70. 71. 00027700 70. 71. 00027700 70.		ADDED				00027000	70.29
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PTABLE=PCMIN(INDEX) 00027300 70. RETURN 00027400 70. 50 CONTINUE 00027500 70. CALL LINT(QCHAR(I,INDEX),PCHAR(I,INDEX),XQ,PQTDUM) 00027600 70. PTABLE=PQTDUM 00027700 70. RETURN 00027700 70.		ADDED	IFIXQ.GT.QCMIN	X)) 60 TO 5		00027200	
RETURN 00027400 70. 50 CONTINUE 00027500 70. CALL LINT(QCHAR(1, INDEX), PCHAR(1, INDEX), XQ, PQTDUM) 00027600 70. PTABLE=PQTDUM 00027700 70. 70. RETURN 00027700 70. 70.		ADDED	PTABLE=PCMIN(I	NDEXJ		00027300	70.29
50 CONTINUE CALL LINT(QCHAR(1,INDEX),PCHAR(1,INDEX),XQ,PQTDUM) PTABLE=PQTDUM RETURN 00027800 70.		ADDEU	RETUKN			00027400	°
CALL LINT(QCHAR(1,INDEX),PCHAR(1,INDEX),XQ,PQTDUM) CALL LINT(QCHAR(1,INDEX),XQ,PQTDUM) 00027600 70.2 PTABLE=PQTDUM 00027700 70.2 RETURN 00027800 70.2		ADDED				00027500	
PTABLE=PQTDUM 00027700 70.2 RETURN 00027800 70.2		ADDED	CALL LINT (QCHAI	PCHAR(1	Q, PQTDUM)	00027600	2
RETURN 00027800 70.		ADDED	PTABLE=PQTDUM			00027700	0°2
		ADDED	RETURN			00027800	0

	0LD V0L=SER=004783	004783	DRC UPDATE		NEW VOL=SER=007208	=007208		
OLD SEQ	MESSAGE	FILENAME=MUFAN		DECKNAME=MUFAN	FAN			VY.DD
	AUDED	END FUNCTION OTABLE (1	11,02)			ōō	0027900	70.29
	ADDED	COMMON /PQCHAR/					00028100	
	ADDED	Ĩ	, PCMAX(50),	QCHAR(11	,50), QCMAX(50)	00028200	ð,
	ADED	COMMON /PQCHAK/	TI CO TO 10	PCMLN()),	(UC)NIMUD	00	00028300	70.29
	AUDEU	DEMAXITY		5			00028500	70.29
	ADDED	RETURN				0	00028600	50
	ADDED	100 CONTINUE				0	00028700	ð
	ADDED	IF (DP.GT.PCMIN(IT)) GO TO 2	00		0	0028800	70.29
	ADDED	QTABLE=QCMIN(IT)				Ő	00028900	ů.
	ADDED						0029000	70.29
	ADDED			1 7 1		00	00029100	70.29
	ADDED	LALL IN 4 PCHAKI	L + I I I + UCHAKI	111, UF, VUW			0024200	10.29
/	ADDED	QTABLE=QDUM				0 0	00029300	10.29
A	ADDEU	KELUKN	A MARKING AN ADDRESS AND AND A MARK AND A MAR	a server and a serve			0029400	10.29
(ADDED		ATTAL OCTAIN			20	00662000	10.29
8	AUUEU	UK FI C	JAVAL	106106407			0062000	10. 22
	ADDED	DIMENSION	-		CUR4U12019		00167000	
	AUDED			LUKOU(28);	CUK02(28),		0029800	10.29
	ADDED		(28)	CUR751281,		0	0029900	70.29
	ADDED	3 CUKFI	28,99,	((1))	UKA1191,	0	0030000	10.29
	ADDED			RURF (28)	4		00030100	70.29
	ADDED	DRAT /	0.30.	, 0.50, 0.60	0	.75, 0.80/0	0030200	70.29
	ADDED	DATA RURF / 0.60	þ	• 0.90309 I	•	•	00030300	70.29
	ADDED	1 1.60		, 1.90309, 2	2.30103	•	00030400	70.29
anno a mar da mai ann an t-bha a da mar an t-bhalach airte an t-bhalach airte an t-bhalach airte an t-bhalach	ADDED		2.60206, 2.77815	2.90309, 3	* 3.30103	*	00030500	70.29
	ADDED	3 3.47712	\$ 1	• 3.60206, 3	• 3.90309	*	0030600	70.29
Note in a second se	ADDED		9.4	* *	77815, 4.90309	•	00030700	70.29
	ADDED	5 5.0000	0, 5.3010	• 0.00	-		00030800	70.29
0 20	ADDED	DATA CUR20 / 0.3	, 0.395, 0	.441,	.580, 0.646,	.677,	00602000	70.29
030	AUDED	I 0.687	• 0.698, 0	.708,	.687, 0.677,	**	00031000	70.29
040	ADDED	2 0.636	, 0.626,		, 0.614,	*	00031100	•0
	AUDED		, 0.611,	.611,	.611, 0.611,	/ 000.	00031200	•
010	ADDED	DATA COR30 / 0.337	<u>, 0.406, 0</u>	.453,	.596, 0.664,	•696,	00031300	°
080	ADDED	1 0.706	• 0.717. 0	.733, 0	•717, 0.706,	.696,	0031400	°°
060	ADDED		• 0.651 •	.650,0	0.637+	•636,	00031500	70.29
	ADDED		, 0.632,	•632, 0.	•632, 0.632,	-	31	ð
120	ADDED	DATA COR40 / 0.351	• 0.423+	.472, 0.5	•626, 0.702,	• 735,	\sim	
130	ADDED	1 0.746	*	• 77		0.746, 0	00031800	70.29
						-		

OLD VUL=SEK=007193 DRC UPDATE NEW VUL=SER=007208 L1 0.0.0 VUL=SEK=007193 0.4051 0.4651 0.4551 0.4551 0.4551 0.4551 0.4551 0.4752 0.4751 <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<>											
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140 ADDEU 2 0.708 0.697 0.695 0.666 0.666 0.667 0.677	FILENAM	E=MUFAN			DECK	<pre></pre> <pre><</pre>	JF AN				YY.DDI
140 ADBED 2 0.0.708, 0.665, 0.665, 0.665, 0.665, 0.665, 0.665, 0.666, 0.003 010 ADDED Dafa CURSO 0.3775, 0.7775, 0.7771, 0.771, 0.775, 0.745, 0.7755, 0.785, 0.795, 0.7											
0.0 MUDEU DATA CURSD 0.3771 0.7627 0.6867 0.6975 0.7721 0.7721 0.7721 0.7721 0.7721 0.0966 0.9995 1.0000 0.9995 <th0.9995< th=""> 0.9995 0.9995</th0.9995<>	3 67		0.708, 0.666,	<u>69</u> .	. 68 . 66	•681 •666	.675	.67	.67	00031900	70• 29 70• 29
0000 000000 00000 00000 <th< td=""><td></td><td>COR50 /</td><td>.075.0</td><td>.44</td><td>.49</td><td>. 543</td><td>.664</td><td>. 76</td><td>. 80</td><td>003210</td><td>0.2</td></th<>		COR50 /	.075.0	.44	.49	. 543	.664	. 76	. 80	003210	0.2
030 ADDED 2 0.797 0.774 0.774 0.771 0.721 0.739 0.739 0.739 0.739 0.739 0.731 0.731 0.731 0.739 0.731 0.731 0.739 0.7395 0.394 0.996 0.917 0.126 0.126 1.126 1.126 1.126 1.126 1.126 1.126 1.126 1.126 1.126 1.126 1.126 1.126 <th1.126< th=""> <th1.126< th=""> <th1.126< <="" td=""><td></td><td></td><td>0.826,</td><td>.83</td><td>.86</td><td>.860</td><td>.854</td><td>• 84</td><td>.83</td><td>0032</td><td>0.2</td></th1.126<></th1.126<></th1.126<>			0.826,	.83	.86	.860	.854	• 84	.83	0032	0.2
ADDED 3 0.725, 0.722, 0.721, 0.721, 0.721, 0.721, 0.093 0.021, 0.003 C00 ADDED 1 0.934, 0.955, 0.455, 0.753, 0.645, 0.645, 0.645, 0.934, 0.993 C00 ADDED 1 0.934, 0.955, 0.815, 0.645, 0.645, 0.645, 0.645, 0.645, 0.934, 0.993 C00 ADDED 1 0.926, 0.946, 0.945, 0.959, 0.994, 0.994, 0.994, 0.994 C00 ADDED 0 0.447, 0.551, 0.645, 0.641, 0.033, 0.918, 0.918, 0.918 120 ADDED 0 0.938, 0.948, 0.911, 0.001 0.933, 0.126, 0.126, 0.1126, 0.1126, 1.126, 1.126, 1.128 130 ADDED 0 0.493, 0.552, 0.0495, 0.945, 0.918, 0.918, 0.911 0.903 010 ADDED 0 0.493, 0.952, 0.949, 0.945, 0.912, 0.910 0.912, 0.903 010 ADDED 0 0.953, 1.106, 1.126, 1.126, 1.128 1.128 010 ADDED 0 0.953, 1.126, 1.269, 1.269, 1.269, 1.269 1.273 010 ADDED 0 0.9193, 0.915, 0.044, 0.915, 0.914, 0.914 1.273 010 ADDED 0 0.9193, 0.913, 0.914, 0.914 1.273 010 ADDED DATA	2		•191.0	11.	. 77		. 145	. 73	. 73	0032	0.2
C60 ADDED DATA CUR60 / 0.398, 0.479, 0.535, 0.585, 0.735, 0.847, 0.996, 0.9945, 0.3947 C70 ADDED 1 DATA CUR60 / 0.3949, 0.959, 0.9964, 1.0024, 1.02811, 0.000 110 ADDED 2 0.4417, 0.5501, 0.6127, 0.7811, 0.0112, 0.101 120 ADDED 1 2 0.000 0.0101, 1.126, 1.133, 1.126, 1.120 120 ADDED 2 1.0381, 1.0011, 1.126, 1.133, 1.126, 1.120 120 ADDED 2 1.0381, 0.0895, 0.5497, 0.9515, 0.9184, 0.9184, 0.9184, 0.010 130 ADDED 2 1.1269, 1.1061, 1.0017, 1.126, 1.133, 1.269, 1.208 130 ADDED 2 1.1281, 1.258, 1.2581, 0.2815, 0.0995, 0.0995, 0.0905 0.010 ADDED 1 1.1156, 1.1551, 1.1254, 1.258, 1.258, 1.259 0.000 ADDED 2 1.1244, 1.1351, 1.156, 1.1254, 1.258, 1.2594, 1.208 0.00 ADDED 2 1.1269, 1.3495, 1.1765, 1.1514, 1.258, 1.2589, 1.2594 0.00 ADDED 2 1.1269, 1.3495, 1.1765, 1.0514, 1.0255, 0.9995, 0.9995 0.00 ADDED 2 1.1269, 1.3495, 1.1765, 1.1077, 1.025, 0.9995, 0.9095 0.00 ADDED 2 1.1269, 1.3495, 1.1765, 1.1077, 1.0255, 0.9995, 0.9095 0.00 ADDED 2 1.1269, 1.3495, 1.1663, 1.1056, 1.1269, 1.0269 0.00 ADDED 2 1.1007, 1.1055, 1.1347, 1.1254, 1.1295, 1.1348, 1.1289 0.10 ADDED 2 1.1007, 1.0255, 0.7799, 0.9775, 0.0799, 0.9945, 0.0945, 0.0195 0.10 ADDED 2 1.1077, 1.0257, 0.1799, 1.0397, 1.1269, 1.1269, 1.0281 0.00 ADDED 2 1.1077, 1.0257, 1.1349, 1.1274, 1.1274, 1.1275 0.10 ADDED 2 1.1077, 1.0257, 0.1799, 1.1995, 1.1394, 1.1289, 1.1289 1.10 ADDED 2 1.1077, 1.0257, 0.1799, 1.0397, 1.1299, 1.1394, 1.1289 1.10 ADDED 2 1.1077, 1.0257, 1.1397, 1.1295, 1.1394, 1.1289 1.10 ADDED 2 1.1070, 1.1017, 0.0487(11,01), 0.0487(11,01), 0.0487(11,01), 0.0487(11,01), 0.0487(11,01), 0.0487(11,01), 0.0487(11,01), 0.0487(11,01), 0.0481(1,01), 0.0481(1,01), 0.0481(1,01), 0.0481(1,01), 0.0481(1,01), 0.0487(11,01), 0.0481(1,01), 0.0487(11,01), 0.0487(11,01), 0.0487(11,01), 0.0487(11,01), 0.0487(11,01), 0.0487(11,01), 0.0487(11,01), 0.0487(11,01), 0.0481(11,01), 0.0487(11,01), 0.0487(11,01), 0.0481(11,01), 0.0481(11,01), 0.0481(11,01), 0.0481(11,01), 0.0481(11,01), 0.0481(11,01), 0.0481(11,01), 0.0481(11,01), 0.0481(11,01), 0.0481(11,01), 0.0481(11,	ŝ		0.726,	. 72	• 72	.721	.721	• 72	•00	32	0.2
CTO ADDED I 0.934, 0.939, 0.939, 0.939, 0.939, 0.939, 0.939, 0.939, 0.939 CE00 ADDED Z 0.947, 0.939, 0.939, 0.811, 0.811, 0.811, 0.013 110 ADDED J 0.946, 0.912, 0.611, 0.511, 0.511, 0.518, 0.313, 0.918, 0.313 120 ADDED J 0.826, 0.816, 0.912, 0.611, 0.298, 0.391, 0.013 0.913, 0.0138, 0.0139 130 ADDED J 1.0081, 1.007, 1.126, 1.123 0.1285, 0.391, 0.010 130 ADDED J 0.889, 0.889, 0.889, 0.893, 0.894, 0.991, 0.991 0.901 130 ADDED J 1.0081, 1.107, 1.126, 1.121 1.2285, 1.128 020 ADDED J DATA COR70 / 0.433, 0.526, 0.538, 0.649, 0.827, 0.945, 0.9945, 0.909 020 ADDED J J 1.125, 1.1267, 1.1221, 1.228 1.2785 030 ADDED J J 1.2744, 1.1857, 1.1465, 1.1262, 1.1234, 1.1263 1.1283 030 ADDED J J J J J J 030 ADDED J J J J J J		CUR60 /	0.398+	.479	• 53	.585	• 735	• 84	.909	00	۰
C80 ADDEU Z 0.945() 0.845() 0.948() <th0.948()< th=""> <th0.948()< th=""></th0.948()<></th0.948()<>			0.934,	• 959	6 6 .	•000	• 002	• 996	- 98	പ	്
ADDED 3 A COK65 0.447 0.501 0.5050 0.6411 0.4011 0.4431 0.4351 0.451 0.4911 1.1201 1.1201 1.1201 1.1201 1.1201 1.1201 1.1201 1.1201 1.1201 1.1201 1.1201 <th1.1221< th=""> 1.1201 1.1201</th1.1221<>	5		0.940,	. 909	90	.884	• 853	• 845 •	.839	00032700	
110 ADDED DATA COR65 0.0411 1.075 1.126, 1.139 1.126, 1.126, 1.128, 1.126, 1.128, 1.128, 1.126, 1.128, 1.126, 1.128,			0.826,	. 81	.81	0	.811	.81		n I	്
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130 ADDED 2 1.081; 1.026; 1.015; 0.874; 0.872; 0.0183; 0.911; 0.911; 0.911; 0.911; 0.911; 0.010; 0.012; 0.010; 0.012; 0.010; 0.010; 0.010; 0.012; 0.010;			1.028,	90°	•	•12	.133	•12	.120	m i	i
ADDED 3 0.8893, 0.8803, 0.875, 0.872, 0.872, 0.872, 0.972, 0.972 010 ADDE DATA CORTO / 0.437, 0.526, 0.588, 0.649, 0.875, 0.993, 1.080 020 ADDE 1.135, 1.176, 1.251, 1.278, 1.285, 1.285, 1.285 030 ADDE DATA CORTO / 0.437, 0.552, 0.5493, 0.8495, 0.9455, 0.9455, 0.993 030 ADDE DATA CORTS / 0.4973, 0.558, 1.285, 1.285, 1.285 070 ADDE DATA CORTS / 0.4969, 0.953, 0.719, 0.945, 0.9455, 0.995 070 ADDE 1 1.244, 1.183, 1.106 070 ADDE 1 1.071, 1.025, 0.9459, 0.999, 1.646 070 ADDE 2 1.496, 1.422, 1.466, 1.065, 1.060, 1.060, 0.000 070 ADDE 3 1.071, 1.071, 1.025, 1.046, 1.053, 1.046 110 ADDE 2 1.496, 1.613, 1.739, 1.1739, 1.493 120 AUDE 3 1.2944, 1.039, 1.294 120 AUDE 3 1.2954, 1.293	2		1.081,	• 02	•	.989	.931	.918	116.	\sim	்
010 ADDED DATA CORTO / 0.437, 0.526, 0.589, 0.649, 0.424, 0.991, 1.080 020 ADDED 1 1.1155, 1.176, 1.278, 1.285, 1.285, 1.278 030 ADDED 2 2 1.2499, 0.973, 0.945, 0.945, 0.945, 0.9945, 0.900 0060 ADDED 1 1 1.122, 1.232 070 ADDED 1 1 1.122, 1.232 070 ADDED 2 1.496, 1.422, 1.466, 1.555, 1.549, 1.543, 1.523 1.209, 1.037, 1.078, 1.078, 1.071, 1.053, 1.060, 0.000 ADDED 2 1.496, 1.422, 1.498, 1.347, 1.195, 1.131, 1.122 070 ADDED 1 1 1.047, 0.547, 0.057, 0.0179, 0.917, 1.122, 1.238 130 ADDED 2 1.496, 1.422, 1.498, 1.795, 1.191, 1.122, 1.289 130 ADDED 2 1.496, 1.425, 1.834, 1.795, 1.1929, 1.945, 1.935, 1.938 130 ADDED 2 1.527, 1.235, 1.255, 1.1998, 1.044, 1.289, 1.443 130 ADDED 2 1.527, 1.235, 1.255, 1.1258, 1.236, 1.2389, 1.443 130 ADDED 2 1.527, 1.235, 1.255, 1.1206, 0.000 ADDED 2 1.527, 1.235, 1.255, 1.256, 1.2508, 0.000 ADDED 2 1.527, 1.235, 1.525, 1.201, 1.208, 0.000 ADDED 2 1.527, 1.235, 1.525, 1.1216, 1.208, 0.000 ADDED 2 1.527, 1.235, 1.525, 1.1216, 1.208, 0.000 ADDED 2 1.527, 1.235, 1.525, 1.201, 1.208, 1.4216, 1.208, 0.000 ADDED 2 1.0000 1.0685(11,01),0087(11,01),0087(11,01),0087(11,01),0087(11,01),0087(11,01),0087(11,01),0080(11,0087(11,01),0080(11,0087(11,01),0081(11,01),0080(11,000),0000),0000) ADDED 8 AF=AMINI(AMAXI(RE,0.6020,5),5.30103) ADDED 7 ADDED 7 ADDE0 8 ATI01-AMAXI(RE,0.6020,5),5.30103) ADDE0 100 01 1.10 1.20,110,00 ADDE0 100 CONTINUE ADDE0 100 CONTINUE ADDE0 110 CONTINUE ADDE0 110 CONTINUE ADDE0 110 CONTINUE ADDE0 110 CONTINUE ADDE0 111,000 ADDE0 111,000 ADDE0 111,000 ADDE0 111,000 ADDE0 111,000 ADDE0 111,000 ADDE0 111,000 ADDE0 110 CONTINUE ADDE0 100 CONTINUE ADDE0 110 CONTINUE ADDE0 110 CONTINUE	ŝ		0.893,	• 88	· 875	.874	.872	.872	80.	n i	ं
020 0DED 1 1.135, 1.176, 1.251, 1.278, 1.285, 1.285, 1.285, 0.993 0.993 030 ADEED 2 1.244, 1.183 1.1622, 1.107 1.2255, 0.9455, 0.9455, 0.9455, 0.9455, 0.993 0.993 056 ADDED 3 0.969, 0.9572, 0.9455, 0.9455, 0.9455, 0.9455, 0.9455 0.9655 0.9455, 0.9455, 0.9455, 0.9455 0.9455, 0.9455, 0.9455 0.9455, 0.0955 070 ADDED 1 1.298, 1.349, 1.466, 1.525, 1.549, 1.1231, 1.120 0.900, 0.000 080 ADDED 1 1.097, 1.078, 1.095, 1.0959, 1.0959, 1.0959, 1.0959, 1.0959, 1.0959 1.0950 0110 ADDED 1 1.078, 1.078, 1.0719, 1.0749, 1.0599, 1.0959, 1.0959, 1.0959 1.0950 110 ADDED 1 1.534, 1.0789, 1.0354, 1.0739, 1.9259, 1.2269, 1.2269, 1.2269, 1.0539 1.0953 120 ADDED 1 1.534, 1.0557, 1.2359, 1.2257, 1.2399, 1.2369, 1.2369, 1.2369 1.0953 120 ADDED 1 1.0567, 1.1739, 1.0246, 11.5491, 1.0534 1.0953 120 ADDED 1 1.0567, 1.1235, 1.2257, 1.2269, 1.2269, 1.2269, 1.2466, 1.0491, 1.0456 1.05336 120 ADDED	DATA	COR70 /	0.437,	• 526	• 58	• 649	.824	166*	•08	\sim	•
030 ADUED 2 1.244; 1.183; 1.162; 1.007; 1.025; 0.999; 0.993; 0.9945; 0.9945; 0.9945; 0.9945; 0.9945; 0.9945; 0.9945; 0.000 060 ADDED JATA COR75 0.9459; 0.575; 0.5455; 1.1210; 0.000;	,-m4		1.135;	-11	• 25	.278	.285	•28	.278	6 n 1	0.2
ADDED 3 0.969; 0.953; 0.949; 0.945; 0.945; 0.945; 0.000 050 ADDEU 1 1.228; 1.342 1.525; 1.540; 1.543; 1.543; 1.543; 1.543 070 ADDED 2 1.298; 1.349; 1.542; 1.408; 1.542; 1.540; 1.543; 1.543; 1.540; 0.000 080 ADDED 2 1.298; 1.347; 1.666; 1.066; 1.065; 1.0660; 1.6643; 1.543; 1.543 110 ADDED 3 1.097; 1.018; 1.525; 1.540; 1.543; 1.431 120 ADDED 1 1.534; 1.613; 1.739; 1.663; 1.0669; 1.0669; 1.0656; 1.0660; 0.000 130 ADDED 1 1.534; 1.539; 1.539; 1.539; 1.239; 1.539; 1.239 130 ADDED 2 1.257; 1.235; 1.225; 1.221; 1.226; 1.239; 1.239; 1.289 130 ADDED 2 1.257; 1.235; 1.225; 1.221; 1.226; 1.239; 1.239; 1.239; 1.239 130 ADDED 2 1.257; 1.235; 1.225; 1.221; 1.2216; 1.239; 0.000 ADDED 2 1.257; 1.235; 1.225; 1.221; 1.2216; 1.239; 0.000 ADDED 1 1.257; 1.235; 1.225; 1.2216; 1.226; 1.228; 1.239; 1.239; 1.239; 1.239; 1.249 ADDED 2 1.2457; 1.235; 1.221; 1.2216; 1.228; 1.239; 1.239; 1.249 ADDED 2 1.257; 1.235; 1.225; 1	2		1.244;	.18		.107	.025	66.	.993	m.	70.29!
ADDED DATA COR75 / 0.4695, 0.572; 0.6455, 0.719, 0.917; 1.122; 1.232 ADDED 1 1.299; 1.349; 1.466; 1.555; 1.540; 1.543; 1.543 ADDED 2 1.097; 1.072; 1.071; 1.066; 1.065; 1.065; 1.0563 1.128 ADDED 3 1.097; 1.078; 1.071; 1.066; 1.065; 1.066; 1.4513 1.128 ADDED 0 0 0000 0.000 ADDED 0 1.097; 1.078; 1.071; 1.066; 1.065; 1.056; 1.431 1.128 ADDED 0 1.097; 1.078; 1.071; 1.066; 1.063; 1.053 1.053 ADDED 0 1.034; 1.613; 1.795; 1.897; 1.292; 1.289; 1.289 1.4945 ADDED 3 1.235; 1.235; 1.235; 1.221; 1.236; 1.236; 1.286 1.0583 ADDED EQUIVALENCE (COR2011; CORF(1; 1)); (CUR30(1); CORF(1; 2)); 1.289 ADDED 1 (COR80(1); CORF(1; 7)); (COR56(1); CORF(1, 2)); 1.283 ADDED 3 1.235; 1.225; 1.2263 1.289 ADDED 2 1.0505(1); CORF(1, 7)); (COR56(1); CORF(1, 2)); 1.283 ADDED 3 1.286 1.283 1.283 ADDED 3 1.281(1); CORF(1, 7)); (COR56(1); CORF(1, 4)); 1.284 ADDED	m		0.969,	• 95	6	•94	.945	•94	00,	m	0.2
ADDEU I 1.298, 1.349, 1.466, 1.525, 1.540, 1.543, 1.120 AUDED 2 1.496, 1.422, 1.071 1.065, 1.013, 1.120 AUDED 3 1.496, 1.422, 1.071 1.065, 1.013, 1.120 AUDED 3 1.496, 1.422, 1.071 1.065, 1.013, 1.120 AUDED 3 1.534, 1.613, 1.739, 1.395, 1.014, 1.289, 1.389 1.495 AUDED 2 1.534, 1.613, 1.739, 1.595, 1.0044 1.929, 1.945, 1.953 AUDED 2 1.534, 1.613, 1.739, 1.929, 1.936, 1.289 1.945 AUDED 2 1.945, 1.235, 1.225, 1.221, 1.216, 1.238, 1.289 1.945 AUDED 3 1.257, 1.235, 1.225, 1.221, 1.216, 1.238, 1.289 1.945 AUDED 1 (CORSOTI), CORFT1,1), (CURF1(1,2)), CORF(1,4)), ADDED 1 (CORSOTI), CORFT1,1)), (CUR51(1,4)), ADDED 4 (CORSOTI), CORFT1,5)), (COR75(1), CORF(1,4)), ADDED 8 1.267, 1.0020, 0.300 ADDED 8 1.000, 0.300 ADDED 4 (CORSOT1), CORFT1,7)), (COR75(1), CORF(1,4)), ADDED 0.000 1.203		COR75 /	0.469,	15.	• 64	611.	- 612	•12	.232	\sim	70.29!
ADDED 2 1.496, 1.422, 1.408, 1.342, 1.195, 1.131, 1.120 ADDED 3 1.097, 1.078, 1.078, 1.066, 1.066, 0.000 ADDED 1 1.534, 1.613, 1.799, 1.557, 1.399, 1.345, 1.431 AUDED 2 1.945, 1.843, 1.739, 1.557, 1.399, 1.395, 1.289 AUDED 2 1.945, 1.843, 1.739, 1.557, 1.399, 1.395, 1.289 AUDED 2 1.945, 1.843, 1.739, 1.557, 1.299, 1.285 AUDED 3 1.257, 1.235, 1.225, 1.221, 1.216, 1.208, 0.000 AUDED 1 1.557, 1.235, 1.225, 1.226, 1.208, 0.000 AUDED 1 1.257, 1.235, 1.225, 1.221, 1.216, 1.208, 0.000 AUDED 1 1.257, 1.235, 1.225, 1.221, 1.216, 1.208, 0.000 ADDED 1 2 1.207611, 50RF(1,171), (C0R7611, 50RF(1,21)), 0.000 ADDED 3 1.257, 1.235, 1.225, 1.226, 1.208, 0.000 0.000 ADDED 1 1.207101, 50RF(1,71)), (C0R75(1), 50RF(1,2)), 0.000 0.000 ADDED 4 (C0R80(1), 50RF(1,7)), (C0R75(1), 50RF(1,6)), 0.000 0.000 ADDED 8 (C0R30(1), 50RF(1,7)), (C0R75(1), 50RF(1,6)), 0.000 0.000 ADDED RATIO=AMINI(RAVI(RATIN,0.20), 0.80) 0.000 0.000	proof		1.298,	.349	•46	• 52	• 540	•54	.540	m	ं
ADDED 3 1.097* 1.071* 1.066* 1.063* 1.060* 0.000 ADDED DATA CORBO 0.474* 0.625* 0.7795 1.5957 1.431 AUDED DATA CORBO 0.474* 0.625* 0.7795 1.5957 1.5957 1.5957 1.5957 1.5955 1.5955 1.2897 1.2945 1.9455 1.9553 1.2897 1.2955 1.2897 1.2955 1.2897 1.2955 1.2897 1.2897 1.2897 1.2857 1.2897 <td>2</td> <td></td> <td>1.496,</td> <td>.422</td> <td>•40</td> <td>.342</td> <td>• 195</td> <td>131</td> <td>.120</td> <td><u>~</u></td> <td>٠</td>	2		1.496,	.422	•40	.342	• 195	131	.120	<u>~</u>	٠
ADDED DATA COR80 / 0.474, 0.625, 0.719, 0.796, 1.044, 1.289, 1.431 AUDED 1 AUDED 2 AUDED 2 AUDED 3 AUDED 1.534, 1.613, 1.739, 1.557, 1.399, 1.335, 1.289 ADDED 3 ADDED 1 ADDED 2 ADDED 2 ADDED 2 ADDED 2 ADDED 2 ADDED 4 ADDED 8 ADDED 8 ADDED 8 ADDED 8 ADDED 8 ADDED 8 ADDED 10 ADDED 100 <td>ŝ</td> <td></td> <td>1.097,</td> <td>• 078</td> <td>• 01</td> <td>•066</td> <td>.063</td> <td>•06</td> <td>• 00</td> <td>00034000</td> <td>70.295</td>	ŝ		1.097,	• 078	• 01	•066	.063	•06	• 00	00034000	70.295
AUDED 1 1.534, 1.613, 1.795, 1.897, 1.929, 1.945, 1.953 AUDED 2 1.945, 1.834, 1.739, 1.557, 1.339, 1.336, 1.289 AUDED 3 1.257, 1.235, 1.225, 1.221, 1.216, 1.208, 0.000 ADDED EQUIVALENCE CORFOLI, CORF(1,3)), (CORSO(1), CORF(1,2)), ADDED 2 1.257, 1.235, 1.225, 1.221, 1.216, 1.208, 0.000 ADDED 2 1.000000000000000000000000000000000000	DATA	COR80 /	0.474.	. 625	7.	. 198	044	28	• 43	00034100	ő
AUDED 2 1.945, 1.834, 1.739, 1.557, 1.399, 1.336, 1.289 AUUED 3 1.257, 1.235, 1.221, 1.216, 1.208, 0.000 ADDED EQUIVALENCE (CUR2011), CURF11,1), (CUR3011), CURF11,2)), ADDED 1 (CUR6011), CURF11,1)), (CUR5011), CURF11,2)), ADDED 2 (COR6011), CURF11,5)), (CUR5511), CURF11,6)), ADDED 3 (CUR3011), CURF11,9)), (CUR5511), CURF11,6)), ADDED 4 (CUR3011), CURF11,9)) ADDED 4 (CUR3011), CURF11,9)) ADDED 4 (CUR3011), CURF11,9)) ADDED RE=ALOGIO(ABS(REIN)) (CUR75(1), CORF11,6)), ADDED RE=AMINI(AMAX1(RE,0.60206), 5, 30103) ADDED ADDED RE=AMINI(AMAX1(RE,0.60206), 5, 30103) ADDED ADDED IF(RATI0-DRATIN,0.20), 0.80) ADDED ADDED 1F(RATI0-DRATIN,0.20), 0.80) ADDED ADDED 1F(RATI0-DRATIN,0.20), 0.80) ADDED ADDED 1F(RATI0-DRATIN,0.20), 0.80) ADDED ADDED 1F(RATI0-DRATIN,0.20), 0.80) ADDED ADDED 100 110 ADDED ADDED 110 20			1.534,	۰	• 79	8	92	94	.95	00034200	•
3 1.257, 1.235, 1.225, 1.221, 1.216, 1.208, 0.000 EQUIVALENCE (COR20(1),CORF(1,1)), (COR30(1),CORF(1,2)), 1 (COR60(1),CORF(1,5)), (COR50(1),CORF(1,4)), 2 (COR60(1),CORF(1,5)), (COR55(1),CORF(1,6)), 3 (COR80(1),CORF(1,5)), (COR55(1),CORF(1,6)), 3 (COR80(1),CORF(1,5)), (COR75(1),CORF(1,6)), 4 (COR80(1),CORF(1,7)), (COR75(1),CORF(1,6)), 8 (COR80(1),CORF(1,9)) 8 (COR80(1),CORF(1,9)) 8 (COR80(1),CORF(1,9)) 8 (COR80(1),COR75(1),CORF(1,6)), 8 (COR80(1),COR1),008) 8 (COR80(1),COR1),008) 1 (COR80(1),008) 8 (COR80(1),008) 1 (COR80(1),008) 1 (COR80(1),008) 1 (CON1100 1 (CON1100 1 (CON1100 1 (CON110,00 1 <td< td=""><td>2</td><td>And a second second</td><td>1.945;</td><td>• 834</td><td>m</td><td>.557</td><td>399</td><td>33</td><td>•289</td><td>00034300</td><td>°</td></td<>	2	And a second	1.945;	• 834	m	.557	399	33	•289	00034300	°
EQUIVALENCE (COR20(1),CORF(1,1)), (COR30(1),CORF(1,2)) 1 (COR60(1),CORF(1,5)), (COR50(1),CORF(1,6)) 2 (COR60(1),CORF(1,5)), (COR56(1),CORF(1,6)) 3 (COR80(1),CORF(1,9)), (COR75(1),CORF(1,6)) 4 (COR80(1),CORF(1,9)), (COR75(1),CORF(1,6)) 8 (COR80(1),CORF(1,9)), (COR75(1),CORF(1,6)) 8 (COR80(1),CORF(1,9)) 8 (COR80(1),CORF(1,0)) 9 (COR80(1),CORF(1,0)) 10 100 110 CONTINUE 110 CONTINUE 110 CONTINUE 110 CONTINUE 110 (CORF(1,1),RE,ANS)			1.257,	2	22	2		0	00.	00034400	70.29
1 (COR40(1),CORF(1,3)), (COR50(1),CORF(1,4)) 2 (COR60(1),CORF(1,5)), (CUR65(1),CORF(1,6)) 3 (COR80(1),CORF(1,7)), (COR75(1),CORF(1,6)) 4 (COR80(1),CORF(1,9)) 8 (COR80(1),CORF(1,0)) 8 (COR80(1),CORF(1,0)) 8 (COR80(1),COR1) 8 (COR80(1),CORF(1,0)) 8 (COR80(1),COR1) 8 (COR90(1),COR1) 8 (COR10,000) 9 (CON1000) 10 100 100 (CON1000) 100 (CON100) 100 (CON100) 100 (CON100) 100 (CON100) 100 (CON100) 100 (CON100)	EQUIV	AL ENCE	(CUR201	11, CORF	• 1 •	COR3	(1)	F(1,	•	00034500	0
2 (COR60(1),CORF(1,5)), (CUR65(1),CORF(1,6)) 3 (COR70(1),CORF(1,7)), (COR75(1),CORF(1,8)) 4 (COR80(1),CORF(1,9)) 7 RE=ALOGIO(ABS(REIN)) 7 RE=AMINI(AMAXI(RE,0.60206),5.30103) 7 RTIO=AMINI(AMAXI(RE,0.60206),5.30103) 7 RTIO=AMINI(AMAXI(RE,			(COR40(I),CORF	(1,	ŝ	(1),	(1.	\$	00034600	•
3 (CORF(1,7)), (CORF(1,7)), (CORF(1,8)) 4 (CURBO(1),CORF(1,9)) 8 RE-ALOGIO(ABS(REIN)) 8 RE-AMINI(AMAXI(RE,0.60206),5.30103) 8 RATIO=AMINI(AMAXI(RATIN,0.20),0.80) 1 F(RATIO-DRAT(1)) 120,110,100 1 F(RATIO-DRAT(1)) 120,110,100 100 CONTINUE 110 CONTINUE 110 CONTINUE 1 CONTINU	2		1 COR601	1), CURF	((51)	1CUR6	11	1		00034700	
4 (CUR80(1),CURF(1,9) RE=ALUGIO(ABS(REIN)) RE=AMINI(AMAXI(RE,0.60206),5.3010 RATIO=AMINI(AMAXI(RATIN,0.20),0.8 DO 100 I=1,9 IF(RATIO-DRAT(I)) 120,110,100 IF(RATIO-DRAT(I)) 120,110,100 100 CUNTINUE 110 CUNTINUE I=I CALL INT4(RURF,CURF(1,I),RE,ANS)	۳ ٦		(COR70(1),CORF	([1*])	(COR7	(1), CO	F(1,		00034800	0.2
RE=AL0G10(ABS(REIN)) RE=AMIN1(AMAX1(RE,0.60206),5.3010 RATI0=AMIN1(AMAX1(RATIN,0.20),0.8 D0 100 100 I=1,9 IF(RATI0-DRAT(I)) 120,110,100 100 CDNTINUE 110 CDNTINUE I=I CALL INT4(RURF,CORF(I,I),RE,ANS)	4		(CUR80(I), CORF	(1)					00034900	~.
RE=AMINI(AMAXI(RE,0.60206),5.3010 RATIO=AMINI(AMAXI(RATIN,0.20),0.8 DD 100 100 I=1,9 IF(RATIO-DRAT(I)) 120,110,100 100 CONTINUE 110 CONTINUE I=I I=I CALL INT4(RURF,CORF(I,I),RE,ANS)	RE=AL(JG10(ABS4	REIN))							00035000	0*0
RATI0=AMINI(AMAXI(RATIN,0.20),0.8 D0 100 1=1,9 IF(RATI0-DRAT(I)) 120,110,100 100 CUNTINUE 110 CUNTINUE 110 CUNTINUE 110 CUNTINUE I110 CUNTINUE I21 I21 I20,110,100 I21,100 I21,100 I21,100 I21,100 I20,110	RE=AM]	INI (AMAXI	(RE,0.6	0206)+	• 3010					00035100	்
DO 100 I=1,9 IF(RATIO-DRAT(I)) 120,110,10 100 CONTINUE 110 CONTINUE I=1 CaLL INT4(RURF,CURF(1,1),RE,	RATIO	=AMIN1(AN	AX1(RAT	2	\$.0.8	_				\sim	70.29
IF (RATIO-DRAT(I)) 120,110,10 100 CONTINUE 110 CONTINUE I=I CALL INT4(RURF,CORF(1,1),RE,	D0 100	$6^{1=1}6$								53	0,2
100 CONTINUE 110 CONTINUE I=I CALL INT4(RURF,CORF(1,1),RE,	IF (RA)	TIO-DRAT(*110*1						ŝ	
110 CONTINUE I=I CALL INT4(RURF,CORF(1,1),RE,		NUE								3550	ð
I=I CALL INT4(RURF,CORF(1,I),RE,		NUE								003560	0.2
CALL INT4(RURF, CORF(1,1),RE,										0357	70.29
		INT4 (RURF	, CORFIL	ŵ	ANS)					003580	ဝံ
											and and a

	1				4	NEW VOI - SED - 007 200	0		
	ULU VUL=SEK=UU4103	=004100=					0		
-D SEQ	MESSAGE	FILENAME=MUFAN	IUFAN	0	DECKNAME=MUFAN			X	ומם-אא
									~
	AUDED	ORFICE=ANS	INS	name of the state			000359		0.29
	ADDED	RETURN					00036000		70.29
	ADDED	120 CONTINUE					00036100		
	ADDEU	I I=MAXO(I	[I-2,1)				00036200		70.29
	ADDED	I + I) ON I W = Z I	I+1,9)				00036300		70. 29
	ADDED	DO 200 I	=11,12	_			00036400		70.29
	AUDED	I + I I - I = X = I - I T + I	1+1.				00036500		70.29
	ADDED	DR(INDEX	DR(INDEX)=DRAT(I)				00036600		70, 29!
	ADDED	CALL INT	CALL INT4(RORF, CORF(=(1,1),RE,C(INDEX)	DEX))		00036700		70.295
	ADDED	200 CONTINUE					00036800		70.29
	ADDED	DR(INDEX+1)=0.0	(+1)=0.0				00692000		70.29
	ADDED	C(INDEX+1)=0.0	-1)=0.0				00037000		70.29!
	ADDED	CALL INT	INT4(DR,C,RATIO,	(0, ANS)			00037100		70.29
	ADDED	OKFICE=ANS	INS				00037200		70.29
	AUDED	RETURN					000373		70.295
A	ADDED	END					00037400		70.29!
	ADDED	FUNCTION	1	BRLUSSIMEM, QBRAN, INIT, IT	L		00037500		70.295
- /	ADDED	COMMON	~				00037600		70.295
p	ADDED	I A(3)		CUERR,	CONSTS (3, 600), 60,	00037700		70. 29!
)	ADDEO	2 IBCO	IBCON(600),	IBRAN(850) ,	IFLUID,	IOPT(10),	00037800		70.29!
	ADDED	3 ITEMP,	IP ,	ITYPE(600) ,	JBRPT(600),	LABEL(20,3),	000379		70.29!
	ADDED		, , ,	IRAN (850)		NBRAN,	00038000		70.295
	ADDED		1 S.	NNMAX.	• (051)S1dN	PBRPT(250).	00038100		70.29
	ADDED	6 QBR1	QBR(150),	QERR,	RHD(600),	. (00)	00038200		70.29!
	ADDED		RR.	VI SC (600) +	XD0TA(500)		00038300		70. 29!
	ADDFD	COMMON	/MUFCOM/		. TUUNIN	NDUMBP, LOOP	00038400		70.29
	ADDED	DIMENSION	IN BKELBO	(7+3) .	*(6.9)	•	00038500		70.29
	ADDED	 		(7),	6)		00038600		70.29
	ADED	DIMENSION		hard			00038700		70.29
	ADDED	EQUIVALENCE	CE	-	S(1,1))		00038800		70. 29
	ADDED	DATA BK	BKELBU/ 0.30,	.303, 0	.33, 0.53, 1	.00, 0.0,	00038900		70.29
	ADDED		0.21,	0.22, 0.23,	0.27, 0.41, 0.	0.70, 0.0;	00039000		70.29
	ADDED	2	0 . 14,	0	41, 0.	53, 0.0 /,	00039100		70. 29!
	ADDED		VRELBU/ 0.10,	0.20, 0.30,	ء بسر	1.10, 0.0 /	00039200		70.295
	AUDED	DATA B		0.85, 0.13, 0	.60, 0.50, 0	1.05;	•0•		
	ADDFD			85, 0.73, 0	.70, 0.80,	1.30, 2.20,	0		70. 29
NALAY LANGUE AND	ADDED	<u> </u>	1.00.	02 . 1.10 . 1	*30* 2.00*	4.00. 6.00.	000 /0"		70.29
	ADDED	DATA	BKFLU/ 1.00.	80. 0.68, 0	.50, 0.40, 0.	0.93. 1.40.			70. 291
and a second	ADDED		.00.1	80. 0.68. 0	•60•0•69•0	1.05. 2.00.			70. 29
	ADDED	4 0	****		20-1-20-2	3.20. 4.80.0		- 1-	ę.
	Αυνευ	L.		* * * * * * * * * * * * * * * * * * *	L \ 1 \ 4 \ 1 \ 4	1004 1004		-	

J. G. SEG F. LENAME = MUFAN DECKMARE = MUFAN YY.101 J. J. S. C.	SEG MESSAGE FLLENAME=MUFAN DECKNAME=WUFAN SEG MESSAGE FLLENAME=MUFAN DECKNAME=WUFAN ADDEED DATA CGNY / 0 -10 0 0.500, 1.300, 1.300, 2.000, 0.00 ADDEED DATA CGNY / 0 -10 0 0.500, 0.500, 1.300, 1.300, 2.000, 0.00 ADDEED DATA CGNY / 0 -10 0 0.500, 0.500, 1.300, 1.300, 2.000, 0.00 ADDEED DATA CGNY / 0 -10 0 0.00 ADDEED DATA CGNY / 0 -10 0 0.00 ADDEED DATA CGNY / 0 -10 0 0.00 ADDEED LOC ATINUS FETGAST 13, MEM / 1.00000 MANATA ADDEED LOC ATINUS MEM / 2.00W 4000 MANATA ADDEED LOC ATINUS MANATA MANATA ADDED LOC ATINUS MANATA MANATA ADDED LEXPANDIATINUS MANATA MANATA ADDED LEXPANDIATINUS MANATA MANATA ADDED LEXPANDIATINUS MANATA MANATA ADDED LEXPANDIATINUS MANATA MANA	DRC UPDATE	NEW	VOL = SER =007 208		
DATA VRF / 0.10, 0.20, 0.0039900 70. DATA CGNV/19,.0349 / 0.0049000 0.0049000 DATA CGNV/10.00000 0.0049000 0.0049000 70. BRLGSS=1.00076c=6408KLN/100000 0.0049000 0.0049000 70. BRLGSS=1.00076c=6408KLN/NL 0.0041000 0.0044000 70. BRLCSS=1.00076c=6408KN/NL 0.000001/100000 0.0044000 70. BRLCSS=1.00076c=6408KN/NL 0.004000 0.0044000 70. BRLCSS=1.00076c=7408N/NL 0.000001/10000 0.0044000 70. DATAINDENT 0.0041000 0.0044100 70. DATAINANAL 0.0041000 0.0044100 70. DATAINANAL 0.0041000 0.0044100 70. DATAINANAL 0.0041000 70. 70. <	DATA VEF / 0.10, 0.20, 0.30, 0.50, 1.00, 1.30, 2.00, 0.0/ DATA CGNV19.6349 / DATA CGNV19.6349 / IETENCONST13.HEM IETENCONST13.HEM IETENCONST13.HEM IETENCONST13.HEM IETENCONST13.HEM IETENCONST13.HEM IETENCONST13.HEM IO BALUSS=1.00076E-0*088ANV(GC*RHOT MEM)*DBRAN**4) 100 CONTINUE RETURN RETURN IO CONTINUE MAINENDOTICONST13.HEM).1000001 000 CONTINUE MAINENDOTICONST13.HEM).1000001 000 CONTINUE RETURN RETURN VALUES-1.00076E-0*088ANV(HOTONE) 000 CONTINUE VARINE-044EAN 000 CONTINUE VARINE-0440ANAVANAINY.1005001 000 CONTINUE VARINE-0440ANAVANAINY.2010000 000 CONTINUE VARINE-0440ANAVANAINY.2010000 000 CONTINUE VARINE-0400 000 CONTINUE VARINE-0400 000 CONTINUE CONTINUE 000 CONTINUE CONTINUE 000 CONTINUE CONTINUE 000 CONTINUE	Δ	ECKNAME=MUFAN			γ γ .DDI
DATA VF 0.10, 0.20, 0.20, 0.30, 0.50, 0.50, 1.30, 2.00, 0.0, 0000000 70. DATA CENVI19.0500 0.0040000 70. DATA CENVI19.0501 0.0040000 70. DATA CENVI19.0501 0.004000 70. DATA CENVI19.06000 0.004000 70. DATA CENVI19.06000 0.004000 70. BECONTINE 0.004000 70. BATANEJONTINE 0.004000 70. BATANES(38713).MEM)10.0000 0.004000 70. BECONTINE 0.004000 70. DATANES(30K113) 0.004000 70. DATANES(30K18) 0.004000 70. <	DATA VRF 0.105 0.200 0.200 0.000 DATA VRK 0.011 0.000 </th <th></th> <th></th> <th></th> <th></th> <th></th>					
NEXA-CUNSTSTI, MENT Non-Science Non-Science <td>DBR.AN=CUNSTSTI, MEM J DBR.AN=CUNSTSTI, MEM J DBR.LOSS=1.08076E-6*QBRANY(GC*RHG(MEM)*DBRAN**4) B=LCONSTST, MEM J DBR.LOSS=1.08076E-6*QBRANY(GC*RHG(MEM)*DBRAN**4) REUGSS=1.08076E-6*QBRANY(GC*RHG(MEM)*DBRAN**4) LOD CUNTINE ARAIN=SNSTQBR(LB) QMAIN=ABSTQBR(LB) QMAIN=ABSTQBR(LB) DO CUNTINE PARAN=ABSTQBR(LB) DAALN=CONTAC DAALN=ABSTQBR(LB) DAALN=CONTAC DAALN=DAAL DAALN=CONTAC DAALN DAALN DAALN DAALN DAALN DAALN DAALN DAALNA <</td> <td>0.20, 0.30,</td> <td>.50, 0.80, 1.00</td> <td>.30, 2.00, 0.0</td> <td>/ 0003</td> <td>70.29</td>	DBR.AN=CUNSTSTI, MEM J DBR.AN=CUNSTSTI, MEM J DBR.LOSS=1.08076E-6*QBRANY(GC*RHG(MEM)*DBRAN**4) B=LCONSTST, MEM J DBR.LOSS=1.08076E-6*QBRANY(GC*RHG(MEM)*DBRAN**4) REUGSS=1.08076E-6*QBRANY(GC*RHG(MEM)*DBRAN**4) LOD CUNTINE ARAIN=SNSTQBR(LB) QMAIN=ABSTQBR(LB) QMAIN=ABSTQBR(LB) DO CUNTINE PARAN=ABSTQBR(LB) DAALN=CONTAC DAALN=ABSTQBR(LB) DAALN=CONTAC DAALN=DAAL DAALN=CONTAC DAALN DAALN DAALN DAALN DAALN DAALN DAALN DAALNA <	0.20, 0.30,	.50, 0.80, 1.00	.30, 2.00, 0.0	/ 0003	70.29
IFE TONSTIP, MEM, TODODO OD044030 TO RELUDA OD044050 TO OD044050 TO RELUDA OD044050 TO 00044050 TO ITE JOTUJ DENTRUE 00044050 TO 00044050 TO RELUDA 0004405 TO 0004405 TO 0004405 TO 0004405 TO 0004405 TO TO TO TO 0004405 TO 0004405 TO 0004405 TO TO <td< td=""><td>15-1100 15-1100 17-118-67-07 60 10 100 100 0.00766-64981AM/16648H01 MEM)*DBRAN**4) 100 0.011Nuc 100 0.011Nuc 100 0.011Nuc 100 0.011Nuc 101 0.00761-64918AM/16648H01 100 0.011Nuc 101 0.011Nuc 102 0.011Nuc 103 0.0110000 104 0.0111000 111<17-111</td> 0.0000 111<11</td<>	15-1100 15-1100 17-118-67-07 60 10 100 100 0.00766-64981AM/16648H01 MEM)*DBRAN**4) 100 0.011Nuc 100 0.011Nuc 100 0.011Nuc 100 0.011Nuc 101 0.00761-64918AM/16648H01 100 0.011Nuc 101 0.011Nuc 102 0.011Nuc 103 0.0110000 104 0.0111000 111<17-111	EWJ		والمحتمد و	00040100	70.29
IFTINE 00040300 70. RETURN 00044000 70. RETURN 00044000 70. IOD CUNTINUE 00044000 70. IATINE 0004400 70. PARAINENDICOUNTIS, MEND.100000 0004100 70. PARAINENDICOUNTIS, MEND.100000 0004100 70. PARAINENDICOUNTIS, MEND.100000 0004100 70. PARAINENDICOUNTIS, MEND.100000 0004100 70. VARAINENDICOUNTIS, MEND.100000 00041200 70. VARAINENDICOUNTIS, MEND.100000 00041200 70. VARAINENDICOUNTIS, MEND.100000 00041200 70. VARAINENDICOUNTISC 0004100 70. RETULUS, 7.0.0 00041700	Ff1B.67.00 G0 T0 100 BF105S=1.080766=6*3BRAN/IGC*RHOI MEM)*DBRAN**4,) RETORN IOO CONTINUE IOO CONTINUE IOO CONTINUE RETORN IOO CONTINUE IOO MAIN=805108/18,) IOO CONTINUE RATA=905108/13,MEM),100000 IFAINT=RUDICONST73-FEM),100000 IFAINT=RUDICONST73-FEM),100000 IFAINT=RUDICONST73-FEM),100000 IFAINT=RUDICONST73-FEM),100000 IFAIN=9000001/100000 IFAIN=9000001/100000 IFAIN=9000001/100000 IFAIN=90000000 IFAINT=64.1 VRATID=VBRAN/VMAIN VRATID=0000 IFORATIO.610.0.10) GG TO 200 BK=1.0 BK=1.0 CONTINUE IFORATIO.610.0.10) IFORATIO.610.0.100 BK=1.0 BK=1.0 CONTINUE IFORATIO.610.0.100 IFORATIO.610.0.100 IFORATIO.610.0.100 IFORATIO.610.0.100 IFORATIO.610.0.100 IFORATIO.610.0.100 IFORATIO.610.0.100	/1000000			00040200	
BRLDS:=1.080766-6*QBRAN/IGC*RH01 MEM]*DBRAN**41 000040500 70. REUDS:=1.080766-6*QBRAN/IGC*RH01 MEM]*DBRAN**41 000040500 70. 100 CONTINUE 000040500 70. RAILN=MDDILTONST3,*REPN<10000001/100000	BRLDSs=1.080766-6*0BRANY(GC*RH0(MEM)*0BRAN**4) IOD CUTINUE IATAN=MAIN/IONST13;MEM):1000001/100000 IRAIN=PMAIN/IONST13;MEM):1000001/100000 IFULIT:EG:1.0 VAAIN=QMAIN/INT.00001 VAAIN=QMAIN/AIN VAAIN=QMAIN/AIN VAAIN=GMAIN/AIN VAAIN=GA CONTINUE BK=1.0 CONTINUE SCO CUNTINUE FIGNENTIO.6FI.2.0) VAAINEN VAAINAIN COL SCO CUNTINUE FICURATIO.6FI.2.0) VAAINO. CAL <t< td=""><td>10 100</td><td></td><td></td><td>00040300</td><td></td></t<>	10 100			00040300	
100 CGNTINUE 00040500 70. 00041000 70. 00040500 70. QMAIN=MBSIQBRIEDI 00040500 70. QMAIN=MDILCONST13.MEM).1000001/100000 00040500 70. DMAIN=MDILCONST13.MEM).1000001/100000 00040500 70. DMAIN=MDILCONST13.MEM).1000001/1000001 00041000 70. DMAIN=MDILCONST13.MEM).1000001/100000 00041000 70. DMAIN=MDILCONST13.MEM).1000001/1000001 00041200 70. DMAIN=MDILVENT 00041200 70. DMAIN=MDAIN/IRHDI MEM FCUNVEDBAIN*21 00041200 70. VBAIN=DBAIN/IRHDI MEM FCUNVEDBAIN*22 00041200 70. VARILO-GET_0.101 GG TO 200 00041200 70. DERTICO-STATOREDBAIN/IRHDILATION 00041200 70. IFURTIO.ET_2.01 VARID=2.0 00041200 70. DRATID=DBAIN/IRHDI.FILITITIN**21 00041200 70. DRATID=DBAIN/IRHDI.FILITITIN**2 00041200 70. DRATID=DBAIN/IRHDI.FILITITIN**2 00041200 70. DRATID=DBAIN/IRHDI.FILITITIN***2 00041200 70. DRATID=DFAIN/IRHDI.FILITITIN**** 00041200 70. DRATID=DFAIN/IRHDI.FILITITIN**** 00041200 70. DRATID.FILIC 00041400 70. DRATID.FILITITIN<	ION CONTINUE ION CONTINUE ION CONTINUE IE EXPENDICIONST13,MEM),1000000) IE EXPENDICIONST13,MEM),1000000) IE EXPENDICIONST13,MEM),1000000) IE EXPENDICIONST13,MEM),1000000) DMAIN-DMAIN/IGNST13,MEM),1000000) DMAIN-BMAIN/IGNST13,MEM),1000000000000000000000000000000000000	6*QBRAN/(GC*RHO(MEM		000404000	70.29
100 CONTINUE 00049050 70. 100 CONTINUE 00049050 70. 15 (NIT - EQ.1) 00041100 70. 00041200 70. 00041200 70. 00041100 71. 00041200 70. 00041100 71. 00041200 70. 00041200 70. 00041200 70. 00041200 70. 00041200 70. 00041200 70. 00041200 70. 00041200 70. 00041200 70. 00041200 70. 00041200 70. 00041200 70. 00041200 70. 11117 70. 00041200 70. 111117 70. 00041200 70. 111117 70. 00041200 70. 11111 70. 70. 70. 11111 70. 70. 70. 11111 70. 70. 70. 111111 70. 70. 70	100 CGNTINUE 000 CGNTINUE 000000113,0000 000000113,0000 000000113,0000 000000113,0000 000000113,0000 000000113,0000 000000110000 000000110000 000000113,0000 00000011000 00000011000 00000011000 00000011000 00000011000 00000011000 00000011000 00000011000 00000011000 00000011000 00000011000 00000011000 00000011000 00000011000 00000011000 00000011000 000000011000 000000000000 000000000000000000000000000000000000				00040200	70.29
QMAIN-BRONG SIGNALID 0004-0700 700 QMAIN-BRONG IS GURALID 0004-0700 700 DMAIN-BRONG IS 0.00001/100000 0004-0000 700 DMAIN-BRONG IS 0.00001/100000 0004-0000 700 DMAIN-BRONG IS 0.00001/100000 0004-0000 700 DMAIN-BRONG 0.00001/100000 0004-000 700 DMAIN-BRONG 0.00001/00000 0004-000 700 VRAID-GREAN/FHICH MEN 1×CONV#DRAN*21 0004-1200 700 VRAID-0-61.0.10) GG TO 200 0004-1300 700 VRAID-0-61.0.10) GG TO 200 0004-1300 700 VRAID-0-61.0.10) GG TO 200 0004-1300 700 PK-1.0 0004-100 700 700 DK=1.0 0004-100 700 700 DK -1.0 000 700 700 QUO 100-000 700 700 700 DK -1.0 700 700 700 DK -1.0 700 700 700 QUO 100 700 700 700 <	IEATIN-BOBICIONST[3, MEM), 10000001 IEATIN-BOBICIONST[3, MEM), 10000001 DMAIN-BODICIONST[3, MEM), 10000001 DMAIN-BODICIONST[3, MEM), 1000001 VADIN-BORANIN/(RHU(MEM) *CONV*DBAN**2) VADIN-BORANIN/(RHU(MEM) *CONV*DBAN**2) VADIN-BORANIN/(RHU(MEM) *CONV*DBAN**2) VADIN-BORANIN/(RHU(MEM) *CONV*DBAN**2) VADIN-BORANIN/(RHU(MEM) GO TO 400 DATIO-GT_0.010) GO TO 200 CONTINUE CONTINUE DATIO-DBRANDHAIN VADILO-GT_0.010 GO TO 250 CALL NI4(NF+BKFLOILI,TIT),VKATID,BKJ GO TO 400 CALL NI4(NF+BKFLOILI,TIT),VKATID,BKJ CALL NI4(NF+BKFLOILI,TIT),VKATID,BKJ CALL NI4(NF+BKFLOILI,TIT),VKATID,BKJ CALL NI4(NF+BKFLOILI,TIT),VKATID,BKJ CALL NI4(NF+BKFLOILI,TIT),VKATID,BKJ CALL NI4(NF+BKFLOILI,TIT),VKATID,BKJ CO				00040600	70.29
IEFUTITE 00040900 000 00040900 000 DMAIN=MOTICONSTI3, MEM , 1000001 DMAIN=DMAIN/LOUSTI3, MEM , 1000001 00044000 70. IFILITITE DMAIN=DMAIN/LOUSTI3, MEM , 1000001 00044000 70. UBRAI=BMRANT/HUGT MEM)*CONV*DMAIN*21 000441000 70. UBRAI=GMEANT/HUGT MEM)*CONV*DMAIN*21 000441000 70. VMAIN=QMAIN/RHCT MEM)*CONV*DMAIN*21 000441000 70. VMAID=VARTIO-VARTIC MEM)*CONV*DMAIN*21 000441000 70. VMAID=VARTIO-ST.0.101 GG TO 200 00044100 70. IF(VARTIO-ST.0.101 GG TO 200 00044100 70. DSC DNNUME 00044100 70. IF(VARTIO-ST.0.101 GG TO 200 NRTIO-ST.0.0 00044100 70. DSC CONTINUE 00044100 70. 00044100 70. DSC CONTINUE IF(VARTIO-ST.0.0 VRATIO-SC.0.0004200 70. 70. DSC CONTINUE CALL NT4/VRF JKFHITLITT)/VRATIO.BKN 0004200 70. 70. DSC CONTINUE IFLORATIO-ST.0.0	IE XP=MD01 ICONST (3, MEM), 1000000 J DMAIN=MD01 (CONST (3, MEM), 100000) DMAIN=MD01 (CONST (3, MEM), 100000) DMAIN=MD01 (CONST (3, MEM), 100000) DMAIN=MD1 (CONST (3, MEM), 100000) VRAIN=QMAIN/IRHO(MEM) *CONV*BBRAN**2) VRAIN=QMAIN/IRHO(MEM) *CONV*BBRAN**2) VRAIN=VBRAN/IRHO(MEM) *CONV*BBRAN**2) VRAIN=VBRAN/IRHO(MEM) *CONV*BBRAN**2) VRAIN=VBRAN/IRHOL (1000000) IF (VRATID=VBRAN/VMAIN DRAIN=000 E (VRATID=000000000000000000000000000000000000				00040700	70.29
DMAIN=MDD(ICDNST13, MEM +100000) D0044000 T00 DMAIN=MDAINCLONST13, MEM +1000001 00044100 70 UBMAIN=DMAIN(INL0.04*1EXF 00041100 70 VBANN=GBARAN(HHOT MEM)*CONV*DBAIN**2) 00041200 70 VMAIN=GMAIN(FHOT MEM)*CONV*DBAIN**2) 00041200 70 VMAIN=GMAIN(FHOT MEM)*CONV*DBAIN**2) 00041400 70 VBAIN=GBARN/VMAIN 00041300 70 VMAIN=GMAIN/VMAIN 00041300 70 VMAIN=GMAIN/VMAIN 00041300 70 VBAILO=VBRAN/VMAIN 00041300 70 VATID=VBRAN/VMAIN 00041300 70 F(VATID.GIT.2.0) VATID.F 00041300 70 SG 010 400 70 00041300 70 CONTINUE ELL 00041300 70 70 70 TF(QATID.GIT.2.0) VATID.BKI 00041300 70 70 TGODATID.CIT.2.0) VATID.BKI 0004200 70 70 TGODATID.CIT.2.01 CID 250 70 70 70 <td>DMAIN=MODILCONST(3,MEW):100000) DMAIN=MODILCONST(3,MEW):100000) DMAIN=DMAIN/IN-VISCIMEM)*DMAIN/1.06103E-6 VBRAN=GURAN/VRICL MEM)*CONV*DBAIN**2) VBRAN=GURAN/VRAIN VRAIN=0-VBRAN/VMAIN VRAIN=0-VBRAN/VMAIN VRAIN=0-VBRAN/VMAIN IF(I1:61:3) GU 10 300 IF(I1:61:3) GU 10 300 SG 10 400 SH = 1.0 SG 10 400 SG 10 400 SH = 1.0 SG 10 400 SH = 1.0 SG 10 400 SG 10</td> <td>5</td> <td>100000</td> <td></td> <td>00040800</td> <td>70.29</td>	DMAIN=MODILCONST(3,MEW):100000) DMAIN=MODILCONST(3,MEW):100000) DMAIN=DMAIN/IN-VISCIMEM)*DMAIN/1.06103E-6 VBRAN=GURAN/VRICL MEM)*CONV*DBAIN**2) VBRAN=GURAN/VRAIN VRAIN=0-VBRAN/VMAIN VRAIN=0-VBRAN/VMAIN VRAIN=0-VBRAN/VMAIN IF(I1:61:3) GU 10 300 IF(I1:61:3) GU 10 300 SG 10 400 SH = 1.0 SG 10 400 SG 10 400 SH = 1.0 SG 10 400 SH = 1.0 SG 10 400 SG 10	5	100000		00040800	70.29
DMAINTENT ONOLOGATION ONOLUDO	DIMAIN=DMAIN/10.0**IEXP If inuit=Guil GMAIN*EXP VRAIN=GRAN/KHICI MEM)*CONV*DMAIN**2) VRAIN=GRAN/KHICI MEM)*CONV*DMAIN**2) VRAIN=GRAN/KHICI MEM)*CONV*DMAIN**2) VRAIN=CONTING MEM)*CONV*DMAIN**2) VRAIN=CONTING MEM)*CONV*DMAIN**2) VRAIN=CONTING MEM)*CONV*DMAIN**2) FICURATIO.GI.0.10) GG TO 200 BF 100 BF 10	, and the second			0004000	70.29
If (INIT: 66.1) B. GANINARINI.05103E-6 00041100 70. VBANA=0BKAN/(KHCI MEM)*CUNV*DNAIN**2) 00041300 70. VBANA=0BKAN/(KHCI MEM)*CUNV*DNAIN**2) 00041300 70. VBANA=0BKAN/(KHCI MEM)*CUNV*DNAIN**2) 00041300 70. VBAIA=0BKAN/(KHCI MEM)*CUNV*DNAIN**2) 00041500 70. VBAID=0FBAN/VALIN 00041500 70. VRATIO=VBAN/VALIN 00041500 70. F(17.67.3) GD TO 200 00041500 70. IF (IXATIU.61.0) GD TO 200 00041500 70. BF=1.0 00041900 70. 00041900 70. CD 10 400 GD TO 200 GD TO 200 00041900 70. IF (IXATIU.61.0.1) GD TO 200 00041900 70. 00041900 70. CONDATIO= GD TO 200 GD TO 200 00041900 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. <	IF(INIT.=6.1) GMIN=VISC(MEM)*DMAIN/1.06103E-6 VBRAN=QBRAN/KHUG MEM)*CONV*DBRAN*2) VBRAN=QBRAN/MAIN VBRAN=QBRAN/MAIN VBRAN=QBRAN/MAIN IF(VRATIO-667.0.10) 6G TO 200 BK=1.0 BK=1.0 CO CONTINUE CO CONTINUE IF(VRATIO.61.2.0) VRATIO=2.0 DRATIO=DBRAN/DMAIN IF(VRATIO.61.2.0) VRATIO=2.0 DRATIO=DBRAN/DMAIN CO TO 400 CO TO 4				00041000	70.29
VBRANTARHOI MEM)*CONV*DBRAN**2) 00041200 70. VMAIN=QBRANYKHOI MEM)*CONV*DBAIN**2) 00041300 70. VMAIN=QMANYKHOI MEM)*CONV*DBAIN**2) 00041400 70. VRATI0=VBANNYMAIN 00041400 70. IF(IT.GI.3) C0 10<300	VMAIN=QBKAN/(KHGI MEM)*CONV*DBRAN**2) VMAIN=QBAN/(KHGI MEM)*CONV*DBAIN**2) VMAIN=QANI/(KHGI MEM)*CONV*DBAIN**2) VRAIIO=VBAN/MAIN F(IT.6T-3) GO TO 300 F(IT.6T-3) GO TO 300 BK=1.0 60 TO 400 60 TO 400 F(VRATIO.6T.2.0) VKATIO=2.0 F(VRATIO.6T.2.0) VKATIO=2.0 DRATIO=DBRAN/DMAIN F(RRATIO.6T.2.0) VKATIO=2.0 DRATIO=DBRAN/DMAIN F(RRATIO.6T.2.0) VKATIO=2.0 F(RATIO.6T.2.0) VKATIO=2.0 CALL INT4(VRF;BKFHI(1;11),VKATIO,BK) CALL INT4(VRF;BKFHI(1;11),VKATIO,BK) CALL INT4(VRF;BKFHI(1;11),VKATIO,BK) CALL INT4(VRF;BKFHI(1;11),VKATIO,BKL) CALL INT4(VRF;BKFHI(1;11),VKATIO,BKH) CALL INT4(VRF;BKFHI(1;11),VKATIO,BKH) CALL INT4(VRF;BKFHI(1;11),VKATIO,BKH) CALL INT4(VRF;BKFHI(1;11),VKATIO,BKH) CALL INT4(VRF;BKFHI(1;11),VKATIO,BKH) CALL INT4(VRF;BKFHI(1;11),VKATIO,BKH) CALL INT4(VRF;BKFHI(1;11),VKATIO,BKH) CALL INT4(VRFBK;BKH) CALL INT4(VRFBKHK) CALL INT4(VRFBKHK) CALL INT4(VRFBKHK) CALL INT4(VRFBKHK) CALL INT4(VRFBKHK) CALL INT4(VRFBKHK) CALL INTA(VRFBKHK) CALL INT4(VRFBK) CALL INT4(VRFBKHK) CALL INT4(VRFBK) CALL INT4(VRFBKHK) C	A I N= VI	.06103E-		00041100	70.29
WHAIN-CHAIN WAIN-CONV*DMAIN**2) 00041300 70. VRAIT0=VBRAN/VMAIN 00041400 70. IF(IT-5-VBRAN/VMAIN 00041400 70. IF(IT-5-VBLAN/VMAIN 00041500 70. IF(IT-5-VBLAN/VMAIN 00041500 70. IF(IT-5-VBLAN/VMAIN 00041500 70. IF(IT-5-VBLAN/VMAIN 00041500 70. IF(NTID-51-0.10) 60 T0 00041500 70. BK=1.0 VATID=50 00041500 70. 200 CONTINUE 00041500 70. IF(DRAITD-51-0) VRATID=2.0 00041500 70. 200 CONTINUE 00041500 70. IF(DRAITD-51.0) VRATID=2.0 00041500 70. 010 400 0.0.333333 GD TO 250 70. 010 400 0.0.400 70. 70. 250 CONTINE CALL INT4(VRF-BKFLUTLT1),VRATID+BKJ 00042500 70. 250 CONTINE CALL INT4(VRF-BKFLUTLT1),VRATID+BKJ 00042500 70. 250 CONTINE CALL INT4(VRF-BKFLUTLT1),VRATID-BKL	VMAIN=GMAIN/(RHCG MEM)*CONV*DMAIN**2) VRATIO=VBRAN/VMAIN IF(II.6T=3) 60 TO 200 FF(VRATIO.6T.0.10) 60 TO 200 FF(VRATIO.6T.0.10) 60 TO 200 60 TO 400 200 CONTONE IF(VRATIO.6T.2.0) VKATIO=2.0 DRATIO=DBRAN/DMAIN IF(VRATIO.6T.2.0) VKATIO=2.0 CALL INT4(VRF;BKFHI(1);11)/VRATIO;BKJ 60 TO 400 250 CONTINUE 250 CO	MEM)	(AN**2)		00041200	70.29
VARTID=VBAN/VMAIN 00041400 70. IF(IT.GT.3) G0 T0 300 00041500 70. IF(IT.GT.3) G0 T0 300 00041500 70. IF(NATI0.GT.0.10) G0 T0 200 00041800 70. BK=1.0 00041800 70. 00041800 70. C0 T0 400 BK=1.0 00041800 70. 00041800 70. Z00 C0NTNUE BKHI(1,11),VRATI0,BKJ 0004200 70. 0004200 70. Z01 0 400 FLORATIO.LET.2.0) VRATI0.BKJ 0004200 70. 70. Z01 0 400 FLORATIO.LT.1.0) G0 T0 260 70. 70. 70. Z01 10 400 Call INT4(VRF, BKFHI(1,11), VRATI0, BKJ) 00042500 70. 70. Z01 10 400 Call INT4(VRF, BKFHI(1,11), VRATI0, BKJ) 00042500 70. 70. Z01 10 400 Call INT4(VRF, BKFHI(1,11), VRATI0, BKJ) 00042500 70. 70. Z01 10 400 Call INT4(VRF, BKFHI(1,11), VRATI0, BKL) 00042500 70. 70. Z01 10 400 Call	VRATIG=VBRAM/YMAIN IF(IT:6T:3) GO TO 300 IF(NATI0.6T:0.10) GO TO 200 BK=1.0 GO TO 400 BK=1.0 GO TO 400 BKATID=BBRAN/DMAIN DRATID=BBRAN/DMAIN IF(NATI0.6T.2.0) VKATID=2.0 DRATID=BBRAN/DMAIN IF(NATI0.6T.2.0) VKATID=2.0 DRATID=BBRAN/DMAIN IF(NATI0.6T.2.0) VKATID=2.0 DRATID=BBRAN/DMAIN IF(NATI0.6T.2.0) VKATID=2.0 DRATID-BBRAN/DMAIN IF(NATI0.6T.2.0) SGO TO 250 CALL INT4(VRF.BKFLUTLITI).VRATID.BKJ) GO TO 400 Z50 CONTINUE IF(DRATI0.LT.1.0) GO TO 260 IF(DRATI0.LT.1.0) GO TO 260 CALL INT4(VRF.BKFLUTLITI).VRATID.BKJ) GO TO 400 Z60 CONTINUE Z60 CONTINUE Z61 L INT4(VRF.BKFLUTLITI).VRATID.BKH) GO TO 400 S60 TO 400	MEN)	IN**2)		00041300	70.29
IF(IT.GT.3) G0 T0 300 00041500 70. IF(VRATI0.GT.0.10) G0 T0 200 00041700 70. BK=1.0 00041700 70. G0 T0 400 0.0041700 70. BK=1.0 00041700 70. G1 0 400 0.0041700 70. BK=1.0 00041700 70. G1 10 400 0.004170 70. D1 F(NATI0.GT.2.0) VRATI0=2.0 00041700 70. D1 F(NATI0.GT.2.0) VRATI0=2.0 0004200 70. D1 F(NATI0.GT.2.0) VRATI0=2.0 0004200 70. Call INT4(VRF;BKFHIL1;T1),VRATI0;BKJ 0004200 70. C30 C0NTNUE 0.0042500 70. C40 C0NTNUE 0.0042500 70. C50 C0NTNUE 0.0042500 70. C41 INT4(VRF;BKFUUL;T1),VRATI0;BKJ 0.0042500 70. C50 C0NTNUE 0.0042500 70. 00042500 C41L INT4(VRF;BKFUUL;T1),VRATI0;BKL 0.0042500 70. C50 C0NTNUE 0.0042500 70. 00042700 70. C50 C0NTNUE 0.0042800 70. 70. 70. 70.	IF(IT.61.3) 60 T0 300 IF(IT.61.3) 60 T0 200 BR=1.0 BR=1.0 BR=1.0 BR=1.0 BR=1.0 C0 T0 400 ERTID=DBRANDMAIN IF(DRATID.6T.2.0) VRATID=2.0 DRATID=DBRANDMAIN IF(DRATID.6T.2.0) VRATID=2.0 DRATID.6T.0.333333) 60 T0 250 CALL INT4(VRF;BKFHI(1,11),VRATID,BKJ) CALL INT4(VRF;BKFHI(1,11),VRATID,BKJ) CALL INT4(VRF;BKFHI(1,11),VRATID,BKJ) CALL INT4(VRF;BKFHI(1,11),VRATID,BKJ) CALL INT4(VRF;BKFHI(1,11),VRATID,BKJ) CALL INT4(VRF;BKFHI(1,11),VRATID,BKJ) CALL INT4(VRF;BKFHI(1,11),VRATID,BKJ) CALL INT4(VRF;BKFHI(1,11),VRATID,BKJ) CALL INT4(VRF;BKFLO(1,11),VRATID,BKL) CALL INT4(VRF;BKFLO(1,11),VRATID,BKL) CALL INT4(VRF;BKFLO(1,11),VRATID,BKL) CALL INT4(VRF;BKFLO(1,11),VRATID,BKL) CALL INT4(VRF;BKFLO(1,11),VRATID,BKL) BK=BKH -1.5*(DRATID-0.333333)*(BKH - BKL) CALL INT4(VRELBG;BKELBO(1,11-3),VRATID;BK) 400 CONTINUE IF(VRATID.1.0) VRATID=0.10 IF(VRATID.1.0) VRATID=0.10 IF(VRATID.1.1.0) VRATID=0.10 IF(VRATID.1.0.10) VRATID=0.10 IF(VRATID.1.0.010) VRATID=0.10 IF(VRATID.1.0.10) VRATID=0.1				00041400	70. 29!
IF(WRATIG.GT.0.10) G0 TO 00041500 70. BK=10 000411700 70. 00041900 70. G0 TO 400 G0 TO 400 70. 00041900 70. F(WANTIG.GT.2.0) VKATID=2.0 00041900 70. TF(WANTIG.GT.2.0) VKATID=2.0 00041900 70. TF(WANTIG.GT.2.0) VKATID=2.0 00041900 70. TF(WANTIG.GT.2.0) VKATID=2.0 00042200 70. TF(WANTIG.GT.2.0) VKATID=2.0 00042200 70. TF(WANTIG.GT.2.0) VKATID=2.0 00042200 70. TF(WANTIG.GT.0.333333) G0 TO 250 00042200 70. Coll Interverted TO 400 00042200 70. CALL INT4(VKF, BKFLUT.11), VKATID, BK1 00042200 70. 70. CALL INT4(VKF, BKFLUT.11), VKATID, BK1 00042200 70. 70. CALL INT4(VKF, BKFLUT.11), VKATID, BK1 00042200 70. 70. CALL INT4(VKF, BKFLUT.11), VKATID, BK1 70. 70. 70. CONTINUE CONTINUE 10.400 70. 70. So CONTINUE<	IF(VRATIG.GT.0.10) G0 T0 200 BK=1.0 G0 T0 400 G0 T0 400 E F(VRATIG.GT.2.0) VRATIG=2.0 DRATIG.GT.2.0) VRATIG=2.0 IF(VRATIG.GT.2.0) VRATIG=2.0 CALL NT4(VRF,BKFHI(1,17),VRATIG.BK) G0 T0 400 CALL NT4(VRF,BKFHI(1,17),VRATIG.BK) G0 T0 400 IF(0RATIG.LT.1.0) G0 T0 260 IF(0RATIG.LT.1.0) G0 T0 260 CALL NT4(VRF,BKFL0(1,117),VRATIG.BK) G0 T0 400 CALL NT4(VRF,BKFL0(1,117),VRATIG.BK) G0 T0 400 CALL NT4(VRF,BKFL0(1,117),VRATIG.BKH) CALL NT4(VRFBG,BKELB0(1,17-3),VRATIG.BK) 400 CONTINUE	300			00041500	70.29
BK=1.0 00041700 70. GD T0 400 00041900 70. S00 CUNTUNE 0004200 70. IF(VRATI0.GT.2.0) VRATI0=2.0 00042000 70. IF(VRATI0.GT.2.0) VRATI0=2.0 00042000 70. IF(VRATI0.GT.2.0) VRATI0=2.0 00042000 70. IF(VRATI0.GT.2.0) VRATI0.BKJ 00042200 70. CALL INF(VRF.BKFHI(1.11),VRATI0.BKJ) 00042200 70. IF(DRATI0.L.1.0) GD T0 260 00042500 70. IF(DRATI0.L.1.1.0) GD T0 260 00042500 70. IF(DRATI0.L.1.1.0) GD T0 260 00042500 70. CALL INT4(VRF.BKFHI(1.11),VRATI0.BKJ) 00042500 70. CONTINUE CALL INT4(VRF.BKFHI(1.11),VRATI0.BKJ) 00042500 70. CALL INT4(VRF.BKFHI1.11),VRATI0.BKJ) 00042500 70. 00042200 70. CALL INT4(VRF.BKFHI1.11),VRATI0.BKJ) 00042800 70. 00042800 70. CALL INT4(VRF.BKFL0(1.11),VRATI0.BKJ) 00042800 70. 00042800 70. CALL INT4(VRF.BKFL0(1.1.11),VRATI0.BKL) 00042800 70. 70. 70. CALL INT4(VRF.BKFL0(1	BK=1.0 G0 T0 400 Z00 CUNTUUE If(VRATIO.cT.2.0) VRATIO=2.0 DRATIO=BRAN/DMAIN If(DRATIO.cT.2.0) VRATIO=2.0 DRATIO=BBRAN/DMAIN If(DRATIO.cT.2.0) VRATIO=2.0 DRATIO=BBRAN/DMAIN If(DRATIO.cT.2.0) VRATIO=2.0 DRATIO=BBRAN/DMAIN If(DRATIO.cT.2.0) VRATIO=2.0 CALL INT4(VRF, BKFHITT)), VRATIO, BKJ G0 T0 400 Z60 CONTINUE CALL INT4(VRF, BKFHITT), VRATIO, BKH G0 T0 400 Z60 CONTINUE CALL INT4(VRF, BKFHITT), VRATIO, BKH G0 T0 400 Z60 CONTINUE CALL INT4(VRF, BKFHITT), VRATIO, BKH G0 T0 400 300 CONTINUE CALL INT4(VRF, BKFHITT), VRATIO, BKH 0 T0 400 300 CONTINUE If (VRATIU-1.5*tDRATIO-0.333333)*(BKH - BKL If (VRATIU-1.5*tDRATIO=0.10 If (VRATIU-1.0) VRATIU=0.10) VRATIU=0.10) VRATIU=0.10) If (VRATIU-1.0) VRATIU=0.10) VRATIU=0.10) VRATIU=0.10) VRATIU=0.10) <td>60 TO</td> <td></td> <td></td> <td>00041600</td> <td>70.295</td>	60 TO			00041600	70.295
G0 T0 400 00041800 70. 200 CONTINUE 0004200 70. TF(WRTID=DBRAN/DMAIN 0004200 70. DRATID=DBRAN/DMAIN 0004200 70. TF(URATID=GF10.33333) G0 T0 250 00042200 70. DRATID=DBRAN/DMAIN 00042200 70. 00042200 70. C011 000 00 00042200 70. 00042200 70. C011 000 10 00042500 70. 00042500 70. 00042500 70. C011 010 400 01 400 00042500 70. 00042500 70. 00042500 70. 00042500 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70.	GG T0 400 200 CONTINUE If (KRATIG.GT.2.0) VRATIG=2.0 DRATIG=BRAN/DMAIN IF (URATIG.GT.2.0) VRATIG=2.0 DRATIG=BBRAN/DMAIN IF (DRATIG.GT.2.0) VRATIG=2.0 DRATIG=BBRAN/DMAIN IF (DRATIG.GT.2.0) VRATIG=2.0 Call INT4(VRF.BKFH1(1,11),VRATIG.BK) GU T0 400 Z50 CONTINUE IF (DRATIG.LT.1.0) GU T0 260 CALL INT4(VRF.BKFL0(1,111),VRATIG.BK) GU T0 400 CALL INT4(VRF.BKFL0(1,111),VRATIG.BK) GU T0 400 CALL INT4(VRF.BKFL0(1,111),VRATIG.BKL) GU T0 400 Scontinue CALL INT4(VRF.BKFL0(1,111),VRATIG.BKL) GU T0 400 Scontinue CALL INT4(VRF.BKFL0(1,111),VRATIG.BKL) BK=BKH -1.5*(DRATIG.BKL) Scontinue				00041700	70.29!
200 CONTINUE 00041900 70. 1F(VRATIO-EDBRAN/DMAIN 00042000 70. 0 F(0NATIO-EDBRAN/DMAIN 00042200 70. 0 F(0NATIO-EDBRAN/DMAIN) 00042200 70. 0 F(0NATIO-EDBRAN/DMAIN) 00042300 70. 0 F(0) 0 TO 00042500 70. 0 F(0) 0 TO 0 TO 0. 0 F(0) 0 TO 0 TO 0.	200 CGNTINUE 1F(VRATIO.GT.2.0) VRATID=2.0 IF(VRATIO.GT.0.333333) GD TO 250 CALL INT4(VRF;BKFHI(1,117),VRATID;BK) GD TO 400 250 CGNTINUE IF(DRATIO.LT.1.0) GD TO 260 CALL INT4(VRF,BKFLU(1,111),VRATID;BK) GD TO 400 260 CDNTINUE 260 CDNTINUE 270 CONTINUE 270 C				00041800	70.29
IF(VRATID.6T.2.0) VkATID=2.0 00042000 70. DRATID=DBRAN/DMAIN 00042100 70. IF(DRATID.FDBRAN/DMAIN 00042100 70. IF(DRATID.FDBRAN/DMAIN 00042100 70. CALL NNT4(VRF;BKFHI(1,1T),VRATID;BK) 00042200 70. CALL NNT4(VRF;BKFHI(1,1T),VRATID;BK) 000422600 70. CALL INT4(VRF;BKFLUT1,1),VRATID;BK) 000422600 70. CALL INT4(VRF;BKFLUT1,1T),VRATID;BK) 000423600 70. CALL INT4(VRF;BKFLUT1,1T),VRATID;BKL) 00042300 70. S60 CONTINUE 00042300 70. 05042300 70. 00042300 70. 050042300 70. 70. 70. 10400 600 70. 70. 0500 70. 70. <td< td=""><td>IF (VRATIO.GT.2.0) VKATIO=2.0 DRATIO.GT.2.0) VKATIO=2.0 DRATIO.GT.0.333333) GO TO 250 CALL NIT4(VRF.BKFHI(1,11),VRATIO.BK) GO TO 400 250 CONTINUE IF (DRATIO.LT.1.0) GO TO 260 CALL INT4(VRF.BKFLU(1,11),VRATIO,BK) COLL INT4(VRF.BKFLU(1,11),VRATIO,BK) COLL INT4(VRF.BKFLU(1,11),VRATIO,BK) CONTINUE 260 CONTINUE 260 CONTINUE CALL INT4(VRF.BKFLU(1,11),VRATIO,BKL) BK=BKH -1.5*(DRATIO-0.333333)*(BKH -BKL) 60 TO 400 300 CONTINUE 300 CONTINUE 1F (VRTIO.C.10) VRATIO=0.10 1F (VRATIO.C.10) VRATIO</td><td></td><td></td><td></td><td>00041900</td><td>70.295</td></td<>	IF (VRATIO.GT.2.0) VKATIO=2.0 DRATIO.GT.2.0) VKATIO=2.0 DRATIO.GT.0.333333) GO TO 250 CALL NIT4(VRF.BKFHI(1,11),VRATIO.BK) GO TO 400 250 CONTINUE IF (DRATIO.LT.1.0) GO TO 260 CALL INT4(VRF.BKFLU(1,11),VRATIO,BK) COLL INT4(VRF.BKFLU(1,11),VRATIO,BK) COLL INT4(VRF.BKFLU(1,11),VRATIO,BK) CONTINUE 260 CONTINUE 260 CONTINUE CALL INT4(VRF.BKFLU(1,11),VRATIO,BKL) BK=BKH -1.5*(DRATIO-0.333333)*(BKH -BKL) 60 TO 400 300 CONTINUE 300 CONTINUE 1F (VRTIO.C.10) VRATIO=0.10 1F (VRATIO.C.10) VRATIO				00041900	70.295
DRATID=DBRAN/DMAIN 00042100 70. IF (DRATID.GT.0.33333) GO TO 250 70. CALL INT4(VRF,BKFHI(1,11),VRATID.BK) 00042200 70. CALL NT4(VRF,BKFHI(1,11),VRATID.BK) 00042500 70. CALL INT4(VRF,BKFLU(1,11),VRATID.BK) 00042500 70. Z50 CONTINUE 00042200 70. Z60 CONTINUE 00042200 70. Z60 CONTINUE 00042200 70. CALL INT4(VRF,BKFLU(1,11),VRATID,BK) 00042200 70. CALL INT4(VRF,BKFLU(1,11),VRATID,BK) 00042200 70. Z60 CONTINUE 00042200 70. Z60 CONTINUE 00042300 70. Z60 CONTINUE 00042300 70. Z60 CONTINUE 00042300 70. Z60 TO 400 0043300 70. Z60 CONTINUE 00042300 70. Z60 CONTINUE 00042300 70. Z60 CONTINUE 00042300 70. Z60 CONTINUE 00043300 70. Z60 CONTINUE 00043300 70. BK-BKH - 1.5*(DRATID-0.33333)*(BKH - BKL) 00043300	DRATIO=DBRAN/DMAIN IF (IORATIO.GT.0.333333) GO TO 250 CALL INT4(VRF.BKFHI(1).IT),VRATIO.BKJ) CALL INT4(VRF.BKFHU(1).IT),VRATIO.BKJ) CALL INT4(VRF.BKFLU(1).IT),VRATIO.BKJ) CALL INT4(VRF.BKFLU(1).IT),VRATIO.BKJ) CALL INT4(VRF.BKFLU(1).IT),VRATIO.BKJ) CONTINUE CALL INT4(VRF.BKFLU(1).IT),VRATIO.BKJ) CALL INT4(VRF.BKFLU(1).IT),VRATIO.BKJ) CALL INT4(VRF.BKFLU(1).IT),VRATIO.BKL) CALL INT4(VRF.BKFLU(1).IT),VRATIO.BKL) CALL INT4(VRF.BKFLU(1).IT),VRATIO.BKL) COLL INT4(VRF.BKFLU(1).IT),VRATIO.BKL) BK=BKH -1.5*(DRATIO-0.333333)*(BKH) CALL INT4(VRF.BKFLU(1).IT),VRATIO.BKL) BK=BKH -1.5*(DRATIO-0.333333)*(BKH) CALL INT4(VRF.BKFLU(1).IT),VRATIO.BKL) BK CALL INT4(VRF.BKFLU(1).IT),VRATIO.BKL) BK CALL INT4(VRF.BG.BKELBO(1).IT-3),VRATIO.BKL) CALL INT4(VRELBG.BKELBO(1).IT-3),VRATIO.BK)	VRATIO=2.			00042000	70.29
IF (DRATIC.GT.0.33333) GO TO 250 00042500 70. Call INT4(VRF; BKFHI(1,11), VRATIC, BK) 00042500 70. GU TO 400 00042500 70. CALL INT4(VRF; BKFLU(1,11), VRATIC, BK) 00042500 70. CALL INT4(VRF; BKFLU(1,11), VRATIC, BK) 00042500 70. CALL INT4(VRF; BKFLU(1,11), VRATIC, BK) 00042800 70. CALL INT4(VRF; BKFLU(1,11), VRATIC, BKH) 00042900 70. CALL INT4(VRF; BKFLU(1,11), VRATIC, BKH) 00042900 70. 260 CONTINUE 000433333) * (BKH) - BKL) 00043200 70. BK=BKH -1.5*(DRATIC).33333) * (BKH) - BKL) 00043200 70. 00043300 70. 300 CONTINUE 00043300 70. 1F(VRATIC.1.10) VRATIC.BK) 00043300 70. 1F(VRATIC.1.10) VRATIC.BK) 00043300 70. 00043300 70. 2004300 70. 2004300 70. 2004300 70. 2004300 70. 20043300 70. 20043400 70. 20043400 70. 20	IF (DRATIC.GT.0.33333) GO TO 250 CALL INT4(VRF,BKFHI(1,11),VRATIC,BK) GU TO 400 250 CONTINUE IF (DRATIC.LI.10) GO TO 260 CALL INT4(VRF,BKFLC(1,11),VRATIC,BK) CALL INT4(VRF,BKFLC(1,11),VRATIC,BK) CALL INT4(VRF,BKFLC(1,11),VRATIC,BK) 260 CONTINUE 260 CONTINUE CALL INT4(VRF,BKFLC(1,11),VRATIC,BK) BK=BKH -1.5*(DRATIC-0.33333)*(BKH -BKL) CALL INT4(VRF,BKFLC(1,11),VRATIC,BKL) BK=BKH -1.5*(DRATIC-0.33333)*(BKH -BKL) 60 TO 400 300 CONTINUE IF (VRATIC.LT.0.10) VRATIC=0.10 IF (VRATIC.LT.0.10) VRATIC=0.10 (CALL INT4(VRELBC,BKELBO(1,1T-3),VRATIC,BK) 400 CONTINUE				00042100	70.295
Call INT4(VRF, BKFHI(1,11), VRATI0, BK) 00042300 70. 0010 00042400 70. 00042600 70. 00042600 70. 00042600 70. 00042600 70. 00042600 70. 00042600 70. 00042600 70. 00042600 70. 0010 400 0042800 70. 00110 400 00042900 70. 00110 400 00042900 70. 00110 400 00042900 70. 00110 400 00042900 70. 00110 400 00043900 70. 00110 400 00043900 70. 00110 10 0043900 70. 00110 0043300 70. 00043300 70. 00110 00410 11110 1110 00043300 70. 000 0010 00043300 70. 00043300 70. 000 000 000 00043300 70. 00043300 70. 000	Call INT4(VRF,BKFHI(1,IT),VRATI0,BK) GU TO 400 250 CONTINUE IF(DRATI0.LT.1.0) GO TO 260 CALL INT4(VRF,BKFLU(1,11),VRATI0,BK) COLL INT4(VRF,BKFLU(1,11),VRATI0,BK) COLL INT4(VRF,BKFLU(1,11),VRATI0,BK) 260 CONTINUE CALL INT4(VRF,BKFLU(1,11),VRATI0,BK) BK=BKH -1.5*(DRATI0-0.33333)*(BKH -BKL) CALL INT4(VRF,BKFLU(1,11),VRATI0,BKL) BK=BKH -1.5*(DRATI0-0.33333)*(BKH -BKL) COLL INT4(VRF,BKFLU(1,11),VRATI0,BKL) BK=BKH -1.5*(DRATI0-0.33333)*(BKH -BKL) CALL INT4(VRF_BKFLU(1,11),VRATI0,BKL) F(VRATI0.LT.0.10) VRATI0=0.10 IF(VRATI0.GT.1.10) VRATI0=0.10 IF(VRATI0.GT.1.10) VRATI0=1.10 CALL INT4(VRELBU,BKELBU(1,11-3),VRATI0,BK) 400 CONTINUE) 6	0		00042200	70.29
GU T0 400 00042400 70. 250 CUNTINUE 00042500 70. If (DRATI0.LT.1.0) GO T0 260 00042500 70. 00042700 70. 00042700 70. 00042700 70. 00042700 70. 00042700 70. 00042700 70. 00042900 70. 00042900 70. 00042900 70. 00042900 70. 00042900 70. 00042900 70. 00042900 70. 00042900 70. 260 CONTINUE 014(VRF, BKFH0(1,1T), VRATI0, BKH) 00042900 70. 260 CONTINUE 0174(VRF, BKFH0(1,1T), VRATI0, BKL) 00043100 70. 01044300 70. 00043100 70. 00043300 70. 0104400 8KH - BKL 900 70. 00043300 70. 0104400 70. 300 70. 00043300 70. 10<400	60 T0 400 250 CONTINUE IF(DRATI0.LT.1.0) G0 T0 260 CALL INT4(VRF,BKFLU(1,11),VRATI0,BK) CALL INT4(VRF,BKFLU(1,11),VRATI0,BK) 60 T0 400 260 CONTINUE CALL INT4(VRF,BKFLU(1,11),VRATI0,BK) 60 T0 400 260 CONTINUE CALL INT4(VRF,BKFLU(1,11),VRATI0,BKL) BK=BKH -1.5*(DRATI0-0.33333)*(BKH -BKL) 60 T0 400 300 CONTINUE 300 CONTINUE IF(VRATI0.LT.0.10) VRATI0=0.10 IF(VRATI0.LT.0.10) VRATI0=0.10 IF(VRATI0.LT.0.10) VRATI0=0.10 IF(VRATI0.LT.0.10) VRATI0=1.10 CALL INT4(VRELB0,BKELB0(1,1T-3),VRATI0,BK) 400 CONTINUE	L, IT)	9 BKJ		00042300	
250 CONTINUE 250 CONTINUE 00042500 70. IF(DRATID.LT.1.0) G0 T0 260 70. 00042600 70. CALL INT4(VRF,BKFLU(1,11),VRATID,BK) 00042700 70. 00042700 70. COLL INT4(VRF,BKFLU(1,11),VRATID,BK) 00042700 70. 00042900 70. CALL INT4(VRF,BKFLU(1,11),VRATID,BKH) 00043100 70. 00043200 70. CALL INT4(VRF,BKFLU(1,11),VRATID,BKL) 00043100 70. 00043100 70. CALL INT4(VRF,BKFLU(1,11),VRATID,BKL) 00043100 70. 70. 70. 70. BK=BKH -1.5*(DRATID-0.33333)*(BKH -BKL) 00043100 70.	250 CONTINUE IF(DRATID.LT.1.0) GD TD 260 CALL INT4(VRF,BKFLU(1,11),VRATID,BK) CALL INT4(VRF,BKFH1(1,11),VRATID,BKH) CALL INT4(VRF,BKFLU(1,11),VRATID,BKH) CALL INT4(VRF,BKFLU(1,11),VRATID,BKL) BK=BKH -1.5*(DRATID-0.33333)*(BKH -BKL) CALL INT4(VRF,BKFLU(1,11),VRATID,BKL) BK=BKH -1.5*(DRATID-0.33333)*(BKH -BKL) CALL INT4(VRF,BKFLU(1,11),VRATID,BKL) 1 f(VRATID.LT.0.10) VRATID=0.10 IF(VRATID.GT.1.10) VRATID=0.10 IF(VRATID.GT.1.10) VRATID=1.10 CALL INT4(VRELBD,BKELBU(1,11-3),VRATID,BK) 400 CONTINUE				00042400	
IF (DRATIQ.LT.1.0) G0 T0 260 70. CAL INT4(VRF, BKFLU(1,11), VRATIU, BK) 00042700 70. C0 T0 00042700 70. 00042700 70. C0 T0 G0 T0 00042700 70. 00042700 70. C0 T0 G0 T0 00042900 70. 00042900 70. CAL INT4(VRF, BKFHI(1,11), VRATIU, BKH) 00043000 70. 00043100 70. CALL INT4(VRF, BKFLU(1,11), VRATIU, BKL) 00043100 70. 70. 70. BK=BKH -1.5*(DRATIU-0.33333)*(BKH -BKL 00043100 70. 70. 70. G0 T0 400 CUNTINUE 00043300 70. 70. 70. 300 CUNTINUE SCONTINUE F(VRATIU.LI.0.10) VRATIU=0.10 70. 70. 70. 70. 300 CUNTINUE F(VRATIU.LI.1.0.10) VRATIU-B.1.0 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70.	IF(DRATIO.LT.1.0) G0 T0 260 CALL INT4(VRF,BKFLU(1,11),VRATIO,BK) G0 T0 400 260 CONTINUE CALL INT4(VRF,BKFLU(1,11),VRATIO,BKH) CALL INT4(VRF,BKFLU(1,11),VRATIO,BKL) BK=BKH -1.5*(DRATIO-0.33333)*(BKH -BKL) 60 T0 400 300 CONTINUE 300 CONTINUE 1F(VRATIO.LT.0.10) VRATIO=0.10 IF(VRATIO.LT.0.10) VRATIO=0.10 1F(VRATIO.LT.0.10) VRATIO=0.100 1F(VRATIO.LT.0.10) VRATIO=0.100 1F(VRA				00042500	70.29
CALL INT4(VRF,BKFLO(1,IT),VRATT0,BK) 00042700 70. G0 T0 400 00042800 70. CALL INT4(VRF,BKFHI(1,IT),VRATI0,BKH) 00042900 70. 260 CONTINUE 00043000 70. CALL INT4(VRF,BKFHI(1,IT),VRATI0,BKH) 00043000 70. 00043000 70. 00043100 70. 011 0004310,BKH) 00043100 70. 011 011 0004310 70. 00043100 70. 011 011 0004310 70. 00043200 70. 70. 011 011 0004310 10. 00043200 70. 70. 70. 011 010 00043201 10. 70. 70. 70. 70. 011 010 00043300 70. 70. 70. 70. 70. 011 110 710 710 70. 70. 70. 70. 70. 011 110. 710. 710. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. </td <td>CALL INT4(VRF, BKFLO(1,11), VRATTO, BK) GO TO 400 260 CONTINUE 260 CONTINUE CALL INT4(VRF, BKFHI(1,11), VRATIO, BKH) CALL INT4(VRF, BKFLO(1,11), VRATIO, BKL) BK=BKH - 1.5*(DRATIO-0.33333)*(BKH - BKL) 60 TO 400 300 CONTINUE 16(VRATTO.LT.0.10) VRATTO=0.10 16(VRATTO.LT.0.10) VRATTO=0.10 17(VRATTO.LT.0.10) VRATTO=0.10 16(VRATTO.LT.0.10) VRATTO=0.10 17(VRATTO.CT.0.10) VRATTO=0.10 16(VRATTO.LT.0.10) VRATTO=0.10 17(VRATTO.CT.0.10) VRATTO=0.10 16(VRATTO.LT.0.10) VRATTO=0.10 17(VRATTO.CT.0.10) VRATTO=0.10 17(VRATTO-0.10) VRATTO-</td> <td>G0 T0</td> <td></td> <td></td> <td>00042600</td> <td></td>	CALL INT4(VRF, BKFLO(1,11), VRATTO, BK) GO TO 400 260 CONTINUE 260 CONTINUE CALL INT4(VRF, BKFHI(1,11), VRATIO, BKH) CALL INT4(VRF, BKFLO(1,11), VRATIO, BKL) BK=BKH - 1.5*(DRATIO-0.33333)*(BKH - BKL) 60 TO 400 300 CONTINUE 16(VRATTO.LT.0.10) VRATTO=0.10 16(VRATTO.LT.0.10) VRATTO=0.10 17(VRATTO.LT.0.10) VRATTO=0.10 16(VRATTO.LT.0.10) VRATTO=0.10 17(VRATTO.CT.0.10) VRATTO=0.10 16(VRATTO.LT.0.10) VRATTO=0.10 17(VRATTO.CT.0.10) VRATTO=0.10 16(VRATTO.LT.0.10) VRATTO=0.10 17(VRATTO.CT.0.10) VRATTO=0.10 17(VRATTO-0.10) VRATTO-	G0 T0			00042600	
G0 T0 400 00042800 70. 260 CONTINUE 00042900 70. CALL INT4(VRF,BKFHI(1,IT),VRATI0,BKH) 00043000 70. 00043000 70. 00043100 70. CALL INT4(VRF,BKFL0(1,IT),VRATI0,BKL) 00043100 70. BK=BKH -1.5*(DRATI0-0.33333)*(BKH -BKL) 00043100 70. 000 00043100 70. 00043200 70. 000 00043100-0.33333)*(BKH -BKL) 00043100 70. 000 000 00043200 70. 00043200 70. 000 000 000 00043300 70. 00043300 70. 000 000 000 000 00043300 70. 00043300 70. 000 000 000 000 000 000 70. 00043400 70. 000 000 000 000 000 70. 00043400 70. 000 000 00 00 000 000 70. 00043500 70. 000 000 000 00 000	G0 T0 400 260 CONTINUE CALL INT4(VRF,BKFHI(1,IT),VRATIO,BKH) CALL INT4(VRF,BKFLO(1,IT),VRATIO,BKL) CALL INT4(VRF,BKFLO(1,IT),VRATIO,BKL) BK=BKH -1.5*(DRATIO-0.333333)*(BKH -BKL) 60 T0 400 300 CONTINUE 15 (VRATIO-1.0) VRATIO=0.10 16 (VRATIO.LT.0.10) VRATIO=0.10 17 (VRATIO.GT.1.10) VRATIO.GOVINUE 16 (VRATIO.GT.1.10) VRATIO.GOVINUE CALL INT4(VRELB0,BKELB0(1,1T-3),VRATIO.BK) 400 CONTINUE	(11.	1 , BK)		00042700	
260 CONTINUE 00042900 70. CALL INT4(VRF,BKFHI(1,IT),VRATIO,BKH) 00043000 70. CALL INT4(VRF,BKFLO(1,IT),VRATIO,BKL) 00043100 70. CALL INT4(VRF,BKFLO(1,IT),VRATIO,BKL) 00043100 70. BK=BKH -1.5*(DRATIO-0.33333)*(BKH -BKL) 00043100 70. GO TO 400 300 CONTINUE 00043300 70. 300 CONTINUE 1F(VRATIO.LT.0.10) VRATIO=0.10 00043400 70. 1F(VRATIO.LT.0.10) VRATIO=0.10 CALL INT4(VRELBO,BKELBO(1,IT-3),VRATIO,BK) 00043500 70. 400 CONTINUE CALL INT4(VRELBO,BKELBO(1,IT-3),VRATIO,BK) 00043500 70. 70.	260 CONTINUE 260 CONTINUE CALL INT4(VRF,BKFHI(1,IT),VRATIO,BKH) CALL INT4(VRF,BKFLO(1,IT),VRATIO,BKL) BK=BKH -1.5*(DRATIO-0.33333)*(BKH -BKL) BK=BKH -1.5*(DRATIO-0.33333)*(BKH -BKL) 60 T0 400 300 CONTINUE 300 CONTINUE IF(VRATIO.LT.0.10) VRATIO=0.10 IF(VRATIO.GT.1.10) VRATIO=0.10 IF(VRATIO.GT.1.10) VRATIO=0.10 1F(VRATIO.GT.1.10) VRATIO=1.10 CALL INT4(VRELBO,BKELBO(1,1T-3),VRATIO.BK) 400 CONTINUE				00042800	
CALL INT4(VRF,BKFHI(1,IT),VRATIO,BKH) 00043000 70. CALL INT4(VRF,BKFLO(1,IT),VRATIO,BKL) 00043100 70. BK=BKH -1.5*(DRATIO-0.33333)*(BKH -BKL) 00043200 70. BX=BKH -1.5*(DRATIO-0.33333)*(BKH -BKL) 00043200 70. CALL INT4(VRF,BKFLO(1,IT),VRATIO,BKL) 00043200 70. BK=BKH -1.5*(DRATIO-0.33333)*(BKH -BKL) 00043200 70. GO TO 400 33333)*(BKH -BKL) 00043200 70. 300 CONTINUE If (VRATIO.LT.0.10) VRATID=0.10 00043400 70. IF(VRATIO.LT.0.10) VRATID=0.10 Cold43600 70. 00043500 70. 1F(VRATIO.LT.0.10) VRATID=1.10 CALL INT4(VRELBO,BKELBO(1,1T-3),VRATIO,BK) 00043600 70. 400 CONTINUE 00043800 70. 00043800 70.	CALL INT4(VRF,BKFHI(1,IT),VRATIO,BKH) CALL INT4(VRF,BKFLO(1,IT),VRATIO,BKL) BK=BKH -1.5*(DRATIO-0.333333)*(BKH -BKL) GO TO 400 300 CONTINUE IF(VRATIO.LT.0.10) VRATIO=0.10 IF(VRATIO.GT.1.10) VRATIO=0.10 IF(VRATIO.GT.1.10) VRATIO=1.10 CALL INT4(VRELBO,BKELBO(1,IT-3),VRATIO.BK) 400 CONTINUE				00042900	
CALL INT4(VRF, BKFL0(1,1T), VRATI0, BKL) 00043100 70. BK=BKH -1.5*(DRATI0-0.33333)*(BKH -BKL) 00043200 70. GO TO 400 00043300 70. 300 CONTINUE 00043400 70. IF(VRATI0.LT.0.10) VRATI0=0.10 00043500 70. 1F(VRATI0.LT.0.10) VRATI0=0.10 00043500 70. 00043500 70. 00043500 70. 1F(VRATI0.LT.0.10) VRATI0=1.10 00043500 70. 00043500 70. 00043500 70. 00043500 70. 00043500 70. 000410.LT.10) VRATI0=1.10 00043500 70. 00043500 70. 00043500 70. 00043500 70. 00043500 70. 0004310.0 0.0043700 70. 00043500 70. 400 CONTINUE 00043800 70. 00043800 70.	CALL INT4(VRF,BKFL0(1,1T);VRATI0,BKL) BK=BKH -1.5*(DRATIO-0.333333)*(BKH -BKL) GO TO 400 300 CONTINUE IF(VRATI0.LT.0.10) VRATID=0.10 IF(VRATI0.GT.1.10) VRATID=0.10 CALL INT4(VRELB0,BKELBO(1,1T-3),VRATI0.BK) 400 CONTINUE	L, IT), VRAT	, BKH)		00043000	70.29!
BK=BKH -1.5*(DRATIG-0.33333)*(BKH -BKL) 00043200 70. GO TO 400 GO TO 400 00043300 70. 300 CUNTINUE 00043500 70. 00043500 70. IF(VRATI0.LT.0.10) VRATI0=0.10 VRATI0=0.10 00043500 70. IF(VRATI0.LT.0.10) VRATI0=1.10 00043500 70. 00043500 70. IF(VRATI0.GT.1.10) VRATI0=1.10 VRATI0.F 00043500 70. A00 CONTINUE 0004360(1,17-3),VRATI0.BK) 00043700 70. A00 CONTINUE 00043800(1,17-3),VRATI0.BK) 00043700 70.	BK=BKH -1.5*(DRATIO-0.33333)*(BKH -BKL) GO TO 400 300 CUNTINUE IF(VRATIU.LT.0.10) VRATIO=0.10 IF(VRATIU.LT.0.10) VRATIO=0.10 CALL INT4(VRELBO,BKELBO(1,1T-3),VRATIO,BK) 400 CONTINUE	1 * I T)			00043100	70.295
G0 T0 400 00043300 70. 300 C0NTINUE 00043400 70. IF(VRATI0.LT.0.10) VRATI0=0.10 00043500 70. IF(VRATI0.LT.0.10) VRATI0=1.10 00043500 70. IF(VRATI0.LT.0.10) VRATI0=1.10 00043500 70. IF(VRATI0.LT.0.10) VRATI0=1.10 00043500 70. IF(VRATI0.LT.0.10) VRATI0=1.10 00043500 70. 00043500 00043500 70. 00043500 70. 400 CONTINUE 00043800 70. 00043800 70.	GO TO 400 300 CONTINUE IF(VRATID.LT.0.10) VRATID=0.10 IF(VRATID.GT.1.10) VRATID=1.10 CALL INT4(VRELBO,BKELBO(1,1T-3),VRATID,BK) 400 CONTINUE	. 3333333)*	ł		00043200	70.29
300 CONTINUE 00043400 70. IF (VRATIU.LT.0.10) VRATID=0.10 00043500 70. IF (VRATID.GT.1.10) VRATID=1.10 00043500 70. CALL INT4(VRELB0,BKELB0(1,1T-3),VRATID,BK) 00043700 70. 400 CONTINUE 00043800 70.	300 CONTINUE IF(VRATIU.LT.0.10) VRATID=0.10 IF(VRATID.GT.1.10) VRATID=1.10 CALL INT4(VRELB0,BKELB0(1,IT-3),VRATID,BK) 400 CONTINUE				00043300	
IF (VRATIO.LT.0.10) VRATIO=0.10 IF (VRATIO.GT.1.10) VRATIO=1.10 CALL INT4 (VRELBO, BKELBO(1,1T-3), VRATIO, BK) 400 CONTINUE 20043800 70	IF(VRATID.LT.0.10) VRATID=0.10 IF(VRATID.GT.1.10) VRATID=1.10 CALL INT4(VRELBD,BKELBD(1,11-3),VRATID,BK) 400 CONTINUE				00043400	
IF(VRATID.GT.1.10) VRATID=1.10 CALL INT4(VRELBD,BKELBD(1,1T-3),VRATID,BK) 400 CONTINUE 00043800 70.2	IF(VRATID.GT.1.10) VRATID=1.10 CALL INT4(VRELBD,BKELBD(1,11-3),VRATID,BK) 400 CONTINUE	VRATIO=0			00043500	
CALL INT4(VRELB0,BKELB0(1,IT-3),VRATI0,BK) 400 CONTINUE 00043800 70.2	CALL INT4(VRELB0,BKELB0(1,IT-3),VRATI0,BK) 400 CONTINUE	VRATI0=1.10			00043600	N
400 CONTINUE 00043800 70.2	400 CONTINUE	1,11-3)	VRATIO, BK)		00043700	2
					00043800	0.2

	OLU VOL=SE	VUL=SER=004/83	UKL UPUAIE		NEW VUL=SEK=00/208	08	
LD SEQ	MESSAGE	FILENAME=MUFAN		DECKNAME= MUFAN			YY*DDI
	ADDED	BRLOSS=RHO(MEM) *(69	**2+VBRAN**2)/	K-1.0)*VMAIN**2+VBRAN**2)/(9273.6*QBRAN)	00043900	70.29
	ADDED	IF (BRLOSS.LT.0.0)		والمحافظ المحافظ المحافظ والمحافظ		00044000	70.29
	ADDED	RETURN				00044100	70.29
	ADDED					00044200	70.29
	ADDED	2	•			00044300	
	ADDED		1 01			00044400	70.29
an a	ADDED					00044500	70.29
	ADDED	READ(5,1000) I	ID			00044600	70.29
	ADDED	1000 FURMAT(A4)				00044700	70.29
	ADDED	IF(ID.NE.IEND)	GO TO 100			00044800	70.29
	ADDED	RETURN				00677000	
	ADDED	END				00045000	70.29
	AUDED	SUBROUTINE INPU				00045100	70.29
	AUDED					00045200	70.29
	ADDED	COMMON /MUFCOM	1			00045300	70. 29
A	ADDED	I A(3),	COERR,	CONSTS(3, 600)	0), GC,	00045400	70.29
-	ADDED	2 IBCUN(600),	1BRAN(850),	IFLUID,		00045500	70.29
. /	ADDED	3 ITEMP,	IT YPE(600),	JBRPT(600),	LABEL(20,3),	00045600	70.29
2	ADDED	4 LEVEL,	MBRAN(850),	NBCON(250),	NBRAN,	00045700	70.29
ļ	ADDED		NNMAX.	NPTS(150),	PBRPT(250),	00045800	70.29
	ADDED	6 QBR(150),	QEKR,	RHD(600),	TBULK(500),	00045900	70. 29
	ADDED	7 TOLERR,	VISC (600),	XD0TA(500)	•	00046000	70.29
	ADDED	COMMON / MUFCOM	/ INDUT (100)	, NINOUT,	NDUMBP, LOOP		70.29
	ADDED	COMMON /LICOM/				00046200	70.29
	ADUED	1 ALPHA (600) .	INUDE(1200),	JN00E(1200)		00046300	70.29
	ADDED	Z NMEM,	NPLANE(600),	P(500),	PHI (600) ,	00049400	70.295
	ADDED		RADLEN(600),	XYZ(500,3),	I END(150,2);	00046500	70.29
	ADDED	NEND				00046600	70. 29!
	ADDED	COMMON /INCOM/				00046700	70.295
	ADDED	1 DOUT(600),	DOKCVL (600),	D2(600),	EPSLON(600) +	00046800	70.29
	ADDED	THIC				00046900	70.29
	ADDED	COMMON /PQCHAR				00047000	70.29
	ADDED)), PCMAX (50),		QCHAR (11+50),	00047100	70.29
	ADDED	MA				00047200	70.29
	ADDED	COMMON /PQCHAR		• 105	2	00047300	70.29
	ADDED	COMMON /FARB/		C(10),	FTEMP(10)	00041400	70.295
	ADDED	COMMON /PUNT/	MMEM, MNUDES, DATE			00047500	70.29
	ADDED	/INN				00047600	70.29
	ADDED		51 *	NT(12) • D	DATA(10)	00047700	Š,
	ADDED	DIMENSION C	CARD(20)			00047800	70.295

		VOI - CEB-DOK 783	DRC HPDATF	NFW V01 = SFR = 007 208		
, and the second se			5			
LD SEQ	MESSAGE	F ILENAME=MUFAN	DEC	DECKNAME=MUFAN		<u>γγ.DDI</u>
	ADDED	VALENCE	IT, IOPT(L)),	,10PT(2))	00047900	70.29
	ADDED	UALA ICARU/ZHCP	2HUU	J; ZHFI; ZHFV; ZHI ; ZHL ; ZHM ;	00048000	10. 29
	ADDED		ZHP , ZHI /		00048100	N (
	ADDED	DATA IPUMP/4HPUMP/	UMP/, ICUMP/4HCUMP/		00048200	10.29
	ADDED	NENDS(1)=1			00048300	8
	ADDED	IEND(1,1)=1			00048400	70.29
	ADDED	NCARD=1			00048500	
	ADDED	NLABEL=0			00048600	70.29
	ADDED				00048700	
	ADDED	5 CUNTINUE			00048800	
	ADED	.3			00048900	70.29
	ADDED	WRITE(6,800)	TIME		00049000	70.29
	ADDED	800 FORMAT(IH1///II	1H0,39(1H*),28H MUFAN	N CARD INPUT LISTING	00049100	70.29
	ADDED		6H TI	, A4////	00049200	70.29
	ADUED		NS/7X,4HSEQ	10X,9(1H0),10(1H1)	00049300	70.29
A	ADDED	3 10(1H3), 10(1H4), 10(1H5),1),10(1H7	000464000	70. 29
-	ADDED	4 10X, 8(10H12345	0H1234567890177)		00049500	70.29
1	ADDED	6 CONTINUE			00049600	70.29
3	ADDED	IF (NCARD.GE.2)	6,7001 NCARD	, ID, (CARD(I), I=1,20)	00049700	70.29
	ADDED	700 FURMAT(7X,14,10X,A2,1	JX,A2,19A4,A2)		00049800	70.29
	ADDED	NCARD=NCARD+1			00049900	70.29
	ADDED	READ(5,900) ID.	ID, (CARD(I), I=1,20)		0005000	70.29
	AUDED	900 FURMAT(A2,19A4,A2)	, A2)		00020100	70.29
	ADDED	00 8 I = 1, 12			00050200	70.29!
	ADDED	IF (ICARD(1) . EQ. ID)	G0 T0(10,10	<u>*30,40,50,60,70,80,90,100,110,120)</u>	100050300	70.29
	ADDED	8 CONTINUE			00050400	70.29
	ADDED	WRITE(6,999)			00050500	70.29:
	ADDED	999 FURMAT(1H0/1H	100(1H*)/1H0,	HE ABOVE CARD HAS AN		70.29
	ADDED	54H CAR	TYPE SYMB	ING IN COLUMN I - CASE BYPASSED,		70.295
	ADDED	9X,4H	- S		00050800	70.29
	ADDEU	CALL SKIP			00050900	70. 295
	AUDED	LEVEL=10			00021000	- al
	ADDED	RETURN			00051100	
	ADDED	10 CUNTINUE			00051200	
	ADDED	c	CNENT PRES		00021300	~
	ADDED	READ(99,1000)	<pre> (DATA(K),K) </pre>	=1,10)	00051400	ا م
	ADDED	-	13,10F7.0)		5	2
	ADDED	DATA(11)=0.0			00051600	2
	ADDED	IBASE=0			00051700	
	ADDED	SGN=1.0			00051800	70.29!
						• * *

VQL =SER=00.4163 DRC. UPDATE DEC. UPDATE DEC. NUME VQL =SER=00.703 VQL =SER=0.703 VQ							е
SEQ FLLENME=MUFAN DECKMAME=MUFAN N ADDE IFLKINN-E4-IPUMP (G TO 11 IFLKINN-E4-IPUMP) (G TO 11 ADDE DECKMAME=MUFAN N ADDE IFFLKINN-E4-IPUMP (G TO 11 ADDE JAN DO033300 TO ADDE IFFLKINN-E4-IPUMP (G TO 11 ADDE JAN DO033300 TO ADDE 1999 FURMET(11797)//////////////////////////////////		OLD VOL=S	SER=004783	DRC UPDATE	1EW VOL = SER=007208		
IF(KIN0-Eq.IPUMP) G0 T0 11 00051900 70: IF(KIN0-Eq.ICPMP) G0 T0 11 00052100 70: 1999 FGMATICALLY/////LWF# THE .14.2.1HH DATA CARD FGM THIS. 00052200 70: 1999 FGMATICALLY/////LWF# 00052200 70: 1999 FGMATICALLY////LWF# 00052200 70: 1999 FGMATICALLY////LWF# 00052200 70: 1999 FGMATICALLY////LWF# 00052200 70: 1000 FGMA 00052200 70: 110 CONTINUE 00052200 70: 111 CONTINUE 00053200 70: 112 CONTINUE 00053200 70: 111 CONTINUE 00053200 70: 112 CONTINUE 00053200 70: 111 CONTINUE 00053200 70: 112 CONTINUE 00053200 70: 113 CONTINUE 00053200 70: 114 CONTINUE 00053200 70: 115 CONTINUE 00053300 70: 122 ARAMEIAA 0005300 70: 122 CONTINUE 0005300 70: 122 CONTINUE	SE	MESSAGE	F IL ENAME = MUFAN	DECKNAME=MUFAN			ΥΥ -DDf
IF(KIN0.EG. FUMP) GU T0 11 OD05500 T0 199 FGRANT(HIV////////AT/NEWE TE, 14, 21HTH DATA CARD FUR THIS, 0005200 70052100 70052100 70052100 70052200 70052020 70052020							
If fillion: If fillion: If fillion: 00052000 70. 1999 FGRMATI(HIV///////////////////////////////////	A construction of the second	ADDED	IF(KIND.EQ.IPUMP	60 10		00051900	
1999 FRMAT(H1//////IX) THE 1.4.:2.HHT 0.0055200 70. 2 2.12H BYPASSED 7.4. 00055200 70. 2 1.2H BYPASSED 7.4. 00055200 70. 1 1.2H BYPASSED 7.4. 00055200 70. 1 ERRNF=1002 00055500 70. 00055500 70. 11 CONTINUE 00055500 70. 00055300 70. 11 CONTINUE 00055300 70. 70. 70. 70. 12 CONTINUE 14. Jat 14. 260 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. <td></td> <td>ADDED</td> <td>IF(KIND.EQ.ICOMP</td> <td>10</td> <td></td> <td>00052000</td> <td>70.29</td>		ADDED	IF(KIND.EQ.ICOMP	10		00052000	70.29
1999 FGRMT (HIL////////////////////////////////////		ADDEU	[QNIX		00052100	70.29
1 36H CASE HAS AN ILLEGAL COMPONENT TYPE; A4, 6H -CASE, 00052500 70. 2 12 BYPASSED **) 1 CONTANC 60055500 70. FETURA 00055500 70. 11 CONTANC 500-10. 00055300 70. 500-10. 00055300 70. 500-10. 00055300 70. 500-10. 00055300 70. 500-10. 00055300 70. 500-10. 00055300 70. 500-11. 00055300 70. 11 CONTAUC 00055300 70. 00055300 70. 12 CUNTAUC 00055300 70. 00055300 70. 12 CUNTAUC 00055300 70. 00055300 70. 11 ZAM LILEGAL PUNP UR CUMP NU. 14,15H -CASE BYPASSED. 00055300 70. 12 ZAM LILEGAL PUNP UR CUMP NU. 14,15H -CASE BYPASSED. 00055300 70. 13 XAX XAX 00055300 70. 14 CUNTAUC 200055400 70. 14 CUNTAUC 00055400 70. 14 CUNTAUC 00055400 70.<		ADDED		IX,7H** THE ,14,21HTH	CARD FOR THIS	00052200	70.29
2 ZENURL: DOZ 00052500 70. 1 CONTUNE 0005300 70. 1 CONTUNE 0005300 70. 299 FORMENTINE//////////////////////////////////		ADDED	36H CASE	AN ILLEGAL COMPONENT	, A4, 6H -CASE	00052300	70.29
IERKUR*1002 00052500 70. ICURNINE 00052500 70. ISAN=1.1.0 00052500 70. ISAN=1.1.0 00052500 70. ISAN=1.1.0 00052500 70. ISAN=4.1 00052500 70. ISAN=4.1 00052500 70. ISAN=4.1 00055100 70. INDEXTIBUE 00055200 70. INDEXTIBUE 00055200 70. INDEXTIBUE 00055200 70. INDEXTIBUE 00055300 70. INDEXTIBUE 0005500 70. INDEXTIBUE 0005500 70. INDEXTIBUE 0005500 70. INDEXTIBUE 0005500 70. 2999 FORMATIAL 14.14.14.14.10. 70. I 371 HAS 14.14.14.14.14.14.14.14.14.14.14.14.14.1		ADDED	12H			00052400	70.29
RETURN 00052500 70. 12 CONTINUE 00052900 70. 12 CONTINUE 00052900 70. 12 CONTINUE 00053200 70. 12 CONTANUE 00053200 70. 12 CONTANUE 00053200 70. 13 TOL 14. 20. 00053500 70. 13 TATULLEGAL PUMP DIX COMP NU.:14.15H -CASE BYPASSED 00053500 70. 13 TRENDRE HORZ TLLEGAL PUMP DIX COMP NU.:14.15H -CASE BYPASSED 00053500 70. 14 CUNTINE TLLEGAL PUMP DIX COMP NU.:14.15H -CASE BYPASSED 00053400 70. 15 CUNTINE TLLEGAL PUMP DIX COMP NU.:14.17.14.14.11.14.14.11.14.14.11.14.14.11.14.14		ADDED	I ERRUR=1002			00052500	70.29
11 CONTINUE 00052700 70. 12 CONTINUE 00053200 70. 12 UNERSE-41 00053200 70. 12 UNERSE-15.50.AND.INDEX.GT.01 GU T0.14 00053100 70. 15 INUERSE-16.50.AND.INDEX.GT.01 GU T0.14 00053100 70. 1 INDEX.LE.50.AND.INDEX.GT.01 GU T0.14 00053100 70. 1 32H HAS AN TLLEGAL PUMP UK CUMP NG14,15H -CASE BVPASSED.00053400 70. 2 3H **) 1LLEGAL PUMP UK CUMP NG14,15H -CASE BVPASSED.00053400 70. 2 3H **) 1LLEGAL PUMP UK CUMP NG14,15H -CASE BVPASSED.00053400 70. 14 CONTUNE 00053300 70. 00053300 70. 14 CONTUNE CAX=5GN*CMAX 00053300 70. 00053300 70. 14 CONTUNE CAX=5GN*CMAX 00053400 70. 00053400 70. 14 CONTUNE CAX=10NL CAX=5GN*CMAX 00053400 70. 00053400 70. 15 CONTUNE CANTAMALLISSN*CAAX 00 00054400 70. 70. 70. 70.		ADDED	RETURN			00052600	70.29
56N=1.0 00052800 70. 12 CUNTINUE 00053100 70. 12 CUNTINUE 00053300 70. 14 (INUEX-LE-50. AND. INDEX.GT.01 GU 14 00053300 70. 15 (INUEX-LE-50. AND. INDEX.GT.01 GU 14 00053300 70. 16 (INUEX-LE-50. AND. INDEX.GT.01 GU 14 00053300 70. 2999 FURMATINIL///////////////////////////////////		AUDED				00052700	70.29
12 CGNTINUE 00055200 70. 14 CGNTINUE 00053100 70. 15 INDEX-LE-50.AND.INDEX.6T.01 GU 10 16 (100EX-LE-50.AND.INDEX.6T.01) GU 14 00053300 70. 16 INDEX-LE-50.AND.INDEX.6T.01 GU 10 17 (100EX-LE-50.AND.INDEX.6T.01) GU 14 00053300 70. 17 INDEX-LE-50.AND.INDEX.6T.01 GU 10 2999 FURMATI1H//////1X,7H** THE ,14, 26HTH DATA CARD FOR THIS CASE,00053400 70. 18 TEROR=1002 314 #45 AN ILLEGAL PUMP UK CUMP NU14,15H -CASE BYPASSED.00053400 70. 1 STROR=1002 10 **** 1 11 ***** 10053500 70. 1 ERROR=1002 31 ****** 10 ****** 00053500 70. 1 ERROR=1002 00053500 70. 00053500 70. 1 ERROR=1002 00053500 70. 00053400 70. 1 ERROR=1002 00053400 70. 00053400 70. 1 RENDAR 0001 L10 00053400 70. 00054400 70. 1 RAZ-BANATINE 0001 L10 0001 L10 00054400 70. 00054400 70. 1 LINUME 0001 L10 0001 L10 0001 L10 000054400 70. 70		ADDED	SGN=-1.0			00052800	70.29
12 CONTINUE 00053100 70. 14 INDEX=1BASE+NU 00053300 70. 1 INDEX=1EASE+NU 00053300 70. 1 INDEX=1EASE+NU 00053300 70. 1 NUEX 00053300 70. 2999 FRINILL/////1X,NU 00053300 70. 2909 FRINEALLE-SO.AND.INDEX.GT.0) 60 70. 00053300 70. 2999 FRINEALLOZ 31 **<)		ADDED				00052900	70.29
INDEX = IBASE+NU 00053100 70. IF (INDEX.LE.50.AND.INDEX.GT.0) GU T0 14 00053300 70. 2999 FORMATILH////////////////////////////////////		ADDED	2			00053000	70.29
IF (INDEX-LE-50, AND, INDEX, GT.01 GU TQ 14 00053200 70. WITE (ER.2999) NCARD, NO 2 3H HAS AN ILLEGAL PUMP UK CUMP NU., 14, 15H -CASE BYPASSED, 00053400 70. 2 3H **) 00053400 70. 2 HAS AN ILLEGAL PUMP UK CUMP NU., 14, 15H -CASE BYPASSED, 00053400 70. 1 ERROR=1002 70. 8 ETURN 10 00053400 70. 1 ERROR=1002 70. 1 ERROR=1002 70. 1 ERROR=1002 70. 1 ERROR=1002 70. 1 ERROR=1002 70. 1 ERROR=1002 70. 1 ETURN 10 0005400 70. 1 ETURN 10 10 10 10. 1 ETURN 10 10. 1 ETURN 10 10. 1 E CONTINUE 70. 1 E CONTINUE		ADDED	INDEX=IBASE+NO			00053100	70.29
WILTE(6,299) NCARD.NO 70. 2999 FURMATILIN//////IX.TH** THE ,14, 26HTH DATA CARD FOR THIS CASE,00053400 70. 70. 2 314 HAS AN ILLEGAL PUMP DK CUMP NU1(4,15H -CASE BYPASSED, 00053400 70. 70. 2 314 HAS AN ILLEGAL PUMP DK CUMP NU1(4,15H -CASE BYPASSED, 00053400 70. 70. 1 32H HAS AN ILLEGAL PUMP DK CUMP NU1(4,15H -CASE BYPASSED, 00053400 70. 70. 1 EETURN 00053400 70. 70. 1 CUNTINUE 00053400 70. 70. 1 CUNTINUE 00054200 70. 70. 1 CUNTINUE 16.011 70. 70. 1 CUNTINUE 16.012 70. 70. 1 CUNTINUE 17. 70. 70. 1 CUNTINUE 17. 70. 70. 1 CUNTINUE 70.		AUDED	IF (INDEX.LE.50.A)	NDEX.GT.0) GO TO		00053200	70.29
2999 FORMAT(iHL/////IX,7H** THE ,14, 26HTH DATA CARD FOR THIS CASE,00053500 70. 1 32H HAS AN ILLEGAL PUMP UR CUMP NU.,14,15H -CASE BYPASSED, 00053500 70. 2 3H **) 1 32H HAS AN ILLEGAL PUMP UR CUMP NU.,14,15H -CASE BYPASSED, 00053900 70. 1 RETURN 00053700 70. 14 CUNTINUE 14 CUNTINUE 00054000 70. 14 CUNTINUE 02 20 J=1,10 03 20 J=1,10 03 20 J=1,10 03 20 J=1,10 040 20 16. 15 CONTINUE 16 CONTINUE 17 CONTINUE 17 CONTINUE 17 CONTINUE 0404 ALJ, FLACALALAJ). 17 CONTINUE 01005400 17 CONTINUE 010120 17 CONTINUE 01005400 18 GOTTOUE 000105500 000105500 000055400 0001010		ADDED	WRITE(6,2999) NC	NO		00053300	70.29
1 32H HAS AN ILLEGAL PUMP UR CUMP NU., 14, 15H -CASE BYPASSED, 00053500 70. 2 3H **) 00053500 70. 1 FERGRE1002 00053500 70. 1 FERGRE1002 00053300 70. 1 FERTURN 00053300 70. 1 FERTURN 00053300 70. 1 FERTURN 00053300 70. 1 CUNTINUE 00053400 70. 0 0.0054201 CMAX=SGN*CMAX 00054200 70. 0 0.0054201 CMAX=SGN*CMAX 00054200 70. 0.00054201 CMAX=SGN*CMAX 0.0054400 70. 0.00054400 CMAX 0.0054400 70. 0.0005400 CMAX=SGN*CMAX 0.0054400 70. 0.0005400 CMAX 0.0054400 70. 0.00054400 CMAX 0	F	ADDED		X,7H** THE ,14, 26HTH	CARD FOR THIS CASE,	00053400	70.29
Z 3H ** J 00053600 70. IERRNE1002 00053800 70. IERNA 00053900 70. IERNA 00053900 70. IFULE 00053900 70. IFULE 0005400 70. IFULE 0005400 70. IFULE 00054101 70. DO 00054400 70. DO 00054400 70. DO 00054400 70. I CUNTNUE 00054400 70. I CUNTINUE 00054400 70. I CUNTINUE 70. 70. <	4	ADDED	-	LEGAL PUMP OR COMP NO.	15H -CASE BYPASSED.	00053500	10. 29
IERRGR=1002 10053700 70. RETURN 00053800 70. If(I.EQ.I) CMATNUS 00054000 70. IF(I.EQ.I) CMAX=SGN*CMAX 00054100 70. 000<20 0.110 00054100 70. 000<20 0.015181,1 00054200 70. 000<20 0.015181,1 00054200 70. 000<20 0.015181,1 00054200 70. 000<20 0.0054201 70. 00054200 70. 000<20 0.1010 0.0054200 70. 00054500 70. 15 CONTINUE EATA(J).CMAX) 0.0054500 70. 00054500 70. 16 CONTINUE EATA(J).CMAX) 0.0054500 70. 00054500 70. 16 CONTINUE EATA(J).CMAX) 0.0054500 70. 00054400 70. 17 CMAX=MAXIISGN*CATA(J).CMAX) 0.0054400 70. 00054400 70. 18 CONTINUE EATA(J).CMAX) 0.0055400 70. 00055400 70. 18 CONTINUE	- /	ADDED	C ** HE			00053600	70. 29
RETURN 00053900 70. 14 CUNTINUE 00054000 70. CMAX=DATA(1) 00054100 70. 00 20 J=1.10 00054200 70. 00 20 J=1.10 00054200 70. 00 20 J=1.10 00054200 70. 01 20 J=1.10 00054200 70. 01 20 J=1.10 00054200 70. 00 20 J=1.10 00054200 70. 16 CONTINUE 00054200 70. 17 CONTINUE 00054300 70. 17 CONTINUE 00054400 70. 17 CONTINUE 00054400 70. 017 CONTINUE 00054400 70. 17 CONTINUE 00054400 70. 017 CONTINUE 00054400 70. 17 CONTINUE 00054400 70. 17 CONTINUE 00054400 70. 17 CONTINUE 00054400 70. 18 CONTINUE 00054800 70. 18 CONTINUE 00055200 70. 20 CONTINUE 00055200 70. 20 CONTINUE 000055500 7	4	ADDED				00053700	70.29
14 CUNTINUE 00054500 70. CMAX=DATA(1) CMAX=DATA(1) 00054400 70. 00054100 70. 00054200 70. 00054100 70. 00054200 70. 00054200 70. 00054200 70. 00054200 70. 00054400 70. 00054500 70. 00054500 70. 16 CONTINUE F(DATA(1).EQ.0.0AND.J.GT.1) 60 70. 17 CONTINUE FCHAR(J.1.NDE.X)=DATA(J) 00054400 70. 18 CONTINUE FCHAR(J.1.NDE.X)=DATA(J) 00055200 70. 18 CONTINUE GC TO CONTINUE 00055200 70. 19 CONTINUE CONTINUE 00055200 70. 10 CONTINUE CONTINUE 00055200 70. 10 CONTINUE CONTINUE <td< td=""><td>ţ</td><td>ADDED</td><td>RETURN</td><td></td><td></td><td>00053800</td><td>70. 29</td></td<>	ţ	ADDED	RETURN			00053800	70. 29
Territion 00054000 70. IF(I.EQ.I) CMAX=SGN*CMAX 00054100 70. IF(I.EQ.I) CMAX=SGN*CMAX 00054200 70. IF(I.EQ.I) CMAX=SGN*CMAX 00054200 70. Ic CONTINUE 00054400 70. 00054400 70. If (IchaTa(J).EQ.0.0.AND.J.GT.I) GU I7 00054400 70. Ic CONTINUE 00054400 70. 00054400 70. If CONTINUE Icon5400 70. 00054400 70. If CONTINUE Icon5410, index)=DaTa(J), cmax) 00054400 70. If CONTINUE Icon5400 70. 00054400 70. If CONTINUE If CONTINUE If CONTINUE 00055200 70. If CONTINUE If CONTINUE If CO		ADDED				00053000	70.20
IF (Increase) CMAX=SGN*CMAX 00054100 70. D0 20 J=1,10 00054200 70. 00 20 J=1,10 00054200 70. 00 20 J=1,10 00054200 70. 00 20 J=1,10 00054200 70. 00054200 70. 00054400 70. 00054500 70. 00054500 70. 15 (D0TINUE 00054500 70. 00054500 70. 17 (D0TINUE 00054500 70. 00054500 70. 17 (DNTINUE 00054500 70. 00054500 70. 17 (DNTINUE 00054500 70. 00054500 70. 18 (DNTINUE 00054101) 70. 00055200 70. 18 (DNTINUE 00055200 70. 00055200 70. 00054101 70. 00055200 70. 70. 00054101 70. 00055200 70. 70. 0005401 70. 70. 70. 70. 70. 00055201 70. 70. 70. 70. 70. 70.		AUUCU					70 20
If I.I.L.EW.I.I. CMAA-SGW*CHAA 00054200 70. DO 20 J=1,10 00054300 70. GO TO [16,18],1 00054400 70. IF (DATA(J).EQ.O.O.AND.J.GT.I) GU TU IT 00054400 70. IF (DATA(J).EQ.O.O.AND.J.GT.I) GU TU T 00054400 70. CMAX=AMAXI(SGN*EATA(J), CMAX) 00054400 70. PCHAR(J, INDEX)=DATA(J) 00054400 70. QCMAX(INDEX)=DATA(J) 00054800 70. QCMAX(INDEX)=DATA(J) 00055200 70. QCMAX(INDEX)=DATA(J) 00055200 70. QCMAX(INDEX)=AMAXI(DATA(J), CMAX) 00055200 70. QCMAX(INDEX)=DATA(J) 00055200 70. QCMAX(INDEX)=DATA(J) 00055200 70. QCMAX(INDEX)=DATA(J) 00055200 70. QCMAX(INDEX)=DATA(J) 00055200 70. QCONTINUE 24 CONTINUE 000555		AUDED	- [- E P N & P M & V		00011000	10.67
D0 20 J=1,10 00054200 70. 16 CUNTINUE 00054400 70. 16 CUNTINUE 00054400 70. 17 CUNTINUE 00054400 70. 17 CUNTINUE 00054400 70. 17 CUNTINUE 00054400 70. 17 CUNTINUE 00054400 70. 00054400 70. 00054400 70. 17 CUNTINUE 00054400 70. 00054400 70. 00054400 70. 17 CUNTINUE 00054400 70. 00054800 70. 17 CUNTINUE 0005480 70. 00054800 70. 01 CONTINUE 0005400 70. 00054800 70. 01 CONTINUE 00055200 70. 70. 70. 00011012 001110 11. 70. 70. 70. 00011124.261.1 1 70		AUDED	1. r(v. l)	= SGN*CMAX		00044000	10. 29'
G0 T0 (16,18),1 00054300 70. 16 CONTINUE 00054400 70. 00054600 70. 00054600 70. 00054600 70. 00054600 70. 17 CONTINUE 00054700 70. 17 CONTINUE 00054600 70. 17 CONTINUE 00054700 70. 17 CONTINUE 00054700 70. 17 CONTINUE 00054700 70. 17 CONTINUE 00054700 70. 00054600 70. 00054800 70. 18 CONTINUE 00054800 70. 00055400 70. 018 CONTINUE 00055100 70. 00055200 70. 018 CONTINUE 00055100 70. 00055200 70. 0204011NUE 00055200 70. 00055200 70. 02055201 70. 00055200 70. 00055500 70. 02044101 70. 00055200 70. 00055500 70. 0001101 20 0011100 20 00055500 70. 20 00055500		ADDED	20			00054200	70.29
16 CONTINUE 00054400 70. 17 CMAX=AMAXI(SGN*EATA(J),EQ.0.0.AND.J.GT.1) GU 17 00054500 70. 17 CDNTINUE 00054400 70. 00054400 70. 17 CDNTINUE 00054400 70. 00054400 70. 17 CDNTINUE 00054400 70. 00054400 70. 18 CONTINUE 00054900 70. 00054900 70. 18 CONTINUE 00054900 70. 00055500 70. 18 CONTINUE 00055500 70. 70. 70. 70. 18 CONTINUE 00055500 70.		ADDED	10			00054300	70.29
IF(DATA(J).EQ.0.0.AND.J.GT.1) G0 10 17 00054500 70. CMAX=AMAXI(SGN*CDATA(J),CMAX) CMAX=AMAXI(SGN*CDATA(J),CMAX) 00054600 70. IT CUNTINUE 00054700 70. PCHAR(J,INDEX)=DATA(J) 00054700 70. 00054800 70. 00054900 70. 00054800 70. 00054900 70. 01 20 00054900 70. 02 10 20 00055400 70. 03 70. 00055100 70. 70. 04 70. 00055200 70. 70. 05 70. 70. 00055700 70. 05 70. 70. 70. 70. 05 70. 70. 70. 70. 70 70. 70. 70. 70. 70 70. 70. 70. 70. 70 70. 70. 70. 70. 70 70. 70. 70. 70. 70 70. 70. 7		ADDED				00054400	70.29
CMAX=AMAXI(SGN*LATA(J),CMAX) 00054700 70. I7 CUNTINUE 00054700 70. PCHAR(J,INDEX)=CATA(J) 00054900 70. 60 T0 20 18 CONTINUE 00055000 70. 18 CONTINUE 00055100 70. 00055200 70. 07 AAX(IJ,INDEX)=DATA(J) 07055100 70. 00055200 70. 07 AAX(INDEX)=AMAXI(DATA(J),CMAX) 07055200 70. 70. 70. 07 AAX(INDEX)=AMAXI(DATA(J),CMAX) 07055200 70. 70. 70. 70. 07 AAX(INDEX)=AMAXI(DATA(J),CMAX) 07055200 70.		ADDED		D.J.GT.1) 60		00054500	70.29
17 CDNTINUE 00054700 70. PCHAR(J, INDEX)= DATA(J) 00054900 70. 60 T0 20 10 00055000 70. 18 CONTINUE 00055100 70. QCHAR(J, INDEX)=DATA(J) 00055100 70. QCAX(INDEX)=AMAXI(DATA(J),CMAX) 00055100 70. QCMAX(INDEX)=AMAXI(DATA(J),CMAX) 00055200 70. QCMX(INDEX)=AMAXI(DATA(J),CMAX) 00055200 70. QCMX(INDEX)=AMAXI(DATA(J),CMAX) 00055200 70. QCMX(INDEX)=AMAXI(DATA(J),CMAX) 00055200 70. 20 C0NTINUE 20 C0NTINUE 00055500 70. 24 C0NTINUE 24 C0NTINUE 00055500 70. PCMIN(INDEX)=DATA(I) 00055500 70. PCMAX(INDEX)=DATA(I) 00055500 70. PCMAX(INDEX)=DATA(I) 00055500 70. PCMAX(INDEX)=DATA(I) 00055500 70. PCMAX(INDEX)=SGN*CMAX 00055500 70.		AUDED	CMAX=AMAX1{SGN*D	~>		00054600	70.29
PCHAR(J, INDEX)=DATA(J) 00054800 70. G0 T0 20 00055000 70. G1 D20 00055000 70. G2 T0 20 00055100 70. G2 T0 20 00055100 70. G2 T0 20 00055100 70. QCHAR(J, INDEX)=DATA(J) 00055100 70. QCMAX(INDEX)=AMAXI(DATA(J),CMAX) 00055200 70. QCMAX(INDEX)=AMAXI(DATA(J),CMAX) 00055200 70. QCMAX(INDEX)=DATA(J) 00055200 70. Z0 CONTINUE 20 CONTINUE 00055500 70. Z1 CONTINUE 24 CONTINUE 00055500 70. PCMIN(INDEX)=DATA(I) PCO055500 70. 70. PCMIN(INDEX)=SGN*CMAX 00055500 70. 70.		AUDED	17 CONTINUE			00054700	70.29
GD T0 20 00054900 70. 18 CONTINUE 00055100 70. QCHARIJINUE 00055100 70. QCMAX(INDEX)=AMAXI(DATA(J),CMAX) 00055200 70. QCMAX(INDEX)=AMAXI(DATA(J),CMAX) 00055200 70. QCMAX(INDEX)=AMAXI(DATA(J),CMAX) 00055200 70. QCMAX(INDEX)=AMAXI(DATA(J),CMAX) 00055200 70. QCMAX(INDEX)=AMAXIINDEX) 00055500 70. 20 CUNTINUE 00055500 70. 24 CUNTINUE 00055500 70. PCMIN(INDEX)=DATA(I) 00055500 70. PCMIN(INDEX)=SGN*CMAX 00055800 70.		ADDED	PCHAR(J, INDEX) = D	~		00054800	
18 CONTINUE 00055000 70. QCHAR(J,INDEX)=DATA(J) 00055100 70. QCMAX(INDEX)=AMAXI(DATA(J),CMAX) 00055200 70. QCMAX(INDEX)=AMAXI(DATA(J),CMAX) 00055200 70. QCMAX(INDEX)=AMAXI(DATA(J),CMAX) 00055200 70. 20 CONTINUE 20 CONTINUE 00055500 70. 24 CONTINUE 24 CONTINUE 000555600 70. PCMIN(INDEX)=DATA(I) 00055500 70. 70. PCMIN(INDEX)=SGN*CMAX 00055500 70. 70.		AUDED				00054900	70.29!
QCHAR(J, INDEX)=DATA(J) 00055100 70. QCMAX(INDEX)=AMAXI(DATA(J),CMAX) 00055200 70. QCMAX(INDEX)=AMAXI(DATA(J),CMAX) 00055200 70. QCMAX(INDEX)=QCMAX(INDEX) 00055300 70. 20 CONTINUE 00055500 70. 20 CONTINUE 00055500 70. 24 CONTINUE 00055500 70. PCMIN(INDEX)=DATA(I) 00055500 70. PCMIN(INDEX)=S6N*CMAX 00055500 70.		ADDED	8			00055000	
QCMAX(INDEX)=AMAXI(DATA(J),CMAX) QCMAX(INDEX)=AMAXI(DATA(J),CMAX) 00055200 70. CMAX=QCMAX(INDEX) CMAX=QCMAX(INDEX) 00055300 70. ZO CUNTINUE 00055500 70. ZO CUNTINUE 00055500 70. ZO CUNTINUE 00055500 70. Z4 CUNTINUE 00055500 70. PCMIN(INDEX)=DATA(I) 00055500 70. PCMAX(INDEX)=S6N*CMAX 00055500 70.		ADDED		ATA(J)		00055100	70. 29
CMAX=QCMAX(INDEX) 00055300 70. 20 CUNTINUE 00055400 70. 20 CUNTINUE 00055500 70. 24 CUNTINUE 00055500 70. 24 CUNTINUE 00055500 70. PCMIN(INDEX)=DATA(I) 00055700 70. PCMAX(INDEX)=S6N*CMAX 00055700 70.		ADDED	QCMAX(INDEX)=AMA	XI(DATA(J),CMAX)		00055200	70.29
20 CONTINUE 00055400 70. C0 TU(24,26), I 00055500 70. 24 CONTINUE 00055500 70. PCMIN(INDEX)=DATA(I) 00055700 70. PCMAX(INDEX)=S6N*CMAX 00055800 70.		ADDED	CMAX=QCMAX11NDEX			00055300	70.29
GU TU(24,26), 1 24 CONTINUE PCMIN(INDEX)=DATA(1) PCMAX(INDEX)=SGN*CMAX 00055800 70. 00055800 70.		ADDED	Ò			00055400	70. 29
24 CONTINUE PCMIN(INDEX)=DATA(1) PCMAX(INDEX)=SGN*CMAX 00055800 70. 00055800 70.		VUDED	CU CU			00055500	
PCMIN(INDEX)=DATA(1) PCMAX(INDEX)=S6N*CMAX 00055800 70.		ADDED	CON			00055600	
PCMAX(INDEX)=S6N*CMAX		ADAED				ъus	
FCMAA/1 NUEA/- 30/17CMAA		ADDED					å c
		AUUEU	PCMAAIINUEAJ = 30 N			S	

	ULD VOL=SER=004783	DRC UPDATE	NEW VOL = SER=007208		
SEQ MESSAGE	FILENAME=MUFAN	DECKNAME=MUFAN	FAN		γ γ •DDI
					a,
ADDED	60 TO 5 26 CONTINUE			00055900	70. 29
ADDED		A TA(1)		00056100	70.29
	SO CONTINIE			00056200	10. 29
AUUEU ADDED		** END DF CASE CARD **		00026400	70. 29
ADDED	RETURN 40 CONTINUE			00056500	70. 29
ADDEU	20111100	** FLUID DENSITY CARD **		00056700	
ADDED	READ(99,3000)	(FRH0(K),K=1,9)		00056800	70.29
ADDED	3000 FORMAT(2X,9F8.0) 1RFARB=1	(0)		00056900 00057000	70.29
ADDED	60 10 5			00027100	
ADDED	50 CONTINUE			00057200	70.29
ADDED		TEMPER		00057300	
ADDED	READ(99,3000)	(FIEMP(K),K=1,9)		00057400	70.29
ADDED	FIEMP(LU)=U.U ITFARB=1			00057600	92°01
ADDED	60 TO 5			00057700	70.29
ADDED	60 CONTINUE			00057800	70.29
AUDED		D VISCO		00021900	70. 29
ADDED	READ(99,3000)	(FVISC(K),K=1,9)		00058000	70.29
ADUED				00058100	70.29
ADDED	I VEAND-I GUTU S			00058300	
ADDED	NTIN			00058400	70.29
ADDED		T NUDE NUMBERS CARD	**	00058500	70.29
ADDED		(IEND(K,1),K=2,16)		00058600	70. 29
ADDED	7000 FUKMAI15X,15151 60 TO 5	-		00058800	70.29
ADDED	80 CONTINUE			00058900	
ADDED	J	** LABEL CARD **		00059000	70, 29
ADDED	NLABEL=NLABEL+1	. 1 60 TO 5		00059100	70.29
ADDED		I ABEL (K - NI ABEL) - K = 1	на на селото на селото на селото на селото на селото на селото се селото селото селото селото се селото на село	00050200	
ADDED	8000 FORMAT(1X,A3,1944)	EL IN FILAUEL J FILES I		00059400	70.29
ADDED	1			00056500	2
AUDED	90 CONTINUE			00059600	\mathbf{N}
ADDED	C NMFM=NMFM+2	** MEMBER CARU **		00059700 00059800	70. 291
AUUCU	NNC N-NNC NTC			000000000	2.0

QLD SEG FILENAME-MUEAN DECKNAME-KUEAN DECKNAME-KUEAN Y QDDED NN=WNENZ NN=WNENZ 00000000 70.33 ADDED NN=WNENZ 00000000 70.33 00000000 70.33 ADDED NN=WNENZ 00000000 70.33 00000000 70.33 ADDED SIRTEG5/93939 NRAMERS NR 00000000 70.33 ADDED 9599 ENANTIATIATA TH## LIGHT 70.33 00000000 70.33 ADDED 95 CUTTOR 1 ATHANIN MADEL 00000000 70.33 ADDED 95 CUTTOR ATHANIN NADEL 00000000 70.33 ADDED 900 PURKATIZZTI3ZZIJJIZATA 117775-011XFF5-011XFF5-011XFF5-01 70.33 ADDED 10 ADDEL NADEL 00000100 70.33 ADDED 110 NADEL NADEL NADEL 00000100 70.33 ADDED 110 NADE NADEL NADEL NADEL		010 V0L=SER=004783	04783	DRC UPDATE	NEW VOL=SER=007208		
ADDED NM=WRFAZ D005000 G00059900 ADDED HFINKFALE.12001 G0 T0 95 00005000 00005000 ADDED 9999 FURMETLIE.12001 G0 T0 95 00005000 00005000 ADDED 9999 FURMETLIE.12001 G0 T0 95 00005000 00005000 ADDED 2 391 AGE DEFINES THE LADIAT 00005000 00005000 ADDED 2 391 AGE DEFINES THE LADIAT 00005000 00005000 ADDED 2 391 AGE DEFINES THE LADIAT 00005000 00005000 ADDED 2 9999 FURMETLIT.11.1111 00011101 00005000 ADDED 1 1001 FURMETLIT.111 00011101 00005100 ADDED 1 1001 FURMETLIT.111 0001101 00005100 ADDED 1 1001 FURMETLIT.111 0001101 00005100 ADDED 1 1001 FURMETLIT.111 0001101 00005100 ADDED 1000 FURMETLIT.1110.111/F6.0011XFF.001XFF.001XFF.001XFF.001XFF.001 00005100 ADDED 1000 FURMETLIT.110.111/F6.001XFF.001XFF.001XFF.00 00005100		MESSAGE	FILENAME=MUFAN	DECKNAME=MUFA	2		<u>νγ.</u> DD
ADDED NHAREM 2 C005900 ADDED NHAREM 2 C0050500 ADDED SHI (KG, 5973) NGAR C0050500 ADDED SCONTAULE SHI (KG, 5973) NGAR C0050500 ADDED SCONTAULE SHI (KG, 570) NGAR C0050500 ADDED SCONTAULE ALPHATINIC ALPHATINIC C0050500 ADDED ALPHATINIC ALPHATINIC C0050700 C0050700 ADDED ALPHATINIC RAULANNITIC C0050700 C0050700 ADDED ALPHATINIC RAULANNITIC C0050700 C0050700 ADDED ADDED ALPHATINIC RAULANNITIC C0050700 C0050500 ADDED ADDED ADR C0000000 C0000000 C0050700 AD							
ADDED ADDED SHITE CNNED CONSCION ADDED 2 33H (XXE DEFINEX THE TONIT THE TONIT DOMOSTO ADDED 2 33H (XXE DEFINEX THE TONIT DOMOSTO DOMOSTO ADDED 2 33H (XXE DEFINEX THE TONIT DOMOSTO DOMOSTO <td></td> <td>ADDED</td> <td>NM=NMEM/2 If (NMEM.LE.1200)</td> <td>10</td> <td></td> <td>00059900</td> <td>70.29</td>		ADDED	NM=NMEM/2 If (NMEM.LE.1200)	10		00059900	70.29
ADDED JHT (AXE DEFTRES) THE IZOIST MEMER/X.9HUNLY IZOG, 00000300 ADDED 5 39H MEMBERS ARE ALLOMED - CASE BYPASSED **) 00000300 ADDED 9 CONTINUE 0000010 0000000 ADDED 9 CONTINUE 0000000 0000000 0000000 ADDED 1 READI199+90001 NUDEFINMEM-11, NELANIM 0001000 00000000 00000000 ADDED 1 READI199+90001 NUDEFINMEM-11, NELANIM 0001100 00001000 00000100 00001200 000001200 000001200 000001200 00001200 00001200 00001200 00001200 00001200 00001200 00001200 00001200 00001200 00001200 00001200 00001400				/1X。7H** THF 。14.21HTH	CARD FOR THIS.	00060100	70.29
ADDED RELURN CONSTRONT CONSTRONT <thconstront< th=""> <thconstro< td=""><td></td><td></td><td></td><td>INES THE IZOIST MEMBER. ARE ALLOWED - CASE BYPAS</td><td>X,9HDNLY 1200, **)</td><td>00060300</td><td>70.29</td></thconstro<></thconstront<>				INES THE IZOIST MEMBER. ARE ALLOWED - CASE BYPAS	X,9HDNLY 1200, **)	00060300	70.29
AUDED YZUNINY ALPAINNY NUDE(NHEH-1) WLANE(NH) O0060900 AUDED 1 HANNY NADLEN(NH) DONCULINNY 00069100 ADDED 2 PHINNY NITYEINY DONCULINNY 00069100 ADDED 30 FOSLON(NH) DONCULINNY 00061200 ADDED 900 FURATIZY13ZXITTIXFILIXY, F5.0,1X; F5.0,1X; F4.0, 00061200 ADDED HENNOMMEM-1 100,1X; F6.0,01 00061200 ADDED HENNOMMEM-1 00061200 00061200 ADDED HENNOMMEM-1 MODELNAMY 00061200 ADDED HENNOMMEM-1 00061200 00061200 ADDED HENNOMMEM-1 00061200 00061200 ADDED HENNOMMEM-1 00061200 00061200 ADDED JADDEN HENNOMMEM-1 00061200 ADDED JADDEN HENNOMMEM-1 00061200 ADDED JADDEN HENNOMMEM-1 00061200 ADDED JADDEN HENNOMMEM-1 00061200		ADDED	RETURN			00060500	70.29
ADDED Image ALHAI(NM), RADLEN(NM), DUUT(NM), THL(K(NM), 0006900 ADDED 2 PHININ, ITYFE(NM), DUCUTIMP, DZ(NM), QTN, 0006100 ADDED 900 FURMAT(ZX137XT1:1:XF5.0):XFF5.0):XFF5.0):XFF5.00:XFF5.	and the second	AUDED	READ(99,9000)	(NMEM-1) , JNUDE(NME	LA	00060700	70.29
ADEED Z PRILIM JIYPELINM DOKCVL(LMM DOKON DO000100 ADDED 3 EFSLONINM ITYPELINM DOKOVLLIMM DOKON100 ADDED 9000 FURMAT(ZX;13;ZX;13;IX:11:1X;F3.0)1X;F5.0)1X;F5.0)1X;F5.0,1X;F5.0,1X;F5.0,1X;F5.0,1200 D0001300 ADDED MEMNIANERALENINM=FADLENINMI/IZ.0 00061300 D00061300 ADDED MEMNIANEMAL 00061300 D00061300 ADDED MEMNIANEMAL 00061300 D00061300 ADDED MEMNIANEMAL 00061400 D00061400 ADDED JNUDE (MMEM)=JANDE (MMEM-L) 00061400 D00061400 ADDED JOD CUNTINE ** NODE 00061400 D0061400 ADDED JOD CUNTINE ** NODE 00061400 D0061400 ADDED JOD CUNTINE ** NODE 00061400 D0061400 ADDED JOD CUNTINE ** NODE 00061400 D0065100 ADDED JOD CUNTINE ** NODE 00061400 D0065200 ADDED JOD CUNTINE ** NALENINFFFFF JEFFFFF		ADDED		(NM), RADLEN(NM),	, THICK(NM	00060800	70.29
ADDED 9000 FURMTIZX:13;ZX:13;XX:11;XX:F3.0;1XX:F5.0;1XY:F5.0;1XY:F5.0;1XY:F4.0;00661100 ADDED 1 FINNTIGT.0) NUDE(NURMEH1=VA) 00061100 ADDED MENNOTAMEN1= <nm< td=""> 00061100 00061100 ADDED MENNOTAMEN1=<nm< td=""> 000611500 000611600 ADDED MENNOTAMEN1=<nm< td=""> 00061160 000611600 ADDED NUDE (NHEM)=INUDE(NHEM-1) 000611600 000611600 ADDED NUDE (NHEM)=INUDE(NHEM-1) 000611600 000611800 ADDED JUNDE (NHEM)=INUDE(NHEM-1) 000611600 000611800 ADDED 1000 GONTINUE #* NOUE CARD ** 000611600 000611800 ADDED 1000 FORMATION ** NOUE CARD ** 00061100 000611800 ADDED 1000 GONTINUE ** NOUE CARD ** 00061100 00061200 ADDED 10000 FORMATIZX:13,1X:13) 5000100 00062200 00062200 ADDED 10000 FORMATIZX:13,1X:13) 500010 00062200 00062200 ADDED 10000 FORMATIZX:13,1X:1454 1012 00062200 <</nm<></nm<></nm<>		ADDED Annen		M), ITYPE(NM), N(NM)	D2(NM), Q(NM)	00060900	70.29
ADDED I II0.IX,F6.0,IX,F6.0,IX,F6.0,IX,F6.0,I 00061300 ADDED MEMNO(NMEM-1) = NM 00061300 00061400 ADDED MEMNO(NMEM-1) = NM 00061300 00061300 ADDED NUDE(NMEM) = NM 00061700 00061300 ADDED NUDE(NMEM) = NMDE(NMEM-1) 00061700 00061700 ADDED JNUDE(NMEM) = JNODE (NMEM-1) 00061700 00061700 ADDED JODED 00017NUE #* NODE (AMEM-1) 00061700 ADDED JOD CONTINUE #* NODE (AMEM-1) 00061700 00061700 ADDED JOD CONTINUE #* NODE (AMEM-1) 00061700 00061700 ADDED JOD CONTINUE #* NODE (AMEM-1) 00061200 00062200 ADDED JOD CONTINUE #* NODE (AMEM-1) 00062300 00062200 ADDED JOD CONTINUE #* NODE (AMEM-1) 00062300 00062200 ADDED JOD CONTINUE #TRIGGAL NUDE NETORNINUE 00062300 00062200 ADDED JOD CONTINUE ZNALISTINATALINDE NETORNINUE ISADAD			FURMAT(2X,13,2	IX,11,1X,F3.0,IX,F7.0	5.0,1X,F5.0,	00061100	70.29
ADDED IF (INFT.GT.01 RADLEN (MM)=RADLEN (MM)/12.0 00061300 ADDE0 MEMNOT(NREM)= -NM 00061500 00061500 ADDE0 INDDE (NREM)= NM 00061500 00061500 ADDE0 JNDDE (NREM)= NM 00061500 00061500 ADDE0 JNDDE (NREM)= NMDE (NREM)= NDDE (NREM-1) 00061800 00061800 ADDE0 JNDDE (NREM)= NDDE (NREM-1) 00061800 00061800 ADDE0 JOD CUNTING * NODE CARD ** 00061800 ADDE0 LOO CUNTING * NODE CARD ** 00062100 ADDE0 LOOO FGRMAT(2X,13,1X,13) 00062100 00062200 ADDE0 LOOO FGRMAT(2X,13,1X,13) 00062200 00062200 ADDE0 LOOO FGRMAT(2X,13,1X,11X,1X,14* TE 14,25HTHDATA CARD FGR THIS CASE 00062200 ADDE0 LOOO FGRAT(111//////X,1X,14* TE 14,25HTHDATA CARD FGR		ADDED	10	F6.0,1X,F6.0,1X,F6.0,	6.01	00061200	70.29
AUDED MEMNOLINERFI-LITAM 00061500 AUDED MEMNOLINERFI-LITAM 00061500 AUDED INDDE(NMEM) = JNODE(NMEM) =		ADDED	IFINFT.6T.0J R/	ADLEN (NM) =RADLEN (NM)/12.0		00061300	70.29
ADDED NEWNUTWENT NODE NOUDE(NHEM) = NODE(NHEM-1) OU0061500 ADDED JNODE (NHEM) = NODE(NHEM-1) 00061700 00061500 ADDED JNODE (NHEM) = NUDE(NHEM-1) 00061700 00061700 ADDED JNODE (NHEM) = NUDE(NHEM-1) 00061700 00061900 ADDED JOO CUNTULE ** NDDE CARD ** 00061300 ADDED LOO CUNTULE ** NDDE CARD ** 00061300 ADDED JOO FORMAT(2X,13); JIL ** 00062300 ADDED JOO FORMAT(2X,13); JIL ** 00062300 ADDED JOO FORMAT(2X,13); JIL ** 00062500 ADDED JOO FORMAT(2X,13); JIL ** 00062600 ADDED JOO CONTINUE ** 00062600 ADDED JOOE NUDE NUDE	А	ADDED	MEMNU(NMEM-I)=NM			00061400	70.29
ADDED JNUDET NUMERT TATATION TO CONTINUE	478 .	ADUED	MEMNU(NMEM) = -NM INDOF/NMEM) = INDOF	MEM-1		00061500	70.29
ADDED GO TO TO MODE	1	AUDED		MFM-1		0001000	70. 29
100 CUNTINUE ** NODE CARD ** 00061900 00061900 ** NODE CARD ** 00062100 00062100 REAN199,100001 NODE:NUDE 00062100 00062100 REAN199,100001 NODE:NUDE 00062100 00062100 REAN199,100001 NODE:NUDE 00062100 0102 CONTINUE 00062100 00062300 0102 CONTINUE 00062300 00062300 0102 CONTINUE 00062300 00062300 0102 CONTINUE 00062300 00062300 0102 CONTINUE 00062300 00062300 00099 FORMATILIX/////////X1X;7H** THE ,14,25HTHDATA CARD FOR THIS CASE, 00062800 00062800 01099 FORMATILIX////////X1X;7H** THE ,14,25HTHDATA CARD FOR THIS CASE, 00062800 00062800 01099 FORMATILIX//////X1X;7H** THE ,14,25HTHDATA CARD FOR THIS CASE, 00062800 00062800 10999 FORMATILEGAL NUDE NU114;15H -CASE BYPASSED 7 00062800 10900 FEROR 00010200 00062300 10001 FEROR 000010 000062300 <	6	ADDED	60 TO 5			00061800	70.29
C ** NODE CARD ** 0006200 NODE:NUDE: ** NODE CARD ** 00062100 10000 FORMATIZX;13,1X,13) 00062200 00062200 10000 FORMATIZX;13,1X,13) 00062300 00062500 10000 FORMATILE 00062500 00062500 10000 FORMATILE 00062500 00062500 10000 FORMATILE 00062500 00062500 00062500 00062500 00062500 10000 FORMATILHI/////////X,7H** THE ,14,25HTHDATA CARD FOR THIS CASE, 00062500 00062500 10000 ISRDR=1010 25H HAS AN ILLEGAL NUDE NU114;15H -CASE BYPASSED 7 00062500 10000 IERROR=1010 25H HAS AN ILLEGAL NUDE NU14;15H -CASE BYPASSED 7 00062800 10000 ISRDR=1010 25H HAS AN ILLEGAL NUDE NU14;15H -CASE BYPASSED 7 00062800 10000 ISRDR=1010 25H HAS AN ILLEGAL NUDE NU14;15H -CASE BYPASSED 7 00062800 10000 ISRDR=1010 25H HAS AN ILLEGAL NUDE NU14;15H -CASE BYPASSED 7 000625900 10001 FORMAT(2x,13,1X,13,1X,4F8,0) 00062500 00062300 00063200 10001 FORMAT(2X,13,1X,13,1X,4F8,0) 00063100 000063200 00063200			1			00061900	70.29
READ(99,10000) NUDE:NUDE2 00062100 10000 FURMAT(2X,13,1X,13) 00062200 00062200 IF(NUDE.G1:0.999) NCARD,NUDE 00062500 102 CONTINUE 00062500 102 CONTINUE 00062500 102 CONTINUE 00062500 102 CONTINUE 00062500 102 25H HAS AN ILLEGAL NUDE NU.;;14;15H -CASE BYPASSED 7 00062500 1 25H HAS AN ILLEGAL NUDE NU.;;14;15H -CASE BYPASSED 7 00062500 1 25H HAS AN ILLEGAL NUDE NU.;;14;15H -CASE BYPASSED 7 00062700 1 25H HAS AN ILLEGAL NUDE NU.;;14;15H -CASE BYPASSED 7 00062700 1 25H HAS AN ILLEGAL NUDE NU.;;14;15H -CASE BYPASSED 7 00062300 105 CUNTINUE 00062300 00063300 105 CUNTINUE 00063300 00063300 10001 FORMAT(2X,13,1X,4F8.0) 00063300 00063300 10001 FORMAT(2X,13,1X,4F8.0) 00063300 00063300 10001 FORMAT(2X,13,1X,4F8.0) 00063300 00063300 10001 FORMAT(2X,13,1X,4F8.0) 00063300 00063300			计译			00062000	70.29
100000 FORMAT(Zx,13,1X,13) 00062200 10000 10000 10000 100000 10000 100000 00062500 00062500 10000 10000 00062500 00062500 10000 10000 00062500 00062500 100000 10000 10000 00062500 100000 10000 10000 00062500 100000 10000 10000 00062500 1000000 100000 1000000 00062800 100000000 000062900 00062900 00062900 1000000000000000000000000000000000000			READ(99,10000)	VODE , NODE 2		00062100	70.29
If (NDE-6T.0.ANL.NDE-LE.500) GJ TJ 105 00062300 102 CUNTINUE 00062500 wRITE(6,10999) NCARD,NDE 00062500 10999 FORMAT(1H1///////X) TH** THE ,14,25HTHDATA CARD FOR THIS CASE, 00062600 00062500 10999 FORMAT(1H1///////X) TH** THE ,14,25HTHDATA CARD FOR THIS CASE, 00062900 00062900 10000 ERROR=1010 25H HAS AN ILLEGAL NUDE NU,14,15H -CASE BYPASSED 7 00062300 105 CUNTINUE 00062300 00062300 00062300 106 CUNTINUE XYZ(NUDE,1), XYZ(NUDE,2), XYZ(NUDE,3), TBULK(NDE) 00063200 00063300 10001 FORMAT(2x,13,1X,13,1X,4F8.0) 00063200 00063300 10001 FORMAT(2x,13,1X,13,1X,4F8.0) 00063200 00063300 10001 FORMAT(2x,13,1X,13,1X,4F8.0) 00063200 00063300 10001 FORMAT(2x,13,1X,13,1X,4F8.0) 00063300 00063300 10001 FORMAT(2x,13,1X,100E,1)*A(11)+XYZ(NUDE,2)*A(2)+XYZ(NDE,3)*A(3) 00063300 10001 FORMAT(2x,13,1X,100E,1)*A(11)+XYZ(NUDE,2)*A(2)+XYZ(NDE,3)*A(3) 00063300 10001 FORMAT(2x,13,1X,100E,2) 00063300 00063300 10001 FORMAT(2x,13,1X,100E,2) 00063300 00063300 10001 FORMAT(2x,100DE,2) 00063300 00063300 10001 FORMAT(1)=XDUTA(NUDE)						00062200	70.29
102 CGNTINUE 00062400 WRITE(6,10999) WCARD,NDDE 00062500 10999 FORMAT(1H1//////IX,7H** THE ,14,25HTHDATA CARD FOR THIS CASE, 00062500 00062500 1 ERROR=1010 00062500 00062500 1 ERROR=1010 00062700 00062700 1 ERROR=1010 00062700 00062700 1 ERROR=1010 00062700 00062700 105 CUNTINUE 00062700 00062300 105 CUNTINUE XZINUDE,1], XYZINUDE,2], XYZINUDE,3], TBULKINDE) 00063300 10001 FORMAT(2x,13,1X,13,1X,4F8.0) 00063300 00063300 10001 FORMAT(2X,113,1X,11,1X,11,1X,11,1X,1X,110,1X,1X,110,1X,1X,110,1X,1X,1X,110,1X,1X,110,1X,1X,1X,1X,1X,1X,1X,1X,1X,1X,1X,1X,1X,				DE.LE.500) GD TO		00062300	70.29
WRITE(6,10999) NCARU,NUDE 00062500 10999 FORMT(1H1/////1X,7H** THE ,14,25HTHDATA CARD FOR THIS CASE, 00062600 00062600 1 25H HAS AN ILLEGAL NUDE NU14,15H -CASE BYPASSED) 00062800 1 25H HAS AN ILLEGAL NUDE NU14,15H -CASE BYPASSED) 00062800 1 25H HAS AN ILLEGAL NUDE NU14,15H -CASE BYPASSED) 00062800 1 25H HAS AN ILLEGAL NUDE NU14,15H -CASE BYPASSED) 00062800 0 0062700 00062900 105 CUNTINUE 00063900 00063300 10001 FORMAT(2x,13,1X,13,1X,4F8.0) 00063300 00063300 10001 FORMAT(2X,100E,2) 102,1C8,100 00063300 1000 CUNTINUE 000107 00063300 00063300 1000 LOT 1=NUDE, NUDE 00063300 0			CONTINUE			00062400	70.29
10999 TUKMAILILLUAL 11 25H HAS NILLEGAL 14 15H CASE BYPASSED 00062700 1 25H HAS NILLEGAL NUDE 00062700 00062700 1 ERROR=1010 00062700 00062700 00062700 00062700 105 CONTINUE NZVINDE 00062300 00063300 00063300 105 CONTINUE NZVINDE 1 XYZINDE 00063300 105 CONTINUE NZVINDE 00063300 00063300 10001 FORMAT(2X,13,1X,4F8.0) NZULAL 00063300 00063300 10001 FORMAT(2X,13,1X,4F8.0) 00063300 00063300 00063300 10001 FORMAT(2X,13,1X,4F8.0) NZULAL 00063300 00063300 16<(NUDE2)			WRITE(6,10999)	D,NUDE // 74** TUE		00062500	70.29
IERROR=1010 IERROR=1010 00062800 RETURN RETURN 00062900 105 CUNTINUE 00063000 00063000 105 CUNTINUE 00063100 00063000 10001 FORMAT(2X,I3,IX,I3,IX,I8,0) 00063300 00063300 10001 FORMAT(2X,I3,IX,I3,IX,4F8.0) 00063300 00063300 10001 FORMAT(2X,I3,IX,11)*X(INDE,2)*X(XINDE,3), TBULK(NDE) 00063300 10001 FORMAT(2X,I3,IX,11)*X(INDE,2)*X(XINDE,3), TBULK(NDE) 00063300 10001 FORMAT(2X,I3,IX,11)*X(INDE,2)*X(XINDE,3)*A(3) 00063300 10001 FORMAT(2X,I3,IX,100E,1)*A(I)*XYZ(INDE,2)*X(Z)*X(Z) 00063300 10001 FORMAT(2X,I3,IX,100E,1) 00063300 100001 FORMAT(2X,I3,IX,100E,1) 00063300 1000001 FORMAT(2X,I00E,1) 00063300 1000000000000000000000000000000000000			- F	VIANTAT INC	RU FUR INIS CASE	0002000	10. 29
RETURN 00062900 105 CONTINUE 00063000 READ(99,10001) XYZ(NODE,1), XYZ(NODE,2), XYZ(NODE,3), TBULK(NODE) 00063100 00063200 10001 FORMAT(2X,13,1X,4F8.0) 00063200 10001 FORMAT(2X,13,1X,4F8.0) 00063200 00063300 10001 FORMAT(2X,13,1X,4F8.0) 00063300 00063300 10001 FORMAT(2X,13,1X,4F8.0) 00063300 00063300 10001 FORMAT(2X,13,1X,4F8.0) 00063300 00063300 10001 FORMAT(2X,13,1X,13,1X,4F8.0) 00063300 00063300 106 CUNTINUE 00063500 00063500 106 CUNTINUE 00063500 00063500 107 1=NUDE,NUDE) 00063500 00063500 107 CONTINUE 00063500 00063500 107 CONTINUE 00063600 00063800 107 CONTINUE 00063600 00063800 107 CONTINUE 00063800 00063800 107 CONTINUE 00063800 00063800 107 CONTINUE 00063800 00063800 <td></td> <td>AUDED</td> <td></td> <td></td> <td></td> <td>00062800</td> <td>70.29</td>		AUDED				00062800	70.29
105 CONTINUE 00063000 READ(99,10001) XY2(NDDE,1), XY2(NUDE,2), XY2(NDDE,3), TBULK(NDDE) 00063100 10001 FORMAT(2X,I3,IX,I3,IX,4F8.0) 00063200 10001 FORMAT(2X,I3,IX,I3,IX,4F8.0) 00063300 10001 FORMAT(2X,I3,IX,I3,IX,I1)*X/INUDE,2)*X(INUDE,3)*A(3) 00063300 100063500 00107 I=NUDE,106 00063500 1000 I07 I=NUDE,NUDE) 00063500 00063500 1017 CONTINUE 00063500 00063500 1017 CONTINUE 00063500 00063500 1017 CONTINUE 00063800 00063800		AUDEU	RETURN			00062900	70.29
READ(99,10001) XYZ(NODE,1), XYZ(NODE,2), XYZ(NODE,3), TBULK(NODE) 00063200 70. 10001 FORMAT(2X,13,1X,13,1X,4F8.0) 00063200 70. XDUTA(NUDE) = XYZ(NUDE,1)*A(1)+XYZ(NUDE,2)*A(2)+XYZ(NUDE,3)*A(3) 00063300 70. 10001 FORMAT(2X,13,1X,13,1X,4F8.0) 00063300 70. XDUTA(NUDE) = XYZ(NUDE,1)*A(1)+XYZ(NUDE,2)*A(2)+XYZ(NUDE,3)*A(3) 00063300 70. 100 107 1=NUDE2) 102,1C8,106 00063500 70. 00063500 70. 100 107 1=NUDE,NUDE) 00063500 70. 00063500 70. 107 CONTINUE 107 CONTINUE 00063800 70. 107 CONTINUE 107 CONTINUE 00063800 70.			CONTINUE			00063000	70.29
10001 FQRMAT(2X,I3,IX,I5,I3,IX,4F8.0) 00063200 70. XD01A(NUDE) = XYZ(NUDE,1)*A(1)+XYZ(NUDE,2)*A(2)+XYZ(NUDE,3)*A(3) 00063300 70. If (NUDE 2) 102,1C8,106 00063500 70. 00 00 00063500 70. 00 00 00063500 70. 106 CUNTINUE 00063500 70. 00 107 I=NUDE,NUDE) 00063500 70. 00 107 I=NUDE,NUDE) 00063700 70. 00 107 I=NUDE,NUDE) 00063700 70. 107 CONTINUE 00063800 70. 107 CONTINUE 00063800 70.	an ann an Anna an Anna Anna Anna Anna A	ADDED	READ(99,10001) X)	NODE .1) . XYZ(NODE,2),		00063100	70.29
XDUIA(NUDE) = XYZ (NUDE, I) * A(I) + XYZ (NUDE, Z) * A(Z) + XYZ (NUDE, 3) * A(3) 00063300 70. IF (NUDE2) 102,1C8,106 00063400 70. 106 CUNTINUE 00063500 70. 00 107 I=NUDE, NUDE) 00063500 70. 00 107 I=NUDE, NUDE) 00063500 70. 00 107 I=NUDE, NUDE) 00063500 70. 107 CUNTINUE 00063700 70. 107 CUNTINUE 00063700 70. 107 CUNTINUE 00063800 70.				[3, 1X,4F8.0)		00063200	70.29
IF (NUDE 2) 102,1C8,106 00063400 70. 106 CUNTINUE 00063500 70. 00063500 70. xDUTA(1)=XDUTA(NUDE) 00063700 70. 107 CONTINUE 00063800 70.	Conf. Testanon of the contract	ADDED	XDUIA(NUDE) = XYZ (N	1UDE 1) *A(1) +XYZ(NOUE,2) *A(2)+XYZ(NODE,3)*A(3)	00063300	70.29
106 CONTINUE 00063500 70. 00 107 I=NUDE,NUDE2 00063600 70. XDUTA(I)=XDUTA(NUDE) 00063700 70. 107 CONTINUE 00063800 70.			IF(NODE2)			00063400	70.29
DU 107 I=NUDE+NUDE2 XDUTA(I)=XDUTA(NUDE) 107 CONTINUE 00063800 70.						00063500	70, 29
XDUIA(I)=XDUIA(NUE) 107 CONTINUE 00063800 70.		ADDED	D0 107 I=NODE,NOC)E2		00063600	70.29
107 CUNIINUE 00063800 70.				JUE)		00063700	
						00063800	

	OLD VOL=SEI	VOL =SER=004783	DRC UPDATE	NEW VOL = SER = 007208		
LD SEQ	MESSAGE	FILENAME=MUFAN	DECKNAME=MUF AN	N		ΥΥ.D D(
1						
	ADDED	108 CONTINUE		0	0063900	70.29
	ADDED	- 02				
	AUDED	**	S	0		
	ADDED		NUDE, PRESS	00		ő
	ADDED	11000 FORMAT(2X, I3, 3X, F6.0)		00		
	ADDED		D.NODE.LE.500) GO TO 115			ô
	ADDED	66)	NCARD, NUDE	00		70.29
	ADDED	IEKKUK=1011				*
	ADDED			00		10.29
	ADDED					
	ADDED	111		0		
	AUDED				00169000	
	ADDED	120 CUNIINUE	- 1	Ň		
¢.	ADDED	K K	IEMPEKAIUKE CAKU **	0		
4	ADDED		Server and the set of t	0		70.29
1173	ADUED		(NI(K),K=1,12), IEMP			
/	ADDED	AAT I	,14),4X,F8.0)	0		
7	ADDEU	DO 190 J=1,12		00		
	ADDED	G	00 10 200	00		70.29
	ADDED		30,140	00		۰
	ADDED			0		70.29
	ADDED	IF(J.EQ.1) GO TO) 200	00		
	ADDED	IFLAG=0		0(70.29
	ADDED	G0 T0 190		0		
	ADDED	140 CUNTINUE		00		70.29
	ADDED	EQ.0)	G0 T0 150	00		
	ADDED	LNZ=NT(J)		00		
	ADDED)0	_	
	ADDED	- 1		0		
	ADDED	150 CONTINUE	,	00	0069900	
	ADDED	IF(LNZ.LE.NT(J))	0 60 T0 160	00	0067000	2
	ADDED	NNZ=LNZ		00	00	0.2
	ADDED			00		
	ADDED	60 10 170		0		70.29
	ADDED	160 CUNTINUE		00	r	• 2
	ADDED	NNZ=NT(J)		0	00067500 7	0.29
	ADDED	170 CONTINUE		00	0067600	0.2
	ADDED	DD 180 K=LNZ, NNZ			0067700	0°5
	ADDED	TBULK(K)=TEMP		00	0067800	

	010 V0L=SER=004783	004783	DRC UPDATE	NEW	# VOL=SER=007208		ana an taona a
LD SEQ	MESSAGE	FILENAME=MUFAN	DE	DECKNAME= MUFAN			<u>ΥΥ. DD</u>
							ч.
	ADDED ADDED	180 CONTINUE IFLAG=1				00067900	70.29
and a second	ADDED					00068100	70.29
	ADDED	NT IN				00068200	10.29
	AUUED	60 TO 5 200 CONTINUE				00068300 00068400	70. 29
	ADDED					00068500	70.29
	ADDED	TE(6,10999)	NCARD, NT (K)			00068600	70.29
	ADDED	IERROR=1012				00068700	70.29
	ADUED	KEIUKN				00068800	10.29
	ADUEU	END SUBROUTINE FORK (/	FORK (/R X X X 1 / • / V X X X 1 /)			00069000	70.29
	ADDED		TYPES1,	TYPES2		00069100	70.29
	ADDED	,				00069200	70. 29
	ADDED					00069300	70. 29!
A	ADDED	COMMON / MUFCOM/				00069400	70, 29!
est	ADDED		CUERR,	3,6001	• 6C	00069500	70.29
./	ADDED		~ 1	IFLUID,		00069600	70.29
8	ADDED	3 ITEMP,	IT YPE(600),	JBRPT(600),	TITLE(20,3),	00069700	70.29
	ADDED		MBRAN(850),	NBCON(250) ,	NBRAN,	00069800	70.29
	ADDED	5 NBRPTS,	NNMAX.	NPTS(150) *	\sim	000669000	70. 29
	ADDED	-	QERR,	RHO(600),	TBULK(500),	0001000	70. 29!
	ADDED	Ш	VI SC (600) +	60		00102000	70.29
	ADDED		INDUT(100),	NINOUT, ND	NDUMBP, LOOP	000 702 00	70.29
	ADDED	COMMON /LICOM/				000 703 00	70.29
	ADDED		INDDE(1200),	JNDDE(1200),	MEMND(1200).	000 70400	70.29
	ADDED	2 NMEM,	NPLANE(600),			00010200	70.29
	ADDED		RADLEN(600),	XYZ(500,3),	IEND(150,2),	000 70 600	70.29
	ADDED	9				00010100	70.29
	ADDED	CUMMUN / INCUM/				000 10800	10.29
	ADDED		DOKC VL (600) .	02(600),	EPSLON(600),	00602000	70.29
	ADDED	ICK(600)				00011000	70.29
	ADDED	/PUNT/	MMEM, MNODES, DATE			000111000	70 . 29
	ADDED	/INNU/	TIME			00071200	70.29
	ADDED	/MCOM/	LABEL (8,600)			00071300	70.29
	AUDED	COMMON /FORKLD/				00071400	
	ADUED		• (*) 10000	THKUUT(4),	ROUT(4),	00071500	
	ADUED		D2DUT(4),	RUFOUT(4),	ELOUT(4),	00071600	
	ADUED	(4)				001 11 000	ð d
	ADDED		UUI (4,9)			000 /1800	10.29

		2 2 9 9 9		000 200		
	0LU V0L=SER=004/83	=004/83	UKL UPUALE NEW VULESEK=UUL	001 208		
LD SEU	MESSAGE	F IL ENAME = MUFAN	DECKNAME=MUFAN			ΙΟΟ•ΥΧ
						2
	ADDED	DIMENSION	IFORM(12,11)		00611000	70.29
	ADDED	DIMENSION	4,45), TYPESI(4,13), TYPES2		00072000	70.29
	ADDED		TYPES3(8,5), MUUT(2,4), ITENS(10),		00721	70.29
	ADDED	2	TYPOUT(4,4)		00072200	
	ADED	DIMENSION	RTABLE(11), XTABLE(11)		~	70.29
	ADDED	DIMENSION	21),		-	
	ADDED		14)		00072500	
	ADUED	DIMENSION	***		00072600	
the second s	ADDED	DIMENSION	,4)		00072700	
	ADDED	EQUIVALENCE	(1,1		00072800	
	ADDED	EQUIVALENCE	1), ALOUT(1))		00012900	•
	ADDED	EQUIVALENCE	S(1,1)), (TY	(1,14)),	00073000	70. 29!
	AUDED		ES3(1,1),TYPES(1,41)), (ANUM, NUM)		00013100	
	ADDED	DATA RTABLE/	1.5, 2.0, 2.5, 3.0,	10.0,	00073200	
	ADDED	-			000 733 00	
A	ADDED	DATA XTABLE/	3.0, 1.8, 1.25, 1.20, 1.25, 1.70, 2.13, 2.70	, 3.50,	00073400	70.29
8	ADDED				00013500	70. 29'
• /	ADDED	DATA ROVRD/	, 1.00, 1.60, 2.00,	00,	00073600	70.29
9	ADDED		* 4.60, 5.00,	•0•	000737000	
)	ADDED	2	16.0, 18.0, 0.00 /		00073800	
	ADDED	DATA BENUC/	<pre>, 0.70, 0.45, 0.34, 0.26, 195, 0</pre>	16,	006£1000	
	ADDED	-4	<pre>* 0.16, .175, 0.21, 0.24, .165, .</pre>	13,	00074000	
	ADDED	2	• •378, •396, 0.41, 0.00 /		000 141 00	70.29
	ADDED	DATA THETA/	, 30.0, 45.0, 60.0, 75.0, 90.0, 1	05.,	00074200	
	ADED		120., 135., 150., 165., 180., 0.00 /		00074300	70.29
	ADDED	DATA ANGLC/	2, 0.43, 0.61, 0.76, 0	08,	00074400	70.29
	ADDED	-	.22, 1.28, 1.33, 1.38, 0.00 /		00074500	
	AUDED		>		00074600	70.29
	ADDED		·I.•0E+20/		00074700	2
	ADDED	DATA TYPES1/			00074800	
	ADDED	I • STRAIGHT	PIPE * * * TUB	**	00074900	ő
	ADDED	2 *	', 'STANDARD 90 DEG.', ' ELBOW	* *	00015000	70.29
	ADDED	• STANDARD	LBOW *, LONG	97 192	000151000	70.29
	ADDED	4 * ELBOW	W ', CLOSE RETURN ', BEND	*	00075200	70.29
	ADDED	5 • GATE V	VALVE *, * SWING CHECK	6 R	200	70.29
	ADDEU	¢	*, * ANGLE VALVE ³ , *	69 64	00075400	ô
	ADDED	7 • GLUBE V	', STAND	E •	00075500	70.29
	ADDED		THRU ", " STANDARD	*	00075600	0
	ADDED	9 CULVALENT	NT L/D *, * INPUT BY USER */		000151000	0.2
	ADDED	UATA TYPES2/			00075800	70.29

	0LD V0L=SER=004783	04783 DRC	C UPDATE	NEW VOL=SER=007208	98	
OLD SEQ	MESSAGE	FILENAME=MUFAN	DECKNAME=MUFAN	4UF AN		YY. DD
	ADUED	EG B	IN TO	ЕG В	00075900	70.29
	ADDED	MAIN TO	DEG BRAN	ml.	00076000	ð
	ADDED	45 DEG BKAN	06 W	UEG BRAN	00019100	
	ADDED	FROM 90 D	EG B	M 25	00076200	
	ADDED	*	IN TO		00016300	்
	ADDED	HRUN	1	THRU	00076400	
	ADDED	135 DEG BR	THRU	BRA	00076500	
	ADDED	BRANCH I	BRA		00076600	
	ADDED	9 135 DEG BRANCH	, BRANCH TU MAIN	· · IUBING BEND ·	00076700	
	AUUEU			ļ.	000 1000	•
	ADDED	SIANU		* * SIANUAKU 45 UEG *	00016900	٠
	AUUEU	ELBUW		ŀ	00011000	10.29
	ADDED	U STANDARU LEE		SIANDARD LEE	000111000	•
Yanan kana dan yang manan kana dan kana na kana kana kana kan	AUUEU	· SIKAIGHI	· · · · · · · · · · · · · · · · · · ·	· · · BENU · ·	00011200	
ł	ADDED		CUNIKACIJUN	· · GRADUAL ·	00077300	
A	ADDED	-	· · · SUUDEN	· · · CUNIKACI IUN ·	00011400	أه
8	ADDED	H SUDDEN	· EXPANSION	· ORFICE ·		
2	ADDED	*	0221	**	00077600	N
0	ADDED		, INPUT BY USER		000227000	٠
	ADDEU				000 77800	
	ADDED	I COMPONENT XX *		* * PUMP XX **	00622000	٠
	ADUED	*	• • FIXED PRESSURE		0 00 780 00	
DOUGHAN AND A MARK AND A	ADDEU	3 • FREE PRESSURE	pkup	<pre>', * FIXED PRESSURE *,</pre>	00078100	
	ADDED	* R I				
a provinsi na fara da f	ADDED	DATA ITENS/ 24040F040	, Z40F1F040,	, Z40F3F040,		70.29
	ADDED	Z40F5F04	, Z40F6F040	040, Z40F8F040, Z40F9F040	~	70.29
A REAL A. A. M.	ADDED		4, FT.	(6X,F8.3,6X,1H*)/	*	0
	ADDED	1 48H*0.D.	IN. (D1)",5X,	7X, F7.3, 6X, 1H*1/	¢.	70.29
	ADDED		ICKNESS,	7X + F7 + 4 + 6X + 1H*)/	* *	
	ADDED	3 48H*RADIU	S, FT.*	1H*)/	*	70.29
	ADDED	48H * ANGL		8X,F5.1,7X,1H*)/	4 4	
	ADDED	5 48H*D2, 1	IN.',12X,1H*,	0(7X,F7.3,6X,1H*)/3X	*	70.29
	ADUED	48H * ROUG	HNESS, IN. ', 5X, 1H*,	7X, E7	00162000 * *)	70.29
	ADDED	7 48H * EQUIV	/ . L/D' ,9X,1H*,	0(7X,F7.3,6X,1H*)/3X	(, , 00079200	70.29
	ADDED	8 48H*K-FAC	þ	0(7X,F7.3,6X,1H*)/3X	8	70.29
	ADDED	9 48H * LABEL	.*,14×,11×,	0(2X°4A4°2X,1H*)/	000462000 4	70.29
	ADDED	A 48H22X,1F	14.1	0(2X,444,2X,1H*))	/ 00079500	70.29
	ADUED	NEQMAX=12			00962000	70.29
	ADUED	NM=NMEM/2			161 00	70.29
	ADDED	NPAGES=(NM-1)/8+1			00079800	70.29

	YY.DDI	00 02	70.29	70.29	70. 29	70.29	70.29	70.29	70.29	70.29		10.29	70. 201		70, 29!	70. 29	70.29	70. 29'	70.29	70.29	70.29	70.29!	70. 29		70.29!				70.29	٠	70.29				N	2	N.	0, 2	70.29	
		00070000	00080000	00080100 00080200	00080300	00080400	00080500	00080600	00080700	00080800	000808000	00010000	00081200	000813000	00081400	00081500	00081600	00081700	00081800	00081900	00082000	00082100	00082200	00082300	00082400	00082500	00082600	00082700	00082800	00082900	00083000	00083100	00083200	00083300	00083400	00083500	00083600	00083700	00083800	
NEW VOL=SER=007208	DECKNAME=MUFAN						TEMP, DENSITY AND VISCOSITY																															1	1.0E-7	
DRC UPDATE				N=1 . NMF M			COMPUTE AVERAGE BULK T			I BULKI	+ C	09101010		AREL 11 . MEM)		NDDF(N)	INDD E (N)	1)-2.0*THICK(MEM)		ARS		1)-100000001 40,32,34		LUTYPE(TYPES(1,43),TYPOUT,IQ)	1) = Q (MEN)			11.EQ.3000000001 GO TO 36	N = D I N	JUT (MEM)	~	LDTYPE(TYPES(1,44),TYPOUT,IO)			LUTYPE(TYPES(1,45),TYPOUT,IO)	l) =Q (MEM)) EPSLON(MEM)=	
0LD VOL=SER=004783	FILENAME=MUFAN	TBACE=0	10=0	ISET=3 DD 1500 N=1.	MF MND	MEMEMEMUO(N)	C	L=INODE(N)	J=JNODE(N)	TBAVG=0.5*(IBULK(L)	KHU(MEM)=KXXXI4164VG	V 1 20 1 MEM J = V X	10=10+1 00 20 1=1-8		20 CONTINUE		MOUT (2,10) = JNOD E(N)	DIN=DOUT(MEM)-2.0*TH	D0 30 J=1,9	OUT (10, J) = STARS	30 CONTINUE	1	32 CONTINUE	CALL LUTYPE(<i>V</i>	60 10 1000	34 CONTINUE	IF(ITYPE(MEM)	CONSTS(1,MEM)=DIN	0D0UT (1 0) = D0UT (MEM)	2	الم	1	}	CALL LUTYPE	CONSTS(2, MEM) =Q(MEM)	GU TO 1000	40 CUNTINUE	IF(EPSLON(MEM).LE.0.0	
	MESSAGE	ADDED	ADDED	ADDED	AUDED	ADDED	ADDED	ADDED	ADDED	ADDED	ADDED	AUUEU	AUUEU	AUDEU		ADDED	ADDED	ADDED	ADDED	ADDED	ADDED	ADDED	ADDED	ADDED	AUDED	ADDED	ADDED	ADDED	ADDED	ADUED	ADDED	ADUED	ADDED	ADDED	ADDED	ADDED	ADDED	ADDEO	ADDED	
	LO SEQ														þ]-	- 2	1				An other states and the second states are strategic and the second states and the																	Nanji ka njela Bologi postova na konstanta na konstante konstante konstante konstante konstante konstante konst	

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AUDEI CUNSTSTSTATENTRENT CONSTSTO		CUNSIS(1, MEM) = 1	-	2000	84000	10. 29
ADDED IFTIT-11 100		CONSTS(3.MFM)=F	ADLENIREMI - PSLON(MEM)	3000	84100 84200	70.29
ADDED STATCH FIPE 00084400 70. AUDED C ALOUT(10) = RADLEN(MEM) 00084400 70. AUDED C ALOUT(10) = FINICK (REM) 00084400 70. AUDED THRAUT(10) = FINICK (REM) 00084400 70. AUDED RHAUNT(10) = FINICK (REM) 00084400 70. AUDED CANSTSIZ, MEM = ARDLEN(REM) 00084500 70. ADDED CANSTSIZ, MEM = ARDLEN(REM) 00084500 70. ADDED CANSTSIZ, MEM = ARDLEN(NEM) 0008510 70. ADDED CANTINUE CONSTSIZ, MEM = ARDLEN(NEM) 0008510 70. ADDED CANTINUE CANTINUE 00085400 70. 00085500 70. ADDED DOT LID CANTINUE TALL 00085400 70. 00085500 70. ADDED CANTINUE TALL TALL ADDE RELIFICAL 00085400 70. 00085500 70. 00085500 70. 70. 70. 70. 70. </td <th></th> <td>IF(IT-1) 100,50</td> <td>),110</td> <td>000</td> <td>84300</td> <td>70.29</td>		IF(IT-1) 100,50),110	000	84300	70.29
ADDED CAUDED C AUDIC STRAIGHT PIFE 00084500 70. AUDED TUDUT(ID)=RADLENTRENT 00084100 70. 0008400 70. AUDED TUDUT(ID)=RADLENTRENT 00084100 70. 0008400 70. AUDED RUFDUT(ID)=RADLENTRENT 0008400 70. 0008500 70. AUDED CALL LDTPFETYDESTLATTAT 00085100 70. 0008500 70. AUDED CALL LDTPFETYDESTLATTAT JADL 00085100 70. 00085500 70. AUDED CALL LDTPFETYDESTLATTAT JADL 00085100 70. 00085500 70. AUDED CALL LDTPFETYDESTLATTAT JADL 00085100 70. 00085500 70. AUDED CALL LDTPFETYDESTLATTAT JADL 90011101-80.0011144 JADL 00085500 70. AUDED JADL JADL JADL 900111144 JADL 00085500 70. AUDED JADL JADL JADL JADL JADL		CONTINUE		000	84400	70.29
ADDED ALOUT (II) = RAUR (III) = RAUR 00084500 70. ADDED THACUT (II) = FALCK (MEM) 00084500 70. ADDED THACUT (II) = FALCK (MEM) 00084500 70. ADDED CUNSTS(2, MEM) = FALCK (MEM) 00084500 70. ADDED CUNSTS(2, MEM) = FALCK (MEM) 00085500 70. ADDED CUNSTS(2, MEM) = FALCK (MEM) 00085500 70. ADDED CONSTS(2, MEM) = FALCK (MEM) 00085500 70. ADDED CONSTS(2, MEM) = FALCK (MEM) 00085500 70. ADDED CONSTS(2, MEM) = FALCK (MEM) 00085500 70. ADDED UST VALL 000111411 00085500 70. ADDED VAL VAL VAL 000185500 70. ADDED III CONTUNE VAL 000185500 70. ADDED III CONTUNE VAL VAL 00085500 70. ADDED III CONTUNE VAL VAL 00008500 70. ADDED ULDE		c	E	000	84500	70.29
ADDED DUDOT (II 0)= CORRATE CORRATE CORRAT CORRAT CORRATE		ALOUT(IO)=RADLE	EN (MEM)	000	84600	70.29
ADDED THKGUTTID1=FHICKMEM OOG84900 70. ADDED CALL LDYFETTYFESTUTID1=FHICKMEM 00084500 70. ADDED CALLIDYFETTYFESTUTID1=FHICKMEM 00085100 70. ADDED CONSTS12.MEM =RADLENKMEM*L2.0/DIN 00085100 70. ADDED TO CANTINIC 00085100 70. ADDED TO CONSTS12.MEM =RADLENKMEM*L2.0/DIN 00085500 70. ADDED TO CONSTS12.MEM =RADLENKMEM*L2.0/DIN 00085500 70. ADDED TO CONSTS12.MEM =RADLENKMEM 00085500 70. ADDED TO CONSTS12.MEM = SPECIFIED IN CARD COLUMNS 42-51. 00085500 70. ADDED TI CONTINUE TI CONSTS12.MEM = SPECIFIED IN CARD COLUMNS 42-51. 00085600 70. ADDED TI CONTINE TI CONTINE <th></th> <td>00001(10)=0001(</td> <td>(MEM)</td> <td>3000</td> <td>84700</td> <td>70.29</td>		00001(10)=0001((MEM)	3000	84700	70.29
ADDED KNFUNITIDJ=EPSKITMEN4 00084500 70. ADDED CALL LDTYFETTIJ=FYPUTIDJ=ENCHONEN4 00085100 70. ADDED CALL LDTYFETTIJ=FYPUTIDJ=ENCHONEN4 00085100 70. ADDED CALL LDTYFETTIJ=FYPUTIDJ 00085100 70. ADDED CALL LDTYFETTIJ=FYPUTIDJ 00085100 70. ADDED GO TO LONDE CALL LDTYFESTIJI); YPUUTIDJ 00085300 70. ADDED GO TO LONDE WRITE(6,9001) INDEC 00085500 70. ADDED 9001 FURMAT(11H=///////////////////////////////////		THKOUT (IO) = THIC	CK(MEM)	000	84800	
ADDED CGNSTS(2, PMM) * RADLENNMEM * 12.0/D(1N) CO005500 70. ADDED CGUL TUPYE (TYPES(1,1), TYPUUT, (U)) 00005500 70. ADDED GG TO 1000 MSTF(6, 9001) INDDE(N), JNODE(N) 00005500 70. ADDED 900 LENRANT(TH: 1/1//////////////////////////////////		RUFOUT(10)=EPSI		3000	84900	70.29
ADDEC CALL CONSPISION TO CONSPSION TO ADDED 0001 1000 CUTTUE 00085300 70. ADDED 9001 FRRMATTHIL///////////////////////////////////		CONSTS(2,MEM)=	MEM)*12	000	85000	70.29
ADDED GO GO <thg< td=""><th></th><td></td><td>100471¢()</td><td>3000</td><td>85100</td><td>70.29</td></thg<>			100471¢()	3000	85100	70.29
ADDED IOO CGNITINUE ONOS500 70. AUDED 9001 FURMATTINUE 00085500 70. AUDED 9001 FURMATTINUE 00085500 70. AUDED 9001 FURMATTINUE 00085500 70. AUDED 2 2111#*//1/7/7/7/7/71X;107(11#*)1 00085500 70. AUDED 1 - 13.* HAS AN ILLEGAL TYPE SPECIFIED IN CARD COLUMNS 42-51 *, 00085500 70. AUDED 11 CUNTINUE 00085700 70. 00085700 70. AUDED 115 <cuntinue< td=""> 0001101-BOKCVLMEMN 00085700 70. 00085700 70. ADDED 115<cuntinue< td=""> 00011101-BOKCVLMEMN 00086500 70. 00086500 70. ADDED 115<cuntinue< td=""> 00001101-BOKCVLMEMN 000086100 70. 70. 70. ADDED 115<fund< td=""> 115 70. 70. 70. 70. ADDED 115<fund< td=""> 115 70. 70. 70. 70. 70. 70. 70. 70.</fund<></fund<></cuntinue<></cuntinue<></cuntinue<>				3000	85200	70.29
ADDED WRITE(6,9001) INDE(N), JNDE(N) OOS5500 TO. ADDED 9001 FURMAT(11)///////////////////////////////////		CONTINUE		000	85300	70.29
ADDED 9001 FDRMATTHL////////INS.10/(1H*)/ 00085500 70. ADDED 1 *.13, 'HAS AN ILLEGAL TYPE SPECIFIED IN CARD COLUMNS 42-51 ', 00085500 70. ADDED RETURN RETURN 00085700 70. ADDED 110 CONTINUE 00085700 70. 00085700 70. ADDED 115 CONTINUE 00085700 70. 00085900 70. ADDED 115 CUNTINUE 001110.9-D0KCVLMEM) 00086500 70. ADDED 115 CUNTINUE 0001110.9-D0KCVLMEM) 00086500 70. ADDED 0001110.9-D0KCVLMEM) 00086500 70. 00086500 70. ADDED CULUNIVE 0001110.9-D0KCVLMEM) 00086500 70. 00086500 70. ADDED CULUNIVE TKOUTI (10.9-D0UTI (10.9-D0UT, 10.9) 00086500 70. 00086500 70. ADDED CULUNIVE CONTINUE 000086500 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70.		WRITE(6,9001)	<pre>, JNODE(N)</pre>		85400	70. 29'
ADDED I,13, HAS AN ILLEGAL TYPE SPECIFIED IN CARD COLUMNS 42-51 *, 00085500 70. ADDED Z1(1H*)/IH0,107(1H*) 00085700 70. ADDED IIO CONTINUE 00085600 70. ADDED IF(1T-99) 120, 115,500 00085600 70. ADDED ELOUT(10)=DUXTREM) 00085100 70. ADDED THXOUT(10)=DUXTREM) 00085300 70. ADDED CONSTS(2,MEM)=DOXCVLTREM) 00086300 70. ADDED CONSTS(2,MEM)=DOXCVLTREM) 00086500 70. ADDED CONSTS(2,MEM)=DOXCVLTREM) 00086500 70. ADDED CONTINUE CONSTS(2,MEM)=DOXCVLTREM) 00086500 70. ADDED CONTINUE CONSTS(2,MEM)=DOXCVLTREM) 00086500 70. ADDED LUTYPE(17PES(1,113),TYPUUT,1U) 00086500 70. 70. <tr< th=""><th></th><th>FURMATCIHIZ</th><th>////////////X**I07(IH#)/IH0.21X, MEMBER</th><th>•</th><th>85500</th><th>70.29</th></tr<>		FURMATCIHIZ	////////////X**I07(IH#)/IH0.21X, MEMBER	•	85500	70.29
ADDED Z Z1(1+*)/1H0,107(1H*1) 00085500 70. ADDED 110 CUNTNUE 00085500 70. ADDED 115 CUNTNUE 00085500 70. ADDED 115 CUNTNUE 00085500 70. ADDED 115 CUNTNUE 00085500 70. ADDED 0001110=DUNTNUE 00085100 70. 00085100 70. ADDED 0001110=DUNTNUE 00086100 70. 00086100 70. ADDED 00001110=DUNTNUE 00086100 70. 00086500 70. ADDED 00001101=DUNTNUE 00008100 70. 70. 70. ADDED 00001101 <d=thickimem< td=""> 000086500 70. 70. 70. ADDED 120 011000 71. 900086500 70. 70. ADDED 120 01100 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. <</d=thickimem<>		-	- TYPE SPECIFIED IN CARD COLUMNS	51 **	85600	70.29
RETURN 00085800 70. 110 CONTINUE 00086100 70. 115 CUNTINUE 00086500 70. 115 CUNTINUE 00086500 70. 115 CUNTIUE 00086500 70. 116 LUTYPE(TYPES(1,13),TYPDUT,1U) 00086500 70. 120 LOO 000 00086500 70. 120 LOO 000 000 70. 120 CONTINUE 000 70. 70. 120 CONTINUE 000 70. 70. 120 CONTINUE 000 70. 70. 120 CONTINUE 1000 70. 70. 1	AUDED ADDED ADDED ADDED ADDED ADDED ADDED ADDED),107(1H*))	000	85700	70.29
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IF(II-99) I20, 112,500 00086500 70. II5 CUNTINUE 00086500 70. ELEUTI(0)=DOKCVL(MEM) 00086500 70. 000086500 70. 00086500 70. 0001110)=THICK(MEM) 00086500 70. 00086500 70. 00086500 70. 00086500 70. 00086500 70. 00086500 70. 00086500 70. 00086500 70. 00086500 70. 00086500 70. 00086500 70. 0001100 000 70. 00086500 70. 120 CONTINUE 00086500 70. 00086500 70. 120 CONTINUE 00086500 70. 00086500 70. 120 CONTINUE 0001100 70. 00086500 70. 120 CONTINUE 000110 70. 00086500 70. 00011101 FHCK(MEM) 0001110 70. 00086500 70. 00011101 FHCK(MEM) 0001110 70. 00087500 70.		CONTINUE		000	85900	70. 29
115 CGNTINUE 00086100 70. ELOUT(10)=DUUT(MEM) 00086400 70. THXOUT(10)=DUUT(MEM) 00086400 70. THXOUT(10)=DUUT(MEM) 00086400 70. THXOUT(10)=DUUT(MEM) 00086500 70. THXOUT(10)=THICK(MEM) 00086500 70. CALL LUTYPE(TYPES(1,13),TYPOUT,10) 00086500 70. 00086500 70. 00086500 70. 010<100	ADDE0 ADDE0 ADDE0 ADDE0 ADDE0 ADDE0	IF(II-99)	115,500	3000	86000	70.29
ELGUITIOJ=EDUCTAMM 00086200 70. DDUUTIUD=EDUCTAMM 00086400 70. TKGUTIUD=EDUCTAMM 00086400 70. TKGUTIUD=EDUCTAMM 00086400 70. TKGUTIUD=EDUCTAMM 00086500 70. CHAL LUTYPE(ITYPES(1,13),TYPOUT,10) 00086500 70. CALL LUTYPE(ITYPES(1,13),TYPOUT,10) 00086500 70. CUNTINUE 00086500 70. RUFOUT(ID)=EPSLCN(MEM) 00086500 70. DDUT(ID)=EPSLCN(MEM) 00086700 70. RUFOUT(ID)=EPSLCN(MEM) 00086700 70. RUFOUT(ID)=EPSLCN(MEM) 00086700 70. RUFOUT(ID)=EPSLCN(MEM) 00086800 70. RUFOUT(ID)=EPSLCN(MEM) 00086700 70. RUFOUT(ID)=EPSLCN(MEM) 00086800 70. RUFOUT(ID)=EPSLCN(MEM) 00086800 70. RUFOUT(ID)=EPSLCN(MEM) 00086800 70. RUFOUT(ID)=EPSLCN(MEM) 00086800 70. RUFOUT(ID)=EPSLCN(MEM) 00086700 70. III<11	ADDED ADDED ADDED ADDED ADDED			3000	86100	70.29
0D0UT(I.0) = DUUT(MEM) 00086300 70. THKOUT(I.0) = THICK(MEM) 00086400 70. CONSTS(2,MEM) = DOKCVL(MEM) 00086400 70. CONSTS(2,MEM) = DOKCVL(MEM) 00086400 70. CALL LDTYPE(TYPES(1,13),TYPDUT,IU) 00086600 70. 00086600 70. 00086600 70. 00100 60 1000 00086600 70. 00110 EPSLCN(MEM) 00086600 70. 120 CONTINUE 00086900 70. 0001110 EPSLCN(MEM) 00088700 70. 0001110 EPSLCN(MEM) 00088700 70. 011101 EUTYPE(TYPEST) 00088700 70. 011110 EUTYPEST 00088700 70. 011110 EUTYPEST 00087200 70. 0111110 EUTYPEST 00087200 70. 0111110 EUTYPEST 00087700 70. 0111110 EUTYPEST 00087700 70. 0111110 EUTYPEST 00087700 70. 01111111 EUTYPEST EUTYPEST <th>ADDED ADDED ADDED ADDED</th> <td>ELOUT(10)=DOKCV</td> <td>/L (MEM)</td> <td>3000</td> <td>86200</td> <td>70.29</td>	ADDED ADDED ADDED ADDED	ELOUT(10)=DOKCV	/L (MEM)	3000	86200	70.29
THKDUT(ID)=THICK(MEM) 00086400 70. CONSTS(2,MEM)=DOKCVL(MEM) 00086500 70. CONSTS(2,MEM)=DOKCVL(MEM) 00086500 70. CALL LUTYPE(TYPES(1,13),TYPOUT,ID) 00086500 70. U20 CONTINUE 00086500 70. NHCOUT(ID)=EPSLCN(MEM) 00086500 70. THKOUT(ID)=EPSLCN(MEM) 00086500 70. NHKOUT(ID)=EPSLCN(MEM) 00086500 70. THKOUT(ID)=EPSLCN(MEM) 00086500 70. NHKOUT(ID)=EPSLCN(MEM) 00086500 70. THKOUT(ID)=EPSLCN(MEM) 00086700 70. THKOUT(ID)=EPSLCN(MEM) 00086500 70. THKOUT(ID)=EPSLCN(MEM) 00086500 70. THKOUT(ID)=EPSLCN(MEM) 00086700 70. THROUT(ID)=EPSLCN(MEM) 00087700 70. TI=IT-1 Call LDTYPE(TYPES(T)/T+1),TYPUUT,IU) 00087700 70. DIN=DIN/12.0 Call LDTYPES(T)/T+11,TYPUUT,IU) 00087700 70. DIN=DIN/12.0 Call LDTYPES(T)/T+11,TYPUUT,IU) 00087700 70. DIN=DIN/12.0 Call LDTYPES(T)/T+11,TYPUUT,IU) 0008770	ADDED ADDED ADDED	00001(01)1000	MEM)	000	86300	70.29
CONSTS(2,MEM) = DOKCVL(MEM) 00086500 70. CALL LUTYPE(TYPES(1,13),TYPOUT,IU) 00086500 70. CUD CONTINUE 00086500 70. CUD 00086700 70. 00086500 70. CUD CUT 000 00086700 70. CUD CUT 000 00086700 70. CUD CUT 000 00086900 70. RUFOUT(ID)=EPSLCN(MEM) 0008700 70. 00086900 70. RUFOUT(ID)=THICK(MEM) 00087100 70. 00087100 70. IT=IT-1 00087101 00087200 70. 00087400 70. DINN=DIN/12.0 CALL LDTYPE(TYPES(II/IT+1), IYPOUT, IU) 00087400 70. 70. DINN=DIN/12.0 CALL LDTYPE(TYPES(II/IT+1), IYPOUT, IU) 00087400 70. 70. CALL LDTYPE(TYPES(II/IT+1), IYPOUT, IU) 01087400 70. 70. 70. DINN=DIN/12.0 CALL LDTYPE(IYPES(II/IT+1), IYPOUT, IU) 70. 70. 70. 70. CALL LDTYPE(IYPES(II/IT+1), IYPOUT, IU) CALL LDTYPE(IYPES(II/IT+1), IYPOUT, IU) 70	ADDED ADDED ADDED	THKOUT(IO)=THIC		000	86400	70.29
CALL LDTYPE(TYPES(1,13),TYPOUT,ID) 00086600 70. GU T0 1000 00086700 70. I20 CONTINUE 00086800 70. RUFOUT(10)=EPSLCN(MEM) 00086800 70. NHKOUT(10)=EPSLCN(MEM) 00086900 70. 0D0UT(10)=EPSLCN(MEM) 00086900 70. 11=17-1 00087100 70. 011=17-1 00087100 70. 011=17-1 00087100 70. 011=17-1 00087100 70. 011=17-1 00087100 70. 011=17-1 00087200 70. 011=17-1 00087700 70. 011=17-1 00087700 70. 011=17-1 00087700 70. 011=17-1 00087700 70. 011=17-1 00087700 70. 011=10 011/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1	ADED	CONSTS(2,MEM)=[L .	3000	86500	70.295
GD T0 1000 00086700 70. 120 CGNTINUE 00086800 70. RUFOUT(I0)=EPSLCN(MEM) 00086900 70. 0D0UT(I0)=UDUT(MEM) 00087000 70. 0D0UT(I0)=THICK(MEM) 00087000 70. 1T=IT-1 00087100 70. 0I1=IT-1 00087200 70. 0IN=DIN/12.0 00087200 70. 0IN=DIN/12.0 00087300 70. 0IN=DIN/12.0 00087300 70. 0IN=DIN/12.0 00087300 70. 0IN=DIN/12.0 00087400 70. 0IN=DIN/12.0 00087500 70. 0IN=DIN/12.0 00087500 70. 0IN=DIN/12.0 00087400 70. 0IN=DIN/12.0 00087600 70. 0IN 10	VDFD		1	000	86600	70.29
120 CGNTINUE 00086800 70. RUFOUT(ID)=EPSLCN(MEM) 00086900 70. 0DDUT(ID)=THICK(MEM) 00087000 70. 11+KOUT(ID)=THICK(MEM) 00087100 70. 11=IT-1 00087100 70. 11=IT-1 00087200 70. 11=IT-1 00087200 70. 11=IT-1 00087200 70. 01n=DIN/12.0 00087200 70. 01n=DIN/12.0 00087300 70. 01 01 00087300 70. 01 01 01 00087300 70. 01 01 01 01. 00087400 70. 01 01 01 01. 00087400 70. 01 01 01 01 00087400 70. 01 01 01 01 00087400 70. 01 01 01 01 00087400 70. 01 01 01 01 01 00087400 70. 01 01 01 01 <	1010	60 10		000	86700	
RUFOUT(IU)=EPSLUN(MEM) 000086900 70. UDDUT(IU)=EPSLUN(MEM) 00087100 70. IHKOUT(IU)=THICK(MEM) 00087100 70. IT=IT-1 00087200 70. CALL LDTYPE(TYPES(I,II+1),TYPUUT,IU) 00087200 70. UIN=DIN/I2.0 00087400 70. UC CALL LDTYPE(TYPES(I,II+1),TYPUUT,IU) 00087400 70. UN/I2.0 00087500 70. 00087500 70. UN/I2.0 00087600 70. 00087700 70. UN/I2.0 00087500 70. 00087600 70. UN/I2.0 00087600 70. 00087700 70. UN/I2.0 00087600 70. 70. 70. UN/I2.1 00087600 <t< td=""><th>ADDEU</th><td>1</td><td></td><td>1000</td><td>86800</td><td></td></t<>	ADDEU	1		1000	86800	
000UT(I0)=U0UT(MEM) 00087100 70. 1HK0UT(I0)=THICK(MEM) 00087100 70. 1T=IT-1 00087200 70. CALL LDTYPE(TYPES(I,IT+1),TYPUUT,IU) 00087200 70. DIN=DIN/12.0 00087300 70. C CALL LDTYPE(TYPES(I,IT+1),TYPUUT,IU) 00087300 70. DIN=DIN/12.0 00087500 70. 00087500 70. C F(IT-LENZYPE(TYPES(I,IT+1),TYPUUT,IU)) 00087500 70. 70. DIN=DIN/12.0 C C 00087500 70. 70. C F(IT-LENEQMAX-1) GD TO 130 70. 70. 70. 70. MRITE(6,9001) INODE(N), JNODE(N) JNODE(N) 00087700 70. 70.	ADDED	RUFOUT (10) = EP SI		3000	86900	70.29
THKOUT(I0)=THICK(MEM) 00087100 70. IT=IT-1 00087200 70. CALL LDTYPE(TYPES(I,IT+1),TYPOUT,IU) 00087300 70. DIN=DIN/12.0 00087300 70. C EALL LDTYPE(TYPES(I,IT+1),TYPOUT,IU) 00087300 70. DIN=DIN/12.0 Calculate EQUIVALENT LENGTH OF STRAIGHT PIPE 00087500 70. C FOR THE STANDARD COMPONENTS AND FITTINGS 00087500 70. C IF(IT.LE.NEQMAX-1) GD TO 130 70. WRITE(6,9001) INODE(N), JNODE(N) MON 70. 70.	AUDED	000UT (1 0) = 00UT (MEM)	000	87000	70.29
IT=IT-1 00087200 70. CALL LDTYPE(TYPES(1,11+1),TYPGUT,IU) 00087300 70. DIN=DIN/12.0 01087300 70. C CALL LDTYPE(TYPES(1,11+1),TYPGUT,IU) 00087300 70. DIN=DIN/12.0 CALL LDTYPE(TYPES(1,11+1),TYPGUT,IU) 00087300 70. C FOR THE STANDARD COMPONENTS AND FITINGS 00087500 70. C FOR THE STANDARD COMPONENTS AND FITINGS 00087500 70. MRITE(6,9001) INODE(N), JNODE(N) JNODE(N) 00087800 70.	ADUED	THKOUT(10)=THIC	(K (MEM)	000	87100	70.29!
CALL LDTYPE(TYPES(1,11+1),TYPQUT,IU) 00087300 70. DIN=DIN/12.0 01087400 70. C CALCULATE EQUIVALENT LENGTH OF STRATGHT PIPE 00087500 70. C FOR THE STANDARD COMPONENTS AND FITTINGS 00087500 70. C FOR THE STANDARD COMPONENTS AND FITTINGS 00087500 70. MRITE(6,9001) INODE(N), JNODE(N) MODE(N) 00087800 70.	ADDED			000	87200	
DIN=DIN/12.0 00087400 70. C CALCULATE EQUIVALENT LENGTH OF STRATGHT PIPE 00087500 70. C FUR THE STANDARD COMPONENTS AND FITTINGS 00087500 70. C IF(IT.LE.NEQMAX-I) GU TO 130 00087700 70. WRITE(6,9001) INDDE(N), JNDDE(N) JNDDE(N) 00087800 70.	ADDED	CALL LDTYPETTY	· · · · ·	000	87300	70.29!
C CALCULATE EQUIVALENT LENGTH OF STRAIGHT PIPE 00087500 70. C FUR THE STANDARD COMPONENTS AND FITTINGS 00087600 70. WRITE(6,9001) INODE(N), JNODE(N) 00087800 70.	ADDED				87400	
C FOR THE STANDARD COMPONENTS AND FITTINGS 00087600 70. IF(IT.LE.NEQMAX-1) GO TO 130 WRITE(6,9001) INODE(N), JNODE(N) 00087800 70.	ADDED		CULATE EQUIVALENT LENGTH OF STRAIGHT		87500	
IF(IT.LE.NEQMAX-I) GU TU 130 WRITE(6,9001) INDDE(N), JNDDE(N) 00087800 70.	ADDED		HE STANDARD COMPONENTS AND FITT	000	87600	
WRITE(6,9001) INUDE(N), JNUDE(N) 00087800 70.	ADDED	<	60 TU 130	3000	87700	70.29
	ADDED		, JNUDE	3000	87800	ീ

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	OLD VOL=SEF	VOL=SER=004783	DRC UPDATE	NEW VOL=SER=007208		aran aran a
LD SEQ	MESSAGE	FILENAME=MUFAN	DECKNAM	DECKNAME=MUFAN	-	YY.DDI
						597 - 1 506
	ADDED	ELOUT(IO)=20.0			00616000	
	ADDED	CONSTS(2,MEM)=20	0*0		00092000	۸II
	ADDED	60 TO 1000			00092100	70.29
	ADUED		CLOSE RETURN REND		00092300	10
	ADDED	ANGOUT (10) = PHI			00092400	70.29
	AUDED	ELOUT(10)=50.0			00092500	70.29
	ADDED		0.0		00092600	ا ه
	ADDED				00052700	70.29
	ADDED	220 CONTINUE			00092800	70.29
	ADDED	c GA	GATE VALVE		00092900	70.29
	ADDED	ELOUT(10)=13.0			00063000	70.29
	ADDED	CONSTS(2, MEM) =13.0	0*0		00093100	70.29
	AUDED				00093200	70.29
	ADDED	230 CONTINUE			00063300	70.29
A	AUDED	C SW	SWING CHECK		00093400	70.29
8	ADDED	ELUUTIUT=135.0			00032000	70.29
2	ADDED	VSTS	35 . 0		00093600	70.29
4	ADDED	Ł			00063700	70.29
a a	ADDED	240 CUNTINUE			00033800	70.29
	ADDED	CAN	ANGLE VALVE		00626000	70.29
	ADDED	0	-		0004000	70.29
	ADDED	= (W :	145.0		00064100	70.29
	ADED	GO TO 1000			00094200	70.29
	AUDEU	250 CONTINUE			00094300	70. 29
	ADDED		GLOBE VALVE		000446000	70.29
	ADDED	ELGUT (10)=340.0			00034500	70.29
	ADUED		•0•0		00094600	70.29
	ADDED				00094700	70.29
	ADDED	260 CONTINUE			00094800	70.29
	ADDED	c ST	STANDARD TEE - STRAIGHT	THRU	000646000	\sim
	ADDED				00095000	\sim
	ADDED	= (N =	10.0		00062100	2
	ADDED	GO TO 1000			00095200	70.29
	ADDED	270 CUNTINUE			000653000	0.2
	ADDED		STANDARD TEE - THRU BRANCH	NCH	00095400	2
	ADDED	ELOUT(10)=60.0			6002	0
	ADDED	CONSTS(2,MEM) =	60.0		009560	0
	ADDED	500			00035700	70.29
	ADDED	c			009580	ീ

D. SEV FLENAME-MUFAN DECKNAME-MUFAN Y.1.00 0. DEU FLENAME-MUFAN DECKNAME-MUFAN Y.1.00 ADED FLENAME-MUFAN DECKNAME-MUFAN Y.1.00 ADED FLENAME-MUFAN DECKNAME DECKNAME Y.1.00 ADED FLENAME DECKNAME DECKNAME<		S= TOA OTO	0LD V0L=SER=004783	DRC UPDATE	NEW VDL=SER=007208		
ADDED K-FACTORS CO0099900 70 ADDED FT=T/100 FT=T/100 00099900 70 ADDED FT=T/100 FT=T/100 00099500 70 ADDED FT=T/100 FT=T/100 00099500 70 ADDED 505 G01110J=FUNE 00099500 71 ADDED 00001110J=FUNE 00099500 71 ADDED 00001110J=FUNE 00099500 71 ADDED 00001110J=FUNE 00099500 71 ADDED 00001110J=FUNE 71 71 70 71 ADDED 00001110J=FUNE 71 71 71 71 71 ADDED 00001110J=FUNE 71		MESSAGE	FILENAME=MUFAN	DECKNAME=MUFA	N		
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ADDED IT=17140 Composition Ti=17140 Composition Composition <thcomposite< th=""> Composite Composite<</thcomposite<>		ADDED		-FACTORS		00095900	° °
ADDE IC(II-9) SIO+5500 Too	An a China ya An ana ang kana	ADDED	-		0	00096100	70.29
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ADDED AKUT(10) = BUT(1KH) ADDE ADDE<		ADDED	1			00696000	
ADDED CONSTST2, ARM = DACKUL (MM) ONO 6500 70. ADDED CONSTST2, ARM = DACKUL (MM) 00096500 70. ADDED CALL LDTYPE(TYPES211,271,TYPOUT,10) 00096500 70. ADDED CALL LDTYPE(TYPES211,271,TYPOUT,10) 00097600 70. ADDED CALL LDTYPE(TYPES211,171,TYPOUT,10) 00097600 70. ADDED DOTUT(10)=HILCKMEM) 00097600 70. ADDED DZIN=UDTIERM 00007500 70. ADDED DZIN=DZINEM 00007500 70. ADDED DZIN=DZINEM 00007500 70. ADDED DZIN=DZINEM 000097500 70. ADDED DZIN=DZINEM 000097500 70. ADDED IEXP=4LEXP		ADUED	AKOUT(ID)=DOKCVI	L(MEM)		00096400	
ADDED DOUNTIOD DOUTIOD DOUTIOD DOUTING DOUTING <thdouting< th=""> DOUTING <thd< td=""><th></th><td>ADDED</td><td>CONSTS(2,MEM)=D(</td><td>)</td><td></td><td>00036500</td><td></td></thd<></thdouting<>		ADDED	CONSTS(2,MEM)=D()		00036500	
ADDEE THK CK (MEM) OOG96700 TO ADDED GG1 100 00094700 70 ADDED S10 GANTIND 0001400 70 ADDED S10 GANTIND 0001101 00097100 70 ADDED S10 GANTIND 00011(AB 00097100 70 ADDED S10 GANTIND 00011(AB 00097100 70 ADDED DIDUTIND 00097100 70 00097100 70 ADDED DIDUTIND DIDUTIND 00097500 70 00097500 70 ADDED DITTUC DITTUC DITTUC 00097500 70 00097500 70 ADDED DITTUC DITTUC DITTUC 00097500 70 70 ADDED DITTUC DITTUC DITTUC 70 70 70 ADDED TITTUC DITTUC DITTUC 70 70 70 ADDED TITTUC DITTUC DITTUC DITTUC 70 70		ADDED	000UT(I0)=00UT(I	MEM)		00096600	70.29
ADDED Call LibryE(TYPESZ(1,ZT),TYPUU,LU) 00094800 70. ADDED 500 (01 0.00) 0.0097100 0.0097100 70. ADDED 510 (AUTUE) 510 (AUTUE) 0.0097100 70. 0.0097100 70. ADDED CALL LDYPE(TYPESZ(1,TT),TYPOUT,ID) 0.0097100 70. 0.0097700 70. ADDED CALL LDTYPE(TYPESZ(1,TT),TYPOUT,ID) 0.0097500 70. 0.0097500 70. ADDED TK(UTU,10)=HUTKNEM) 0.00122 0.0097500 70. 0.0097700 70. ADDED DZ1NJ210=ZTKNH 0.01102 0.011100 70. 0.0097500 70. ADDED DZ1NJ20 PTL 0.01102 0.01000 70. 0.0097500 70. ADDED DZ1NJ20 DT DZ1NJ20 0.01000 70. 0.0097500 70. ADDED DZ1NJ20 DT DZ0NTUL 0.0007100 70. 0.0097500 70. ADDED TEXPELEXP DC0000+1NDZ DC00000 70. 70.		ADDED	THKOUT (IO) = THICI	1		00096700	70.29
ADDED 50.10 CALL LUTVFE(TYPESI1,111,TYPDUT,10) 00097100 70. ADDED CALL <lutve(typesi1,111,typdut,10)< td=""> 00097100 70. 00097100 70. ADDED THKIULT THAUT 0.0011(MEM) 0.0097100 70. 00097100 70. ADDED THAUT THAUT 0.0011(MEM) 0.0097100 70. 00097100 70. ADDED THAUT DED 20011(MEM) 0.0011(MEM) 0.0097100 70. 00097100 70. 00097500 70. 00097500 70. 00097500 70. 00097500 70. 00097500 70. 00097500 70. 00097500 70. 00097500 70. 00097500 70. 00097500 70.</lutve(typesi1,111,typdut,10)<>		ADDED		•27		00096800	70.29
AUDED 510 CANTING 700 7		ADDED	09			000969000	70.29
ADDED CALL UTPETTYPEST(1,11), TYPUUT,10) 00097100 700 ADDED THKOUT(10)=THICK(MEM) 00097400 70 ADDED THKOUT(10)=THICK(MEM) 00097500 70 ADDED DFUT(11)=JT(K(MEM) 00097500 70 ADDED DFUT(10)=DT(KEM) 00097500 70 ADDED DFUT(10)=DT(KEM) 00097500 70 ADDED DFUT(10)=DT(KEM) 00097500 70 ADDED DFUT(10)=DT(KEM) 00097600 70 ADDED 1EXP=4LEXP 070000 70 00097600 70 ADDED 1FTUTLE 070000 00 0009800 70 ADDED JFTUTA G070000 00 0009800 70 ADDED IFTUTA G070000 000 0009800 70 ADDED JFTUTA G070000 000 0009800 70 ADDED JFTUTA ADDED 0009800 70 0009800 70 ADDED JFTUTA		ADUED				00026000	
ADDEC OUDULTAN OUDOPTION OUD		ADUED	CALL LDTYPE (TYPI	L, IT), TYPOUT		00116000	
ADDED THKCKIMEMJ 00097300 70. ADDED IF(IT.GT.13) GT 0 515 00097500 70. ADDED DZUNTT(0)=DZTMEM) 00097500 70. 00097500 70. ADDED DZUNTT(0)=DZTMEM) 00097500 70. 00097500 70. ADDED LEXP=ALGELOLDZIN) 00097750 70. 00097750 70. ADDED LEXP=ALGELOLDZIN) 00097750 70. 00097780 70. ADDED LEXP=ALGELOLDZIN) 00097800 70. 00097800 70. ADDED LEXP=ALGELODZIN) 000 00097800 70. 00097800 70. ADDED LEXP=ALGELODZIN) GO TO 000 000 70. 00097800 70. ADDED SIG TADED SIG 000 70. 00098400 70. ADDED NEMAZ=ZS MEMAZ=ZS GT 00098200 70. 70. 70. 70. 70. 70. 70. 70. 70. 70.		ADDED	0000T(10)=D0UT(1	MEM)		00097200	
ADDED IF(IT.6T.13) GG T0 515 GO 097500 70. ADDED D2UT(IU=DZTMEM) 00097500 70. 00097500 70. ADDED DZUT(IU=DZTMEM) 00097500 70. 00097500 70. ADDED IEXP=ALGEJO(DZIN) EXP=4LEXP 00097800 70. ADDED IEXP=ALGEJO(DZIN) EXP=4LEXP 00097800 70. ADDED INDZ=DZINATO.0**IEXP 00097800 70. 00097800 70. ADDED INDZ=DZINATO.0**IEXP 0009800 70. 00098100 70. ADDED INCATZES NEMMAX 50 01000 70. 00098800 70. ADDED IF(IT.LE.0KMAX) 50 10.520 00098100 70. 00098800 70. ADDED XMAX=26 NMMAX=26 00198200 70. 00098800 70. ADDED XIT.0LE NMMAX=26 001700 00098800 70. 00098800 70. ADDED S210 NUDE(N) NUDE(N) NUDE(N)		ADDED	THKOUT (IO) = THICI		0	00061300	
ADDED DZOUTT(10)=D2T(MEM) 000977500 70. ADDED DZIN=D2T(MEM)-2.0*THICK(MEM) 000977500 70. ADDED IEXP=4-IEXP 000977507 000977500 70. ADDED IEXP=4-IEXP 000977607 70. 000977507 70. ADDED IEXP=4-IEXP 00097700 70. 00097700 70. ADDED IEXP=4-IEXP 00000-10*EX 00097700 70. 00097100 70. ADDED IF(IT.LE.6) GO 10 1000 1000 70. 00098100 70. ADDED IF(IT.LE.6) GO 10 1000 000 70. 00098100 70. ADDED IF(IT.LE.6) GO 10 1000 000 70. 00098100 70. ADDED IF(IT.LE.6) GO 10 520 00098100 70. 70. 70. ADDED STOP NUME(N). JUDE(N). JUDE(N). JUDE(N). JUDE(N) 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70.	A	ADDED	IF(IT.6T.13) G(TO 51	0	00047400	
AUDEU D2IN=D2(MEM)-2.0*THICK(MEM) 00097500 70. AUDEU IEXP=ALGGIO(D21N) 00097700 70. AUDEU IEXP=ALGGIO(D21N) 00097700 70. AUDEU IEXP=ALGGIO(D21N) 00097800 70. AUDEU IEXP=ALGGIO(D21N) 00097800 70. AUDEU IEXP=ALGGIO(D21N) 00097800 70. AUDEU IF(ITLE.6N) G0 10 1000 0009800 70. AUDEU IF(ITLE.6N) G0 10 1000 00098100 70. AUDEU IF(ITLE.NEWAX) G0 10 1000 00098100 70. AUDEU IF(ITLE.NEWAX) G0 10 1000 00098100 70. ADDEU IF(ITLE.NEWAX) G0 10 200 00098100 70. ADDEU STOP WRITE(6,901) INUDE(N); JNODE(N) 00098100 70. ADDEU STOP NADE(N) ITEIT-6. 00098100 70. ADDEU STOP ITEIT-6. STOP 00099800 70. ADDEU STOP ITEIT-	, en	ADDED	D 2001 (10) = D2 (ME1			00037500	70.29
ADDED IEXP=ALGE.0[021N] 00097700 70. ADDED IEXP=ALGE.0[021N] 00097800 70. ADDED INO2=02[W*10.0**[EXP 00097800 70. ADDED INO2=02[W*10.0**[EXP 00097800 70. ADDED ICUNST13.MEM)=IEXP*L0000+IND2 00098100 70. ADDED 515 CONTINUE 00098300 70. ADDED NEWAX=26 CO TO 1000 00098300 70. ADDED IF(IT.LE.SU GO TO 1000 00098300 70. 00098300 70. ADDED IF(IT.LE.SUMXAZ GO TO 520 00098300 70. 00098300 70. ADDED IF(IT.LE.SUMXAZ S0 00098400 70. 00098400 70. ADDED S10P NEMAX=26 010520 00098400 70. 00098400 70. ADDED S10P S10P S10P 00098400 70. 00098400 70. ADDED S10P S10P S10P S10P S10P 00098400	2	ADDED	D21N=D2(MEM)-2.(0*THICK(MEM)	0	00037600	70.29
IEXP=4-IEXP IEXP=4-IEXP INO2=D21N*10.0**IEXP INO2=D21N*10.00*100 IF(IT:LE.6) G0 T0 1000 515 CONTINUE NKMAX=26 IF(IT:LE.NKMAX) G0 T0 520 NKMAX=26 IF(IT:LE.NKMAX) G0 T0 520 IF(IT:LE.NKMAX) G0 T0 520 IF(IT:LE.NKMAX) G0 T0 520 IF(IT:LE.NKMAX) G0 700 520 CONTINUE IF(IT:LE.NKMAX) G0 700 700000000000000000000000000000000	5	ADDED	IEXP=AL0610(D211	2	2	00116000	70.29
IND2=DZ1N*10.0**IEXP ICUNST(3,MEM) =I EXP*IC0000+IND2 00098200 515 CONTINLE.6) G0 T0 1000 F16 IT.LE.6) G0 T0 1000 NKMAX=26 NKMAX=27 NKMAX=26 NKMAX=26 NKMAX=26 NKMAX=27 NKMAX=26 NKMAX=2		ADDED	IEXP=4-IEXP		0	00097800	70.29
ICUNST(3,MEM)=IEXP*100000+IND2 00098100 70. IF(IT:LE.6) G0 T0 1000 70. 515 CUNTINUE 00098100 70. NKMAX=26 G0 T0 1000 70. NKMAX=26 G0 T0 520 00098400 70. NKMAX=26 00098400 70. STOP 00098400 70. STOP 00098600 70. 00098600 70. 1F=IT-6 00098600 70. 00098800 70. 00098800 70. 00098900 70. 00099800 70. 00099900 70. 530 CONTINUE 00098900 70. 00099800 70. 530 CONTINUE 00099900 70. 00099900 70. 540 CONTINUE 00099000 70. 00099900 70. 00099900 70. 00099900 70. 00099900 70. 1F(PHI(MEM).GT.0.6.ANU.PHI(MEM).LE.IB0.0) G0 70. 16(PHI(MEM).GT.0.6.ANU.PHI(MEM).LE.IB0.0) G0 70. 17(PHI(MEM).GT.0.0.ANU.PHI(MEM).LE.IB0.0) G0 70. 17(PHI(MEM).GT.0.0.ANU.PHI(MEM).LE.IB0.0) G0 70. 17(PHI(PHI(MEM).CT.0.2.ANU.PHI(MEM).LE.IB0.0) G0 70. 17(PHI(MEM).CT.0.2.ANU.PHI(MEM).LE.IB0.0) G0 70. 17(PHI(MEM).PHI(MEM).PHI(MEM).LE.IB0.0) G0 70. 17(PHI(PHI(MEM).PHI(MEM).LE.IB0.0) G0 70. 17(PHI(PHI(MEM).PHI(MEM).LE.IB0.0) G0 70. 17(PHI(PHI(PHI(PHI).CT.0.2.ANU.PHI(MEM).LE.IB0.0) G0 70. 17(PHI(PHI(PHI(PHI).CT.0.2.ANU.PHI(PHI).LE.IB0.0) G0 70. 17(PHI(PHI(PHI(PHI(PHI).CT.0.2.ANU.PHI(PHI(PHI).LE.IB0.0) G0 70. 17(PHI(PHI(PHI(PHI(PHI(PHI(PHI(PHI(PHI).LE.IB0.0) G0 70. 17(PHI(PHI(PHI(PHI(PHI(PHI(PHI(PHI(PHI(PHI		ADDED	IND2=D2IN*10.0*	*IEXP	0	00626000	
IF(IT.LE.6) GO TO 1000 00098100 70. 515 CONTINUE 00098200 70. NEMAX-ES GO TO 520 00098400 70. IF(IT.LE.NKMAX) GO TO 520 00098500 70. NETE(6,9001) INUDE(N), JNODE(N) 00098500 70. STOP WRITE(6,9001) INUDE(N), JNODE(N) 00098500 70. STOP STOP 00098500 70. 00098500 70. STOP STOP 00098500 70. 00098600 70. STOP STOP 00098600 70. 00098800 70. STOP STOP 00098600 70. 00099800 70. STOP STOP STOP 00099800 70. 70. STOP STOP STOP 00099900 70. 70. STOP		ADDED	ICONST(3,MEM)=II	EXP*100000+1ND2		00098000	70.29
515 CONTINUE 00098200 70. IF(IT.LE.NKMAX) GD T0 520 00098400 70. NKMAX=26 00098400 70. NITE(6,9001) INUDE(N), JNODE(N) 00098600 70. STOP 00098600 70. 00098600 70. STOP 00098600 70. 00098800 70. STOP 00098800 70. 00098800 70. STOP 00111NUE 00098800 70. 00098800 70. STOP 1F(IT-8) 530,540,560 70. 00099800 70. STO 0011NUE 00099800 70. 00099800 70. STO 0011NUE 00099800 70. 00099800 70. STO 0011NUE 00099800 70. 70. 70. STO 001110 AKOUT(IT) 00099900 70. 70. CONTINUE 000 000 70. 70. 70. Sto 000 000 70. 70. 70. CONTINUE 000 70. 70. 70. <		ADDEU	IF(IT.LE.6)	10		00088100	70.29
NKMAX=26 IF(IT.LE.NKMAX) GO TU 520 MRITE(6,9001) INUDE(N), JNDDE(N) STOP STOP STOP TI=11-6 00098600 70. 00098800 70. 00099800 70. 00099800 70. 000999100 70. 000999100 70. 000999100 70. 000999100 70. 000999100 70. 00099200 70. 1F(PHI(MEM).GT.0.0.ANU.PHI(MEM).LE.180.0) GU TO 550 0009800 70. 1F(PHI(MEM).GT.0.0.ANU.PHI(MEM).LE.180.0) GU TO 550 0009800 70. 00099800 70. 00099800 70. 00099500 70. 00099700 70. 00009700 70. 00099700 70. 00009700 70. 00009700 70. 0009700		ADDED	5		0	00098200	70.29
IF(IT.LE.NKMAX) G0 T0 520 WRITE(6,9001) INUDE(N), JNDDE(N) 00098500 70. STOP STOP 520 CONTINUE DF(IT-8) 530,540,550 70. Teltr-6 00098900 70. 530 CONTINUE 00099900 70. 530 CONTINUE 00099900 70. 540 CONTINUE 00099900 70. 540 CONTINUE 00099900 70. 540 CONTINUE 00099900 70. 00099900 70. 00099900 70. 00099900 70. 00099900 70. 00099900 70. 00099500 70. 00099500 70. 16(PH1(MEM).GT.0.0.AND.PH1(MEM).LE.180.01 G0 T0 50 70. 16(DH1(MEM).GT.0.0.AND.PH1(MEM).LE.180.01 G0 T0 50 70. 16(DH1(MEM).GT.0.0.AND.PH1(MEM).LE.180.01 G0 T0 50 70. 00099800 70. 00099800 70. 00099700 70. 00099900 70. 0009900 70. 000900 70. 000900 70. 000900 70. 0009900 70. 000900 70. 0009900 70		ADDED	NKMAX=26			00088300	
WRITE(6,9001) INDE(N), JNDE(N) 00098500 70. STUP 00098600 70. STUP 00098600 70. DirIll 0009800 70. SIT 0009800 70. DirIll 0009800 70. S20 CONTINUE 0009800 70. DirIll 0009800 70. 0009800 70. S30 CONTINUE 0009800 70. 0009800 70. S30 CONTINUE 00099800 70. 00099900 70. S30 CONTINUE 00099100 70. 70. 70. S40 CONTINUE 1UBING BEND 70. 70. 70. 70. C RUUT(ID)=RALEN(MEM) 00099500 70. 70. 70. 70. G0 TO TO TO 70. </td <th></th> <td>ADDED</td> <td>X</td> <td>52</td> <td></td> <td>00098400</td> <td>70.29</td>		ADDED	X	52		00098400	70.29
STOP 00098600 70.2 520 CONTINUE 00098700 70.2 IT=IT-6 00098800 70.2 IF(IT-8) 530,540,560 00098800 70.2 530 CONTINUE 00099800 70.2 530 CONTINUE 00099800 70.2 530 CONTINUE 00099900 70.2 530 CONTINUE 00099900 70.2 530 CONTINUE 000999100 70.2 530 CONTINUE 00099100 70.2 60 TU 1000 540 CONTINUE 00099200 70.2 540 CONTINUE TUBING BEND 00099300 70.2 60 TU 1000 70.2 00099300 70.2 540 CONTINUE TUBING BEND 00099500 70.2 60 TU 1000 70.2 00099500 70.2 70.2 80UT(10)=RALEN(MEM) 00099500 70.2 70.2 80UT(10)=RALEN(MEM) 00099500 70.2 70.2 1F(PHI(MEM).6T.0.0.AND.PHI(MEM).LE.I80.0) 60 TO 550 70.2		ADDEU	E{6,9001)	*	0	00098500	
520 CONTINUE 00098700 70.2 IT=IT-6 00098800 70.2 IF(IT-8) 530,540,560 00098900 70.2 530 CONTINUE 000999000 70.2 600 TOUE 00099100 70.2 60 TO 1000 00099100 70.2 540 CONTINUE 00099300 70.2 60 TO 1000 00099300 70.2 60 TO 1000 00099300 70.2 60 TO 1000 00099300 70.2 70.2 00099300 70.2 70.2 00099300 70.2 70.2 00099300 70.2 70.2 00099300 70.2 70.2 00099300 70.2 70.2 00099700 70.2 70.2 000999500 70.2 70.2 000999500 70.2 70.2 000999500 70.2 70.2 000999500 70.2 70.2 000999500 70.2 70.2 000999500 70.2 70.2 000999500 70.2 70.2		ADDED			0	00098600	
IT=IT-6 IF(IT-8) 530,54C,560 530 CONTINUE AKOUT(IO)=AKFACT(IT) 00099900 70.2 CONSTS(2,MEM)=AKFACT(IT) 540 CONTINUE 540 CONTINUE C ROUT(IO)=RADLEN(MEM) C ROUT(IO)=RADLEN(MEM).LE.180.0) GO TO 50 100099700 70.2 00099700 70.2 00099700 70.2 00099700 70.2 00099700 70.2 00099800 70.2		ADDED				00068700	
IF(IT-8) 530,540,560 00098900 70.2 530 CONTINUE 00099100 70.2 AKDUT(ID)=AKFACT(IT) 00099100 70.2 CONSTS(2,MEM)=AKFACT(IT) 00099200 70.2 540 CONTINUE 700 70.2 540 CONTINUE 700 70.2 C ROUT(ID)=RADLEN(MEM) 00099500 70.2 ANGUUT(ID)=PHI(MEM) 10.00099500 70.2 IF(PHI(MEM).6T.0.0.AND.PHI(MEM).LE.180.0) 60 TO 50 00099800 70.2		ADDED				00098800	70.29
530 CONTINUE 00099100 70.2 AKDUT(ID)=AKFACT(IT) 00099100 70.2 CONSTS(2,MEM)=AKFACT(IT) 00099200 70.2 540 CONTINUE 00099300 70.2 540 CONTINUE TUBING BEND 00099400 70.2 C ROUT(ID)=RADLEN(MEM) 00099500 70.2 1 F(PHI(MEM).GIO.0.0.AND.PHI(MEM).LE.180.0) 60 00099500 70.2 0 00099500 70.2 00099500 70.2 0 00099500 70.2 00099500 70.2 0 00099500 70.2 00099500 70.2 0 80011(ID)=RADLEN(MEM) 00099500 70.2 00099500 70.2 0 80011(ID)=PHI(MEM) 00099500 70.2 00099500 70.2 1 F(PHI(MEM).GI.0.0.0.AND.PHI(MEM).LE.180.0) 60 70.2 000999500 70.2 0 1 1 60 1 00099500 70.2 000999500 70.2 0 1 1 1 1 1 0 1 0 0 1		ADDED	IF(IT-8)	0,560	0	00088000	70.29
AKOUT(IO)=AKFACT(IT) 00099100 70.2 CONSTS(2,MEM)=AKFACT(IT) 00099200 70.2 GO TO 1000 00099300 70.2 540 CONTINUE 00099400 70.2 C TUBING BEND 00099500 70.2 C ROUT(IO)=RADLEN(MEM) 00099500 70.2 0 00099500 70.2 00099500 70.2 1 F(PHI(MEM).GI.0.0.0.AND.PHI(MEM).LE.180.0) GO TO 550 70.2 1 F(PHI(MEM).GI.0.0.AND.PHI(MEM).LE.180.0) GO TO 550 70.2		ADDED			0	00066000	70.29
CUNSTS(2, MEM) = AKFACT(IT) 00099200 70.2 GO TU 1000 GO TU 1000 00099300 70.2 540 CONTINUE 1UBING BEND 00099500 70.2 C TUBING 00099500 70.2 ANGUT(IO)=RADLEN(MEM) 00099500 70.2 IF(PHI(MEM).GI.0.0.AND.PHI(MEM).LE.180.0) GO TO 550 70.2		AUDED	AKOUT(IO)=AKFAC	(11)	0	00166000	N
G0 T0 1000 00099300 70.2 540 CONTINUE 00099400 70.2 C TUBING BEND 00099500 70.2 C ROUT(I0)=RADLEN(MEM) 00099500 70.2 ANGOUT(I0)=PHI(MEM) 00099500 70.2 IF(PHI(MEM).GI.0.0.AND.PHI(MEM).LE.180.0) G0 T0 550 00099800 70.2		ADDED	CONSTS(2, MEM) = AI	KFACT(IT)	0	00066200	\sim
540 CONTINUE 1UBING BEND 00099500 70.2 C ROUT(IO)=RADLEN(MEM) 00099500 70.2 ANGOUT(IU)=PHI(MEM) 10.2 IF(PHI(MEM).GI.0.0.AND.PHI(MEM).LE.180.0) GO TO 50 00099800 70.2		ADUED			0	000666000	\sim
C TUBING BEND 00099500 70.2 ROUT(IO)=RADLEN(MEM) 00009600 70.2 ANGOUT(IU)=PHI(MEM) 10.2 IF(PHI(MEM).GI.0.0.AND.PHI(MEM).LE.180.0) GO TO 550 00099800 70.2		ADUED	CONTINUE		0	00099400	Ň
ROUT(IO)=RADLEN(MEM) ANGOUT(IU)=PH1(MEM) IF(PH1(MEM).GI.O.O.AND.PH1(MEM).LE.180.0) GO TO 550 00099800 70.2		ADDED				000666000	~
ANGOUT(IU)=PHI(MEM) IF(PHI(MEM).GT.0.0.AND.PHI(MEM).LE.180.0) GO TO 550 00099800 70.2		ADDED	ROUT(IO)=RADLEN	(MEM)		000366000	N *
IF(PHI(MEM).GI.0.0.AND.PHI(MEM).LE.180.0) GU 10 550 00099800 70.2		ADUED	ANGOUT (ID) = PHI()			00166000	\$
		ADDED	IF(PHI(MEM).GT.((MEM).LE.180.0)	10 550	00099800	0*0

	OLD VOL=SE	VOL =SER=004783	DRC UPDATE	NEW VOL=SER=007208		
LD SEQ	MESSAGE	FILENAME=MUFAN	DĔCKNAME= MUFAŃ	MUFAŃ		ΥΥ. DDI
	ADDED	WRITE(6,9004) INUDE(N) · JNODE(N), PHI(MEM) Vincitation filming benny 12	000666000	70. 291
	ADDED	-	5.1-0UT OF	0 - 1 - 1 -	00100100	
	ADDED				00100200	0.2
	ADDED	550 CONTINUE			00100300	0.2
	ADDED	RD=ABS(RAULEN(MEM) * LZ			00100400	0.2
	ADDED	IF(RU.GI.1810) RU=18 CALL INTALOUAD BENDE	KU=I8.0 > PENDC DD:PCN		00400100	70.29
	AUDED	VALL INIGINUN			00100200	200
	ADDED	IF(PHI(MEM).NE.90.0)	.90.0) CALL INT4(THETA, ANGLC	, PHI(MEM), AC)	00100800	1 N
	ADDED	CONSTS(2,MEM)=AC*BC			00600100	70.29
	AUUED	AKOUT(ID)=CONSTS(2,ME	[S(2,MEM)		00101000	
	ADDED	60 10 1000			0010100	70.29
	ADDED	560 CUNTINUE			00101200	
	ADUED	8-11=11			00101300	70.29
A	ADDED		580,590,600,610,620,630,640,650,660,670)	0,650,660,670), IT	00101400	
625	ADDED	565 CUNTINUE			00101200	.
2	ADDED	cs	STANDARD 90 DEG ELBOW		0010100	
6	ADDED	CONSTS(2, MEM) = PICK(1, DIN)	JCK(1, DIN)		0010100	70.29
	ADDED	AKOUT(I0)=CONSTS(2,MEM)	[S(2,MEM)		00101800	70.29
	ADUED				0010100	70.29
	ADDED	570 CONTINUE			00102000	10.29
	ADDED	C STANDARD 45	STANDARD 45 DEGREE ELBUW		00102100	10.29
	ADDED	CUNSTS(2, MEM) = F	71CK(Z,UIN)		00720100	10.29
	ADDED	AKOUT (JU) = CUNSI SIZ ME	SIZIMEMI		00520100	10.29
	ADDED	1			00102400	6
	ADDED	580 CONTINUE			00102500	°.
	ADDED	C	LONG 90 DEGREE ELBOW		0102	ð
	ADDED	CONSTS(2, MEM) = PICK(3, DIN)	DICK (3, DIN)		00102100	ő,
	ADDED	AKOUT(IO)=CONSI	S(2,MEM)		00102800	$\sim \cdot $
	ADDED				00102900	N. I
	ADDED	590 CONTINUE			00103000	ð
	ADDED	c	STANDARD TEE - THRU BRANCH		6010	
	ADDED	CONSTS(2,MEM)=PICK(4,DIN)	• ICK (4, DIN)		00103200	70.29
descriptions of the second	ADDED	AKOUT(IO)=CUNSIS(2,ME	[S(Z,MEM)		0103	ံ
	ADDED				03	•
	ADUED	600 CUNTINUE			010	0.2
	ADDED	S	STANDARD TEE - THRU MAIN		0103	0.2
	ADDED	CONSTS(2,MEM)=PICK(5,D1N)	VICK(5, DIN)		0	N,
	ADDED	AKOUT (ID) =CONST	rs(2,MEM)		01 03	ð

	3= 707 070	0L0 V0L=SER=004783	DRC UPDATE	NEW VOL=SER=007208		
LD SEQ	MESSAGE	FILENAME=MUFAN	DECKNAME=MUFAN	AN		YY.DDI
	ADDED ADDED	60 T0 1000 610 CONTINUE		000	0103900	70.29! 70.29!
	ADDED	C CLOSE R	DSE RETURN BEND	00	00104100	70.29
	ADDED	AKOUT (10) =CONST S(2, ME	(2, MEM)	100	0104300	50
	ADDED			00	00104400	ð
	ADDED	620 CONTINUE	CPADIAL CONTRACTION	00	00104500	70.291
	ADDED	D1=D2(MEM)		00		
	ADUED	CONSTS(2, MEM)=6RCOK(D	COK(D1,DIN,RADLEN(MEM),ISTEP	, IERR)		70.29
	ADDED	D20UT(I0)=D2(MEM)) Mem)	00	00104900	70.29
	ADDED	CONSTS (1 - MEM) = D 2 (MEM)	(MEM)			70. 291
	ADDED	AKOUT (I D) =CONST S(2, ME	M)	00		
P	ADDED	IF(CONSTS(2,MEM).GT.0	.CT.0.0) GO TO 1000	00		70. 29
4	ADDED	I ERR= I		00		70. 29
- 2	ADDED	KETUKN 630 CONTINUE		00		70.29
7	ADED		GRADUAL EXPANSION	00	1	70.29
•	ADDED	DB=D2(MEM)				70.29
	ADDED	CONSTS(2, MEM) = GREXK(D	EXK(DIN,DB,RADLEN(MEM),ISTEP,	IERR)	00105900	70. 29
	ADDED					10.29
	AUDED	ALUUI (1U) = KAULENIMEN AKOUT (10) = CUNSTS(2, ME	(Z , MEM)	000		70.29
	ADDED	IF(CONSTS(2,MEM).GT.0	. GT.0.01 GU TO 1000	00		
	ADDED	I ERR=2		00		
	ADDED			00	00106500	70.29
والمحاوية والمحاولة والمحاولة والمحاولة والمحاولة والمحاولة والمحاولة والمحاولة والمحاولة	AUDEU		CHINEN CONTRACTION			70.29
	ADDED	DB=D2(MEM)		100	06800	
and a second and a s	ADDED	CONSTS(2, MEM) = SUSCIDB	SCIDB, DIN, ISTEP, IERR)	00	06900	ö
	AUDED	AKOUT(IO)=CONSTS(2,ME	2 , M	100	0107000	0
	ADDED	D20UT(10)=D2(MEM)		100	001010	å d
	AUDED	CUNSIS(1,MEM)=UZ(MEM)		100	01200	10.24
	ADDED	IFICUNSISIZ;MEM).6E.0 IFRK=3	• 6 E * 0 * 0 } 0 1 0 T 0 0 0	100	01300 07400	70.29
	ADDED	RETURN		00		:0
	ADDED	UE		00	01600	70.29
	ADDED		SUDDEN EXPANSION	00	107	
	ADDED	0B=02(MEM)		00	2	70.29
						and we

	0LD VUL=SER=004783	ER=004783	DRC UPDATE	NEW VOL=SER=007208		
LD SEQ	MESSAGE	FILENAME=MUFAN	DECKNAME=MUFAN			ΥΥ. DD
	ADDEU ADDED	CONSTS(2,MEM)=SUSX(DI D201111101=D2(MEM)	(DIN, DB, ISTEP, IERR)		00107900	70.29'
	ADDED	AKDUT(ID)=CONSTS(2,ME)			01081	0.2
	AUDED	1 F (CUN3 I 31 Z \$ MEM] • 6 I F R R = 4			312	200
	ADDED	RETURN			00108400	• •
and you have been as a set of the	ADDED	660 CUNTINUE DRFICE	CF		00108500	
	ADDED	CONSTS(3, MEM) =	EM) /DIN		001 08700	
	AUUEU		E117		001 08900	ا ه
	ADDED	60 TO 680			00060100	a a
	ADDED	670 CUNTINUE	L		00100100	
	AUDED				00760100	
Å	ADDED	CUNSIS(3,MEM)=U2(MEM) CONSTS(2,MEM)=D2(MEM)	EM/JUIN EM)		00109400	70.29
-	ADDED	D2001(10)=D2(MEM)			00109500	70.29
.2	ADDED	680 CONTINUE			00109600	70.29
8	ADDED	IF(CONSTS(3,MEM).GT.O	.0.	0.80) 60 TO 1000	00100100	ð d
	ADDED		V; JNUUE(N)		00109800	10.29
		9003 FUKMAI(IHI////////// 1 3 15 4 ND771 F DR	//IX,10/(IH*//IH0,16X,"MEMBER	• • • • • • • • • • • • • • • • • • •		70.29
	ADDED	TH0.107			00110100	10-29
	ADDED	STOP			00110200	70. 29
	ADDED	900 CONTINUE			00110300	70.29!
	ADDED				00110400	
	ADDED	IF(II.6I.41) GU TU	0 920		00110500	å (
	ADDED				00110200	70.29
	ADDED	NUM=ITENS(JT+1)+KT			00110800	70.29
	ADED	TYPES(4,1)=ANUM			00601100	70.29
	ADUED	CALL LDTYPE(TYPES3(1,	(1,1),TYPOUT,IO)		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	ADDED	60 10 1000				0.2
	ADDED	920 CONTINUE				ð
	ADDED	11=11/100			. (0°
	ADDED	NUM=11ENS(1)+11*256	6			0.2
	ADDED		-			0.0
	ADDED		(1,2/1,1/1/UI,1/U)			200
	ADDED	1000 CUNITNUE 60 TO(1120,1120,1100)	00),ISET		00111800	70.29
	0100					
						5. S.

	OLD VOL=SI	VOL = SER = 004783		DRC UPDATE	NEW VOL=SER=007208		, ,
LD SEQ	MESSA GE	FLE	FILENAME=MUFAN	DECKNAME=MUFAN	an		γ γ •00[
							 sector
	ADDED	1100 CO	CONTINUE				70.29
	ADDED					00112000	70.29
	ADDED		WRITE(6,6000) U	TIME, IPAGE, NPAGES,		001121	70.29
	ADDED	6000 FU		LH*), MUFAN MEMBE	JW CHARACTERISTICS **	,00112	70, 29
	ADDED	4	A8,2X,A4,	** PAGE',13,' UF',13,' *'//	*•//(1/X,19A4))	-	10.29
	ADDED		SET=1				70.295
	AUDED	1120 CO	CONTINUE			gerradi	70.295
	ADDED		IF(N.GE.NMEM-1)	09			70.295
	ADDED	4	IF(I0.LT.4) 60	0 TO 1500		,{	70.295
	ADDED	1150 CO	CONTINUE			,	70. 29
	ADDED	00	D0 1200 J=1,11				70.29
	ADDED	-	IFORM(7, J)=IFOR	IFORM(7, J) + I O		00113000	70.29
	ADED	1200 CO	CONTINUE			00113100	70.29
	ADDED	MR	WRITE(6,6001)	((MOUT(1,J),I=1,2),J=1,IO)			70.29
	ADDED	01 1009	FDRMAT(1H0//3X,	MEMBER , 13.	-*,13,6X,1H*))		70.29
A	ADDED		WRITE(6,6002)	((TYPOUT(I,J),I=1,2),J=		00113400	70.29
	ADDED	6002 F0	FURMAT(3X,19(1H-),1H*,4(**)/3X,*TYPE*,15X,		70.29
·2	ADDED	1000	LH*,4(2X,2A	2A8,2X,1H*))		1000	70.29
9	ADDED	WR	WRITE (6,6003)	((TYPOUT(1,J),I=3,4),J=1,IO)		00113700	70. 29
>	ADDED	6003 FO	FORMAT(22X,1H*,	4(2X,2A8,2X,1H*))			70.29
	ADDED		WRITE(6.IFURM)	((001			70.29
	ADDED	,	((TOUT (K*L) •K	=1,4),L=1,10), ((LOUT(K1,L	1), K1=5,8), L1=1,10)	l	70.29
	ADDED		11.1=1.0211			0017100	70.291
	ADDED) LL) (IRMI7.	(1,1)-10		00114200	70. 29
	ADDED	1250 60	CONTINUE			00114300	70.29
	ADED		10=0			00114400	70.29
	AUDEU	15	I SE T= I SE T + 1			00114500	70.29
	ADDED	1500 CD	CONTINUE			00114600	70.295
	ADDED	RE	RETURN			-	70.29
	ADDEU	END				00114800	70.29
	ADDED	SU	SUBROUTINE LDTY	PIN.			
	ADDED	RE		TYPOUL		an a	70.29
	ADDED	0	DIMENSION I	TYPIN(1) * TYPOUT(4,4)		151	
	ADDED	00	DO 100 I=1,4			-	70.29
	ADDED	17	I YPOUT(I, IO) = TYPIN(I)	(I)NI(I)		-	
	ADDED	100 CO	CONTINUE				70.29
	ADUED	RE	RETURN			pand.	70.29
	ADDED	END				1 1	0.2
	ADDED	ΡL	SU				0.2
	ADDED	IO	DIMENSION RATA	RATABL(12), KEXP(12), KCONT(12)		00115800	70.29
k							

	OLD VOL=SE	V0L=SER=004783	DRC UPDATE	NEW VOL=SER=007208		norde mette
LD SEQ	MESSAGE	F I L ENAME = M UF AN	DECK	ECKNAME=MUFAN		YY.DDI
						na an an an
	AUDED	KEXP, KCO			00112900	70.29
	AUUEU	UAIA KAIADL / U.	9 (*1) (*2) (*2) (* 0) (*) (*) (*) (*) (*) (*) (*) (43 0.23 0.887 513 502 539 149 6. 27. 10. 12. 05. 02.	19110	sla
	ADDED	ഹ		/» «fis «1/» «1/» «0/» «0	1162	50
	ADDED	DATA KCONT / .44	+ +42 + 39 + 35 + 3	1, .26, .19,.12, .05, .02,	0116	0
	ADUED				0116	
	ADED	ENTRY SUSX (D1, 1	D2, ISTEP, IERR)		0110	•
	ADDED	IERR = I				0.2
	ADDED	1/02				ð
	ADED	IF(RATIO .LT. O.	RATIO .6T	1.0) GD TO 10	00116800	70.29!
Otto Down	ADED	E	BL, KEXP, RATIO, ANS	(S)	****	
	ADDED	SUSX = ANS				്
	ADDED	Z			,	70.29!
	ADDED	Y SUSC (D1,	02, ISTEP, IERR)		*****	
	ADDED				00117300	்
A	ADDED	IO = D1/02			-	്
3	ADDED	RATIO .LI.	.0R. RATIO .GI.	1.0) 60 10 10	00117500	٠
3	ADDED	CALL INT4 (RATABL	, KCONT, RATIO, A	NS)	**** t •	70.29
0	ADDED	SUSC = ANS			pend -	٠
	ADDED					70.29
	AUDED	10 CC			-	
	ADDED	SSAGE			00118000	
	ADDED	SUDD = -1.0			end -	70.29
	ADDED	RETURN			pand	
	ADDED	END				70.29!
	ADDED	FUNCTION GREAK (G, 15T	IERR)		ő
	ADDED	DIMENSION ZETAD(6)	, TABLK115, 6),	TABLRT(15), V(6)	, 	N.
	ADDED	DATA ZETAD/ 15.,	20., 30., 40., 60.	, 0.0 /	00118600	70.29
	ADDED	TABLRT	/1.2;	1.3	, and	•0
	ADDED	1 1.9, 2.0, 2.25,	2.5, 3.0, 3.5, 4.	10.0		o
	ADDED	TABLK	/ • 061 •	67++077++0	00118900	0.2
	ADDED	1.133, 147, 17	33	, .240, 0.0,	y	0.2
	ADDEU		•080•	.107, .133	9	Š,
	ADDED	3 .230, .253, .267	<pre>* .295 * .320 * .350</pre>	* .367* .370* 0.0*	-1	0.2
	ADDED		• 081.	*1131 *1161 *23	19	Ñ.
	ADDED	5 .383, .420, .447	• •486, •509,	• • 543 • 547 • 0.0	119	0.2
	ADDED	9	.100,	.207, .28	011950	ð
	ADDED	7 .487, .527, .560,	.601, .640, .667	• •676, •680, 0.0,	0110	0.2
	ADDED	8	.133,	1.2671.367		ð
	ADDED	9 *600 *643 *683	13, .747, .783, .840	* * 867, * 880,	0119	
	A CONTRACT OF					

	0L0 V0L=SER=004783	=004783	DRC UPDATE	NEW VOL=SER=007208		
OLD SEG	MESSAGE	FILENAME=MUFAN	DECKNAME=MUFAN	AN		UD.YY
	ADDED ADDED	A B 0., 0., 0., 0.,	0., 0.0/ 0., 0., 0., 0.	* 0.* 0.* 0.* 0.* 0.*	00119900	70.29 70.29
	ADED	IERR = 0			00120100	00
	ADUED	$\frac{1}{2} = \frac{1}{02}$			00120300	50
	ADDED	DIFF / 2.0			00120400	o
	ADDED	ZETA = AIAN (X/ IF (RATIO •GT• 4•	ALUNG) * (360.07(2.0 * 3.1 0 .0R. RATIO .LT. 1.2) GO	1* 2 *0	00120600	70.29
	ADDED	(ZETA .GT. 6	.0R. ZETA .LT. 15.0) 60	700	00120700	6
	ADDED	0 J = 1,6			00120800	ð
	ADDED	ç	RT, TABLK(1,J), RATIO, V(J)		00120900	
	AUUEU		10 JETA		0012100	10.24
	AUUEU Andfr	CALL IN14 1 ZEIAUJ GRFXK = ANS	UP VP ZELAP ANSJ		00121200	20°27
	ADDFD	2	· ·		00121300	70.29
A	ADED C)			00121400	o'
903	ADDED C	C ERROR MESSAGES			00121500	6
3	ADDED	500 CONTINUE			00121600	ð
1	ADDED	-1			00121700	70.29
	ADDED	XX			00121800	70.29
	ADDED				00121900	70.29
	AUDED	700 CONTINUE			00122000	70.29
	ADUED	, 1			00122100	70.29
	ADDED	GREXK = -1.0			00722700	70.29
	ADDED	KE TURN			00122300	70.29
	ADDED	- 1			00122400	0
	ADDED		UZ; ALUNG; ISIEP; IEKK		00122500	ਂ ਕ
	AUDED		1: ABLUL(/); ABLK(10;	1, V(1), L(LO)	00122000	10.29
	AUDED	EQUIVALENCE VIABLUI NAMFLIST /DERHG/ V-	LUL9 219 1V9 210119 1KAILU9 V.7	FEOTIS CNAL FEELLY	00122100	70 20
	ADDED	-	<u>* 6.* 10.* 15.* 20.; 30.;</u>	40., 50., 60., 80.,	00122900	70.29
	ADDED	. 120. 1	, 160., 180., 0.0/	•	00123000	70.29
	ADDED	DATA	* .25 * .1 * .07 * .05 * .02 * 0	.0/	00123100	0
	ADDED	DATA TABLK	.55, .4, .2	5, .19, .125, .10,	00123200	
	ADDED	1.097, 10,	3, .31, .40,	0, 0.0,	00123300	്
	ADDED		•93• •80• •69•	•56° •47° •34° •26°	0	
	ADDED	.21, .19, .20,	.44, .50, 0.	0,	0	്
	ADDED		.94, .875,	• 13*	00123600	0.2
	ADDED	.43y .40y	**021 ** 43 *	U.U. 	00123700	å o
	ADED	6	• 40° • 42° • 89°	• 444 • 80 • • 123 • • 80 • • • • • • • • • • • • • • • •	00123	2

	0L0 V0L=SER=004783	004783	DRC UPDATE	NEW VOL=SER=007208		
OLD SEQ	MESSAGE	FILENAME=MUFAN	DECKNAME=MUFAN	JEAN		YY.DD
1						
	ADDED	7 •60• •56• •51• • 8	.50, .50, .50, .50, .50, . .979492.	.00, .8885795755.	00124000	70.29
	ADDED	.12, .68, .62,	54, 52, 50			0.2
	ADDED	0.0 7.05	205 245 207 55	*CA*	56	3 c
	ADDED	6 • 8 2 • • 1 7 2 • 1 4 2 • C	• • • • • • • • • • • • • • • • • • •	°	00124400	70.29
	ADDED	U 0., 0., 0., 0., 0.,	0., 0., 0.0/		00124500	6
	ADDED	- 1			00124600	70.29
	ADDED	= 02 - 01			00124700	70.29
	ADDED	ATIO = ALONG /	01		00124800	70.29
	ADDEU	X = DIFF / 2.0 BHI - ATAN(Y/ALDNG)		14159211 * 2.0	00124900	70.29
	AUUEU			700	00125100	70. 20
	ADDED	• • • • • • • • • • • • • • • • • • •	-UR. RATID -LT. 0.02)	GO TO 700	00125200	70.29
	ADDFD	10 J = 1, 7			00125300	70.29
A	ADDED	L L	(U) TABLK(I,J), PHI, V(J))		00125400	70.29
	ADDED	IO CONTINUE			00125500	70.29
3	ADDED				00125600	70.29
2	ADDED	112- =			00125700	
	ADDED	19 CALL INT4 (TABLDI	U. V. RATIO, ANS)		00125800	70.29
	ADDED	D0 17 1			00125900	
	ADDED	17 Z(1) = -2(1)			00126000	• 1
	ADDED				00126100	70. 29
	ADDEU				00126200	്
	ADDED	NUE			00126300	70.29
	ADDED	GRCOK = -1.0			00126400	്
	ADDED	RETURN			00126500	ð
	ADDED	END			00126600	ð
	AUDED	PICK			00126700	۰
	ADUED	NOISN	,10), XD(5)		00126800	i
	ADDEU	DATA YK / 3.82	• 0.68, 0.58, 0.50,		00126900	ំ
	AUDEU	1 0 • 43	• 0.36, 0.30, 0.26,	6	00127000	ं
	ADDED		• 0.45, 0.38, 0.33,	*	0	
	ADDED	3 0 55	• 0.45, 0.38, 0.33, 0		00127200	ं
	ADDED		• 1.40, 1.20, 1.00,		00127300	0.2
	ADUED	5	<pre>, 1.20, 0.96, 0.80, 0.</pre>	•	00127400	70.29
	ADDED	0/	<u>50, 1.00, 2.00, 4.00, 0.07</u>		27	0.2
	ADDED	D1=D*12.0			27	0.2
	ADDED				N	70.29
	ADDED	IF(I.LE.NPICK) GO	0 TO 100		27	്

	OLD VOL=SE	VUL = SER = 004 783	DRC UPDAIE	NEW	VUL=SEK=007208		
LD SEQ	MESSAGE	FILENAME=MUFAN	DE	DECKNAME=MUFAN		an an an an an an an an Anna an	γγ.DDI
							6
	ADDED	WRITE(6,9000) MEM				00127900	70.29
	ADDED	المر.	//1X,9H**	4 *		00128000	70.29
	ADDED	46H HAS	AN ILLEGAL COMPONENT	ENT TYPE - CASE	BYPASSEDI	28	70.29
	ADDED	I ERR=1				00128200	70. 29
	ADUED	RETURN				00128300	70.29
	ADDED					00128400	70.29
	ADDED	IF(UI-XU(1)) 120,	120,120,110			00128500	70.29
	ADDED	110 CONTINUE				00128600	70.29
	ADDED	(6)) 130	,140,140			00128700	70.29
	ADDED	120 CONTINUE				00128800	70.29
	AUDED	CK=)				00128900	70.29
	ADDED	GU TU 150				\sim	70.29
	ADDED	130 CONTINUE				00129100	70.29
	ADDED	CALL LINT(XD,YK(1	L, L), DI, ANS)			00129200	70.29
	ADDED	PICK=ANS					70.29
A	ADDED	GO TO 150				00129400	70.29
	ADDED	140 CONTINUE				00129500	70.29
.3	AUDED	PICK=YK(6,I)				00129600	70. 29
3	ADDED	150 CONTINUE				00129700	70.29
)	ADDED					00129800	70.29
	ADDED	END				00129900	70.29!
	ADDED	SUBRUUTINE NETWRK				00130000	70.29
	ADDED	COMMON /MUFCOM/			a balanda da ana ana ana ana ana ana ana ana	00130100	70.29
	ADDED	3)	COERR.	CONSTS(3,600),	66,	00130200	70.29
	ADDED		IBRAN(850).	IFLUID.	1001(10);	00130300	70.29
	ADDED		T YP E (600)	JBRPT(600),	LABEL(20,3),	00130400	70. 29
	ADDED		MBRAN(850),	NBCON(250),	NBRAN,	00130500	70.29
	ADDED	5 NBRPTS,	NNMAX,	NPTS(150),	PBRPT(250),	00130600	70. 295
	ADDED	6 QBR(150),	QERK,	KHU(600);	TBULK(500);	00130700	70.29
	ADDED	TOLER	VISC (600),	0		00130800	70.29
a da managan na Angalan na Angala	ADDED	COMMON /MUFCOM/	• (001) LNONI (100) •	NINOUT, NC	NDUMBP, LOOP	00130900	70.29!
	ADDED	COMMON /LICOM/				00131000	70.295
	ADDED	1 ALPHA(600),	INUDE(1200),	JNODE(1200),	MEMNO(1200),	00131100	70.29
	ADDED	2 NMEM,	NPLANE(600),	P(500),	PHI (600),	00131200	70. 29!
	ADDED	3 Q(600),	RADLEN (600)	XY2(500,3),	I END(150,2),	00131300	70. 29
	ADUED					31	70.29
	ADDED	COMMON / ARCOM/					70.29
	ADDED		IFIND(500),	IORDER(150),	NCON(500),	00131600	70.29
	ADUED					31	70.29
	ADDED	COMMUN / ARCOM/	I URDBP(100)			00131800	70.29

			\$ •					
	OLD VUL=S	VUL=>EK=004 /83	83	UKC UPUAIE	NLW	VUL = 3EK = UU1 200		
LD SEQ	MESSAGE	ų.	FILENAME = MUFAN		DECKNAME=MUFAN			YY.D D

Methoda and a second	ADDED		Σ	10			00618100	70.29
	ADDED	C C	WRITE(6,8001)	(INODE(I), MEMNU(I),	*	1 6 1	<u>ກ ເຕ</u>	NIC
	ADDEU	C8001	FUKMAI (THL; 500	FUKMAI(IHI; DHINUUF; ZX; DHMEMNU; ZX; DHJNUUE///	• < 0	101444710447	00132100	70.29
	ADDED		1 I NI				າງຕາ	70.29
	ADDED	20	CONTINUE				\mathbf{n}	70.29
	ADDED		INDEX=INDDE(1)				00132500	70.29
	ADDED		NCON(INDEX)=1				m	70.29
	ADUED						and a second	70.29
	ADDED		DO 100 MEN=2, NMEM				00132800	70.29
	ADDED		IF (INODE (MEM) . EQ. IND	JE(MEM-I))	GU 10 50		00132900	70.29
	ADDED		INDEX=INODE(MEM)				00133000	70.29
	ADDED		NNODE S=NNODE S+1				00133100	70, 29
	ADDED	50	CONTINUE				001 33200	10.29
	ADDED			N(INDEX)+I			00133300	70.29
4	ADDED	100					00133400	10.29
	ADDED		NNMAX=I NOUE (NMEM)			* 2116 7 24 1	00455100	70.29
3	ADDED	c	WRITE(6,8001)	(INUDE (I) • MEMNU(I		L, NM EM)	00133200	70.29
4	ADDED	5 	WRITE16, 7999) (* ~ ~	NNMAX]		00/22100	10. 24
	ADDED	C7999	FURMAILTHI, 3H I	*ZX+4HNUUN+ZX+Z	2H P/11X1131343X131	< X + + + + 1]	00855100	70.20
	ADDED	(001222000	10.29
	ADDED	c	WRITE(6,8002) N	*			00124000	10.29
	ADDED	C 8002	Z	UUI=', 14, ' INUUI='	[7]]C==		00134100	10. 29
	ADDED		61.11	SIUP			00134200	10.29
	ADDED		MMEM=NMEM				00134300	10.29
	ADDED		MNDDES=NNDDES				00134400	10.29
	ADDED		RETURN				00445100	10.29
	ADDED						00134600	10.29
	ADED		innet joone	сн ,			00134100	10.295
	AUUEU			/ 70500	CONSTS12 6001		00134000	70 201
	AUUEU	- 1 9						100 001
	ADDED		2 IBLUNIGUUS	1 BKAN18501	IFLUIU;		n r	10.24
	ADDED			11 YPE (600) ,	JEKPI (DUU)	LABELIZU,31,	00122100	10. 24
	ADDED	-		MBKAN(850) •	NBCUN(250).	h	m k	10.295
	ADDED		5 NBRPTS,	NNMAX *	Ing I stan	PBKF	3	10. 29:
	ADDED	~	~~~	QEKR,	KHU(600),	1BULK(500),	m	70.29
	ADDED		Ш		AL		\mathbf{n}	70.29!
	ADDED			/ INDUT(100),	NINUUT, NDUMBP,	LOOP	013	70.29
	ADDED		COMM				5	0.2
;	ADDED		1 ALPHA(600),	INUDE(IZUO),	JNUDEI 12001 +	MEMNU(1200) .	00835800	10.29

	0LD V0L=SER=004783	04783	DRC UPDATE	NEW	V0L=SER=007208		
OLD SEQ	MESSAGE	FILENAME=MUFAN	DE	DECKNAME=MUFAN			γγ.DD
	ADUED ADDED	2 NMEM, 3 01600),	NPLANE(600), RADLEN(600),	P(500), XYZ(500,31,	PHI(600), IEND(150,2),	00135900	70.29 70.29
	ADDED	NEND				00136100	0.2
,	ADDED	COMMON / ARCOM/				00136200	70.29
	AUDED	C	IFIND(500),	IORDER(150),	NCON(500),	00136300	70.29
	AUDED	2 DIMENSIAN	001 1001 1009			00134500	3 c
	ADDED	DIMENSION	I CONST(3,600)			00136600	70.29
	ADDED	СE	weet	((1,1))		00136700	
	ADDED	NE=0				00136800	70.29
	ADDED	N I NOUT = 0				00136900	
	ADDED	NSUM=0				00137000	70.29
		NBRPT S=0		-		00137100	70.29
	ADDEU C	1	CALCULATE NUMBER OF	- BRANCH POINTS,	NBRPTS.	00137200	70.29
,	ADDED	DD 180 I=1,NNMAX	A X			00137300	70.29
4	ADDED	$I NODE \{I\} = 0$				00137400	70.29
	ADDED	I + UND (I) = NSNW+]				00137500	70.29
3	ADDED	NSUM=NSUM+NCON([]			00137600	70.29
5	ADDED	IF (NCON(I) . LE.2	0 00 10			00137700	70.29
	ADDED	IF(P(I).LT.0.0)	0) 60 TO 150			00137800	70.29
					: : : :	00137900	70.29
		RMAT(1H0/	7(1H*)/1H0,2	× •	BRANCH NODE ', 13,	00138000	70.29
	ADDED	1	ERROR SCAN CONTINUES'/	/1H0,107(1H*))		00138100	70.29
	ADDED	P(I)=-1.0				00138200	70.29
	ADDED	LEVEL=3				00138300	70.29
	ADED	150 CONTINUE				00138400	70.29
	ADDED	NBRPTS=NBRPTS+1				00138500	70.29
	ADDED		ſS			00138600	70.29
	ADDED	180 CONTINUE				00138700	70.29
	ADDED	IF (NBRPTS.LE. 100	100) 60 TO 185			00138800	70.29
						00138900	70.29
	ADDED 9	9004 FORMAT(1H0////1H0,10	7(1H*)/1H0,3	3X, MORE THAN 100	0 BRANCH POINTS-	•00139000	70.29
	ADDED	ш	SKIPPED*/1H0,107(1H*))			00133100	0.2
	ADDED	LEVEL=4				00139200	\sim
	ADDED	RETURN				\mathbf{c}	0.2
	ADDED	185 CONTINUE				39	70.29
Non-service and the service and	ADDEU C		TRACE ALL BRANCHES	IN THE NETWORK		39	0.2
	ADDEU	NRBP=0				39	ô
	ADDED	INDEX=0				013	0.2
	AUDED	NUM=0				6	~

	ard vor=	0LD_V0L=SER=0047830	DRC UPDATE NEW VOL=5	=SER=007208		
LD SEQ	MESSAGE	FILENAME=MUFAN	DECKNAME=MUFAN			YY.DDI
	ADDED	NFIN=0		001	139900	70. 29
	AUUEU				1 40000	10.242
	ADDED			100	00140100	10. 29:
	AUUEU	VIN 000 T=T NNWAY	TAI EVICTANT	100	1 402 00	•
	AUUEU	C STRUCTURES CONCENTRATE CONCENTRATE	NUN - EXISTANI NUVES		140400	70 201
	AUUCU		2		001 40500	
		NSI =NFIN+NCON(I)			000041	70. 201
	ADDED	WITH (C.ROUL) I. NCO	DN(I).NST.NFIN.INDF(I)	100		
	ADDED	امسر ده م ا مه ا	NCON(I) = ", I3, * NST= *, I3, * NFIN= *	,13, 'INODE(1)001	140800	70.29
Service and a service of the service	ADDED	[=*,13]	1	00	140900	
	ADDED	DE(1).LE.0)	G0 T0 200	00	00141000	70.29
	ADDED	C NUDE	HAS ALREADY BEEN ASSIGNED A BRANCH	PT. NO. 001	141100	70.29
	ADDED	NBRPT=INDDE(I)		00	00141200	70.29
	ADDED	60 10 250		00	00141300	70.29
A	ADDED	200 CONTINUE		00	141400	70.29
-	ADDED	IF(P(1).GE.0.0) GO	b	100 .	141500	70.29
.3	ADDED	IF(NCON(I)-2) 220,60	0,2	100	141600	70.29!
6	ADDED	220 CONTINUE		001	141700	70.29
	ADDED			100	141800	70.29
	ADDED	IF (MEMNO(N) .LE. 0)	GO TO 600	00	141900	70.29
	ADDED	((N) DNW		00	00142000	70.29
	ADDED	IF(MOD(ITYPE(MEM).10)	00000000000000000000000000000000000000	00	00142100	70.29
	ADDFD			001	142200	70.29
	ADDED	11	711H*1/1H0,15X,1ND FLOW	CONSTRAT	42	
	ADDED		NODE . 14, " - ERROR	1H0,	142400	70.29
	ADDED			001	142500	70.29
	ADDED	ш		00	00142600	70.29
	ADDED	P(1)=0.0		00	142700	
	ADDED	230 CONTINUE			142800	70.29
	ADDED	C ASSIGN	A DUMMY BR	PRESSURE 001	142900	
	ADDED	C NODES	OR END PT. NODES	100	143000	70.29
NAMES OF TAXABLE PARTY AND A DESCRIPTION OF TAXABLE PARTY.	ADDED	NDUMBP=NDUMBP+1		00	143100	70.29!
	ADDED	NBRPT=NBRPTS+NDUMBP		00	00143200	70.295
	ADDED	pBRPT(NBRPT) = P(1)		100	143300	70.29
	ADDED	IF(NCON(I).NE.1) G	GU TO 240	001	143400	70.29
	ADDED	I+INONIN= INDNIN		100	43	70.29!
	ADDED	I NOUT (NI NOUT) = N BRPT		100	4	0.2
	ADDED	240 CONTINUE		100		0.2
	ADDED	I NODE (I) =NBRP T		00	4	70, 29

QLU SEQ FLLEAMRE-HUFAN DECKMAME-AUFAN YY 20 QUU SEQ TELEAMRE-HUFAN DECKMAME-AUFAN YY 20 ADDED 250 CUNTINUE MAITE (6) 5002) NRBP / NUMBP / NBAP / NUMBP / NDE ADDED 00144300 70.23 ADDED 26 SURE NETRABAF / TIL 0NAKKER SURIA / NL / NERVER / NL / N		OLD VOL=S	V0L=SER=004783	DRC UPDATE	NEW VOL=SER=007208		
ADDE Z50 CUNTINUE OUNTINUE		MESSAGE	FILENAME=MUFAN	DECKNAME=M	UFAN		<u> </u>
ADDED Z57 CONT HUNE CONTAND CONTAND <thcontand< th=""> <thcontand< th=""> CONT</thcontand<></thcontand<>							-
ADDED MAITIGO MART MARY		ADDED	CONTINUE			00143900	
ADDE DOOZ FORMATILHO, YMBEPF, 1, 1, YUNDEPF, 1, 1, YUNDE ADDE OUT + 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,		ADDED	WRITE(6,8002)	DUMBP,NBKPT	Ì	00144000	10.29
ADDE C FALLE ALL BRANCHES VIETURATION ALLENT ALLE ALLE ALLE ALLE ALLE ALLE ALLE ALL		AUDED	8002	3, NUUMBP=',		00144100	10.29
ADDED C SHARCH FT OIL HAND OIL	يىلىك بىرىغانىيا بىرىغانىيا بىرىغانىيا بىرىغانىيا بىرىغانىيا بىرىغانىيا بىرىغانىيا بىرىغانىيا بىرىغانىيا بىرىغا	AUDED		ALL DRAINCHES	AI INIS NUDE	00144200	10.24
ADDED C BARMUR IV. UNEXCLUTU ID BARMUR IV. UNEXCLUTU ID BARMUR IV. ISCUTIONING ADDED C DG 500 NESTINET 00144700 00144700 ADDED LASTENDER ASTENDER 00144700 00144700 ADDED USTENDER 001001010114111 0144500 00144500 ADDED 9001470010107111411100255x**MURE THAN 150 BRANCHES - CASE*00145500 0014500 0014500 ADDED 90014700107114114001071114111002755x**MURE THAN 150 BRANCHES - CASE*00145500 0014500 0014500 ADDED 260 CONTINE 171001071114111002755x**MURE THAN 150 BRANCHES - CASE*00145500 00145700 ADDED 260 CONTINE 1714111002725x**MURE THAN 150 BRANCHES - CASE*00145500 00145700 ADDED 260 CONTINE 17141100272114111002725x**MURE THAN 150 BRANCHES - CASE*00145500 00145700 ADDED 260 CONTINE 171411770114141110		ADDED		NEIWUKK VAIA AS FULL		00144300	10.29
ADEE C DOLANDE C DOLATOR DOLATOR <thdolator< th=""> DOLATOR <thdolator< th=""></thdolator<></thdolator<>		ADDED		NCH PI . NU. IBKAN (NUM)	NNELIEU IU BKANCH PI	00144400	10.29
ADDED DG 500 NOI NO		ADDED		JBKAN(NUM) BY		00144500	70.29
ADDED IFT THE MULLIN, UNDE TRACE THE BRANCH OUL4400 ADDED LETT BRANCH OULGINATES AT THIS NUDE TRACE THE BRANCH OUL4400 ADDED NBRAM-BRANCH OULGINATES AT THIS NUDE TRACE THE BRANCH OUL4400 ADDED NBRAM-BRANCH DELEVER 0014500 ADDED NBRAM-BRANCH DELEVER 0014500 ADDED NBRAN-BRANCH DELEVER 0014500 ADDED SKIPPED'/1H0/107(1H#1)1H0,25X,*MGRE THAN 150 BRANCHES - CASE*00145500 00145500 ADDED SKIPPED'/1H0,107(1H#1)1H0,25X,*MGRE THAN 150 BRANCHES - CASE*00145500 00145500 ADDED Z60 CONTINUE FFIRST MEMBER IN THE BRANCH HAS A FIXED 00145500 ADDED RETURN FLOMMATE, STORE THE FLOMMATE AND SET THE FLAG=1 0014500 ADDED RETURN FLOMMATE, STORE THE FLOMMATE AND SET THE FLAG=1 0014600 ADDED RETURN STORE THE FLOWMATE AND SET THE FLAG=1 0014600 ADDED RETURN STORE THE FLOWMATE, STORE THE FLAG=1 0014600 ADDED REWERNINGE RETURN REWERNINGE 0014600 ADDED REWERNIN		ADDED	500	•		00144600	70.29
ADDED C ASKAWCH UNIGNIANES A EXAMUNE UNIGNATES A EXAMUNE UNIGNATES </td <td></td> <td>ADDED</td> <td></td> <td></td> <td></td> <td>00144100</td> <td>70.29</td>		ADDED				00144100	70.29
ADDED NABAN=NDEX+1 OUT4500 ADDED NABAN=NDEX+1 0014500 ADDED FF(NBRANLE:150) GO [0 260 0014500 ADDED 9007 FRWATLH0.107(1H#1/1H0.25X,*NDRE THAN 150 BRANCHES - CASE*0014550 0014500 ADDED 9007 FRWATLH0.107(1H#1/1H0.107(1H#1/1H0.25X,*NDRE THAN 150 BRANCHES - CASE*00145500 00145500 ADDED 00017 EDTEX 888AT1H007771 H0.107(1H#1/1H0.25X,*NDRE THAN 150 BRANCHES - CASE*00145500 00145500 ADDED LEVEL=4 00145500 00145500 00145600 ADDED ZG CONTINUE FTHE FIRST MEMBER IN THE BRANCH HAS A FIXED 00145600 ADDED C THE FIRST MEMBER IN THE BRANCH HAS A FIXED 00145600 ADDED ADDED FILENEX 00145600 00145600 ADDED ADDED FILENEX 0014610 00145600 ADDED ADDED FILENEX 00146400 00146500 ADDED ADDED FILENEX 00146400 00146500 ADDED ADDED FILENEX 00146400 00146400 ADDED ADDED C </td <td></td> <td>ADDED</td> <td>N 2 6 7 9 9 9 9</td> <td>BKANCH UKIGINAIES AI 1H1</td> <td>I IKACE IHE</td> <td>00144800</td> <td>10.29</td>		ADDED	N 2 6 7 9 9 9 9	BKANCH UKIGINAIES AI 1H1	I IKACE IHE	00144800	10.29
ADED INFARATION CONTRANT ADDED INFRRANLET: SD) G0 12 500 OU145100 ADDED IFTERRANLET: SD) G0 145100 OU145100 ADDED IFTEVEL: IFTURSTANLET: SD) G0 145100 ADDED IFTEVEL: 00145500 00145500 ADDED 260 CONTINE THE FIRST MEMBER IN THE BRANCHES - CASE*00145500 00145500 ADDED 260 CONTINE FTHE FIRST MEMBER IN THE BRANCH HAS A FIXED 00145500 ADDED 260 CONTINE FTHE FIRST MEMBER IN THE BRANCH HAS A FIXED 00145500 ADDED CONTINE RETAUNT 00145500 00145500 ADDED CONTINE THE FIRST MEMBER IN THE BRANCH HAS A FIXED 00145100 ADDED CONTINE RETAUNT 0014500 00145100 ADDED CONTINE THE FIRST MEMBER IN THE BRANCH HAS A FIXED 00145100 ADDED CONTINE REMEMBER IN THE BRANCH HAS A FIXED 00145100 ADDED CONTINE REMEMBER IN THE BRANCH HAS A FIXED 00145100 ADDED REMEMBAN FINE REMEM		ADDED				00144900	10.29
ADDED ITTURKENTELSOU OUT 4200 ADDED HTTURKER(5,9007) OU 4200 OU 4200 ADDED JTTURKER(5,9007) OU 201 4500 OU 4540 AUDED JSKIPPED*/JH0,107(1H#1)1H0,25X,*MURE THAN 150 BRANCHES - CASE*00145300 OU 45500 AUDED JSKIPPED*/JH0,107(1H#1)1H0,25X,*MURE THAN 150 BRANCHES - CASE*00145300 OU 45400 AUDED Z60 CONTINUE OU 45100 OU 45500 AUDED Z60 CONTINUE FTHE FIRST MEMBER IN THE BRANCH HAS A FIXED OU 45100 AUDED C MEM=MEMUG(N) OU 45100 OU 45100 AUDED C MEM=MEMUG(N) OU 4200 OU 45100 AUDED C ON FIXET OU 44100 OU 44100 ADDED GG TU 280 OU 303 OU 270 OU 44100 ADDED Z70 CONTINUE MEM FIXE AUD 270 OU 44100 ADDED Z70 CONTINUE OU 270 OU 44100 ADDED Z70 CONTINUE OU 270 OU 44600 ADDED Z70 CONTINUE OU 4400 OU 44600 ADDED<		AUUEU		00 20	an bandaran a sa ar ar ar an daran ya ar an an daran ya ya dhay ƙwallon ya 🦷 🦷 ƙwallon ƙasar an ar an ang da a ademakan ya ar an an ar	0014200	10.24
ADDED ODI HAILE(0, y007) ADDED ODI HAILE(0, y007) ODI 47500 ADDED JOT KHATL(HJ//LH0.107(1H#1)/1H0.25X, *MGKE THAN 150 BRANCHES - CASE*00145300 00145500 ADDED EFUEL=4 00145500 00145500 ADDED NETURN 00145500 00145500 ADDED Z60 CONTINUE 00145500 00145500 ADDED Z60 CONTINUE 00145500 00145500 ADDED JPOINT=N IF THE FIRST MEMBER IN THE BRANCH HAS A FIXED 00145500 ADDED C FLOWRATE STORE THE FLOGACT 0014500 ADDED RFM=MENN) IF THE FIRST MEMBER IN THE BRANCH HAS A FIXED 0014600 ADDED RFM=AMAN1 00000000.LT.100000000 GD TO 0014600 ADDED RFIX=L 0146300 0146300 ADDED RFIX=L 0014600 0146500 ADDED RFIX=L 0146500 0146500 ADDED RFIX=L 014600 0146500 ADDED SCO CONTINUE REMARKANCH HAS A FIXED 00146600 ADDED		ADDED		0 60 10		00149100	10.29
ADDED GOT TORMATITHOUT/THOUTOTITH*11 ADDED GOT TORMATITHOUT/THOUTOTITH*11 ADDED COT TORMATITHOUTOTITH*11 COT 45400 COT 45400 COT 45500 COT 45500 COT 45500 COT 45500 COT 45500 COT 45700 COT 4500 COT 4500 COT 46000 COT 46000 <thcot 40000<="" th=""> COT 46000 COT 46000<</thcot>		ADDEU				00145200	70.29
ADDED L * SKIPPED*/1H0.107(1H*) 00145500 ADDEJ RETURA 00145500 00145500 ADDEJ ZGO GONTINUE 00145500 00145500 ADDEJ ZGO GONTINUE 00145500 00145500 ADDEJ ZGO GONTINUE 00145500 00145500 ADDEJ ZGO GONTAUE FLOWATE, STORE THE FLOWATE AND SET THE FLAG=-1 0014500 ADDED C FEAMMOIN) 0014500 00145900 ADDED C FEAMMOIN) 0014600 00146200 ADDED C FEAMMOIN) 0014600 00146500 ADDED RFAMNJ=Q(MEM),10000000).LT.10000000 G0 TU 270 00146700 00146500 ADDED CONTINUE 270 00146700 00146700 ADDED ZTO CONTINUE 270 00146500 00146500 ADDED ZTO CONTINUE 270 00146500 00146500 ADDED ZTO CONTINUE 270 00146500 00146500 ADDED ZTO CONTINUE ZTO CONTINUE 00146700 <td>,</td> <td>ADDED</td> <td>FORMA</td> <td>/(*HT)/</td> <td>150 BRANCHES - CAS</td> <td>00145300</td> <td>70.29</td>	,	ADDED	FORMA	/(*HT)/	150 BRANCHES - CAS	00145300	70.29
ADDED RETURN 00145500 ADDED RETURN 00145700 ADDED 260 CUTINUE 00145700 ADDED C IF THE FIRST MEMBER IN THE BRANCH HAS A FIXED 00145700 ADDED C FLOWRATE, STORE THE FLOWRATE AND SET THE FLAG=-1 0014600 ADDED C FLOWRATE, STORE THE FLOWRATE AND SET THE FLAG=-1 00146100 ADDED REM=MEMNO(N) 00146100 00146400 00146400 ADDED RENCH HAS A FIXED 00146400 00146400 00146400 ADDED RENCHANI=Q(MEN),10000000).L1:10000000) GD TU Z70 00146400 00146400 ADDED RENCHANI=Q(MEN) 00100000).L1:10000000) GD TU Z70 00146400 ADDED RENCHANES, STORE THE FLOWRATE AND SET THE FLAG=-1 00146400 ADDED RENCHANENN=Q(MEN) 00146400 00146400 ADDED Z70 CONTINUE 00146400 ADDED Z70 CONTINUE 00146400 ADDED RETICAL Z70 00146400 ADDED RENCHANES, STORE THE FLOWRATE AND SET TH	A	ADDED	8 6	7(1+*)		00145400	70.29
ADDED RETURN 00145500 AUDEU 260 CONTINUE 00145700 AUDEU 260 CONTINUE 00145700 AUDED C FLUMRATE, STORE THE FLUMRATE AND SET THE FLAG=-1 00145700 AUDED C FLUMRATE, STORE THE FLUMRATE AND SET THE FLAG=-1 0014600 ADDED REMEMDININ 000000).LF.10000000.GD TO 270 00146200 ADDED REMEMDININ 00146500 00146500 ADDED CG TO 280 00146500 00146500 ADDED 270 GUTINUE 00146500 00146500 ADDED 280 GONTINUE 001246100 00146500 ADDED 280 GONTINUE 001246100 00146500 ADDED 280 GONTINUE 0102200 00146500 ADDED 1FINDEX.CE.8501 GO TO 290 00146500 00146500 ADDED 1FINDEX.AERANOLINEX		AUDEU	LEVEL=4			00145500	70.29
ADDEU Z60 CONTINUE 00145700 ADDEU JPOINT=N 00145900 ADDEU C FLOWRATE, STORE THE FLOWRATE AND SET THE FLAG=-1 00145900 ADDED C FLOWRATE, STORE THE FLOWRATE AND SET THE FLAG=-1 00145900 ADDED C FLOWRATE, STORE THE FLOWRATE AND SET THE FLAG=-1 0014600 ADDED DREWENNINN 00140000000000000000000000000000000000	3	ADDED				00145600	70.29
JPOINTEN 00145800 JPOINTEN 00145800 C IF THE FIRST MEMBER IN THE BRANCH HAS A FIXED 00145800 C IF THE FIRST MEMBER IN THE BRANCH HAS A FIXED 00145800 C IF THE FIRST MEMBER IN THE BRANCH HAS A FIXED 00145800 C DITALOWATE, STORE THE FLOWRATE AND SET THE FLAGE-1 00146500 GBR(NBRAN)=Q(MEM) 00146500 CONTAGE 00146500 CONTANCE 00146500 CONTANCE 00146500 CONTANCE 00146500 CONTINUE 00146700 CONTINUE 00146700 CONTINUE 00146700 CONTINUE 00146700 CONTI	7	ADDED	-			00145700	70.29
C IF THE FIRST MEMBER IN THE BRANCH HAS A FIXED 00145000 C FLOWRATE, STORE THE FLOWRATE AND SET THE FLAG=-1 00145000 IF (MOD(ITYPE(MEM), 10000000) GD TO 270 00146000 00146000 00145100 GBR(NBRAN)=Q(MEM) 00146000 00146000 00145100 GBR(NBRAN)=Q(MEM) 0014600 0014600 00110 ZTO GD TU 280 00146500 00146500 00110 ZTO GD TU 280 00146500 00146500 270 GD TU 280 GD TU 280 00146500 00146500 280 GONTINUE 001250 00146500 00146500 280 GONTINUE 001250 00146500 00146500 280 CONTINUE 001250 00146500 0014700 280 CONTINUE 001250 00147100 00147100 290 CONTINUE 001270 00147700 00147700 100 IEMOINEX1=I 001270 00147700 00147700 290 CONTINUE 100 00147700 00147700 100 IEMOINEX1=I 00147700 00147700<		ADDED				00145800	70.29
C FLOWRATE, STORE THE FLOWRATE AND SET THE FLAG=-1 00146000 70. IF (MOD (ITYPE(MEM), 10000000).LT.10000000) G0 T0 00146100 70. QBK (NBRAN) = Q(MEM), 10000000).LT.10000000) G0 T0 00146500 70. QBK (NBRAN) = Q(MEM), 10000000).LT.10000000) G0 T0 00146500 70. QBK (NBRAN) = Q(MEM), 10000000).LT.10000000) G0 T0 00146500 70. QBK (NBRAN) = Q(MEM), 10000000).LT.10000000) G0 T0 00146500 70. QBK (NBRAN) = Q(MEM) 00146500 70. QBK (NBRAN) = Q(MEM) 00146500 70. CD T0 280 CONTINUE 00146500 70. S0 CGNTINUE 280 CONTINUE 00146500 70. RFIX=1 0012400 70. 00146500 70. 280 CONTINUE 010290 70. 0146500 70. 1F(NCON(1).NE.1) G0 T0 290 1146500 70. 70. 70. 290 CONTINUE 160102000 00247700 70. 70. 70. 1FNDEX+1 001247100 70. 70.		AUDED		FIRST MEMBER IN THE	RANCH HAS A FIXED	00145900	70.29
MEM=MEMND(N) 00146100 70. IF(MDD(ITYPE(MEM), 10000000).LT.10000000) G0 T0 00146400 70. QBR(NDRAN)=Q(MEM) 00146400 70. QBR(NDRAN)=Q(MEM) 00146500 70. QBR(NDRAN)=Q(MEM) 00146500 70. QDD(1000000).LT.10000000).C0 00146500 70. QDD(1000000).C0 00146500 70. QDD(1000000).C0 00146500 70. QDD(10000000).C0 00146500 70. QDD(100000000000000000000000000000000000		ADDED		TE, STORE THE FLOWRAT	AND SET THE FLAG=-	00146000	70.29
IF (MDD (ITYPE (MEM), 100 00000).LT.1000000) G0 T0 00146200 70. QBK (NBR AN)=Q(MEM) 00146400 70. KF 1X=-1 00146400 70. C0 T0 280 00146600 70. C1 0 280 00146600 70. C1 10 280 00146600 70. Z10 CULE 00146600 70. Z10 ZB0 00146700 70. Z10 ZB1 00146700 70. Z10 CUTINUE 00146700 70. FIX=1 00146700 70. Z80 CGNTINUE 00146700 70. Ff(INDEX.GE.850) G0 T0 303 00147700 70. Z80 CGNTINUE 00146700 70. 70. Z80 CGNTINUE 00147700 70. 70. Z90 CONTINUE 10.0200 70. 70. REND(NE\$1]=I 00147200 70. 70. Z90 CONTINUE 18RANTINDEX 00147700 70. 290 CONTINUE 18RANTINDE 00147600 70. 300 CONTINUE 18RANTINDEX 00147600 70. 8RANTINDE <		ADDED	MEM=MEMNO(N)			00144100	70.29
QBK(NBRAN)=Q(MEM) Q0146300 70. KFIX=-1 00146500 70. Z70 C0NINUE 00146500 70. Z10 C0NINUE 00146500 70. Z10 C0NINUE 00146500 70. Z10 C0NINUE 00146700 70. Z80 CNINUE 00146700 70. Z80 CONINUE 00146700 70. Z80 CONINUE 00147700 70. Z80 CONINUE 00147700 70. Z80 CONINUE 00147700 70. Z90 CONTINUE 00147200 70. Z90 CONTINUE 00147200 70. Z90 CONTINUE 00147600 70. Z90 CONTINUE 00147600 70. Z90 CONTINUE 00147600 70. Z90 CONTINUE 00147600 70. Z00 CONTINUE 00147600 70. X01 NDE NDE 00147600 70. Q00 CONTINUE 001		ADDED	IF (MOD(ITYPE(ME) • L	T0 2	00146200	70.29
KFIX=-1 00146400 70. G0 T0 280 00146500 70. Z70 CGNTINUE 00146500 70. KFIX=1 00146500 70. Z80 CGNTINUE 00146700 70. RFIX=1 00146700 70. 280 CGNTINUE 00146700 70. RFIX=1 00146700 70. 280 CGNTINUE 00146700 70. RENELI 00147100 70. 16NUEx.GE.850) G0 T0 303 0146900 70. 16NUEX.GE.850) G0 T0 290 00147700 70. 16NUEX.J=I 00147700 70. 290 CDNTINUE 00147700 70. 18NAN(INDEX)=I 00147500 70. 300 CONTINUE 00147500 70. 18RAN(INDEX)=MEMNO(JPOINT) 00147500 70. 00147500 00147600 70. 100 CONTINUE 00147600 70. 100 CONTINUE 00147600 70. 100 CONTINUE 00147600 70. 00 CONTINUE 00147600 70. 00147700 00147700 <td></td> <td>ADDED</td> <td>QBR (NBRAN) = Q(ME</td> <td>EX.</td> <td></td> <td>00146300</td> <td>70.29</td>		ADDED	QBR (NBRAN) = Q(ME	EX.		00146300	70.29
GD T0 280 70.46500 70. Z70 CGNTINUE 00146500 70. KFIX=1 00146700 70. S80 CGNTINUE 00146700 70. IF(INDEX.GE.850) GD T0 303 00146900 70. IF(INDEX.GE.850) GD T0 303 00147000 70. IF(NCON(1).NE.1) GD T0 290 00147000 70. NE=NE+1 00147700 70. IEND(NE,1J=I 00147700 70. 290 CONTINUE 00147300 70. 300 CONTINUE 00147500 70. MBRAN(INDEX)=I 00147600 70. 300 CONTINUE 00147600 70. 300 CONTINUE 00147700 70. 00147600 70. 70. 1BRAN(INDEX)=I 00147600 70. 300 CONTINUE MBRAN(INDEX)=MEMNO(JPOINT) 00147600 70. C IPOINT IS THE NEXT NODE IN THE BRANCH 00147700 70.		ADDED	KFIX=-1			00146400	70.29
270 CONTINUE 00146600 70. KFIX=1 00146700 70. KFIX=1 00146700 70. 280 CONTINUE 00146900 70. IF(INDEX.6E.850) G0 10 303 00146900 70. IF(INDEX.6E.850) G0 10 303 00147000 70. IF(NCON(I).NE.1) G0 10 290 00147000 70. NE=NE+1 00147100 70. 00147700 70. 1END(NE,1)=I 00147700 70. 00147700 70. 290 CONTINUE 10147700 70. 70. 70. 290 CONTINUE 100147700 70. 70. 70. 1BRAN(INDEX)=I 00147700 70. 70. 70. 70. 300 CONTINUE MBRAN(INDEX)=MEMNO(JPOINT) 70. 70. 70. 70. 00147700 T 00147700 70. 70. 70. 70. 1BRAN(INDEX)=MEMNO(JPOINT) MBRAN(INDEX)=MEMNO(JPOINT) 70. 70. 70. 70. 00147700 T T 70. 70. <t< td=""><td></td><td>ADDED</td><td><u>60 TO</u></td><td></td><td></td><td>00146500</td><td>70.29</td></t<>		ADDED	<u>60 TO</u>			00146500	70.29
KFIX=1 00146700 70. 280 CGNTINUE 00146800 70. IF(INDEX.GE.850) G0 10 303 00146900 70. IF(INDEX.GE.850) G0 10 290 00147000 70. NE=NE+1 00147000 70. 00147100 70. 290 CONTINUE 00147100 70. 00147200 70. 290 CONTINUE 00147700 70. 00147700 70. 100 NDEX=INDEX+1 00147700 70. 00147700 70. 100 CONTINUE MBRAN(INDEX)=MANU(JPOINT) 001477600 70. 001477600 70. 00 CONTINUE MBRAN(INDEX)=MANU(JPOINT) 00147760 70. 70. 0 CONTINUE 00147760 70. 00147760 70. 0 CONTINUE 00147760 70. <t< td=""><td></td><td>ADDED</td><td></td><td></td><td></td><td>00146600</td><td>70.29</td></t<>		ADDED				00146600	70.29
280 CGNTINUE 00146800 70. IF(INDEX.6E.850) GO TO 303 00147000 70. IF(NCON(I).NE.1) GO TO 290 00147000 70. NE=NE+I 00147100 70. 00147200 70. S00 CONTINUE 00147200 70. 00147200 70. 290 CONTINUE 00147200 70. 00147300 70. 300 CONTINUE 00147500 70. 00147500 70. 300 CONTINUE 00147700 70. 001477600 70. 300 CONTINUE 00147700 70. 00147700 70. 0 CONTINUE 1POINT 00147700 70. 70. 0 CONTINUE 00147700 70. 70. 70. 0 CONTINUE 00147700 70. 70. </td <td></td> <td>ADDED</td> <td>KF I X= I</td> <td></td> <td></td> <td>00146700</td> <td>70.29</td>		ADDED	KF I X= I			00146700	70.29
IF(INDEX.GE.850) GO TO 303 00146900 70. IF(NCON(I).NE.1) GO TO 290 00147100 70. NE=NE+I 00147100 70. IEND(NE,1)=I 00147200 70. NE=NE+I 00147200 70. IEND(NE,1)=I 00147200 70. 290 CONTINUE 00147300 70. 1NDEX=INDEX+1 00147500 70. 300 CONTINUE 300 CONTINUE 00147500 70. MBRAN(INDEX)=INDEX) 00147600 70. 00147600 70. 00147600 70. 300 CONTINUE 00147600 70. 00147600 70. 00147600 1 00147600 70. 70. 00147700 0 70. 70. 70. 00147600 70. 70. 70. 70. 1 1 1 1 70. 70. 300 CONTINUE 1 1 70. 70. 70. 0 1 1 1 70. 70. 70. 0 1 1 1		ADDED				00146800	70.29
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NE=NE+I 00147100 70. IEND(NE,I)=I 00147200 70. 290 CONTINUE 00147300 70. 1NDEX=INDEX+I 00147500 70. 300 CONTINUE 00147500 70. MBRAN(INDEX)=I 00147500 70. 00147500 70. 00147500 70. 00147500 70. 00147500 70. 00147700 70. 00147700 70. 00147700 70. 00147700 70. 00147700 70. 70. 70. 00147700 70. 70. 70. 00147700 70. 70. 70. 00147700 70. 70. 70. 00147700 70. 70. 70. 00147700 70. 70. 70. 00147700 70. 70. 70. 00147700 70. 70. 70. 00147700 70. 70. 70. 0 70. 70. 70. 0 70. 70. 70.		ADDED	IF (NCON(I), NE. I) GO TO 2		00147000	70.29
IEND(NE,1)=I 00147200 70. 290 CONTINUE 00147300 70. INDEX=INDEX+I 00147500 70. 300 CONTINUE 00147500 70. MBRAN(INDEX)=I 00147500 70. 001 CONTINUE 00147500 70. 300 CONTINUE 00147500 70. MBRAN(INDEX)=MEMNO(JPOINT) 00147700 70. C IPOINT IS THE NEXT NODE IN THE BRANCH 00147700 70.		ADDED	NE=NE+I			00147100	70.29
290 CDNTINUE 00147300 70. INDEX=INDEX+1 00147400 70. IBRAN(INDEX)=I 00147500 70. 300 CDNTINUE 00147600 70. MBRAN(INDEX)=MOUJPOINT) 00147700 70. C IPOINT IS THE NEXT NODE IN THE BRANCH 00147800 70.		ADDED	I END(NE, 1) = I				70.29
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300 CONTINUE 00147600 70. MBRAN(INDEX)=MEMNO(JPOINT) 00147700 70. C IPOINT IS THE NEXT NODE IN THE BRANCH 00147800 70.		ADDED	I BRAN(INDEX)=I			00147500	N
MBRAN(INDEX)=MEMND(JPOINT) 00147700 70.2 C MBRAN(INDEX)=MEMND(JPOINT IS THE NEXT NODE IN THE BRANCH 00147800 70.2	-	AUDED				00147600	70.29
C I POINT IS THE NEXT NODE IN THE BRANCH 00147800 70.2		ADDED		POINT		00147700	2
		ADDED		POINT IS THE NEXT NODE IN		00147800	0.2

	0LD VOL=SER=004783	=004783 DRC UPDATE NEW VOL=SER=007208		4
ULD SEQ	MESSAGE	FILENAME = MUFAN DECKNAME = MUFAN		уү∙рр
	ADDED	I POINT=JNODE(JPOINT)	00147900	70.29
	AUDED	IFIINDEX.IE.850) 60 TO 304	00148100	0.2
	ADDED	 	00148200	• 2
	ADDED	WRITE(6,9005)	00148300	70.29
	ADDED	9005 FORMAT(1H0////1H0,35X,*BKANCH STORAGE EXCEEDED - CASE SKIPPED*/	00148400	70.29
	ADDED	I 1H0,107(1H*))	00148500	
	ADDED	LEVEL=4	00148600	70.29
	ADDED		00148100	10.29
	AUUEU	304 CUNIINUE TBRANTINDEVI-TBRINT	00140000	10. 29
	AUVEU	I DRAWLINDEAT-IFUIN: I FINCONTIPUINT)-2) 320.310.400	00149000	70.29
	ADDED		00149100	
	ADDED		00149200	70.29
	AUDED	0		70.29
A	ADDED	0) 60 T	00149400	70.29
	ADDED	IF(KFIX.61.0) GO TO 360	00149500	70.29
3	ADDED	(INI)	00149600	70.29
8	ADDED	IF(MEM.GT.O) GO TO 312	00149700	70.29
	ADDED	JP0INT=JP0INT+I	00149800	70.29
	ADDED	(INIO	00149900	70.29
	ADDED		00150000	70.29
	ADDED		00120100	9
	ADDED	ITYPE(MEM)=ITYPE(MEM)+10000000	00150200	70.29
	ADDED	-	00150300	70.29
	ADDED		00150400	70.29
	ADDED (THE BRANCH DOES NOT TERMINATE AT IPOINT - ST	00150500	70.29
	ADDED C		00150600	70.29
	ADDED			ô
	ADDED	IF(MEMNC(JPOINT).GT.0) GO TO 300	00150800	10.29
	ADDED	:	00120900	70.29
	ADDED		00121000	70.29
	ADDED		00151100	
	ADDEU	WRITE(6,9008) IPDINT, JNODE(JPDINT-I), JNODE(JPDINT)	00151200	70.29
	ADDED	[HO////IH0,10/(IH*)/IH0,22X, NODES', 14, ', ',14, ' AND	5	ð
	ADDED	ARE CONNECTED ILLEGALLY - CASE SKIPPED.	015	70.29
	ADDED	LEVEL=4	5	
	ADDED		25	
	ADDED		015	
	ADDED (C THE BRANCH TERMINATES AT IPOINT, WHICH IS AN	00151800	70.29

QLD 54Q FILENAME=MUFAN DEKAMME=MUFAN DEKAME MY100 ADDED C END FILENAME DEKAMME OIT 2700 70.23 ADDED C END FILENAME DERGY FILENAME DERGY FILENAME OIT 2700 70.23 ADDED C END FILENAME DERGY FILENAME		01D VOL=	0LD V0L=SER=004783	DRC UPDATE	NEW VOL=SER=007208		
ADDE0 C END FLIN NODE CHECK FOR INCONSISTANT PRESSURE 0013200 ADDE0 C CUNSTRAINTS OR & SINGLE LUOP PRUDLEN. 0013200 ADDE0 IFFUELDINT.EE.L.D. 01 330 0013200 ADDE0 IFFUELDINT.EE.L.D. 01 330 0013200 ADDE0 IFFUELS 01 01 360 0112240 0112240 ADDE0 IFFUELS 01 0360 0112240 0112240 ADDE0 IFFDINT.EE.L.D. 01 0360 0112240 0112240 ADDE0 IFFDINT.EE.L.D. 01 0360 0113240 0113240 ADDE0 IFFDINT.EE.L.D. 01 0360 0113320 0113320 ADDE0 IFFDINT.EE.L.T.MUN.NBRPTS.E4.01 <gu 10="" 332<="" td=""> 01013320 0113320 ADDE0 IFFDINT.EE.L.T.MUN.NBRPTS.E4.01<gu 10="" 332<="" td=""> 01033200 0113320 ADDE0 IFFDINT.EE.L.T.MUN.NBRPTS.E4.01<gu 10="" 332<="" td=""> 01033200 01133700 ADDE0 IFFDINT.EE.L.MUN.NBRPTS.E4.01<gu 10="" 332<="" td=""> 01033200 01133700 ADDE0 IFFDINT.EE.L.MUN.NBRPTS.EE.L.DUP PROBEENT//TAR.251411 01133700</gu></gu></gu></gu>		MESSAGE	FILENAME=MUFAN	DECKNAME=MUFAN			ΥΥ.DD
ADDED C ENN POINT MODE CHECK FOR TRANTS ON A SINGLE LOOP PRUBLEM. PRESSURE 0012200 ADDED IFTRUTHT.EVELT CONSTRANTS ON A SINGLE LOOP PRUBLEM. 0012200 ADDED IFTRUTHT.EVELT CONSTRANTS ON A SINGLE LOOP PRUBLEM. 0012200 ADDED IFTRUTHT.EVELT CONSTRANTS ON A SINGLE LOOP PRUBLEM. 0012240 ADDED HERET.ST.CONTINUE 00132700 00122700 ADDED HERET.ST.CONTINUE 00132700 00122700 ADDED ADDED 1401101 001030 00132700 ADDED 0017500 300 00132700 00132700 ADDED 0017500 300 00132700 00132700 ADDED 0017500 1401101 1401101 0113700 01137700 ADDED 000710001110111 1401101 1401101 00113700 00132700 ADDED 14011001 1401101 1415114012011 140120111 1412120111 ADDED 1411001011111 34431361 00713100 0013300 ADDED <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	1						
ADDED IF (RF (FUL) (T): E4,.1) GO TO 360 OOI5210 OOI52200 ADDED IF (RF (FUL) (T): E4,1) GO TO 360 OOI52200 OOI52200 ADDED ADDED RF(RF): E4,1) GO TO 360 OOI52200 OO152700 ADDED ADDED RF(RF): E4,1) GO TO 360 OO152700 OO152700 ADDED JADDED JADDED JADDED OOT 00 55700 OO152700 ADDED JADDED JADDED JADDED JADDED OOT 00 55700 ADDED JADDED JADDED JADDED JADDED OOT 00 55700 ADDED JADDED JADDED JADDED JADDED OOT 10 360 ADDED JADDED JADDED JADDED JADDED OO153700 ADDED JADDED LEVIE=40.100 11411/1/140.201/144.114.0201/144.251.41 OO153700 OO153700 ADDED JADDED LEVIE=40.001 11411/1/140.201/144.251.41 OO153700 OO153700 ADDED JADDED JADDED JADDED JADDED OO15400	an a	ADDED ADDED		- CHECK FOR A SINGLE LOD		00151900 00152000	70.29 70.29
ADDE0 HTKTT.ETT.T.C.T.T.SUT. 50. OUT SUT		ADED	IF(NCON(I).EQ.	TU 330 GO TO 360		00152100	70.29
ADDED WRITE(5)-50101 FULL CONTRACT ODISO		AUDED		1 360		00152300	70.29
ADDED FLYEL=3 O0152500 ADDED PLIPOINT=0.0 00152500 ADDED 30 CONTINET=0.0 00152500 ADDED LAST=AST=AST=AST=AST=AST=AST=AST=AST=AST=		ADDED	WRITE(6,9010)	IPOINT		00152400	70.29
AUED CUTUTAGE CUTUTAGE <thcututage< th=""> CUTUTAGE <thc< td=""><td></td><td>ADDED</td><td>LEVEL=3</td><td></td><td></td><td>00152500</td><td>70.29</td></thc<></thcututage<>		ADDED	LEVEL=3			00152500	70.29
ADDE 33 C CONTINUE 0015300 ADDE LAST=LAST 0015300 0015300 ADDE LAST=LAST 0015300 0015300 ADDE PRUNDURF LAST=LAST 0015300 ADDE PRETEG 9009 FRTEG 0015300 ADDE I "CONNECTED TO THE NETWORK - CASE SKIPPED'//T4X.2514) 0015300 ADDE I "CONNECTED TO THE NETWORK - CASE SKIPPED'//T4X.2514) 00153500 ADDE I "CONNECTED TO THE NETWORK - CASE SKIPPED'//T4X.2514) 00153500 ADDE I FLORIN 34.336.3336 00153700 00153700 ADDE J SCONTINUE THIS IS A SINGLE LUDP PRUBLEM 00153700 ADDE J FCONTINUE THIS IS A SINGLE LUDP PRUBLEM 00153700 ADDE J CONTINUE THIS IS A SINGLE LUDP PRUBLEM 0015400 ADDE J CONTINUE ANDE 0015400 ADDE J CONTINUE J CONTINUE 0015400 ADDE J CONTINUE J CONTINUE 0015400 ADDE J CONTINUE J CONTINUE 0015400		ADDED	G0 T0 360			00152700	70.29
DDED IF (NUMB)-EQ.1.AND.NBRPTS-E4.0) GU 0322 OU5300 ADDED LAST=LASTH. 0015310 0015310 ADDED WRITE(5,903) (IBRAN(IB),IB=LAST,INUEX) 0015300 ADDED NETE(5,903) (IBRAN(IB),IB=LAST,INUEX) 0015300 ADDED LEVEL=4 0015300 00153300 ADDED LEVEL=4 0015350 0015350 ADDED LEVEL=4 0015350 0015350 ADDED LEVEL=4 0015350 0015350 ADDED TEPPIDIAL 1HS IS A SINGLE LUDP PROBLEM 0015360 ADDED TEPPIDIAL 334,335,336 0015360 ADDED TEPPIDIAL 334,335,336 0015360 ADDED 334 CONTINUE 034,336,336 0015360 ADDED 334 CONTINUE 038,331 0015360 ADDED 336 CONTINUE 336,336,336,336 0015360 ADDED 336 CONTINUE 336,336,336,336 0015360 ADDED 336 CONTINUE 336,336,336,336 0015360		ADDED				00152800	70.29
ADDED CANTON CONTON ADDED WATTE1679097 TBRANTB), JB=LAST, INUEXT 00153100 ADDED 1<'CONNECTED TO THE NETWORK - CASE SKIPPED'//(44,25141)		ADDED	IF (NDUMBP.EU.I	60 L0		00152900	70.29
ADDED GOUTING CASE SKIPPED'//(4x, 2514)) DOUT '.0013300 ADDED 1 'CUNNECTED TO THE NETWORK - CASE SKIPPED'//(4x, 2514)) 00133400 ADDED 1 'CUNNECTED TO THE NETWORK - CASE SKIPPED'//(4x, 2514)) 00133400 ADDED 332 CUNTINUE THS IS A SINGLE LUOP PROBLEM 00153700 ADDED 332 CUNTINUE THS IS A SINGLE LUOP PROBLEM 00153700 ADDED 332 CUNTINUE 34;336,336 00153700 ADDED 332 CUNTINUE THS IS A SINGLE LUOP PROBLEM 00153700 ADDED 336 CUNTINUE 34;336,336 00153700 ADDED 336 CUNTINUE 34;336,336 00153700 ADDED 336 CUNTINUE 015700 00153700 ADDED 336 CUNTINUE 00153700 00153700 ADDED 338 CONTINUE 342;342 0015400 ADDED 338 CONTINUE 0015400 0015400 ADDED 342 CONTINUE 0015400 0015400 ADDED 342 CUNTINUE 0015400 0015400 A		AUUEU	LADI-LADITL	TTOPANTIDI ID-LACT INNEAL		00066700	10.29
ADGE 1 CONNECTED TO THE NETWORK CASE SKIPPED'//(4x,2514) 00153400 ADDED LEVEL=4 00153500 00153500 00153500 ADDED LEVEL=4 00153500 0015360 00153600 ADDED LEVEL=4 0015360 0015360 0015360 ADDED TF(PILPOINT) 334,335,336 00153700 0015360 ADDED TF(PILD) 340,336,336 00153700 00153900 ADDED 334 CONTINUE 0015400 0015400 ADDED 385 CUNTINUE 0015400 0015400 ADDED 386 CUNTINUE 0015400 0015400 ADDED 386 CUNTINUE 0015400 0015400 ADDED 386 CUNTINUE 0015400 00154500 ADDED 340 CUNTINUE 0015400 00154500 ADDED 340 CUNTINUE 0015400 00154500 ADDED 340 CUNTINUE 0015400 0015400		ADDED			BRANCH IS NOT		70.29
ADDED LEVEL=4 00153500 ADDED 332 KETURN 00153500 ADDED 332 KETURN 00153500 ADDED 1 F(P(1D) 115 IS A SINGLE LUOP PROBLEM 00153900 ADDED 2 IF(P(1D) 340.336.336 00153900 ADDED 334 GONTINE 015396 00153900 ADDED 334 GONTINE 0015396 00153900 ADDED 334 GONTINE 0015400 0015400 ADDED 340 GONTINE		ADDED		THE NETWORK - CASE SKIPPED"//		00153300	70.29
ADDED RETURN 00153400 ADDED 32 CONTINUE THIS IS A SINGLE LUOP PROBLEM 00153700 ADDED C IF(P(I)) 34,336,336 00153700 ADDED JE(P(I)) 34,336,336 0015370 00153700 ADDED JF(P(I)) 340,338,336 0015370 00153700 ADDED JF(P(I)) 340,338,336 0015410 0015370 ADDED 336 CONTINUE 0015470 00154700 ADDED 336 CONTINUE 0015470 00154700 ADDED 338 CONTINUE 0015470 00154700 ADDED JF(P(I)) 338,342,340 00154700 00154700 ADDED JF(P(I)) 338,342,340 00154700 00154700 ADDED JF(P(I)) 346,346 00154700 00154700 ADDED ADDED JF(P(I)) 10101 00154700 ADDED ADDED JF(P(I)) J46,344 00154700 ADDED JF(P(I)) J46,344,346 00154700 00154700 ADDED JF(P(I)NE J46,344,346 00154700	A	ADDED	LEVEL=4			00153400	70.29
ADDED 332 CONTINUE 00153700 ADDED IF(P(IPOINI)) 344.36,336 00153800 ADDED IF(P(IPOINI)) 344.336,336 00153800 ADDED 334 CONTINUE 0015380 00153800 ADDED 344 CONTINUE 00154200 00154200 ADDED 354 CONTINUE 0015420 00154200 ADDED 355 CONTINUE 0015420 00154200 ADDED 356 CONTINUE 0015420 00154200 ADDED 358 CONTINUE 0015420 00154200 ADDED 358 CONTINUE 00154700 00154700 ADDED 340,346,347 0015470 00154700 ADDED 481TE(6,9010) 1PDINT 00154700 ADDED 481TE(6,9010) 1PDINT 00154500 ADDED 481TE(6,9010) 1PDINT 00154500 ADDED 481TE(6,9010) 1PDINT 00154500 ADDED 342 CONTINUE 0015400 00154600 ADDED 344 CONTINUE 0015400	1300	ADDED				00153500	70.29
ADDED C THIS IS A SINGLE LUOP PRUBLEM 00153900 ADDED 34 CONTINUE 00153900 00153900 ADDED 34 CONTINUE 00153900 00153900 ADDED 34 CONTINUE 00153900 00153900 ADDED 34 CONTINUE 0015400 0015400 ADDED 38 CONTINUE 00154700 00154200 ADDED 38 CONTINUE 00154700 00154200 ADDED 38 CONTINUE 00154700 00154200 ADDED 34 CONTINUE 0015400 00154200 ADDED 34 CONTINUE 0015400 00154400 ADDED 400 DININ NILTE(6,9010) IPDINI 00154600 ADDED ADDED 460 ADDED 00154700 00154700 ADDED 34 CONTINUE INCONSISTANT PRESSURE CONSTRAINTS 00154700 ADDED 342 CONTINUE INCONSISTANT PRESSURE CONSTRAINTS 00154400 ADDED 344 CONTINUE INCONSISTANT PRESSURE CONSTRAINTS 00154400 ADDED 344 CONTINUE	3	ADDED				00153600	70.29
IF (PI IPOINT) 34,336,336 00153400 334 CONTINUE 00154100 15 (PI 1) 340,338,338 00154100 335 CONTINUE 00154100 336 CONTINUE 00154100 340 CONTINUE 0015400 340 CONTINUE 0015400 340 CONTINUE 0015400 341 CONTINUE 0015400 041 FE(6,9010) IPDINT 0015400 070 LEVEL=4 0015400 081 FE(6,9010) IPDINT 0015400 070 LEVEL=4 0015400 070 SCONTINUE 0015400 070 SCONTINUE 0015400 081 FE(6,9010) IPDINT 0015400 16 KEIX+11) 346, 344, 346 0015400 344 CONTINUE 00155100 000 SC MRITE(6,9003) I, PRESSURE CONSTRAINTS 000 SC MRITE(6,9003) I, PROINT 000 SC MRITE(6,9003) I, PRESSURES - ERROR SCAN CONTINUES'/1H0, 00155500<	9	ADDED		IS A SINGLE LODP		00153700	70.29
34 CONTINUE 15(P(I)) 340,338,342,342 15(P(I)) 340,338,342,342 36 CONTINUE 15(F(I)) 338,342,342 37 CONTINUE 38 CONTINUE 38 CONTINUE 38 CONTINUE 38 CONTINUE 38 CONTINUE 34 CONTINUE 344 CONTINUE 344 CONTINUE 344 CONTINUE 344 CONTINUE 344 CONTINUE 344 CONTINUE 344 CONTINUE 344 CONTINUE 344 CONTINUE 16(F(IX+1) 346,344,346 344 CONTINUE 344 CONTINUE 16(F(IX+1) 346,344,346 344 CONTINUE 344 CONTINUE 344 CONTINUE 16(F(IX+1) 346,344,346 344 CONTINUE 344 CONTINUE 344 CONTINUE 16(F(IX+1) 346,344,346 344 CONTINUE 344 CONTINUE 16(F(IX+1) 346,344,346 00155400 00155400 00155400 00155400 00155400 00155400 00155400 00155500 00155400 00155500 00155600 00155500 00155500 00155500 00155500 00155500 00155500 00155500 00155500 00155500 00155500 00155500 0015600 00155500 00155500 0015		ADDED		334, 336, 336		00153800	70.29
IF(P(I)) 340,338,342,342 00154,000 336 CONTINUE 00154,100 IF(KFIX+1) 340,346,340 00154,200 338 CONTINUE 00154,300 MRITE(6,9010) IPDINT 00154,500 340 CONTINUE 00154,600 340 CONTINUE 00154,600 341 CONTINUE 00154,600 342 CONTINUE 00154,600 342 CONTINUE 00154,600 344 CONTINUE 00154,600 344 CONTINUE 00155000 344 CONTINUE 00155000 344 CONTINUE 00155000 344 CONTINUE 00155000 000155000 00155200 344 CONTINUE 00155200 00155000 00155200 344 CONTINUE 00155200 00155000 00155500 114, AND*,14, HAVE FIXED PRESSURE CONSTRAINTS 00155500 00155500 114, AND*,14, HAVE FIXED PRESSURES - ERKOR SCAN CONTINUES'/1H0, 00155500 114, AND*,14, HAVE FIXED PRESSURES - ERKOR SCAN CONTINUES'/1H0, 00155500 114, AND*,14, HAVE FIXED PRESSURES - ERKOR SCAN CONTINUES'/1H0, 00155500 114, AND*,14, HAVE FIXED PRESSURES - ERKOR SCAN CONTINUES'/1H0, 00155500 114, AND*		ADDED	CONTINUE			00153900	70.29
336 CUNTINUE 15(P(11)) 338,342,342 340 CONTINUE 340 CONTINUE 16(F(KFIX+1) 340,346,340 340 CONTINUE 16(KFIX+1) 340,346,340 340 CONTINUE 340 CONTINUE 16(KFIX+1) 346,344,346 342 CONTINUE 342 CONTINUE 344		ADDED	IF(P(I))			00154000	70.29
338 CONTINUE 338 CONTINUE 00154500 340 CONTINUE 00154500 00154500 340 CONTINUE 0015460 00154500 340 CONTINUE 0015460 00154500 340 CONTINUE 00154500 00154500 340 CONTINUE 0015460 00154700 340 CONTINUE 00154700 00154700 340 CONTINUE 00154700 00154700 340 CONTINUE 00154700 00154700 341 CONTINUE 00154700 00154700 342 CONTINUE 0015400 00154700 344 CONTINUE 1NUCH 00155100 344 CONTINUE 00155100 00155200 344 CONTINUE 1NCONSISTANT PRESSURE CONSTRAINTS 00155500 003 FORMAT(LHO////1H0,107(LH*1/1H0,23X,*2 NODES IN THE SAME BRANCH, *00155500 00155500 003 FORMAT(LHO////1H0,107(LH*1/1H0,23X,*2 NODES IN THE SAME BRANCH, *00155500 00155500 1 14,* AND*/14,* HAVE FIXED PRESSURES - ERROR SCAN CONTINUES*/1H0, 00155500 00155500 2 107(LH*1) 2 107(LH*1/1H0,23X,*2 NODES IN THE SAME BRANCH, *00155500 00155500 2 107(LH*1) 2 107(LH*1/1H0,23X,*2 NODES IN THE SCAN CONTINUES*/1H0, 00155500 0015550		ADDED	CONTINUE	C76 C70		00154100	70.29
538 CUNITINGE 538 CUNITINGE 00154400 840 CONTINUE 840,346,340 00154400 940 CONTINUE 00154700 00154700 841 EVEL=4 00154700 00154700 842 CONTINUE 00154700 00154700 842 CONTINUE 00154700 00154700 844 CONTINUE 00154700 00154800 844 CONTINUE 00154700 00154900 844 CONTINUE 00154900 00154900 944 CONTINUE 00154900 00154900 1544 CONTINUE 0015400 00155900 944 CONTINUE 00155700 00155500 944 CONTINUE 1. IPOINT 00155700 9003 FORMAT(1H0////1H0,107(1H*)/1H0,23X,'2 NDES IN THE SAME BRANCH, *00155400 00155500 9003 FORMAT(1H0////1H0,107(1H*)/1H0,23X,'2 NDES IN THE SAME BRANCH, *00155600 00155500 144, AND*,14*, HAVE FIXED PRESSURES - ERKOR SCAN CONTINUES*/1H0, 00155500 00155500 144, AND*,14*, HAVE FIXED PRESSURES - ERKOR SCAN CONTINUES*/1H0, 00155500 00155500 144, AND*,14*, HAVE FIXED PRESSURES - ERKOR SCAN CONTINUES*/1H0, 00155500 00155500 144, CON(1PUINT).EQ.1) 60 TO 360 00155600 <t< td=""><td></td><td>ADDED</td><td>IF(P(1))</td><td>342,1342</td><td></td><td>00154200</td><td>10. 29</td></t<>		ADDED	IF(P(1))	342,1342		00154200	10. 29
340 CONTINUE 00154500 WRITE(6,9010) IPDINT 00154600 WRITE(6,9010) IPDINT 00154600 RETURN 0154600 342 CONTINUE 00154700 00154700 00154700 00154700 00154700 00154700 00154700 00154700 00154700 00154700 00154900 00154700 00155700 00155700 00155700 00155700 00155700 00155700 00155700 00155700 00155700 00155700 00155700 00155700 00155700 00155700 00155500 00155700 00155500 00155700 00155500 1 14, AND*, 14, HAVE FIXED PRESSURES - ERKOR SCAN CONTINUES'/140, 00155500 1 14, AND*, 14, HAVE FIXED PRESSURES - ERKOR SCAN CONTINUES'/140, 00155500 2 10111+*) 2 10111+*) 2 10111+*) 2 10111+*) 2 114*) 3 00155500 2 00155500		AUUEU	CUNIINUE	1.346.340		00154500	70. 29
WRITE(6, 9010) IPDINT 00154600 LEVEL=4 00154700 LEVEL=4 00154700 RETURN 0154900 342 CONTINUE 00154900 344 CONTINUE 00155100 344 CONTINUE 00155500 344 CONTINUE 00155500 344 CONTINUE 00155500 344 CONTINUE 00155500 0003 FORMAT(LHO////1H0,107(LH*)/1H0,23X,*2 <ndes *00155500<="" branch,="" in="" same="" td="" the=""> 9003 FORMAT(LHO////1H0,107(LH*)/1H0,23X,*2<ndes *00155500<="" branch,="" in="" same="" td="" the=""> 2 107(LH*1) 00155500 16(NCI FL=3)<</ndes></ndes>		ADDED	CONTINUE			00154500	70.29
LEVEL=4 00154700 70. RETURN 00154800 70. 342 CGNTINUE 00154900 70. 1F(KFIX+1) 346,344,346 00155000 70. 344 CGNTINUE 00155100 70. C WRITE(6,9003) 1, IPOINT PRESSURE CONSTRAINTS 00155100 70. 9003 FQRMAT(1H0////1H0,107(1H*)/1H0,23X,'2 NDDES IN THE SAME BRANCH, *,00155300 70. 1 14,' AND',14,' HAVE FIXED PRESSURES - ERROR SCAN CONTINUES'/1H0, 00155500 70. 2 107(1H*1) (1H*1) GO TO 360 00155700 70. 1EVEL=3 00155700 70.		ADDED				00154600	70.29
RETURN 00154800 70. 342 CGNTINUE 00154900 70. IF(KFIX+1) 346,344,346 00155000 70. 344 CDNTINUE 1NCONSISTANT PRESSURE CONSTRAINTS 00155100 70. 0003 FGKMAT(1H0////1H0,107(1H*1/1H0,23X,'2 NDDES IN THE SAME BRANCH, *00155200 70. 00155200 70. 1 14, AND*,14, HAVE FIXED PRESSURES - ERKOR SCAN CONTINUES*/1H0, 00155500 70. 00155500 70. 2 107(1H*1) . . 00155500 70. 00155500 70. 1 I4, AND*,14, HAVE FIXED PRESSURES - ERKOR SCAN CONTINUES*/1H0, 00155500 70. 00155500 70. 2 107(1H*1) . . 00155500 70. 1 I4, AND*,14, HAVE FIXED PRESSURES - ERKOR SCAN CONTINUES*/1H0, 00155500 70. 00155500 70. 2 107(1H*1) 00155500 70. 1 I4, AND*.14, HAVE FIXED PRESSURES - ERKOR SCAN CONTINUES*/1H0, 00155500 70. <td></td> <td>ADDED</td> <td>LEVEL=4</td> <td></td> <td></td> <td>00154700</td> <td>70.29</td>		ADDED	LEVEL=4			00154700	70.29
342 CGNTINUE 00154900 70. IF(KFIX+1) 346,344,346 00155000 70. 344 CONTINUE 00155100 70. 0 00155100 70. 0 00155200 70. 0 00155200 70. 0 00155200 70. 0 00155200 70. 0 00155200 70. 0 00155200 70. 0 00155200 70. 0 00155200 70. 0 1 14, 0015510 70. 1 14, 0015510 70. 70. 2 101(11+*) 1017(11+*)/1H0.23X,*2 NDES IN THE SAME BRANCH, *00155500 70. 1 14, 00155500 70. 70. 2 101(11+*) 010155500 70. 2 101(11+*) 60 TO 360 70. 1 14, 001155500 70. 70. 1 14, 00111 60 TO 360 70. 1 14.00111 10.00155500 70. 1 10.00155500 <td></td> <td>ADDED</td> <td>RETURN</td> <td></td> <td></td> <td>00154800</td> <td>70.29</td>		ADDED	RETURN			00154800	70.29
IF(KFIX+1) 346,344,346 00155000 70. 344 CONTINUE INCONSISTANT PRESSURE CONSTRAINTS 00155100 70. C WRITE(6,9003) I, IPOINT 00155300 70. 9003 FORMAT(1H0////1H0,107(1H*)/1H0,23X,'2 NDDES IN THE SAME BRANCH, ',00155400 70. 1 14,' AND',14,' HAVE FIXED PRESSURES - ERKDR SCAN CONTINUES'/1H0, 00155500 70. 2 107(1H*) 00155500 70. 1 14,' AND',14,' HAVE FIXED PRESSURES - ERKDR SCAN CONTINUES'/1H0, 00155500 70. 2 107(1H*) 00155500 70. 1 14,' OD',14,' HAVE FIXED PRESSURES - ERKDR SCAN CONTINUES'/1H0, 00155500 70. 2 107(1H*) 00155500 70. 2 107(1H*) 00155500 70. 1 14,' OD',14,' HAVE FIXED PRESSURES - ERKDR SCAN CONTINUES'/1H0, 00155500 70. 1 14,' OD',14,' HAVE FIXED PRESSURES - ERKDR SCAN CONTINUES'/1H0, 00155500 70. 1 14,' OD',14,' HAVE FIXED PRESSURES - ERKDR SCAN CONTINUES'/1H0, 00155500 70. 1 14,' OD',14,' HAVE FIXED PRESSURES - ERKDR SCAN CONTINUES'/1H0, 00155500 70. 1 14,' OD',14,' HAVE FIXED PRESSURES - ERKDR SCAN CONTINUES'/ HAVE - SCAN CONTINUES'/ HAVE - SC		ADDED	CONTINUE			00154900	70.29
344 CONTINUE 00155100 70. C INCONSISTANT PRESSURE CONSTRAINTS 00155200 70. C WRITE(6,9003) 1, IPOINT 00155200 70. 9003 FORMAT(1H0////1H0,107(1H*)/1H0,23X,'2 NODES IN THE SAME BRANCH, *,00155400 70. 1 14,' AND',14,' HAVE FIXED PRESSURES - ERKOR SCAN CONTINUES'/1H0, 00155500 70. 2 107(1H*) 015550 70. 2 107(1H*) 00155500 70. 2 107(1H*) 00155500 70. 2 107(1H*) 00155500 70. 1 14,' AND', 14,' HAVE FIXED PRESSURES - ERKOR SCAN CONTINUES'/1H0, 00155500 70. 2 107(1H*) 1 00155500 70. 2 107(1H*) 1 00155500 70. 1 14,' AND', 14,' HAVE 1 00155500 70. 2 107(1H*) 1 00155500 70. 1 1 00155500 70. 70. 1 1 1 1 1 1 1 1 1 1		ADDED	1)	0,344,346		00155000	70.29
C INCONSISTANT PRESSURE CONSTRAINTS 00155200 70. WRITE(6,9003) I, IPOINT 00155300 70. 9003 FORMAT(1H0////1H0,107(1H*)/1H0,23X,'2 NODES IN THE SAME BRANCH, *,00155400 70. 1 14,' AND',14,' HAVE FIXED PRESSURES - ERROR SCAN CONTINUES'/1H0, 00155500 70. 2 107(1H*) 00155500 70. 1 14, 00101 00155500 70. 1 14, 00101 00155500 70. 1 10 10 10 10. 1 10 10 10 10. 1 1 10 10 10. 1 1 10		AUDED				00155100	70.29
WRITE(6,9003) I, IPOINT 9003 FORMAT(1H0////1H0,107(1H*)/1H0,23X,'2 NODES IN THE SAME BRANCH, *,00155400 70. 1 I4,' AND',I4,' HAVE FIXED PRESSURES - ERROR SCAN CONTINUES'/1H0, 00155500 70. 2 107(1H*)) LEVEL=3 IF(NCON(IPOINT).EQ.1) GO TO 360 00155800 70.		ADDED		PRESSURE		00155200	70.29
9003 FURMAT(1H0////1H0,1U/(1H*//1H0,23X,'Z NUUES IN THE SAME BRANCH, *,00155400 70. 1 14, AND*,14, HAVE FIXED PRESSURES - ERKOR SCAN CONTINUES*/1H0, 00155500 70. 2 107(1H*)) LEVEL=3 1F(NCON(1PUINT).EQ.1) 60 TO 360 00155800 70.		ADDED				00155300	70.29
I 14, AND',14, HAVE FIXED PRESSURES - EXKUR SLAN CUNTINUES'/THU, UCLESSOU 70. 2 107(1H*)) 1EVEL=3 IF(NCON(IPDINT).EQ.1) GO TO 360 00155800 70. 00155800 70.	the second s	ADDED	i•	NUUES	SAME BRANCH,	*00155400	70.29
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	والأحجاج والمتعاولة المتعاولة والمتعاولة والمتعاولة والمتعاولة والمتعاولة والمتعاولة والمتعاولة والمتعاولة والمتعاولة	AUUEU					5

UPDATE NEW VOL=SER=0 DECKNAME=MUFAN ETWORK DATA FOR THIS BRANCH ETWORK DATA FOR THIS BRANCH GO TO 370 CO TO 410 GO TO 410 GO TO 410 GO TO 410 STORED BRANCH PT. NUMBER VIOUSLY ASSIGNED BRANCH PT. NUMBER NICH PT. NO. PREVIOUSLY ASSIGNED NFU FOR TEES NFU FOR TEES 10 402 001	and the first distance of a second					
SEQ MESSAGE FLLENAME=NUFAN DECKNAME=MUFAN SODED FLLENAME=NUFAN DECKNAME=MUFAN ADDED 400ED 60 TU 01X1)=-1.0 ADDED 345 CONTINE STORE NETWORK DATA FOR THIS BRANCH ADDED ADDED NBCONTINE STORE NETWORK DATA FOR THIS BRANCH ADDED ADDED NBCONTINE STORE NETWORK DATA FOR THIS BRANCH ADDED C TETRIDET FOLNTI-GLT OUNDER POLNTI-GLT OUT 301 TO 370 DOLD ADDED C THOUNDET FOLNTI-GLT OUNDER PARCH PT. NO. TO IPOLNT ADDED LEVELIA ADDED DER PRISTONARE ADDED LEVELIAPPINE ADDED DER PRISTONARE ADDED LEVELIAPPINE ADDED DATA ADDED LEVELIAPPINE ADDED NINUTTI-BP ADDED ADDED ADDED NINUTTI-BP ADDED ADDED ADDED NINUTTI-BP ADDED C NINUTTI-BP ADDED ADDED ADDED C NINUTTI-BP ADDED ADDED ADDED A		OLD VOL=SER=00	DRC	DATE NEW VOL=SER=007208		
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ADDED 346 CONTINUE ADDED 346 CONTINUE ADDED NBCON(1)=1 ADDED NBCON(1)=1 ADDED STORE NETWORK DATA FOR THIS BRANCH ADDED C ADDED C ADDED C ADDED C ADDED C ADDED C ADDED JBPREFULUE ADDED			60 TU		00156000	0
ADDED LEVEL=1 ADDED LEVEL=1 ADDED NGCON(2)=1 ADDED STORE NETWORK DATA FOR THIS BRANCH ADDED SC CUNTINUE STORE NETWORK DATA FOR THIS BRANCH ADDED C HFLINUDE(IPDIN).C1.0) G0 TO 370 ADDED LFTINUDE(IPDIN).C1.0) G0 TO 370 TO 10.0 ADDED JUPPENBRPTSHOUMBPA ASSIGN DUMMY BRANCH PT. NG. TO 1001NT ADDED JUPPENBRPTSHOUMBP ANDED NUUMBPANUTRBPT ADDED JUPPENBRPTSHOUMBP ANDED NUUMBPANUTRBPT ADDED NINUUTINOUTI - ADD G0 410 ANDEN ADDED ANDED NINUUTINOUTI - ADD STOCUNTINUE ADDED ANDED JUPPENDECTUPINT) ANDEN ANCH PT. NUMER ADDED JOCUNTINUE VIENERVIDIATIONT ANDEN ANCH PT. NUMER ADDED JUPPENDECTUPINT) JUPPENDECTUPINT) ANDEN ANCH PT. NUMER ADDED JOPEND JOPEND JUPRES ANCH PT. NUMER ADDED JUPENDECTUPINT) JUPRESTANC			1		00156100	
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ADDED NBCON(2)=1 ADDED C GUNTINE STORE NETHORK DATA FOR THIS BRANCH ADDED C IF(INUDE(IPOINT):0:-0) GUT0.370 ADDED C NUMBPFNOUMBP+1 ADDED C NUMBPFNOUMBP+1 ADDED C NUMBPFNOUMBP+1 ADDED JBP=NBRP15+NOUMBP ASIGN OUMPY BRANCH PT. NO. TO IPOINT ADDED INNOUTFNIT-JBP ADDED ADDED IFKCONTDUNT.J.BL GD 10 410 ADDED INNUTENINOUT1.JBP ADDED ADDED NINUUTENINOUT1.JBP ADDED ADDED NINUUTENINOUT1.JBP ADDED ADDED NINUUTENINOUT1.JBP ADDED ADDED ANNUTENINOUT1.JBP ADDED ADDED JRCONTINUE USE PREVIDUSLY ASSIGNED BRANCH PT. NUBER ADDED JBPEINDETIPOINT) ADDED ADDED ADDED ADDED UST NINUE NINUE ADDED JBPEINDETIPOINT) ADDE ADDE ADDED ADDE UST NINUE ADDE ADDED		ADDED	NBCON(1)=1		00156300	70.29
ADDED 350 CUNTINUE STORE NETWORK DATA FOR THIS BRANCH ADDED IFTINDETTPOINT:GT.0) GU TU 370 GU TU 370 GU TU 370 ADDED C TITINDETTPOINT:GT.0) GU TU 370 GU TU 370 ADDED CUMBP=ROUMBP-1 ASSIGN DUMMY BRANCH PT. NO. TO IPDINT ADDED NUMBERSHOUMBP.1 ASSIGN DUMMY BRANCH PT. NO. TO IPDINT ADDED NUMDETTPOINT]=JBP ADDED ADDED NINUUTENINUT:1 GO 10 410 ADDED NINUUTENINUT:1 GO 10 410 ADDED NINUUTENINUT:1 GO 10 410 ADDED CUNTINUE USE PREVIDUSLY ASSIGNED BRANCH PT. NUMBER ADDED GO 10 410 USE PREVIDUSLY ASSIGNED BRANCH PT. NUMBER ADDED GO 10 410 USE PREVIDUSLY ASSIGNED BRANCH PT. NUMBER ADDED GO 10 410 USE BRANCH PT. NUMES AT IPDINT HHICH IS A ADDED GO 10 410 USE BRANCH PT. NUMES AT IPDINT HHICH IS A ADDED CUNTINUE USE BRANCH PT. NUMES AT IPDINT HHICH IS A ADDED GO 10 410 USE BRANCH PT. NO ADDED GO 10 410 USE BRANCH PT. NO		ADDED	NBCON(2)=1		00156400	70.29
ADDED C STORE NETMORK DATA FOR THIS BRANCH ADDED C IF(INUDE(IPOINT):G:0) G0 T0 370 T0 L000 ADDED C NUUMBP=NUUMBP+1 ADDED ADDED ADDED ADDED JBP=NBRPT5+NDUMBP ADDED JBP=NBRPT5+NDUMBP ADDED JBP=NBRPT5+NDUMBP ADDED JBP=NBRPT(JBP)=P(IPOINT)=JBP ADDED JBP=NBRPT(JBP)=P(IPOINT)=JBP ADDED ADDED ADDED NINUCURINIDIT)=JBP ADDED ADDED ADDED ADDED GO TO 410 NINUUTIS=JBP ADDED			CUNTINUE		00156500	70.29
ADDED IF(INUDE(IPDIN).GT.0) GO T0 370 ADDED C NUUMBP=NUUMBP ASSIGN DUMMY BRANCH PT. NO. TO IPOINT ADDED JBP=NBRPTS+NDUMBP ASSIGN DUMMY BRANCH PT. NO. TO IPOINT ADDED JBP=NBRPTS+NDUMBP ASSIGN DUMMY BRANCH PT. NO. TO IPOINT ADDED JBP=NBRPTS+NDUMBP ASSIGN DUMMY BRANCH PT. NO. TO IPOINT ADDED JNUDE(IL4D)-11/1-DE ADDED ADDED NUUTINITNUUT=JBP ADDED ADDED JTO CUNTINUUT=JBP ADDED ADDED 370 CUNTINUUT=JBP ADDED ADDED 370 CUNTINUUT=JBP ADDED ADDED 370 CUNTINUUT) JBP ADDED G0 TU 410 USE RRACH FRAMINATES AT IPOINT MHICH IS A ADDED G0 TU 410 USE BRANCH FRAMINATES AT IPOINT MHICH IS A ADDED G0 TU 410 JBP JBP ADDED G0 TU 410 USE BRANCH FRAMINATES AT IPOINT WHICH IS A ADDED G0 TU 410 JBP JBP ADDED G0 TU 1001 JBP JBP ADDED G0 TU 410 JBB <td></td> <td></td> <td></td> <td>DATA FOR THIS</td> <td>00156600</td> <td>70.29</td>				DATA FOR THIS	00156600	70.29
ADDED C ASSIGN DUMMY BRANCH PT. NO. TO IPOINT ADDED JBP-HBRPTUMBP+1 ADDE JBP-HBRPTUMBP+1 ADDED JBP-HBRPTUMBP ADDE JBP-HBRPTUMBP+1 ADDED JBP-HBRPTUMBP JBP-HBRPTUMBP+1 ADDED JBP-HBRPTUMBP+1 ADDE ADDED JBP-HBRPTUNIT-JBP ADDE ADDED IF(KOURT PDINT)-NE.1) GO 10 410 ADDED JNUUTENNUUTT-JBP ADDE ADDED JNUUTENNUUTT-JBP ADDE ADDED JNUUTENNUUTT-JBP ADDE ADDED GO 10 410 USE ADDED JBP=INDDETIPOINT) ADDE ADDED GO 10 410 USE ADDED GO 10 410 USE ADDED 400 CUNTINUE JSE ANCH TERMINATES AT IPOINT WHICH IS A ADDED CUNTINUE THIS BRANCH FERMINATES AT IPOINT WHICH IS A ADDED CUNTINUE JSTORE INFO INTO ADDED CONTINUE JSTORE INFO INSTANDART FOR THIS BRANCH ADDED CONTINUE JSTORE INFO INSTANDART FOR THIS BRANCH <td></td> <td>ADDED</td> <td>IF(INUDE(IPOINT).GT.0) (</td> <td> </td> <td>00156700</td> <td>70.29</td>		ADDED	IF(INUDE(IPOINT).GT.0) (00156700	70.29
ADDED NDUMBRP=NDUMBR+1 ADDED JBP=NBRPTS+NDUMBR ADDED INDETTTYNUJEN ADDED PBRFT(JBPTS+NDUMBR) ADDED PBRTT(JBPTS+NDUMBR) ADDED PBRTT(JBPTS+NDUMBR) ADDED NINUT=NINUT+NE.1) G0 T0 410 ADDED NINUT=NINUT+NE.1) G0 T0 410 ADDED ADDED NINUT=NINUT+NE.1) G0 T0 410 ADDED 370 CUNTINU USE PREVIDUSLY ASSIGNED BRANCH PT. NUMBER ADDED C USE PREVIDUSLY ASSIGNED BRANCH PT. NUMBER ADDED C UST 0410 STORE ADDED CUNTINU USE BRANCH TERMINATES AT IPOINT WHICH IS A ADDED C USE BRANCH PT. NU. PREVIDUSLY ASSIGNED ADDED C UG 410 ADDED C USE BRANCH PT. NU. PREVIDUSLY ASSIGNED ADDED JBP=INDETIPUINT) ADDED ADDED JBP=INDETIPUINT) ADDED ADDED JBP=INDETIPUINT) ADDED ADDED JBP=INDETIPUINT) ADDED ADDED			ASSIGN DUM	BRANCH PT. NO. TO	00156800	70.29
ADDED JBB=NGRPTS+NDUMBP ADDED PRRPT(JBP)=VIDNT)=JB ADDED FKNCUNIPUINT)=JB ADDED NNUUT=NNUT=NNT) ADDED NNUUT=NNUT=NNT) ADDED NNUUT=NNUT=NNCT) ADDED NNUUT=NNUUT=JBP ADDED NNUUT=NNUUT=JBP ADDED CUNTINE ADDED STO CUNTINE ADDED CUNTINUE ADDED CUNTINUE ADDED CONTINUE ADDED JBP=INUDE(IPUINT) ADDED JBP=INUDE(IPUINT) <td></td> <td>ADDED</td> <td>NUUMBP=NDUMBP+1</td> <td></td> <td>00156900</td> <td>70.29</td>		ADDED	NUUMBP=NDUMBP+1		00156900	70.29
ADDED INUDE(IPUINI)=JBP ADDED F(RCONI(IPOINT).Ne.1) G0 T0 410 ADDED F(RCONI(IPOINT).Ne.1) G0 T0 410 ADDED F(RCONI(IPOINT).Ne.1) G0 T0 410 ADDED STO CUNTINNUTT=JBP NINUUT=NINOUT ADDED G0 T0 410 NINUUT=NINOUT ADDED STO CUNTINNUTT)=JBP NINUUT ADDED G0 T0 410 USE PREVIDUSLY ASSIGNED BRANCH PT. NUMBER ADDED JDF=INUDE(IPOINT) USE PREVIDUSLY ASSIGNED BRANCH PT. NUMBER ADDED G0 T0 410 USE PREVIDUSLY ASSIGNED ADDED CONTINUE USE PREVIDUSLY ASSIGNED ADDED CONTINUE THIS BRANCH TERMINATES AT IPOINT MHICH IS A ADDED CONTINUE THIS BRANCH PT. NO. ADDED CONTINUE USE BRANCH PT. NO. ADDED CONTINUE STORE INFU FOR RES ADDED JFINDE		ADDED	JBP=NBRPTS+NDUMBP		00157000	70.29
ADDED PBRPT(JBP)=P(IPOINT) ADDED IFNCUN(IPUNT).NE.1) G0 10 410 ADDED NINUUTENUUTI.S.1) G0 10 410 ADDED NINUUTENUUTI.S.1) ADDED NINUUTENUUTI.S.1) ADDED NINUUTENUUTI.S.1) ADDED NINUUTENUUTI.S.1) ADDED CUNTINUUTI.S.1) ADDED STOCUTINUUTI.S.1) ADDED COTULE ADDED COTUTENUE ADDED COTUTENUE ADDED JEFINODE(IPUINT) ADDED CONTINUE ADDED CONTINUE ADDED CONTINUE ADDED CONTINUE ADDED C ADDED CONTINUE ADDED C ADDED JEFINOL(IPOINT)-1 ADDED JETINE ADDED JETINE		ADDED	I NODE (I POINT) = J BP		00125100	70.29
ADDED IF(NGUNIPOINT).NE.1) GO 70 410 ADDED INUUTIENINGUT+1 NINUUTIENINGUT+1 ADDED INUUTIENINGUT+1 NINUUTIENINGUT+1 ADDED 370 CUNTINUUTIENINGUT+1 NINUUTIENINGUT+1 ADDED 370 CUNTINUUTIENEN NINUUTIENINGUT+1 ADDED 370 CUNTINUE USE PREVIOUSLY ASSIGNED BRANCH PT. NUMBER ADDED C JBPEINUDE(IPDINT) ADDED C JBPEINUDE(IPDINT) ADDED C USE BRANCH PT. NUMBER ADDED C PUTIN ADDED C PUTIN ADDED C PUTIN ADDED C PUTIN ADDED JBPEINUDE(IPDINT) ADDED C PUTIN ADDED JBPEINUDE(IPDINT) ADDED JSTSIFINITY ADDED JSTSIFINITY ADDED JSTSIFINITY ADDED JSTSIFINITY ADDED JSTSIFINITY ADDED JSTSIFINITY ADDED JSTSIFINITY </td <td></td> <td>ADDED</td> <td>PBRPT(JBP)=P(IPQINT)</td> <td></td> <td>00157200</td> <td>70.29</td>		ADDED	PBRPT(JBP)=P(IPQINT)		00157200	70.29
ADDED NINUUT=NINUUT+I ADDED G0 TUU ADDED G7 CUNTINUUT)=BP ADDED G7 CUNTINUE ADDED JPEINODE(TPOINT) ADDED G0 TU ADDED G0 CUNTINUE ADDED G0 CUNTINUE ADDED G0 CUNTINUE ADDED G0 CUNTINUE ADDED C ADDED C0 CUNTINUE ADDED C ADDED JSTEFINOLIPOINT)- ADDED JSTEFINOLIPOINT)- ADDED <td></td> <td>ADDED</td> <td>1)</td> <td>10</td> <td>00157300</td> <td>2</td>		ADDED	1)	10	00157300	2
ADDED INUUT(NINUUT)=JBP ADDED 370 CUNTINUE ADDED 370 CUNTINUE ADDED 370 CUNTINUE ADDED 370 CUNTINUE ADDED 0 ADDED	A	ADDED	NINUUT=NINUUT+1		00157400	Ň
ADDEDGO TU 410ADDEJ370 CUNTINUEADDEJCADDEJCJBP=INODE(IPUINI)ADDEDGO TO 410ADDEDGO TO 410ADDEDGO TO 410ADDEDCADDED		ADUED	INDUT (NUUUT) = JBP		00157500	70.29
ADDEU 370 CUNTINUE USE PREVIOUSLY ASSIGNED BRANCH PT. NUMBER ADDEU C USE PINUDE (IPUINT) USE PREVIOUSLY ASSIGNED BRANCH PT. NUMBER ADDEU G0 10 410 USE PRANCH TERMINATES AT IPOINT WHICH IS A ADDEU C 400 CUNTINUE THIS BRANCH TERMINATES AT IPOINT WHICH IS A ADDEU C USE BRANCH PT. NO. PREVIOUSLY ASSIGNED ADDEU C USE BRANCH PT. NO. PREVIDINGLY ADDEU C JBP=INUDE(IPUINT) ADDEU JSTAFCONTPOINT)-1 ADDEU ADDEU JSTAFCONTPOINT)-1 ADDEU ADDEU JSTAFCONTPOINT)-1 ADDEU ADDEU JSTAFCONTPOINT)-1 ADDEU ADDEU IFTMEMU	- 4	ADDED			00157600	70.29
C USE PREVIOUSLY ASSIGNED BRANCH PT. NUMBER JBP=INDDE(IPUINT) USE PREVIOUSLY ASSIGNED BRANCH PT. NUMBER GO TO 410 THIS BRANCH TERMINATES AT IPOINT WHICH IS A 400 CUNTINUE THIS BRANCH PT. NO. PREVIOUSLY ASSIGNED C POINT - STORE NETWORK DATA FOR THIS BRANCH C USE BRANCH PT. NO. PREVIOUSLY ASSIGNED C JBP=INUDE(IPUINT) C JBP=INUDE(IPUINT) C JBP=INUDE(IPUINT) C JBP=INUDE(IPUINT) C JBP=INUDE(IPUINT) JST=IFIND(IPUINT) JST JST=IFIND(IPUINT) JST JST JST MNEG=0 JST JST JST	:0		CONTIN		00122100	70.29
JBP=INDDE(IPUIN1) JBP=INDDE(IPUIN1) GO TO 410 C THIS BRANCH PT. NO. PREVIOUSLY ASSIGNED C JBP=INDDE(IPUIN1) C JBP=INDDE(IPUIN1) C JBP=INDDE(IPUIN1) JST=IFIND(IPOIN1) JST=IFIND(IPOIN1) JFIN=JST+NCON(IPUIN1)-I JST=IFIND(IPOIN1) JFIN=JST+NCON(IPUIN1)-I D0 402 J=JSI,JFIN MNEG=I MNEG=I MNEG=I MNEG=I D0 402 J=JSI,JFIN MEM=MEMD(J) GO 10 402 JF(MEMNCJ) JT JC JT JT JFIN=JST+JCON(IPUIN1)-I D0 402 J=JSI,JFIN ME JT JC JC JC </td <td>></td> <td></td> <td></td> <td>ASSIGNED BRANCH PT.</td> <td>00157800</td> <td>70.29</td>	>			ASSIGNED BRANCH PT.	00157800	70.29
G0 T0 410 400 CUNTINUE THIS BRANCH TERMINATES AT IPDINT WHICH IS A C PUINI - STORE NETWORK DATA FOR THIS BRANCH C USE BRANCH PT. NG. PREVIOUSLY ASSIGNED C JBP=INUDE(IPDINT) C JBP=INUDE(IPDINT) C JBP=INUDE(IPDINT) C JST=IFIND(IPDINT) JFIN=JSTNCON(IPDINT)-1 D0 402 J=JST,JFIN D0 402 J=JST,JFIN IF(MNEG.NE.0) G0 T0 402 IF(MNEG.NE.0) G0 T0 402 IF(MNEG.NE.0) G0 T0 402 IF(MNEG.NE.0) G0 T0 402 IF(MNEG.NE.0) G0 T0 400 D0 406 J=JST,JFIN MMEG=I 402 CONTINUE D0 406 J=JST,JFIN MEM=MNO(J).GT 00 400 IF(MEM.LE.0) G0 T0 400 IF(MEM.LE.0) G0 T0 406 IF(MEM.LE.0) G0 T0 406 IF(MEM.LE.0) G0 T0 406			JBP=INODE(IPOINT)		00157900	70.29
400 CONTINUETHIS BRANCH TERMINATES AT IPDINT WHICH IS ACPUINI - STURE NETWURK DATA FOR THIS BRANCHCUSE BRANCH PT. NO. PREVIOUSLY ASSIGNEDCJBP=INUDE(IPUINT)CJSP=INUDE(IPUINT)CJST=IFIND(IPUINT)JTIN=JST+NCON(IPUINT)-1JFIN=JST+NCON(IPUINT)-1DD 402 J=JST,JFINIF(MNEG=NE.0) GD 10 402IF(MNEG=I402 CONTINUEMNEGEI402 CONTINUEDD 402 J=JST,JFINIF(MNEG.NE.0) GD 10 402IF(MNEG.NE.0) GD 10 410MEM=MEMNO(J)IF(MEM.LE.0) GD 10 400IF(MEM.LE.0) GU 10 405IF(MEM.LE.0) GU 10 405		ADDED	60 70 410		00158000	70.29
CTHIS BRANCH TERMINATES AT IPDINT WHICH IS ACPUINI - STURE NETWURK DATA FUR THIS BRANCHCUSE BRANCH PT. NO. PREVIDUSLY ASSIGNEDCJBP=INUDE(IPUINT)CJBP=INUDE(IPUINT)CJST=IFIND(IPUINT)CJST=IFIND(IPUINT)JFIN=JST+NCON(IPUINT)-1D0 402 J=JST.JFINIF(MNEG=NE.0) GD 10 410MNEG=I402 CONTINUEMNEGEI402 CONTINUEMEM=MEMOLJ)G1F(MEM-LE.0) GD 10 410MEM=MEMOLJ)IF(MEM-LE.0) GD 10 402IF(MEM-LE.0) GD 10 402IF(MEM-LE.0) GD 10 410MEM=MEMOLJ)IF(MEM-LE.0) GD 10 400IF(MEM-LE.0) GD 10 400				1	00158100	70.29
C PUINI - STURE NETWURK DATA FOR THIS C JBP=INUDE(IPDINT) C JBP=INUDE(IPDINT) C JBP=INUDE(IPDINT) C MNEG=0 JST=IFIND(IPDINT)-1 JFIN=JST+NCUN(IPDINT)-1 DD 402 J=JST,JFIN IF(MEMNO(J).GT.01 GD TD 402 IF(MEG.NE.0) GD TD 410 MNEG=1 402 CONTINUE DD 406 J=JST,JFIN MEM=MEMND(J) IF(MEMLE.0) GD TD 406 IF(MEMLE.0) GD TD 406			THIS	TERMINATES AT IPOINT WHICH IS	00158200	70.29
C USE BRANCH PT. NO. PREVIDUSLY AS JBP=INUDE(IPDINI) JBP=INUDE(IPDINI) C JST=IFIND(IPDINI) JST=IFIND(IPDINI) JST=IFIND(IPDINI) JFIN=JST+NCON(IPDINI)-I JST=IFIND(IPDINI) JFIN=JST+NCON(IPDINI)-I D0 402 J=JST,JFIN D0 402 J=JST,JFIN G0 T0 402 IF(MEG.NE.0) G0 T0 410 402 MNEG=I 402 CONTINUE D0 406 J=JST,JFIN MOCOD MEM=MEMND(J).G1 0 400 10 402 IF(MEG.NE.0) G0 T0 410 10 402 IF(MEMLE.0) G0 T0 410 11 402 IF(MEMLE.0) G1 0 400 11 402 IF(MEMLE.0) G1 0 400 11 402			1	RE NETWORK DATA FOR THIS BRANCH	00158300	70.29
JBP=INODE(IPUINT) C SIDRE INFU FOR T JST=IFIND(IPUINT)-I JFIN=JST+NCON(IPUINT)-I DD 402 J=JST,JFIN IF(MEMNO(J).GT.0) GD TO 402 IF(MNEG.NE.0) GD TO 410 MNEG=I 402 CONTINUE DD 406 J=JST,JFIN MEM=MEMND(J) IF(MEM.LE.0) GD TO 406 IT=MOD(ITYPE(MEM),10000)			BRAN	EVIDUSLY AS	00158400	70.29
C SIDRE INFU FOR T JST=IFIND(IPOINT)-I JST=IFIND(IPOINT)-I JFIN=JST+NCON(IPUINT)-I DD 402 J=JST,JFIN IF(MEG.NE.0) GD TD 402 IF(MEG.NE.0) GD TD 410 MNEG=I 402 CONTINUE DD 406 J=JST,JFIN MEM=MEMND(J) IF(MEM.LE.0) GD TO 406 IT=MOD(ITYPE(MEM),10000)		ADDED			00158500	70.29
MNEG=0 JST=IFIND(IPOINT) JFIN=JST+NCON(IPOINT)-1 JFIN=JST+NCON(IPOINT)-1 DD 402 J=JST,JFIN MNEG=I 402 CONTINUE 402 CONTINUE MEM=MEMND(J) MEM=MEMND(J) 11=M0D(ITYPE(MEM),10000) 11=M0D(ITYPE(MEM),10000)			STORE	 	00158600	\sim
JST=IFIND(IPOINT) JFIN=JST+NCON(IPUINT)-1 D0 402 J=JST,JFIN IF(MEMN0(J).67.0) 60 T0 410 IF(ME6.NE.0) 60 T0 410 MNEG=I 402 CONTINUE 20 406 J=JST,JFIN MEM=MEMN0(J) IF(MEM.LE.0) 60 T0 406 IT=MOD(ITYPE(MEM),10000)		ADDED	MNEG=0			\sim
JFIN=JST+NCON([POINT)-1 DD 402 J=JST,JFIN IF(MEMND(J).61.01 GD 10 IF(MNEG.NE.0) GD TD 410 MNEG=I 402 CONTINUE 402 CONTINUE 402 CONTINUE 11=MD(J) IF(MEM.LE.0) GU TO 406 IT=MDD(ITYPE(MEM).10000)		ADDED	JST=IFIND(IPOINT)		00158800	
D0 402 J=JST,JFIN IF(MEMNO(J).6T.01 G0 T0 IF(MNEG.NE.0) G0 T0 410 MNEG=I 402 CONTINUE 402 CONTINUE MEM=MEMNO(J) IF(MEM.LE.0) G0 T0 406 IT=MOD(ITYPE(MEM).10000)		ADDED	JFIN=JST+NCON(IPOINT)-1		00158900	
IF (MEMND(J).67.0) G0 T0 IF (MNEG.NE.0) G0 T0 410 MNEG=I 402 CONTINUE 20 406 J=JST.JFIN MEM=MEMND(J) IF(MEM.LE.0) GU T0 406 IT=MOD(ITYPE(MEM).10000)		ADUED	DD 402 J=JST, JFIN		00159000	70.29
IF(MNEG.NE.0) GD TO 41 MNEG=I 402 CONTINUE DD 406 J=JST,JFIN MEM=MEMND(J) IF(MEM.LE.0) GU TO 405 IT=MOD(ITYPE(MEM),10000		ADDED	60 1	402	00165100	
402		ADDED	60 T0 41		00159200	70.29
402		ADDED	MNEGET		00159300	70.29
					00159400	
	an a	AUDED	DO 406 J=JST, JFIN		00159500	70.29
		AUDED			00159600	
, , , , , , , , , , , , , , , , , , ,		ADDED	IF(MEM.LE.0) GU TO 406		001 59700	
		ADDED	IT=MOD(ITYPE(MEM),10000)		00159800	70.29

	0LD V0L=SER=004783	004783	DRC UPDATE NEW VC	VOL = SEK = 007 208		
OLD SEQ	MESSAGE	FILENAME=MUFAN	DECKNAME=MUFAN			<u>ΥΥ.DD</u>
	ADDED	IF(IT.LT.100) 6 IF(IT.GT.1300)	GD TD 406 GD TD 406		00159900	70.29 70.29
	ADDED	2)		00109100	
	ADDED	406 CONTINUE			00160200	70.29
	ADDED	410 CONTINUE			00160300	70.29
	ADDED	IF (NUM+2.LE.300)	GU TU 420		00160400	10.29
	ADDED	WK11E(0,9000) 9004 FURMAT/1H0////H0.10	711H*)/1H0.30X.ºMDRF THAN 150	RRANCHES IN*.	001606100	70.29
			KIPPED*/1H0,107(1H*))	,	00100000	
	ADDED	4			00160800	70.29
	ADDED	RETURN			00100000	70.29
	ADDED	420 CONTINUE			00161000	70.29
	ADDED C		STURE THE FORWARD CONNECTION, NBRPT-	-TO-JBP BY NBRAN	00161100	70.29
	ADDED	NUM=NUM+1			00161200	70.29
	ADDED	IBRPT(NUM)=NBRPT			00161300	70°29
A	ADDED	IBCON(NUM)=NBRAN			00161400	70.29
	ADDED	Ω.			00161500	70.29
4	ADDED	WRITE(6,8004) NU	BRPT(NUM),	(W)	00161600	70.29
/	ADDED	1	IBRPT, IBCON, JBRPT, 4112)		00161700	70.29
	ADDED	430 CONTINUE			00161800	70.29
	ADDED C		RE THE REVERSE CONNECTION, JBP-TO-NBRPT	IBRPT BY -NBRAN	00161900	70.29
	ADDED	NUM=NUM+1			00162000	70.29
	ADDED	IBRPT(NUM)=JBP			00162100	70.29
	ADDED	IBCON(NUM) =- NBRAN	N		00162200	70*29
	ADDED	JBRPT (NUM) = NBRPT			00162300	70.29
	ADDED	8004)	NUM, IBRPT(NUM), IBCON(NUM), JBRPT(NUM	(W)	00162400	70.29
	ADUED	450 CONTINUE			00162500	70*29
	ADDED C		CALCULATE NO. OF NODES INT THIS BRANCH	H	00162600	70.29
	ADDED	NPTS(NBKAN) = KF1 X*(1NDEX	(*(INDEX-LAST)		00162700	70.29
	ADDED	IF(LEVEL.EQ.I)	RETURN		00162800	70.29
	AUDED				00162900	70.29
	ADDED	600 CUNTINUE			00163000	70.29
	ADDED C		SORT ARRAYS TO MAKE ALL BRANCH PT. NOS	IS. CONTIGUDUS	00163100	70.29
	ADDED	CALL SORT (3, NUM, IBRP	T, IBCON, JBRPT)		00163200	70.29
	ADDED C		THE NO. OF BRANCHES CONNECTED	TO EACH BRANCH	0	0
	ADDED C		POINT AND STORE IN NBCON		9	70.29
	ADDED	<u>I 8=1</u>			00163500	70.29
	ADDED	ONC			00163600	70.29
	ADDED	DU 700 I=2,NUM			0163	0
	ADDED	IF(IBRPT(I) .EQ. IBRPT	BRPT(I-1)) 60 T0 650		00163800	70.29

	01 0 VDI =SER=004783	4783	DRC UPDATE	NEW VOL =SER=007208		
1						
OLD SEQ	MESSAGE	FILENAME=MUFAN	DE	DECKNAME=MUFAN		YY.•DD
	ADDED Added	IB=IBRPT(I) NBCON(IB)=1			00164000	70. 29
	ADDED	60 10 700			00164100	70.29
		650 CONTINUE			00164200	70.29
	ADDED	NBCON(IB)=NBCON(IB)+I	8)+1		00164300	70.29
		700 CONTINUE			00164400	70.29
	ADDED C	CHECK	BRANCH FLOW	CONSTRAINTS (IF ANY)	00164500	70.29
	ADDED	NENDS(1)=NE			00164600	70.29
	ADDED	RETURN			00164700	10.29
	ADDED				00164800	70.29
	ADDED				00164900	70.29
	ADDED	COMMUN /MUFCOM/			00165000	70.29
	ADDED		COERK,	3,600).	00165100	70.29
	ADDED		IBRAN(850),	IOPT(10),	00165200	70.29
	ADDED	3 ITEMP,	ITYPE(600),	9 1	00165300	70.29
A	ADDED		MBRAN(850).	NBRAN,	00165400	70.29
-	ADDED		NNMAX,	*	00165500	70.29
4	ADDED	6 QBR(150),	QERR,	RHD(600), TBULK(500),	00165600	70.29
2	ADDED	Ľ	VISC (600)	(00)	001 65 7 00	70.29
	ADDED		INDUT (100).	NINOUT, NDUMBP, LOOP	00165800	70.29
	ADDED	COMMON /L2COM/	BRDP(150),	PUTHED(150), IFIND(250)	00165900	70.29
	ADDED	QERR=1.0			00166000	70.29
	AUDED				00166100	70.29
	ADDED	DO 100 IB=1, NBRAN			00166200	70.29
	ADDED	NST=NFIN+1			00166300	70.29
	ADDED	NF IN=NF IN+I AB S(NPTS	TS(IB))		00166400	70.29
A MARKING REPORT OF A MARKANING	ADDED	NSTOP=NFIN-1			00166500	70.29
	ADDED	POTHED(IB)=0.0			00166600	70.29
	ADDED				00166700	70.29
	ADDED	DO 50 N=NST.NSTOP			00166800	70.29
	ADDED	M=MBRAN(N)			00166900	70.29
	ADDED	II = IBRAN(N)			00167000	70.29
	ADDEU	I2=IBRAN(N+1)			00167100	70.29
	ADDED	POTHED(IB) = POTHED(I		B)+RHU(M)*(XDUTA(I2)-XDUTA(I1))	00167200	70.29
	ADDED	50 CONTINUE			00167300	70.29
	ADDED	M=MBRAN(NST)			00167400	70.29
	ADDED		1,100000001.GE.10000001	000001 60 10 100	00167500	70.29
	ADDED	QBR(IB)=1000.0			00167600	70.29
		100 CONTINUE			00167700	70.29
	ADDED	$I \neq I \land I > I = I$			00167800	70.29

	0LD V0L=SER=004783	R=004783	DRC UPDATE	NEW VOL=SER=007208	
LD SEQ	MESSAGE	F IL ENAME = MUFAN	DECKNAME=MUFAN	AN	γ Υ. DDI
					. * a va .
	ADDED	IF(LEVEL.EQ.1.AND.NP DD 200 I=2.NBRAN	NPTS(1).LT.0) RETURN	00167900	70.29
	ADDEU)+IABS(NPTS(I-1))	010	70.
	ADDED	200 CONTINUE		00168200	70.
	ADDED	CALL SPSOLV		00168300	70.
	ADDED	RE TURN		00489100	0.
	ADDED	ENU FUNCTION RNATI(X)		00589100	70.29
	ANDED	Z	• RNAKT(8) • VNAKT(8)	001 68700	70.
	ADDED	A/	0., 400., 600., 800.,	** 1200., 1400., 0.0/	70.
	ADDED	1	•• 51.82, 49.64, 48.,	1, 44.64, 42.96, 0./001	70.
	ADDED	VNAKT/	.17, .7	*364 *31 0 0 0 0 0 0 0 0 0 0	70.
	ADDED	X	ISTEP, IERR)	00169100	70.
	ADDED			00169200	70*
/	ADDED	RNATI = 53.0		00169300	10.
4	ADDED	NT=RNAT1		00169400	70.
	ADDED	д Д	0) 60 10 10	00169500	10.
4	ADDED	RNAII = 42.96		00969100	2
3	ADDED	T=RNAT1	• • •	00169100	10.
	ADDED	TEMP .	0 60 10 10	00169800	70.
	ADDED	4	NAKT, TEMP, ANS)	00669100	70.
	ADDED	RNAT = ANS		0002 100	
	ADDED	Z			70.
	ADDED	ENTRY VNAT (TEMP,	ISTEP, IERR)	00170200	
	ADDED	1.			70.
	ADDED	1.17 /	3600.0	001 70400	70.
	ADDED	AT=RNATI		001 70500	70.
	ADUED	IF (TEMP .LT. 200.0)	0) 60 TU 10	001 70600	70.
	ADDEU	RNAT1 = 0.31 / 3600.0	0*0	00101100	70.
	ADDED	AT=RNAT1			70.
	ADDED	TEMP .GT. 1400) 60 T0 10		70.
	ADDED	INT4 (TEMPA,	VNAKT, TEMP, ANS)		70.
	ADDED	VNAT = ANS / 3600.0	• 0	001 11 00	70.2
	ADDED	RETURN			70.
	ADDED			1	70.
	ADDED	JR MESSAGE		1	70.2
	ADDED	WRITE (6,1000) TEI	ISTEP, RNATT	14 100	70.
	ADDED	* *	HO,103HTHE RANGE OF	TURE VALUES FOR LIQUO0171	70.2
	ADDED	ID SUDIUM HAVE BI	EXCEEDED ANU INIEKPULA	IS NUL PUSSIBLE / 00171	10.2
	ADDED	2 1HO, 7HTEMP = , F	F10.2, 10X, BHISIEP = , 15	<pre>* IOX * IIHFUNCIIUN = * 00171800</pre>	70.29
					N G P

	OLD VOL=SER	VOL =SER=004783	DRC UPDATE NEW VOL=	SER =007208	
LD SEQ	MESSAGE	FILENAME=MUFAN	DECKNAME=MUFAN		YY.DDI
1					
	ADDED	3 F10.5/)		061210	0.2
	ADDED	IERR = 2			70.2
	ADDED	RETURN		0	70.
	ADDED	END			70.
	ADDED	-	X)	\sim	0.2
	ADDED	VSION TEMPA	, VISGLT(10)	00172	. e i
	ADDED	DATA TEMPA/ 50. 1	, 100., 200., 400., 600., 800., 1000.,	1200., 00172500	0
	ADDED			00172	
	ADDED	0GLT/ 848	3., 843., 835., 817.5, 801., 784., 768		70.
	ADDED	1 749.5, 0.0/		00172	
	ADDED	DATA VISGLT/ 3.87	37, 3.5, 3.03, 2.48, 2.26, 1.96, 1.82,	72	70.
	ADDED	1 0.0/		73	
	ADDED	ENTRY RHGLT (TEMP	(P, ISTEP, IERR)		
	ADDED	, i		00173200	70.
	ADDED	RHGLT1 = 848.0		00173300	70.
A	ADDED	RHGLT=RHGLT1		00173400	70.
8	ADDED	IFTEMP .LT. 50.01	01 60 10 10	001 73500	70.
4	ADDED	RHGLTI = 749.5		00173600	70.
4	ADDED	RHGLT=RHGLT1		001 73700	70.
	ADDED	. 61	250.0) GO TO 10	001 73800	70.
	ADDED	CALL INT4 (TEMPA,	<pre>A, RHUGLT, TEMP, ANS)</pre>	00173900	70.
	ADDED	RHGLT = ANS		00174000	70.
	ADDED	RETURN		0014100	70.
	ADDED	ENTRY VHGLT (TEMP,	(P, ISTEP, IERR)	00174200	70*
	ADDED	$I \in RR = I$		00174300	70.
	ADDEU	1 18	3600.0	00174400	70.
	ADDED	VHGLT=RHGLT1		00174500	70.
	ADDED	IF(TEMP .LT. 50.0)	.0) 60 T0 10	00174600	70.
	ADDED		600 ° 0	00174700	70.
	ADDED	SLT=RHGLT1		00174800	70.2
	ADDED	TEMP . GI .	250.0) GO TO 10	00174900	70.2
	ADDED	INT4 (TEMP	<pre> VISGLT, TEMP, ANS)</pre>	00175000	70.
	ADDED	= ANS /	3600.0	00175100	70.2
	ADUEU	RETURN		00175200	70.
	ADDED				70.2
	ADDED	SAGE		00175400	70.2
Non-the-optimized statements of the statement of the statem	ADDED	WRITE (6,1000)	HGLII	001 75500	70.2
	ADDED	10011	,104HTHE RANGE OF TEMPERATURE	LUES FOR LIQUODIT	70.2
	ADDED	ID MERCURY HAVE	EXCEEDED AND INTERPOLATION IS N	T POSSIBLE / 001	70.2
	ADDED	2 1HO, 7HTEMP =	, FI0.2, IOX, BHISTEP = , I5, IOX, I	IHFUNCTION = 00175800	70.29

	0LU VOL=SER=004783		DRC UPDATE	NEW VOL=SER=007208	
LD SEG	MESSAGE	F 1L ENAME=MUFAN	DECKNAME=MUFAN	V	YY. DD(
	ADDED ADDEU	1 , F10.5/) IERR = 2		0001 76000	70.29
	ADDED ADDED	E		00192100	70°-
And a construction of the second s	ADDED	CTION R4P3E (X)		100	70.
	ADDED	DATA TEMPA / 100.	150., 200., 300., 400., 50	00.1 600.1 700.1 0.07 001	70.29
	ADDED	RHOP3E/	.7; 70.3; 66.45; 64.6;	.6, 58.8, 55.9, 0.0/001	70.
	ADDED	DATA VISP3E/ 175., FNTRV R4P3FI (TFMP.	43., 17.2, 6.45, 3.4, 2.0. . ISTEP. IERRI	4, 1.35, 1.04, 0.0/ 00176700 00176800	70.29
	ADDED				
	ADDED	111		00017100	70.29
	ADDED			0012100	70.
	ADDED	11(01 00 10 TO	0071150	10.
	ADDED	R4P3E = 55.9 0/00/F=0/00/F			10.
4	AUDEU			004// 100	•0•
-4		LF LIEMP .61. / UO.0/ Call INT4 (TEMPA. R	RHOP3E. TEMP. ANS)	00922100	
	ADDED	ET = ANS			
5	ADDED			00177800	70.
	ADED	ENTRY V4P3ET (TEMP,	, ISTEP, LERR)	00617100	70.
	ADDED			00178000	70.
	ADDED	R4P3E = 175.0 / 3600.	0.0	00182100	70.
	ADDED	P3ET=R4P3E		001 782 00	
	ADDED	MP .L1. 1	0) 60 T0 10		70.
	ADDED	R4P3E = 1.04 / 3600.0	0.0	00178400	70.2
	ADDED	3ET=R4P3E		001 78500	70.
	AUUEU	LEMP .61. 7UU.		0098/ 100	
	ADDED	14 (IEMPA,	VISP3E, LEMP, ANS)	001 18 700	70.
	AUUEU	V4PJEI= ANJ / JOUU.		001 78900	70.
		C FRADR MESSAGE			70.2
			AP, ISTEP, R4P3E	001 79200	70.2
	ADDED	FORMAT(1X,100(1)	,100HTHE RANGE OF	TURE VALUES FOR MIX 001	70.
	ADDED	HAVE BEEN	EDED AND INTERPOLA	POSSIBLE / 1H0,	70.
	ADDED	TEMP = , F10.2,	10X, 8HISTEP = , 15, 10X,		•
	ADDED	/)		00179600	70.2
	ADDED	IERR = 2		0	70.2
	ADDED	RETURN		00179800	70.
			3		

	0L0 V0L=SER=004783	ER=004783	DRC UPDATE	NEW VOL = SER = 007208		
LD SEQ	MESSAGE	FILENAME=MUFAN	DECKNAME=MUFAN	= MUFAN		γγ. DDI
	ADDED	END			00662100	70.29
	ADDED	FUNCTION H2OT(X)	•		00180000	
	ADDED	VSION TE	(16), RHOH20 (16), VIS		00180100	
	ADDED	-MPA/ 3	40. * 00. * 80. * 100. *	120** 200** 220** 300**	00708100	10.29
	ADDED	• • 400• •	500.3 550.3 600.3			
	ADDED		02.44 02.34 02.24	02*19 01*29 01*19 20*09 21*3	•	70° 201
	AULEU		47°03 40°47 40°47			10° 29
	ADDED	UAIA VISHZU/	• • 00104+ • 00016+ •	0.000498+	001 80 800	10.29
	ADDED	• 900209 •	*000120* *000103*	• 000041, • 000080, • 0000 11,	00100100	10.29
	ADDED	~ [0.0/		00180800	VK
	ADDED	KH20T	(TEMP, ISIEP, IEKK)		00180900	10.29
	ADDED	H			00181000	70. 29
	ADDED	H20T = 62.4			00181100	
	ADDED	20T=H20T			00181200	70.29
	ADDED	IF (TEMP .LT. 3	32.0) 60 10 10		00181300	70.29
A	ADDED	H20T = 42.4			00181400	70.29
	ADDED	RH201=H201			00181500	°
- 4	ADDED	IF (TEMP .GT. 6	600.0) G0 T0 10		00181600	70.29
-6	ADDED	CALL INT4 (TEMPA,	PA, RHUHZU, TEMP, ANS)		00181700	70.29
,	ADDED	I = ANS			00181800	70.29
	ADDED	RETURN			00181900	
	ADDED	ENTRY VH2UT (TE	(TEMP, ISTEP, IERR)		00182000	70.29
	ADDED	IERR = I			00182100	
	ADDED	H20T = .0012			00182200	70.29
	ADDED	VH201=H201			00182300	
	AUDED		32.0) 60 TO 10		00182400	70.29
	ADDED	H20T = .000058			00182500	ំ
	ADDED	VH20T=H20T			00182600	70.29
	ADDED	TEMP .GT.	·0) 00 10 10		00182700	70.29
	ADDED	_	PA, VISH20, TEMP, ANS)		00182800	\sim
	ADDED	VH201 = ANS			00182900	
	ADUED	RETURN			00183000	~
	ADUEU	<u> </u>			00183100	
	ADDED	C ERROR MESSAGE			00183200	2
	ADDED				œ	0.2
	ADDED	(6,10(ISTEP, H2OT		100	0.2
	ADDED	1000 FORMAT (1X, 100	LX +	OF TEMPERATURE VALU	0018	
	AUDED	ш	EDED AND	IS NOT POSSIBLE / 1H0.	0018	\sim
	ADDED	EMP = *	$FI0_2^{*}I0X_{*}$ BHISTEP = , 15,	10X, IIHFUNCTION = $FI0.5$	10018	0.2
	ADUED	IERK = 2			00183800	70.295
and a second						

	0LD V0L=SER=004783	=004783	ORC UPDATE	NEW VOL=SER=007208		
LD SEQ	MESSAGE	FILENAME=MUFAN	DECKNAME=MUFAN	FAN		γγ.DDI
						n general i se
	ADDED	RETURN			00183900	e
	ADDED	- Will Bod			00184000	
	ADDED	FUNCTION FLARB (X) COMMON /FARB/ FRHC	(10), FVISC(10), FTEMP(10)	00184200	70.29
DC and Cocket and Social and S	ADDED	KARBT TT	ISIEP, TERRI		00184300	
	ADDED	- 13			00184400	
	ADDED	FLARB = FRHO(1)			00184500	
والموافقة والمحمود معالماتهم المراجعة المراجع المراجعة والمحمد المحمور والمحموم والمحموم	ADDED	KBT=FLARB			00184600	
		IF (IEMF •L1• FU F1 ARB = FRHO(9)			00184800	70.29
	ADDED	- 111			00184900	• •
	ADDED	و ا	FTEMP(9)) GO TO 10		00185000	70.29
	ADDED	CALL INT4 (FTEMP, FRHU	FRHU, TEMP, ANS)		00138100	
	ADDED	RARBT = ANS			00185200	70.29
	ADDED	N			00185300	70.29
A	ADDED	~	, ISTEP, IERR)		00185400	70.29
an s	ADDED				00185500	70.29
4	AUUEU	FLAKb = FVIJUIIJ			0010230100	10.29
7	ADDED	AKU -			00168100	
	ADDED	EMP . L1 .	FIEMPILLI GU IU LU		00868100	
	ADDED	FLARB = FVISC(9)			00648100	
	AUUEU	KBI=FLAKB		na gala yang kana kana mang patangan mananana manana manana manana manana manana na manana kana yang kana kana k	00180000	10. 29
	ADDED	IF (IEMP .61. FIEMP)	MP(9)) 6U 1U 1U		00198100	
	AUUEU	- IF	FVIJU 1 LMF		00700100	
	ADDED	VAKBI = ANS			00186300	
		KELUKN				10. 23
		C CBBCB MESSAAE			0058500	
					00000000000	10.29
		L IN HELTE (4, 1000) TE	TEMD, ICTED, EIAD8		001 86 800	10. 24
	AUUEU	WALLE LUFLOUDI	13161 3	TOO TO EXCEENS ITS ESTABLESUUS		70.201
	AUUEU	TURNAL LAT LOU	AD = . FI0.3/ 140. 3	CRAN IS IN FY		70 20
	AUUCU	NANULI LUNI	ATH HE DESTRED VALUE	REFN SET TO FID 5/1Y		
	AUDED	1 - 117 NOAT				•
	AUUEU					10, 29
	AUUEU	KE I UKN				
	ADDED					N I
	ADDED	SUBROUTINE SPSOLV			0	0.2
	ADDED	(; [BMAIKX, FLINBP,	PUUBL	8	0.2
	ADDED	CUMMUN / MUFLUM/			0018/8100	10. 295

	OLD VOL=SE	X0L=SER=004783		DRC UPDATE	NEW	V0L=SER=007208		
LD SEG	MESSAGE	FILE	FILENAME=MUFAN		DECK NAME=MUFAN			YY.DDI
	ADDED	- ~	A(3), IBCON(600).	TULABS, IBRAN(850),	CONSTS(3,600), IFLUID.	6C, 10PT(10).	00187900 00188000	70.29
	ADDED	m	ITEMP,	IT YPE(600) .	JBRPT(600),		00188100	70.29
	ADDED	4	LEVEL ,	MBRAN(850) +	NBCON(250) ,	NBRAN,	00188200	ا ه
	ADDED	5	NBRPTS,	NNMAX .	NPTS(150),	PBRPT(00188300	
	ADDED	ę	QBR(150),	QERR,	RHU(600),	TBULK(500).	00188400	70.29
	ADDED	1	ш 	VI SC (600)	Ă		00188500	
	ADDED	cn 			NINUUI , NUUMBP,		00188600	
	ADDED	33	CUMMUN /LZCUM/ COMMON /PQCHAR/	BKUP(1501)	PUINED(120)	I F INU (250)	00188700 00188800	70.29
	AUDED		HA	, PCMAX(50),	QCHAR(11,50),	QCMAX(50)	00188900	70.29
	ADDED	CO CO	PQCHA	Z,	~		00068100	70.29
	ADDED	10		(10, 10)	(150),	FLINBP(100)	00183100	70.29
	ADDED	10		1 , 10d1	UUBL(/U)		00189200	70.29
,	ADDED		**	ົ			00189300	
4	AUUEU				UNSISTITI		001 00 000	10.29
- 1	AUUEU		TTEDG-O		-		00100400	10. 201
4	AUUEU	11	C#0=0				00100200	10.29
8	AUUEU		INI I = I No o- No d d C Monwor				00/68100	10. 29
	AUDEU	N					00186800	10.29
	AUUEU		UU 40 I=NBKF15,NUU BOUBL (I)-OBIE(BBDI)				00668100	10. 29
	AUUEU			NE 1 4 4 4			00100100	10. 04
	AUDED		7	FRO OUT PUMP PRE	PRESSURE RISE ARRAY		00100100	70.29
	ADDED	, 00	SO I = 1 - NRRAN				00100300	70 20
	ADDFD		I MP (I				00190400	70.29
	ANDED	1	CONTINUE				00190500	70.29
	ADDED	100 001	CONTINUE				00190600	70.29
A CONTRACTOR OF A CONTRACTOR A	AUDED	KE	KELMAX=0.0				00106100	70.29
	ADDED	MA.	MAXERR=1				00190800	70.29
NAME AND ADDRESS OF THE OWNER ADDRESS OF THE ADDRESS OF	ADDED	C C		RO DUT CONDUCTANCE	ANCE MATRIX		00606100	70.29
	ADDED	00	150	S			0016100	70.29
	ADDED	00	150 J=1, NBRPTS				00116100	
	ADDED	ΒM	BMATRX(1,J)=0.0D0	0			00191200	70.29
	ADDED	150 CU					00191300	70.29
EBUGO 0	ADDED		WRITE(6,8000) ITE	I TER8			91	70.29
	ADDED	C8000 FU	FORMATITH1,45(1H*),14,"TH ITERATION",45(1H*))	*),14,"TH ITER	((*HI)54, NOIIV		00516100	~
	ADDED	NF	NF I N=0				00191600	70.29
	ADDED	c	CO		ES OF ALL	ES		0, 2
	ADDED	c	HIIM	TH UNCONSTRAINED	ED FLOW RATES.		00191800	70.29
								21

QLD SEG FLIENAME=NUFAN DECKNAME=NUFAN YY 00 QLD SEG NESSAGE FLIENAME=NUFAN DECKNAME=NUFAN YY 00 ADDED NODED NOD F30		0LD V0L=SER=004783	DRC UPDATE NEW	V0L = SER = 007208	
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ADDED Dial 250 Lemon Dial 250 Dial 250 <thdial 250<="" th=""> <thdial 250<="" th=""> <thdial< td=""><td></td><td></td><td></td><td></td><td></td></thdial<></thdial></thdial>					
ADDED NPFT-RMPF1, MSP7, AGN(LIRP1) 00193200 70. ADDED TPT (ABCUN(MBP) + LE. 0) GU T0, 250 00193260 70. ADDED TPT (ABCUN(MBP) + LE. 0) GU T0, 250 00193260 70. ADDED TPT (ABCUN(MBP) + LE. 0) GU T0, 250 00193260 70. ADDED TPT (ABCUN(MBP) + LE. 0) GU T0, 250 00193260 70. ADDED NT=TPT (NDT1B) + LE. 0) GU T0, 250 70. 00193260 70. ADDED NT=TPT (NDT1B) + LE. 0) GU T0, 250 70. 00193260 70. ADDED NT=TPT (NDT1B) + LE. 0) GU T0, 250 70. 00193260 70. ADDED NT=TPT (NDT1B) + LE. 0) GU T0, 250 70. 9019360 70. ADDED DADED NTT (NTTYE) (NTT (LIB) + L 00193100 70. 9019360 70. ADDED DADED TTAT00000001 MDT 154 00193100 70. 90193800 70. ADDED DADED TTAT000000001 MDT 154 00193100		ADDED	P2=0 250	00	00
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ADDED IFLECONTINPT.FILTOT GOTO GOTO<		AUUEU		00192300	
ADDED IFERON(NER) G0192500 To: ADDED IFERON(NER) 00192500 70: ADDED NST=FFN0T(LE.0) G019200 70: ADDED NST=FFN0T(LE.0) G019200 70: ADDED NST=FFN0T(LE.0) G019200 70: ADDED NST=FFN0T(LE.0) G019300 70: ADDED NET=NST+LASIN 0019300 70: ADDED NET=NST+LASIN 0019300 70: ADDED NET=NSTALSIN 0019300 70: ADDED DEUMPTIA 10: 70: ADDED DEUMPTIA		ADDED	[IBCON(NBP).LE.O) GO TO 2	00192400	òò
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ADDED G0192500 70. ADDED UBRES=0.0 00193100 70. ADDE UASTWARFIN-1 00193100 70. ADDE UASTWARFIN-1 00193200 70. ADDE UASTWARFIN-1 00193200 70. ADDE UASTWARFIN-1 00193500 70. ADDE UASTWARFIN-1 00193500 70. ADDE IF(17) FE(RM),10000001 UASTWARM 00193500 70. ADDE DFUMP(LB) -CONSTS12,MEM) 00193500 70. 00193700 70. ADDE DFUMP(LB) -CONSTS12,MEM) 00193600 70. 00193700 70. ADDE DFUMP(LB) -CONSTS12,MEM) 001200 012900 70. 00193700 70. ADDE DS DOT ADDE DS 00139300 70. 00193700 70. ADDE DS DOT DOT DS 00139300 70. 70. 70. 70. 70. 70. 70. 70. 70. </td <td></td> <td>AUDED</td> <td>-((81)STON)</td> <td>001928100</td> <td>ໍ່ດໍ</td>		AUDED	-((81)STON)	001928100	ໍ່ດໍ
ADDE0 BRRES=0.0 00193100 70. ADDE0 LASTN=FLN 00193100 70. ADDE0 LASTN=FLN 00193100 70. ADDE0 DG 200 N=NST.LASTN 00193200 70. ADDE0 IF=MD1(ITYPE(MEN).100000000) 01193600 70. ADDE0 IF=TTYPE(MEN).1000000000 01193600 70. ADDE0 DFUNP(IB)=CONSTS(2,MEN) 00193500 70. ADDE0 DFTUTYPE(MEN).NE.300000000 60 T0 00193500 70. ADDE0 DS DONNALIB<=CONSTS(2,MEN)		ADDED		00192900	70.29
ADDED LaSTM=NF.N-1 00193100 70. ADDEU D0 200 N=NST.LASTM 00193400 70. ADDEU IT = MULTITYPE (MEM.).10000000) 00193400 70. ADDEU IF (ITYPE (MEM.).10000000) 001 93400 70. ADDED DPUMP(IB) = CONSTS(2, MEM) 00193500 70. ADDED DPUMP(IB) = CONSTS(2, MEM) 00193700 70. ADDED DPUMP(IB) = CONSTS(2, MEM) 00193700 70. ADDED IF (ITYL) DO00001 GU TU 200 00193700 70. ADDED IF (ITYL) DO00000 +41 GU TO 200 00193700 70. ADDED IF (ITYL) DO0000 +41 GU TO 200 00194700 70. ADDED IF (ITYL) DO0000 +41 GU TO 200 0194700 70. ADDED IF (ITYL) DO0000 +41 GU TO 200 0194700 70. ADDED IF (ITYL) DO1000 +41 GU TO 200 0194400 70. ADDED IF (ITYL) DO102 GU TO 200		ADED	BRRES=0.0	00193000	70.29
ADDE DIG DOI DOI <thdoi< th=""> <thdoi< th=""></thdoi<></thdoi<>		ADDED	100	00166100	°.
ADDEU MEM-BRAN(N) DUMPITYPE(MENNA(N) DUMPITYPE(MANA(N) DUMPITYPE(MANANANANANANANANANANANANANANANANANANAN		ADDED		00193200	ð
ADDED IT=MODITYPE (MEM.)*1000000001 GD 10 Unstand Unstand <thunstand< th=""> Unstan</thunstand<>	,	ADDEU	-	00193300	ċ
ADDED IFILITYPERMENTAL:JOUGUOUU GU TU 158 OU193500 TO. ADDED DPUMP(IB)=CGNSTS(2,MEM) 00193600 70. ADDED 158 CGNTINUE 00193800 70. ADDED 158 CGNTINUE 0019400 70. ADDED 151(150.00001) GU TO 180 0019400 70. ADDED 0114(11)+PCMAX(IT))/2.0 00194200 70. ADDED DPUMP(IB)=10.01101 0019400 70. ADDED DPUMP(1B)=0.5*(PTABLE(IT,QB)+DPUMP(IB)) 00194200 70. ADDED DVMP(1B)=0.5*(PTABLE(IT,QB)+DPUMP(IB)) 00194200 70. ADDED 164 CONTINUE 00194400 70. 00194400 70. ADDED 164 CONTINUE 0010160.110. 00194400 70. 00194400 70. ADDED 164 CONTINUE 00000.411. 0000 70.	A	ADDED))	00193400	70.29
ADDED UNM (IB) = LUNSISK, MEM) OUT 300 OUT 300<	-2	ADDED	000000) 6U IU IS	00680100	70.29
ADDED 158 CONTINUE 00193800 10. ADDED IF(IT_LT_1000000) GU T0 180 00193800 70. ADDED IF(IT_LT_1000000) GU T0 180 0119380 70. ADDED If(IT_LT_1000000) GU T0 162 00193800 70. ADDED 160 CONTINUE 00194200 70. ADDED 00 CONTINUE 00194200 70. ADDED DPUMP(IB)=(PCMIN(IT)+PCMAX(IT))/2.0 00194200 70. ADDED DPUMP(IB)=0.5*(IPTABLE(IT,QB)+DPUMP(IB)) 00194200 70. ADDED DSUMP(IB)=0.5*(IPTABLE(IT,QB)+DPUMP(IB)) 00194400 70. ADDED 164 CONTINUE 00194400 70. 00194400 70. ADDED 164 CONTINUE 0019460 70. 00194400 70. ADDED 164 CONTINUE 0019460 70. 00194400 70. ADDED 180 CONTINUE 001200000 10. 00194600 70. 00194400 70. ADDED 180 CONTINUE 180 CONTINUE 180 CONTINUE 0019460	4	ADDED	JMP (18) = CUNSI 512, ME	00260100	70 20
AUDED L98 CUNTIANE OUT 9400 To AUDED IF11.LT.0000000 41 00194900 70. ADDED DPUMP(IB)=(FCMIN(IT)+FCMAXIIT))/2.0 00194400 70. ADDED 162 CONTINUE 00194400 70. ADDED 162 CONTINUE 00194400 70. ADDED 162 CONTINUE 00194400 70. ADDEU 164 CONTINUE 0019490 70. ADDEU 164 CONTINUE 00194400 70. ADDEU 164 CONTINUE 00194400 70. ADDEU 165 CONTINUE 0119400 70. ADDEU 186 CONTINUE 0119480 700	9	AUUEU		00164100	- 0° 20
ADDED ITTIL::::::::::::::::::::::::::::::::::		ADUED	CUNTINUE	00864100	20.20
AUDED Iso CONTINUE OUT FUL		ADDED		00654100	70 20
ADDEU IoU CUNITING OUT9450 TO ADDEU DPUMP(IB)=(PCMIN(IT)+PCMAX(IT))/2.0 00194500 70. ADDEU DPUMP(IB)=(PCMIN(IT)+PCMAX(IT))/2.0 00194500 70. ADDED DPUMP(IB)=(PCMIN(IT)+PCMAX(IT))/2.0 00194500 70. ADDED I62 CONTINUE 00194500 70. ADDED I64 CONTINUE 00194500 70. ADDED I64 CONTINUE 00194500 70. ADDED I64 CONTINUE 00194500 70. ADDED I80 CONTINUE 00194600 70. ADDED 000194700 70. 70. ADDED C MRIFE(5.8001) 18.* 14.* BRESS* 516N(1.0E-Z0.*BRRES) 70. ADDED		AUUEU		00170100	70. 20
ADDED DPUMPTING Devinition Deviniton Devinition Devinition <td></td> <td>AUDED</td> <td>CUNIINUE TELITEDA CT ON CO TA</td> <td>00146100</td> <td>70.29</td>		AUDED	CUNIINUE TELITEDA CT ON CO TA	00146100	70.29
ADDED CONTINUE OII94400 To ADDED 162 CONTINUE 00194500 70. ADDED 162 CONTINUE 00194500 70. ADDED 164 CONTINUE 00194500 70. ADDED 164 CONTINUE 00194600 70. ADDED 164 CONTINUE 00194600 70. ADDED 164 CONTINUE 00194600 70. ADDED 180 CONTINUE 00194800 70. ADDED 190 CONTINUE 00194800 70. ADDED 190 CONTINUE 00195700 70. ADDED 190 CONTINUE 00195700 70. ADDED 200 00195100 70. 70. ADDED C BRRESFRESTRESTRESTRESTREST 00195200 70. ADDED C 00119500 70. 70. 70. ADDED C 00119500 70. 70. 70. <td></td> <td>AUUEU</td> <td>U 102 +DCMAY/ITIN/2_</td> <td>00246100</td> <td>70.29</td>		AUUEU	U 102 +DCMAY/ITIN/2_	00246100	70.29
ADDED 162 CONTINUE 00194500 70. ADDED 164 CUNTINUE 00194500 70. ADDED 164 CUNTINUE 00194500 70. ADDED 164 CUNTINUE 00194600 70. ADDED 164 CUNTINUE 00194700 70. ADDED 180 CUNTINUE 00194900 70. ADDED 190 CONTINUE 00194900 70. ADDED 190 CONTINUE 0019500 70. ADDED 0190 CONTINUE 0019500 70. ADDED 190 CONTINUE 0019500 70. ADDED 0190 CONTINUE 0019500 70. ADDED C8001 18.BRRES 0144.0 70. 70. ADDED C8001 18.BRRES 14.1 BRRES=1.613.61 0019500 70. ADDED C8001 18.BRRES 14.1 BRRES=1.613.61 00195400 70.		AUDEU		00194400	50
ADDED DPUMP(IB)=0.5*(PTABLE(IT,QB)+DPUMP(IB)) 00194600 70. ADDED 164 CONTINUE 00194700 70. ADDED 184 CONTINUE 00194700 70. ADDED 186 CONTINUE 00194700 70. ADDED 180 CONTINUE 00194900 70. ADDED 190 CONTINUE 0019500 70. ADDED 190 CONTINUE 0019500 70. ADDED 190 CONTINUE 00195100 70. ADDED 200 CONTINUE 00195700 70. ADDED 2001 FGRMSTIA BRRES 00195700 70. ADDED C WITTE(S, BOUT) BSBRRES 00195700 70. ADDED CBOOT TBSBRRES BRRES 00195700 70. ADDED 200 CONTINUE 00195700 70. 70. ADDED 200 200 BRCBRRES 00195500 70.		ADDED	2 CONTIN	00164200	0
ADDEU 164 CONTINUE 00194700 70. ADDEU 180 CONTINUE 00194800 70. ADDEU 180 CONTINUE 00194900 70. ADDED 190 CONTINUE 00194900 70. ADDED 190 CONTINUE 00195100 70. ADDED 0019510 00195100 70. ADDED 0019510 00195100 70. ADDED 0019500 18. 14. BRES=BRRES+RESIST(MEM, QB, INIT) 00195100 70. ADDED 0001 FORMAT(1X, "DEBUGOT 1B=", 14." BRRES=", 13.6" 00195200 70. ADDED CB001 FORMAT(1X, "DEBUGOT 1B=", 14." BRRES=", 13.6" 00195300 70. ADDED CB001 FORMAT(1X, "DEBUGOT 1B=", 14." BRRES=", 1613.6" 00195300 70. ADDED 200 CONTINUE 00195300 70. 70. 70. 70. ADDED 200 200 CONTINUE 00195400 70. 70. 70. ADDED 250 CONTINUE 250 CONTINUE <		ADDED	DPUMP(IB)=0.5*(PTABLE(IT,QB)+DPUMP(IB	00194600	ð
ADDED G0 T0 200 70. ADDEU 180 CONTINUE 00194900 70. ADDED 190 CONTINUE 00195000 70. ADDED 190 CONTINUE 00195000 70. ADDED BRRES=BRES+RESIST(MEM,QB,INIT) 00195000 70. ADDED BRRES=BRES+RESIST(MEM,QB,INIT) 00195100 70. ADDED C WRITE(6,8001) IB,BRRES 00195200 70. ADDED C BOOI FORMAT(IX, 'DEBUGOI IB=',14,' BRRES=',613.6) 00195200 70. ADDED C MOI INUE 00195200 70. 00195500 70. ADDED CBOOI FORMAT(IX,'DEBUGOI IB=',14,' BRRES=',613.6) 00195500 70. 70. ADDED CBOOI FORMAT(IX,'DEBUGOI IB=',14,' BRRES=',613.6) 00195500 70. ADDED CBOOI FORMAT(IX,'DEBUGOI BRES=',14,' BRRES=',613.6) 00195500 70. ADDED Z00 CONTINUE 00195500 70. 00195500 70. ADDED BRCON(IB)=1.00/BRRES 0.0195500 70. 00195500 70.		ADDED	CONTIN	001 94 7 00	ò
ADDEU 180 CONTINUE 00194900 70. ADDED 190 CONTINUE 00195000 70. ADDED BRRES=BRES+RESIST(MEM,QB,INIT) 00195000 70. ADDED BRRES=BRES+RESIST(MEM,QB,INIT) 00195000 70. ADDED BRRES=BRES+RESIST(MEM,QB,INIT) 0019500 70. ADDED BRRES=BRES+RESIST(MEM,QB,INIT) 00195200 70. ADDED C WRITE16,8001) 18,BRRES 00195200 70. ADDED C WRITE16,8001) 18,BRRES 0195200 70. ADDED C WRITE16,8001) 18,BRRES 0195200 70. ADDED C3001 TORBUGUI 1B=*,14,*BRRES=*,GI3.61 00195200 70. ADDED C3001 TORBUGUI 1B=*,14,*BRRES=*,GI3.61 00195200 70. ADDED Z000 TORBUGUI 1B=*,14,*BRRES=*,GI3.61 00195200 70. ADDED Z00 TORBUGUILIS TORBUGUILIS 00195200 70. ADDEU BRCON(IB)=1.00/BRRES TORBUGUILIS 00195500 70. ADDEU Z50 C0NTINUE 00195500 70.		ADDED	60 10	00194800	ð
ADDED 190 CONTINUE 00195000 70. 1 ADDED BRRES=BRRES+RESIST(MEM,QB,INIT) 00195100 70. 1 ADDED BRRES=BRRES+RESIST(MEM,QB,INIT) 00195100 70. 1 ADDED BRRES=BRRES+RESIST(MEM,QB,INIT) 00195100 70. 1 ADDED C WRITE16,8001) IB,BRRES 00195200 70. 1 ADDED C WITE16,8001) IB,BRRES 00195200 70. 1 ADDED C0001 FORMAT(IX,"DEBUGOL IB=",14," BRRES=",GI3.6) 00195300 70. 1 ADDED 200 CONTINUE 00195400 70. 1 ADDED IF(ABSIBRES).LT.I.OE-ZO) BRRES=SIGN(I.OE-ZO,BRRES) 00195400 70. 1 ADDED BRCON(IB)=1.0/BRRES 00195500 70. 1 ADDED 250 CONTINUE 00195500 70. 1 1 1 <		ADDED		S	o.
ADDED BRRES=BRRES+RESIST(MEM,QB,INIT) 00195100 70. 1 ADDED C WRITE(6,8001) 18,8RRES 00195200 70. ADDED C WRITE(6,8001) 18,6RRES 00195200 70. ADDED C8001 FORMAT(1X, 'DEBUGO1 18=',14,' BRRES=',613.6) 00195300 70. ADDED 200 CONTINUE 00195500 70. 70. ADDED 200 CONTINUE 00195500 70. ADDED 200 CONTINUE 00195500 70. ADDED BRCON(1B)=1.0/BRRES BRRES=SIGN(1.0E-20, BRRES) 00195500 70. ADDED 250 CONTINUE 00195500 70. 00195500 70. ADDED 250 INIT=2 01195600 70. 00195800 70.		ADDED	CONTINUE	S	
I ADDED C WRITE(6,8001) IB,BRRES 00195200 70. ADDED C8001 FORMAT(1X, 'DEBUG01 IB=',14,' BRRES=',G13.6) 00195300 70. ADDED C8001 FORMAT(1X, 'DEBUG01 IB=',14,' BRRES=',G13.6) 00195300 70. ADDED 200 CONTINUE 00195500 70. 00195500 70. ADDED 200 CONTINUE 00195500 70. 00195500 70. ADDED BRCON(1B)=1.0/BRRES BRRES=SIGN(1.0E-20, BRRES) 00195500 70. ADDEU 250 CONTINUE 00195500 70. ADDED 250 CONTINUE 00195500 70. ADDED 250 CONTINUE 00195700 70. ADDED 250 CONTINUE 00195700 70. ADDED 250 CONTINUE 00195700 70.			BRRES=BRRES+RESIST(M	¢, ∘	
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200 CONTINUE 00195400 70.2 IF (ABS(BRRES).LT.1.0E-ZO) BRRES=SIGN(1.0E-ZO, BRRES) 00195500 70.2 BRCDN(IB)=1.0/BRRES 00195500 70.2 00195500 70.2 250 CONTINUE 1NIT=2 00195800 70.2			FORMAT(IX, DEBUGOL IB=", 14, " BRRES="	953	70.29
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250 CUNTINUE INIT=2 00195800 70.2		ADDED	BRCON(IB)=1.0/BRRE	01956	0*5
2*01 00826100 Z=11N1		ADDED		1991010	
		ADDED	INIT=2	86610	2*0

But Die Genonz Fillennne-Auffah Deckmanferkune Auffah V.V.D. DeBuonz ADDED C. SODZ Furkhill, S.V.B. LODJ BK. GNI (D1, 1), 11, 14, 44, 613, 451) 00199900 75, 25 Diber C. SODZ Furkhill, S.V.B. LODJ BK. GNI (D1, 1) 00199500 75, 25 00199500 75, 25 Diber C. SODZ Furkhill, S.V.B. LODJ (D1 750 BK. M.K. A. B. S. ANGH 00199500 75, 25 Diber C. SODZ Furkhill, S.V. L. B. NORT, AND VELTOR TOTTANCES FOR 00199500 75, 25 Diber C. SET UP KART, AF RE NORT, AND VELTOR TOTTANCES FOR 00199500 75, 25 Diber C. SODZ FURKHILL, FULL, FU		0LD V0L=SER=004783	ER=004783	DRC UPDATE	NEW VOL=SER=007208		
ADE C WRITE(6,9022) (10,9600) 00199600 ADDE E TFICEVEL-EQ.1) GG 10 750 00199600 00199600 ADDE E TFICEVEL-EQ.1) GG 10 750 00199600 00199600 ADDE C SET UP MARIX OF BRANCH CONDUCTANCES FOR 00199600 00199600 ADDE C SET UP MARIX OF BRANCH CONDUCTANCES FOR 00199600 ADDE C SET UP MARIX OF BRANCH CONDUCTANCES FOR 00199600 ADDE C SECH MUDE THE NEINER 00199600 ADDE C EXCH MUDE THE NEINER 00199600 ADDE C FLINBO ILBEPT1 J THE NEINER 00199700 ADDE C FLINBO ILBEPT1 J 00199600 00199600 ADDE C FLINBO ILBEPT1 J 00199700 00199700 ADDE DOD 600 INSTRINT NALVE 00199700 00199700 ADDE DOD 600 INSTRINT DOD 600 INSTRINT 00199700 00199700 ADDE DOD 600 INSTRINT	a	MESSAGE	FILENAME=MUF				YY.DD
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CG005 FURMAILIX**UEBUG05 J=**I4** JBL=**I4** NBLUNLIBKPIJ=*.14J 0019800 300 CUNTINUE 00198100 1 FUNPTS(IBC).GT.0) GU T0 350 00198200 0 FLINBP(IBRPT)=FLINBP(IBRPT)-UBLE(SGN*QBR(IBC)) 00198200 0 FLINBP(IBRPT)=FLINBP(IBRPT)-UBLE(SGN*QBR(IBC)) 00198500 0 FLINBP(IBRPT)=FLINBP(IBRPT)-UBLE(SGN*QBR(IBC)) 00198500 0 GU 10 600 1HIS BRANCH HAS A FIXED PRESSURE AT ONE END. 00198500 0 GU 10 600 THE FIXED PRESSURE. 00198600 0 COLOPRESSURE 00198600 00198600 0 COLOPRESSURE. 00198800 00199900 0 COLOPRESSURE. 00198800 00199900 0 COLOPRESSURE. 00199100 00199900 0 COLOPRESSURE. 00199200 00199900 0 COLOPRESSURE. 00199200 00199900 0 COLOPRESSURE. 00199200 00199900 0 CO	DEBUG05	ADDED		BC, NBCON(IBRPT)		00616100	70.29
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IF(J.LE.NBRPTS) GU TU 400 00198200 FLINBP(IBRPT)=FLINBP(IBRPT)-DBLE(SGN*QBR(IBC)) 00198300 FLINBP(IBRPT)=FLINBP(IBRPT)-DBLE(SGN*QBR(IBC)) 00198500 00198500 00198500 00198500 00198500 00198500 00198500 00198500 00198500 00198500 00198600 00198600 00198600 0019800 0019800 0019800 0019800 0019800 0019800 0019800 0019800 0019900 00199900 0019900 00199900 01019910 00199300 01019910 00199300 01019910 00199300 01019910 00199300 01019910 00199300 01019910 00199300 011010 00199300 1 + DBLE(BRC0N(IBC)+IDPUMP(IBC)+IDPUM		ADDED		(00186100	70.29
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C CALCULATE THE FURCING TERM (INFLUM) DUE TO 00198800 C THE FIXED PRESSURE. 00198900 C FLINBP(IBRPT)=FLINBP(IBRPT) 00199900 1 + DBLE(BRCON(IBC)*(PBRPT(J) -SGN*(POTHED(IBC)+DPUMP(IBC)))) 00199100 1 + DBLE(BRCON(IBC)*(PBRPT(J) -SGN*(POTHED(IBC)+DPUMP(IBC)))) 00199200 60 10 500 00199300 1 + DBLE(BRCON(IBC)*(PBRPT(J) -SGN*(POTHED(IBC)+DPUMP(IBC)))) 00199200 60 10 500 00199200 1 + DBLE(BRCON(IBC)*(PBRPT(J) -SGN*(POTHED(IBC)+DPUMP(IBC)))) 00199200 400 CONTINUE 00199200 1 F(DPUMP(IBC).GI.O) 60 00199500 1 F(DPUMP(IBC).SGI.O) 60 00199500 1 F(DPUMP(IBC).SCI.SO) 00199500 00199500 1 F(DPUMP(IBC).SCI.SCI.SCN*QBR(IBC)) 00199500 00199500 60 10 60 00199500 00199500 60 10 60 00 00199500 60 10 60 00 00199500 60 10 00		ADDED		BRANCH HAS A FIXED PRE	AT ONE	00198700	70.29
C FLINBP(IBRPT)=FLINBP(IBRPT) 00198900 C FLINBP(IBRPT)=FLINBP(IBRPT) 00199000 1 + DBLE(BRCON(IBC)*(PBRPT(J) -SGN*(POTHED(IBC)+DPUMP(IBC)))) 00199100 60 TU 500 400 CONTINUE 1 + DBLE(BRCON(IBC)*(PBRPT(J) -SGN*(POTHED(IBC)+DPUMP(IBC)))) 00199400 1 F(NPTS(IBC).GI.0) 6U TU 450 1 F(NTS(IBC).GI.0) 6U TU 450 1 F(NTS(IBC).GI.0) 6U TU 450 1		ADDED	c	AIE THE FUKCING TERM	DUE	00198800	70.29
C FLINBP(IBRPT)=FLINBP(IBRPT) 00199000 1 + DBLE(BRCON(IBC)*(PBRPT(J) -SGN*(POTHED(IBC)+DPUMP(IBC))) 00199100 60 TU 500 400 CONTINUE 1 F(NPTS(IBC).61.0) 6U TU 450 1 F(NPTS(IBC).61.0) 6U TU 450 1 F(NPTS(IBC).61.0) 6U TU 450 1 F(NPTS(IBC).61.0) 6U TU 450 00199400 1 F(NPTS(IBC).61.0) 6U TU 450 1 F(NPTS(IBC).61.0) 6U TU 450 00199400 1 F(NPTS(IBC).61.0) 6U TU 450 00199400 00199500 60 TO 600 00199600 00199800		ADDED	J	FIXED		00198900	70.29
FLINBP(IBKPT)=FLINBP(IBKPT) 00199100 1 + DBLE(BRCON(IBC)*(PBRPT(J) -SGN*(POTHED(IBC)+DPUMP(IBC))) 00199200 60 10 500 00199300 60 10 500 00199300 400 CONTINUE 00199500 00199500 1 F(NPTS(IBC).61.0) 60 10 450 1 F(DPUMP(IBC).1)=FLINBP(IBKPT)-DBLE(SGN*QBR(IBC)) 00199500 00199500 60 10<600		ADDED				00066100	70.29
I + DBLE(BRCON(IBC)*(PBRPT(J) -SGN*(POTHED(IBC)+DPUMP(IBC)))) 00199200 7 G0 10 500 00199300 7 00199300 7 400 CONTINUE 00199400 7 00199500 7 1F(NPTS(IBC).GI.0) GU 10 450 7 00199500 7 1F(NPTS(IBC).GI.0) GU 10 450 60 7 00199500 7 1F(NPTS(IBC).GI.0) GU 10 450 60 7 00199500 7 60 10 000 60 10 60 7 00199500 7 60 10 600 60 10 60 7 00199500 7		ADDED		P(IBRPI)		00166100	70.29
G0 10 500 00199300 7 400 C0NTINUE 00199400 7 1F (NPTS(IBC).GI.0) GU 10 450 60 00199500 7 1F (NPTS(IBC).SI.0) GU 10 450 60 00199500 7 1F (NPTS(IBC).SI.0) GU 10 450 60 00199500 7 1F (NPTS(IBC).SI.0) GU 10 450 60 00199500 7 60 10 000 60 10 600 00199500 7		ADDED	*	BC)*(PBRPT(J) -	~	00199200	70.29
400 CONTINUE 1F (NPTS(IBC).61.0) GU TU 450 1F (DPUMP(IBC).NE.0.0) GU TO 450 FLINBP(IBRPT)=FLINBP(IBRPT)-UBLE(SGN*QBR(IBC)) 60 TO 600 00199800 7 00199800 7		ADDED	60 10			00199300	70.29
IF (NPTS(IBC).61.0) 6U 1U 450 IF(DPUMP(IBC).NE.0.0) 6U TO 450 FLINBP(IBRPT)=FLINBP(IBRPT)-DBLE(SGN*QBR(IBC)) 00199500 70. 60 TO 600 00199800 70.		ADDEU	-			00199400	70.29
IF{DPUMP(IBC).NE.0.0) GU IU 450 FLINBP(IBKPT)=FLINBP(IBKPT)-DBLE(SGN*QBK(IBC)) 00199700 70. GD TO 600 00199800 70.		ADDED	IF (NPTS(IB	10 450		00566100	10.29
FLINBP(IBKPI)=FLINBP(IBKPI)-UBLE(SGN*QBK(IBU)) GO TO 600 00199800 70.		ADDED	I F (D D UM P (I			00199600	70.29
60 10 600 V0.		ADDED	FLINBPLIEK		~~	00/66100	10.29
		ADDED	01			00866100	്

	OLD VOL=S	VOL=SER=004783	DRC UPDATE N	NEW VOL=SER=007208		
LU SEQ	MESSAGE	FILENAME=MUFAN	DECKNAME=MUFAN			<u>ΥΥ. DDI</u>
	ADDED	450 CONTINUE RMATRX(I RRPT)) =-DBLF(BRCDN(IBC)) + BMATRX(IBRPT	PT1	000000000000000000000000000000000000000	70.29
	ADDED	FI INPUBRPTI = FLINBP	(IBRPT)		00200100	
	ADDED	, , , , , , , , , , , , , , , , , , ,	-DBLE(SGN*BRCON(IBC)*(POTHED(([IBC)+DPUMP(IBC)))	00200200	70.29
and a second	ADDED	500 CONTINUE			00200300	70.29
	ADDED		, IBRPT)=BMATRX(IBRPT, IBRPT)+UBLE(BRCON(IBC)	RCON(IBC))	00200400	70.29
	ADDED				00200500	70, 29:
	ADDED	650 CONTL	001 04000		00200600	10.29
EBUG06	ADDED	CALL			00200700	10. 29
EBUGU /	AUUEU	P	TLINDT LITNDAT VIAVISI	X 2V C13 211	00200200	10.29
	AUUEU	COUL FURMAILLA, UEDUGUI	TOKFI FLINDF'/ ILUX	10.010	00600200	
	AUUEU	، د	THE ETHILTANCOUS NODE	TTOME	00010200	10. 29
	AUDEU	ى ر	SULVE THE SIMULIANEUUS NUUE EQUA	EQUALIZINS NCU DOINTS	00110200	10. 29
	AUUEU		INE FREDOUKED AI INE	CINIDA	00710700	
	ADDED				00201300	70.29
	ADDED	CALL SOLF4(BI	ſ R X , F L	(00)	00201400	70.29
	ADUED	IF (N0G00D.NE. 1)	.1) RETURN		00201500	70.29
	ADUED	c			00201600	70.29
E BU GO 7A	ADDED		BRPT([P), IP=1, NBRPTS)		00201700	70.29
	ADDED	2 MAT (BRANCH PT. PRESSURE / (1	2X,14,8X,613.6))	00201800	70.29
	ADDED	DG 700 IBRPT-	s		00201900	70.29
A	ADUED		= SNGL (PDUBL (I BRPT))		00202000	70.29
20	AUDED	700 CUNTINUE			00202100	
5	ADDED	750 CONTINUE			0020200	70.29
1	ADUED	C			00202300	70.29
	ADDED	C	RATES IN AL	BRANCHES	00202400	70.29
	ADDED	C	USING THE PRESSURES COMPU	COMPUTED ABOVE	00202500	70.29
	ADDED				00202600	
	ADDED	NF I N= 0			00202700	\sim
	ADDED	D0 950 IBRPT=	IBRPT=1, NBRPTS		00202800	70.29
	ADDED	NST=NFIN+1			00202900	70.29!
	ADDED	1.114	BS(NBCON(IBRPT))		00203000	70.29
	ADDED	DU 950 N=NST, NFIN	, NF IN		00203100	0.2
-	ADDED	J=JBRPT(N)			00203200	70.29
	ADDED	IF (IBCON(N).GT	0) 60 1		00203300	•
	ADDED	IF(J.LE.NBRPTS)	TS) GO TO 950		00203400	70.29
	ADDED	JBC=IBCON(N)			00203500	70.29
	ADDED	IBC=IABS(JBC)			00203600	70.29
	ADDED	N=JB			00203700	்
	ADDED	GO TO 850			00203800	70.29

	OLD VOL=S	0L0 V0L=SER=004783	DRC UPDATE	NEW VOL=SER=007208		
LD SEQ	MESSAGE	FILENAME=MUFAN	DECKNAME=MUFAN	2		ΥΥ. DDI
						nter konnt kaba
	ADDED	800 CONTINUE			00203900	70.29
	AUDED	1BC=1BCUN(N)			00204000	70.29
	ADDED	SGNEL.O			00204200	70. 29
Contraction of the local data	ADDED		•0) 60 10 950		00204300	70.29
	ADDED	870 CONTINUE			00204400	70.29
	ADDED	DP=SNGL (PDUBL (I	DP=SNGL (PDUBL (I BRPT)-PDUBL(J))+SGN*(PUTHED(IBC)+DPUMP(IBC)	BC)+DPUMP(IBC))	00204500	70.29
	ADDED	900 CONTINUE			00204600	70.291
	ADDED	QOLD=QBR(IBC)			00204700	70.29
	ADDED	QBR(IBC)=SGN*BRCON(IB	C) *DP		00204800	70.295
	ADUED		QBR(TBC) = (QOLD+QE)	11/2.0	00204900	70.29
EBUG08	ADDED	WRITE(6,8008)	QBR(IBC), IBRPT, J, DP		00205000	70.29!
	ADDED	8008 FORMAT(1X, "DEE		3.6, 1BRPT=",14,	00205100	a
	AUDED	1 * J=*,14,*	DP=",613.6)		00205200	70.29
	ADDED	920 CONTINUE	•		00205300	70.29
A	ADDED	ABSERR=ABS(QDLD-QBR(I)-QBR (IBC))		00205400	70.29
-	ADDED	DIV=AMINI(ABS(QOLD),A	BS(QBR(IBC)))		00205500	70.29
5	ADDED	IF (ABSERR.LE.TOLABS.O	JLABS.UR.DIV.LE.TOLABS) GO TO	950	00205600	70.29
2	ADDED	RELERR=ABSERR/DIV			00205700	70.29
	AUDEU	IF (RELERR.LE.RELMAX)	ELMAX) GO TO 950		00205800	70.29
	AUDED	MAXERR=IBC			00205900	70.29
	ADDED				00206000	70.29
	ADDED	950 CONTINUE			00206100	70.29
	ADDED	ITER8=ITER8+1			00206200	70.29
	ADDED		DLERR) RETURN		00206300	70. 29
	ADDED	980 CONTINUE			00206400	70.29
	ADDED	IF(ITER8.LT.LIMIT)	AIT) GO TO 100		00206500	70.29
	ADDED	1 N=0			00206600	70.29
	ADDED	DO 1000 IB=1, MAXERK	VXERR		00206700	
	ADDED	NSI=NFIN+L			00206800	10.29
	ADDED		NPISIE		00206900	10. 29.
	ADDED				00207000	70.29
	ADUED	WRITE(6,9000)	LIMIT, (IBRAN		00207100	ð
	ADDED	(1/1/1/1/)	H*),* WARNING *,49(1H*	'THE	00207200	70.29
	AUUED	'RATE IN THE	NCH DESCRIBED BELUW HAS	ERROR OF ',	00207300	
	ADDED	2 IPEI2.5," AFTER	*,13," ITERATIONS'//IX	•107(1H*)//(1H0,4X,2514))	00207400	70.29
	ADDED	RETURN			00207500	
	ADDEU				00207600	2
	ADDED	IINE	V .X .N. NIMAX, N		0207	0.2
	ADUED	REAL*8 B,	Y, X, C		00207800	70.29

QLD SEG FILEBARNE=NUFAN DECKANNE=MUFAN TYLD ADDED C FULENANE DECKANNE=MUFAN Y(MAX) ADDED C THIS PRIORS BY UPPI MAXE Y(MAX) Y(MAX) Y(MAX) ADDED C THIS PRIORS BY UPPI MAXE Y(MAX) Y(MAX) Y(MAX) Y(MAX) Y(MAX) ADDED C THIS PRIORS BY UPPI MAXE Y(MAX) Y(MAX) Y(XA) Y(XA) <td< th=""><th></th><th>OLD VOL=S</th><th>VOL =SER=004783</th><th>DRC UPDATE</th><th>NEW VOL=SER=007208</th><th></th><th></th></td<>		OLD VOL=S	VOL =SER=004783	DRC UPDATE	NEW VOL=SER=007208		
ADDE0 DIMENSION BINNAX, NNAX), YNAXX, NNAXX, 00207900 ADDE0 C THIS PROBAM SULVE VITIZE UNERATION 00209100 ADDE0 C THIC FOLDENTIZE UNERATIZE UNERATION 0020910 ADDE0 LO MAMMALE 0020910 0020910 ADDE0 LO MAMMALE 0020911 0020910 ADDE0 LO MAMMALE MAMMALE 0020910 ADDE0 LO MAMMALE MAMMALE 0020910 ADDE0 LO MAMMALE MAMMALE 0020910		MESSAGE	FILENAME=MUFAN	DECKNAME=MU	FAN		۲۷.DD
ADRED D HERISION & HWAXA, FWAXA, FWAXA, FWAXA, KWAXA,							
ADDE C FULLY C FULLY C FULLY C CONSTRUCT CONSTRUT		ADDED	DIMENSION	AX), Y(NMA	V	00207900	70.29
ADDE C THE CUEFFICIENTS AND RIGHT HAND SIDES ARE LOST 00208300 ADDED 10 MHM-1 00208450 00208450 ADDED 10 MHM-1 00208450 00208400 ADDED 10 MHM-1 00208400 00208400 ADDED 00208411-3113 00208400 00208900 ADDED 0012 J=1,M 00208400 00208400 ADDED 13 If (C.2 20, 200, 200, 13 00208400 00208900 ADDED 14 DOL 12 J=1,M 0012 J=1,M 00208400 ADDED 13 If (C.2 20, 200, 200, 13 00209400 00209400 ADDED 14 DOL 12 J=1,M 0011,JJ=11,J/J 00209400 ADDED 14 DOL 12 J=1,M 0020410 00209400 ADDED 16 B(1,1,J) (C 00209700 00209400 ADDED 27 OKMTNUE 28 CMTNUE 00209400 ADDED 27 OKMTNUE 000100 00209100 ADDED 28 CMTNUE 000100 0020900 ADDED 28 CMTNUE 0001 00201000 00201000		ADDED		7 FD NURMALIZED FLIMINA	LAN AL	00208100	70.29
ADDED MANNEL CUERTALE CUERTALE <thcuertale< th=""> <thcuertale< th=""> <thcue< td=""><td></td><td>ADDED</td><td>THE</td><td>AND RIGHT HAND SIDES ARE</td><td>LOST</td><td>00208200</td><td>70.29</td></thcue<></thcuertale<></thcuertale<>		ADDED	THE	AND RIGHT HAND SIDES ARE	LOST	00208200	70.29
ADDED C NORMALIZE CONSTRATION		ADDED				00208300	70.29
ADDED C NUMENTIZE CURFFICIENTS 00208050 70. ADDED C 002011/0 002011/0 00208000 70. ADDED If (L) 2000 If (L) 2000 00208000 70. ADDED If (L) 2000 If (L) 2000 0020800 70. ADDED If (L) 2000 If (L) 2000 0020800 70. ADDED If (L) 2000 If (L) 2000 0020800 70. ADDED If (L) 2000 If (L) 2000 0020800 70. ADDED IB (I, J) 0020900 70. 70. 7020900 70. ADDED C OPTIMIC 0020400 70. 7020900 70. ADDED C OPTIMIC 0020400 70. 7020900 70. ADDED C OPTIMIC 0020400 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 7		ADDED	MM=M-1			00208400	70.29
AUDED UD C 2 HILM OCT IIIN OCT 00000 O		ADDED	MALIZE	EFFICIENIS		00208500	70.29
AUDED DOI 12 J=1,M OC208000 To. AUDED 12 C=DAAL(C)AB21,M 00209000 70. AUDED 12 C=DAAL(C)AB21,M 00209000 70. AUDED 13 F (C : 200,200.13 0020900 70. AUDED 14 B (C : 200,200.13 0020900 70. AUDED 14 B (C : 200,200.13 0020900 70. AUDED 15 B (11,4) = F(L) 00209900 70. ADDED 20 CONTRUE 20 CONTRUE 00209900 70. ADDED 2 CONTRUE 20 CONTRUE 00209900 70. ADDED 2 CONTRUE 001 2 2.2 E 00209900 70. ADDED C =0.00 0020900 70. 00209900 70. ADDED C =0.00 0020910 70.<		AUJED				002000000000000000000000000000000000000	70. 20
ADDED 12 C=DMAX1(C,DABS(E11,J1)) 00209900 70. ADDED 13 F (C1_200,201,13) (00209200) 70. ADDED 13 F (C1_200,201,13) (00209200) 70. ADDED 13 F (C1_200,201,14,201,14) (00209300) 70. ADDED 14 B11,J)=B1(1,J) (00209300) 70. ADDED 14 B11,J)=B1(1,J) (00209300) 70. ADDED 14 B11,J)=B1(1,J) (00209300) 70. ADDED C 001111/2 (11,11) (00209300) 70. ADDED C 00201000 (0020910) 70. 70. 70. ADDED C 0020100 (0020910) 70. 70		ADDED	120			00208800	
ADDED IF (C) 200;200;13 (C) 200;200;10 (C) 70 ADDED 13 17 (C-1.000) 14;20;14 00209300 70 ADDED 14 00 15-1;M 00209300 70 00209300 70 ADDED 76: 71:41:51: 71:42: 00209300 70 00209500 70 ADDED C 0071ML2E RGM 00209500 70 00209500 70 ADDED C 0071ML2E RGM 70 00209500 70 00210970 70 ADDED 2 16 1085161,M) 10 72 72 72 72 72 72 72 72 <t< td=""><td></td><td>ADED</td><td>2</td><td>BS(B(1,J))</td><td></td><td>00208900</td><td>70.29</td></t<>		ADED	2	BS(B(1,J))		00208900	70.29
ADDED 13 If C-1.000 14.20.14 00209100 70. ADDEU 16 NITUE NITUE 00209300 70. ADDEU 20 011-10 00209300 70. 00209300 70. ADDEU 20 0711AE R0. 51.50.15 00209500 70. ADDEU 20 0711AE R0. 51.50.15 00209500 70. ADDEU 1 0 25.11.4 0.25.25.22 02209500 70. ADDEU 1 0 25.11.4 1.0.5 25.25.22 02209500 70. ADDEU 1 2 1 1.0 0.25.12 02209500 70. ADDEU 1 2 1 1.0 0.25.22 0.02209500 70. ADDEU 2 1 1.0 0.25.25.22 0.02209500 70. ADDEU 2 1 1.0 0.25.25.22 0.02209500 70. ADDEU 2		ADDED	IF (C)			00209000	70.29
ADDEL0 14 00 16 J=1,M 00209200 70. ADDEU 0 K11=V(1)/C 00209400 70. ADDEU 0 K11=V(1)/C 00209400 70. ADDEU 0 K11=V(1)/C 00209500 70. ADDEU C 0 PINITUE 00209500 70. ADDEU C 0 PINITUE 00209500 70. ADDEU C 0 PINITUE 00209900 70. ADDEU C 0 PINITUE 00209900 70. ADDEU C 0 PINITUE 00209900 70. ADDEU D 0 D 0 D 0 D 00209900 70. ADDEU D D D 0 D 0 D 00209900 70. ADDEU D D D D 0 D		ADDED	IF (C-1			00700100	70.29
ADDED 16 B(1,J)=B(1,J)/C 00209500 70 ADDED 20 CONTINUE 00209500 70 ADDED C=0.0D0 00209500 70 ADDED 1F (188011,M))-C) 25,25,22 00209500 70 ADDED 1F (10881611,M))-C) 25,25,22 00210000 70 ADDED 27 TH=I 0021000 70 ADDED 27 TH=I 0021000 70 ADDED 28 TH 007100 70 ADDED 28 TH <t< td=""><td></td><td>ADDED</td><td>- 1</td><td></td><td></td><td>00209200</td><td>70.29</td></t<>		ADDED	- 1			00209200	70.29
ADDED V(1)=V(1)/C 002039400 70. ADDED Z 0 CNTINUE 002039700 70. ADDED C 0PTIMIZE RUM SELECTION 002039900 70. ADDED C 0PTIMIZE RUM SELECTION 002039900 70. ADDED C 0PTIMIZE 000210400 70. ADDED Z N=1 M 00220300 70. ADDED Z N=1 M 002200.27 0021000 70. ADDED Z N=1 M 002200.27 0021000 70. ADDED Z N M 0021000.27 00210300 70. ADDED Z N M 0021000.27 00210300 70. ADDED Z N M 0002100.27 00210500 70. ADDED Z N M 000100.27 0	¢	ADDED)/(00209300	70.29
ADDED Zo CUNTINUE 00209500 70. ADDED C OPTIMIZE ROM SELECTION 00209500 70. ADDED C = 0.000 IM=0 00209500 70. ADDED C = 0.000 00 25 1=1,M 00209500 70. ADDED C = 0.000 DO 25 1=1,M 00209500 70. 00209500 70. ADDED Z = 0.000 TO 27 1=1 0021000 70. 0021000 70. ADDED Z = 0.000 TO 25 1=1,M 002100.23 0021000 70. ADDED Z = 0.001 TO 25 1=1,M 002100.78 0021000 70. ADDED Z = 0.001 Z = 0.001.22 TF (C) 200,200,27 00210700 70. ADDED Z = 0.001.001.28 D00.201.28 0021000 70. 70. ADDED Z = 0.16.10.1 ADDED Z = 0.001.001.78 70. 70. 70. 70. ADDED Z = 0.16.10.1 ADDED Z = 0.0101.001.78 70. <td>A</td> <td>ADDED</td> <td>· 1</td> <td></td> <td></td> <td>00209400</td> <td>70.29</td>	A	ADDED	· 1			00209400	70.29
ADDED C UTIMIZE SECCITON O0209900 TO. ADDED C=0.000 00209900 70. 00209900 70. ADDED C=0.000 000 00209900 70. 00210900 70. ADDED C=0.000 C=0.000 0021000 70. 0021000 70. ADDED Z TF (DSSER14)M) -C1<25,25,22	2559 B.J.	ADDED	20 CONTINUE			00209500	70.29
ADDED Im-C C-0.00 CORRENT CORRENT <thcorrent< th=""> <thcorrent< th=""> <thcorrent< td=""><td>5 .</td><td>AUUEU</td><td></td><td>SELEUI</td><td></td><td>00060700</td><td>70.20</td></thcorrent<></thcorrent<></thcorrent<>	5 .	AUUEU		SELEUI		00060700	70.20
0.0 0	3	AUUEU				00160200	70, 20
IF (DABS(B(I,M))-C) 25,25,22 00210000 70. 22 IM=I 00210100 70. C=DABS(B(I,M)) 00210100 70. 25 CONTINUE 00210100 70. 25 CONTINUE 002210500 70. 27 IF (M) 100,100,28 002210500 70. 27 IF (M) 100,100,28 002210500 70. 28 D0 29 J=1,M 002210500 70. 28 D1 29 J=1,M 002210500 70. 28 M,JJ = B(M,J) 002210500 70. 29 HM,JJ = B(M,J) 002210500 70. 21 F (M) 100,100,28 002210500 70. 27 IF (M) 002210500 70. 28 D1 29 J=1,M 002210500 70. 29 B(M,J) = C 002210500 70. 29 B(I,J) = B(M,J) = C 002211500 70. 21 P(M) 002211500 70. 21 P(M) 002211200 70.		AUUEU	- - -			00202000	10.29
22 IF UNDEDIDITION Vol		AUUEU		35.25 .		00660200	70.20
Z2 The Land 25 CUNTINUE 00210200 70. Z5 CUNTINUE 00210500 70. Z7 IF (MM) 100,100,28 00210500 70. Z7 IF (MM) 100,100,28 00210500 70. Z7 IF (MM) 100,100,28 00210500 70. Z8 D0 29 J=1,M 00210600 70. Z8 D0 29 J=1,M 00210600 70. Z8 D0 29 J=1,M 00210700 70. Z8 D0 29 J=1,M 00210700 70. Z9 B(M,J)=6(M,J)=6(M,J) 00210900 70. Z9 B(M,J)=C 00211000 70. Z9 B(M,J)=C 00211000 70. Z9 B(M,J)=C 00211000 70. Z9 B(M,J)=C 00211100 70. Z10100 70. 70. Z10100 70. 70. Z10100 70. 70. Z11100 70. 70. Z11100 70. 70. Z111100 70. 70.		AUUEU		673673		000101000	100000
25 CONTINUE 00210300 70. 27 IF (MM) 100,100,28 00210400 70. 28 D0 29 J=1,M 00210600 70. 28 D0 29 J=1,M 00210600 70. 28 D0 29 J=1,M 00210600 70. 28 D0 29 J=1,M 00210700 70. 29 B(M,J)=6(M,J) 00210900 70. 29 B(M,J)=6 00211000 70. 20 29 B(M,J)=6 00211000 70. 29 B(M,J)=6 00211000 70. 29 B(M,J)=7 00211000 70. 29 B(M,J)=7 00211100 70. 71 (1)=8(M,M)=7(M) 00211100 70. 71 (1)=8(M,M)*Y((1)-B(I,M)*Y(M) 00211100 70. 72 Y(I)=8(M,M)*Y(I)-B(I,M)*Y(M) 00211100 70. 72 Y(I)=8(M,M)*Y(I)-B(I,M)*B(H,J) 00211100 70. 72 Y(I)=8(M,M)*Y(I)-B(I,M)*Y(M) 00211100 70. 70 35 J=1,MM 002111800 70. 70 35 B(I,J)=8(M		AUUEU				00210200	70.20
Z IF (MM) 100,100;28 00210400 70. Z7 IF (MM) 100,100;28 00210500 70. Z8 D0 29 J=1,M 00210600 70. Z8 D0 29 J=1,M 00210600 70. Z8 D0 29 J=1,M 00210700 70. Z8 D0 29 J=1,M 00210700 70. Z8 D0 29 J=1,M 00210700 70. Z8 D1 29 B(M,J)=B(M,J) 00210700 70. Z9 B(M,J)=C 00210800 70. Z9 B(M,J)=C 00211000 70. Z9 B(M,J)=C 00211000 70. Z9 B(M,J)=C 00211100 70. Z9 B(M,J)=C 00211100 70. Z0 40 1=1,M 00211100 70. Z< R(IM) =Y(M)		ADDED				00210200	70.20
27 1F (MM) 100,100;28 00210500 70. 28 D0<29		AUDED		00.27		00510400	70.29
Z8 D0 29 J=1,M 00210600 70. B(IM,J)=B(M,J)=C 00210900 70. Z9 B(M,J)=C 00211000 70. Y(IM)=Y(M) 00211100 70. Y(M)=C 00211100 70. 00211200 70. 00211200 70. Y(M)=Y(M) 00211200 70. 00211200 70. Y(M)=Y(M) 00211200 70. 00211200 70. Y(M)=C 00240.5E 00211200 70. 70. Y(M)=C 00240.5E 00211400 70. 70. Y(M)=C 004015.5M 00211400 70. 70. Y(M)=C 0035.40.35 00211600 70. 70. Y(M)=C 0035.40.30 70.		ADDED	IF (MM)	100.28		00210500	70.29
C=B(IM,J)=B(M,J) 00210700 70. B(IM,J)=B(M,J)=C 00210900 70. 29 B(M,J)=C 002110900 70. 29 B(M,J)=C 00211000 70. 29 B(M,J)=C 00211000 70. 29 B(M,J)=C 00211100 70. 29 B(M,J)=C 00211100 70. 20 Large 002111200 70. 21 K(M)=C 002111200 70. 21 K(M)=C 002111300 70. 21 K(M)=C 002111300 70. 21 K(H)=S(M,M)*Y(I)=B(I,M)*Y(M) 00211300 70. 32 Y(I)=B(M,M)*Y(I)-B(I,M)*B(M,J) 00211500 70. 35 B(I,J)=B(M,M)*B(I,J)-B(I,M)*B(M,J) 00211800 70.		ADDED	D0 29 J=			00210600	70.29
B(IM,J)=B(M,J) 00210800 70. 29 B(M,J)=C 002110900 70. Y(IM)=Y(M) Y(IM)=C 00211100 70. Y(M)=C V(I)=C 00211100 70. Y(M)=C 00211100 70. 00211100 70. Y(M)=C 00211100 70. 002111200 70. Y(M)=C 00 002111200 70. 002111200 70. Y(M)=C 00 002111200 70. 002111200 70. Y(M)=C 00 40 1 002111200 70. IF 01 1MM 32.40.32 00211400 70. 32 Y(I)=B(M,M)*Y(I)-B(I,M)*Y(M) 00211400 70. 70. 32 Y(I)=B(M,M)*B(I,J)-B(I,M)*B(M,J) 00211700 70. 70. 35 B(I,J)=B(M,M)*B(I,J)-B(I,M)*B(M,J) 002111700 70. 70.		ADDED				00210700	70.29
29 B(M,J)=C 00210900 70. C=Y(IM) 00211100 70. Y(IM)=Y(M) 00211100 70. Y(M)=C 00211200 70. Y(M)=C 00211200 70. Y(M)=C 00211200 70. Y(M)=C 00211200 70. C REDUCE ORDER OF SET 00211300 70. D 40 I=1,MM 00211400 70. IF (B(I,M)) 32,40.32 00211400 70. 32 Y(I)=B(M,M)*Y(I)-B(I,M)*Y(M) 00211500 70. DO 35 J=1,MM 00211500 70. 35 B(I,J)=B(M,M)*B(I,J)-B(I,M)*B(M,J) 00211800 70.		ADDED	B(IN, J)=B(M,	(1)		00210800	70.29
C=Y(IM) 00211000 70. Y(IM)=Y(M) 00211100 70. Y(M)=C 00211100 70. V(M)=C 00211200 70. C REDUCE ORDER OF SET 00211200 70. D0<40		ADED				00510900	
Y(IM)=Y(M) 00211100 70. Y(M)=C 00211200 70. C REDUCE ORDER OF SET 00211300 70. D0 40 1=1,MM 00211400 70. 1F<(B(I,M))		ADDED	C = Y (IM)			00211000	70.29
Y(M)=C 00211200 70. C REDUCE ORDER OF SET 00211300 70. D0 40 I=1,MM 00211400 70. IF (B(I,M)) 32,40,32 00211500 70. 32 Y(I)=B(M,M)*Y(I)-B(I,M)*Y(M) 00211500 70. D0 35 J=1,MM 00211700 70. 35 B(I,J)=B(M,M)*B(I,J)-B(I,M)*B(M,J) 00211800 70.		ADDED	$(W) \lambda = (WI) \lambda$			00211100	70.29
C REDUCE ORDER OF SET 00211300 70. D0 40 1=1,MM 00211400 70. IF (B(I,M)) 32,40,32 00211500 70. 32 Y(I)=B(M,M)*Y(I)-B(I,M)*Y(M) 00211500 70. 00 35 J=1,MM 00211700 70. 35 B(I,J)=B(M,M)*B(I,J)-B(I,M)*B(M,J) 00211800 70.		ADDED	Y (M) = C			00211200	
U0 40 I=1,MM 00211400 70. IF (B(I,M)) 32,40,32 00211500 70. 32 Y(I)=B(M,M)*Y(I)-B(I,M)*Y(M) 00211500 70. 00 35 J=1,MM 00211700 70. 35 B(I,J)=B(M,M)*B(I,J)-B(I,M)*B(M,J) 00211800 70.		ADDED	REDUCE	ОF			ő
IF (B(I,M)) 32,40,32 32 Y(I)=B(M,M)*Y(I)-B(I,M)*Y(M) 00 35 J=L,MM 35 B(I,J)=B(M,M)*B(I,J)-B(I,M)*B(M,J) 35 B(I,J)=B(M,M)*B(I,J)-B(I,M)*B(M,J)		ADDED	40 I=1,MM				ð
32 Y(I)=B(M,M)*Y(I)-B(I,M)*Y(M) 00 35 J=L,MM 35 B(I,J)=B(M,M)*B(I,J)-B(I,M)*B(M,J) 00211800 70.		ADDED		40,32		00211500	°
DO 35 J=L,MM 35 B(L,J)=B(M,M)*B(L,J)-B(L,M)*B(M,J) 00211800 70.2		ADDED)-B(I		00211600	i
35 B(I,J)=B(M,M)*B(I,J)-B(I,M)*B(M,J) 00211800 70.		ADDED				0211	0.2
		ADDED		_		0211	ീ

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	nru vur=>	VUL =>EK=UU4183	UKL UPUALE		NEW VUL-SER-UUI 200		
LD SEQ	MESSAGE	FILENAME=MUFAN		DECKNAME=MUFAN	N		νν. DD
	ADDED	40 CONTINUE				00211900	70.29
	ADDED	M=MM				00212000	70.29
	ADDED	10				\sim	70.29
	ADDED		CALCULATE X VALUES			00212200	70.29
	ADDED		91)			00212300	70.29
	ADDED	DO 120 I=2,N				00212400	70.29
	ADDED	C=Y(I)				00212500	70.29
	ADDED	I M= I - I		,		00212600	70.29
	ADDED	MI * 1= C 011 00				00212700	70.29
	ADDED	110 C=C-B(I,J)*X(J)	()			00212800	70.29
	ADDED	120 X(I)=C/B(1,I)		a na manana a manana manana manana manana manana na manana manana manana manana manana kata kata kata na manana		00212900	70.29
	ADDED	122 N0G00D=1				00213000	70.29
	ADDED	RETURN				00213100	70.29
	ADDED	200 WRITE (6,901)				00213200	70.29
	ADDF 0	N0G00D=2				00213300	70.29
A	ADDED	RFTURN				00213400	70. 29
1	ADACA		TATHORNIA TANA SET STAGED AR	TAN SOLVED	ويستعلم والمراقب والمحاصبة والمحاصبة والمحاصبة والمحاطية والمحاطية والمحاطية والمحاطية والمحاط والمحاط والمحاط	1	10 20
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5	AUUEU					00001700	10.24
4	ADDED					00/51200	10.29
	ADDED	COMMUN / MUFCUM/				00213800	10.29
	AUDED	1 A(3),	S	CONSTS (3, 600)		00213900	70.29
	ADDED	2 IBCON(600),	4	IFLUID,		00214000	70.29
	ADDED	3 ITEMP,	11 YPE(600)	JBRPT(600)	, LABEL(20,3),	00214100	70.29
	ADDED			NBCON(250)	*	00214200	70.29
	ADDED	5 NBRPTS.	NNMAX,	(051)STqN	, PBRPT(250),	00214300	70.29
	ADDED		OERR.	KHO(600),	TBULK(500).	00214400	70.29
	ADDED		VI SC (600) ;	XDDTA(500)		00214500	70.29
	ADDED	COMMON / MUFCOM/	INDUT(1		NDUMBP, LOOP	00214600	70. 29
	ADDED	CIMMUN /PUNI/	MMEM. MNODES. D	E		00214700	70. 29
	ADDED					00214800	70.29
	ADDED	-	(150),	NODE(500),	NSKIP(150),	00214900	70.29
	ADDFD			PRESS(500)		00215000	70.29
	ADDED	DIMENSION	(3,600)			00215100	70.29
	ADDED	DIMENSION		R2KTAB(5)		00215200	70.29
	ADDED			CUNSIST		00215300	70.291
			•			0021500	70. 201
	AUUCU	0 4 8 9 V V				00016600	
	AUUEU	KIAD/				-	V (
	ADDED	DAIA BLANK/4H	4 1	* UPAKEN/4H 1	/ * UPAKEN/4H) /		NC
	ADDED					., <u>, ,</u>	5 C
	ADDED	NBK=NBKAN+L				00212800	10.29
							57.7

QLO SEQ FILENAME=NUFAN DECKMAME=NUFAN YLO AUDED DO ZO 18-2;NAK DECKMAME=NUFAN YLO AUDED DO ZO 18-2;NAK DECKMAME=NUFAN DO ZO 18-2;NAK AUDED ZO COLTANC DECKMAME=NUFAN DO ZO 18-2;NAK AUDED ZO COLTANC DECKMAME=NUFAN DO ZO 18-2;NAK AUDED ZO CONTINUE PRACESSO DO ZO 18-2;NAK AUDED ZO CONTINUE DO ZO 18-2;NAK DO ZO 18-2;NAK AUDED NORUNTINO DO ZO 18-2;NAK DO ZO 18-2;NAK AUDED NUMAE-SO DO ZO 17:0;NAK DO ZO 18-2;NAK AUDED NUMAE-SO NUMAE-SO DO ZO 18-2;NAK AUDED NUMAE-SO NUMAE-SO DO ZO 18-2;NAK AUDED NUMAE-SO NUMAE-SO DO ZO 18-2;NAK AUDED NUMAE-SO NUMAE-SO<		0L0 V0L=SER=004783	:004783	DRC UPDATE	NEW VOL=SER=007208		
ADDE D0 20 18-5, MaR C021500 70.2 ADDE 10100 114100(18)=1610(180-1)+1ABS(MPTS(18-1)) 00216500 70.2 ADDE C MADE 0010(18)=1610(180-1)+1ABS(MPTS(18-1)) 00216500 70.2 ADDE C MADE 00010(18)=1610(180-1)+1ABS(MPTS(18-1)) 00216500 70.2 ADDE MADE 0001481P15400(180-1) 00216500 70.2 ADDE MADE 0001481P15400(180-1) 00216500 70.2 ADDE MADE 00114801 00216500 70.2 ADDE MADE 00148181.16.701 60 TO 30 00216500 70.2 ADDE MADE 00147811.16.701 60 TO 30 00217800 70.2 ADDE MADE 00147811.16.701 60 TO 30 00217800 70.2 ADDE MADE 0014781 001470 70.2 70.2 ADDE MADE MADE 0014740 70.2 70.2 ADDE MADE MADE 001470 70.2 70.2		MESSAGE	FILENAME=MUFAN	DECKNAME=MUF	AN		0
ADDEU ET.NO. (19.=1F NU. (18-1)+1ABS(NPTS(18-1)) O2215900 70.2 ADDEU ZO CMT (NL P. (181)+1ABS(NPTS(18-1)) 00211200 70.2 ADDEU NOMERSES NOMERSES 00211200 70.2 ADDEU NOMERSES NOMERSES 00211200 70.2 ADDEU NOMERSES NOMERSES 00211500 70.2 ADDEU NUMERSES NOMERSES 00211500 70.2 ADDEU NUMERSES NOMERSES 00211500 70.2 ADDEU NUS 0010 00211500 70.2 ADDEU NUS 0010 00211500 70.2 ADDEU NUS 0010 00110 00211700 70.2 ADDEU NUS 0010 0140 001211200 70.2 70.2 ADDEU NUS 010 50 101 70.2 70.2 70.2 ADDEU NUS NUS 101<40							
AUDE AUDE <th< td=""><td></td><td>ADDED</td><td>00 20 IB=2, NBR</td><td>VE OF AND TO AND TO AND</td><td></td><td>02159</td><td>N</td></th<>		ADDED	00 20 IB=2, NBR	VE OF AND TO AND TO AND		02159	N
ADDED CUMMING OUTLON OUTLON<		AUDEU		ITTOTICIANICATI		02120	V C
ADDED KUUNTRAD O0216300 TO.2 ADDED NUDENBRP15+NDUMBP 00216400 70.2 ADDED NUDE 00216400 70.2 ADDED NUDE 00216400 70.2 ADDED NUDE 001 8P = 1, NUD 00216400 70.2 ADDED UU 90 00 18P = 1, NUD 001 80 01 8P = 1, NUD 00216400 70.2 ADDED UU 90 00 18B = 16.001 01 01 001 01 00 70.2 70.2 ADDED UN2 = NUST (NPT 51.16 1) 01 0 40 00217300 70.2 ADDED LINE = LINE - 3 UU 70 00217300 70.2 ADDED LINE = NUP - 1.1 0 UU 70 00217400 70.2 ADDED LINE + NUP - 1.1 0 UU 70 00217400 70.2 ADDED LINE + NUP + 1.1 0 00217400 70.2 70.2 ADDED LINE + 1.1 0 001 0 40 70.2 70.2 70.2 ADDED NUP + NUP + 1.1 0 70.2 70.2 70.2 70.2 70.2 70.2 </td <td></td> <td>ADDED</td> <td></td> <td></td> <td></td> <td>02162 02162</td> <td>$^{\prime}$</td>		ADDED				02162 02162	$^{\prime}$
ADDED NODE NODE NODE OC15460 TO.2 ADDE NO NADE NO NADE 00216600 TO.2 ADDE NO NO NADE 00216600 TO.2 ADDE NO NADE NADE 00216600 TO.2 ADDE NADE NADE NADE 00216600 TO.2 ADDE NADE NADE NADE 00217600 TO.2 ADDE IFL NADE NADE 00217600 TO.2 ADDE IFL NEXAND NADE 00217600 TO.2 ADDE IFL NEXAND NADE 00217600 TO.2 ADDE IFL NEXAND NAD 00217600 TO.2	terret service and a service of a service of the se	ADDED	KOUNTR=0			02163	N
ADDED L IRE=33 00216500 70.2 ADDE0 NB2=0 00216500 70.2 ADDE0 NB2=0 00 81 B8=1,ND 00216500 70.2 ADDE0 NB2=NB2+1,ABSTNBCUN(TBP) 00216500 70.2 00216500 70.2 ADDE0 NB2=NB2+1,ABSTNBCUN(TBP) 00211600 70.2 00211700 70.2 ADDE0 UFT6CUNNB).LE:01 UU 80 00211700 70.2 00217500 70.2 ADDE0 LIFTELINETHY.EL:21 UU 80 00217500 70.2 00217500 70.2 ADDE0 LTINETHY.EL:21 UU 70 00217500 70.2 70.2 ADDE0 LTINETHY.EL:21 UU 40 70 70.2 70.2 70.2 ADDE0 LTINETHY.EL:21 UU 40 70 70.2 70.2 70.2 ADDE0 LTINETHY.EL:21 UU 40 70 70.2 70.2 70.2 70.2 70.2 70.2 70.2 70.2 70.2 70.2 70.2 70.2 <td></td> <td>ADDED</td> <td>NDO=NBRPTS+NDUMBP</td> <td></td> <td></td> <td>216</td> <td>\sim</td>		ADDED	NDO=NBRPTS+NDUMBP			216	\sim
ADDED NB2=NB2+1.NDU 003 I BP=1.NDU 00216600 70.2 ADDED NUE NUE NUE 003 1600 70.2 ADDED NUE NUE NUE 003 1600 70.2 ADDED NUE NUE NUE 0031600 70.2 ADDED NUE NUE NUE 0031700 70.2 ADDED NUE NUE NUE 0031700 70.2 ADDED U 00 N=NUL NUE 0021700 70.2 ADDED IFICINENPLIE.0) U 10 00217500 70.2 ADDED IFICINENPLIE.201 U 10 70.2 00217500 70.2 ADDED IFICINENPLIE.201 GU 70 00217500 70.2 70.2 ADDED IFICINENPLIE.231 GU 10<40		ADDED	LINE=28			216	~
ADDED NUL 50 INPA-14.NUL OCL15000 CO.2 ADDED NUL 50 182-81.ASKINGCUN(1BP) 00211500 70.2 ADDED NUB-NEL-NEL-SINGCUN(1BP) 00211500 70.2 ADDED 1F1 (BCUN(NB)-LE.0) 60 T0 70.2 00211700 70.2 ADDED 1F1 (BCUN(NB)-LE.0) 60 T0 70.2 00211700 70.2 ADDED 1F1 (BCUN(NB)-LE.20) 60 T0 70.2 00211700 70.2 ADDED LINF=T.1 001 T0 70.2 00211700 70.2 ADDED LITTANG-GT-201 GU T0 70		ADDED	0=0			216	\sim
AUDEU NB1-NB2-TABSTRBGUN(TBP1) 00211000 70.2 AUDEU NB1-NB2-TABSTRBGUN(TBP1) 00211700 70.2 AUDEU UL NB = NB1.RB2 0010 0010 70.2 AUDEU UL NB = NB1.RB2 0010 0011700 70.2 AUDEU UL NB = NB1.RB2 0010 0010 70.2 AUDEU UL NB = NBCON(NB) - LE-01 GU TO 00211700 70.2 AUDEU LINE - TA 0010 70.2 00211700 70.2 AUDEU NP=NP-LBS (NPTS LB) - L 0010 70.2 00211700 70.2 AUDEU NP=RP-3 0010 70.2 0021700 70.2 AUDEU NP=RP-3 0010 70.2 0021700 70.2 AUDEU NP=RP-3 0010 70.2 0021700 70.2 AUDEU NP=RP-3 0010 70.2 0021800 70.2 AUDEU KUNTRACUNTRA 40 0021800 70.2 70.2 AUDEU LINE=0 1		ADDED	808			0 7 7 7	N C
ADDED MULE MULE <t< td=""><td></td><td>AUUED</td><td>1+79N=19N</td><td></td><td></td><td></td><td>7</td></t<>		AUUED	1+79N=19N				7
ADED IFTIBCON(NB).LE 01 GU TO GOZ 1700 TO.2 ADDED LINE-BLEON(NB).LE 01 GU TO 00217300 70.2 ADDED LINE-BLEON(NB).LE 01 GU TO 00217500 70.2 ADDED LINE-BLEON(NB).LE 01 GU TO 00217500 70.2 ADDED IFTINETNETS. GU TO 00217500 70.2 ADDED IFTINETNETS. GU TO 70.2 00217500 70.2 ADDED IFTINETNETS. GU TO 70 00217500 70.2 ADDED IFTINETNETS. GU TO 40 00217500 70.2 ADDED NPMP-3 GU TO 40 00217500 70.2 ADDED KUNTR-RCUNTR+3 00217500 70.2 00217600 70.2 ADDED KUNTR-RCUNTR+3 00217500 70.2 00217600 70.2 ADDED KUNTR-RCUNTR+3 00217600 70.2 00218000 70.2 ADDED ADDED VKUNTR-RCUNTR+2 0021800 70.2		AUDED	NBZENBZ+LABSUNDCUN DI RO NRENRI-NR?			210	
ADGE IB=IBCON(NB) Occurrent		ADDED		60 10 8		17	10
ADUED LINE-LINE*3 Distribution Line-Line*3 Distribution Distribution <thdistribution< th=""> Distribution</thdistribution<>		ADDED	IB=IBCON(NB)) ")			1 2
ADDED NP=IABS (NPTS(IB))-1 00217500 70.2 ADDED IF(TINE+NP.LT.2.3) GU TO 70 00217700 70.2 ADDED IF(TINE+NP.LT.2.3) GU TO 70 00217700 70.2 ADDED IF(TINE+NP.LT.2.3) GU TO 70 00217700 70.2 ADDED IF(LINE-GT.20) GU TO 40 00217700 70.2 ADDED KUNTR=KUUNTR+3 00217700 70.2 00217700 70.2 ADDED KUNTR=KUUNTR+3 002177800 70.2 00218000 70.2 ADDED LINE=0 KUNTR=KUUNTR+3 0021800 70.2 0021800 70.2 ADDED LINE=3 ADDED LINE=3 0021800 70.2 00218400 70.2 ADDED VINTR=KUUNTR NRAGES=RNAGES+1 00218400 70.2 00218400 70.2 ADDED NSKIP NAGES J=KGUNTR NRAGES J=KGUNTR 00218400 70.2 00218400 70.2 ADDED NSKIP NAGES J=KGUNTR NRAGES J=KGUNTR 00218400 70.2 <t< td=""><td></td><td>ADUED</td><td>LINE=LINE+3</td><td></td><td></td><td>17</td><td>N</td></t<>		ADUED	LINE=LINE+3			17	N
ADDED IFtLINE-NP_LE.23J GU TU 70 COL COL <td>A</td> <td>ADDED</td> <td>NP=IABS(NPTS(IB))-</td> <td>- 1-</td> <td></td> <td>17</td> <td>N</td>	A	ADDED	NP=IABS(NPTS(IB))-	- 1-		17	N
ADDEU If (NP-LT.4) G0 TO.2 TO.2 ADDEU IF (NP-LT.4) G0 TO.2 0021700 TO.2 ADDEU NP=NP-3 0021700 TO.2 0021700 TO.2 ADDEU NP=NP-3 0021700 TO.2 0021700 TO.2 ADDEU NP=NP-3 0021800 TO.2 0021800 TO.2 ADDEU LINE-0 G0 TO.2 0021800 TO.2 ADDEU 40 <continue< td=""> G0 TO.2 00218100 TO.2 ADDEU 40<continue< td=""> 0021820 TO.2 00218300 TO.2 ADDEU NPGES=NPAGES+1 00218300 TO.2 00218900 TO.2 ADDEU NPGES=NPAGES+1 NPGES=NPAGES+1 00218900 TO.2 00218900 TO.2 ADDEU NPGES=NPAGES+1 NPGES=NPAGES+1 00218900 TO.2 00218900 TO.2 ADDEU NPGES=NPAGES+1 NPGES NPGES 00218900 TO.2 00218900 TO.2</continue<></continue<>		ADDED	IF (LINE+NP+LE+23)	<u>60 10 1</u>		1	2
ADDED IF(LINE.6T.20) GU 10,40 00217900 70.2 ADDED NP=NP=3 GU 10,40 00217900 70.2 ADDED KUUNTR=KGUNTR=3 0021800 70.2 0021800 70.2 ADDED KUUNTR=KGUNTR=3 0021800 70.2 0021800 70.2 ADDED 40 CONTINUE 00218100 70.2 00218200 70.2 ADDED 40 CONTINUE 00218100 70.2 00218300 70.2 ADDED 45 CONTINUE 0021840 70.2 00218400 70.2 ADDED 45 CONTINCE NPAGES=NEGEST 00218400 70.2 00218400 70.2 ADDED NFKIP(NPAGES)=KGUNTR 00218400 70.2 00218400 70.2 ADDED NPSKIP NPAGES=NAGEST 00218400 70.2 00218400 70.2 ADDED NPAGES NPAGES NPAGES 00218400 70.2 00218400 70.2 ADDED NPAGE NPAGES 001800 70.2 002	5	ADDED	60	60		1	~
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40 C0 10 45 C0 10 10.2 40 C0NTINUE 00218100 70.2 40 CINTENE 00218300 70.2 45 CINTENE 00218400 70.2 15 NPAGES=NPAGES+1 00218400 70.2 05 USKIP (NPAGES)=K CUNTR 00218600 70.2 16 NPSAV=NP 00218600 70.2 070 NPSAV=NP 00218600 70.2 070 NPSAV=NP 00218900 70.2 070 NPSAV=NP 00218900 70.2 070 NPSAV=NP 00218900 70.2 070 NPSAV=NP 00218900 70.2 17 NPSAV=NP 00218900 70.2 17 NPSAV=NP 00218900 70.2 17 NPSAV=NP 00218900 70.2 18 NP=3 0101800 70.2 10 10 10 10 10 10 10 10 10 10 10 10 10 10		ADDED	NE=(2	\sim
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45 CONTINUE 00218400 70.2 NPAGES=NPAGES+1 00218500 70.2 NSKIP(NPAGES)=KOUNTR 00218500 70.2 NSKIP(NPAGES)=KOUNTR 00218800 70.2 NFANDAL 00218800 70.2 NFANDAL 00218900 70.2 NFANDAL 00218900 70.2 NFANDAL 00218900 70.2 NPANDAL 00218900 70.2 NPANDAL 00218900 70.2 NPANDAL 00219900 70.2 NPANDAL 00219900 70.2 NPANDAL 00219100 70.2 NPANDAL 00219100 70.2 NPANDAL 00219100 70.2 NPANDAL 00219200 70.2 SO CONTINUE 00219200 70.2 SO CONTINUE 00219500		ADDED				<u> </u>	\sim
NPAGE S = NPAGE S + I 00218500 70.2 NSKI P (NPAGE S) = K GUNTR 00218600 70.2 NSKI P (NPAGE S) = K GUNTR 00218800 70.2 NP SAV = NP 00219900 70.2 NP = NP - 28 + LINE 00219900 70.2 NP = NP - 28 + LINE 00219900 70.2 NP = NP - 28 + LINE 00219900 70.2 N = NP - 28 + LINE 00219900 70.2 ODD 00219900 70.2 N = 1NE = 0 00219700 70.2 CONTINE + KGUNTR + NP 00219700 70.2 SO CONTINE 00219500 70.2 CONTINE 00219500 70.2 CONTINE 00219500 70.2 SO CONTINE 00219500 70.2 LINE = NP + 5 00219500 70.2 CO 00 00219500 70.2 CO 00 00219500 70.2 ND 0 00219		ADDED				8	\sim
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IF (NP+LINE.LE.23) GU IU 50 00218700 70.2 NPSAV=NP 00218800 70.2 NPSAV=NP 00218900 70.2 NP=NP-28+LINE 00218900 70.2 IF (NP.LI.3) NP=3 00219900 70.2 KOUNTR=KOUNTR+NPSAV-NP 00219100 70.2 KOUNTR=KOUNTR+NPSAV-NP 00219200 70.2 KOUNTR=KOUNTR+NPSAV-NP 00219200 70.2 KOUNTR=KOUNTR+NPSAV-NP 00219200 70.2 LINE=0 00219200 70.2 GO TO 45 00219200 70.2 SO CONTINUE 00219200 70.2 KOUNTR=KUUNTR+NP 00219700 70.2 O TO 45 00219600 70.2 C TO 45 00219700 70.2 KOUNTR=KUUNTR+NP 00219700 70.2 LINE=NP+5 00219600 70.2 GO TO 80 60 00219700 70.2 KOUNTR=NP+5 00219700 70.2 LINE=NP+5 00219700 70.2 KO 00219700 70.2 KO 00219700		ADDED	NSKIP(NPAGES)=KUUN				\sim
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NP=NP-Z8+LINE 00218900 70.2 IF(NP.LT.3) NP=3 00219100 70.2 KOUNTR=KOUNTR+NPSAV-NP 00219100 70.2 LINE=0 00219200 70.2 GO TO 45 00219300 70.2 FOUNTR=KOUNTR+NPSAV-NP 00219200 70.2 LINE=0 00219200 70.2 LINE=0 00219300 70.2 GO TO 45 00219300 70.2 FOUNTR=KOUNTR+NP 00219300 70.2 GO TO 45 00219300 70.2 GO TO 45 00219300 70.2 CONTINUE 00219500 70.2 LINE=NP+5 00219500 70.2 GO TO 80 00219500 70.2 GO TO 80 00219500 70.2 GO TO 80 00219500 70.2 60 CONTINUE 00219800 70.2 60 CONTINUE 00219800 70.2		ADDED	NPSAV=NP			18	\sim
IFANP.LT.31 NP=3 00219000 70.2 KOUNTR=KOUNTR+NPSAV-NP 00219100 70.2 LINE=0 00219200 70.2 LINE=0 00219200 70.2 GO TO 45 00219300 70.2 FOUNTR=KOUNTR+NPSAV-NP 00219200 70.2 LINE=0 00219300 70.2 LINE=0 00219300 70.2 GO TO 45 00219300 70.2 FOUNTR=KUUNTR+NP 00219500 70.2 KOUNTR=KUUNTR+NP 00219500 70.2 LINE=NP+5 00219500 70.2 GO TO 80 00219700 70.2 LINE=NP+5 00219700 70.2 LO CONTINUE 00219700 70.2 60 CONTINUE 00219700 70.2 60 CONTINUE 00219700 70.2		ADDED	NP=NP-28+LINE			8	N.
KUNTR=KOUNTR+NPSAV-NP 00219100 70.2 LINE=0 00219200 70.2 GO TO 45 00219300 70.2 50 CONTINUE 00219400 70.2 KOUNTR=KOUNTR+NP 00219500 70.2 60 TO 45 00219500 70.2 50 CONTINUE 00219500 70.2 KOUNTR=KOUNTR+NP 00219500 70.2 CO TO 80 00219700 70.2 CO TO 80 00219700 70.2 60 CONTINUE 00219700 70.2 60 CONTINUE 00219700 70.2 60 CONTINUE 00219700 70.2		AUDED	IF(NP.LT.3) NP=3			5	2
LINE=0 00219200 70.2 GG TO 45 00219300 70.2 50 CONTINUE KOUNTR+NP 00219400 70.2 LINE=NP+5 00219500 70.2 GG TO 80 00219500 70.2 60 CONTINUE 00219700 70.2		ADUED	KOUNTR=KOUNTR+NPSA			5	2
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LINE=NP+5 00219600 70.2 GD TO 80 00219700 70.2 60 CONTINUE 00219800 70.2		ADDEU	KOUNTR=KOUNTR+NP			219	0 * 2
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ADDED NB1=NB2+1 Out 300 NB2=NB2+1ABS(NBCUN(1BP)) Out 300 NB2=NB2+1ABS(NBCUN(1BP)) Out 300 ND2		ADDED	DO 300 18P=1,NDO			10.29
NB2=NB2+IABS(NBCUNLIBP)) 00221700 70. IFOUNDE1 00221900 70. UU 300 NB=NB1.NB2 00221900 70. UU 300 NB=NB1.NB2 00221900 70. IF(IBCON(NB).LE.0) G0 T0 00222100 70. JBP=JBCUN(NB) 00222200 70. 00222200 70. JBP=JBCUN(NB) JBP=JBCUN(NB) 00222200 70. JBP=JBCUN(NB) 00222200 70. 00222200 70. JBP=JBCUN(NB) 1FOUND= 00222200 70. GU (90.95), IFOUND 00222200 70. 00222200 70. FFOUND=2 IFOUND=2 00222200 70. 00222200 70. IFOUND=2 IFOUND=2 00222200 70. 00222200 70. INDEEINDE1 00222400 70. 00222200 70. 70. INDE INDE1 00222200 70. 70. 70. 70. INDE INDE INDE 00222200 70. 70. 70. 70. INDE INDE INDE INDE 70.<	6	ADDED			م السب	70.29
IF (BOUND=1 00221300 70. IF (BCON(NB).LE.0) G0 T0 00221900 70. IF (BCON(NB).LE.0) G0 T0 00222100 70. JBF=JBCUN(NB) 00222100 70. 00222200 70. JBF=JBCUN(NB) 00222200 70. 00222200 70. JBF=JBCUN(NB) 00222200 70. 00222200 70. JBF=JBCUN(NB) 00222200 70. 00222200 70. JBF=JBCUN(NE) 00222200 70. 00222200 70. JBF=JBCUN(NE) 00222500 70. 00222500 70. JBFESSTNUDE= IFOUND=2 002222600 70. IFOUND=2 INODE=INDDE+I 00222500 70. JNDETINDE 00222500 70. 00222200 70. INODE=INDDE+I 00222500 70. 00222200 70. INDDETINDE INDEX 00222200 70. 00222200 INDDETINDE INDEX 00222200 70. INDETINDE INDEX 00222300 70. PCGN(INDE) PCUN(INDE) 00222300 70. PCGN(INDE) PCUN(INDE) 00223300 70. PCUMPPD=0.0 CUMPPD=0.0 00223300	6	AUDED				70.29
DU 300 NB=NB1,NB2 00221900 70. IF (IBCON(NB).LE.0) G0 T0 300 00222200 70. JBP=JBRPT(NB) 00222200 70. GU T0 (90,95), IFUUND 002222400 70. JBP=JBRPT(NB) 00222500 70. JBP=JBRPT(IBP) 00222500 70. JRESSTINDE = PBRPT(IBP) 00222260 70. INDEX:IFINDE1= PBRPT(IBP) 00222500 70. JECONIINDE2 00222260 70. 70. JRESSTINDE 90.0222300 70. 70. JRESSTINDE 90.0222300 70. 70. JECONIINDE1 90.0222300 70. 70. JRESSTINDE 90.0222300 70. 70. JRESSTINDE 90.0222300 70. 70. JECONTINCE 90.0222300 70. 70. JECONTINDE 90.0223300 70. 70.		ADDED	= ONND			
IF(IBCON(NB).LE.0) GO TO 300 002222000 70. JBP=JBRUN(NB) 00222200 70. JBP=JBRUN(NB) 00222200 70. JBP=JBRUN(NB) 00222200 70. JBP=JBRUN(NB) 00222200 70. JBP=JBRUN(NB) 00222300 70. JBP=JBRUN(NE) 00222500 70. JBP=JBRUN(NE) 00222500 70. JBP=JBRUN(E) 00222500 70. JBP=JBRUNE 00222500 70. JDDE=INDDE+I 00222500 70. JNDEE JNDE 00222500 70. JNDE JNDE 00222500 70. JDDE JDDE 00222500 70. JNDE JDDE 00222500 70. JNDE JDDE 00222500 70. JDDE JDDE JDDE 00222700 70. JDDE JDDE JDDE 00222700 70. JDDE JDDE JDDE 00222700 70. JDDE JDDE JDDE 00222300 70. JDD<		ADDED	300 NB=NB1,NB2			
IB=IBCUN(NB) 002222100 70. JBP=JBRPT(NB) 00222200 70. 90 GUITUUE 00222500 70. IFOUND=2 00222500 70. IFOUND=2 00222500 70. IFOUND=2 00222500 70. IFOUND=2 00222500 70. INODE=INDE+1 00222500 70. INDEX=IFIND(IB) 00222500 70. PCON(INDE)=BLANK 00222500 70. PCON(INDE)=BLANK 00222500 70. INDEX=IBRAN(INDE) 00222300 70. PCON(INDE)=BLANK 00223300 70. INDE 000223300 70. IIO0 CUMPPD=0.0 00223300 70. <td< td=""><td></td><td>ADDED</td><td>60 TO 3</td><td></td><td></td><td></td></td<>		ADDED	60 TO 3			
JBP=JBRPT(NB) GO TO (90,95), IFUUND 90 CUNTINUE 100ND=2 100ND=2 100ND=2 100DE + 1 00222500 70. 00222500 70. 00222600 70. 00222800 70. 00222800 70. 00222800 70. 00222800 70. 00222800 70. 00222800 70. 00222800 70. 00223100 70. 00223100 70. 00223100 70. 00223300 70		ADDED	IB=IBCON(NB)		22	70.29
G0 T0 90.222300 70 90 CUNTINUE 002225400 70 1FOUND=2 002225600 70 1FOUNDE12 002225600 70 1FOUNDE2 002225600 70 1FOUNDE1 002225600 70 1FOUNDE1 00222500 70 1NDEX=1FIND(1B) 00222700 70 002225800 70 002222800 70 1NDEX=1FIND(1B) 00222800 70 NODE(1NODE)=1BRAN(1NDE) 00222800 70 00222800 70 00222800 70 00222800 70 00222300 70 00222300 70 00223300 70 00223300 70 00223300 70 00223300 70 00223300 70 00223300 70 00223300 70 00223300 70 00223300 70 00 70 00223300 70 00 70 70 70 00 70 70 70		ADDED	=JBRPT(NB)		2	70.29
90 CUNTINUE 00222400 70. 1 FOUND=2 00222500 70. 1 NODE=1 NODE+1 00222500 70. 1 NODE=1 NODE+1 00222700 70. 1 NODE=1 IND(1B) 00222800 70. 1 NODE1 IND(1B) 00222800 70. 1 NODE1 IND(1B) 00222800 70. 1 NODE1 IND(1B) 00223000 70. 1 F(1BP.GT.NBRPTS) PCUN(1NUDE)=X 00223100 70. 1 F(1BP.GT.NBRPTS) PCUN(1NUDE)=X 00223100 70. 2 CUMFPD=0.0 0 00223100 70. 95 CONTINUE 00223100 70. 00223400 70. 0 CUMPD=0.0 0 00223400 70. 00223400 70. 0 CUMPPD=0.0 0 00223400 70. 70. 70. 0 CUMPD=0.0 0 00223400 70. 70. 70. 0 CUMPD=0.0 0 00223400 70. 70. 70. 0 CUMPD=0.0 0 00223400 70. 70. 70. 70. 0 CUMPD=0.0 0 00		ADDED	GO TO (90,95),		2	70.29
IFOUND=2 IFOUND=2 INDDE=INDDE+1 PRESSTINUUE)=PBRPTTIBP) DEX=IFIND(IB) NDEFINDDE)=PBRANTINDEX) PCONTINUE 00222800 70 00222800 70 00222800 70 00222800 70 00223900 70 00223400 70		ADDED			2	70.29
INODE=INODE+1 00222600 70. PRESS(INUDE)=PBKPT(IBP) 00222700 70. INDEX=IFIND(IB) 00222800 70. INDEX=IFIND(IB) 00222800 70. INDEX=IFIND(IB) 00222800 70. INDEX=IFIND(IB) 00222800 70. NODE(INDE)=BLANK 00223000 70. PCON(INDE)=BLANK 00223100 70. PCON(INDE)=BLANK 00223100 70. PCON(INDE)=BLANK 00223100 70. PCON(INDE)=BLANK 00223100 70. PCONTINUE 00223400 70. CUMPPD=0.0 0 00223400 70. UNEPD=0.0 0 00223400 70. UNEPD=0.0 0 00223400 70. UNDD=0.0 0 00223400 70. UNDD=0.0 0 00223400 70. 00223400 0 00223400 70. 00223400 0 00223400 70. 00223400 0 00223400 70. 00223400 0 00223400 7		ADUED	IFOUND=2		2	70.29
PRESS(INQUE) = PBKPI(IBP) 00222700 70. INDEX=IFIND(IB) 00222800 70. NODE(INODE) = IBRAN(INDEX) 00222900 70. PCON(INODE) = BLANK 00222300 70. PCON(INODE) = BLANK 00222300 70. PCON(INODE) = BLANK 00223100 70. PCON(INDE) = BLANK 00223300 70. PCON(INUE 00223300 70. PCONTINUE 00223300 70. PCONTINUE 00223360 70. PCONTINUE 002223800 70. <		ADDED			$\sum_{i=1}^{n}$	70.29
INDEX=IFIND(IB) 00222800 70. NODE(INDE)=IBRAN(INDEX) 00222900 70. PCON(INDE)=BLANK 00222900 70. PCON(INDE)=BLANK 00223000 70. PCON(INDE)=BLANK 00223000 70. PCON(INDE)=BLANK 00223100 70. PCON(INDE)=BLANK 00223100 70. PCON(INDE)=BLANK 00223100 70. PCONTINUE 00223300 70. CUMPD=0.0 00223300 70. CUMPD=0.0 00223300 70. UO0223400 70. 00223400 70. UNDP=0.0 00223400 70. 00223400 70. UNDP=0.0 0 00223300 70. 70. 70. UNDP=0.0 0 00223400 70. 70. 70. UNDP=0.0 0 00223400 70. 70. 70. UNDP=0.0 0 00223400 70. 70. 70. 70. UNDP=0.0 0 00223360 70. 70. 70. 70. 70. 70. <td< td=""><td></td><td>ADDED</td><td></td><td></td><td>2</td><td>70. 29.</td></td<>		ADDED			2	70. 29.
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IF(IBP.GT.NBKPTS) PCUN(INUDE)=X 00223100 70.2 95 CONTINUE 00223300 70.2 CUMFPD=0.0 00223300 70.2 CUMPD=0.0 00223400 70.2 CUMPD=0.0 00223400 70.2 CUMPD=0.0 00223400 70.2 CUMPD=0.0 00223400 70.2 00223500 70.2 00223500 70.2 100 CONTINUE 00223500 70.2 00223500 70.2 00223500 70.2 00223500 70.2 00223500 70.2 00223500 70.2 00223500 70.2 00223500 70.2 00223500 70.2 00223800 70.2 00223800 70.2 00223800 70.2 00223800 70.2 00223800 70.2 00223800 70.2		ADDED			23	്
95 CONTINUE 00223200 70.2 CUMFPD=0.0 00223300 70.2 CUMPD=0.0 00223300 70.2 CUMPD=0.0 00223500 70.2 CUMPD=0.0 00223500 70.2 00223500 70.2 00223500 70.2 00223500 70.2 00223500 70.2 00223500 70.2 00223500 70.2 00223500 70.2 00223500 70.2 00223500 70.2 00223500 70.2 00223700 70.2 00223700 70.2 000223700 70.2 00223700 70.2 000223700 70.2 00223700 70.2 000223800 70.2 00223800 70.2		ADUED	T.NBKPTS)	JDE)=X	23	0.2
CUMFPD=0.0 CUMFPD=0.0 CUMEPD=0.0 CUMPD=0.0 CUMPD=0.0 00223500 70.2 00223500 70.2 00223500 70.2 00223500 70.2 00223800 70.2 00223800 70.2 00223800 70.2		ADDED			223	0.2
CUMEPD=0.0 CUMPD=0.0 CUMPD=0.0 100 CONTINUE QB=ABS(QBR(IBJ) NUNDP=0 00223800 70.2 00223800 70.2	and a second	ADDED	CUMFPD=0.0		223	0.2
CUMPD=0.0 100 CONTINUE QB=ABS(QBR(1BJ) NUNDP=0 00223800 70.2 00223800 70.2		ADDED	CUMEPD=0.0		223	2
100 CONTINUE 00223600 70.2 QB=ABS(QBR(1B)) 00223700 70.2 NUNDP=0 00223800 70.2		ADDED			2235	Ň.
QB=ABS(QBR(IB)) 00223700 70.2 NUNDP=0 00223800 70.2		ADDED			0223	0.2
NUNDP=0 00223800 70.2		ADDED	QB=ABS(QBR(1B))		0223	5 0
		ADDED	NUNDP=0		0223	0° 0

	0L0 V0L=SER=004783	R=004783	DRC UPDATE	NEW VOL=SER=007208		
LD SEQ	MESSAGE	FILENAME=MUFAN	DEC	DECKNAME=MUFAN		YY.DD
	ADDED ADDED	DPUNK=BLANK ORFD=0.0			00223900 00224000	70.29
	ADED	NST=IFIND(IB)			00224100	70.29
	ADDED	NFIN=IFIND(IB+I)	1-1		00224200	70.29
	ADDED	FLOCON=BLANK			00224300	70.29
	ADDED	IF(NPTS(IB).LT.0)	FLOCON		00224400	70.29
	ADDED	IF (QBR(IB).GE.0.0)	•0) 60 TU 150		00224500	
ann a tha ann an Anna Anna Anna Anna Anna Anna	ADDED	PBP1=PBRPT(JBP)			00224600	
	ADDED	PBP2=PBKPT(1BP)			00224700	10.29
	ADDED	MEMF=0			00224800	10.29
	ADDED	I FROM=1			00224900	
	ADDED	110=0			00225000	\sim
	ADDED	N=NFIN-I			00225100	70.29
	ADDED	NSTOP=NST			00225200	10.29
4	ADDED				00225300	70.29
A	ADUED				00225400	70.29
-	ADDED	150 CONTINUE			00225500	70.29
5	ADDED	PBP1=PBRPT(18P)			00225600	70.29
7	ADDED	PBP2=PBRPT(JBP)			00225700	70.29
	ADDED	I FROM=0			00225800	70.29
	ADDED	1=011			00225900	70.29
	ADDED	N=NST			00226000	70.29
	ADDED	NSTOP=NFIN-I			00226100	70.29
	ADDED	I NC = T			00226200	70.29
	ADDED	160 CONTINUE			00226300	70.29
	ADED	IF(NSKIP(IPAGE).NE.LI	2000 0	65	00226400	70.29
	ADDED	WRITE(6,6000) DATE, I	1	,((LABEL(1,J),I=1,19),J=1,3	005	70.29
	ADDED	6000 FORMAT(1H1///1H0,32(1	H*), MUFAN	AND PRESS	*	70.29
	ADDED	L ***	L	,13, 0F',13, *'//17X,19A4/17X,	00226700	70.29
	ADDED	2 1944/17X		/1H0,57X,11(1H-), CUMULATIVE',13(1H-)/	00226800	70.29
	ADDED			2X, 'ELEVATION'	00226900	70.29
	ADDED	4 *FRICTION*	LOX, 3(5X, 8HPI	4X,3(5X,8HPRES	00227000	70.29
	ADDED	5 MEMBER	X,9HDROP,	-	27	70.29
	ADUED	* REYNOLD	S ND* /1X,107(1H-)/	2X)	27	\sim
	ADDED				27	0.2
	ADDED				27	N
	ADDED	,,600	CON		27	0.2
	ADDED	6001 FORMAT(1H0.		: OF BRANCH - FLOW=*,612.5,A2,	NI	0.2
	ADDED		lX,1H.,106X,1H.)		0	0°
	ADDED	G0 T0 172			00227800	70.29
	-					

	0LD V0L=SER=004783	:004783	DRC UPDATE	NEW VOL=SER=007208		
OLD SEQ	MESSAGE	FILENAME=MUFAN	DECKNAME=MUFAN	Z		<u> үү " рр</u>
	ADDED	170 CONTINUE	NE I I NE) GO TO 172		00227900	70.29
	ADDED	WRITE(6.6000) DA	TIME . IPAGE . NPA		281	0
	ADDED				28	
	ADUED	172 CONTINUE			$ \omega $	
	ADDED	INDEX1=N+IFROM			00228400	70.29
	ADDED	INDEX2=N+ITO			00228500	ð,
	ADDED	MEM=MBRAN(N)			00228600	10.29
	AUDED	ITALITEAMERI-IUUUUU	TINT TONT INNO		00228800	70.29
	ADDED				00228900	70.29
	ADDED	REYNU=-1.0E20			00229000	70.29
	ADDED	60 10 187			00229100	70.29
	ADDED	178 CONTINUE			00229200	70.29
	ADDED	IFITYPE(MEM) .NE.300	.300000000) 60 TU 179		00229300	70.29
A	ADDED	REYND=-1.0E20			00229400	70.29
-	ADDED	FP0R0P=-CONSTS(2,MEM	, MEM)		00229500	70.29
5	ADDED				00229600	70.29
8	ADDEU				00229700	70.29
	ADDED	179 CONTINUE	(00229800	70.29
	ADDED	IF (NUNDP.NE.O)	CO 10 190		00525500	10.29
	ADDED	N=dQNUN		a a sa	0002300	10.29
	ADDED	SAVCPU=CUMPD			00230100	ວໍ
	ADDED	DROP			00230200	70.29
	ADDED				00230300	10.29
	ADDED	180 CONTINUE			00230400	70.29
	ADDED	DPCON=BLANK			00606200	10.29
	ADDED	11=MUD(11YPE(MEM)	• 1 00000	anna an ann an an an an Anna an Anna an Anna an Anna ann an ann an	00230200	10.24
	ADDEU		11 PU 10 182		00106200	•
	AUDED		1		0000000000	
	AUUEU		7 •		00606200	
	ADDED				ก่เร	10* 29
	ADDED					ວໍ ເ
	ADDED	182 CONTINUE			00231200	10.29
	ADDED	IF(IT.LI.10000)	GU 1U 185		0231	ໍ່
	ADDED	×N0=			15	10.29
	ADDED				023	°
	ADDED	185 CONTINUE			0231	ö
	ADDED				00731700	∾ •
	ADUED	187 CONTINUE			0231	ി

GLU SEG FILEMAME=KUFAN DECKNAME=HUFAN W. DD GLU SEG FILEMAME=KUFAN DECKNAME=HUFAN W. DD AUDED 100 CUNTURE DECKNAME=HUFAN W. DD AUDED 100 CUNTURE DECKNAME=HUFAN M. DD AUDED 100 CUNTURE DOS23200 70.23 AUDED 100 CUNTURE DOS23200 70.23 AUDED CUNTURE DECKNAME DOS32200 70.23 AUDED CUNTURE DECKNAME DO332200 70.23 AUDED CUNTURE DECKNAME DO332200 70.23 AUDED CUNTURE DO10 DO33200 70.23 AUDED CUNTURE DO33200 70.23 DO33200 70.23 AUDED CUNTURE DO32200 70.23 DO33300 70.23 AUDED CUNTURE DO32200 70.23 DO33300 70.23 AUDED CUNTURE DO32200 70.23 DO33300 70.23 AUDED		0L0 V0L=SER=004783	DRC	UPDATE NEW	W VOL=SER=007208		
ADEE FP0ROP=REIST(REM-GB, INTT+GB ADUE 00231900 70. ADDED FP0ROP=REUTAL 00231900 70. 0023200 70. ADDED FP0ROP=FRUNTHE 0023200 70. 0023200 70. ADDED FP0ROP=FRUNTHE 0023200 70. 0023200 70. ADDED FF0RUP=FP0RUP 0023200 70. 0023200 70. ADDED FF0RUP=FP0RUP 0023200 70. 0023200 70. ADDED FF0RUPE+FD0RUP 01210 01210 0023200 70. ADDED CUMPPD-CUMPE+FD0RUP 01210 01210 0023200 70. ADDED CUMPPD-CUMPE+FD0RUP 01210 01210 01210 01210 01210 01210 01210 01210 01210 01210 01210 012120 0123200 70. 0123200 70. 0123300 70. 0123300 70. 0123300 70. 0123300 70. 0123300 70. 0123300 70. <	a	MESSAGE	FILENAME=MUFAN	DECKNAME= MUFAN			
AULED FPRIGURENTSIST(REN.G) INITIAGE FOROTATION OC232000 70. ADDED PENDER EFONDER PENDER 00232000 70. ADDED PENDER FONDER PENDER 00232000 70. ADDED FENDER FENDER PENDER 00232000 70. ADDED FENDER FENDER 00232500 70. 00232500 70. ADDED FENDER FENDER 00232500 70. 00232500 70. ADDED CUMPRPERDIRE DENDER CUMPD-GONDER 00232500 70. 00233500 70. ADDED CUMPD-GONDER DENDER DENDER DENDER 00233500 70. ADDED CUMPD-GONDER DENDER DENDER DENDER 00233500 70. ADDED ADDED DENDER DENDER DENDER 00233500 70. ADDED ADDED DENDER DENDER DENDER DE0233500 70. ADDED							
ADDED PERNED*FRACTORENT * CONTACT INDEX 21) CO033200 70. ADDED CHAPS=FCMAD*FRACTOR CON322000 70. ADDED IFRELINE*L CHAPS=FCMAD*FRACTOR CO0332200 70. ADDED IFRELINE*L CHAPS=FCMAD*FRACTOR CO0332200 70. ADDED IFRELINE*L CON32200 70. CO0322000 70. ADDED CUMPE-CUMPD*F1 CO022200 70. CO022300 70. ADDED CUMPE-CUMPD*F1 RNUL CO022300 70. CO022300 70. ADDED NUDE= CUMPE-CUMPD*F1 RNUL CO022300 70. CO022300 70. ADDED NUDE= RESS ILLUDE FRAUTIND*S CO022300 70. CO022300 70. ADDED NUDE= RESS ILLUDE FRAUTIND*S CO022300 70. CO022300 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70.			FPDROP=RESIST(MEM,QB, CONTINUE	1[T]*QB		mm	00
ADDED PDR.QP=FPORUP+FPOROP COMPU-FEDRADP OC232200 To: ADDED LTF (WUND+FURP)+FPOROP 0.00000000000000000000000000000000000		a na serie e se	EPDROP=RHO(MEM) *(X00T			00232100	70.29
ADDED ICHWPB-ERNEDP Description Description <thdescription< th=""> <thdescription< th=""> <th< td=""><td></td><td>ADDED</td><td>PDROP=FPDROP+EPDROP</td><td></td><td></td><td>00232200</td><td>70.29</td></th<></thdescription<></thdescription<>		ADDED	PDROP=FPDROP+EPDROP			00232200	70.29
ADDED ITNUMDP-INTENT OUT ADDE ITNUMDP-INTENT OUT		ADDED		•		00232300	70.29
ADDE0 LINE=LINF=L ADDE0 LINE=LINF=L CURF=LINF=L CURF=L CURF=L CURF=L CURF=L CURF		ADED	•0) 60 10			00232400	70.29
AUGE CUMPED=CUMPD COMPLEMENT CUMPED=CUMPD COMPLEMENT CUMPED=CUMPD COMPLEMENT CUMPED=CUMPD COMPLEMENT CUMPED=CUMPD CUMPED CUMPED=CUMPD CUMPED CUMPED=CUMPD CUMPED CUMPED CUMPED=CUMPD CUMPED CUMPED=CUMPD CUMPED CUMPE		ADDED	LINE=LINE+L CIMEDO-CIMEDD+EDDDDD			00232200	70.29
ADDED TOUDE = INDUE + INDE		ADDED				00232300	70.29
ADDED NODET INUDE1=ERRANT INUEX21 00233900 70. ADDED PKESS (1NUDE1=ERRANT NUDEX1) FRANT INUEX21, 00233100 70. ADDED ZOO CONTINUE MRT FG 5:0021 BRANT INUEX21, 00233300 70. ADDED ZOO CONTINUE BRANT INUEX21, FRANT INUEX21, 00233300 70. ADDED JUNK PCUNT AUDE1 BRANT INUEX21, 07233300 70. ADDED 5002 FORWABLANK 07233500 70. 002333700 70. ADDED 5002 FORWABLANK 0702250 00233400 70. 00233400 70. ADDED 210 CONTRUE BRANTINE 070234500 70. 00233400 70. ADDED 210 CONTRUE 100223400 70. 00234400 70. ADDED 2010 10 70 00234400 70. 00234400 70. ADDED 2010 10 70 00234400 70. 00234400 70. <td< td=""><td></td><td>ADDED</td><td>INODE = I NODE + 1</td><td></td><td></td><td>00232800</td><td>70.29</td></td<>		ADDED	INODE = I NODE + 1			00232800	70.29
ADDED PRESS(INUDE)E = P8 P1-CUMPD O02333000 70. ADDED PCONINUDE) = BLANK 00233300 70. ADDED PCONINUDE) = BLANK 00233300 70. ADDED NRTFE(5.002) TBNANINDEX1). FRANINDEX21. PDBOP, EDBUP, REYNO 00233300 70. ADDED DPUNK-BLANK 00233400 70. 00233400 70. ADDED BOUM-BLANK 013.254.41.2511.41.44.3513.41.2510.57.2H 00233400 70. ADDED DOUM-BLANK 010.220 00233400 70. 00233400 70. ADDED 210 CUNTINUE TO 220 00233400 70. 00233400 70. ADDED 210 CUNTINUE TO 220 00.233400 70. 00233400 70. ADDED 220 CUNTINUE TO 0233400 70. 00233400 70. ADDED 220 CUNTINUE 220.20 00.223400 70. 00233400 70. ADDED 220 CUNTINE 170 0023400 70. 70. 70.	والمتعادية والمراقبة والمراقبة والمراقبة والمراقبة والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع	ADDED	NODE(INODE)=IBRAN(INDE)	(2)	n an	00232900	70.29
ADDEU PCUNI INUDE) = BLANK 002333100 70. ADDED 200 CONTINUE PNUK, FPDRUP, DPCUN, CUMED, CUMED, CMED, RENN 00233400 70. ADDED 1 WRITE(5:002) IBRAN(INDEX1), IBRAN(INDEX2), PDRUP, EPDRUP, 00233400 70. ADDED 5002 FURWAILX?H. J13;ZH ~: 13;ZH ~: 13		ADDED	PRESS(INUDE)=PBPI-CUMPI			00233000	70.29
ADUED ZOO CONTINUE Stantinuex11 BRANITNDEX21 PDRUP 00233300 70 ADUED WRITE(6,5002 TBRANITNDEX11 TBRANITNDEX21 PDRUP 00233300 70 ADUED 6002 FURMATIX.7N: J13;ZU14.4;AZ;UI1.4;AA;JG13.4;ZN:G10.5;ZH 00233300 70 ADDED 6002 FURMATIX.7N: J13;ZU14.4;AZ;UI1.4;AA;JG13.4;ZN:G10.5;ZH 00233300 70 ADDED 210 CUNTINUE 010 2233800 70 ADDED 210 CUNTINUE 00233400 70 00233400 70 ADDED 210 CUNTINUE 2002 70 00233400 70 ADDED 210 CUNTINUE 220 00233400 70 002334300 70 ADDED 221 CUNTINUE 220 00233440 70 002334400 70 ADDED 221 CUNTINUE 220 00023440 70 00234400 70 ADDED 221 CUNTINUE 220 0010			1			00233100	70.29
ADDED WRITE(6,5002) BRAN(INEX1), IBMAN(INEX2), PRURP, DO233300 TO. ADDED JD PUWK, FDRMP, DFOLD, CUMPD, SCHOP, REVNO 00233400 TO. ADDED S002 FORMAT(IX/2H. 13;2H -;13;2G(4,4;AZ,GI1,4;A4;3GI3,4;ZK;GI0,5;2H)00233500 TO. ADDED Z10 CONTINUE 001000. 00233400 TO. ADDED Z10 CONTINUE 00233400 TO. 00233400 TO. ADDED Z10 CONTINUE 00233400 TO. 00233400 TO. ADDED Z10 CONTINUE 0023400 TO. 0023400 TO. ADDED Z20 CONTINUE N=NUNDP Z36,240,221 0023400 TO. ADDED Z21 CONTINUE N=NUNDP Z36,240,221 00234400 TO. ADDED Z21 CONTINUE N=NUNDP Z36,240,221 00234400 TO. ADDED Z21 CONTINUE N=NUNDP Z36,00 TO. 00234400 TO. ADDED Z21 CONTINUE N=NUNDP Z36,00 TO. 00234400 TO. ADDED NU			CONTINUE			00233200	70.29
ADDED ADDED DPUNK = PDRUP, DPCUN, CUMPD, CUMEPD, CUMPD, RENUD 00233400 70. ADDED 5002 TGRMTITX2H. J322H113.26L4.4A4.3611.4,A44.3613.4,72X,610.57.2H .000233500 70. ADDED 210 CONTINUE 0010K = BLANK 00233400 70. ADDED 210 CONTINUE 00233400 70. 00233400 70. ADDED 210 CONTINUE 010 L20 00233400 70. 00233400 70. ADDED 210 CONTINUE 010 L70 0023440 00234400 70. ADDED 220 CUNTINUE 234,240,221 00234400 70. 00234400 70. ADDED N=NUNDP 234,40,221 00234400 70. 00234500 70. ADDED N=NUNDP 234,40,221 00234500 70. 00234400 70. ADDED N=NUNDP 234,40,221 00234500 70. 00234500 70. ADDED N=NUNDP 234,40,221 00234500 70. 70. 70. 70. 70. 70. 70. 70.		ADDED	WRITE(6,6002) IBRAN(I	, IBRAN(INDEX2),	EPDROP	ന	70.29
ADDED 6002 FORMATITX,2N13,2U + .13,2U + .4,A2,6L14,A4,5GL3.47,2N G105,2Y H00233500 70. ADDED 210 CUNTINUE 00233500 70. ADDED 210 CUNTINUE 00233500 70. ADDED 1F(N.EQ.NSTOP) GU 70. 00233500 70. ADDED 210 CUNTINUE 00233400 70. 00233400 70. ADDED 220 CUNTINUE 0023400 70. 0023400 70. ADDED 221 CUNTINUE 0023400 70. 0023420 70. ADDED 221 CUNTINUE 0023400 70. 0023450 70. ADDED 221 CUNTINUE 0023470 70. 0023450 70. ADDED 221 CUNTINUE 0023450 70. 70. 70. ADDED 221 CUNTINUE 0023450 70. 70. 70. 70. 70. 70. 70. 70. 70. 70. 70.	A		L DPUNK,	, DPCON, CUMPD,	CUMFPD, R	00233400	70.29
ADDED DUNNEBLANK OU233500 TO ADDED 210 CONINUE 00233900 70. ADDED 16(N.Eq.NSTOP) GU TO 00233900 70. ADDED 001 CONINUE 00233900 70. 00233900 70. ADDED 001 CONTUNE N=N+1NC 00233900 70. 00233900 70. ADDED 001 10 170 0023400.201 00233400 70. 00234500 70. ADDED 220 CONTINUE 0101 170 00234400.201 00234400 70. ADDED 21 CONTINE 220 CONTINE 236,240.221 00234400 70. ADDED 21 CONTINE 236,240.221 00234400 70. 00234400 70. ADDED NUNDP=-1 21 CONTINE 00234400 70. 00234400 70. ADDED NUNDP=-1.0ECO 001840 00234400 70. 00234400 70. ADDED NUNDP=-1.0ECO 01080 010 00234400 70. 00234400 70	2950 J		FORMAT(1X,2H., 13,2H -	3,2614.4,A2,611.4,A4,	.4,2X,610.5,2H	00233500	70.29
ADDEU Z10 CUNINUS CUNINUS CUNE	5	sa a sa				00233600	70.29
IFIN.E4.NSIUPJ 64 10 220 00233800 70. N=N+INC 00233400 70. 001 170 00234100 70. 1FINUNDP 220 CUNTINE 00234200 70. 1FINUNDP 00234200 70. 00234200 70. 1FINUNDP 00234200 70. 00234400 70. 221 CUNTINE 00234500 70. 00234500 70. N=NUNDP 00234500 70. 00234500 70. NUNDP=-1 00234500 70. 00234500 70. NUND=SAVCPU 010170 00234500 70. F(FDR0P-LE.0.0) GU T0 170 00234500 70. 00234500 70. REYNG=-LE.0.0) GU T0 170 01170 00235500 70. REYNG=-LE.0.0) GU T0 170 0235500 70. 00235500 70. REM=MBRAN(N) C 00235500 70.	9					002333700	10.29
N=N+1NL 002345000 70. 220 CONTINUE 00234100 70. 1 F(NUNDP) 236,240,221 00234200 70. 221 CUNTINUE 00234200 70. 221 CUNTINUE 00234400 70. NUNDP-1 00234400 70. 00234400 70. NUNDP-1 NUNDP-1 00234400 70. NUNDP-1 NUNDP-2 00234400 70. NUNDP-2 NUNDP-2 00234400		AUDED	•NSIDP) 60 10	.20		00233800	10.29
220 UUUUNUE UUC34100 TO. 221 UNUNDF 00234100 70. 221 UNUNDF 00234200 70. 221 UUNDF 00234200 70. 221 UUNDF 00234200 70. 221 UUNDF 00234400 70. 220 UUNNE <udf< td=""> 00234400 70. 221 UUNNE<udf< td=""> 00234400 70. 221 UUNNE<udf< td=""> 00234500 70. 223 UUNDF 00234400 70. 224 UUNDF 00234500 70. 224 UUNDF 00170 00234500 70. 224 UNDF UUNDF 00234500 70. 224 U</udf<></udf<></udf<>		ADDEU				00233900	10.29
Z20 CUNTINUE 0023420 70. 221 IFUNUDP) 236,240,221 00234400 70. 221 IFUNUDP=-1 00234500 70. 221 UNITUE 00234500 70. 221 IFUNDP=-1 00234500 70. 221 DPUNK=UPAREN 00234500 70. 221 DPUNK=UPAREN 00234500 70. 222 DPUNK=UPAREN 00234500 70. 223 00234500 70. 00234500 70. 223 00234500 70. 00234500 70. 223 00234500 70. 00234500 70. 234 00023500 70. 00234500 70. 203 00023510 70. 00234500 70. 203 00023510 70. 00234500 70. 204 000 010 00234500 70. 205 70. 70. 70. 70. 205 70. 70. 70. 70. 205 70. 70. 70. 70. 205 70. 70. 70.			- 1	والمرابعة	a sa na mangana na sa na mangana n	00234000	10.24
221 UNUNDF UC234500 TO 221 UNUNDF UO0234500 TO 221 N=NUNDF 00234500 TO N=NUNDF N=NUNDF 00234500 TO N=NUNDF 00234500 TO 00234500 TO N=NUNDF DPUNK=UPAREN 00234500 TO 00234500 TO DPUNK=UPAREN 00234500 TO 00234500 TO TO DPCUN=CPAREN 00234500 TO 00234500 TO TO DPCUN=CPAREN 00234500 TO 00234500 TO TO DPCUN=CPAREN DPCUN=CPAREN 00234500 TO TO TO TO DPCUN=CPAREN DPCUN=CPAREN DCO24800 TO TO TO TO TO DPCUN=CPAREN DPCUN=CPAREN TO			CUNITNUE TEANINGON 335 360 33			00236200	70° 70
CL MUNUPP 00234400 00 NUNDP-I 00234500 70 DPCUN=CPAREN 00234500 70 EPDRDP=PBP1-PBP2-CUMPD 00234500 70 EPDRDP=PBP1-PBP2-CUMPD 00234500 70 EPDRDP=PBP1-PBP2-CUMPD 00234900 70 FPDRDP=PBP1-PBP2-CUMPD 00234500 70 FF(FPDRDP-LE=0.0) G0 T0 170 00235500 70 FF(FDDRDP-LE=0.0) G0 T0 170 00235500 70 FF(FDDRDP-LE=0.0) G0 T0 170 00235500 70 FF(CONSTS(1)MEM) CALCULATE REQUIRED URFICE DTAMETER 00235500 70 REYND=4.2441317E-3#QF(VISC(MEM)#*2*QRT(64.4*FPDRDP1) 00235500 70 R2K=QB/(900.0*0*3.14159*CUNSTS(1,MEM)#*2*QRT(64.4*FPDRDP1) 00235500 70 R2K + QB/(900.0*0*3.14159*CUNSTS(1,MEM)#*2*QRT(64.4*FPDRDP1) 00235500 70 D0 224 <td>тар сулар или на науко на продоктор са акториотор из ракоторите на селоторите и ракоторите и ракоторите на сел</td> <td></td> <td>LTINUNULI 2009240922</td> <td></td> <td></td> <td>00246200</td> <td>70 20</td>	тар сулар или на науко на продоктор са акториотор из ракоторите на селоторите и ракоторите и ракоторите на сел		LTINUNULI 2009240922			00246200	70 20
NUNDED: 00234500 70 NUNDES: 000234500 70 DPCUN=CPAREN 00234500 70 DPCUN=CPAREN 00234500 70 DPCUN=CPAREN 00234700 70 EPDR3D=PBP1-PBP2-CUMPD 00234900 70 CUMPD=SAVCPD 60 10 170 00234900 70 REVNG=-1.0E20 60 10 170 00235500 70 IF (FDROP-LE=.0.0) 60 10 170 00235500 70 REVNG=41.0E C 00235500 70 REVNG=4.2441317 C 00235500 70 R2K=QB/(900.00*3						00234400	70.29
DPUNNE=UPAREN 00234600 70. DPUNNE=UPAREN 000234700 70. DPUNNE=UPAREN 000234700 70. DPUNNE=UPAREN 000234700 70. DPUNNE=UPAREN 000234700 70. DPUNNE=UPAREN 00234700 70. PDRDP=PBPI-PBP2-CUMPD 00234700 70. CUMPD=SAVCPD 00234900 70. REYNO=-1.0E20 01010 00234900 70. IF(FPDROP-LE.0.0) G0 10 00235500 70. REYNO=-1.0E20 CALCULATE REQUIRED URFICE DIAMETER 00235500 70. REYNO=4.2441317E-3*UB/(VISCIMEM)*CUNSIS(1,MEM)) 00235500 70. REYNO=4.2441317E-3*UB/(VISCIMEM)*CUNSIS(1,MEM) 00235500 70. REYNO=4.2441317E-3*UB/(VISCIMEM)*CUNSIS(1,MEM) 00235500 70. REYNO=4.2441317E-3*						00234500	70. 20
DPCUN=CPAKEN 00234700 70. FPDRDP=PBP1-PBP2-CUMPD 00234900 70. CUMPD=SAVCPD 00234900 70. REYND=-1.0E20 00235000 70. IF(FDBRDP.LE.0.0) G0 10 170 00235100 70. IF(FDBRDP.LE.0.0) G0 10 170 00235100 70. IF(CONSTS(1,MEM).LE.0.0) G0 10 170 00235500 70. IF(CONSTS(1,MEM).LE.0.0) G0 10 170 00235500 70. REM=MBRAN(N) CALCULATE REQUIRED URFICE DIAMETER 00235500 70. REYND=4.2441317E-3#QB/(VISC(MEM)#CUNSTS(1,MEM)) 00235500 70. 00235500 70. REYND=4.2441317E-3#QB/(VISC(MEM)#CUNSTS(1,MEM)) 00235500 70. 00235500 70. REYND=4.2441317E-3#QB/(VISC(MEM)#CUNSTS(1,MEM)) 00235500 70. 70. REYND=4.2441317E-3#QB/(VISC(MEM)#*2*SQRT(64.4*FPDR0P)) 00235500 70. 70. REYND=4.2441317E-3*QB/(VISC(MEM)#*2*SQRT(64.4*FPDR0P)) 00235500 70. 70. REXK=QB/(900.0*3*.114159*CUNSTS(1,MEM)#*2*SQRT(64.4*FPDR0P)) 00235500 70. 70. D0224 L=1.5 D0224 L=1.5 00235500		ADDFD	DPUNK=UPAREN			00234600	70.29
FPDR3DP=BBP1-PBP2-CUMPD 00234800 70. CUMPD=SAVCPD 00234900 70. REYNG=-1.0E20 00235100 70. IF(FPDR0P-LE.0.0) 60 T0 170 00235100 70. C MEM=MBRAN(N) 00235100 70. C MEM=MBRAN(N) 00235400 70. REYN0=-1.0E20 CALCULATE REQUIRED URFICE DIAMETER 00235500 70. C MEM=MBRAN(N) 00235500 70. 70. C MEM=MBRAN(N) 00235500 70. 70. REYN0=4.244131FE-3*4B/(VISC(MEM)*CUNSIS(1,MEM)) 00235500 70. 70. REYN0=4.244131FE-3*4B/(VISC(MEM)*CUNSIS(1,MEM)) 00235500 70. 70. REYN0=4.244131FE-3*4B/(VISC(MEM)*CUNSIS(1,MEM)) 00235500 70. 70. REYN0=4.244131FE-3*4B/(VISC(MEM)**2*SQRT(64.4*FPDR0P)) 00235500 70. 70. R2K=QB/(900.0*3.114159*CUNSIS(1,MEM)**2*SQRT(64.4*FPDR0P)) 00235500 70. 70. D0<224	Angles	ADDED	DPCON=CPAREN			00234700	70.29
CUMPD=SAVCPD 00234900 70. REYND=-1.0E20 00235000 70. IF(FPDR0P.LE.0.0) G0 T0 170 00235100 70. IF(FDDR0P.LE.0.0) G0 T0 170 00235100 70. IF(CONSTS(1,MEM).LE.0.0) G0 T0 170 00235200 70. IF(CONSTS(1,MEM).LE.0.0) G0 T0 170 00235200 70. REM=MBRAN(N) CALCULATE REQUIRED URFICE DIAMETER 00235300 70. REYND=4.2441317E-3*QB/(VISC(MEM)*CUNSTS(1,MEM)) 00235500 70. REYND=4.2441317E-3*QB/(VISC(MEM)*CUNSTS(1,MEM)) 00235500 70. REYND=4.2441317E-3*QB/(VISC(MEM)*CUNSTS(1,MEM)) 00235500 70. REYND=4.2441317E-3*QB/(VISC(MEM)*CUNSTS(1,MEM)) 00235500 70. REYND=4.2441317E-3*QB/(VISC(MEM)**2*SQRT(64.4*FPDR0P)) 00235500 70. REYND=4.2441317E-3*QLISS(1,MEM)**2*SQRT(64.4*FPDR0P)) 00235500 70. REYND=4.2441317E-3*QLISS(1,MEM)**2*SQRT(64.4*FPDR0P)) 00235500 70. RZK=QB/(900.0*3.14159*CUNSTS(1,MEM)**2*SQRT(64.4*FPDR0P)) 00235500 70. D0<224		ADDED	FPDR0P=P8P1-P8P2-CUMPD			00234800	70.29
REYNO=-1.0E20 70. IF(FPDR0P.LE.0.0) G0 T0 170 00235100 70. IF(CONSTS(1,MEM).LE.0.0) G0 T0 170 00235200 70. 00235200 70. 00235200 70. 00235500 70. 00235500 70. 00235500 70. 00235500 70. 00235500 70. 00235500 70. 00235500 70. 00235500 70. 00235500 70. REYND=4.2441317E-3*QB/(VISCIMEM)*CUNSIS(1,MEM)) 00235500 REYND=4.2441317E-3*QB/(VISCIMEM)*CUNSIS(1,MEM)) 00235500 REYND=4.2441317E-3*QB/(VISCIMEM)*CUNSIS(1,MEM)) 00235500 REYND=4.2441317E-3*QB/(VISCIMEM)**2*SQRT(64.4*FPDR0P)) 002335500 RZK=QB/(900.0*3.14159*CUNSIS(1,MEM)**2*SQRT(64.4*FPDR0P)) 002335500 002235500 70. 002244 L=1.5 002335700 002235700 70. RZK TAB(L)=RTAB(L)**2*ORFICE(RTAB(L),REYND) 00235500 R2K TAB(L)=RTAB(L)**2*ORFICE(RTAB(L),REYND) 00235500		ADDED	CUMPD=SAVCPD			00234900	70.29
IF(FPDR0P.LE.0.0) G0 T0 170 00235100 70. IF(CONSTS(1,MEM).LE.0.0) G0 T0 170 00235200 70. C CALCULATE REQUIRED URFICE DIAMETER 00235300 70. C MEM=MBRAN(N) CALCULATE REQUIRED URFICE DIAMETER 00235500 70. REYND=4.2441317E-3*QB/(VISCIMEM)*CUNSTS(1,MEM)) 00235500 70. 70. REYND=4.2441317E-3*QB/(VISCIMEM)*CUNSTS(1,MEM)) 00235500 70. R2K=QB/(900.0*3.14159*CUNSTS(1,MEM)**2*SQRT(64.4*FPDR0P)) 00235500 70. D0<224 <l=1.5< td=""> 00235500 70. 70. R2KTAB(L)=RTAB(L)**2*GRFICE(RTAB(L),REYND) 00235700 70.</l=1.5<>		ADDED	REYND=-1.0E20			00235000	70.29
IF(CONSTS(1,MEM).LE.0.0) G0 T0 T0 C CALCULATE REQUIRED URFICE DIAMETER 00235300 70. REM=MBRAN(N) 00235500 70. 00235500 70. REYND=4.2441317E-3*4B/(VISC(MEM)*CUNSTS(1,MEM)) 00235500 70. 00235500 70. REYND=4.2441317E-3*4B/(VISC(MEM)*CUNSTS(1,MEM)) 00235500 70. 00235500 70. R2K=QB/(900.0*3.14159*CUNSTS(1,MEM)**2*SQRT(64.4*FPDR0P)) 00235500 70. 70. D0<224		ADDED	IF(FPDROP.LE.0.0) GU	170		00235100	70.29
C CALCULATE REQUIRED URFICE DIAMETER 00235300 70. MEM=MBRAN(N) 00235400 70. REYND=4.2441317E-3*QB/(VISCIMEM)*CUNSIS(I,MEM)) 00235500 70. REYND=4.2441317E-3*QB/(VISCIMEM)*CUNSIS(I,MEM)) 00235500 70. REYND=4.2441317E-3*QB/(VISCIMEM)*CUNSIS(I,MEM)) 00235500 70. REYND=4.2441317E-3*QB/(VISCIMEM)*CUNSIS(I,MEM)) 00235500 70. REYND=4.2441317E-3*QB/(VISCIMEM)**2*SQRT(64.4*FPDROP1) 00235500 70. REYND=4.2441317E-3*QB/(I)**2*ORFICE(RTAB(L),REYND) 00235500 70. RZKTAB(L)=RTAB(L)**2*ORFICE(RTAB(L),REYND) 00235700 70.		ADDED	IF(CONSTS(1,MEM).LE.O.(G0 T0 170		00235200	70.29
MEM=MBRAN(N) 00235400 70. REYND=4.2441317E-3*QB/(VISC(MEM)*CUNSIS(1,MEM)) 00235500 70. RZK=QB/(900.0*3.14159*CUNSIS(1,MEM)**2*SQRT(64.4*FPDRDP)) 00235500 70. D0<224		ADDED C	CALCUL	REQUIRED URFICE	K	00235300	70.29
REYND=4.2441317E-3*QB/(VISC(MEM)*CUNSIS(1,MEM)) R2K=QB/(900.0*3.14159*CUNSTS(1,MEM)**2*SQRT(64.4*FPDRDP)) 00235500 70. DO 224 L=1.5 R2KTAB(L)=RTAB(L)**2*ORFICE(RTAB(L),REYND) 00235800 70.		ADDED	MEM=MBRAN(N)			m	N
R2K=QB/(900.0*3.14159*CUNSTS(1,MEM)**2*SQRT(64.4*FPDROP)) 00235600 70. DO 224 L=1.5 R2KTAB(L)=RTAB(L)**2*ORFICE(RTAB(L),REYNO) 00235800 70.		ADDED	REYND=4 .2441317E-3#08/	SCIMEM)*CONSISUI		\sim	்
DO 224 L=1,5 R2KTAB(L)=RTAB(L)**2*ORFICE(RTAB(L),REYND) 00235800 70.2		ADDED	R2K=QB/(900.0*3.14159*(STS(1,MEM)**2*SQRT(64	4*FPDR0P)	m	70.29
R2KTAB(L)=RTAB(L)**2*UKFICE(K!AB1L),KEYNU) R2KTAB(L)=RTAB(L)**2*UKFICE(K!AB1L),KEYNU)		ADDED	-			m I	\sim
		ADDED	R2KTAB(L)=RTAB(L)**2*U	KFICE(KIABIL), KEYNU)		023	0°2

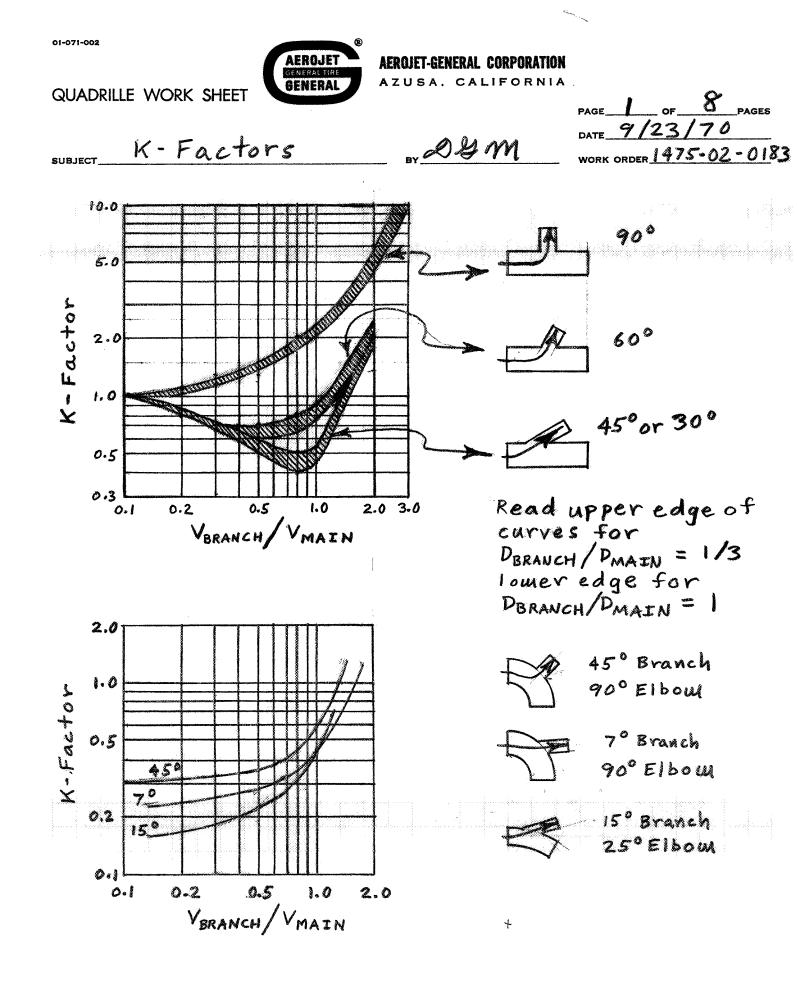
	0LD VOL=SER=004783	=004783	DRC UPDATE	NEW VOL=SER=007208		
OLD SEG	MESSAGE	FILENAME=MUFAN	a	DECKNAME=MUFAN		<u>γγ.DD</u>
	ADDED ADDED	224 CONTINUE IF(R2K-R2KTAB(1))	234,226,228		00235900 00236000	70.29 70.29
	ADDED	226 CONTINUE			m	70.29
	ADDED	UKFD=KIAB(I)*CUNSISI	01511,MEMJ		00236200	10, 29
	AUDED	60 10 233 228 CONTINUE			00236400	70.29
	ADDED		232,230,234		00236500	70.29
	ADUED	230 CONTINUE			00236600	70.29
	ADDED		IS(I,MEM)		00236700	70.29
	ADUED	1			00236800	70.29
	ADDED	232 CONTINUE	•		00236900	70.29
	ADDED	CALL INT4(R2KTAB,RTA	RTAB, K2K, R)		00237000	70.29
	ADDED		EM)		00237100	70.29
	ADDED	233 CONTINUE			00237200	70.29
-	ADDED	USTS	0		00237300	70.29
А	ADDED	1			00237400	70.29
4 9	ADDED	234 CONTINUE			00237500	10.29
6	ADDED	6			00237600	70, 29
0	ADDED				00237700	70.29
	ADDED				00237800	70.29
	ADDED) <u>*</u> 242		00237900	70.29
	ADDED				00238000	70.29
	ADDED	1	FLUCON		00238100	70.29
	ADDED		H./1X,16), * END OF BRANCH - FLOW=*, G12.	005	70.29
and a second	ADDEU	A2,38H,	REQ*D ORFICE DIAM	OUT OF TABLE RANGE, 17(1H.)///2X	000	70.29
	ADDED				00238400	70.29
	ADDED				00238500	70.29
	ADDED				00238600	70.29
	ADDED	6003 FORMAT(IX, 1H., 106X, 1	I	1. END OF BRANCH - FLOW=", G12.5,	00238700	70.29
	ADDED		1112X)		00238800	70.29
	ADDED	1			00238900	70.29
	ADDED				00239000	70.29
	AUDED	WRITE (6,6007) GB,	L DC UN		00239100	்
	ADDED		H./IX,19)," END OF BRANCH	002	70.29
And in the second s	ADDEU	2,20H,	REQ"D UKFICE DIAM	=,611.3,20(1H.)///2X)	00239300	്
	ADDED	244 CONTINUE			00239400	
and an and a state of the state	ADDED	IF(QBR(IB).GE.0.0)	60 10 246		00239500	0.2
	AUDEU	IF(IABS(NBCON(JBP)).)).6E.2) 60 TU	260	23	
	ADDED	PRESS(INODE)=PBRPT(J	T(JBP)		02	
	ADUED	NODE(INODE)=IBRAN(NF	I(NFIN)		m	70.29
and the second						

	0LD V0L=SER=004783	=004783	DRC UPDATE NEW VOL=SER=007208	08	
ULD SEQ	MESSAGE	FILENAME=MUFAN	DECKNAME= MUFAN		γγ * DD
	ADDED ADDED	60 T0 250 246 CONTINUE		00239900 00240000	70.29 70.29
No. 1. Star Balancia de La Politica	ADDED)).6E.2) GU TO 260	00240100	70.29
	ADDED	250 CONTINUE		00240200	70.29
	ADDED	PCUN(INUDE)=BLANK		00240300	70, 29
	ADUED	JBF	PCON(INDDE)=X	00240400	
	ADDED			00240500	
	ADDED	Z60 CUNIINUE INDREINDREI		00240600	70.29
	ADDED	300 CONTINUE		00240800	70.29
	ADDED		, NODE, PRESS, PCON)	00540900	
	ADDED		/1/0+1	00241000	
	ADDED	0=N]		00241100	
	ADDED	DO 800 IPAGE=1,NPAGES	AGES	00241200	
	ADDED	NST=NFIN+1		00241300	
A	ADDED	NFIN=NFIN+170		00241400	
7 27	ADUED	2			
6	ADDED	WRITE(6,6005) DATE,		1,3),00241600	
<i>s</i> ^o	ADDED		(K), PRESS(K), PCUN(K), K=NSI, NFIN)		
	ADDED	T	(1H*), M(70.29
	ADDED		0F', I3, *'/	00241900	70.29
	ADDED	2 17X 19A4//	I7X,19A4//IHO,5('NUDE PKESSURE ',5X1//	00242000	70.29
	ADDED	ŝ	(lX,5(I4,3X,G10.4,Al,4X)))	00242100	70.29
	ADDED	800 CONTINUE		00242200	70.2
	ADDED	RETURN		00242300	
	ADDED	END		00242400	70.2
		2,424 RECORDS, HIGHES	EST ERROR CODE 00		
				and the second	

		RECU	00											
	NEW VOL = SER = 007208	CHG YY.DDD HHMM JOBNAME	70.295 2211 D247USEF 70.295 2211 D247USEF											
		ADD YY.DDD HHMM JOBNAME	70.295 2211 D247USEF 70.295 2211 D247USEF											
DRC HDATE		LANGUAGE	N FORT											
ULU VUL=SER=004783			SDURCE MUFAN											
	FILE F		MUFAN			А-	62							

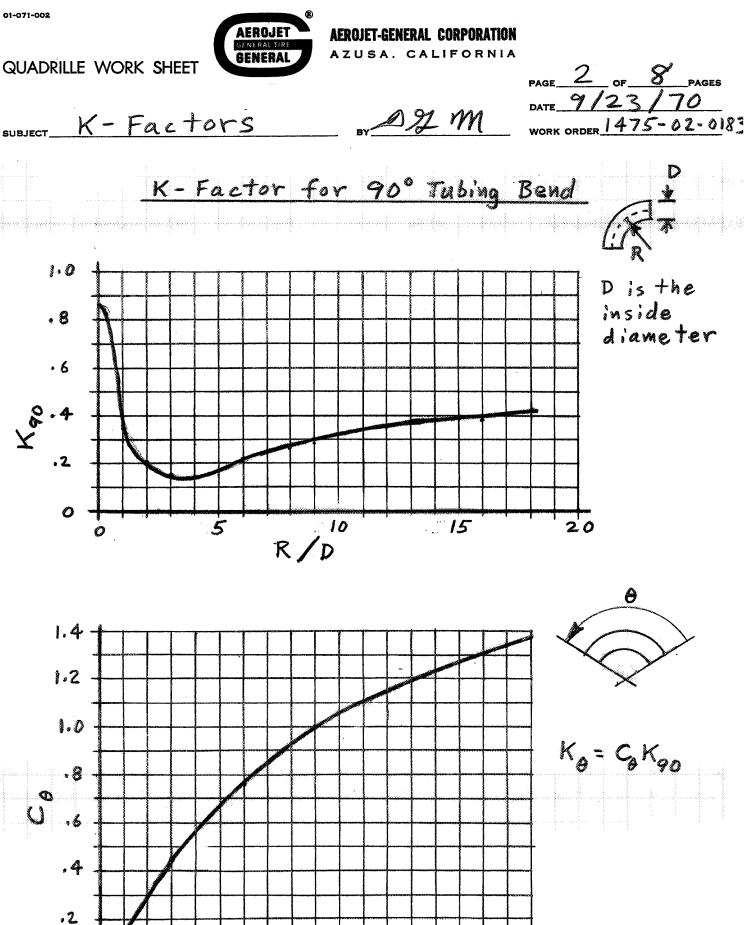
APPENDIX B

K-Factors



8-1

0, degrees



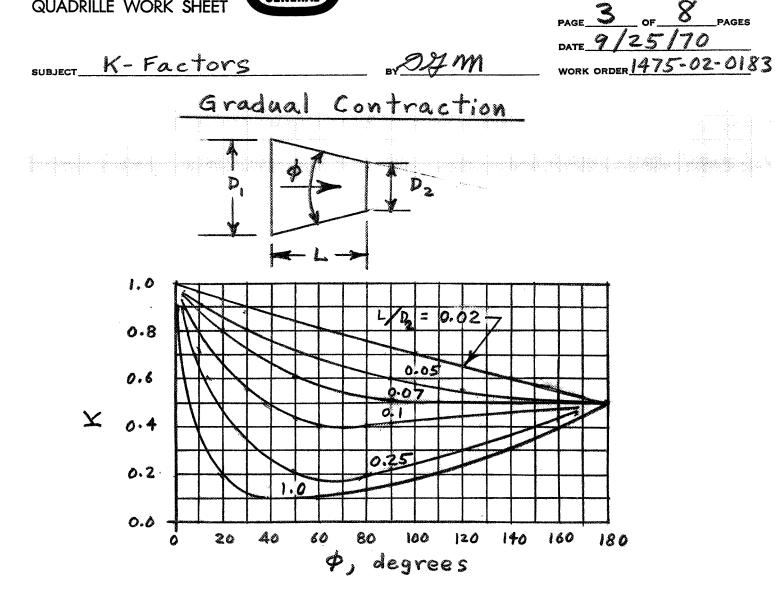
R-2

QUADRILLE WORK SHEET



AEROJET-GENERAL CORPORATION

AZUSA. CALIFORNIA





B-3



AEROJET-GENERAL CORPORATION

AZUSA. CALIFORNIA

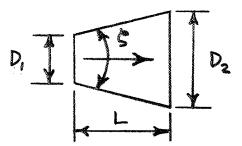
IZ M

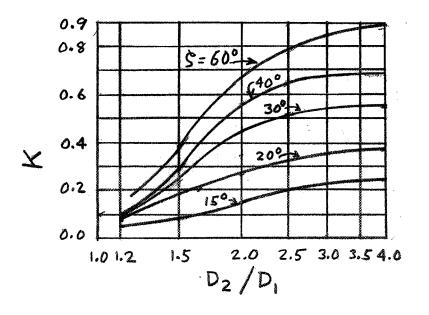
4 of <u>8</u> pages PAGE_ DATE 91 128, 70 WORK ORDER 1475-02-0183

K-Factors SUBJECT____

QUADRILLE WORK SHEET

Gradual Expansion





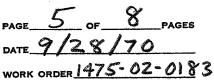


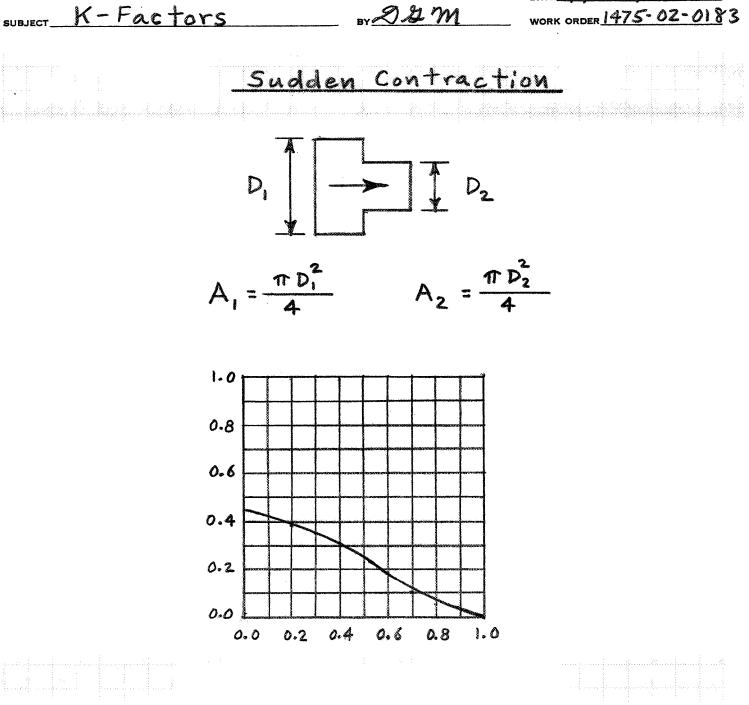
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QUADRILLE WORK SHEET



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PAGE_____

K- Factors SUBJECT

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8 PAGES DATE 9 WORK ORDER 1475-02-0183

Square Edged Orifice

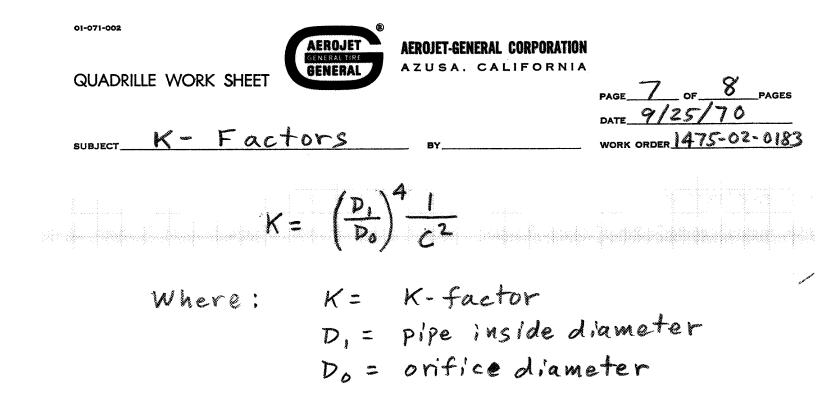
The Flow coefficient data from reference (4) has been modified to include pressure recovery. The pressure recovery factors used (from ref. 7) are shown below.

D_o/D_1	λ
0.2.0	0.95
0.30	0.90
0.40	0.83
0.50	0.75
0.60	0.645
0.65	0.59
0.70	0.535
0.75	0.465
0.8 0	0.400

For an orifice;

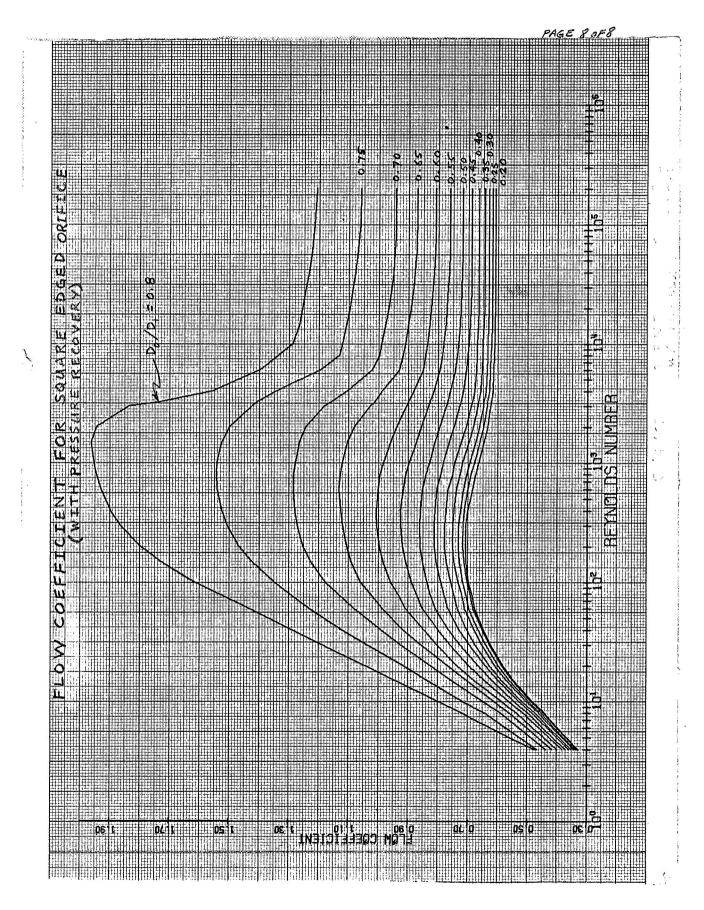
Q = 3600 p CA₀
$$-\sqrt{\frac{29(P_1 - P_2)}{144 p}}$$

Where: Q = melght flow rate, 1b/hr.
C = flow coefficient
A₀ = $\frac{\pi D_0^2}{576}$ = area of orifice, ft².
p = pressure, psi
p = meight density, 1b/ft³





B-7



B-8