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Experimental Determination of the Atmospheric Dispersion Parameters at the Karlsruhe Nuclear Research Center for 60 m and 100 m Emission Heights

Part 1: Measured Data

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Abstract

Experiments have been carried out at the Karlsruhe Nuclear Research Center in order to investigate the atmospheric diffusion of pollutants. The influence on atmospheric diffusion of topographic conditions specific to the site is to be determined.

For this purpose, halogenated hydrocarbons are emitted at 60 m and 100 m height; their local concentration distribution is measured at ground level downwind of the source.

Part 1 of the report describes the diffusion experiments performed and presents the measured data in a detailed manner. The data include the coordinates of the sampling positions, the measured concentrations and the relevant meteorological data recorded during the experiments. The stability classes prevailing during the experiments are derived from these data and are indicated.

The evaluation of the diffusion experiments and the derived dispersion parameters are contained in Part 2 (KfK 3091) of the report.

Zusammenfassung

Experimentelle Bestimmung der atmosphärischen Ausbreitungsparameter für Emissionshöhen von 60 m und 100 m am Kernforschungszentrum Karlsruhe

Teil 1: Meßwerte

Zur Erforschung der atmosphärischen Ausbreitung von Schadstoffen werden am Kernforschungszentrum Karlsruhe Experimente durchgeführt. Dabei soll insbesondere der Einfluß standortspezifischer Gegebenheiten untersucht werden.

Bei den Feldversuchen werden halogenierte Kohlenwasserstoffe in 60 m und 100 m Höhe emittiert und ihre bodennahe Konzentrationsverteilung in der Umgebung der Quelle gemessen.

In dem vorliegenden Berichtsteil werden die Feldversuche beschrieben und die Meßergebnisse ausführlich dargestellt. Die Datensammlung enthält die Koordinaten der Sammelstationen, die dort gemessenen Konzentrationen und die wichtigen zugehörigen meteorologischen Daten. Die während der Versuche herrschenden Ausbreitungskategorien sind aus den meteorologischen Daten abgeleitet und ebenfalls angegeben.

Die Auswertung der Ausbreitungsexperimente und die abgeleiteten Ausbreitungsparameter sind im zweiten Teil des Berichtes (KfK 3091) enthalten.

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1. Introduction

Increasing attention is being devoted to the atmospheric dispersion of airborne pollutants, which is due, on the one hand, to the emission of pollutants still growing locally and, on the other hand, to the increased awareness of the health impact by the public. As the limits of regulatory guidelines are approached, higher reliability and accuracy of the numerical models and their input parameters are required, to assess the atmospheric transport and dispersion of pollutants.

At the Karlsruhe Nuclear Research Center (KNRC), atmospheric dispersion experiments started already in 1969. These experiments soon revealed that the widely accepted dispersion parameters of Pasquill/Gifford /1/, which are based on the Prairie Grass Experiments, are not applicable to dispersion over rough terrain as found at the KNRC site. Here the surface roughness increases greatly the mechanically induced turbulence in the boundary layer. This effect exerts a considerable influence on the dispersion parameters σ_y and σ_z.

A research program was started in 1972 to establish dispersion parameters for the local scale diffusion as a function of stability class, surface roughness length, and emission height. The first series of experiments was completed in 1977. They covered the six stability classes A through F, the emission heights 60 m and 100 m and the roughness grade III for a roughness length of 1.5 m, /2/, /3/.

It was felt that not only the resulting series of dispersion parameters, but also the complete set of originally measured values (tracer emission rate, tracer concentrations, coordinates of sampling positions, meteorological information, etc.) should be published in order to enable other experts to verify their dispersion models and to demonstrate the wide scatter of concentration distributions, even under similar meteorological conditions. Therefore the first two volumes containing experimental results were published in 1976 /4/, /5/; they related to the experiments Nos. 1 through 25. This first series of experiments was heterogeneous to some extent, as it was based on different experimental techniques.

By contrast, all of the experiments Nos. 26 through 51 being reported now have been performed using the same technique. Halogenated hydrocarbons are emitted from the 60 m and 100 m high platforms of the meteorological tower, and the air samples are analysed by gas chromatography. In this volume the measured values are documented; in a second volume /6/ the evaluation technique and the derived dispersion parameters are published.

2. Site Description

Figs. A and B show a photograph and a map of the Karlsruhe Nuclear Research Center and its environment. The test field consists of open spaces and built-up as well as wooded areas. The buildings of 10 to 30 m height of the Research Center and the forests surrounding it characterise the surface roughness of the site. A roughness length of about 1.5 m has been determined by evaluating the wind profile measured at the meteorological tower. From the classification scheme below it can be seen that the site represents the roughness grade III.

Roughness grade	Predominant ground surface	Characteristic roughness length in m
I	grass land	0.03
II	crop	0.3
III	forest, buildings	1.5

3. Meteorological Measurements

The meteorological information system of the KNRC includes 48 instruments in total which measure the wind velocity, the wind direction, the wind vector, the temperature, the dew point, solar and heat radiations, the precipitation and the atmospheric pressure. Most of the instruments are mounted at the 200 m high meteorological tower (Fig. C). A detailed description of the instrumentation is given in /7/.

This comprehensive system furnished data not only for experimental studies, e. g. diffusion experiments, but also for theoretical studies of the atmospheric processes and for calculation of the radiological impact on the environment. Because of the great number of meteorological instruments employed and the frequent checks required, the data are reduced and recorded on-line /8/. The reduced data (ten minute average values) are stored temporarily on magnetic disc, while long-term storage is on magnetic tape /9/. The signals of the cup anemometers, the wind vanes and the vector vanes are scanned every 4 seconds and punched additionally on paper tape during a diffusion experiment. For reasons of space, these data will not be published in this paper. They are provided for special evaluation techniques, such as non-steady-state models. The 4-second-data as well as the 10 minute average values are available at request.

4. Description of the Experiments

4.1 Performance of the Experiments

The tracers

- difluorodibromomethane CF_2Br_2, and
- Frigen-11 $CFCl_3$

were released from the 60-m- and 100-m-platforms of the 200 m high meteorological tower (Fig. C). Only during experiment No. 33 the tracer CF_2Br_2 was released through the 100 m high stack of the FR2 reactor. In some of the experiments, as shown in Tab. A, the two different tracers were released at the same height and at different heights respectively. The positions of the meteorological tower and the stack can be seen in Figs. A and B.

Air was sampled at 38 up to 61 positions downwind of the source during two successive periods of 30 minutes duration each. The sampling area was different in each experiment, depending on the wind direction and the stability class to be expected. The stability class determined the angular width of the area and the minimum and maximum downwind distances of the sampling positions. These

were arranged approximately on five concentric arcs surrounding the source. Each radius of the concentric arcs had twice the radius of the preceding one.

The mean value of the $CFCl_3$ background concentration is subtracted from the $CFCl_3$-concentration measured in the downwind direction. As the second tracer CF_2Br_2 is but scarcely used in industrial applications no background is detectable.

The distribution of the sampling positions is left unchanged during the experiment. Typical arrangements of the sampling positions are shown in Figs. 1 A through 21 D.

4.2 Release of Tracers

One single tracer was emitted from an evaporating boiler in the tests Nos. 26 through 30. Beginning with test No. 31 two tracers were emitted simultaneously from two evaporating boilers.

The boilers consist of double walled, thermally insulated aluminum tanks built at the Karlsruhe Nuclear Research Center. Boiler 1 has a circular cross section and a capacity of about 22 l; boiler 2 (Fig. E) has a square cross section and a capacity of about 60 l. The tracers are emitted via a vertical connection pipe (inner diameter 40 mm) which is mounted on top.

In preliminary tests the decrease of the evaporating liquids was plotted as a function of time for different levels of heating power in order to determine the relation between power levels and rate of emission. The content of boiler 1 was determined by weighing, and of boiler 2 by a level indicator. It appeared that the evaporator 1 attains a constant rate of emission within about 15 minutes and evaporator 2 within about five minutes for a given power level, the emission rate depends on the ambient temperature and on the wind velocity.

It must be ensured that all sampling locations are exposed to the tracer plume generated at a constant rate of emission before sampling starts. Therefore, the evaporating boiler were heated up in due time before sampling of the tracers started. This time depends on the heating-up time of the respective evaporator, the prevailing wind velocity and the maximum distance of the measuring points from the source.

The emission rates are determined by measuring the decrease of weight or filling level, respectively, during the time of steady-state conditions of evaporation. The rate of emission of the evaporator 1 can be determined with an accuracy of ± 3 %, of the evaporator 2 with an accuracy of ± 5 %. The respective rates of emission have been listed in Tables 1B through 21 C.

4.3 Sampling Equipment

During sampling ambient air is sucked via a calibrated capillary tube into an evacuated glass sampler of about 1 l volume. During the sampling interval of 30 minutes the pressure in the bottle rises to about 0.4 atm. Up to experiment No. 34 the capillary tubes were opened and closed manually. Then sampling was automated.

An electronic clock (Fig. F) controls the electromagnetic valves which open and close the capillary tubes. At the clock a time interval between zero and six hours can be preset in steps of 0.5 hours. In each experiment the preset intervals of all clocks are identical and all clocks are started simultaneously. During the preset interval the samplers are brought by three trucks into the selected sampling area. Each sampler comprises an electronic clock connected by cables to two electromagnetic valves on top of their glass bottles (Fig. G). At the end of the preset interval the valve of the first sampler receives a positive impulse and opens. After 30 minutes the first sampler is closed by a negative impulse and the second is opened by a positive one. Each clock is capable of controlling up to four valves with successive sampling intervals of 30 minutes each.

For the electronic clocks a storing rack is provided (Fig. H). The clocks have a plug on their rear sides. By pushing the clocks into the rack they are connected electrically to the rack via the plug. The clocks are stored in the rack and their batteries are charged . Just before the diffusion experiment the clocks are checked in the rack and made to start at the same time. During the check the rack simulates the electromagnetic valves and controls the correct time sequence of the electric opening and closing impulses. The failure of clocks is indicated by light emitting diodes.

4.4 Analysis by Gas Chromatography

At the laboratory the residual vacuum in the glass vessels is expanded by filling in high-purity nitrogen. The final pressure in the vessels equals the barometric pressure. With a syringe a small volume of very carefully cleaned benzene or toluene is injected into the glass vessel through a septum. The tracers are dissolved in these solvents.

With the syringes 0.1 - 50 µl samples of the solution are taken and introduced into a gas chromatograph. The O_2, the disturbing freons, the tracers and the solvent are separated under the following conditions:

Injection temperature:	135 °C
temperature of the furnace:	70 °C
carrier gas:	20 ml Ar-H_2/min
column, solid support:	Chromosorb G
liquid phase:	5 % FFAP
length:	300 cm
diameter:	0.3 cm.

After separation from the disturbing substances, the tracer concentrations are measured by an electron capturing detection with Ni-63, operated at 105 °C. For detector calibration extremely diluted tracer concentrations are used.

4.5 The Preparation of Air Samplers

The new and empty samplers are weighed and filled with distilled water to determine their volumes. A glass capillary is shortened step by step until the pressure finally reached (after 30 min) is between 0.3 and 0.5 bar. On each sampler a label is attached, which shows the number, the final pressure and the volume of the sampler.

After gas chromatographic analysis the samplers used are emptied from the solvents injected before analysis. The septum, which is perforated twice by the two syringes, is discarded and replaced. Another septum, which acts as an expanding gasket be-

tween the glass capillary and the valve, is replaced too.The valve is cleaned and checked. About 20 samplers prepared as described above are connected to a ring tube and are evacuated. At the final pressure of about 10^{-3} - 10^{-2} mbar a cooling trap operated with liquid nitrogen is used to freeze out residual fractions of tracers and solvents. The evacuated and cleaned samplers are connected to the electronic clocks and then they are ready to be used again.

5. Properties of the Tracers Used

The physical properties of the tracers are indicated in Tab. B. Information and figures concerning the toxicity of the tracers have been published in /10/ and /11/.

Dominant among the chemical properties is their relatively high stability due to the short interatomic distance between carbon and fluorine and the strength of the bond joining the two atoms. Since the tracers are gases at room temperature, the main toxicological hazard is from inhalation. The major response of test animals is mediated by the central nervous system causing narcotic effects. If the tracers are heated up until they decompose, they emit highly toxic fumes of fluorides, chlorides and bromides. The brominated compound is more toxic than the chlorinated one. Some relevant figures have been compiled in Tab. C.

6. Measured Data

In Table A the diffusion experiments reported in this paper have been summarized. It indicates the consecutive number, date and hour of the experiment, the prevailing stability class, size and position of the sampling field, the emission height and the tracer used.

6.1 Meteorological Data (Tabs. 1A - 21A)

Tabs. 1A to 21 A show the relevant meteorological data measured during the experiments.

The wind direction is measured with a wind vane[1)] whereas a cup anemometer[2)] measures the wind speed. The standard deviation of the horizontal and vertical wind directions

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1) Wind vane, type 1466H, Lambrecht

2) Cup anemometer, type 114H, Rosenhagen

are generated electronically with a sampling time of 180 s from measured data originating from vector vanes[3] at 40 m, 100 m and 160 m heights. In the next line the standard deviation of the horizontal fluctuation of the wind direction is indicated. Unlike in the preceding lines, this standard deviation is measured with an ordinary wind vane[1] at 100 m height. The temperature gradient results from the difference in air temperature[4] measured at 30 m and 100 m heights. A double pyrradiometer[5] is used to mesure the net radiation 1.5 m above ground.

The stratification of the atmosphere is usually described by stability classes. They are determined by different methods using different meteorological parameters. In most cases the breakdown into six stability classes is based on the classification system by Pasquill /12/.

The last four lines of Tables 1A to 21 A show the stability classes which have been determined by four different methods. The first method is based on the standard deviation of the fluctuation of the vertical wind direction at 100 m height. Classification by the second method requires knowledge of the standard deviation of the fluctuation of the horizontal wind direction measured by a wind vane at 100 m height. The third method refers to the difference of temperature at 30 m and 100 m and the wind velocity at 40 m height. The fourth method is based on meteorological observations and closely follows the classification recommended by Manier /13/. The information concerning the degree of cloudiness, the type of clouds and the wind velocity was taken from the daily weather report of the Karlsruhe Weather Station. This station records the observations with three hours interval, but experimental periods often lie between the hours of observation.Consequently the stability classes had to be defined by interpolation when the weather conditions changed with time. The stability classes listed in Tables 1A to 21A have been averaged over a sampling period. The stability classes indicated in Table A are based on the vertical fluctuation of the vector vane for all experiments. When the vector vane failed, the other methods were used in the order shown in Tables 1A to 21A. The choice of this sequence is the result of extensive studies and comparisons with other methods /14/, /15/. In Tables 1A to 21A data have been marked **** of instruments which failed or were not installed during the experiment.

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1) Wind vane, type 1466H, Lambrecht

2) Cup anemometer, type 114H, Rosenhagen

3) Vector vane, model 1053 III-2, Meteorology Research, Inc.

4) Ventilated double PT 100 measuring sensor, Friedrichs

5) PD-type, Physikalisch-Meteorologisches Observatorium of Davos, Switzerland

6.2 Sampling Positions, Concentrations and Emission Rates (Tabs. 1B-21C)

Tabs. 1B to 21C show the polar coordinates of the sampling positions and the tracer concentrations measured at these positions. The concentration data and the polar coordinates R and ALPHA are expressed in ng/m³, m, and degrees of arc respectively. The angle ALPHA is measured relative to the northern direction and counted clockwise. The error of the angle ALPHA is less than 1 degree; the error of the downwind distance R lies between 10 and 30 m. The lower value applies to zones with small radii and to positions within the Nuclear Research Center.

The errors of the measured concentrations of experiments Nos. 26 to 28 and 35 and 36 are indicated by way of example. In the course of evaluation of the data, which has been described in the second part of this paper /6/, it was realized that the error band of the dispersion parameters deduced is mainly due to the differences between the measured distribution and the Gaussian plume model applied. These differences are caused by changes of the meteorological situation during the sampling time and to variations between open spaces and built-up and wooded areas in the test field. The errors in the concentration measurement are small as compared to these differences and they are not considered in the evaluation of the dispersion parameters.

Bars in the column of concentration data refer to samples not evaluated. These samples had either been located too far from the center of the plume or the samplers had failed.

The limits of detection are indicated, if the measured concentrations are below these limits. The limits are twice the standard deviations of the measured concentrations. The standard deviations are calculated from errors occurring during gas chromatographic analysis. The listed concentration of the tracer $CFCl_3$ is the difference between the concentration measured for this sampling position and the mean value of the background. Thus, for this tracer, scattering of the background is considered in addition in the standard deviation. For experiment No. 44 and the following ones the limits of detection of $CFCl_3$ are only mentioned if the measured concentration lay below the mean value of the background. This was done to have more data of $CFCl_3$ available for evaluating the dispersion parameters /6/.

The tables show also the day and the hour at which sampling was carried out, as well as the type of tracer and the emission rate. If two tracers were released simultaneously in one experiment, the respective tables have been denoted by the letters B and C.

6.3 Local Distribution of Tracer Concentration and Angular Distribution of Transport Direction (Figs. 1A-21D)

Figs. 1A through 21D show the local distribution of the measured concentrations. The letters A to D behind the same number refer to different sampling periods and tracers released. The isolines of constant concentration have been interpolated from measured data and plotted by a computer. The isolines are labelled by the concentration values in $\mu g/m^3$. The sampling positions are plotted as open squares. The downwind distances of the sampling positions are shown on the ordinate. The absolute azimuthal position of the test field has not been indicated.

The step curve plotted on the periphery indicates the frequency distribution of transport direction. The transport direction refers to the mean wind direction measured during the sampling period at 40 m or 60 m height above ground, for emission heights of 60 m or 100 m.

7. Concluding Remarks

Table A lists the 21 experiments reported and the respective tracer emission heights. Note that in some cases the tracers were released at the same, in other cases at different levels. Four experiments have not been indicated in Table A, as during these four experiments the wind direction changed and the tracer plume was not carried into the sampling field. During experiment No. 42 the tracer CF_2Br_2 was simultaneously released at 100 m height, but the measured concentrations were below the detection limits. The number of experiments compatible with the evaluation technique described in Part 2 of the report /6/ are shown in Table D as a function of the stability class and emission height. Dispersion parameters have been derived from these experiments.

The next series of experiments covering the emission heights 160 m and 195 m is being performed now and will be completed in 1981. Preliminary results have been published in /16/; a comprehensive report on that series will be prepared in 1982.

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No.	Date	Hour	Stab. class	Sampling field			Emission height in m	Tracer
				Sector in degree	Source distance in m min	max		
26	17.09.1974	14.00-15.00	B	160-285	105	1320	60	CF_2Br_2
27	07.11.1974	14.00-15.00	D	144-238	145	1530	60	CF_2Br_2
28	21.11.1974	14.00-15.00	C	2- 94	145	1430	60	CF_2Br_2
31	22.05.1975	14.00-15.00	C	137-233	100	1245	60 60	CF_2Br_2 $CFCl_3$
32	19.08.1975	14.00-15.00	C	8-111	135	1260	60 60	CF_2Br_2 $CFCl_3$
33	07.10.1975	14.00-15.00	D	0- 92	255	2070	100	CF_2Br_2
34	06.11.1975	14.00-15.00	C	0-130	205	1400	60 100	$CFCl_3$ CF_2Br_2
35	13.04.1976	14.30-15.30	A	163-303	105	895	60	CF_2Br_2
36	12.05.1976	14.30-15.30	D	0-110	115	1310	60 100	$CFCl_3$ CF_2Br_2
37	22.06.1976	22.00-23.00	F	139-251	700	6540	60 100	$CFCl_3$ CF_2Br_2
40	10.08.1976	22.00-23.00	E	173-232	715	8180	60 100	$CFCl_3$ CF_2Br_2
41	08.09.1976	20.30-21.30	F	4- 66	705	6530	60	$CFCl_3$
42	21.09.1976	20.30-21.00	E	222-287	935	6900	60	$CFCl_3$
43	09.11.1976	19.30-20.30	E	282-326	735	5900	60 100	$CFCl_3$ CF_2Br_2
44	18.01.1977	19.30-20.30	D	245-308	570	11250	60 100	CF_2Br_2 $CFCl_3$
45	25.02.1977	14.10-15.10	D	15- 98	145	2770	60 100	CF_2Br_2 $CFCl_3$
46	15.03.1977	20.00-21.00	F	239-300	410	10013	60 100	CF_2Br_2 $CFCl_3$
47	20.04.1977	14.00-15.00	A	163-324	80	2045	60 100	CF_2Br_2 $CFCl_3$
48	24.05.1977	21.00-22.00	D	212-288	400	10375	60 100	CF_2Br_2 $CFCl_3$
50	02.08.1977	21.00-22.00	E	243-306	420	10550	60 100	CF_2Br_2 $CFCl_3$
51	16.08.1977	20.30-21.30	D	221-295	455	10475	60 100	CF_2Br_2 $CFCl_3$

Table A: Compilation of the diffusion experiments

Property		Dimension	$CFCl_3$	CF_2Br_2
Boiling point at 1 atm		°C	23.8	24 - 25
Freezing point		°C	-111	-141.5
Latent heat of vaporization	(boiling point)	cal/g	43.52	29.1
Specific heat of liquid	(boiling point)	cal/(g·K)	0.208	
Density	(20 °C)	g/cm³	1.49	2.27
Molecular weight		g/mol	137.38	209.83

Table B: Physical properties of the tracers

Toxicity	$CFCl_3$	CF_2Br_2
Threshold limit value assigned by the American Conference of Governmental Industrial Hygienists	1000 ppm for 8 h	100 ppm
Lowest published lethal dose for rats	10^5 ppm	1870 ppm
Time of exposure	20 min	15 min

Table C: Toxicity of the tracers

Stability class	Emission height	
	60 m	100 m
A	2 (3)	1 (2)
B	1 (2)	
C	4 (10)	1 (2)
D	6 (10)	4 (7)
E	3 (5)	2 (4)
F	2 (4)	
A ÷ F	18 (34)	8 (15)

Table D: Number of experiments (sampling periods) performed at KfK, which are suited to derive dispersion parameters

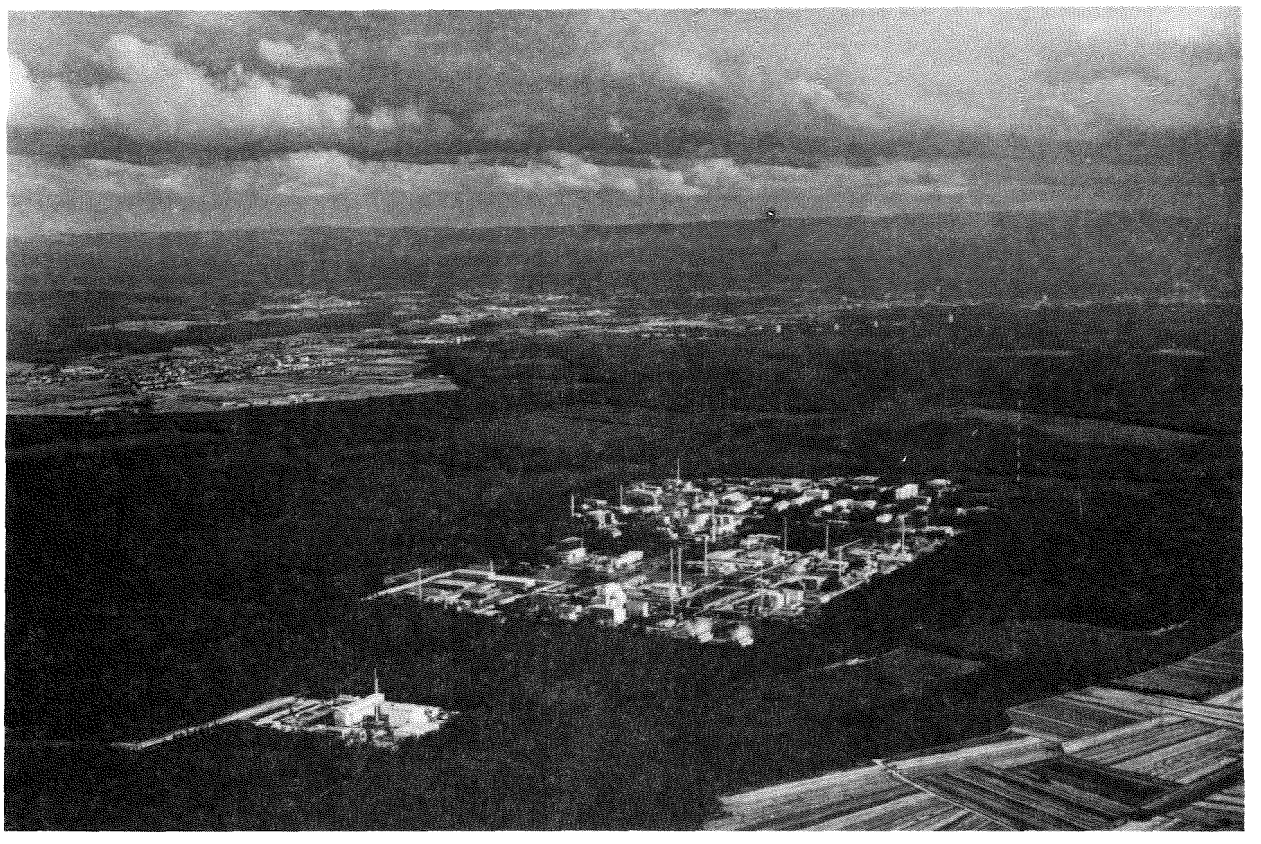

Fig. A: Aerial photo of the Karlsruhe Nuclear Research Center and its environment as seen from north-west.

Fig. B: Map of the Karlsruhe Nuclear Research Center and its environment, scale 1:50 000; ϕ: position of the meteorological tower.

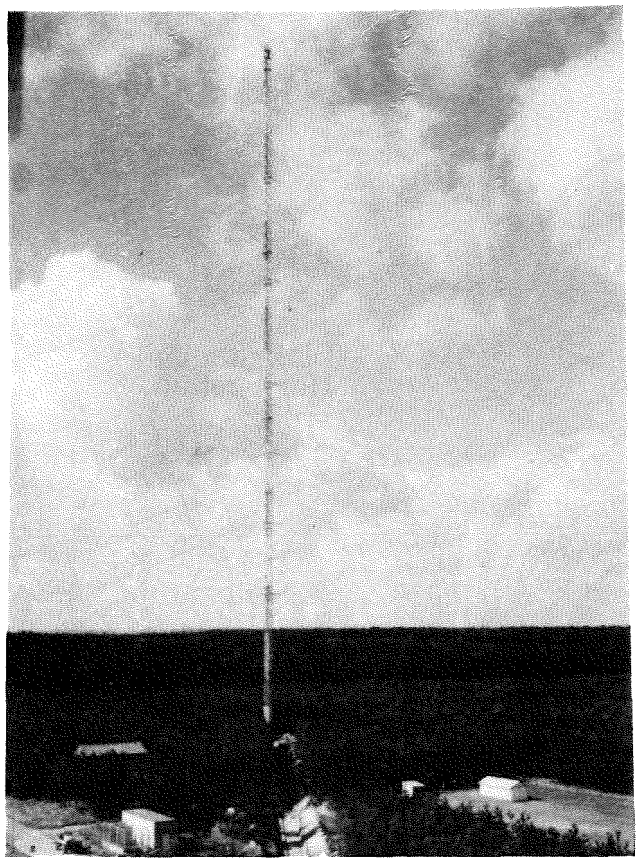

Fig. C: Meteorological tower.

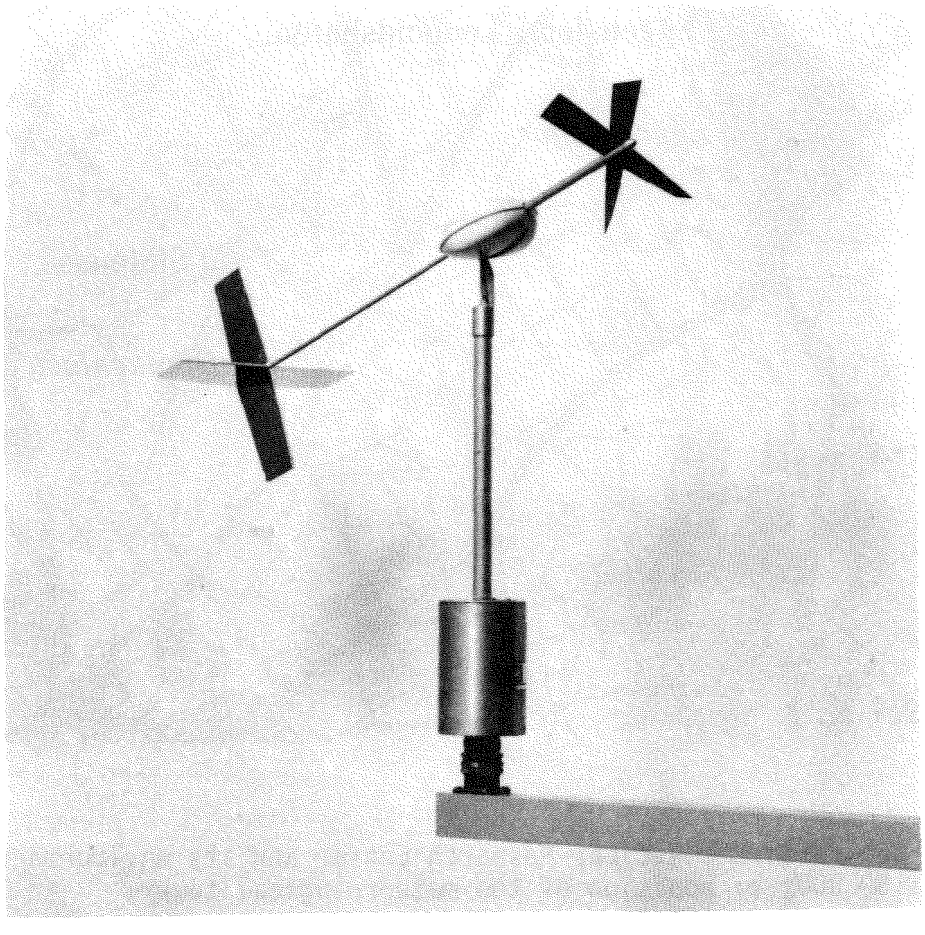

Fig. D: Vector vane.

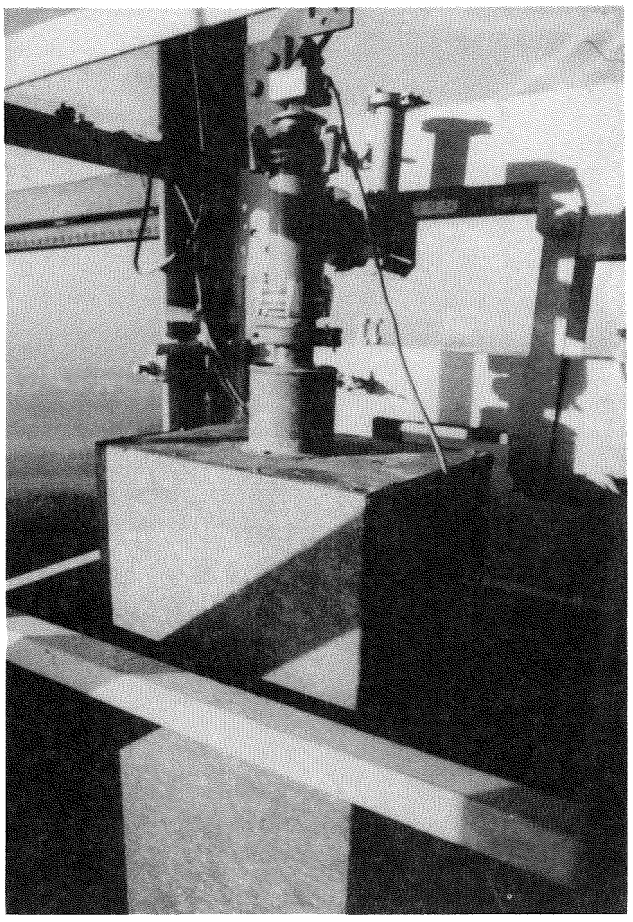

Fig. E: Evaporating boiler for the release of the tracers.

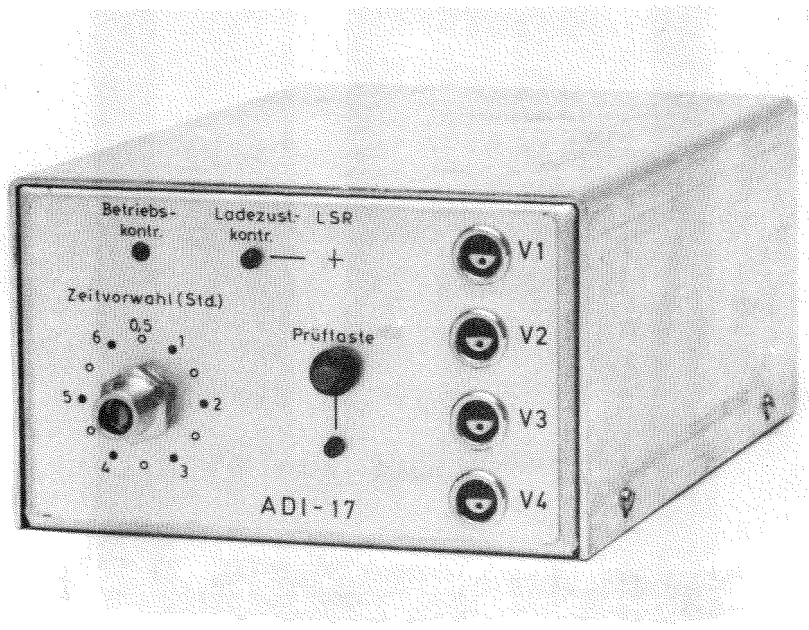

Fig. F: Electronic clock for the samplers.

Fig. G: Sampler.

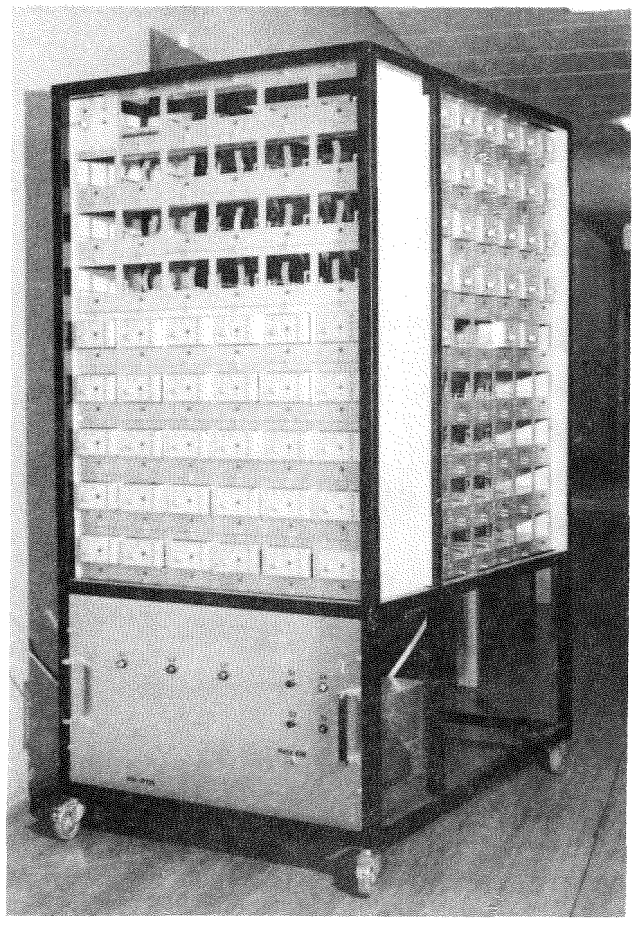

Fig. H: Storing rack for the electronic clocks.

TAB. 1A: METEOROLOGICAL DATA OF EXPERIMENT NO. 26

		HEIGHT (M)	1.SAMPLING PERIOD 14.10	14.20	14.30	2.SAMPLING PERIOD 14.40	14.50	15.00
WIND DIRECTION (DEGREE)		40	30	27	12	40	22	44
		60	31	24	20	30	24	39
		100	34	27	31	26	30	42
		160	36	27	34	36	40	48
		200	48	40	45	46	50	48
WIND SPEED (M/S)		40	2.3	2.2	2.1	2.0	2.5	2.3
		60	2.5	2.3	2.2	2.1	2.6	2.5
		100	2.3	2.3	2.5	2.2	2.6	2.5
		160	2.4	2.4	2.4	2.4	2.7	2.4
		200	2.5	2.4	2.4	2.4	2.9	2.4
STANDARD DEVIATION OF	VER.	40	11.6	11.4	11.3	10.6	10.5	10.5
	HOR.		19.0	17.6	16.5	17.4	14.7	15.4
WIND DIR. VECTOR VANE (DEGREE)	VER.	100	12.9	11.7	11.8	11.5	10.7	10.0
	HOR.		****	14.4	15.2	14.7	13.9	13.1
	VER.	160	****	****	****	****	****	****
	HOR.		****	****	****	****	****	****
STAND. DEVIATION OF HOR. WIND DIRECTION WIND VANE (DEGREE)		100	****	****	****	****	****	****
TEMPERATURE GRADIENT (K/100M)		30/100	-1.2	-1.2	-1.1	-1.2	-1.1	-1.1
NET RADIATION (MW/CM**2)			25.3	24.5	20.0	16.0	18.6	21.7
DIFFUSION CATEGORY BASED ON ...	VER. FLUCTUATION			B			B	
	HOR. FLUCTUATION			****			****	
	TEMP. GRADIENT			B			B	
	SYNOP. OBSERV.			B			B	

TAB. 1B: EXPERIMENT 26 17. 9.74 14.00 - 15.00

TRACER AND EMISSION RATE: CF2BR2 7.78 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	110.	165.	92730 ± 7418	2227 ± 111
	B	105.	187.	92510 ± 7401	14690 ± 588
	C	115.	211.	129400 ±10352	27250 ± 1363
	D	140.	230.	147700 ±11816	-
	E	145.	240.	103300 ± 8264	64970 ± 2599
	F	120.	252.	26120 ± 2090	84830 ± 4242
	G	110.	265.	213 ± 47	-
	H	100.	285.	≤ 69	≤ 82
II	A	200.	160.	-	633 ± 70
	B	215.	175.	55230 ± 2762	-
	C	245.	185.	56070 ± 2804	53390 ± 2670
	D	250.	193.	89130 ± 3565	43220 ± 3458
	E	255.	204.	73130 ± 3657	12810 ± 641
	F	245.	212.	-	35700 ± 1785
	G	180.	226.	205100 ± 8204	36190 ± 1448
	H	200.	234.	113500 ± 5675	-
	I	230.	242.	78390 ± 3136	44020 ± 2201
	K	250.	253.	59570 ± 2979	36520 ± 1826
	L	275.	259.	58140 ± 2907	≤ 65
III	A	400.	189.	19840 ± 992	35820 ± 1791
	B	465.	190.	24540 ± 1227	28310 ± 1416
	C	395.	205.	77100 ± 3084	26030 ± 1302
	D	390.	212.	47410 ± 1896	23870 ± 955
	E	380.	235.	364 ± 25	≤ 76
	F	440.	241.	≤ 74	≤ 62
	G	410.	256.	≤ 60	-
	H	390.	264.	≤ 68	-
IV	A	838.	170.	≤ 98	-
	B	560.	180.	≤ 98	-
	C	605.	183.	30300 ± 1515	32080 ± 1604
	D	555.	189.	22660 ± 1133	23950 ± 958
	E	700.	207.	11650 ± 816	24450 ± 1712
	F	535.	276.	215 ± 41	≤ 61
	G	625.	280.	≤ 72	≤ 88
V	A	1320.	165.	≤ 111	≤ 111
	B	1110.	178.	≤ 92	≤ 76
	C	1195.	181.	≤ 81	≤ 81
	D	1295.	183.	≤ 108	≤ 98
	E	1470.	185.	≤ 111	433 ± 43
	F	1185.	197.	4461 ± 223	3424 ± 205
	G	990.	216.	2171 ± 109	5330 ± 320
	H	995.	234.	≤ 92	≤ 56
	I	1180.	251.	≤ 88	≤ 101

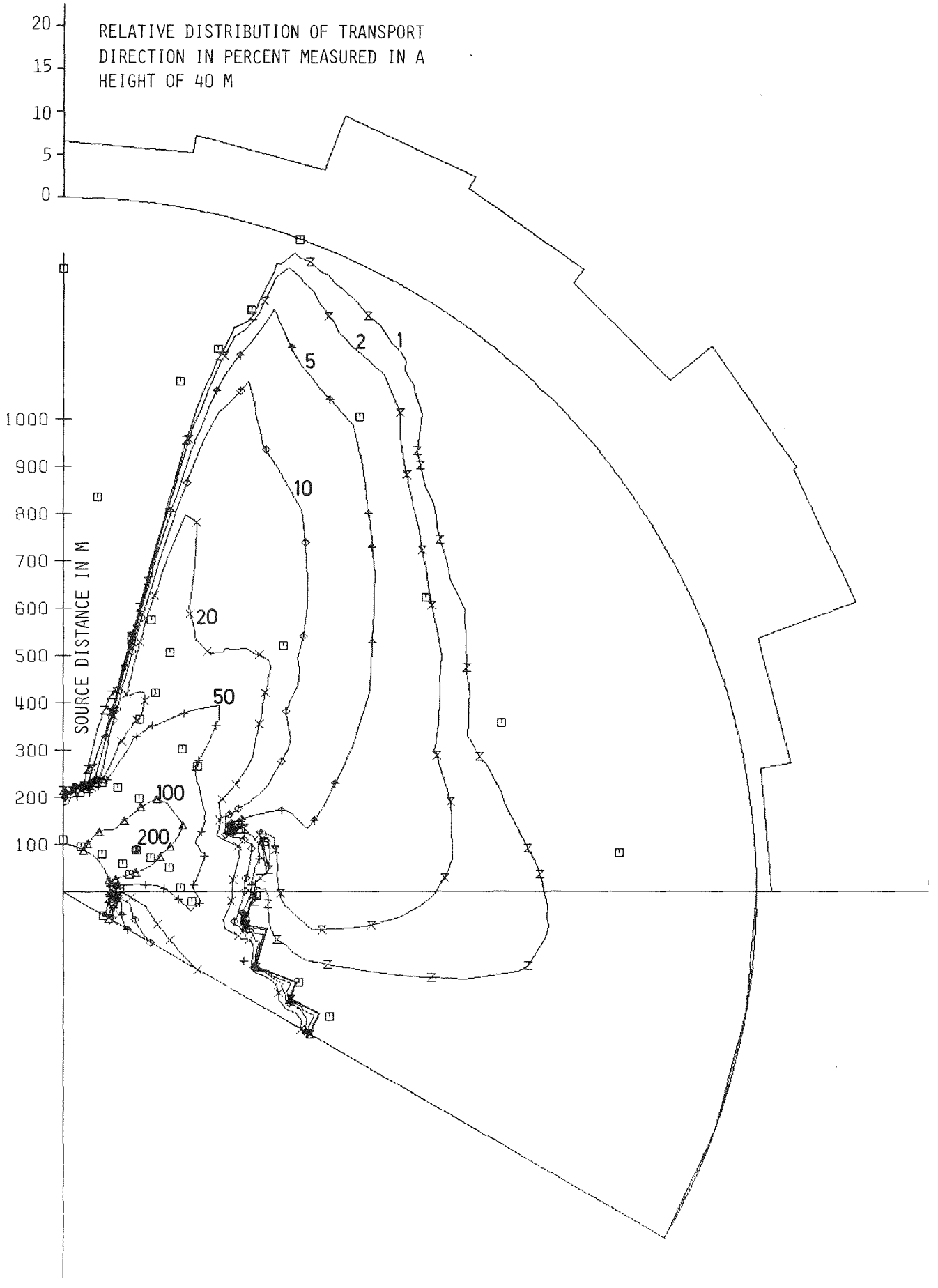

FIG. 1A: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 26/1 CF2BR2 H=60 M

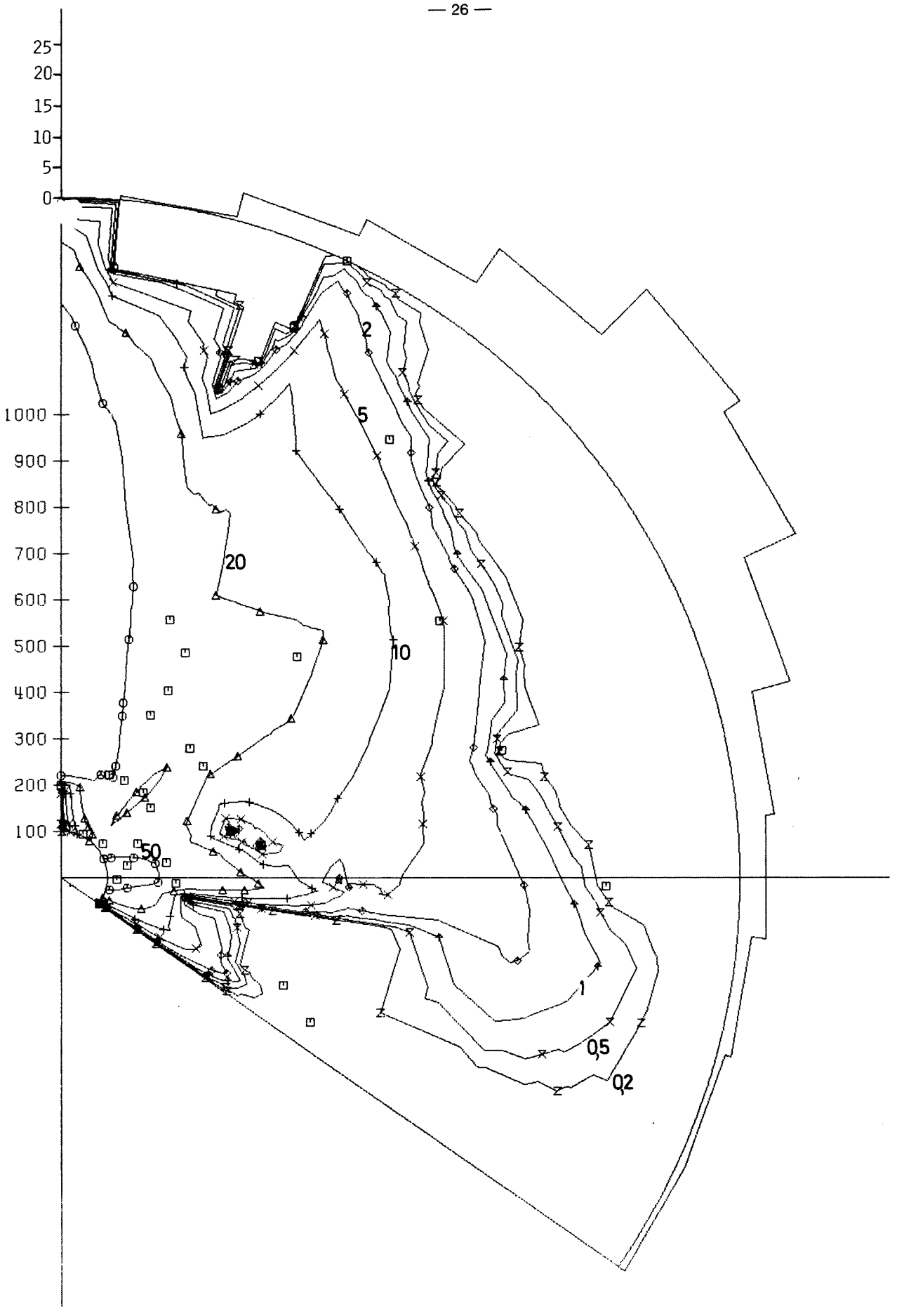

FIG. 1B: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 26/2 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

TAB. 2A: METEOROLOGICAL DATA OF EXPERIMENT NO. 27

		HEIGHT (M)	1.SAMPLING PERIOD 14.10	14.20	14.30	2.SAMPLING PERIOD 14.40	14.50	15.00
WIND DIRECTION (DEGREE)		40	30	27	16	18	28	35
		60	29	28	17	16	29	33
		100	42	46	35	21	44	44
		160	42	45	41	37	43	39
		200	55	55	52	51	58	60
WIND SPEED (M/S)		40	2.2	2.4	2.5	2.7	2.5	2.1
		60	2.4	2.5	2.7	2.9	2.7	2.5
		100	2.6	2.5	2.5	2.8	2.7	2.4
		160	4.4	4.2	3.2	3.2	4.0	3.9
		200	5.8	5.7	5.5	5.0	5.7	6.3
STANDARD DEVIATION OF WIND DIR. VECTOR VANE (DEGREE)	VER.	40	9.9	9.5	9.2	8.5	8.0	8.2
	HOR.		14.8	12.7	11.8	11.0	10.7	11.5
	VER.	100	6.4	6.5	6.4	5.6	5.2	5.0
	HOR.		10.6	10.4	9.8	9.9	10.3	8.7
	VER.	160	****	****	****	****	****	****
	HOR.		****	****	****	****	****	****
STAND. DEVIATION OF HOR. WIND DIRECTION WIND VANE (DEGREE)		100	****	****	****	****	****	****
TEMPERATURE GRADIENT (K/100M)		30/100	-1.0	-0.7	-0.9	-1.0	-0.7	-1.0
NET RADIATION (MW/CM**2)			7.2	5.2	5.2	3.6	2.3	2.8
DIFFUSION CATEGORY BASED ON ...	VER. FLUCTUATION			D			D	
	HOR. FLUCTUATION			****			****	
	TEMP. GRADIENT			D			D	
	SYNOP. OBSERV.			D			D	

TAB. 2B: EXPERIMENT 27 7.11.74 14.00 - 15.00

TRACER AND EMISSION RATE: CF2BR2 7.78 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	160.	156.	≤ 78	-
	B	150.	166.	-	≤ 106
	C	145.	179.	188 ± 45	2140 ± 150
	D	145.	196.	577 ± 58	-
	E	155.	207.	3288 ± 197	18840 ± 1130
	F	165.	217.	10850 ± 651	≤ 95
	G	180.	225.	13240 ± 794	-
	H	185.	238.	5074 ± 304	-
II	A	255.	144.	-	≤ 87
	B	256.	157.	≤ 94	-
	C	275.	175.	≤ 80	-
	D	264.	186.	22080 ± 1325	4789 ± 335
	E	246.	193.	80420 ± 4825	13200 ± 792
	F	226.	203.	27720 ± 1663	13230 ± 794
	G	240.	211.	29440 ± 1766	19250 ± 1155
	H	238.	219.	3129 ± 188	≤ 109
	I	240.	226.	657 ± 59	≤ 88
III	A	360.	168.	≤ 82	≤ 112
	B	370.	178.	≤ 102	345 ± 59
	C	425.	193.	45610 ± 2281	162800 ± 8140
	D	450.	203.	53590 ± 2680	87840 ± 4392
	E	405.	209.	68990 ± 3450	18210 ± 911
	F	415.	217.	4802 ± 240	2314 ± 116
	G	455.	224.	2137 ± 107	≤ 83
	H	495.	229.	213 ± 45	≤ 92
IV	A	1135.	150.	≤ 113	-
	B	920.	162.	≤ 81	-
	C	830.	170.	≤ 108	≤ 96
	D	760.	179.	699 ± 77	≤ 77
	E	720.	190.	9215 ± 553	30320 ± 1213
	F	685.	203.	25760 ± 1546	18720 ± 936
	G	710.	211.	7012 ± 351	6510 ± 326
V	A	1395.	132.	-	≤ 75
	B	1490.	188.	434 ± 61	1668 ± 117
	C	1475.	205.	22510 ± 1126	-
	D	1530.	215.	2698 ± 162	407 ± 61
	E	1470.	229.	≤ 96	-

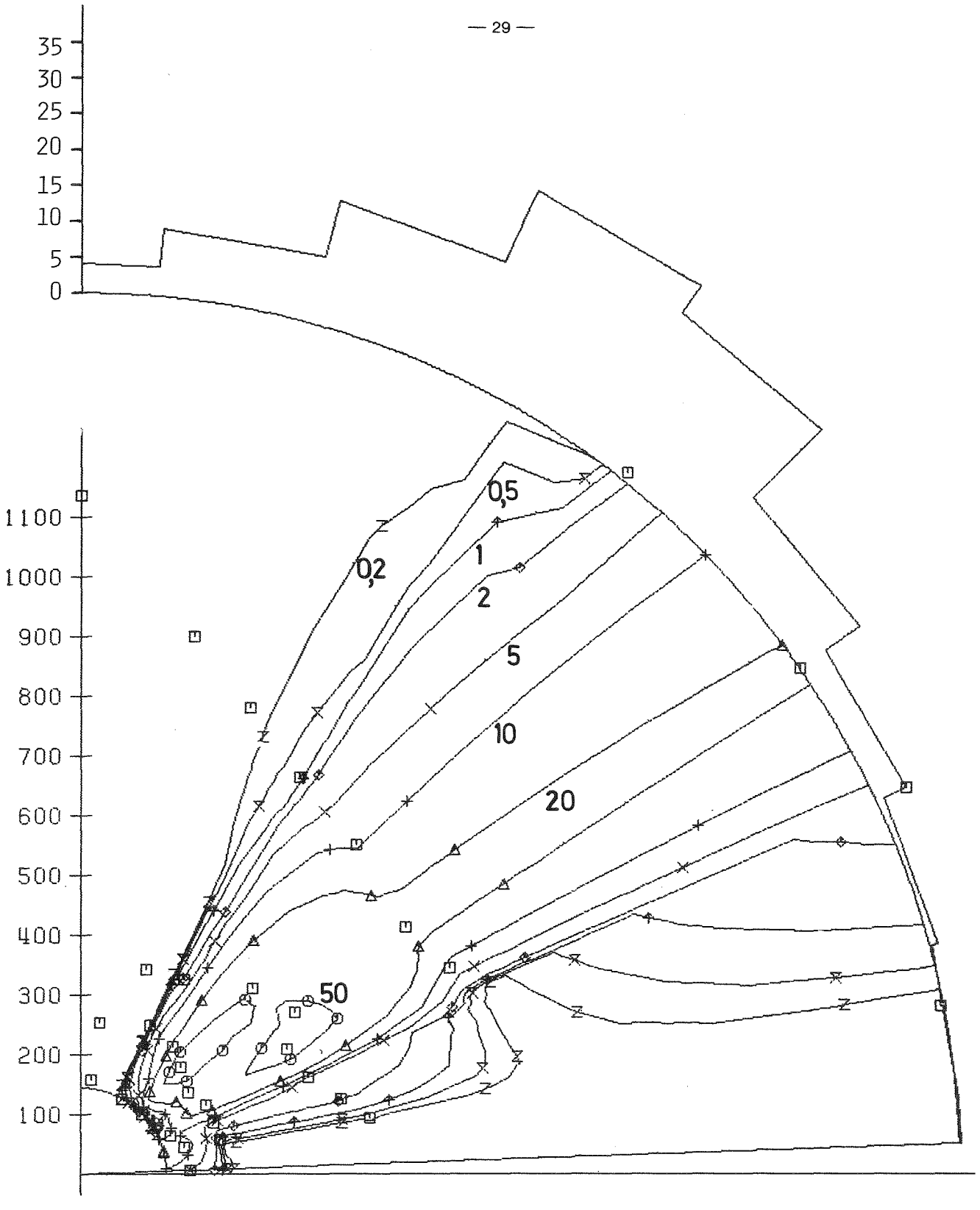

FIG. 2A: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 27/1 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

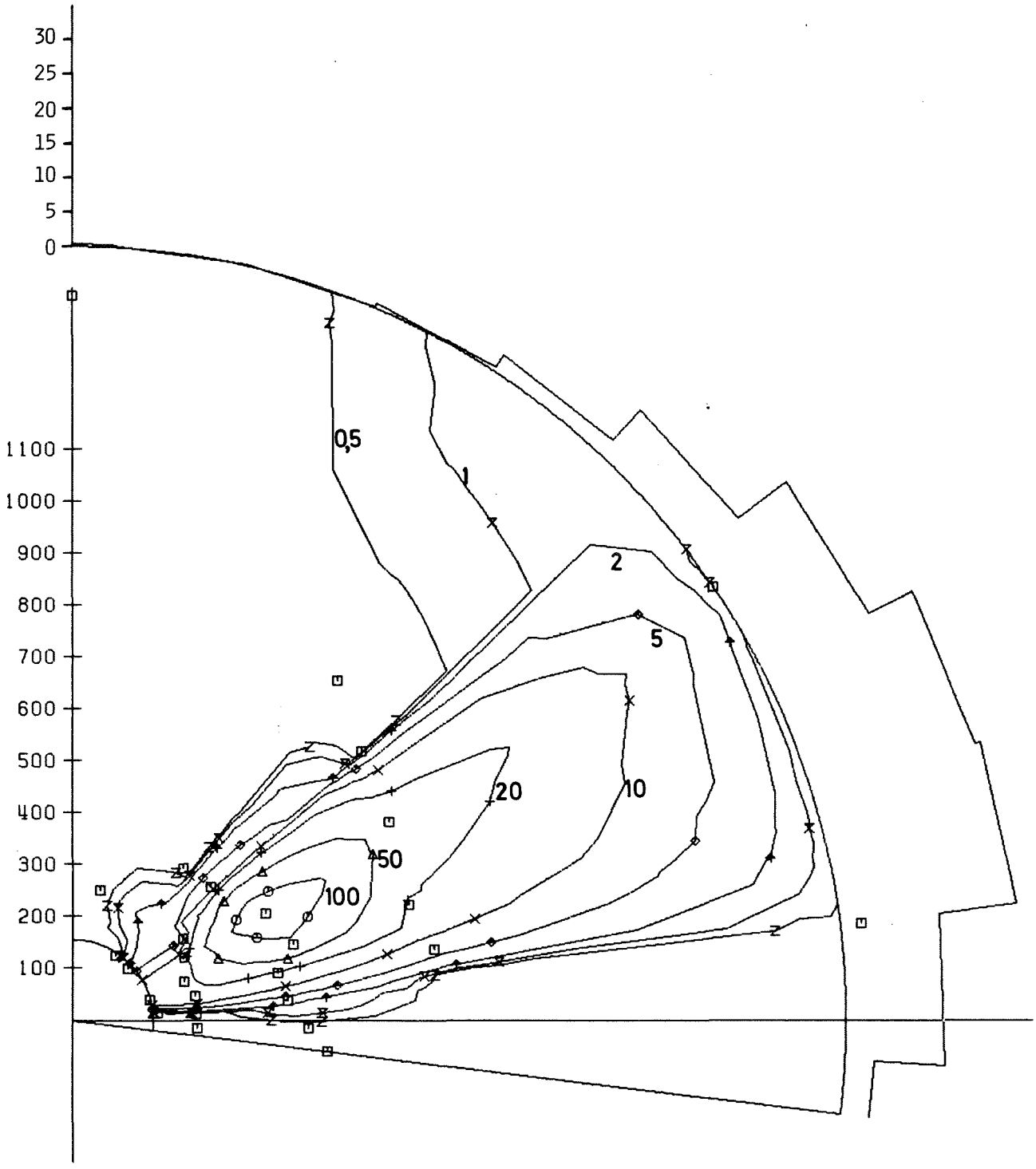

FIG. 2B: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 27/2 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE TABLE 1A

TAB. 3A: METEOROLOGICAL DATA OF EXPERIMENT NO. 28

		HEIGHT (M)	1.SAMPLING PERIOD 14.10	14.20	14.30	2.SAMPLING PERIOD 14.40	14.50	15.00
WIND DIRECTION (DEGREE)		40	221	221	218	230	239	228
		60	214	221	215	227	233	221
		100	212	219	216	225	228	218
		160	224	224	217	224	224	219
		200	234	230	226	229	232	227
WIND SPEED (M/S)		40	2.4	3.2	2.4	2.6	2.4	2.4
		60	3.0	3.8	2.9	2.9	2.7	2.8
		100	3.4	4.2	3.8	3.2	3.0	3.0
		160	4.2	4.5	4.7	3.8	2.9	4.2
		200	5.1	4.9	5.2	4.2	3.4	4.7
STANDARD DEVIATION OF WIND DIR. VECTOR VANE (DEGREE)	VER.	40	12.3	12.6	12.7	13.4	12.8	12.3
	HOR.	40	18.4	18.7	20.3	21.7	20.8	19.2
	VER.	100	7.1	8.2	8.7	9.7	9.7	8.9
	HOR.	100	10.4	11.3	11.1	12.4	12.6	12.0
	VER.	160	****	****	****	****	****	****
	HOR.	160	****	****	****	****	****	****
STAND. DEVIATION OF HOR. WIND DIRECTION WIND VANE (DEGREE)		100	****	****	****	****	****	****
TEMPERATURE GRADIENT (K/100M)		30/100	-1.2	-1.2	-1.3	-1.2	-1.1	-1.0
NET RADIATION (MW/CM**2)			9.8	5.4	5.4	6.8	0.6	1.8
DIFFUSION CATEGORY BASED ON ...	VER. FLUCTUATION		C			C		
	HOR. FLUCTUATION		****			****		
	TEMP. GRADIENT		B			C		
	SYNOP. OBSERV.		C			C		

TAB. 3B: EXPERIMENT 28 21.11.74 14.00 - 15.00

TRACER AND EMISSION RATE: CF2BR2 8.61 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	190.	5.	5788 ± 232	-
	B	190.	17.	38180 ± 1909	38810 ± 1941
	C	190.	30.	202700 ± 8108	99520 ± 3981
	D	190.	42.	202900 ± 8116	122400 ± 6120
	E	180.	55.	116000 ± 5800	51190 ± 2048
	F	170.	68.	12340 ± 617	19900 ± 796
	G	160.	78.	495 ± 59	2715 ± 190
	H	145.	92.	≤ 135	≤ 136
II	A	220.	3.	24940 ± 1247	18300 ± 915
	B	215.	15.	39370 ± 1969	47260 ± 1890
	C	220.	32.	103400 ± 5170	78090 ± 3124
	D	250.	38.	183600 ± 9180	118500 ± 4740
	E	255.	52.	102500 ± 5125	113200 ± 4528
	F	255.	60.	37230 ± 1862	39570 ± 1583
	G	245.	76.	944 ± 57	360 ± 47
	H	250.	86.	634 ± 44	≤ 71
	I	255.	94.	≤ 75	-
III	A	410.	2.	366 ± 44	≤ 118
	B	400.	12.	-	610 ± 61
	C	400.	23.	23750 ± 950	-
	D	400.	32.	-	70010 ± 3501
	E	400.	40.	61720 ± 2469	80660 ± 3226
	F	400.	49.	54390 ± 2720	56370 ± 2255
	G	400.	58.	23020 ± 1151	30640 ± 1532
	H	400.	66.	3135 ± 157	7970 ± 319
	I	400.	74.	≤ 66	≤ 79
	K	400.	85.	≤ 68	≤ 91
IV	A	890.	8.	675 ± 54	≤ 92
	B	875.	17.	2130 ± 107	295 ± 38
	C	840.	26.	12140 ± 607	13630 ± 545
	D	795.	33.	49260 ± 2463	22390 ± 896
	E	790.	40.	64840 ± 2594	37380 ± 1495
	F	820.	48.	13980 ± 699	43850 ± 2193
	G	790.	56.	2906 ± 145	4619 ± 231
	H	820.	61.	2947 ± 147	2183 ± 131
	I	840.	80.	≤ 100	-
V	A	1405.	2.	≤ 144	243 ± 36
	B	1425.	16.	487 ± 49	≤ 104
	C	1395.	30.	11650 ± 583	2702 ± 135
	D	1430.	45.	12050 ± 603	8903 ± 445
	E	1405.	61.	≤ 124	-
	F	1400.	75.	≤ 105	≤ 113
	G	1340.	88.	-	≤ 129

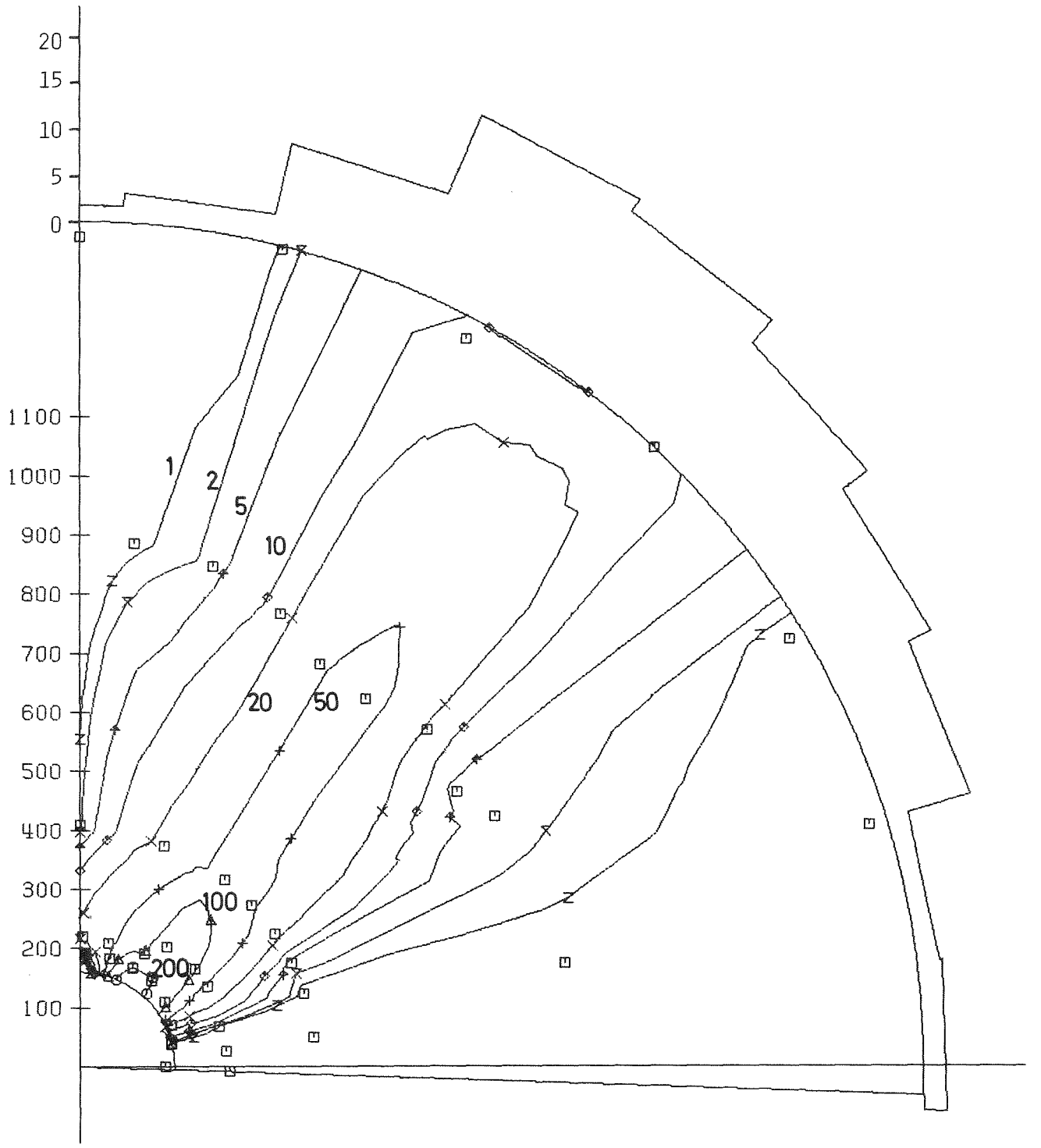

FIG. 3A: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 28/1 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE TABLE 1A

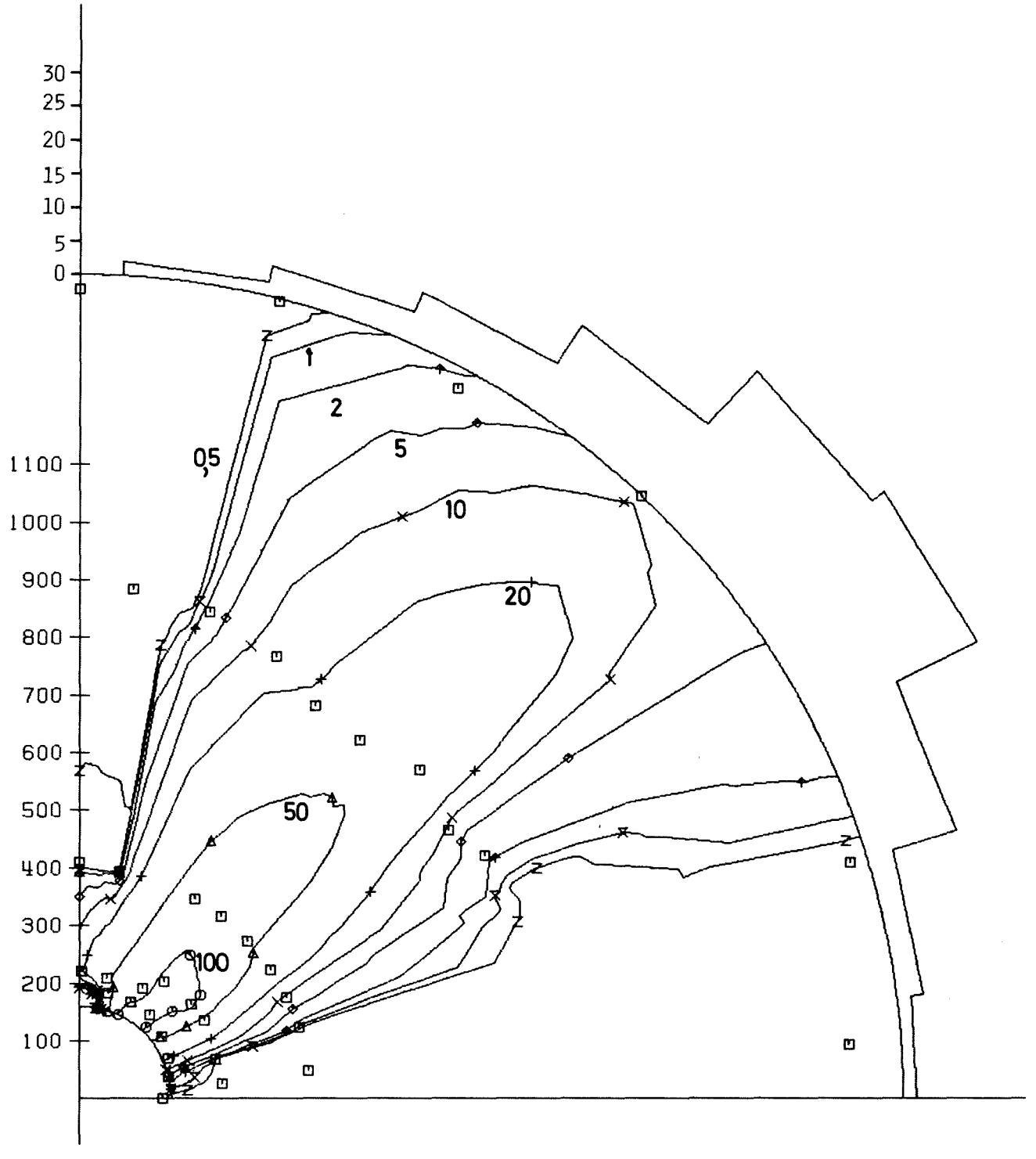

FIG. 3B: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 28/2 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE TABLE 1A

TAB. 4A: METEOROLOGICAL DATA OF EXPERIMENT NO. 31

		HEIGHT (M)	1.SAMPLING PERIOD 14.10	14.20	14.30	2.SAMPLING PERIOD 14.40	14.50	15.00
WIND DIRECTION (DEGREE)		40	17	31	19	18	8	358
		60	7	23	13	12	357	351
		100	9	19	12	11	358	355
		160	6	13	12	10	356	359
		200	11	17	17	13	8	6
WIND SPEED (M/S)		40	6.0	5.0	5.3	5.6	4.9	4.9
		60	6.7	5.6	5.9	6.4	5.5	5.8
		100	7.0	6.1	6.2	6.8	6.3	6.6
		160	7.8	7.1	7.0	7.4	6.7	7.1
		200	7.7	7.3	7.2	7.4	7.2	7.4
STANDARD DEVIATION OF WIND DIR. VECTOR VANE (DEGREE)	VER.	40	9.7	10.8	11.0	10.4	10.3	11.0
	HOR.		16.7	20.9	14.6	12.8	13.9	16.6
	VER.	100	****	10.0	9.2	8.9	8.1	7.9
	HOR.		10.1	11.9	11.5	9.8	9.4	9.5
	VER.	160	****	****	****	****	****	****
	HOR.		****	****	****	****	****	****
STAND. DEVIATION OF HOR. WIND DIRECTION WIND VANE (DEGREE)		100	****	****	****	****	****	****
TEMPERATURE GRADIENT (K/100M)		30/100	-1.6	-1.7	-1.7	-1.6	-1.5	-1.6
NET RADIATION (MW/CM**2)			****	****	****	****	29.0	16.3
DIFFUSION CATEGORY BASED ON ...	VER. FLUCTUATION			C			C	
	HOR. FLUCTUATION			****			****	
	TEMP. GRADIENT			B			C	
	SYNOP. OBSERV.			C			C	

TAB. 4B: EXPERIMENT 31 22. 5.75 14.00 - 15.00

TRACER AND EMISSION RATE: CF2BR2 7.80 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	135.	141.	≤ 45	282
	B	120.	150.	-	1235
	C	110.	161.	-	799
	D	100.	175.	14170	5237
	E	100.	189.	-	1264
	F	105.	203.	-	255
	G	110.	215.	3447	5592
	H	125.	225.	3263	4122
	I	145.	233.	2090	2634
II	A	215.	137.	≤ 45	128
	B	215.	145.	≤ 45	772
	C	215.	153.	≤ 45	6587
	D	215.	165.	10840	31530
	E	215.	176.	40870	12800
	F	215.	187.	20990	4680
	G	225.	197.	2280	-
	H	240.	208.	32320	2532
	I	200.	219.	6471	≤ 45
	K	200.	230.	6690	≤ 45
III	A	360.	150.	≤ 45	≤ 45
	B	360.	161.	≤ 45	2840
	C	360.	172.	30780	21140
	D	360.	179.	29260	39610
	E	360.	189.	57020	22510
	F	355.	197.	34600	15750
	G	360.	207.	-	9002
	H	355.	215.	3685	161
	I	385.	223.	2850	750
	K	420.	227.	≤ 45	≤ 45
	L	460.	230.	≤ 45	≤ 45
IV	A	645.	151.	≤ 45	≤ 45
	B	635.	160.	≤ 45	1150
	C	620.	167.	7839	9615
	D	635.	175.	15930	54280
	E	655.	185.	-	36640
	F	710.	195.	2939	11560
	G	700.	207.	2914	3024
	H	695.	212.	1823	163
	I	655.	219.	-	343
	K	545.	223.	105	66
V	A	1110.	151.	-	≤ 45
	B	945.	161.	≤ 45	639
	C	1245.	196.	1108	10900
	D	1045.	210.	≤ 45	280
	E	995.	228.	≤ 45	-

TAB. 4C: EXPERIMENT 31 22. 5.75 14.00 - 15.00

TRACER AND EMISSION RATE: CFCL3 11.80 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	135.	141.	1620	771
	B	120.	150.	-	3085
	C	110.	161.	-	676
	D	100.	175.	19720	7300
	E	100.	189.	-	2955
	F	105.	203.	-	418
	G	110.	215.	7120	9276
	H	125.	225.	9863	5773
	I	145.	233.	4463	4207
II	A	215.	137.	≤ 301	712
	B	215.	145.	432	999
	C	215.	153.	8256	8820
	D	215.	165.	21720	37660
	E	215.	176.	66100	16240
	F	215.	187.	35940	8877
	G	225.	197.	9060	-
	H	240.	208.	41500	4345
	I	200.	219.	8375	933
	K	200.	230.	9237	394
III	A	360.	150.	456	≤ 301
	B	360.	161.	≤ 301	3259
	C	360.	172.	33310	23640
	D	360.	179.	47400	45090
	E	360.	189.	90420	27070
	F	355.	197.	44940	21300
	G	360.	207.	-	11510
	H	355.	215.	7490	535
	I	385.	223.	4716	1304
	K	420.	227.	1463	1030
	L	460.	230.	≤ 301	≤ 301
IV	A	645.	151.	≤ 301	≤ 0
	B	635.	160.	≤ 301	1745
	C	620.	167.	9402	12250
	D	635.	175.	19950	59420
	E	655.	185.	-	45460
	F	710.	195.	9352	13670
	G	700.	207.	6412	4557
	H	695.	212.	2175	2771
	I	655.	219.	-	942
	K	545.	223.	762	393
V	A	1110.	151.	-	≤ 301
	B	945.	161.	≤ 301	690
	C	1245.	196.	4521	14240
	D	1045.	210.	2516	422
	E	995.	228.	≤ 301	-

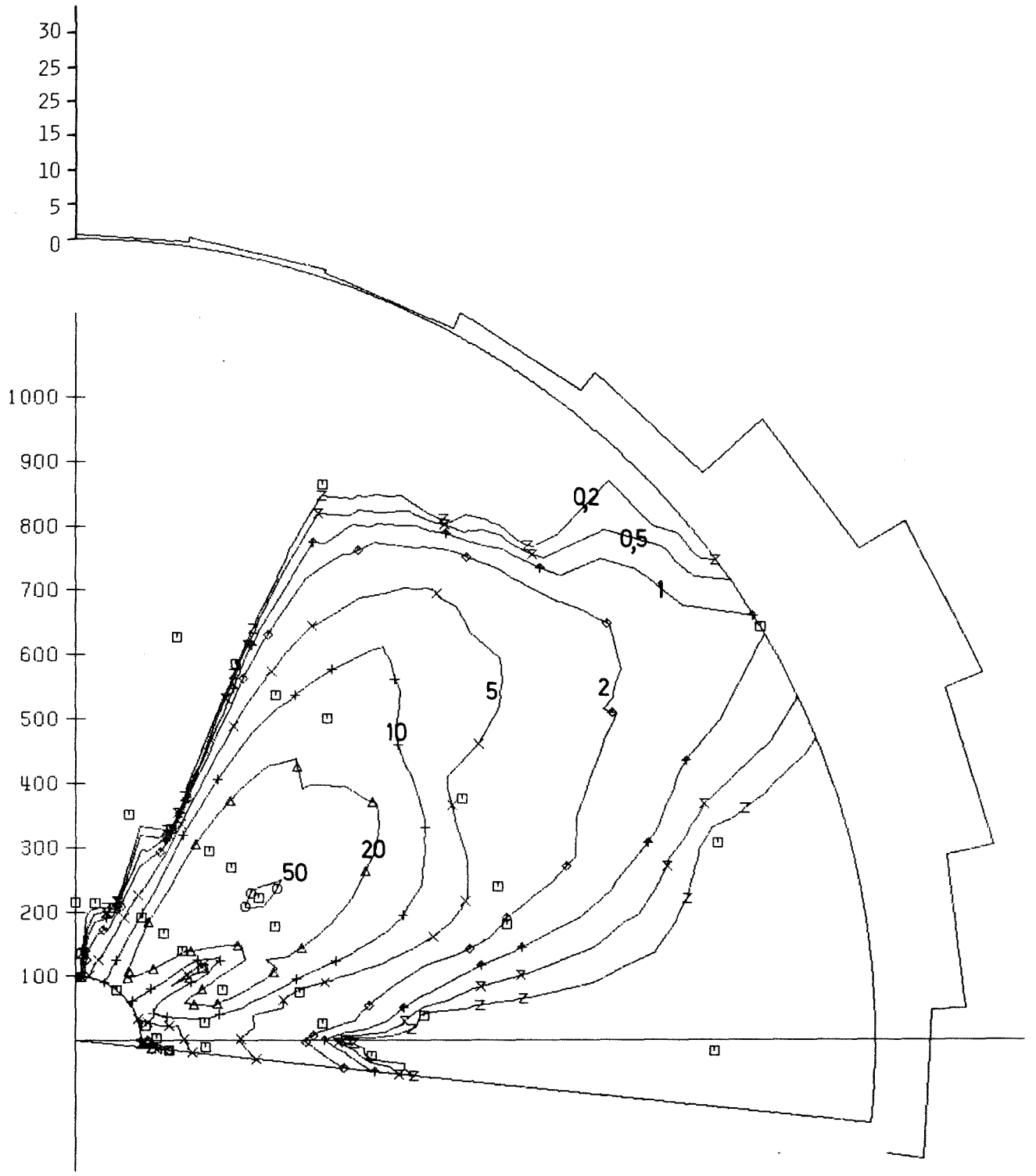

FIG. 4A: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 31/1 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

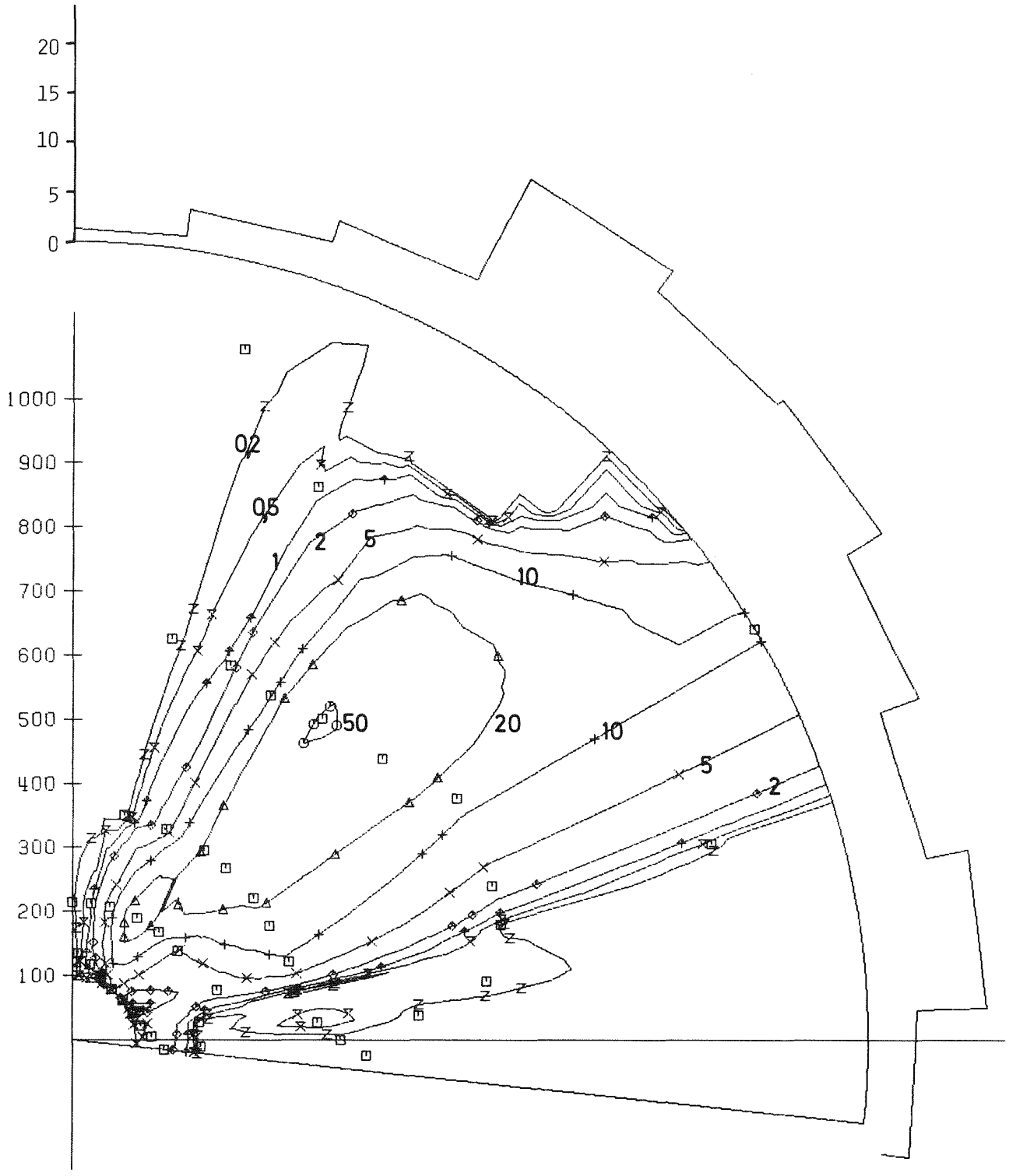

FIG. 4B: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 31/2 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

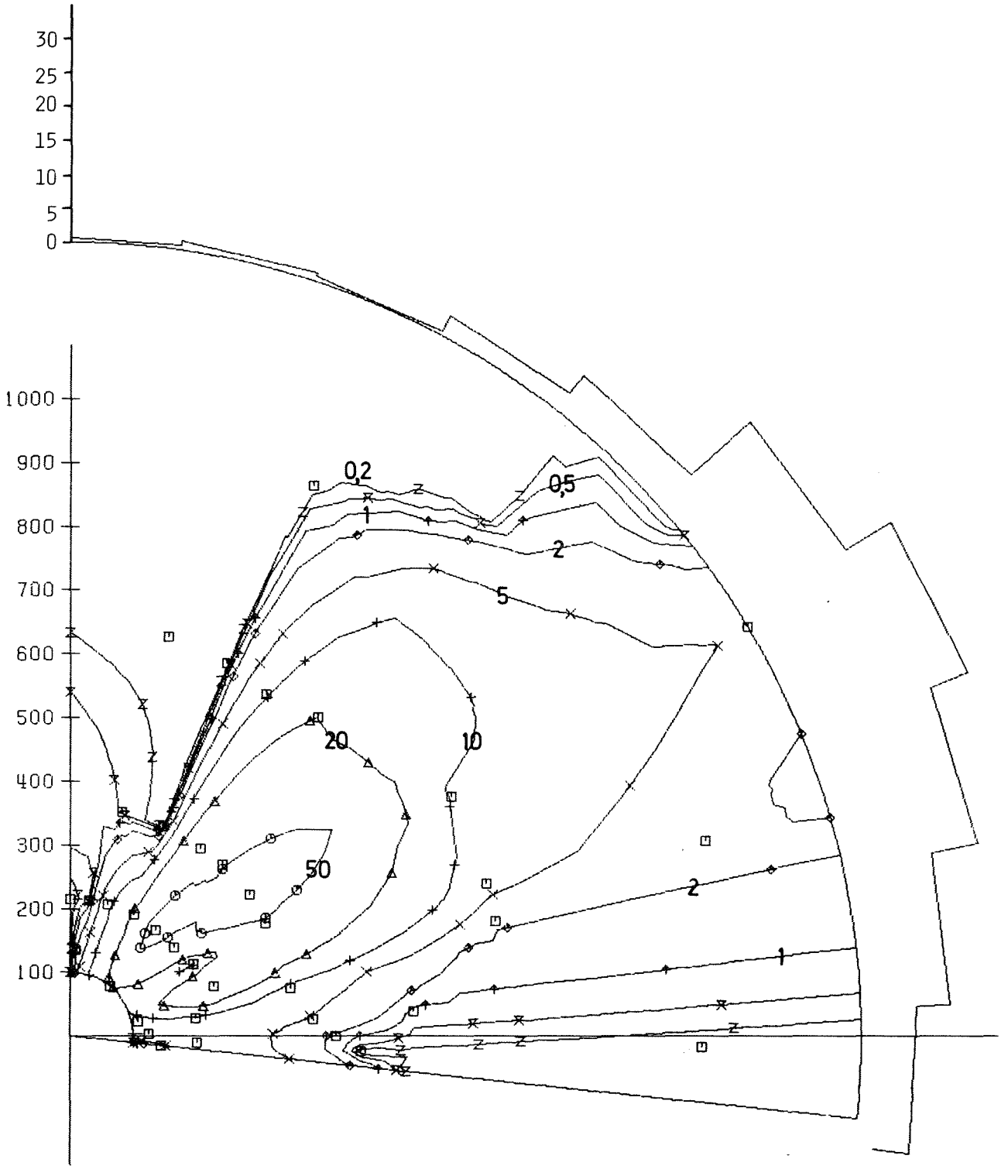

FIG. 4C: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 31/1 CFCL3 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

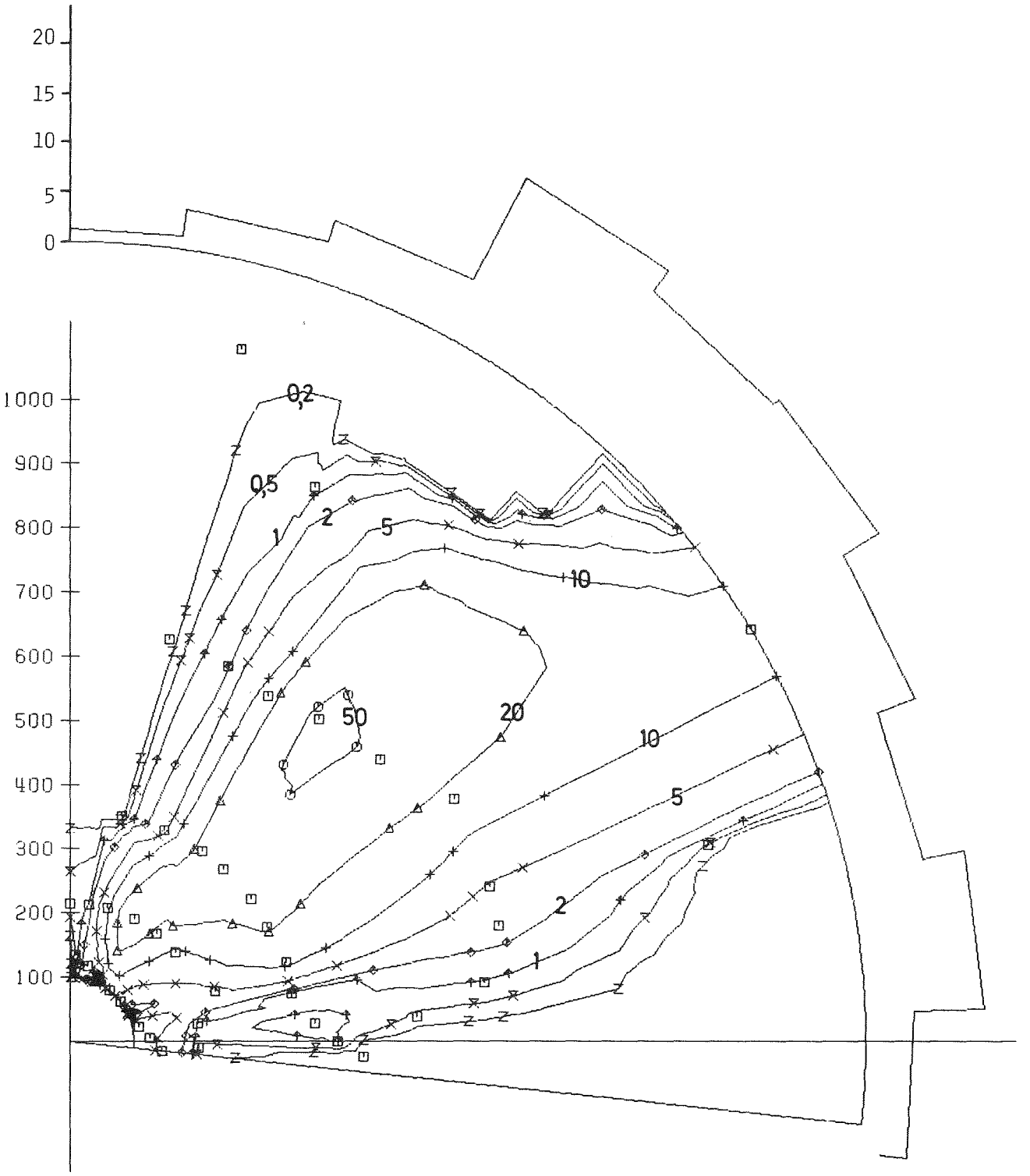

FIG. 4D: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 31/2 CFCL3 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

TAB. 5A: METEOROLOGICAL DATA OF EXPERIMENT NO. 32

		HEIGHT (M)	1.SAMPLING PERIOD 14.10	14.20	14.30	2.SAMPLING PERIOD 14.40	14.50	15.00
WIND DIRECTION (DEGREE)		40	220	226	224	217	210	225
		60	216	213	220	215	201	216
		100	220	212	222	219	204	214
		160	223	213	222	224	204	211
		200	228	219	229	227	211	220
WIND SPEED (M/S)		40	4.5	4.0	4.5	5.3	4.6	5.0
		60	4.9	4.3	5.2	5.8	5.4	5.4
		100	5.2	4.9	6.2	5.8	6.0	5.5
		160	5.6	5.1	6.3	6.0	6.3	5.7
		200	5.9	5.5	6.2	6.1	6.2	5.9
STANDARD DEVIATION OF WIND DIR. VECTOR VANE (DEGREE)	VER.	40	11.0	11.9	12.8	12.1	11.6	12.2
	HOR.	40	13.0	15.0	17.3	16.7	14.8	15.9
	VER.	100	9.0	10.3	10.0	9.4	9.1	9.2
	HOR.	100	9.6	10.7	11.4	10.8	9.7	10.4
	VER.	160	****	****	****	****	****	****
	HOR.	160	****	****	****	****	****	****
STAND. DEVIATION OF HOR. WIND DIRECTION WIND VANE (DEGREE)		100	17.0	16.3	18.2	13.3	11.0	10.4
TEMPERATURE GRADIENT (K/100M)		30/100	-1.3	-1.5	-1.7	-1.3	-1.5	-1.6
NET RADIATION (MW/CM**2)			25.3	33.9	37.1	36.2	30.6	35.2
DIFFUSION CATEGORY BASED ON ...	VER. FLUCTUATION			C			C	
	HOR. FLUCTUATION			C			D	
	TEMP. GRADIENT			B			B	
	SYNOP. OBSERV.			C			C	

TAB. 5B: EXPERIMENT 32 19. 8.75 14.00 - 15.00

TRACER AND EMISSION RATE: CF2BR2 7.70 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	135.	14.	18120	-
	B	135.	30.	22560	-
	C	135.	43.	20750	50410
	D	135.	56.	18890	1304
	E	135.	67.	13630	-
	F	135.	76.	2180	≤ 77
	G	135.	85.	≤ 77	≤ 77
	H	135.	94.	≤ 77	≤ 77
	I	135.	101.	≤ 77	≤ 77
II	A	195.	18.	77370	-
	B	200.	30.	36680	37760
	C	190.	42.	54810	19230
	D	200.	59.	26130	-
	E	200.	68.	-	16300
	F	200.	77.	9862	≤ 77
	G	205.	86.	1829	≤ 77
	H	215.	93.	≤ 77	≤ 77
	I	205.	100.	≤ 77	≤ 77
	K	190.	111.	≤ 77	≤ 77
III	A	315.	10.	43060	69560
	B	350.	19.	15980	48350
	C	305.	29.	39010	108000
	D	315.	37.	52270	46510
	E	305.	50.	60480	16490
	F	305.	56.	51530	7723
	G	310.	65.	23570	3435
	H	310.	74.	4286	139
	I	305.	83.	≤ 77	≤ 77
	K	300.	94.	≤ 77	≤ 77
	L	300.	102.	≤ 77	≤ 77
	M	300.	108.	≤ 77	≤ 77
IV	A	600.	8.	2553	818
	B	585.	19.	3445	1865
	C	590.	27.	4484	11340
	D	610.	33.	5790	7186
	E	595.	44.	7808	2892
	F	580.	52.	12600	2614
	G	585.	66.	9672	≤ 77
	H	600.	74.	1574	-
	I	580.	88.	≤ 77	≤ 77
	K	585.	96.	≤ 77	≤ 77
	L	610.	99.	≤ 77	≤ 77
V	A	1230.	11.	354	-
	B	1230.	25.	6614	1164
	C	1225.	40.	8070	562
	D	1240.	56.	9584	≤ 77
	E	1225.	65.	593	≤ 77
	F	1230.	78.	≤ 77	≤ 77
	G	1260.	94.	≤ 77	≤ 77
	H	1245.	108.	≤ 77	≤ 77

TAB. 5C: EXPERIMENT 32 19. 8.75 14.00 - 15.00

TRACER AND EMISSION RATE: CFCL3 11.60 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	135.	14.	16260	-
	B	135.	30.	24200	-
	C	135.	43.	21560	54030
	D	135.	56.	23280	2024
	E	135.	67.	18160	-
	F	135.	76.	3118	≤ 528
	G	135.	85.	≤ 528	≤ 528
	H	135.	94.	≤ 528	≤ 528
	I	135.	101.	≤ 528	≤ 528
II	A	195.	18.	100800	-
	B	200.	30.	45460	49700
	C	190.	42.	70050	20560
	D	200.	59.	37470	-
	E	200.	68.	-	19480
	F	200.	77.	14710	≤ 528
	G	205.	86.	2714	≤ 528
	H	215.	93.	≤ 528	559
	I	205.	100.	≤ 528	≤ 528
	K	190.	111.	≤ 528	≤ 528
III	A	315.	10.	59450	72390
	B	350.	19.	23280	53360
	C	305.	29.	53940	105200
	D	315.	37.	73180	46060
	E	305.	50.	77930	19580
	F	305.	56.	66120	9893
	G	310.	65.	31540	5382
	H	310.	74.	6571	1443
	I	305.	83.	≤ 528	≤ 528
	K	300.	94.	≤ 528	≤ 528
	L	300.	102.	≤ 528	≤ 528
	M	300.	108.	≤ 528	≤ 528
IV	A	600.	8.	2968	755
	B	585.	19.	4083	≤ 528
	C	590.	27.	6013	13990
	D	610.	33.	5358	8458
	E	595.	44.	7815	3334
	F	580.	52.	15380	4369
	G	585.	66.	13580	740
	H	600.	74.	2573	-
	I	580.	88.	≤ 528	≤ 528
	K	585.	96.	≤ 528	≤ 528
	L	610.	99.	≤ 528	≤ 528
V	A	1230.	11.	≤ 528	-
	B	1230.	25.	8801	1133
	C	1225.	40.	9830	≤ 528
	D	1240.	56.	6035	≤ 528
	E	1225.	65.	670	≤ 528
	F	1230.	78.	873	≤ 528
	G	1260.	94.	1237	≤ 528
	H	1245.	108.	≤ 528	≤ 528

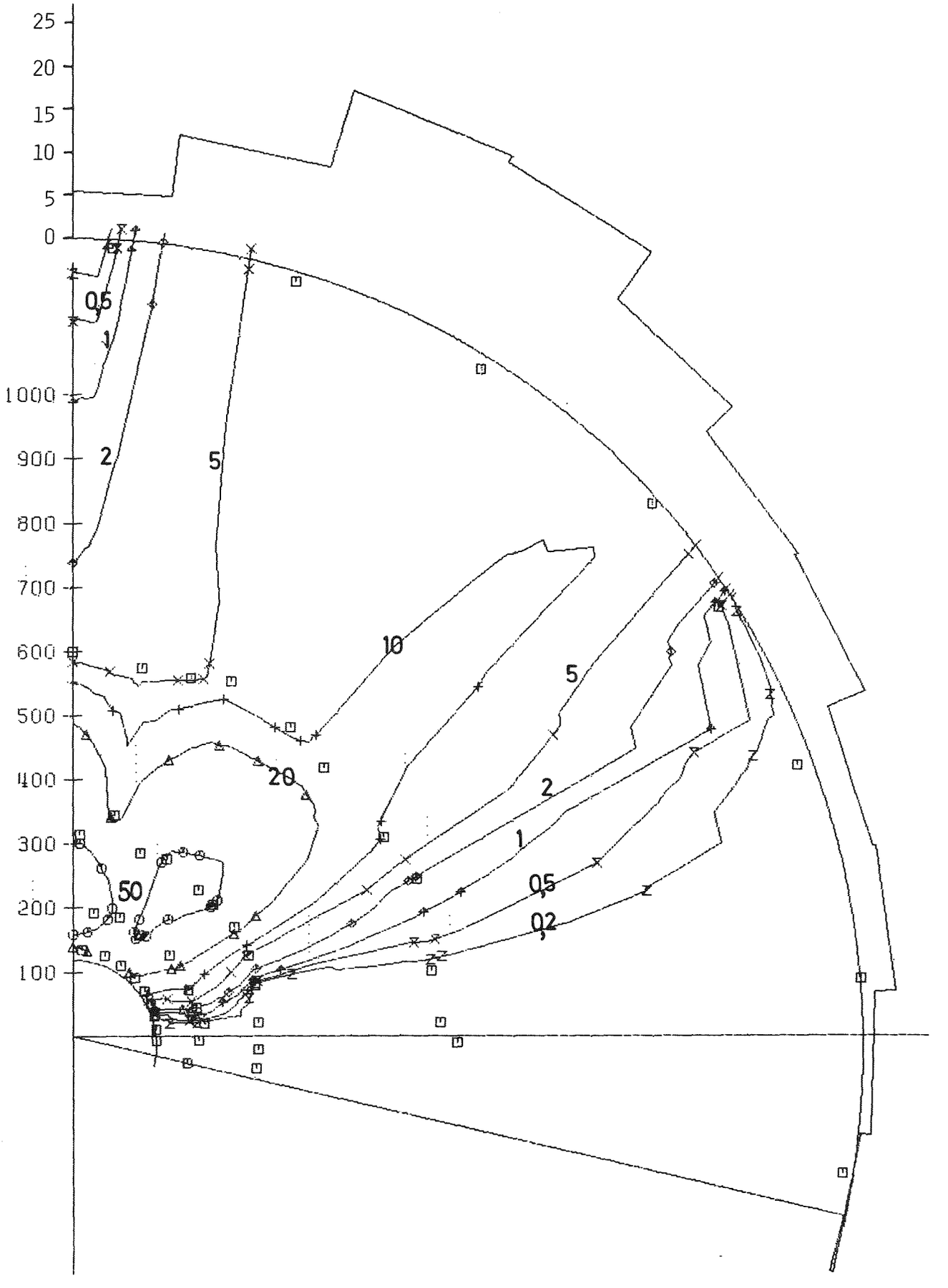

FIG. 5A: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 32/1 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

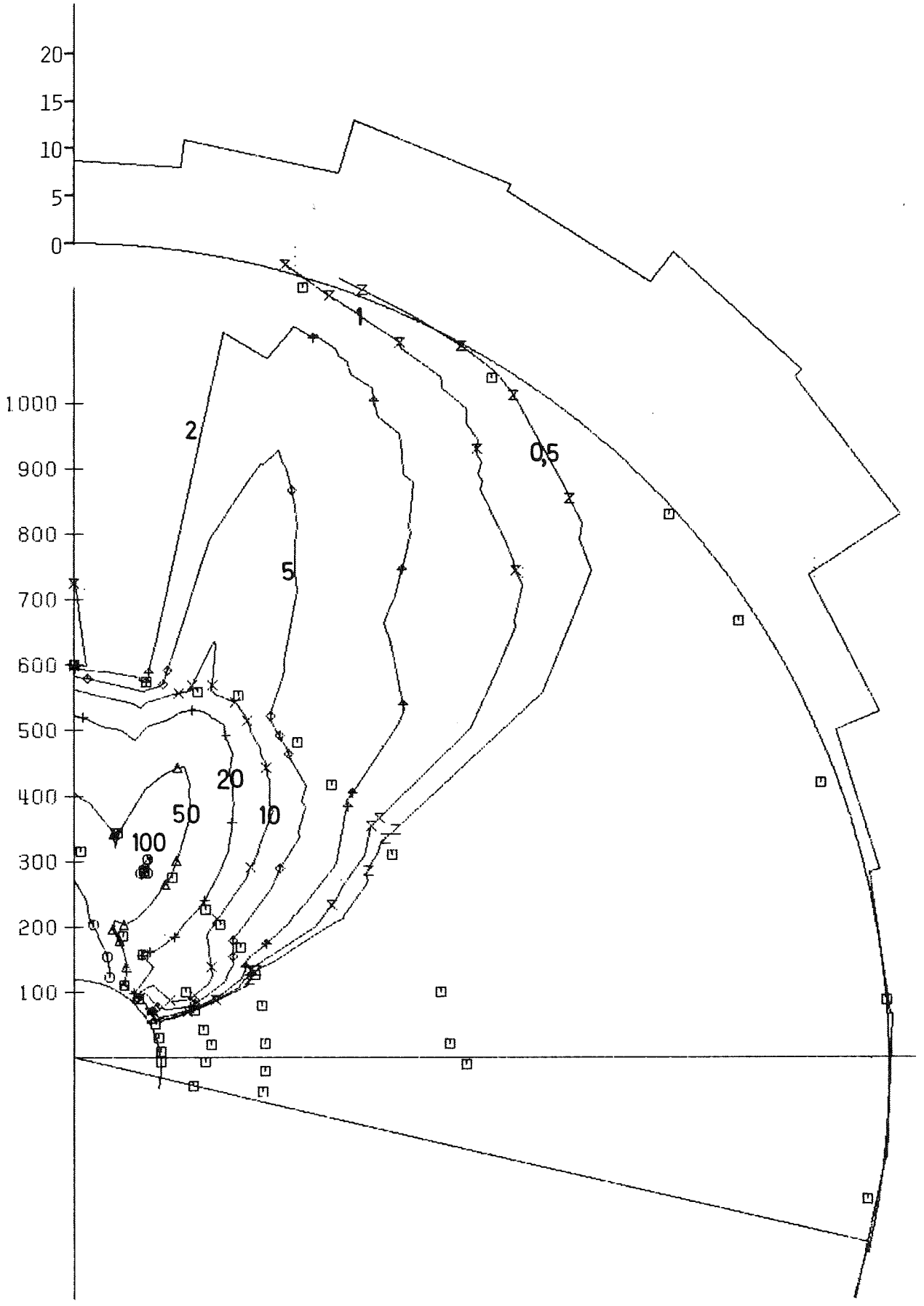

FIG. 5B: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 32/2 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

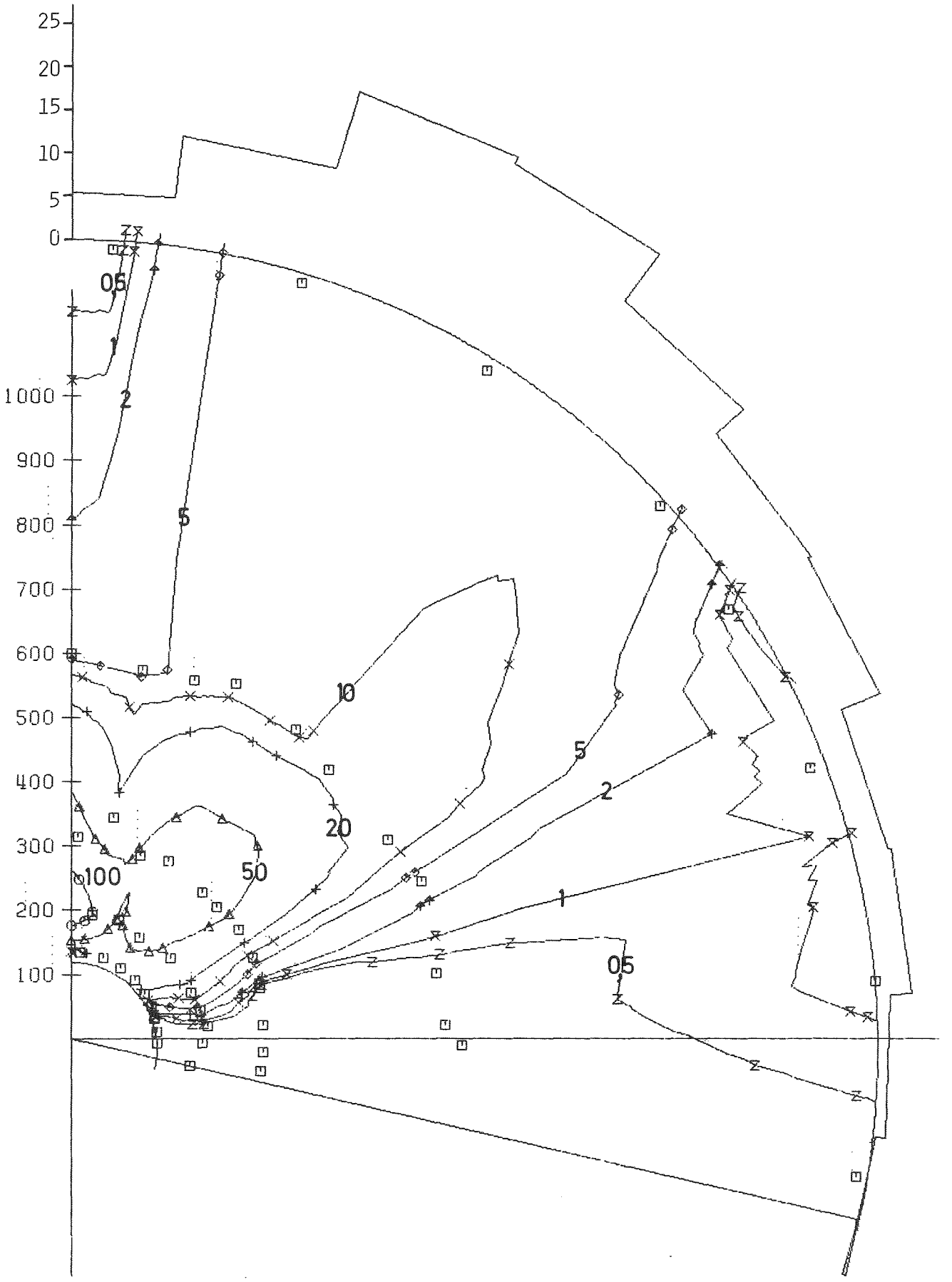

FIG. 5C: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3

EXPERIMENT 32/1 CFCL3 H=60 M

FOR DETAILED INFORMATION SEE FIGURE 1A

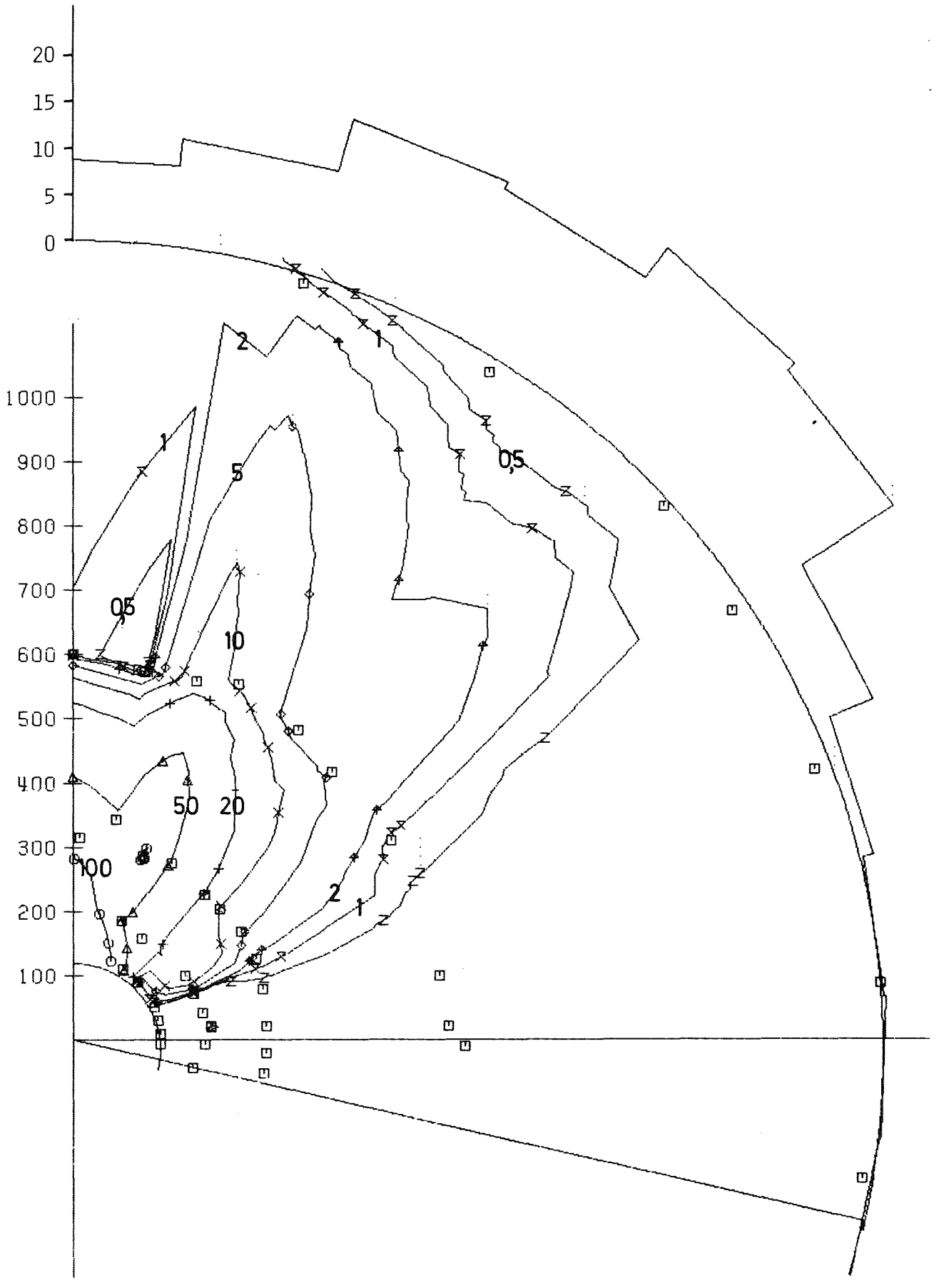

FIG. 5D: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 32/2 CFCL3 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

TAB. 6A: METEOROLOGICAL DATA OF EXPERIMENT NO. 33

		HEIGHT (M)	1.SAMPLING PERIOD 14.10	14.20	14.30	2.SAMPLING PERIOD 14.40	14.50	15.00
WIND DIRECTION (DEGREE)		40	254	270	269	267	284	322
		60	256	265	265	265	283	316
		100	261	266	268	270	288	320
		160	269	269	274	285	302	325
		200	273	274	278	294	313	333
WIND SPEED (M/S)		40	2.6	2.5	2.4	2.5	1.9	1.9
		60	3.1	3.0	2.9	3.1	2.4	2.5
		100	3.6	3.2	3.1	3.1	2.7	3.1
		160	3.7	3.6	3.7	3.3	3.0	3.7
		200	3.8	3.7	3.9	3.7	3.9	4.1
STANDARD DEVIATION OF WIND DIR. VECTOR VANE (DEGREE)	VER.	40	9.6	8.1	6.9	6.1	6.4	7.3
	HOR.		****	****	****	****	****	****
	VER.	100	8.3	6.9	5.5	4.7	4.6	4.6
	HOR.		9.7	7.6	6.4	5.6	6.0	7.0
	VER.	160	****	****	****	****	****	****
	HOR.		****	****	****	****	****	****
STAND. DEVIATION OF HOR. WIND DIRECTION WIND VANE (DEGREE)		100	9.4	5.8	4.8	9.8	6.6	****
TEMPERATURE GRADIENT (K/100M)		30/100	-0.9	-0.8	-0.7	-0.6	-0.6	-0.6
NET RADIATION (MW/CM**2)			3.5	3.0	2.9	2.3	1.3	1.7
DIFFUSION CATEGORY BASED ON ...	VER. FLUCTUATION			D			D	
	HOR. FLUCTUATION			D			D	
	TEMP. GRADIENT			D			D	
	SYNOP. OBSERV.			D			D	

TAB. 68: EXPERIMENT 33 7.10.75 14.00 - 15.00

TRACER AND EMISSION RATE: CF2BR2 8.60 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	255.	3.	≤ 67	-
	B	270.	13.	≤ 67	≤ 67
	C	270.	25.	≤ 67	≤ 67
	D	285.	35.	≤ 67	249
	E	270.	47.	≤ 67	230
	F	270.	53.	≤ 67	≤ 67
	G	275.	65.	≤ 67	≤ 67
	H	270.	75.	≤ 67	≤ 67
	I	275.	84.	≤ 67	-
II	A	360.	0.	≤ 67	-
	B	360.	32.	≤ 67	-
	C	360.	40.	≤ 67	≤ 67
	D	350.	54.	-	≤ 67
	E	355.	64.	≤ 67	≤ 67
	F	340.	75.	≤ 67	-
	G	345.	82.	≤ 67	≤ 67
	H	350.	90.	≤ 67	≤ 67
III	A	610.	36.	≤ 67	-
	B	600.	46.	≤ 67	-
	C	610.	54.	≤ 67	≤ 67
	D	555.	63.	295	≤ 67
	E	600.	72.	3652	≤ 67
	F	590.	79.	4869	269
	G	545.	89.	6613	131
IV	A	920.	1.	-	≤ 67
	B	880.	45.	≤ 67	-
	C	955.	53.	≤ 67	≤ 67
	D	810.	60.	≤ 67	≤ 67
	E	865.	66.	2957	438
	F	965.	73.	14940	414
	G	1050.	78.	22080	2759
V	A	1810.	34.	≤ 67	-
	B	1815.	50.	≤ 67	≤ 67
	C	1780.	70.	124	≤ 67
	D	1800.	92.	≤ 67	11470

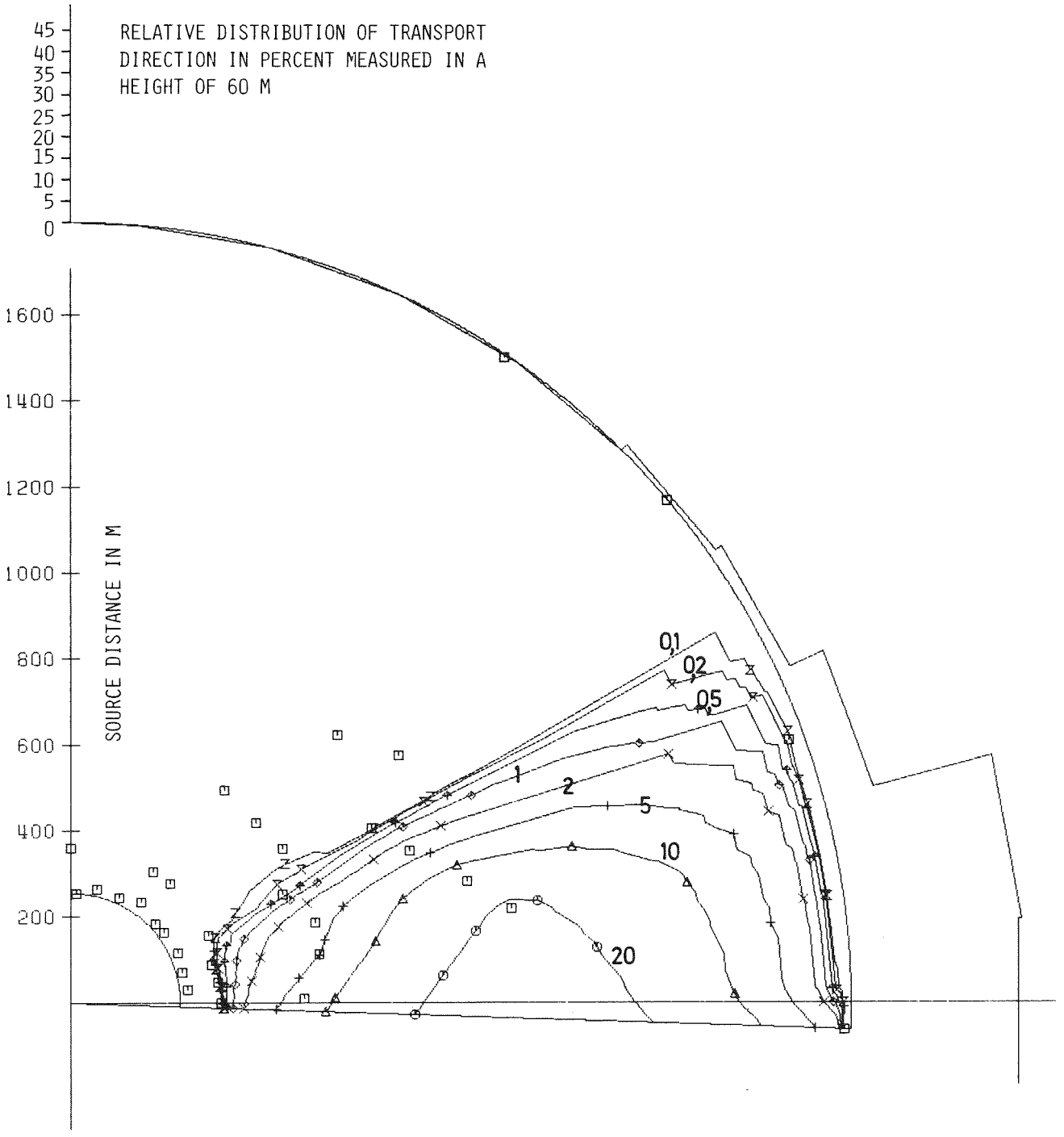

FIG. 6A: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 33/1 CF2BR2 H=100 M

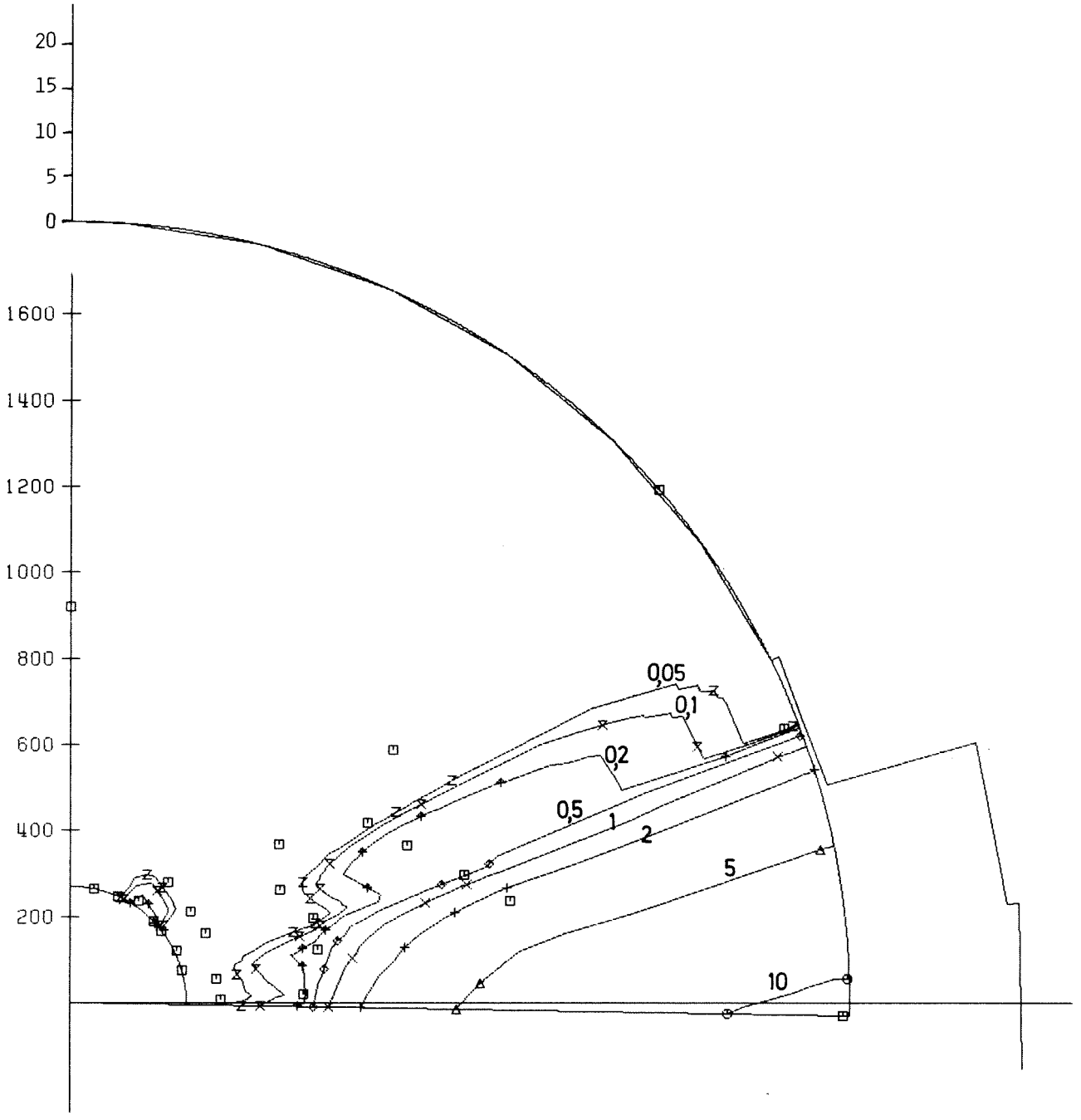

FIG. 6B: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 33/2 CF2BR2 H=100 M
FOR DETAILED INFORMATION SEE FIGURE 6A

TAB. 7A: METEOROLOGICAL DATA OF EXPERIMENT NO. 34

		HEIGHT (M)	1.SAMPLING PERIOD 14.10	14.20	14.30	2.SAMPLING PERIOD 14.40	14.50	15.00
WIND DIRECTION (DEGREE)		40	249	234	235	229	227	227
		60	243	230	230	226	225	221
		100	241	230	230	229	227	219
		160	239	235	235	236	233	227
		200	249	244	247	246	242	237
WIND SPEED (M/S)		40	2.4	2.2	2.6	2.7	2.7	3.0
		60	2.5	2.6	2.8	2.9	3.2	3.6
		100	2.6	2.8	3.1	3.4	3.9	3.9
		160	3.1	3.1	3.2	3.8	3.9	3.7
		200	3.1	3.3	3.1	3.8	3.8	3.6
STANDARD DEVIATION OF WIND DIR. VECTOR VANE (DEGREE)	VER.	40	9.8	9.3	9.0	9.2	10.1	10.0
	HOR.		13.1	12.7	12.0	11.8	13.3	12.2
	VER.	100	8.4	8.2	6.9	7.4	6.8	5.8
	HOR.		9.5	9.2	8.5	8.3	7.0	5.7
	VER.	160	****	****	****	****	****	****
	HOR.		****	****	****	****	****	****
STAND. DEVIATION OF HOR. WIND DIRECTION WIND VANE (DEGREE)		100	12.2	11.1	7.6	8.8	5.3	5.2
TEMPERATURE GRADIENT (K/100M)		30/100	-1.1	-1.1	-1.1	-1.0	-1.1	-1.0
NET RADIATION (MW/CM**2)			2.3	2.4	2.5	2.7	2.6	1.9
DIFFUSION CATEGORY BASED ON ...	VER. FLUCTUATION			C			D	
	HOR. FLUCTUATION			D			E	
	TEMP. GRADIENT			C			C	
	SYNOP. OBSERV.			C			C	

TAB. 7B: EXPERIMENT 34 6.11.75 14.00 - 15.00

TRACER AND EMISSION RATE: CFCL3 11.70 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	210.	15.	≤ 516	3102
	B	210.	29.	8301	15381
	C	210.	40.	78381	53721
	D	210.	47.	59891	99311
	E	215.	72.	5748	6886
	F	210.	85.	11021	693
	G	210.	95.	≤ 516	-
	H	215.	109.	529	≤ 516
	I	205.	123.	≤ 516	≤ 516
II	A	245.	0.	≤ 516	≤ 516
	B	250.	16.	≤ 516	≤ 516
	C	250.	36.	72601	98111
	D	245.	51.	61021	168510
	E	250.	60.	88911	49551
	F	245.	77.	13731	3401
	G	265.	92.	≤ 516	≤ 516
	H	265.	106.	1838	≤ 516
	I	260.	112.	≤ 516	≤ 516
	K	275.	118.	≤ 516	≤ 516
III	A	455.	13.	≤ 516	≤ 516
	B	465.	21.	≤ 516	1551
	C	465.	34.	5083	46841
	D	465.	39.	58771	123910
	E	450.	52.	83831	93371
	F	465.	65.	106510	3112
	G	450.	72.	39851	≤ 516
	H	465.	85.	2284	647
	I	455.	98.	≤ 516	-
	K	450.	109.	≤ 516	≤ 516
	L	435.	121.	≤ 516	≤ 516
	M	450.	130.	≤ 516	≤ 516
IV	A	870.	10.	532	881
	B	855.	19.	≤ 516	≤ 516
	C	860.	32.	717	32541
	D	820.	49.	29561	159510
	E	805.	55.	135910	66311
	F	875.	67.	88701	4862
	G	820.	71.	15931	1643
	H	780.	80.	7724	1491
	I	805.	91.	≤ 516	610
	K	800.	99.	1192	≤ 516
	L	840.	125.	683	6051
V	A	1140.	11.	≤ 516	-
	B	1135.	27.	≤ 516	1603
	C	1245.	36.	918	2689
	D	1155.	57.	18021	32801
	E	1060.	65.	25801	13391
	F	1400.	75.	1399	2908
	G	1235.	109.	715	2622
	H	1295.	127.	-	4857

TAB. 7C: EXPERIMENT 34 6.11.75 14.00 - 15.00

TRACER AND EMISSION RATE: CF2BR2 7.10 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	210.	29.	27	-
	B	210.	47.	-	264
	C	215.	72.	459	-
	D	210.	85.	535	-
II	A	245.	77.	769	-
III	A	455.	13.	-	209
	B	465.	39.	3184	-
	C	450.	52.	18750	5165
	D	465.	65.	8333	21590
	E	450.	72.	1846	188
IV	A	870.	10.	-	3874
	B	860.	32.	-	1813
	C	820.	49.	21780	83020
	D	805.	55.	77660	35740
	E	875.	67.	22520	6752
	F	820.	71.	1705	204
	G	780.	80.	873	-
V	A	1245.	36.	395	-
	B	1155.	57.	23910	21590
	C	1060.	65.	5720	15860
	D	1400.	75.	170	-

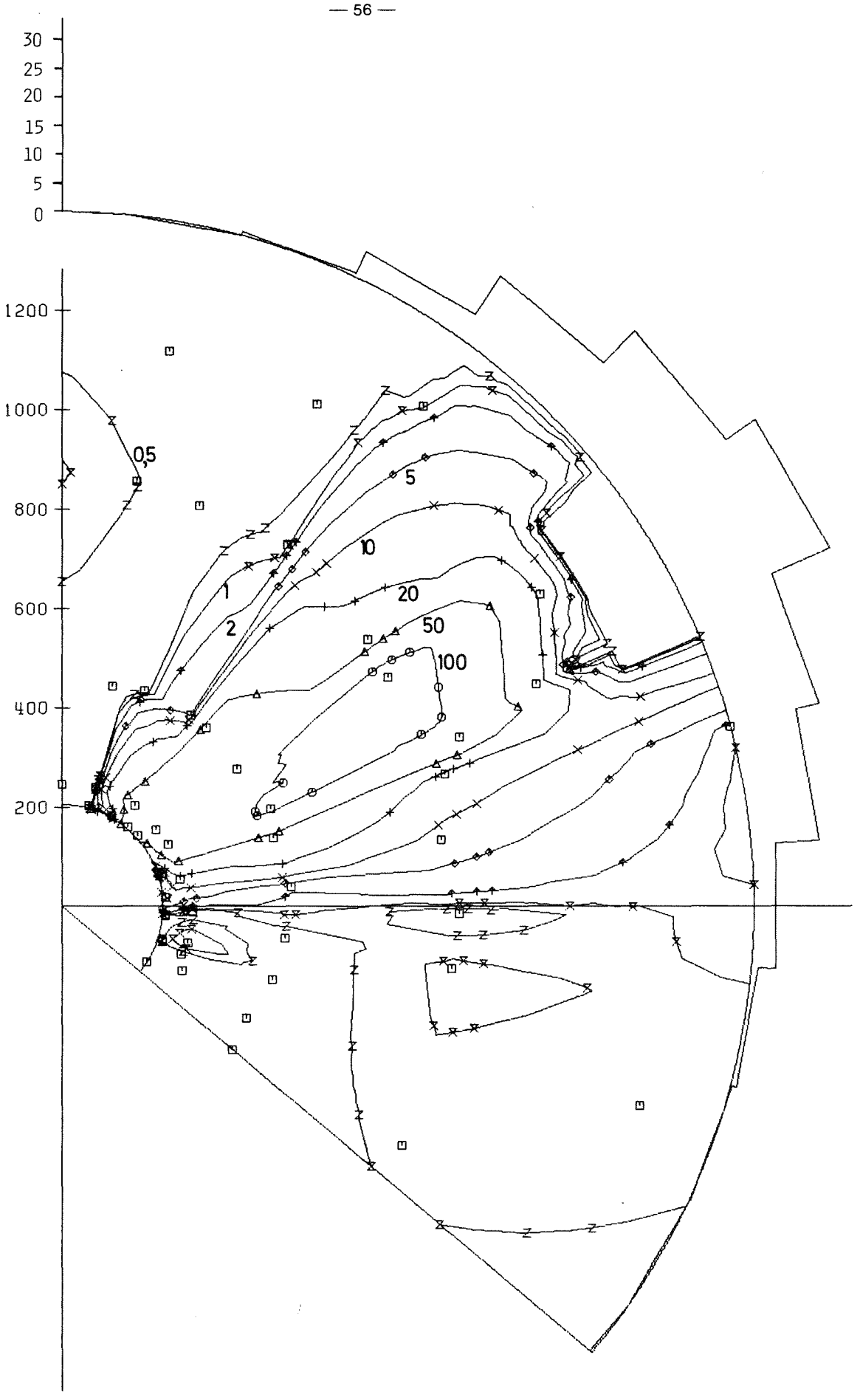

FIG. 7A: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 34/1 CFCL3 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

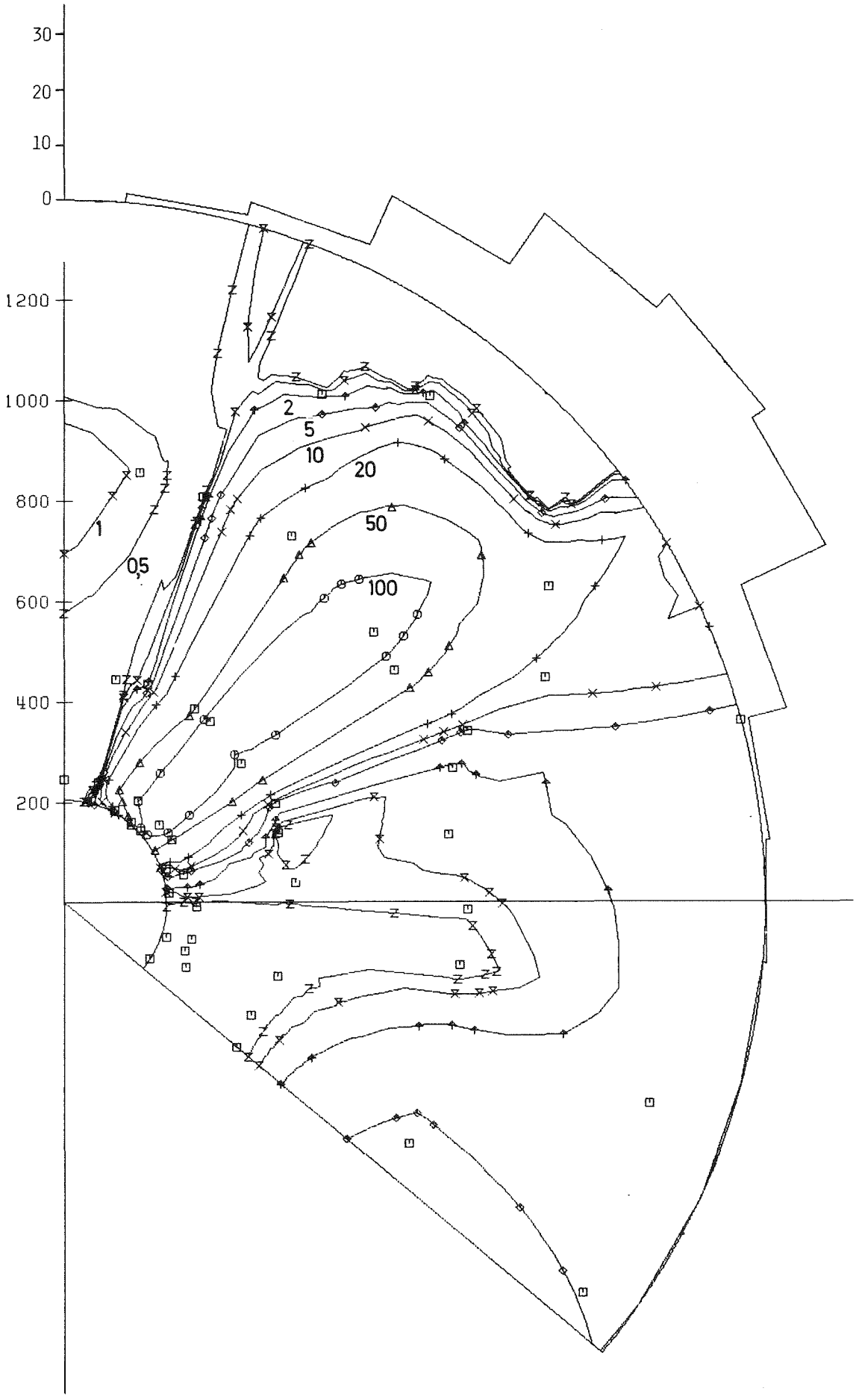

FIG. 7B: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 34/2 CFCL3 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

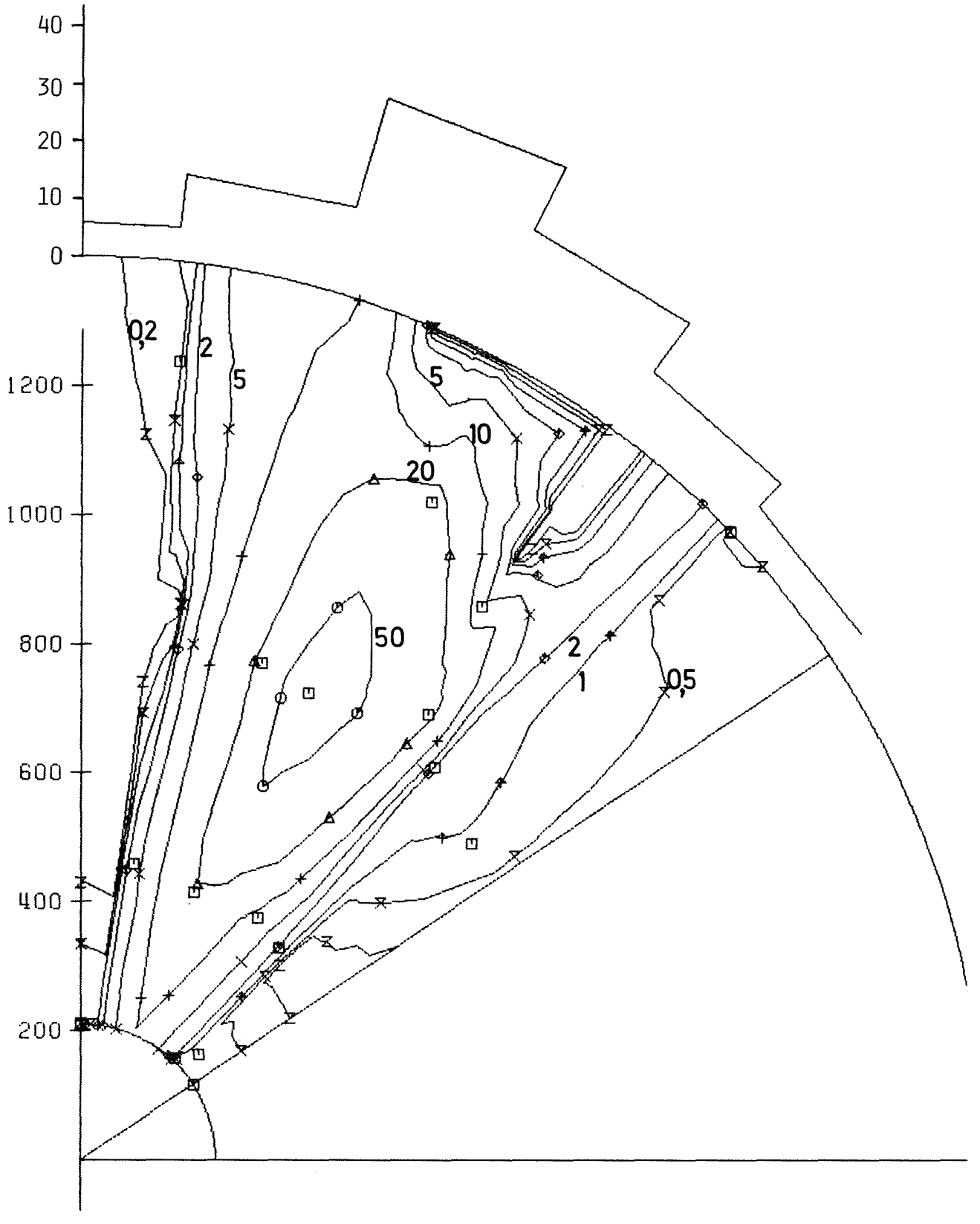

FIG. 7C: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 34/1 CF2BR2 H=100 M
FOR DETAILED INFORMATION SEE FIGURE 6A

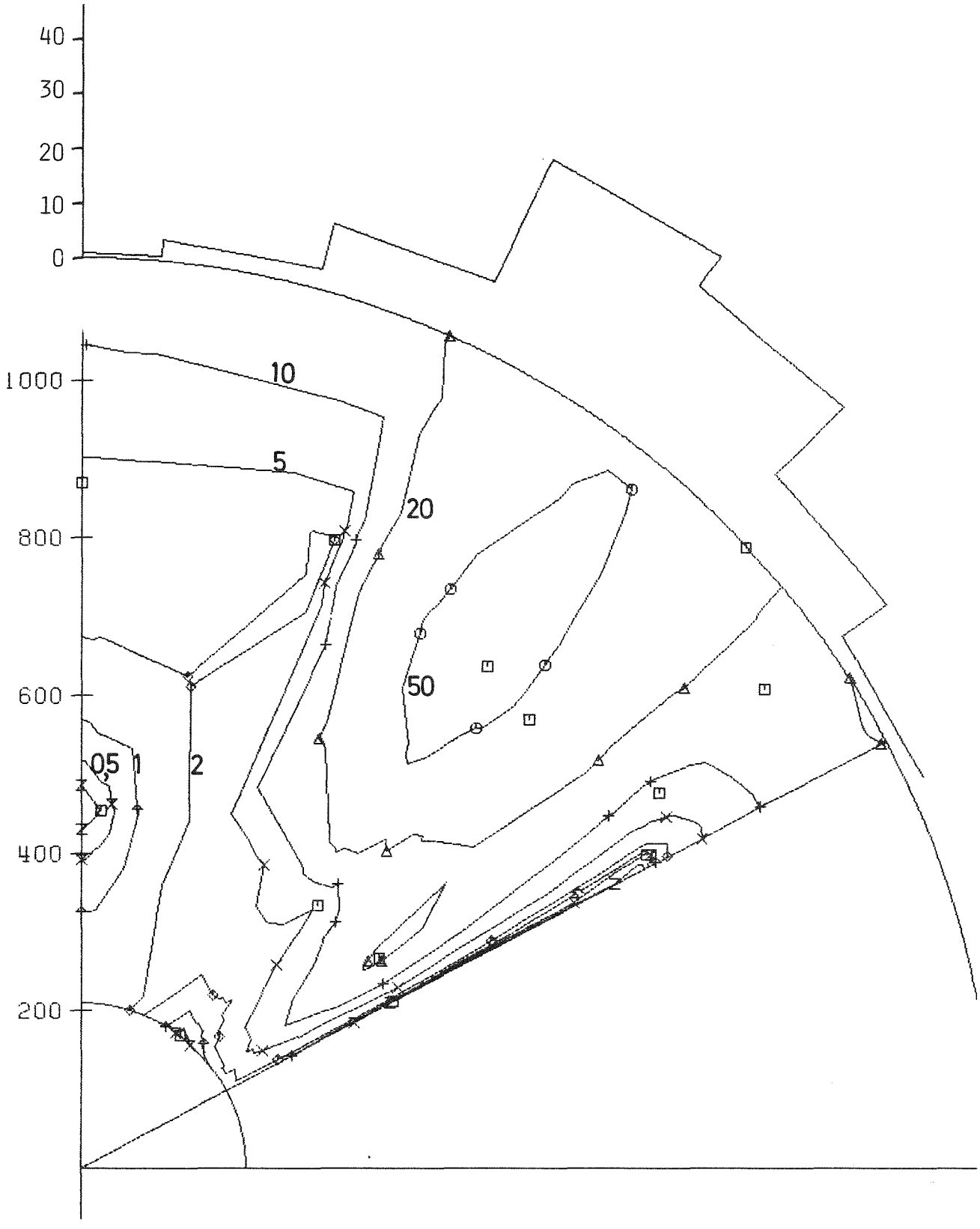

FIG. 7D: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 34/2 CF2BR2 H=100 M.
FØR DETAILED INFØRMATION SEE FIGURE 6A

TAB. 8A: METEOROLOGICAL DATA OF EXPERIMENT NO. 35

		HEIGHT (M)	1.SAMPLING PERIOD 14.40	14.50	15.00	2.SAMPLING PERIOD 15.10	15.20	15.30
WIND DIRECTION (DEGREE)		40	50	105	80	59	189	32
		60	59	91	80	88	157	25
		100	86	93	103	125	161	15
		160	74	90	103	127	143	39
		200	69	97	114	129	129	58
WIND SPEED (M/S)		40	1.2	1.9	1.6	1.8	2.3	2.4
		60	1.4	2.2	1.6	1.9	2.4	2.5
		100	1.3	2.2	2.1	1.6	2.8	2.7
		160	1.2	2.2	2.2	2.2	2.5	2.8
		200	1.1	2.0	2.4	2.6	2.7	2.7
STANDARD DEVIATION OF WIND DIR. VECTOR VANE (DEGREE)	VER.	40	****	****	****	****	****	****
	HOR.		****	****	****	****	****	****
	VER.	100	15.0	17.0	15.5	17.2	16.6	16.7
	HOR.		17.6	21.4	18.0	****	****	****
	VER.	160	****	****	****	****	****	****
	HOR.		****	****	****	****	****	****
STAND. DEVIATION OF HOR. WIND DIRECTION WIND VANE (DEGREE)		100	34.5	30.4	20.9	67.6	22.8	****
TEMPERATURE GRADIENT (K/100M)		30/100	-1.2	-1.2	-1.0	-1.3	-1.1	-1.3
NET RADIATION (MW/CM**2)			25.8	28.1	28.7	31.0	18.6	13.7
DIFFUSION CATEGORY BASED ON ...	VER. FLUCTUATION			A			A	
	HOR. FLUCTUATION			B			A	
	TEMP. GRADIENT			B			B	
	SYNOP. OBSERV.			B			B	

TAB. 8B: EXPERIMENT 35 13. 4.76 14.30 - 15.30

TRACER AND EMISSION RATE: CF2BR2 7.60 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	125.	150.	-	-
	B	115.	163.	-	48979 ± 1469
	C	105.	179.	-	33473 ± 1004
	D	105.	198.	≤ 120	55712 ± 1671
	E	115.	218.	12281 ± 368	30732 ± 1229
	F	105.	285.	62325 ± 1869	19860 ± 595
	G	110.	303.	53211 ± 1596	18752 ± 562
II	A	175.	182.	-	16313 ± 489
	B	165.	203.	660 ± 138	60571 ± 1817
	C	170.	214.	4501 ± 180	55412 ± 1662
	D	180.	229.	134 ± 50	30760 ± 1230
	E	180.	246.	23606 ± 944	14274 ± 570
	F	225.	254.	22860 ± 685	18160 ± 544
	G	210.	265.	-	39460 ± 1973
	H	190.	285.	48689 ± 1460	27700 ± 831
III	A	300.	148.	-	-
	B	285.	177.	-	546 ± 54
	C	320.	214.	-	6466 ± 258
	D	320.	242.	2681 ± 134	-
	E	320.	260.	20122 ± 603	18331 ± 549
	F	380.	271.	27000 ± 810	9962 ± 398
	G	365.	278.	10616 ± 318	5766 ± 172
	H	375.	298.	5608 ± 224	2403 ± 120
IV	A	505.	193.	≤ 120	≤ 120
	B	500.	208.	-	≤ 120
	C	580.	218.	≤ 120	≤ 120
	D	410.	260.	6801 ± 272	2052 ± 102
	E	535.	275.	4301 ± 172	1990 ± 99
	F	645.	282.	855 ± 76	1985 ± 99
	G	575.	299.	1672 ± 100	-
V	A	745.	185.	-	≤ 120
	B	890.	206.	≤ 120	≤ 120
	C	890.	239.	≤ 120	293 ± 64
	D	820.	250.	285 ± 48	≤ 120
	E	675.	261.	1485 ± 89	588 ± 70
	F	885.	266.	903 ± 90	501 ± 60
	G	895.	287.	285 ± 59	475 ± 57
	H	860.	298.	≤ 120	681 ± 68

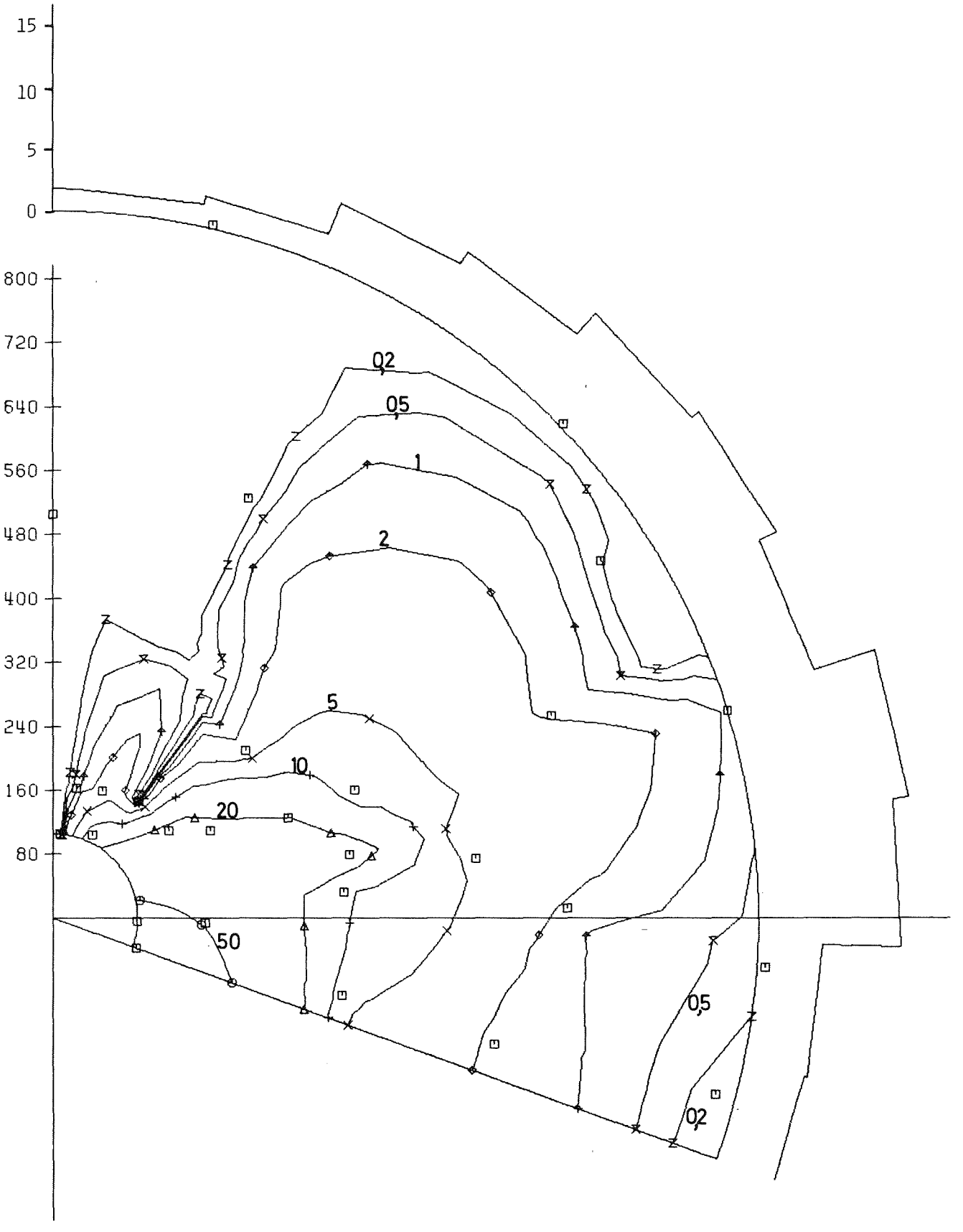

FIG. 8A: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 35/1 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

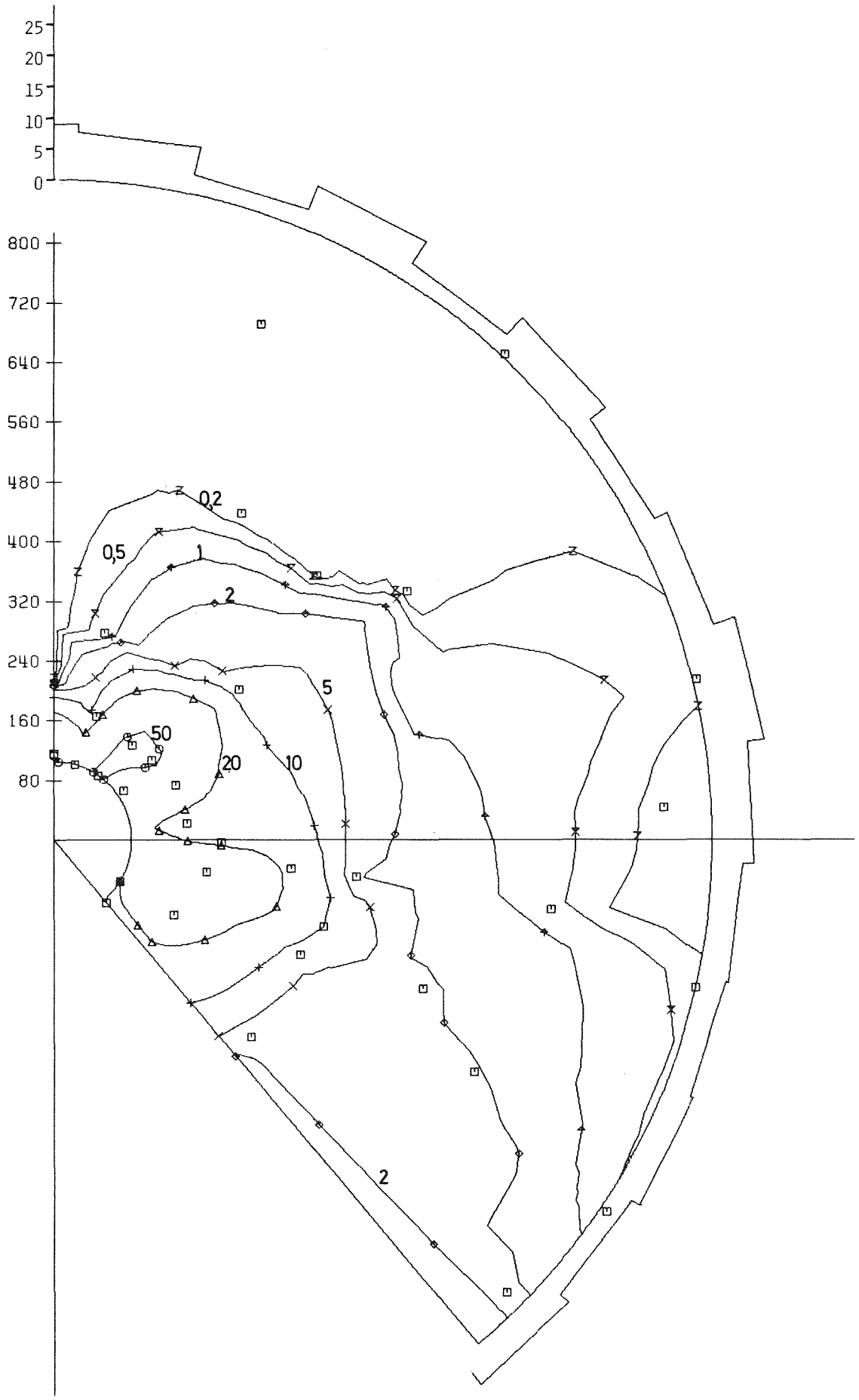

FIG. 8B: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 35/2 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

TAB. 9A: METEOROLOGICAL DATA OF EXPERIMENT NC. 36

		HEIGHT (M)	1.SAMPLING PERIOD 14.40	14.50	15.00	2.SAMPLING PERIOD 15.10	15.20	15.30
WIND DIRECTION (DEGREE)		40	263	254	256	262	261	248
		60	260	253	253	258	258	243
		100	255	248	249	256	255	238
		160	253	247	248	252	250	239
		200	254	251	248	254	249	244
WIND SPEED (M/S)		40	5.2	5.0	4.7	4.9	4.9	4.7
		60	6.2	5.9	5.7	5.5	5.4	4.8
		100	7.1	6.7	6.3	6.1	5.9	5.1
		160	8.1	7.5	6.5	6.3	6.2	5.6
		200	8.7	8.0	6.6	6.5	6.4	5.9
STANDARD DEVIATION OF WIND DIR. VECTOR VANE (DEGREE)	VER.	40	10.3	9.8	9.7	10.0	9.8	9.6
	HOR.	40	13.4	12.0	11.9	11.3	10.6	10.4
	VER.	100	6.9	6.7	6.3	6.1	6.4	7.7
	HOR.	100	8.7	7.7	7.3	7.5	7.4	8.4
	VER.	160	****	****	****	****	****	****
	HOR.	160	****	****	****	****	****	****
STAND. DEVIATION OF HOR. WIND DIRECTION WIND VANE (DEGREE)		100	7.6	7.7	6.7	7.2	8.0	14.4
TEMPERATURE GRADIENT (K/100M)		30/100	-1.0	-0.8	-1.0	-1.3	-1.2	-1.1
NET RADIATION (MW/CM**2)			3.7	5.9	13.9	26.0	15.8	26.8
DIFFUSION CATEGORY BASED ON ...	VER. FLUCTUATION			D			D	
	HOR. FLUCTUATION			D			D	
	TEMP. GRADIENT			D			C	
	SYNOP. OBSERV.			D			D	

TAB. 9B: EXPERIMENT 36 12. 5.76 14.30 - 15.30

TRACER AND EMISSION RATE: CFCL3 10.00 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	115.	14.	≤ 387	-
	B	120.	42.	453 ± 194	≤ 387
	C	120.	55.	818 ± 196	6414 ± 1988
	D	120.	65.	4398 ± 263	5546 ± 277
	E	115.	79.	5140 ± 257	10402 ± 416
	F	125.	97.	965 ± 202	14555 ± 436
II	A	215.	2.	1427 ± 185	1544 ± 185
	B	210.	15.	≤ 387	689 ± 199
	C	210.	32.	≤ 387	-
	D	210.	47.	1188 ± 201	498 ± 199
	E	210.	66.	13375 ± 535	1970 ± 216
	F	205.	81.	24182 ± 967	59789 ± 1793
	G	210.	95.	3140 ± 251	18035 ± 721
	H	205.	105.	1343 ± 214	8740 ± 349
III	A	360.	0.	≤ 387	≤ 387
	B	305.	16.	≤ 387	≤ 387
	C	305.	30.	1236 ± 210	2609 ± 234
	D	315.	41.	1835 ± 220	1244 ± 211
	E	295.	55.	21236 ± 849	11704 ± 468
	F	290.	64.	-	32495 ± 1299
	G	305.	74.	36945 ± 1477	80465 ± 3218
	H	315.	89.	17793 ± 711	47663 ± 1906
	I	300.	103.	3118 ± 249	18445 ± 737
	K	280.	110.	652 ± 202	13533 ± 541
IV	A	415.	0.	≤ 387	472 ± 198
	B	490.	20.	≤ 387	≤ 387
	C	550.	44.	13612 ± 544	545 ± 201
	D	490.	66.	34680 ± 1387	40807 ± 1632
	E	540.	94.	49289 ± 2464	24336 ± 730
	F	505.	109.	≤ 387	5421 ± 271
V	A	895.	8.	1592 ± 254	≤ 387
	B	775.	17.	693 ± 200	≤ 387
	C	780.	39.	1913 ± 210	627 ± 200
	D	850.	48.	8158 ± 326	441 ± 198
	E	790.	59.	16764 ± 502	5654 ± 282
	F	805.	69.	15537 ± 466	25317 ± 759
	G	845.	81.	13015 ± 390	37756 ± 1132
	H	805.	95.	2878 ± 230	15200 ± 456
	I	850.	107.	≤ 387	-
VI	A	1115.	9.	≤ 387	≤ 387
	B	1145.	31.	744 ± 200	863 ± 207
	C	1310.	56.	8628 ± 345	1537 ± 199
	D	965.	76.	-	816 ± 204
	E	1285.	94.	2820 ± 225	775 ± 201
	F	1240.	109.	≤ 387	≤ 387

TAB. 9C: EXPERIMENT 36 12. 5.76 14.30 - 15.30

TRACER AND EMISSION RATE: CF2BR2 7.20 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	115.	14.	≤ 177	-
	B	120.	42.	≤ 177	≤ 177
	C	120.	55.	≤ 177	419 ± 83
	D	120.	65.	≤ 177	≤ 177
	E	115.	79.	≤ 177	≤ 177
	F	125.	97.	≤ 177	≤ 177
II	A	215.	2.	≤ 177	≤ 177
	B	210.	15.	≤ 177	≤ 177
	C	210.	32.	≤ 177	-
	D	210.	47.	≤ 177	≤ 177
	E	210.	66.	≤ 177	456 ± 177
	F	205.	81.	≤ 177	≤ 177
	G	210.	95.	≤ 177	≤ 177
	H	205.	105.	≤ 177	≤ 177
III	A	360.	0.	≤ 177	≤ 177
	B	305.	16.	≤ 177	≤ 177
	C	305.	30.	≤ 177	7601 ± 304
	D	315.	41.	≤ 177	≤ 177
	E	295.	55.	≤ 177	≤ 177
	F	290.	64.	-	≤ 177
	G	305.	74.	≤ 177	≤ 177
	H	315.	89.	≤ 177	≤ 177
	I	300.	103.	≤ 177	≤ 177
	K	280.	110.	≤ 177	≤ 177
IV	A	415.	0.	≤ 177	≤ 177
	B	490.	20.	≤ 177	≤ 177
	C	550.	44.	≤ 177	≤ 177
	D	490.	66.	4065 ± 162	9400 ± 376
	E	540.	94.	≤ 177	2386 ± 119
	F	505.	109.	≤ 177	≤ 177
V	A	895.	8.	≤ 177	≤ 177
	B	775.	17.	≤ 177	≤ 177
	C	780.	39.	≤ 177	≤ 177
	D	850.	48.	1444 ± 86	≤ 177
	E	790.	59.	3525 ± 141	678 ± 81
	F	805.	69.	4125 ± 123	12682 ± 380
	G	845.	81.	3576 ± 143	21139 ± 634
	H	805.	95.	1201 ± 96	3522 ± 140
	I	850.	107.	≤ 177	-
VI	A	1115.	9.	≤ 177	≤ 177
	B	1145.	31.	≤ 177	≤ 177
	C	1310.	56.	4517 ± 180	942 ± 84
	D	965.	76.	-	≤ 177
	E	1285.	94.	2060 ± 103	≤ 177
	F	1240.	109.	≤ 177	≤ 177

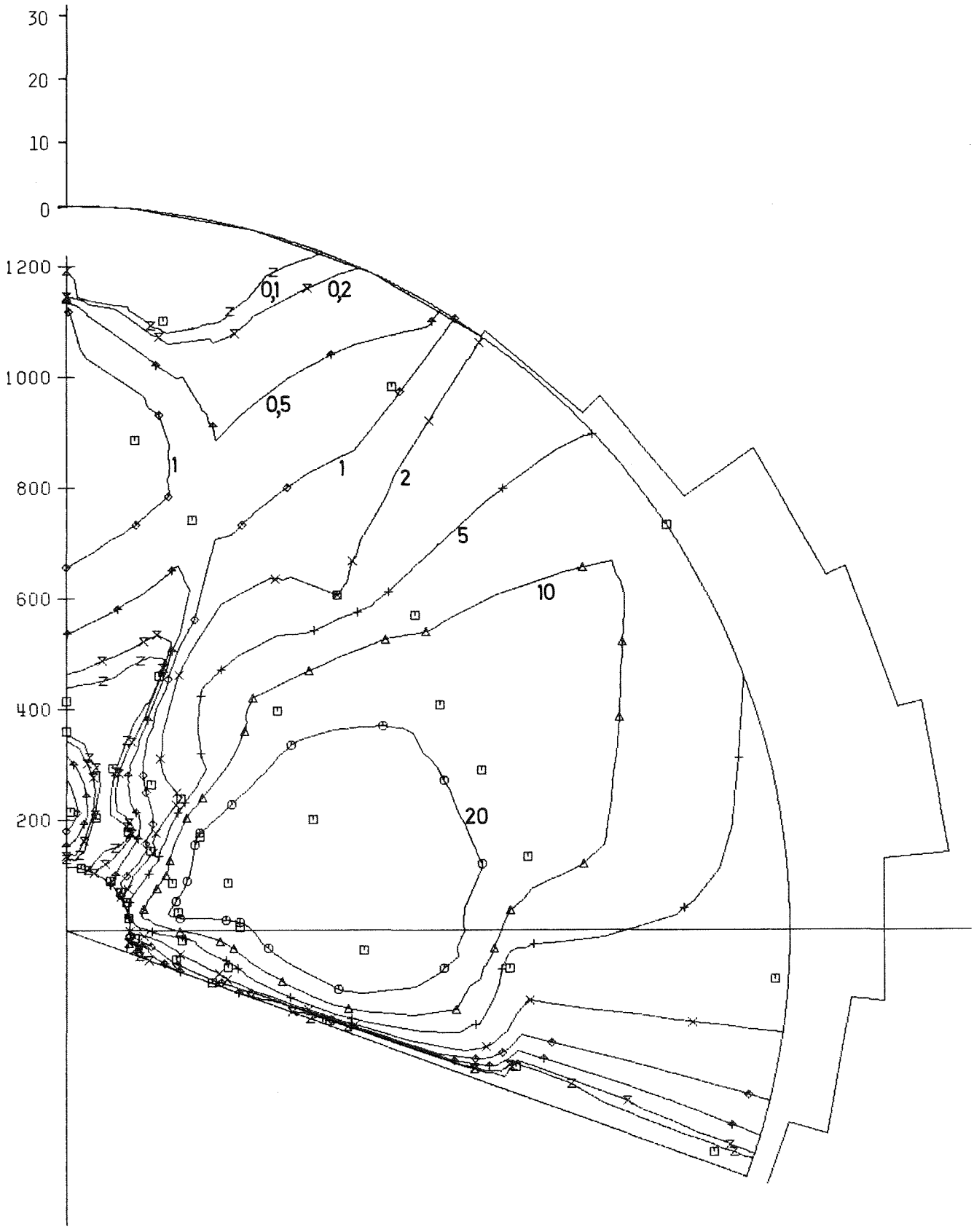

FIG. 9A: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 36/1 CFCL3 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

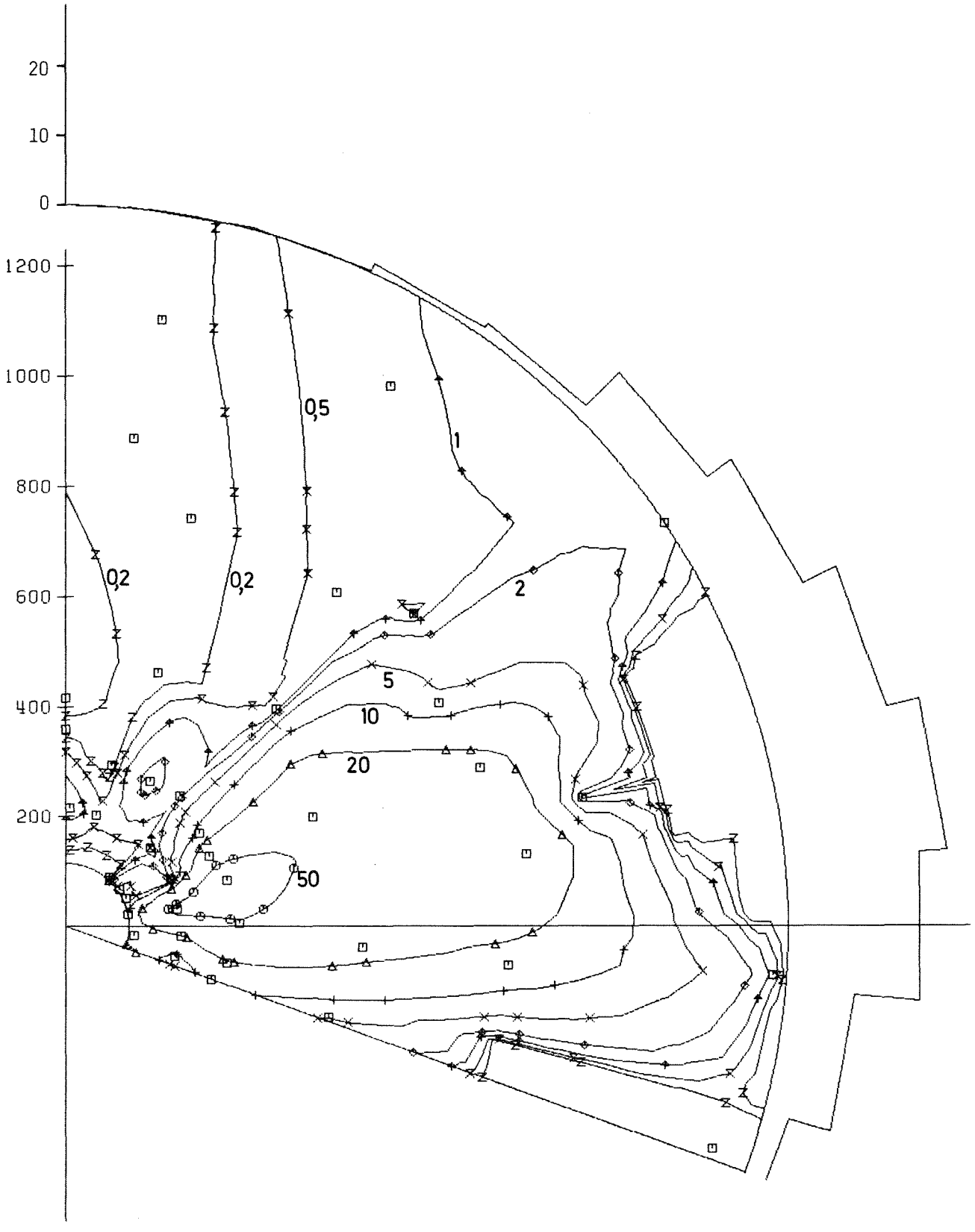

FIG. 9B: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 36/2 CFCL3 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

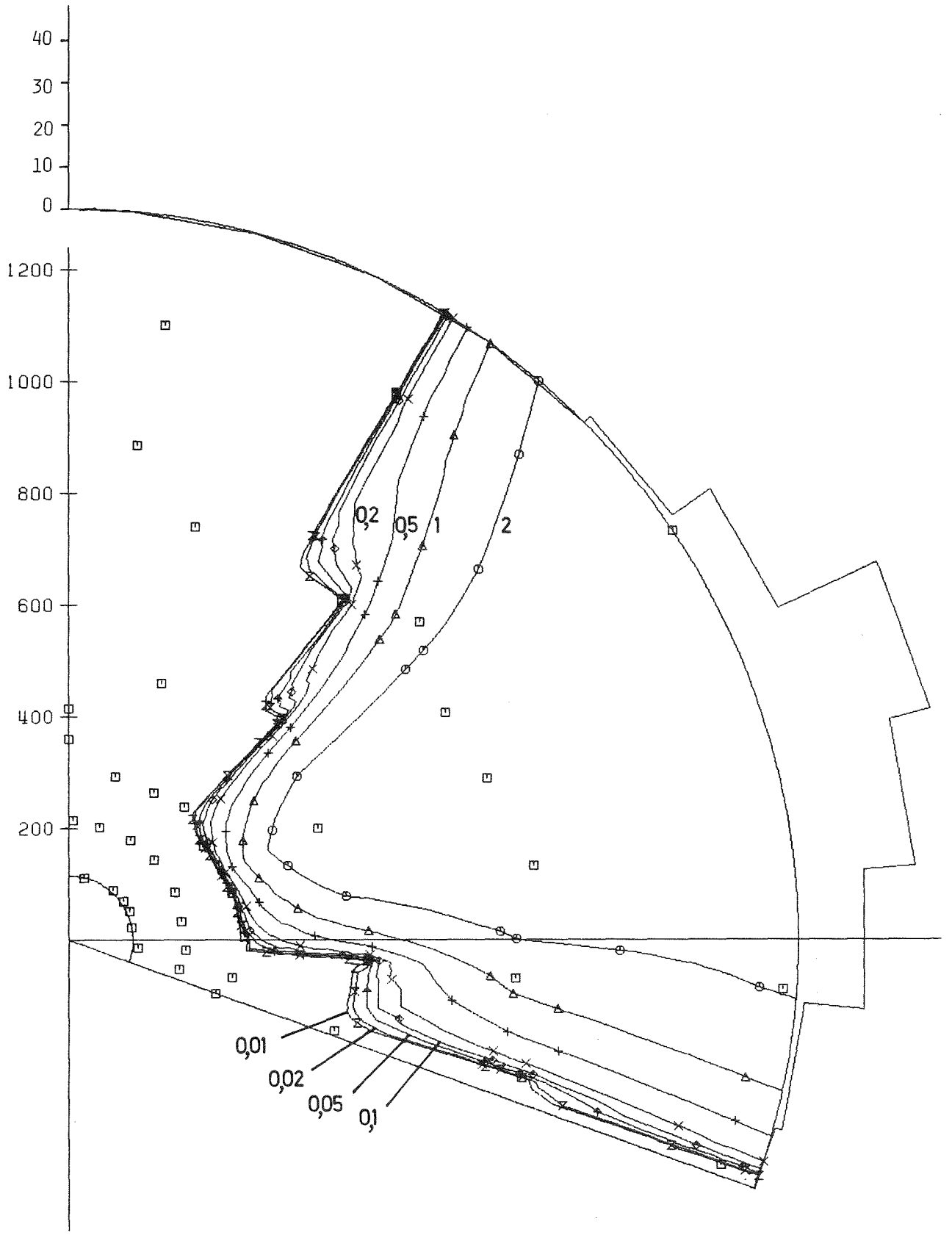

FIG. 9C: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 36/1 CF2BR2 H=100 M
FOR DETAILED INFORMATION SEE FIGURE 6A

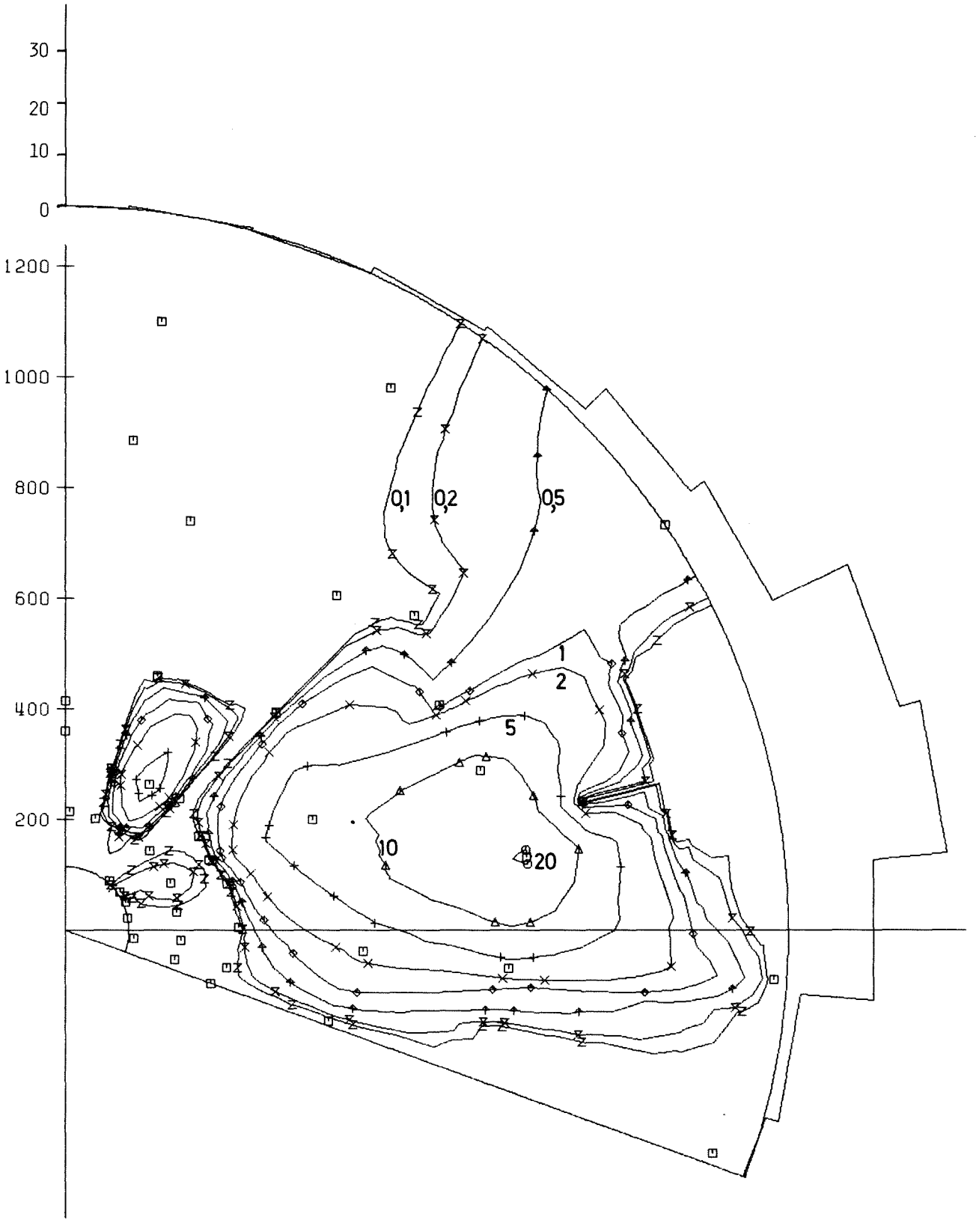

FIG. 9D: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 36/2 CF2BR2 H=100 M
FOR DETAILED INFORMATION SEE FIGURE 6A

TAB. 10A: METEOROLOGICAL DATA OF EXPERIMENT NO. 37

		HEIGHT (M)	1.SAMPLING PERIOD 22.10	22.20	22.30	2.SAMPLING PERIOD 22.40	22.50	23.00
WIND DIRECTION (DEGREE)		40	28	28	32	36	37	56
		60	29	27	31	35	34	44
		100	32	30	33	34	34	40
		160	41	36	35	36	40	46
		200	52	50	49	50	53	55
WIND SPEED (M/S)		40	3.9	3.6	3.1	1.8	1.6	2.0
		60	5.1	4.9	4.2	3.1	2.8	3.2
		100	7.2	7.3	6.3	5.2	5.3	5.1
		160	6.8	6.7	6.9	6.7	6.1	5.9
		200	7.5	6.8	6.9	6.6	6.7	6.7
STANDARD DEVIATION OF	VER.	40	5.1	4.5	4.3	4.6	4.7	3.9
	HOR.		5.2	4.9	4.7	5.2	5.3	5.0
WIND DIR. VECTOR VANE (DEGREE)	VER.	100	1.3	1.0	1.0	1.0	1.2	1.6
	HOR.		1.4	1.3	1.4	1.3	1.4	2.0
	VER.	160	****	****	****	****	****	****
	HOR.		****	****	****	****	****	****
STAND. DEVIATION OF HOR. WIND DIRECTION WIND VANE (DEGREE)		100	1.3	1.5	1.9	1.5	2.3	3.3
TEMPERATURE GRADIENT (K/100M)		30/100	1.6	1.4	1.2	1.4	1.8	2.2
NET RADIATION (MW/CM**2)			-4.4	-4.1	-3.9	-3.8	-3.6	-3.5
DIFFUSION CATEGORY BASED ON ...	VER. FLUCTUATION			F			F	
	HOR. FLUCTUATION			F			F	
	TEMP. GRADIENT			F			F	
	SYNOP. OBSERV.			E			E	

TAB. 10B: EXPERIMENT 37 22. 6.76 22.00 - 23.00

TRACER AND EMISSION RATE: CFCL3 10.10 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	825.	171.	≤ 806	≤ 806
	B	740.	186.	≤ 806	≤ 806
	C	700.	196.	≤ 806	≤ 806
	D	790.	209.	18260 ± 730	17325 ± 693
	E	930.	223.	≤ 806	1407 ± 408
	F	970.	233.	≤ 806	≤ 806
	G	855.	251.	≤ 806	≤ 806
II	A	1285.	159.	≤ 806	≤ 806
	B	1315.	184.	≤ 806	≤ 806
	C	1280.	193.	1831 ± 402	≤ 806
	D	1170.	200.	15165 ± 606	964 ± 404
	E	1250.	214.	1879 ± 413	8500 ± 510
	F	1500.	221.	2131 ± 404	16280 ± 651
	G	1285.	228.	1256 ± 401	≤ 806
	H	1095.	238.	≤ 806	≤ 806
III	A	1995.	156.	-	≤ 806
	B	1850.	169.	-	≤ 806
	C	2005.	190.	≤ 806	1444 ± 404
	D	1990.	196.	≤ 806	1435 ± 401
	E	2335.	207.	4150 ± 414	1786 ± 410
	F	2460.	220.	1089 ± 402	8007 ± 480
	G	1935.	224.	≤ 806	3822 ± 420
	H	1685.	242.	-	≤ 806
IV	A	3640.	151.	3225 ± 419	-
	B	3600.	166.	≤ 806	-
	C	3700.	179.	-	≤ 806
	D	3575.	191.	≤ 806	≤ 806
	E	3200.	205.	≤ 806	≤ 806
	F	3175.	214.	≤ 806	≤ 806
	G	3790.	227.	≤ 806	≤ 806
	H	3915.	232.	1295 ± 401	≤ 806
V	A	5750.	139.	≤ 806	≤ 806
	B	5940.	157.	≤ 806	≤ 806
	C	5915.	161.	-	1281 ± 409
	D	4950.	195.	1145 ± 400	≤ 806
	E	6540.	214.	838 ± 402	2301 ± 299
	F	6400.	224.	≤ 806	≤ 806
	G	6365.	238.	≤ 806	≤ 806

TAB. 10C: EXPERIMENT 37 22. 6.76 22.00 - 23.00

TRACER AND EMISSION RATE: CF2BR2 8.75 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	825.	171.	≤ 193	≤ 193
	B	740.	186.	≤ 193	≤ 193
	C	700.	196.	≤ 193	≤ 193
	D	790.	209.	987 ± 148	≤ 193
	E	930.	223.	≤ 193	≤ 193
	F	970.	233.	≤ 193	≤ 193
	G	855.	251.	≤ 193	≤ 193
II	A	1285.	159.	≤ 193	≤ 193
	B	1315.	184.	≤ 193	≤ 193
	C	1280.	193.	≤ 193	≤ 193
	D	1170.	200.	≤ 193	≤ 193
	E	1250.	214.	≤ 193	497 ± 99
	F	1500.	221.	≤ 193	≤ 193
	G	1285.	228.	1069 ± 96	≤ 193
	H	1095.	238.	≤ 193	≤ 193
III	A	1995.	156.	-	≤ 193
	B	1850.	169.	-	≤ 193
	C	2005.	190.	≤ 193	≤ 193
	D	1990.	196.	≤ 0	953 ± 85
	E	2335.	207.	1008 ± 90	606 ± 90
	F	2460.	220.	756 ± 75	≤ 193
	G	1935.	224.	≤ 193	≤ 193
	H	1685.	242.	-	≤ 193
IV	A	3640.	151.	≤ 193	-
	B	3600.	166.	≤ 193	-
	C	3700.	179.	-	≤ 193
	D	3575.	191.	≤ 193	≤ 193
	E	3200.	205.	≤ 193	≤ 193
	F	3175.	214.	≤ 193	≤ 193
	G	3790.	227.	≤ 193	≤ 193
	H	3915.	232.	≤ 193	≤ 193
V	A	5750.	139.	≤ 193	≤ 193
	B	5940.	157.	≤ 193	≤ 193
	C	5915.	161.	-	1482 ± 118
	D	4950.	195.	505 ± 100	≤ 193
	E	6540.	214.	≤ 193	≤ 193
	F	6400.	224.	≤ 193	≤ 193
	G	6365.	238.	≤ 193	≤ 193

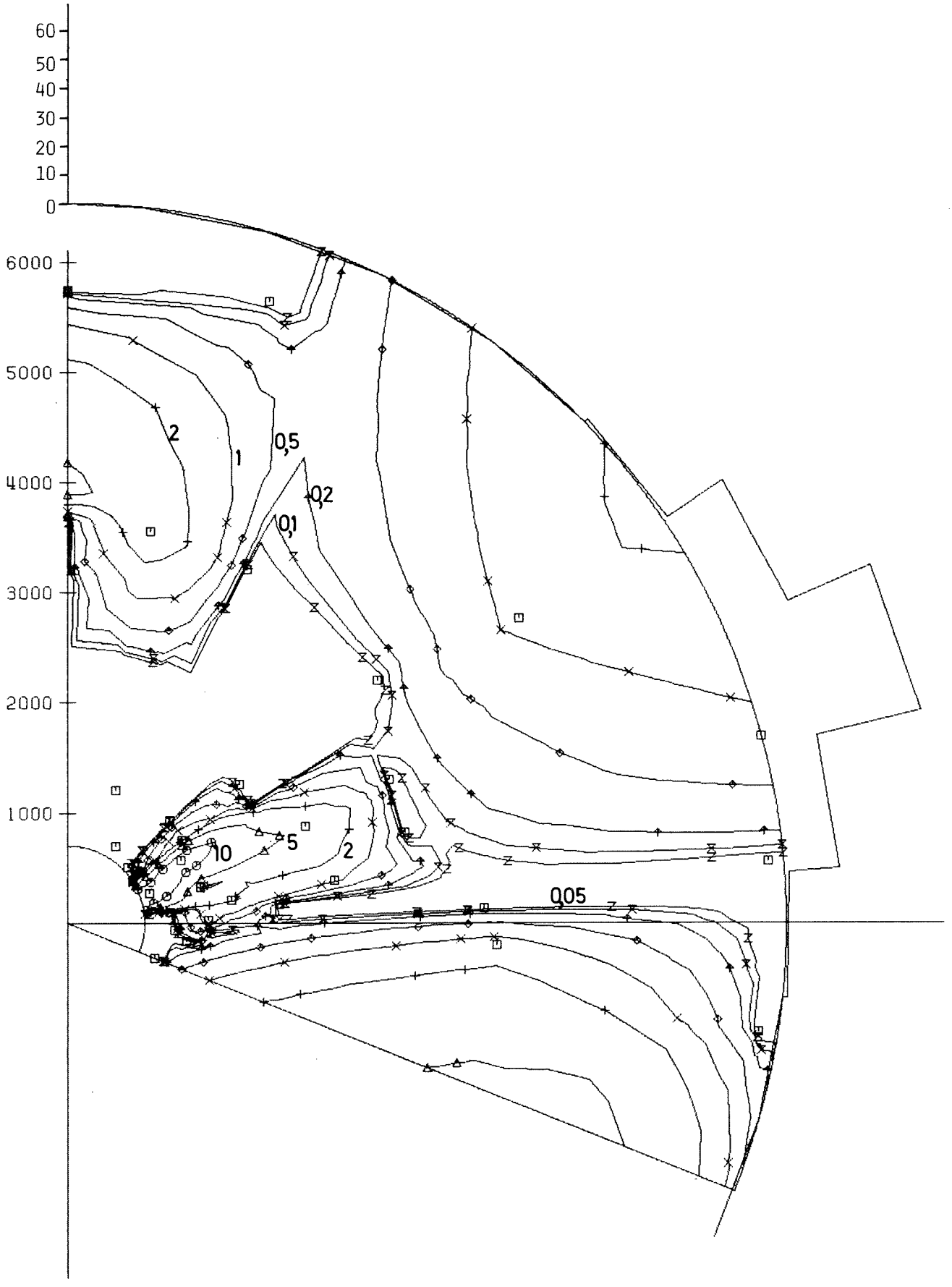

FIG. 10A: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 37/1 CFCL3 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

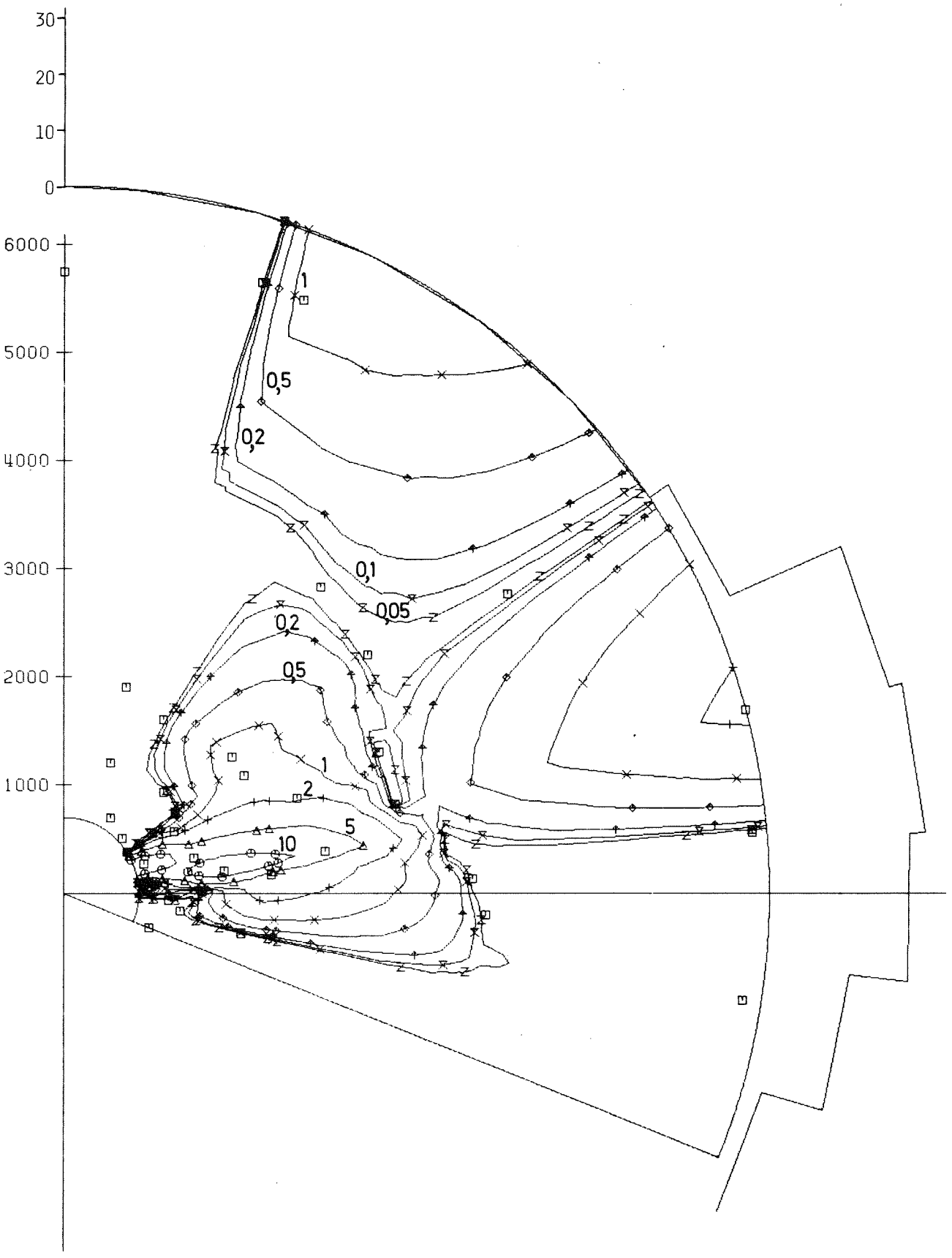

FIG. 10B: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 37/2 CFCL3 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

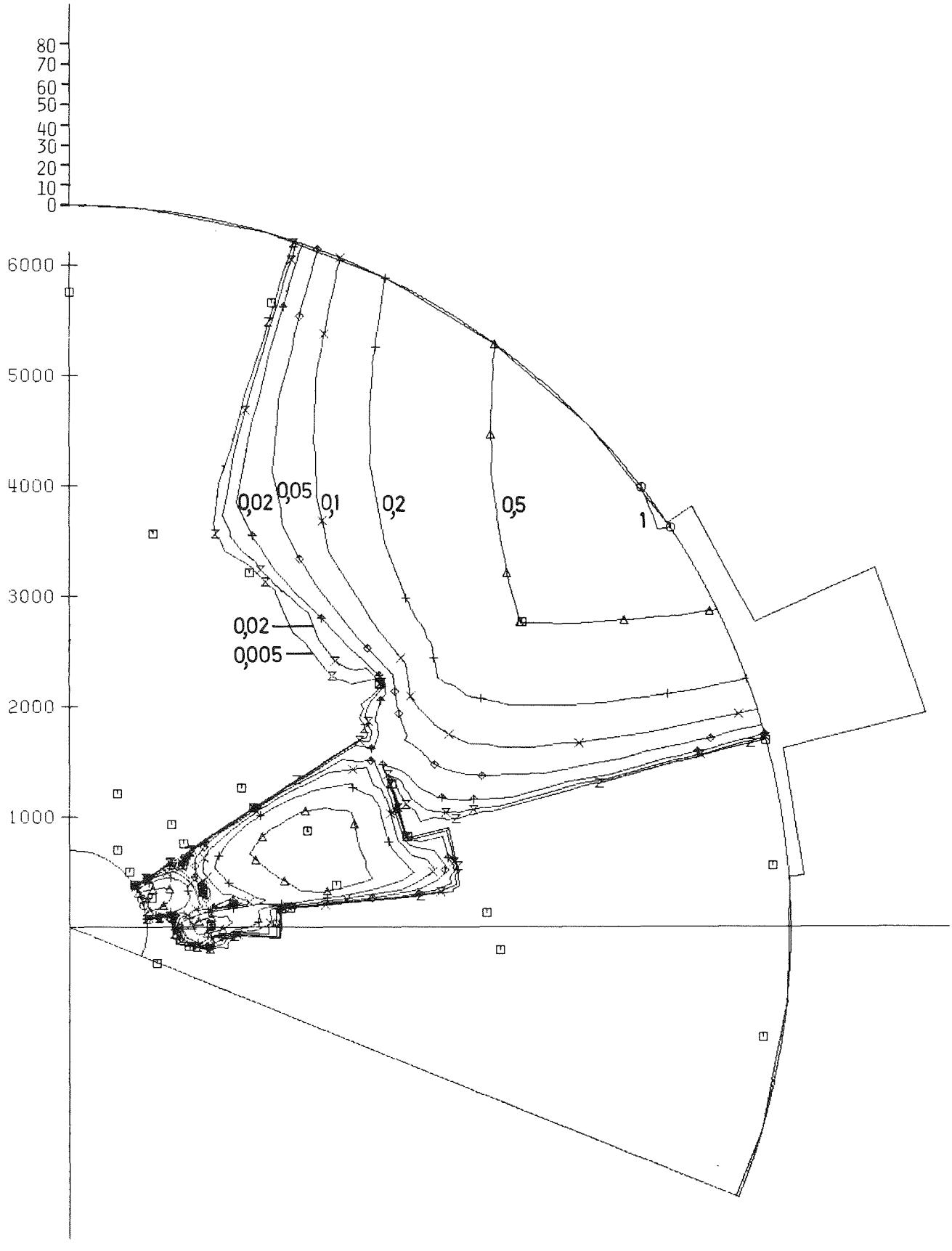

FIG. 10C: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 37/1 CF2BR2 H=100 M
FOR DETAILED INFORMATION SEE FIGURE 6A

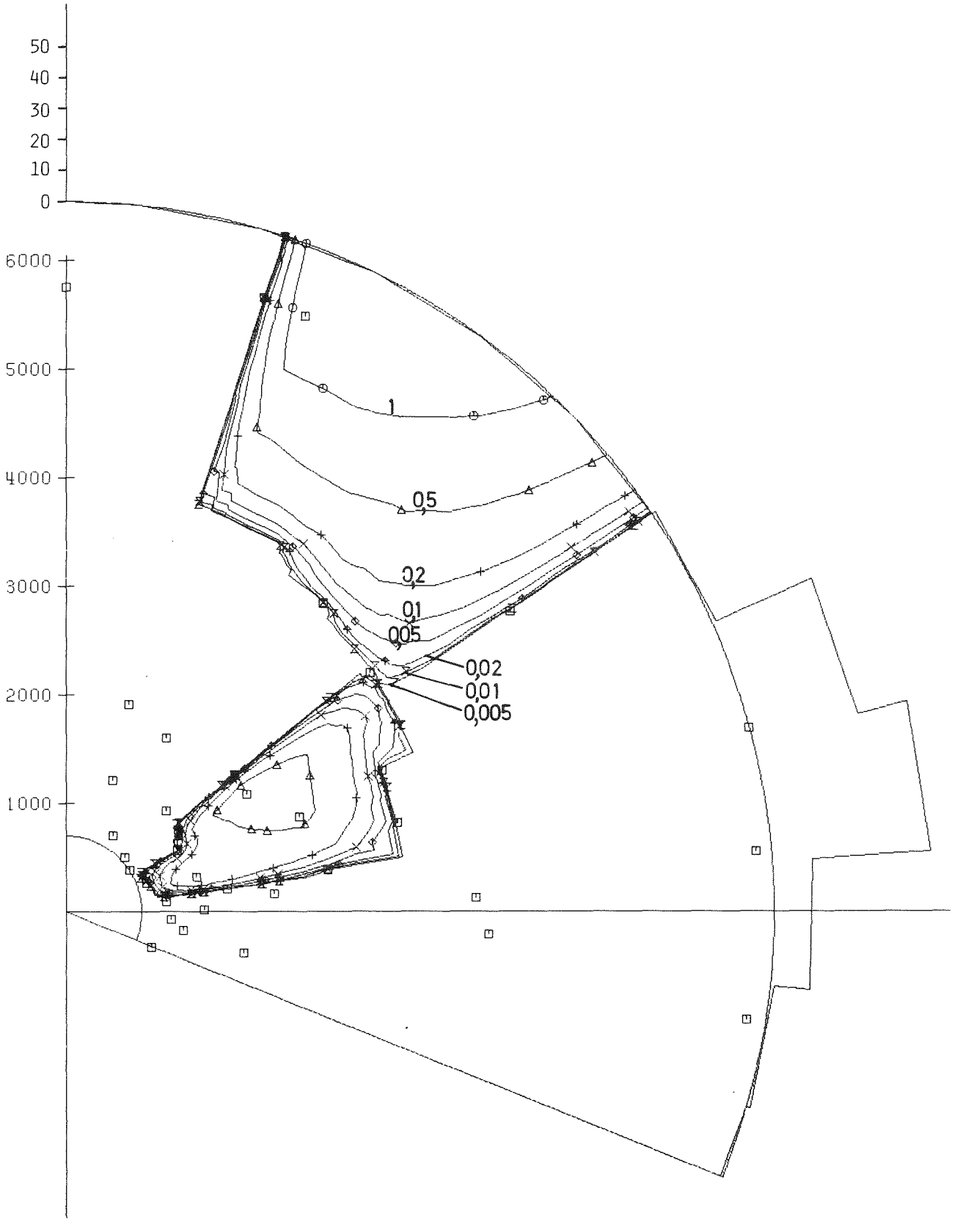

FIG. 10D: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 37/2 CF2BR2 H=100 M
FOR DETAILED INFORMATION SEE FIGURE 6A

TAB. 11A: METEOROLOGICAL DATA OF EXPERIMENT NO. 40

		HEIGHT (M)	1.SAMPLING PERIOD 22.10	22.20	22.30	2.SAMPLING PERIOD 22.40	22.50	23.00
WIND DIRECTION (DEGREE)		40	41	32	42	49	48	54
		60	51	41	45	54	57	56
		100	71	63	66	72	75	75
		160	83	81	83	88	92	95
		200	98	99	101	104	107	109
WIND SPEED (M/S)		40	3.1	2.8	2.7	2.2	2.1	1.6
		60	3.9	3.9	4.0	3.8	3.3	2.9
		100	5.4	5.2	5.5	5.3	4.7	4.3
		160	7.1	6.1	6.1	5.9	5.5	5.0
		200	8.2	7.7	7.6	7.2	6.9	6.4
STANDARD DEVIATION OF WIND DIR. VECTOR VANE (DEGREE)	VER.	40	4.4	3.9	3.6	4.2	4.3	4.3
	HOR.		****	****	****	4.8	4.8	4.9
	VER.	100	3.3	2.5	2.2	2.0	2.5	2.7
	HOR.		3.3	3.1	3.2	3.1	3.3	4.9
	VER.	160	****	****	****	****	****	****
	HOR.		****	****	****	****	****	****
STAND. DEVIATION OF HOR. WIND DIRECTION WIND VANE (DEGREE)		100	3.5	3.8	3.3	4.5	3.9	3.2
TEMPERATURE GRADIENT (K/100M)		30/100	1.2	1.5	1.7	1.7	1.7	1.7
NET RADIATION (MW/CM**2)			-2.9	-2.9	-3.4	-3.6	-3.4	-2.7
DIFFUSION CATEGORY BASED ON ...	VER. FLUCTUATION			E			E	
	HOR. FLUCTUATION			F			F	
	TEMP. GRADIENT			F			F	
	SYNOP. OBSERV.			E			E	

TAB. 11B: EXPERIMENT 40 10. 8.76 22.00 - 23.00

TRACER AND EMISSION RATE: CFCL3 13.80 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	745.	188.	977	4998
	B	730.	194.	-	5540
	C	720.	200.	1403	3541
	D	720.	204.	596	3835
	E	730.	209.	1035	4235
	F	715.	215.	6783	3127
	G	780.	219.	7434	2925
	H	850.	223.	3437	6152
II	A	1740.	173.	240	530
	B	1650.	179.	4728	5153
	C	1510.	188.	2553	4825
	D	1560.	196.	2242	3262
	E	1615.	202.	6639	11093
	F	1520.	208.	7718	12109
	G	1490.	212.	5542	8298
	H	1510.	217.	1222	6347
	I	1520.	222.	6146	1036
	K	1510.	226.	1114	5961
III	A	3345.	176.	285	246
	B	3230.	182.	1257	283
	C	3125.	186.	≤ 136	4226
	D	2940.	192.	3178	4178
	E	3295.	204.	2577	4810
	F	3275.	213.	4344	9737
	G	3270.	218.	5805	5453
	H	3335.	222.	-	9047
	I	2830.	227.	≤ 137	5029
IV	A	4990.	177.	-	≤ 146
	B	4980.	182.	≤ 138	≤ 144
	C	4970.	188.	-	≤ 136
	D	4990.	192.	467	681
	E	4960.	200.	2449	3545
	F	4830.	206.	3158	2926
	G	5010.	213.	-	2259
	H	4790.	219.	1735	3858
	I	4880.	223.	3697	4313
	K	4880.	229.	≤ 140	856
V	A	7410.	181.	-	2584
	B	7680.	188.	-	489
	C	7950.	196.	144	2648
	D	8150.	202.	2414	3124
	E	8100.	210.	4516	-
	F	7970.	226.	1480	4995
	G	8180.	232.	4640	3822

TAB. 11C: EXPERIMENT 40 10. 8.76 22.00 - 23.00

TRACER AND EMISSION RATE: CF2BR2 7.11 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	745.	188.	≤ 119	≤ 119
	B	730.	194.	-	≤ 119
	C	720.	200.	≤ 119	≤ 119
	D	720.	204.	≤ 119	≤ 119
	E	730.	209.	≤ 119	≤ 119
	F	715.	215.	≤ 119	≤ 119
	G	780.	219.	≤ 119	≤ 119
	H	850.	223.	≤ 119	≤ 119
II	A	1740.	173.	≤ 119	≤ 119
	B	1650.	179.	≤ 119	≤ 119
	C	1510.	188.	≤ 119	≤ 119
	D	1560.	196.	≤ 119	≤ 119
	E	1615.	202.	≤ 119	≤ 119
	F	1520.	208.	261	≤ 119
	G	1490.	212.	146	≤ 119
	H	1510.	217.	≤ 119	≤ 119
	I	1520.	222.	401	213
	K	1510.	226.	124	≤ 119
III	A	3345.	176.	≤ 119	≤ 119
	B	3230.	182.	≤ 119	≤ 119
	C	3125.	186.	≤ 119	≤ 119
	D	2940.	192.	≤ 119	≤ 119
	E	3295.	204.	≤ 119	≤ 119
	F	3275.	213.	121	≤ 119
	G	3270.	218.	289	≤ 119
	H	3335.	222.	-	≤ 119
	I	2830.	227.	≤ 119	≤ 119
IV	A	4990.	177.	-	≤ 119
	B	4980.	182.	≤ 119	≤ 119
	C	4970.	188.	-	≤ 119
	D	4990.	192.	≤ 119	≤ 119
	E	4960.	200.	≤ 119	≤ 119
	F	4830.	206.	≤ 119	≤ 119
	G	5010.	213.	-	≤ 119
	H	4790.	219.	319	≤ 119
	I	4880.	223.	≤ 119	≤ 119
	K	4880.	229.	≤ 119	122
V	A	7410.	181.	-	≤ 119
	B	7680.	188.	-	≤ 119
	C	7950.	196.	≤ 119	≤ 119
	D	8150.	202.	≤ 119	≤ 119
	E	8100.	210.	1003	-
	F	7970.	226.	351	≤ 119
	G	8180.	232.	3156	≤ 119

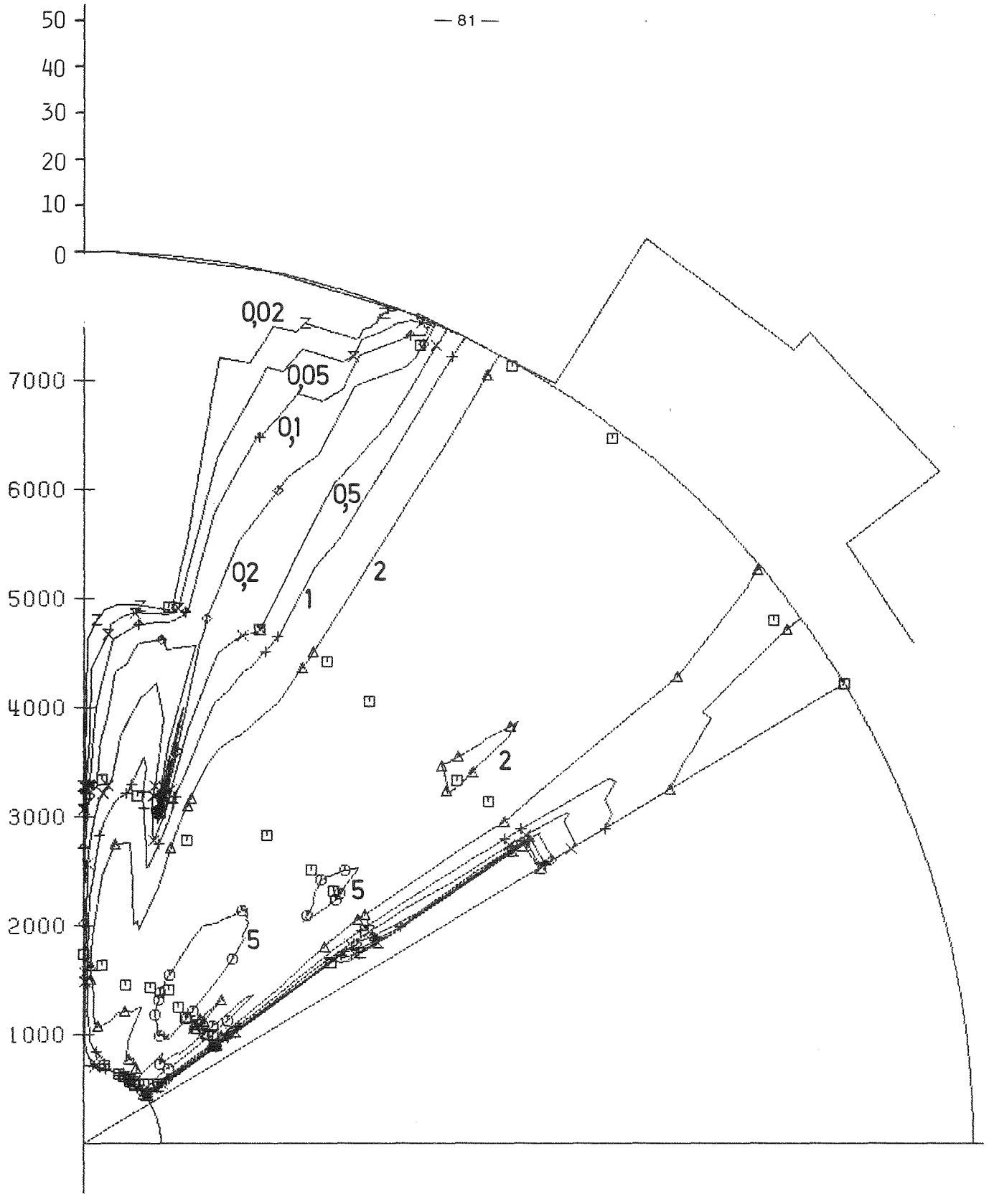

FIG. 11A: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 40/1 CFCL3 H=60 M
FØR DETAILED INFØRMATION SEE FIGURE 1A

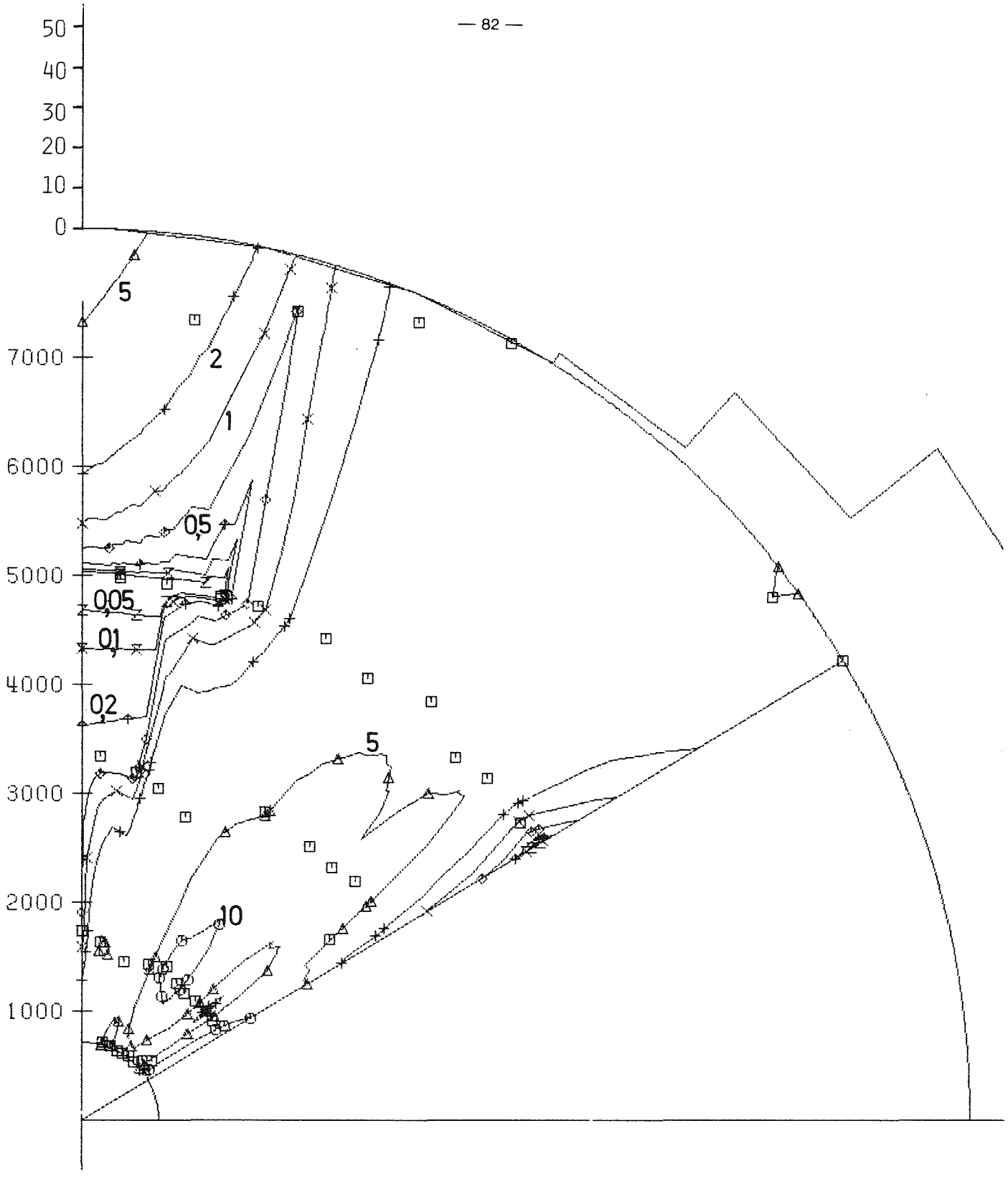

FIG. 11B: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 40/2 CFCL3 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

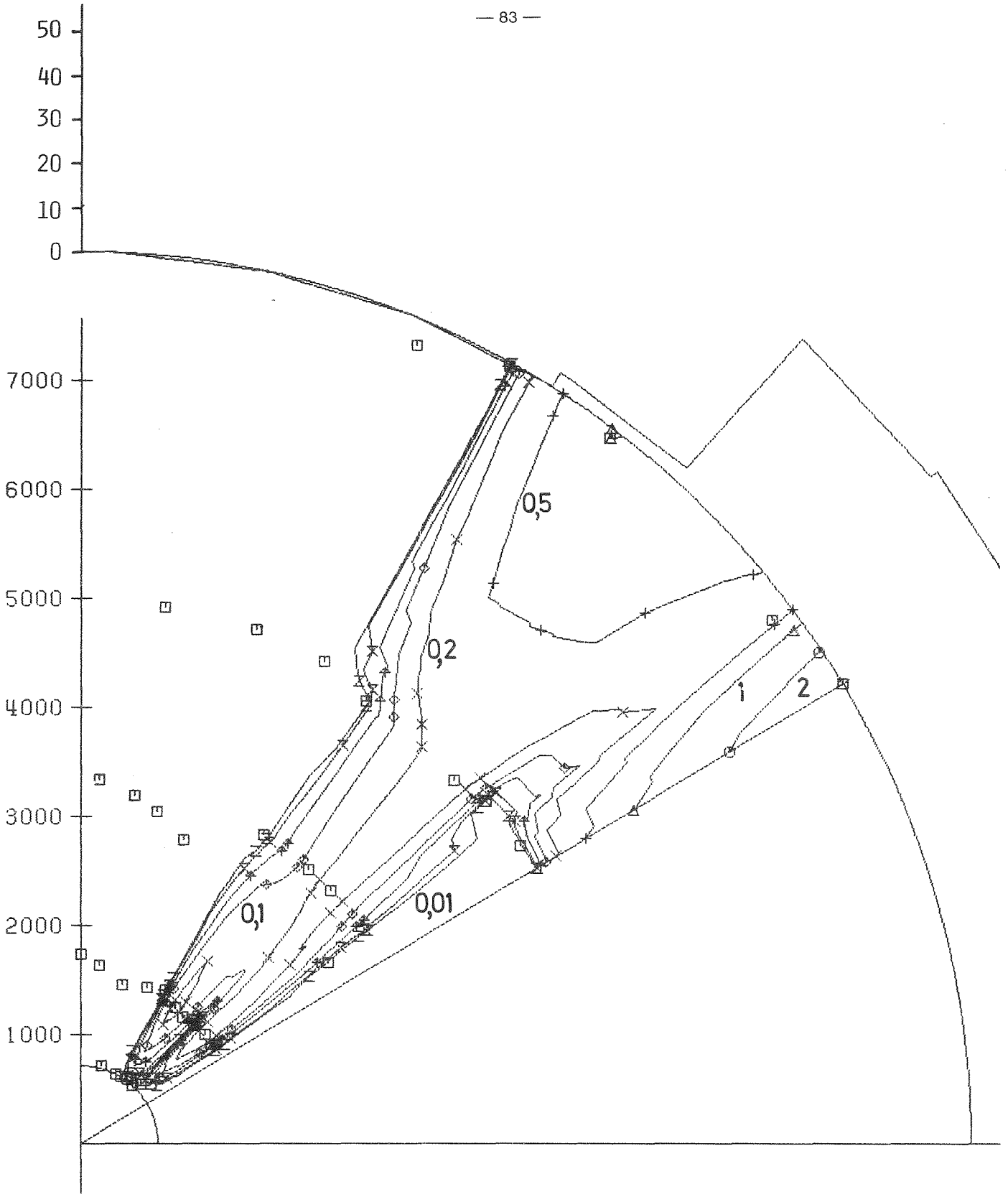

FIG. 11C: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 40/1 CF2BR2 H=100 M
FØR DETAILED INFØRMATION SEE FIGURE 6A

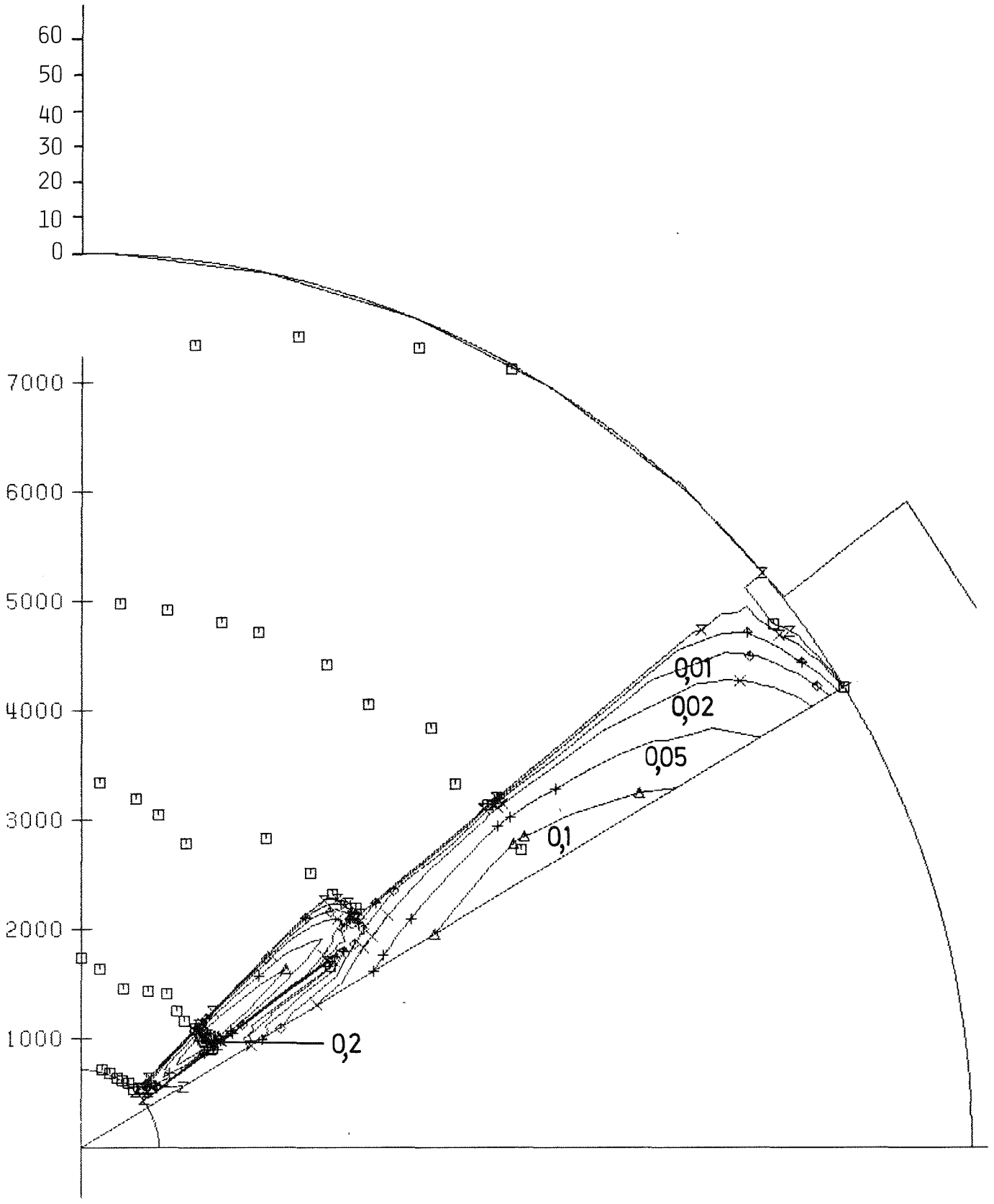

FIG. 11D: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 40/2 CF2BR2 H=100 M
FØR DETAILED INFØRMATION SEE FIGURE 6A

TAB. 12A: METEOROLOGICAL DATA OF EXPERIMENT NO. 41

		HEIGHT (M)	1.SAMPLING PERIOD 20.40	20.50	21.00	2.SAMPLING PERIOD 21.10	21.20	21.30
WIND DIRECTION (DEGREE)		40	185	192	190	183	179	187
		60	185	191	190	187	187	189
		100	196	205	205	203	206	201
		160	212	222	225	223	226	212
		200	228	237	235	233	235	225
WIND SPEED (M/S)		40	3.8	3.7	3.9	3.6	3.5	3.7
		60	5.2	5.5	5.5	5.3	5.2	5.5
		100	7.4	6.9	6.8	7.1	6.9	7.7
		160	6.9	5.7	5.5	6.1	6.4	7.6
		200	6.4	6.0	6.1	6.5	6.9	7.2
STANDARD DEVIATION OF WIND DIR. VECTOR VANE (DEGREE)	VER.	40	4.4	4.4	4.1	3.9	4.1	4.3
	HOR.	40	6.4	6.2	5.4	5.1	5.5	6.0
	VER.	100	1.8	1.4	1.2	0.9	0.9	0.8
	HOR.	100	2.9	3.1	2.5	2.4	2.4	2.1
	VER.	160	****	****	****	****	****	****
	HOR.	160	****	****	****	****	****	****
STAND. DEVIATION OF HOR. WIND DIRECTION WIND VANE (DEGREE)		100	3.1	1.9	1.8	2.3	2.7	2.1
TEMPERATURE GRADIENT (K/100M)		30/100	2.3	2.6	2.8	3.3	3.8	3.8
NET RADIATION (MW/CM**2)			****	****	****	****	****	****
DIFFUSION CATEGORY BASED ON ...	VER. FLUCTUATION			F			F	
	HOR. FLUCTUATION			F			F	
	TEMP. GRADIENT			F			F	
	SYNOP. OBSERV.			E			E	

TAB. 12B: EXPERIMENT 41 8. 9.76 20.30 - 21.30

TRACER AND EMISSION RATE: CFCL3 12.30 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	730.	8.	2548	≤ 832
	B	715.	20.	1784	1663
	C	715.	28.	1571	1976
	D	730.	36.	1922	2005
	E	705.	43.	2325	-
	F	710.	52.	≤ 834	992
	G	665.	58.	927	1311
	H	705.	66.	≤ 832	1348
II	A	995.	10.	≤ 833	2059
	B	1025.	18.	≤ 833	1779
	C	1000.	26.	≤ 832	1438
	D	1000.	34.	≤ 833	≤ 832
	E	1055.	41.	865	1301
	F	985.	48.	≤ 832	941
	G	950.	56.	-	≤ 834
III	A	1700.	11.	≤ 833	≤ 832
	B	1700.	25.	6896	≤ 833
	C	1780.	34.	-	20455
	D	1715.	44.	1620	922
	E	1690.	60.	9773	5252
	F	1970.	61.	≤ 832	-
IV	A	2965.	8.	3457	≤ 835
	B	2860.	15.	≤ 834	2659
	C	2850.	22.	1164	2546
	D	2935.	32.	≤ 836	≤ 833
	E	3050.	39.	≤ 833	≤ 834
V	A	5700.	4.	12946	32188
	B	5975.	14.	4026	3641
	C	6530.	24.	≤ 832	≤ 848
	D	6300.	33.	872	871
	E	5985.	39.	-	≤ 832

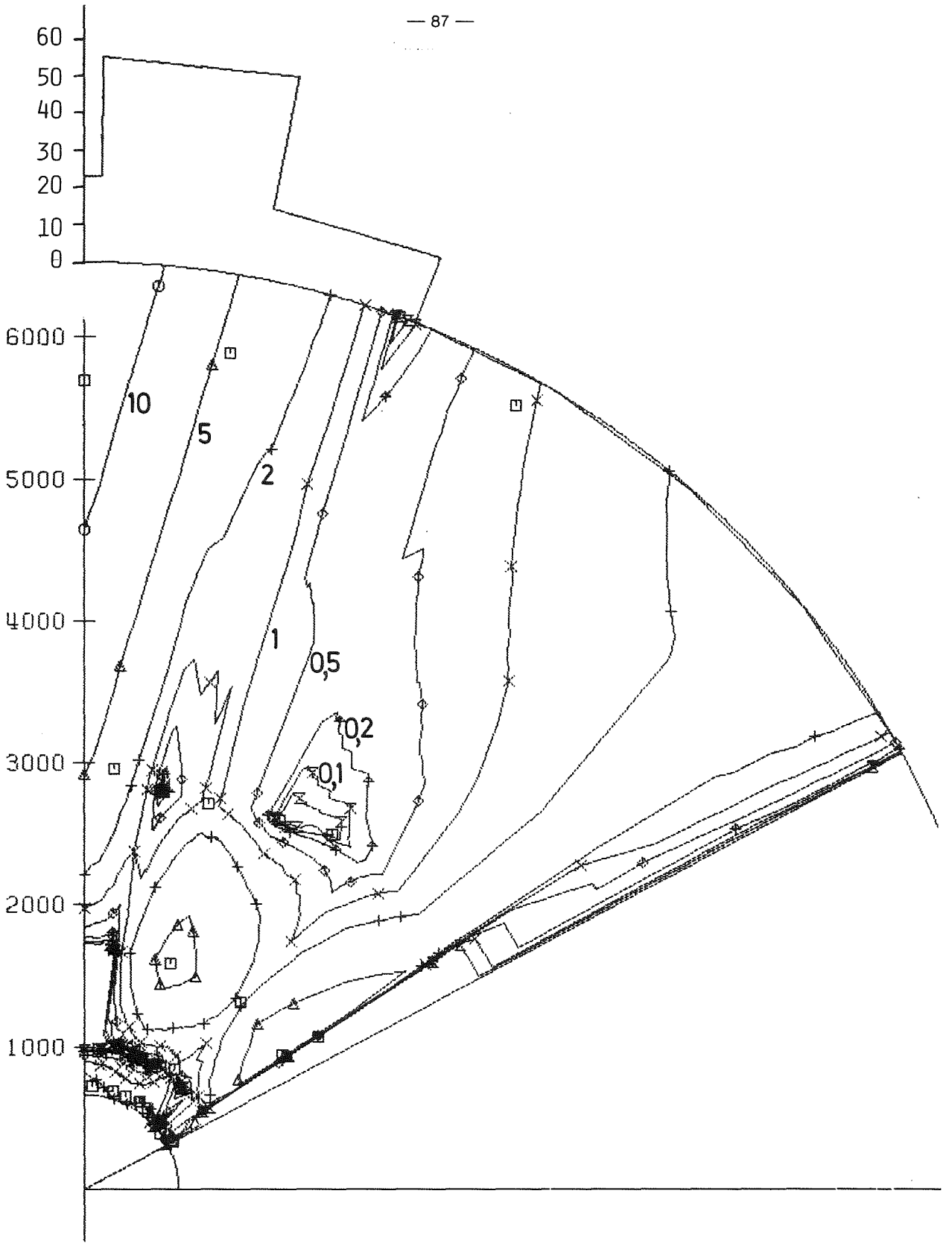

FIG. 12A: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 41/1 CFCL3 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

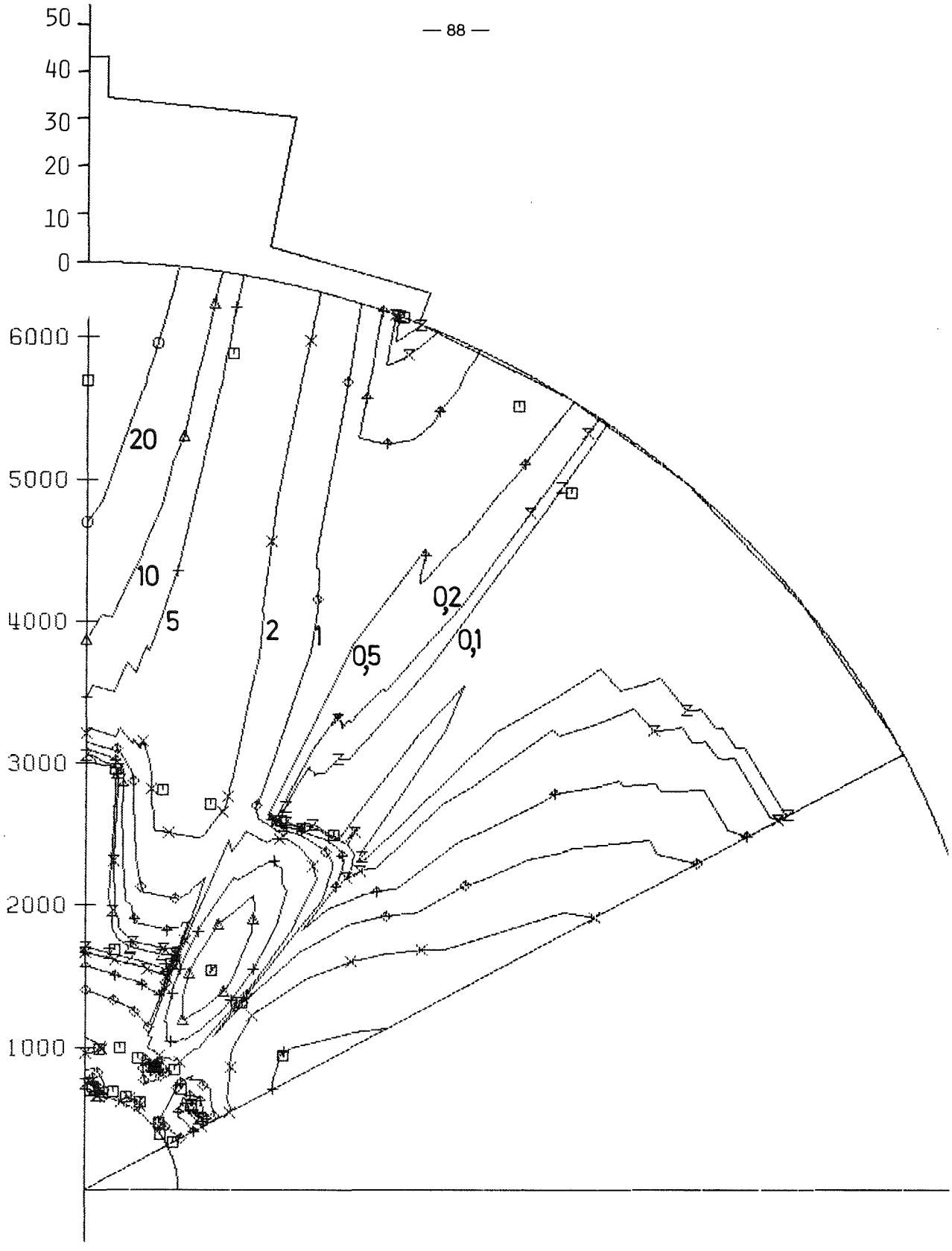

FIG. 12B: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 41/2 CFCL3 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

TAB. 13A: METEOROLOGICAL DATA OF EXPERIMENT NC. 42

		HEIGHT (M)	1.SAMPLING PERIOD 20.40	20.50	21.00
WIND DIRECTION (DEGREE)		40	73	76	76
		60	72	78	83
		100	90	92	93
		160	88	90	95
		200	99	101	102
WIND SPEED (M/S)		40	2.7	2.7	2.3
		60	3.8	3.7	3.5
		100	5.7	5.4	4.9
		160	8.0	7.6	7.4
		200	9.1	9.2	9.1
STANDARD DEVIATION OF WIND DIR. VECTOR VANE (DEGREE)	VER.	40	6.2	6.2	5.7
	HOR.		7.1	6.5	5.9
	VER.	100	3.1	3.0	2.9
	HOR.		4.3	4.3	4.3
	VER.	160	****	****	****
	HOR.		****	****	****
STAND. DEVIATION OF HOR. WIND DIRECTION WIND VANE (DEGREE)		100	4.1	2.3	2.3
TEMPERATURE GRADIENT (K/100M)		30/100	2.0	2.2	2.3
NET RADIATION (MW/CM**2)			-5.4	-5.4	-5.4
DIFFUSION CATEGORY BASED ON ...	VER. FLUCTUATION			E	
	HOR. FLUCTUATION			F	
	TEMP. GRADIENT			F	
	SYNOP. OBSERV.			E	

TAB. 13B: EXPERIMENT 42 21. 9.76 20.30 - 21.00

TRACER AND EMISSION RATE: CFCL3 11.90 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	1015.	224.	≤ 164	-
	B	1010.	230.	≤ 165	-
	C	1085.	244.	19145	-
	D	1025.	248.	29879	-
	E	980.	255.	14357	-
	F	950.	262.	4908	-
	G	935.	270.	659	-
	H	930.	278.	316	-
	I	940.	285.	415	-
II	A	1945.	225.	1693	-
	B	1795.	237.	220	-
	C	1695.	245.	1699	-
	D	1515.	253.	76165	-
	E	1620.	260.	24671	-
	F	1570.	265.	≤ 164	-
	G	1510.	273.	≤ 164	-
	H	1480.	280.	250	-
III	A	2560.	225.	≤ 166	-
	B	2395.	234.	338	-
	C	2425.	241.	≤ 164	-
	D	2435.	246.	531	-
	E	2200.	255.	40405	-
	F	2435.	260.	900	-
	G	2315.	267.	≤ 164	-
	H	2310.	270.	≤ 164	-
	I	2385.	278.	≤ 165	-
IV	A	3410.	222.	≤ 164	-
	B	3580.	230.	≤ 164	-
	C	3630.	240.	981	-
	D	3480.	248.	3389	-
	E	3840.	255.	611	-
	F	3730.	260.	≤ 166	-
	G	3440.	269.	≤ 164	-
V	A	6510.	230.	458	-
	B	6460.	237.	≤ 164	-
	C	6580.	244.	627	-
	D	5900.	259.	≤ 169	-
	E	5270.	263.	≤ 167	-
	F	4860.	270.	≤ 165	-
	G	4600.	279.	638	-
	H	4670.	287.	≤ 165	-

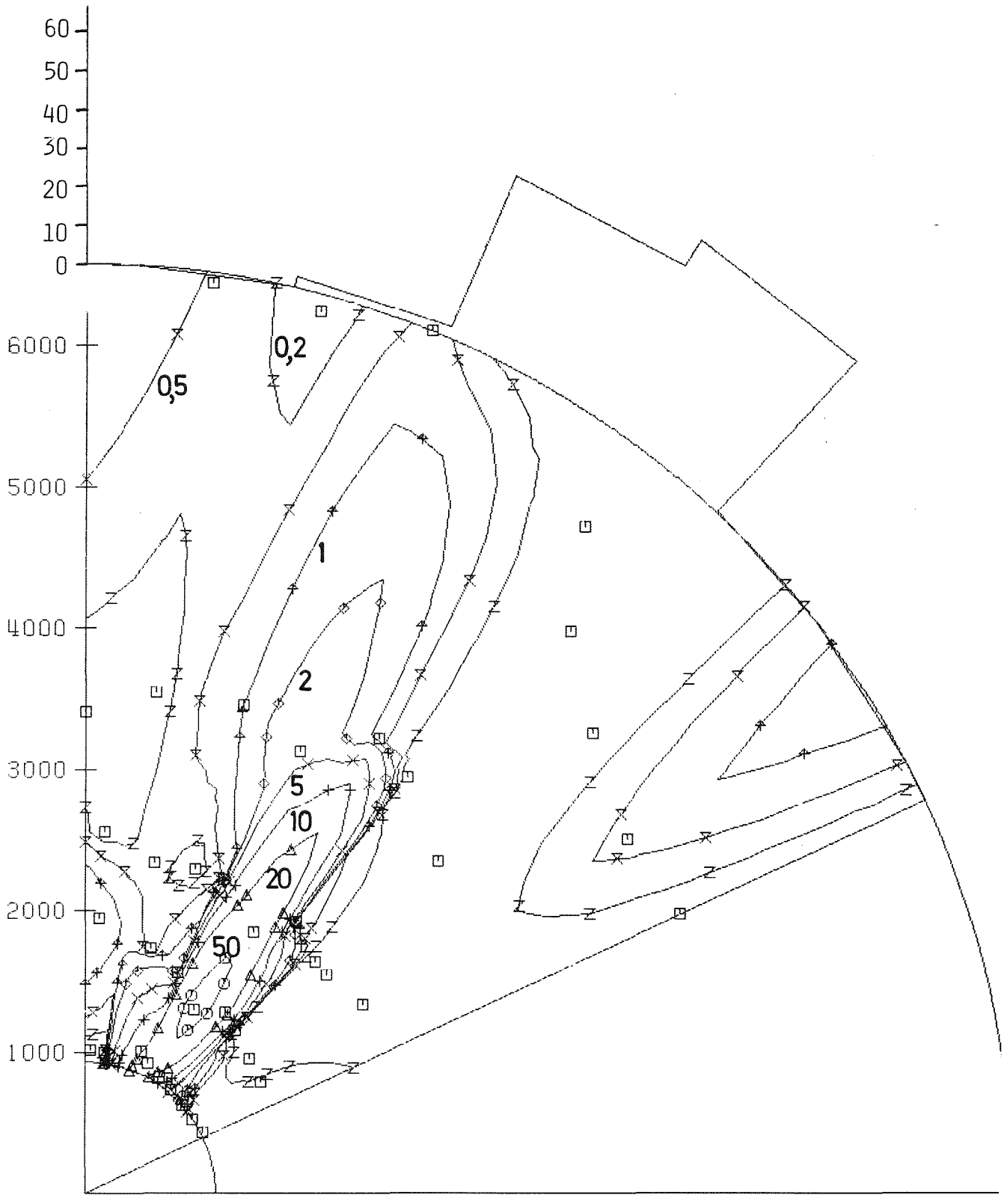

FIG. 13A: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 42/1 CFCL3 H=60 M
FØR DETAILED INFØRMATION SEE FIGURE 1A

TAB. 14A: METEOROLOGICAL DATA OF EXPERIMENT NO. 43

		HEIGHT (M)	1.SAMPLING PERIOD 19.40	19.50	20.00	2.SAMPLING PERIOD 20.10	20.20	20.30
WIND DIRECTION (DEGREE)		40	116	115	118	117	118	116
		60	113	113	116	114	116	114
		100	119	121	124	125	126	126
		160	124	125	128	129	128	129
		200	138	139	141	142	141	141
WIND SPEED (M/S)		40	5.8	5.9	5.3	5.1	4.9	4.5
		60	7.1	7.0	6.7	6.4	5.9	5.7
		100	9.6	9.5	9.6	9.0	8.3	8.0
		160	11.4	10.8	11.1	11.0	10.2	10.0
		200	12.3	11.5	12.0	11.9	11.4	11.2
STANDARD DEVIATION OF WIND DIR. VECTOR VANE (DEGREE)	VER.	40	6.8	7.1	7.5	7.3	7.0	6.9
	HOR.	40	6.4	6.8	7.1	7.1	6.8	6.5
	VER.	100	2.3	2.4	2.4	2.4	2.3	2.4
	HOR.	100	2.7	2.6	2.7	2.6	2.8	3.0
	VER.	160	****	****	****	****	****	****
	HOR.	160	****	****	****	****	****	****
STAND. DEVIATION OF HOR. WIND DIRECTION WIND VANE (DEGREE)		100	2.6	2.3	2.8	3.2	3.3	3.6
TEMPERATURE GRADIENT (K/100M)		30/100	0.2	0.2	0.5	0.6	0.7	0.5
NET RADIATION (MW/CM**2)			-4.0	-4.7	-5.8	-4.7	-2.2	-1.2
DIFFUSION CATEGORY BASED ON ...	VER. FLUCTUATION			E			E	
	HOR. FLUCTUATION			F			F	
	TEMP. GRADIENT			E			E	
	SYNOP. OBSERV.			E			E	

TAB. 14B: EXPERIMENT 43 9.11.76 19.30 - 20.30

TRACER AND EMISSION RATE: CFCL3 9.33 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	835.	280.	-	≤ 806
	B	805.	285.	3000 ± 449	≤ 806
	C	775.	292.	115654 ± 4626	64616 ± 2584
	D	760.	299.	31715 ± 1585	-
	E	735.	307.	≤ 806	≤ 806
	F	745.	315.	≤ 806	≤ 806
	G	760.	323.	1302 ± 416	≤ 806
II	A	1460.	285.	1299 ± 415	≤ 806
	B	1465.	291.	44275 ± 1771	2844 ± 426
	C	1410.	298.	120784 ± 3623	80970 ± 3238
	D	1430.	304.	-	91822 ± 3672
	E	1460.	311.	≤ 806	1048 ± 41
	F	1470.	314.	≤ 806	≤ 806
	G	1615.	319.	-	≤ 806
III	A	3320.	285.	≤ 806	≤ 806
	B	3005.	289.	4272 ± 469	≤ 806
	C	3240.	300.	13199 ± 791	-
	D	3070.	305.	≤ 806	25675 ± 1283
	E	3020.	308.	≤ 806	22510 ± 1125
	F	3390.	310.	-	13540 ± 812
	G	2605.	319.	≤ 806	≤ 806
IV	A	4055.	287.	≤ 806	≤ 806
	B	4110.	293.	10764 ± 538	1279 ± 409
	C	4140.	302.	6808 ± 476	15657 ± 626
	D	4110.	304.	-	12669 ± 633
	E	4130.	306.	≤ 806	-
	F	4260.	320.	≤ 806	1015 ± 406
	G	4360.	325.	902 ± 405	≤ 806
	H	3885.	326.	≤ 806	≤ 806
V	A	4340.	282.	-	≤ 806
	B	4640.	289.	2063 ± 412	≤ 806
	C	4730.	296.	8472 ± 508	14885 ± 595
	D	4930.	300.	10002 ± 500	9851 ± 492
	E	5220.	304.	≤ 806	8815 ± 528
	F	5360.	308.	≤ 806	10112 ± 505
	G	5760.	314.	-	≤ 806
	H	5900.	317.	-	≤ 806

TAB. 14C: EXPERIMENT 43 9.11.76 19.30 - 20.30

TRACER AND EMISSION RATE: CF2BR2 6.77 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	835.	280.	-	≤ 31
	B	805.	285.	≤ 31	≤ 31
	C	775.	292.	14862 ± 594	17078 ± 683
	D	760.	299.	1326 ± 66	-
	E	735.	307.	≤ 31	≤ 31
	F	745.	315.	≤ 31	≤ 31
	G	760.	323.	≤ 31	≤ 31
II	A	1460.	285.	≤ 31	≤ 31
	B	1465.	291.	≤ 31	≤ 31
	C	1410.	298.	17539 ± 526	≤ 31
	D	1430.	304.	-	10607 ± 424
	E	1460.	311.	≤ 31	1531 ± 61
	F	1470.	314.	≤ 31	≤ 31
	G	1615.	319.	-	≤ 31
III	A	3320.	285.	≤ 31	≤ 31
	B	3005.	289.	≤ 31	≤ 31
	C	3240.	300.	21828 ± 873	-
	D	3070.	305.	199 ± 37	10868 ± 434
	E	3020.	308.	≤ 31	9257 ± 370
	F	3390.	310.	-	6549 ± 261
	G	2605.	319.	≤ 31	≤ 31
IV	A	4055.	287.	≤ 31	≤ 31
	B	4110.	293.	7577 ± 227	113 ± 39
	C	4140.	302.	10406 ± 416	7938 ± 238
	D	4110.	304.	-	5197 ± 155
	E	4130.	306.	≤ 31	-
	F	4260.	320.	≤ 31	≤ 31
	G	4360.	325.	≤ 31	≤ 31
	H	3885.	326.	≤ 31	≤ 31
V	A	4340.	282.	-	≤ 31
	B	4640.	289.	167 ± 43	≤ 31
	C	4730.	296.	7629 ± 228	6484 ± 194
	D	4930.	300.	15433 ± 462	6427 ± 192
	E	5220.	304.	≤ 31	6894 ± 206
	F	5360.	308.	≤ 31	9917 ± 297
	G	5760.	314.	-	≤ 31
	H	5900.	317.	-	≤ 31

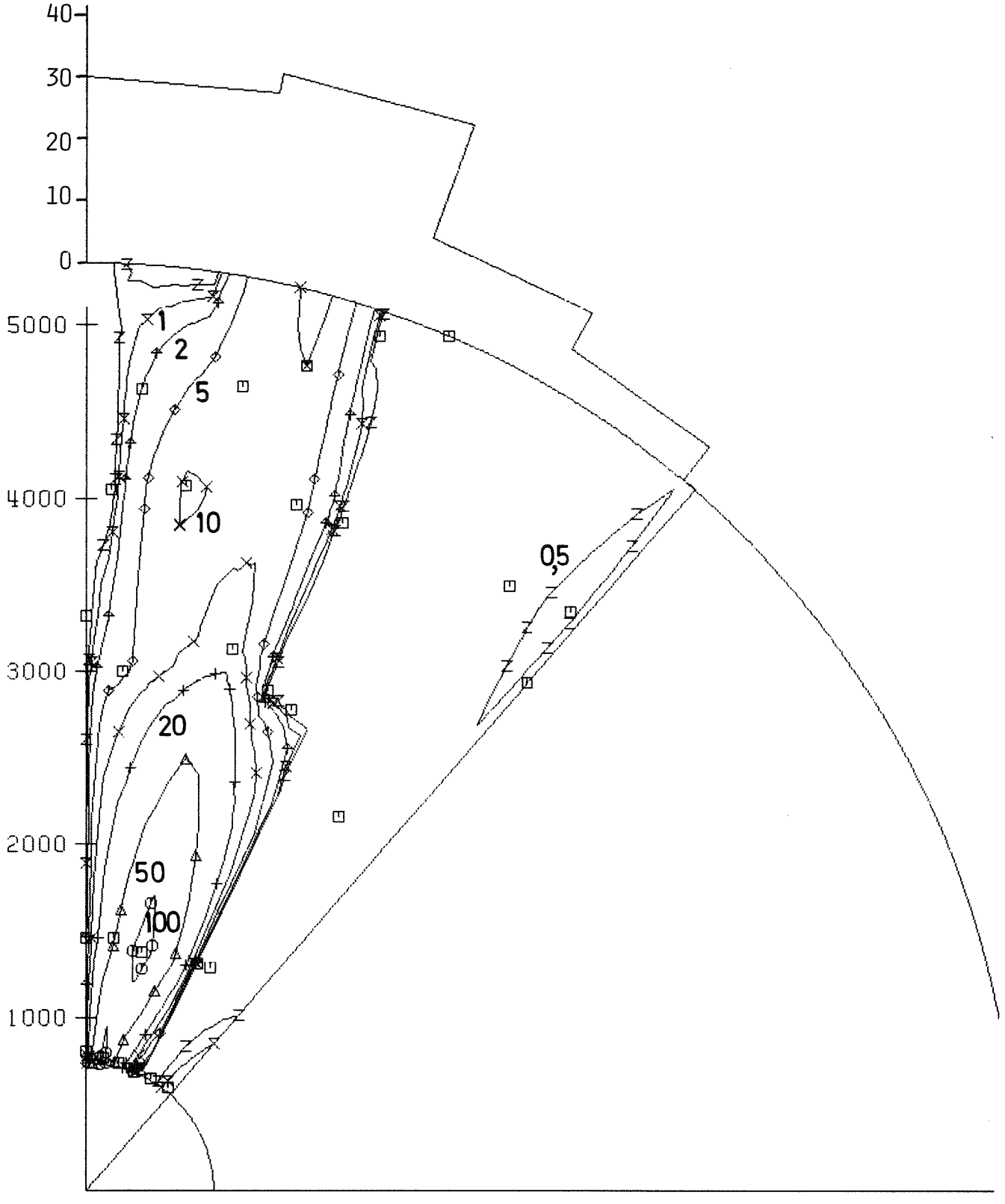

FIG. 14A: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 43/1 CFCL3 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

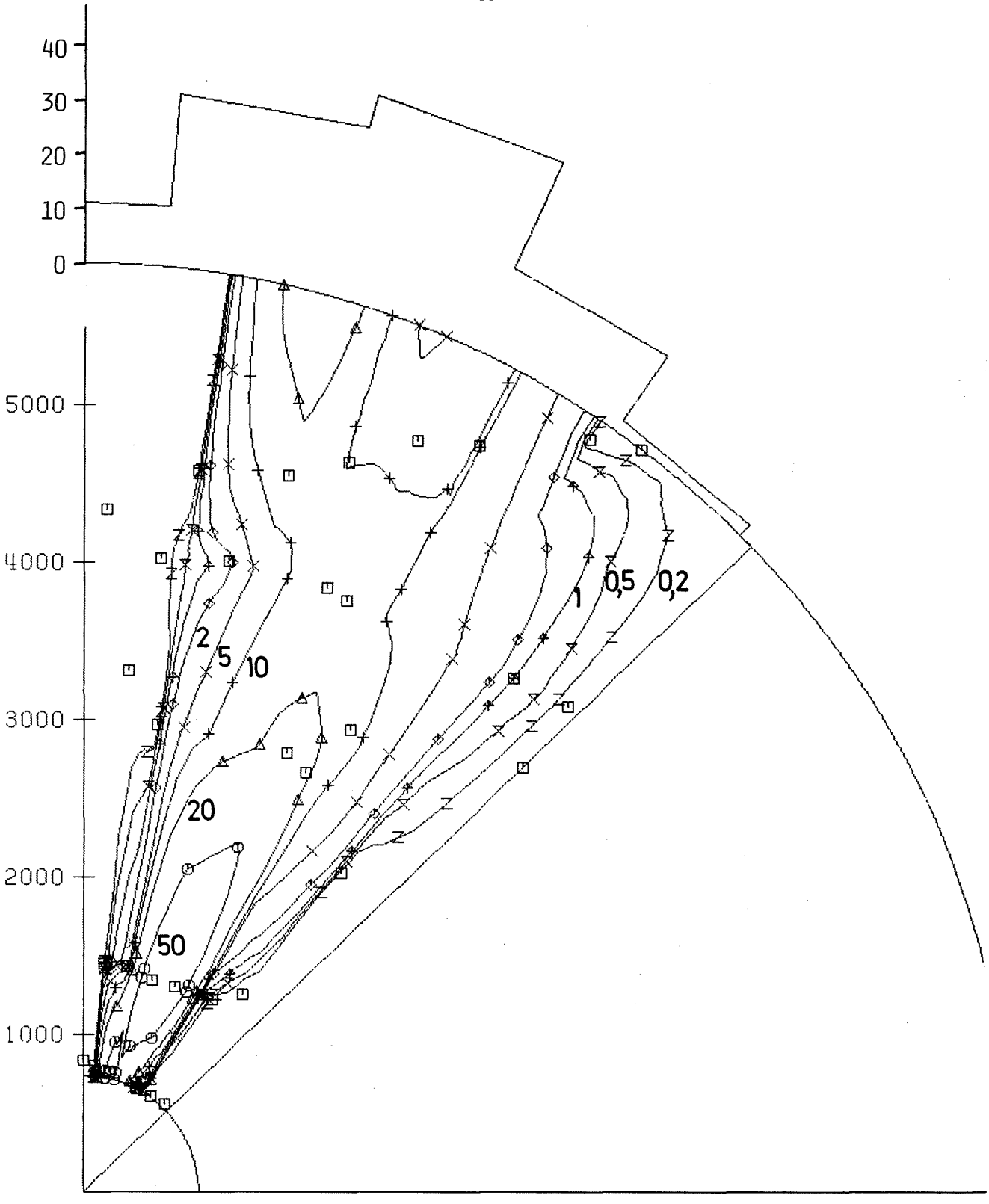

FIG. 14B: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 43/2 CFCL3 H=60 M
FØR DETAILED INFØRMATIØN SEE FIGURE 1A

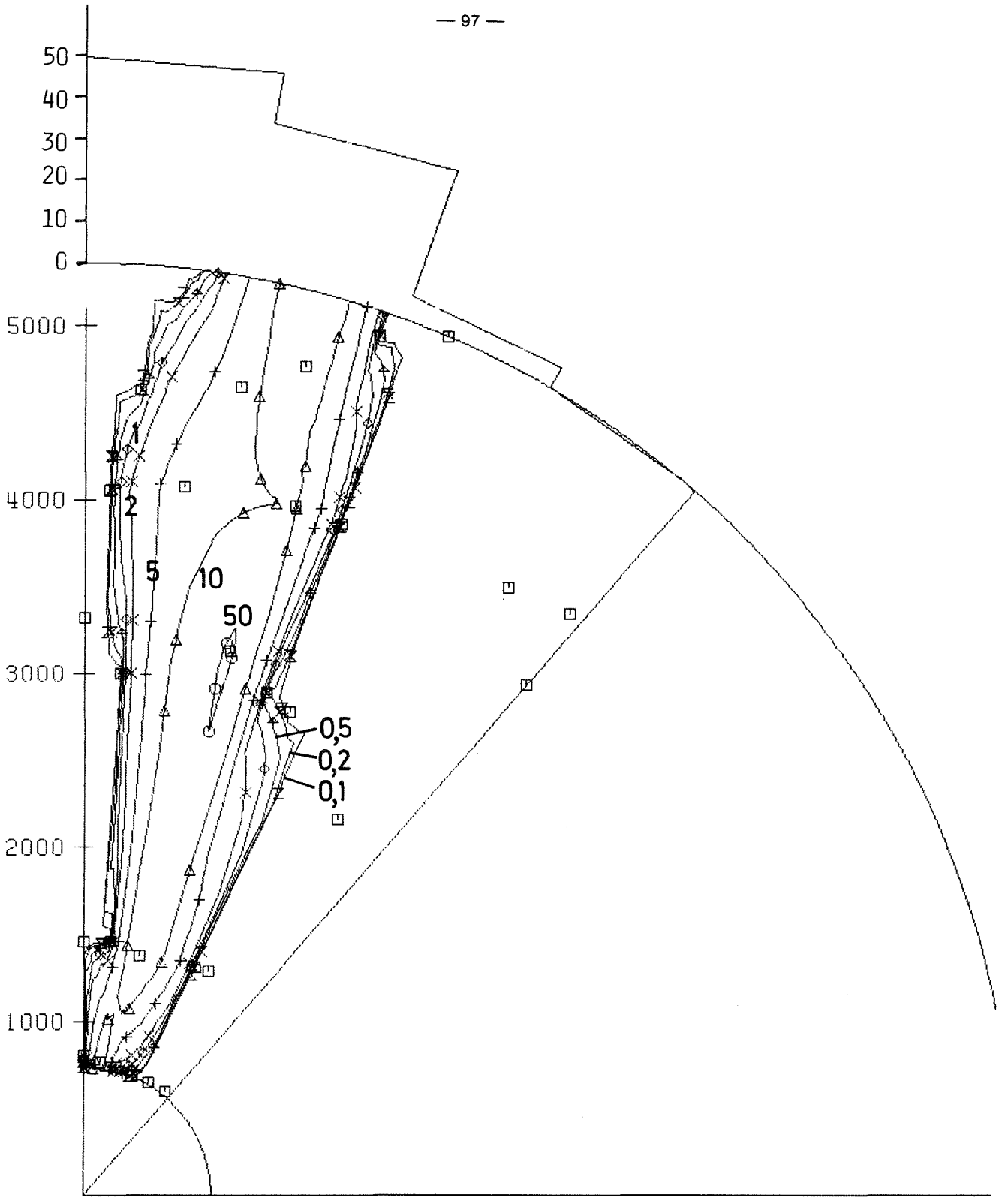

FIG. 14C: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 43/1 CF2BR2 H=100 M
FOR DETAILED INFORMATION SEE FIGURE 6A

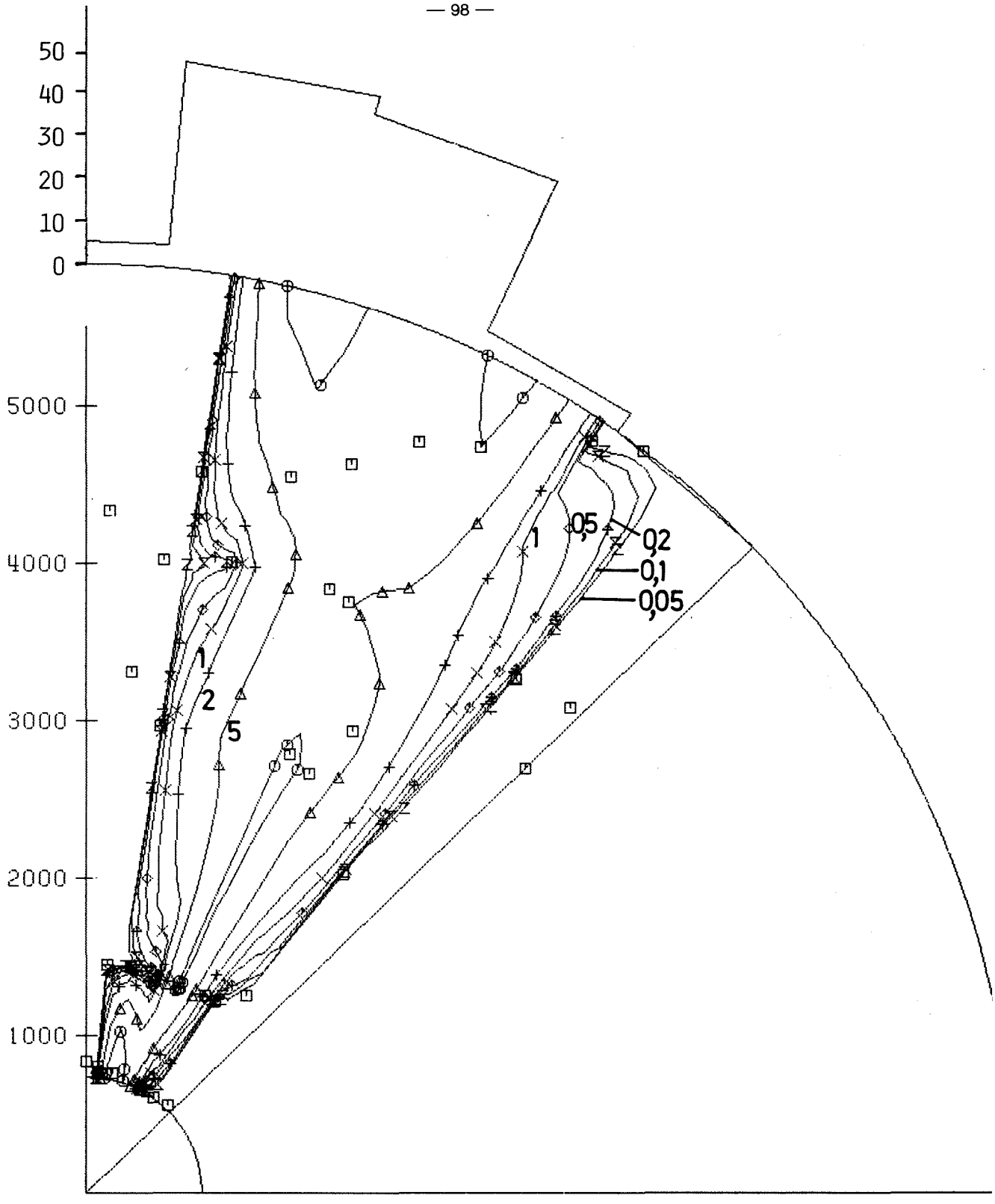

FIG. 14D: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 43/2 CF2BR2 H=100 M
FOR DETAILED INFORMATION SEE FIGURE 6A

TAB. 15A: METEOROLOGICAL DATA OF EXPERIMENT NO. 44

		HEIGHT (M)	1.SAMPLING PERIOD 19.40	19.50	20.00	2.SAMPLING PERIOD 20.10	20.20	20.30
WIND DIRECTION (DEGREE)		40	103	104	97	100	104	107
		60	102	102	97	98	101	106
		100	108	105	102	104	107	109
		160	108	107	104	106	107	110
		200	119	116	115	116	119	121
WIND SPEED (M/S)		40	4.8	5.3	4.6	5.2	5.5	5.5
		60	5.4	5.8	5.1	5.9	6.2	6.1
		100	6.8	7.3	6.6	7.2	7.3	7.4
		160	8.3	8.7	8.2	8.6	9.0	9.1
		200	9.7	10.0	9.4	9.8	10.2	10.1
STANDARD DEVIATION OF WIND DIR. VECTOR VANE (DEGREE)	VER.	40	9.7	9.1	9.7	9.7	9.4	9.1
	HOR.		10.5	10.2	10.7	11.2	10.3	9.4
	VER.	100	6.5	6.5	6.4	6.3	6.1	6.1
	HOR.		7.3	7.1	7.0	7.2	6.8	6.5
	VER.	160	****	****	****	****	****	****
	HOR.		****	****	****	****	****	****
STAND. DEVIATION OF HOR. WIND DIRECTION WIND VANE (DEGREE)		100	8.2	7.9	9.3	8.8	8.7	8.8
TEMPERATURE GRADIENT (K/100M)		30/100	-0.7	-0.7	-0.8	-0.7	-0.8	-0.8
NET RADIATION (MW/CM**2)			-8.0	-7.9	-7.8	-7.9	-7.9	-7.9
DIFFUSION CATEGORY BASED ON ...	VER. FLUCTUATION			D			D	
	HOR. FLUCTUATION			D			D	
	TEMP. GRADIENT			D			D	
	SYNOP. OBSERV.			D			D	

TAB. 15B: EXPERIMENT 44 18. 1.77 19.30 - 20.30

TRACER AND EMISSION RATE: CF2BR2 6.76 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	820.	251.	≤ 39	-
	B	700.	259.	≤ 44	≤ 47
	C	640.	265.	485	1473
	D	590.	270.	15807	25902
	E	630.	281.	-	28738
	F	600.	291.	6193	-
	G	590.	294.	430	7158
	H	570.	308.	≤ 130	≤ 152
II	A	1110.	245.	≤ 44	≤ 31
	B	1300.	254.	≤ 35	≤ 46
	C	1360.	259.	-	≤ 36
	D	1290.	266.	129	173
	E	1200.	271.	22887	9651
	F	1240.	284.	60745	29051
	G	1210.	289.	11550	23703
	H	1220.	295.	3962	2475
	I	1210.	301.	≤ 46	1694
III	A	2370.	245.	≤ 44	≤ 43
	B	2350.	248.	≤ 39	≤ 47
	C	2220.	253.	≤ 39	≤ 34
	D	2330.	258.	≤ 46	≤ 48
	E	2320.	271.	186	1253
	F	2430.	278.	7041	7489
	G	2220.	282.	6646	10218
	H	2320.	285.	8042	9381
	I	2330.	289.	508	5227
	K	2280.	293.	≤ 40	1995
	L	2080.	298.	≤ 49	≤ 39
IV	A	4720.	258.	≤ 39	-
	B	4880.	263.	≤ 34	-
	C	4600.	266.	46	≤ 44
	D	5050.	268.	446	≤ 79
	E	5800.	274.	-	5316
	F	5625.	279.	5089	5100
	G	5500.	285.	222	610
	H	5650.	288.	≤ 31	≤ 34
	I	5750.	294.	≤ 29	≤ 29
V	A	10275.	247.	≤ 67	≤ 64
	B	11250.	252.	≤ 55	≤ 54
	C	9600.	264.	≤ 36	≤ 27
	D	9225.	268.	380	-
	E	8825.	276.	2619	4345
	F	8825.	279.	1318	2801
	G	8850.	284.	62	-
	H	8975.	289.	≤ 33	≤ 73
	I	9250.	293.	≤ 32	≤ 36

TAB. 15C: EXPERIMENT 44 18. 1.77 19.30 - 20.30

TRACER AND EMISSION RATE: CFCL3 13.10 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	820.	251.	217	-
	B	700.	259.	297	963
	C	640.	265.	345	589
	D	590.	270.	915	5644
	E	630.	281.	-	5946
	F	600.	291.	24202	-
	G	590.	294.	725	9289
	H	570.	308.	322	8100
II	A	1110.	245.	444	1205
	B	1300.	254.	1012	1522
	C	1360.	259.	-	777
	D	1290.	266.	2147	426
	E	1200.	271.	6761	4701
	F	1240.	284.	40219	18393
	G	1210.	289.	13880	15813
	H	1220.	295.	2954	4770
	I	1210.	301.	69	4202
III	A	2370.	245.	2049	1645
	B	2350.	248.	≤ 736	564
	C	2220.	253.	2474	874
	D	2330.	258.	1377	1397
	E	2320.	271.	948	3265
	F	2430.	278.	11783	5401
	G	2220.	282.	4311	5837
	H	2320.	285.	11619	11127
	I	2330.	289.	4738	8102
	K	2280.	293.	1436	3937
	L	2080.	298.	≤ 739	2027
IV	A	4720.	258.	79	-
	B	4880.	263.	≤ 738	-
	C	4600.	266.	446	≤ 735
	D	5050.	268.	1705	355
	E	5800.	274.	-	4661
	F	5625.	279.	5582	6283
	G	5500.	285.	310	1088
	H	5650.	288.	≤ 734	≤ 746
	I	5750.	294.	≤ 752	≤ 741
V	A	10275.	247.	≤ 749	925
	B	11250.	252.	70	557
	C	9600.	264.	1120	688
	D	9225.	268.	≤ 735	-
	E	8825.	276.	4089	4843
	F	8825.	279.	2418	4300
	G	8850.	284.	1544	-
	H	8975.	289.	1012	≤ 728
	I	9250.	293.	642	≤ 732

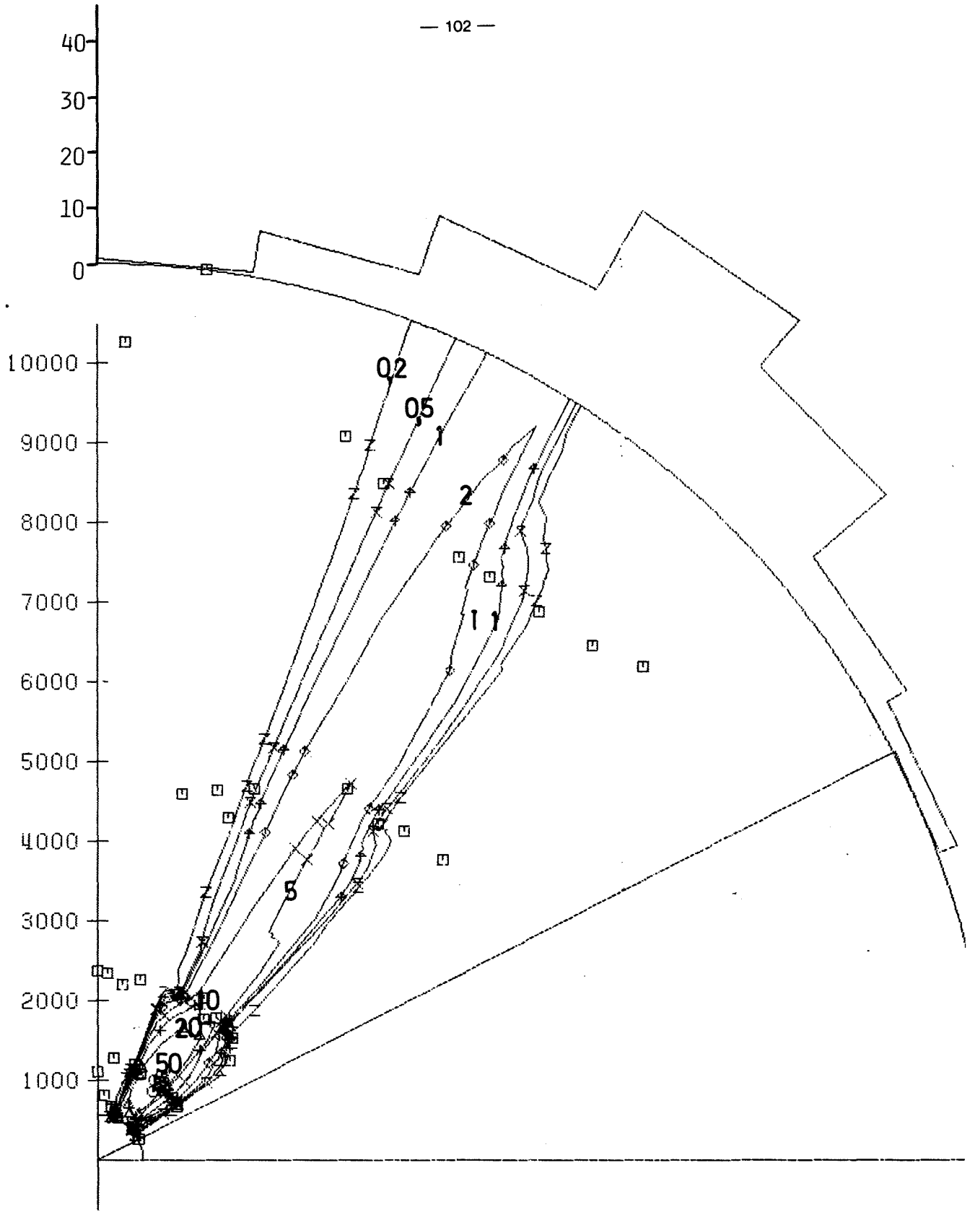

FIG. 15A: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 44/1 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

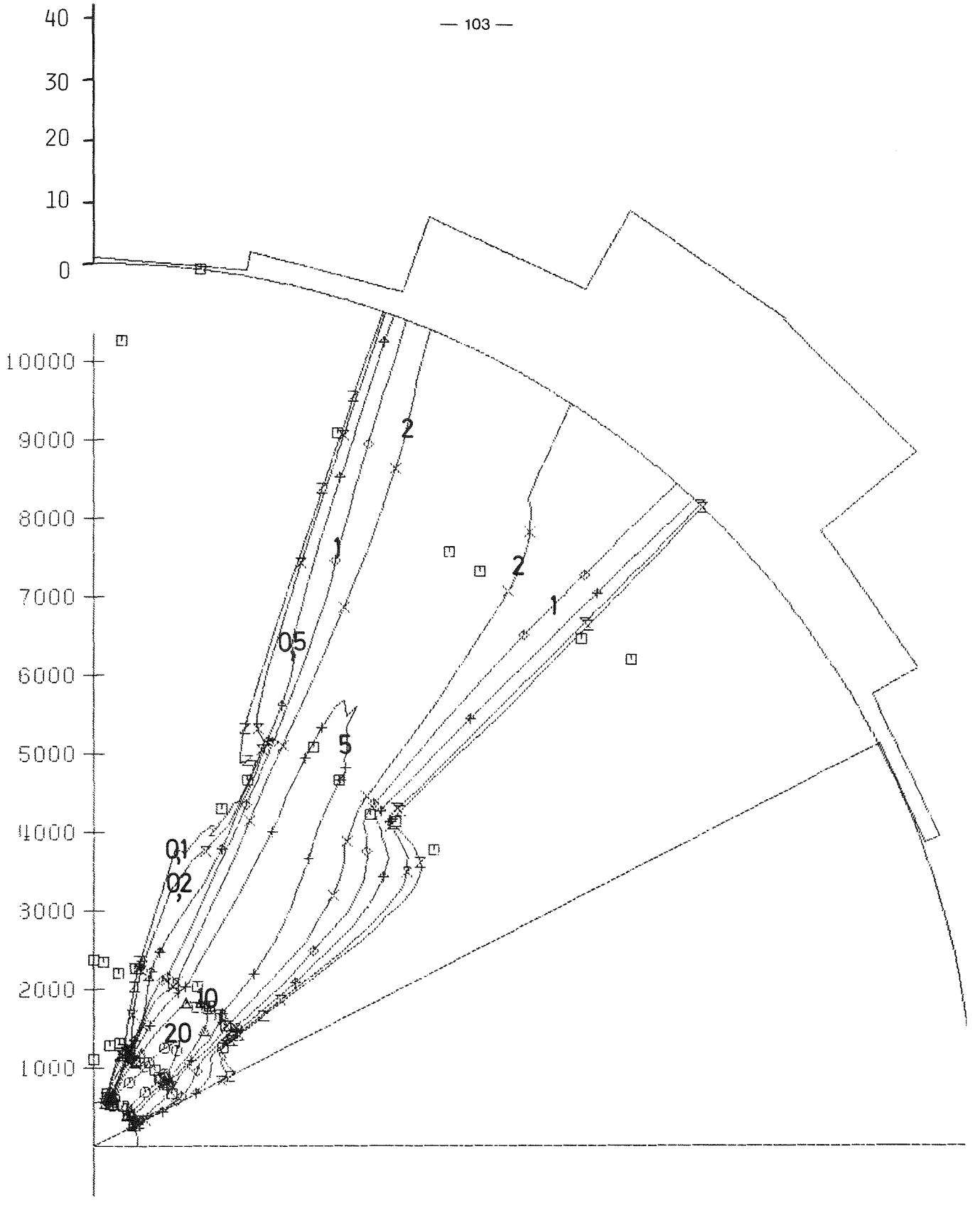

FIG. 15B: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 44/2 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

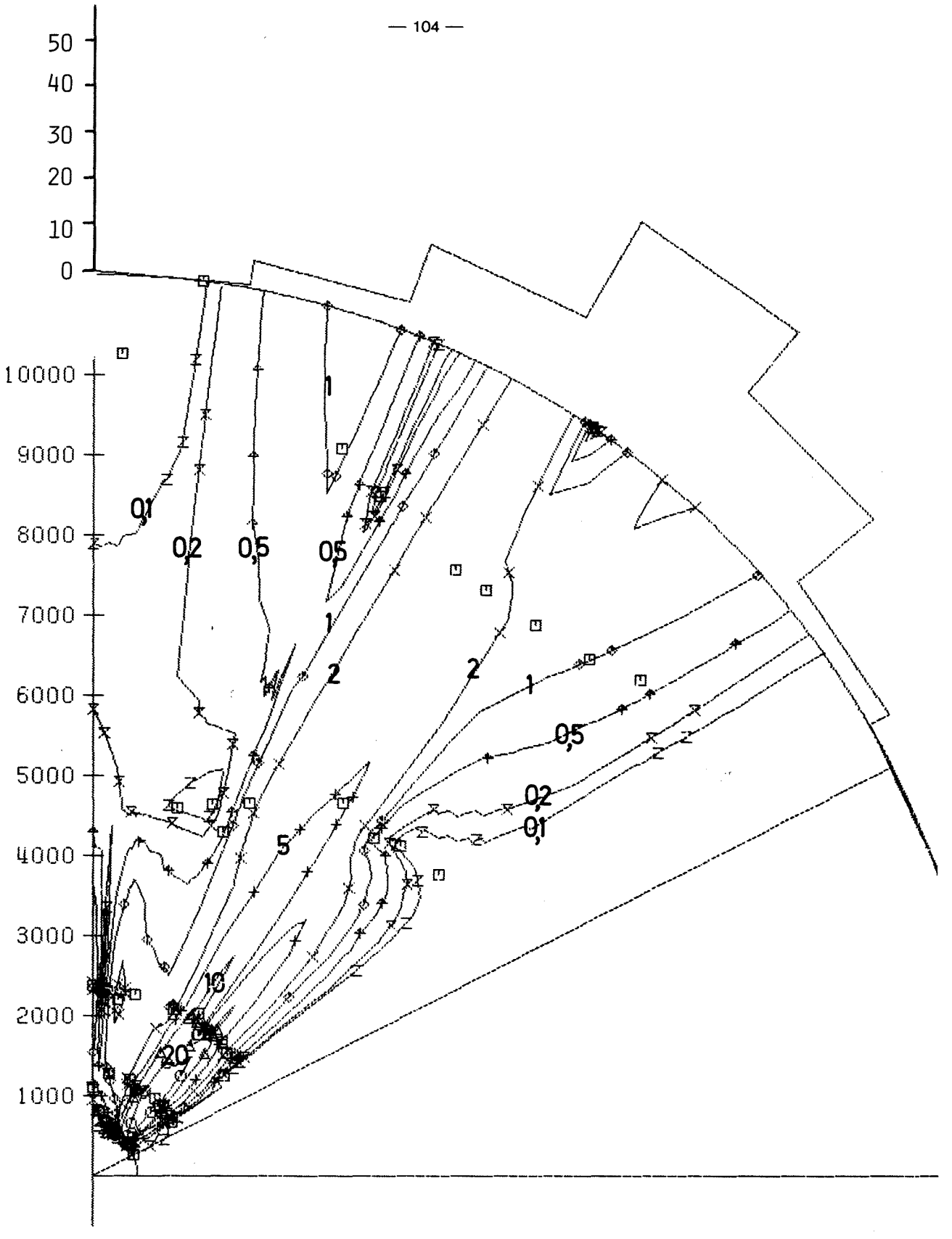

FIG. 15C: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 44/1 CFCL3 H=100 M
FOR DETAILED INFORMATION SEE FIGURE 6A

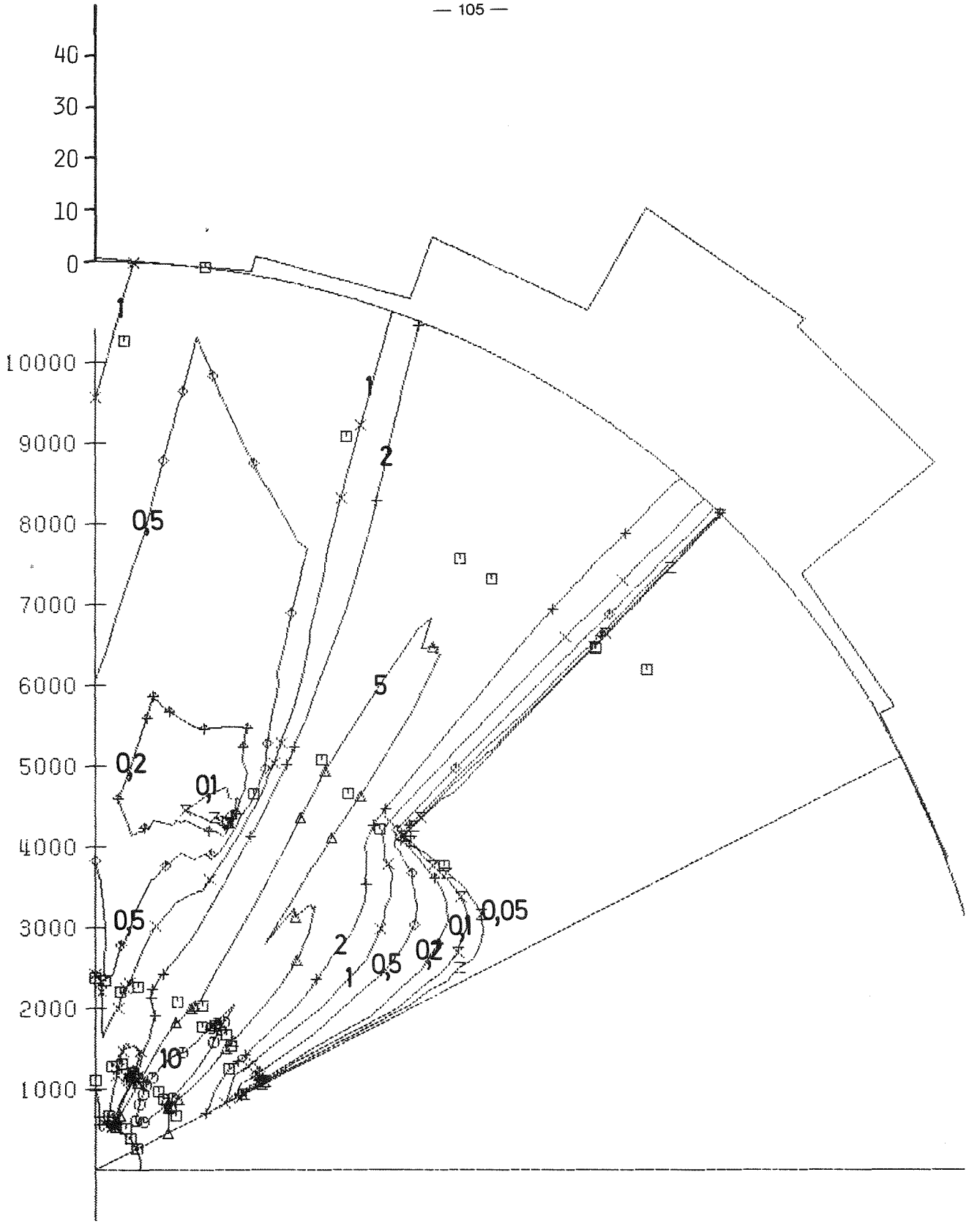

FIG. 15D: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 44/2 CFCL3 H=100 M
FOR DETAILED INFORMATION SEE FIGURE 6A

TAB. 16A: METEOROLOGICAL DATA OF EXPERIMENT NO. 45

		HEIGHT (M)	1.SAMPLING PERIOD 14.20	14.30	14.40	2.SAMPLING PERIOD 14.50	15.00	15.10
WIND DIRECTION (DEGREE)		40	259	252	255	260	263	240
		60	255	251	254	258	257	233
		100	255	251	252	256	248	225
		160	258	253	250	250	231	225
		200	261	255	248	247	230	230
WIND SPEED (M/S)		40	3.0	3.4	2.7	2.1	2.3	2.9
		60	3.8	4.1	3.4	2.5	2.7	3.4
		100	5.5	5.2	4.4	3.0	3.2	3.9
		160	8.0	6.4	5.3	3.4	3.4	4.0
		200	9.1	7.6	5.9	3.9	4.0	4.3
STANDARD DEVIATION OF	VER.	40	9.1	8.6	9.0	8.3	9.0	9.4
	HOR.		11.9	11.7	12.5	11.9	13.0	12.6
WIND DIR. VECTOR VANE (DEGREE)	VER.	100	4.5	4.7	5.1	5.6	5.9	5.2
	HOR.		5.4	6.2	7.0	7.3	7.2	8.5
	VER.	160	****	****	****	****	****	****
	HOR.		****	****	****	****	****	****
STAND. DEVIATION OF HOR. WIND DIRECTION WIND VANE (DEGREE)		100	6.2	6.8	8.1	9.3	12.2	16.3
TEMPERATURE GRADIENT (K/100M)		30/100	-0.4	-0.5	-0.6	-0.8	-0.9	-0.8
NET RADIATION (MW/CM**2)			15.9	12.9	11.9	10.8	25.8	21.1
DIFFUSION CATEGORY BASED ON ...	VER. FLUCTUATION			D			D	
	HOR. FLUCTUATION			D			C	
	TEMP. GRADIENT			D			D	
	SYNOP. OBSERV.			D			D	

TAB. 16B: EXPERIMENT 45 25. 2.77 14.10 - 15.10

TRACER AND EMISSION RATE: CF2BR2 5.97 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	150.	15.	≤ 33	≤ 36
	B	150.	26.	≤ 41	249
	C	145.	36.	≤ 36	217
	D	150.	46.	≤ 55	118
	E	150.	54.	61	38083
	F	150.	61.	255	24090
	G	150.	68.	246	46086
	H	150.	76.	25354	6165
	I	150.	82.	-	6492
	K	150.	89.	382	4509
	L	150.	98.	432	162
II	A	295.	22.	≤ 51	≤ 43
	B	295.	30.	≤ 56	≤ 52
	C	295.	36.	≤ 52	1414
	D	290.	45.	181	1953
	E	295.	56.	2643	5108
	F	300.	62.	6744	19506
	G	305.	69.	-	32634
	H	305.	74.	35043	70882
	I	300.	89.	4871	14695
III	A	635.	38.	≤ 44	≤ 49
	B	625.	46.	≤ 46	81
	C	590.	52.	690	1235
	D	625.	60.	10176	8388
	E	605.	63.	14923	15330
	F	595.	70.	36497	31521
	G	630.	75.	91871	81132
	H	590.	82.	43133	110745
	I	720.	92.	27774	1318
IV	A	1030.	41.	≤ 29	≤ 35
	B	1465.	48.	≤ 31	≤ 59
	C	1300.	52.	≤ 35	≤ 25
	D	1200.	56.	-	≤ 32
	E	1225.	61.	301	414
	F	1460.	68.	-	17441
	G	1320.	91.	12597	2407
V	A	2455.	44.	-	≤ 37
	B	2535.	50.	≤ 44	≤ 45
	C	2625.	56.	≤ 48	102
	D	2770.	62.	≤ 43	361
	E	2815.	66.	896	-
	F	2350.	72.	8065	21440
	G	2520.	85.	5407	994

TAB. 16C: EXPERIMENT 45 25. 2.77 14.10 - 15.10

TRACER AND EMISSION RATE: CFCL3 12.70 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	150.	15.	138	185
	B	150.	26.	-	-
	C	145.	36.	-	-
	D	150.	46.	406	1143
	E	150.	54.	138	1214
	F	150.	61.	459	400
	G	150.	68.	191	761
	H	150.	76.	453	417
	I	150.	82.	-	290
	K	150.	89.	≤ 214	993
	L	150.	98.	467	≤ 213
II	A	295.	22.	201	102
	B	295.	30.	140	573
	C	295.	36.	1681	2150
	D	290.	45.	305	1010
	E	295.	56.	276	265
	F	300.	62.	105	412
	G	305.	69.	-	91
	H	305.	74.	305	691
	I	300.	89.	610	≤ 215
III	A	635.	38.	≤ 212	≤ 209
	B	625.	46.	123	326
	C	590.	52.	435	2840
	D	625.	60.	848	13800
	E	605.	63.	3722	12185
	F	595.	70.	10119	14384
	G	630.	75.	25662	36877
	H	590.	82.	10887	49961
	I	720.	92.	973	211
IV	A	1030.	41.	≤ 212	216
	B	1465.	48.	199	43
	C	1300.	52.	289	≤ 212
	D	1200.	56.	-	≤ 213
	E	1225.	61.	634	1519
	F	1460.	68.	-	26215
	G	1320.	91.	9760	3474
V	A	2455.	44.	-	≤ 211
	B	2535.	50.	≤ 213	≤ 215
	C	2625.	56.	197	708
	D	2770.	62.	376	1077
	E	2815.	66.	511	-
	F	2350.	72.	7423	23175
	G	2520.	85.	6447	2630

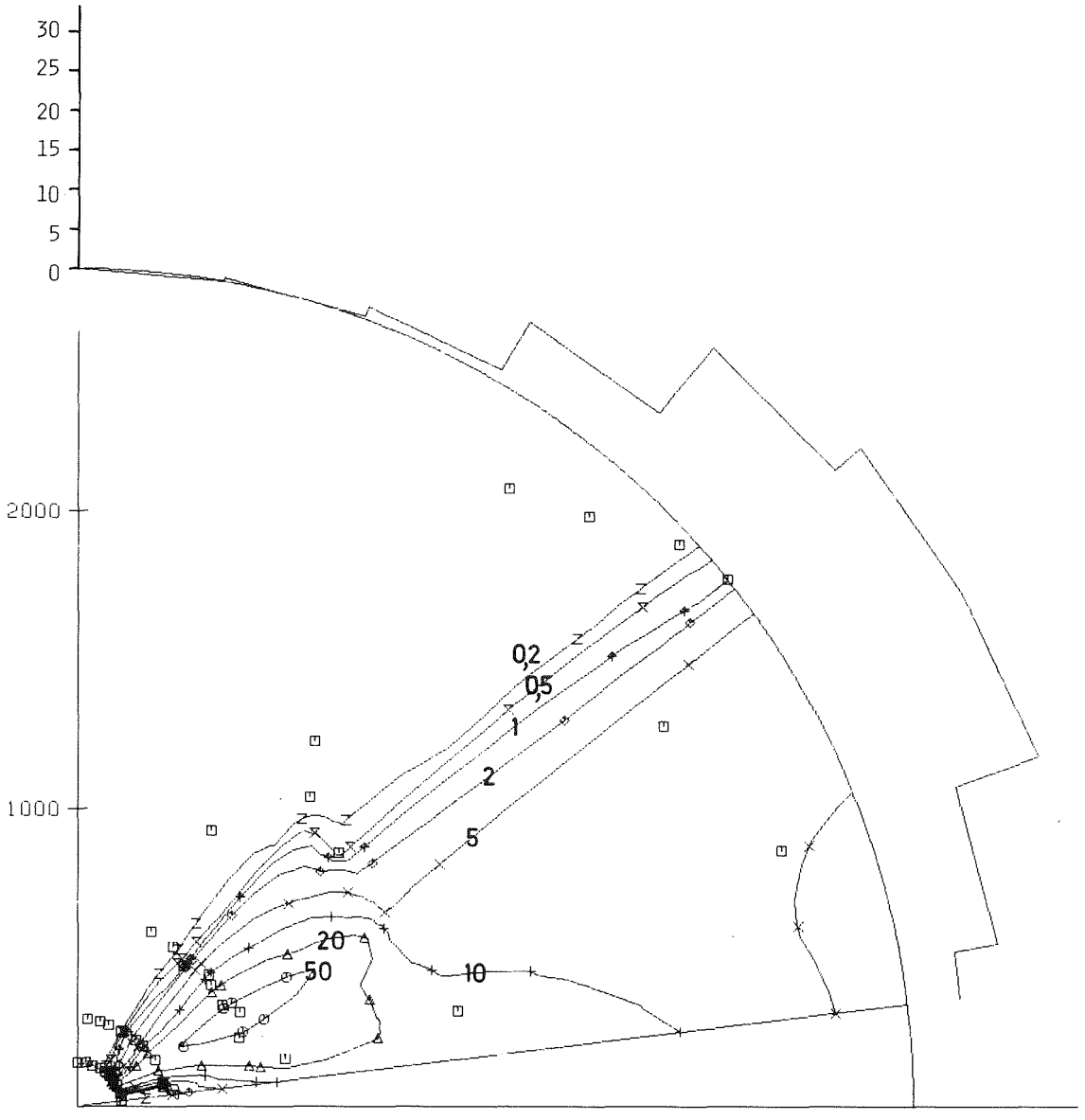

FIG. 16A: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 45/1 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

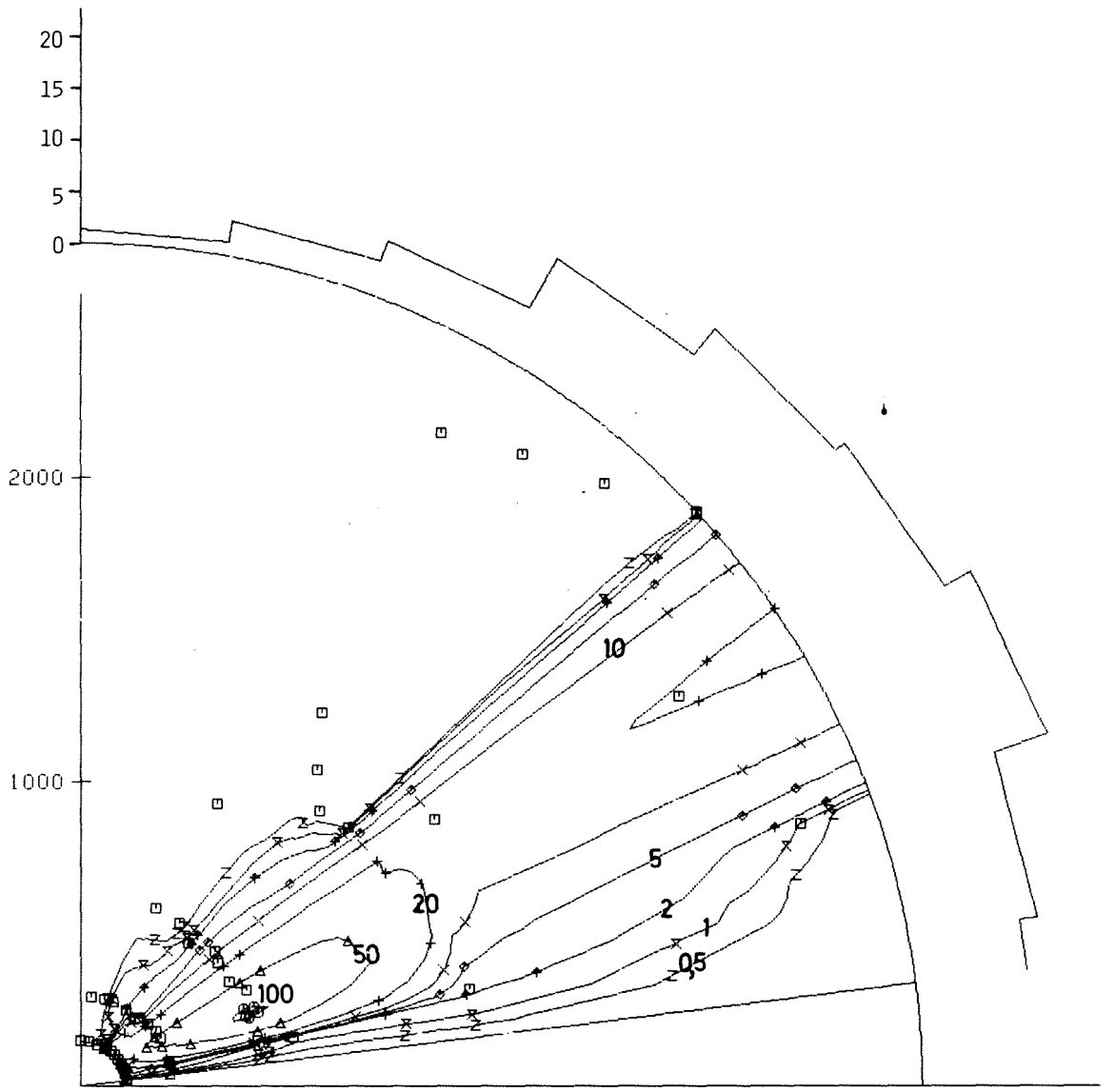

FIG. 16B: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 45/2 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

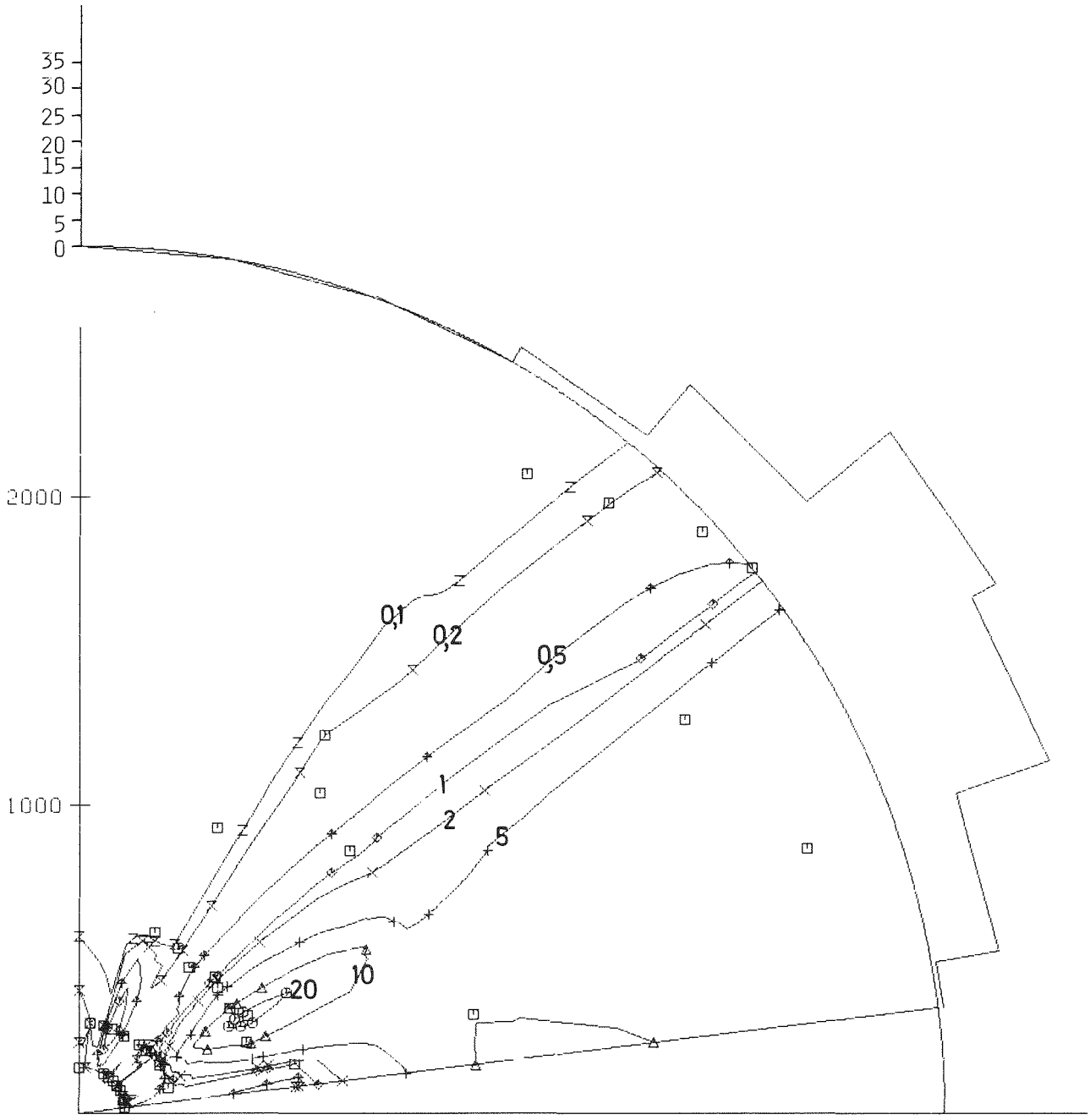

FIG. 16C: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 45/1 CFCL3 H=100 M
FØR DETAILED INFØRMATION SEE FIGURE 6A

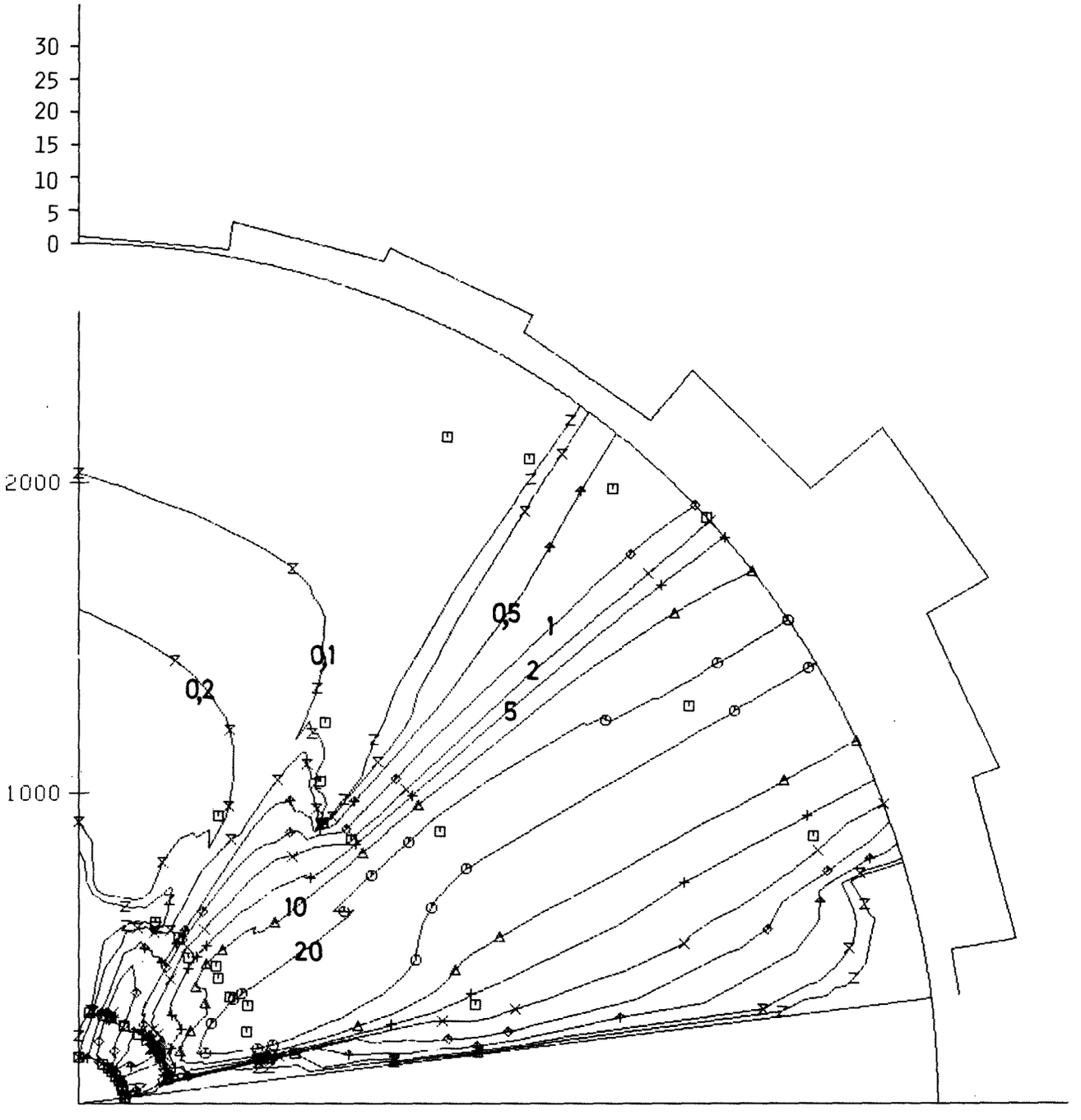

FIG. 16D: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 45/2 CFCL3 H=100 M
FOR DETAILED INFORMATION SEE FIGURE 6A

TAB. 17A: METEOROLOGICAL DATA OF EXPERIMENT NO. 46

		HEIGHT (M)	1.SAMPLING PERIOD 20.10	20.20	20.30	2.SAMPLING PERIOD 20.40	20.50	21.00
WIND DIRECTION (DEGREE)		40	102	104	108	117	122	124
		60	99	103	104	110	114	120
		100	97	105	111	115	119	133
		160	104	111	114	116	119	130
		200	116	122	123	125	130	135
WIND SPEED (M/S)		40	3.1	2.6	2.7	3.0	3.6	3.6
		60	4.3	3.9	4.1	4.4	4.9	4.6
		100	5.4	5.2	5.4	5.8	5.7	5.0
		160	6.5	5.8	6.5	7.0	6.5	5.7
		200	6.6	6.0	6.9	7.8	7.5	6.5
STANDARD DEVIATION OF WIND DIR. VECTOR VANE (DEGREE)	VER.	40	3.8	3.2	2.9	2.5	2.5	2.9
	HOR.	40	3.3	2.8	2.8	2.7	2.8	3.3
	VER.	100	2.0	1.6	1.3	1.0	0.9	1.0
	HOR.	100	2.0	1.6	1.4	1.2	1.3	1.4
	VER.	160	****	****	****	****	****	****
	HOR.	160	****	****	****	****	****	****
STAND. DEVIATION OF HOR. WIND DIRECTION WIND VANE (DEGREE)		100	3.8	2.9	2.1	1.8	4.1	4.9
TEMPERATURE GRADIENT (K/100M)		30/100	2.0	1.7	2.1	2.3	1.9	1.9
NET RADIATION (MW/CM**2)			-5.0	-4.9	-4.8	-4.6	-4.5	-4.1
DIFFUSION CATEGORY BASED ON ...	VER. FLUCTUATION			F			F	
	HOR. FLUCTUATION			F			F	
	TEMP. GRADIENT			F			F	
	SYNOP. OBSERV.			E			E	

TAB. 178: EXPERIMENT 46 15. 3.77 20.00 - 21.00

TRACER AND EMISSION RATE: CF2BR2 7.62 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	510.	239.	≤ 36	≤ 32
	B	480.	244.	≤ 48	140
	C	455.	253.	≤ 30	516
	D	425.	258.	≤ 45	335
	E	410.	264.	≤ 41	598
	F	500.	273.	≤ 31	237
	G	575.	279.	66	473
	H	555.	282.	≤ 33	216
	I	545.	287.	100	234
	K	535.	294.	110	882
	L	515.	300.	231	240
II	A	930.	265.	≤ 36	≤ 36
	B	915.	271.	≤ 46	-
	C	920.	278.	≤ 41	≤ 37
	D	940.	284.	≤ 30	≤ 39
	E	990.	288.	≤ 69	≤ 38
	F	1015.	293.	2011	119
	G	1040.	300.	1500	2100
III	A	2025.	261.	≤ 77	≤ 64
	B	1985.	267.	≤ 36	≤ 38
	C	1960.	270.	49	≤ 43
	D	1925.	275.	3433	230
	E	1880.	284.	1640	299
	F	1935.	289.	563	522
	G	1895.	296.	192	375
	H	1950.	300.	-	-
IV	A	4880.	244.	≤ 88	≤ 40
	B	4560.	253.	≤ 34	≤ 32
	C	4600.	257.	≤ 41	98
	D	4865.	264.	770	1385
	E	6063.	268.	-	1263
	F	5070.	269.	≤ 39	93
	G	5825.	277.	1231	2850
	H	5475.	285.	63	1763
	I	5700.	292.	-	≤ 40
V	A	10013.	251.	≤ 37	≤ 34
	B	9663.	263.	≤ 40	≤ 44
	C	9200.	268.	≤ 36	≤ 40
	D	8825.	276.	346	601
	E	8838.	284.	205	9302
	F	9025.	289.	≤ 37	≤ 36
	G	9300.	294.	≤ 37	≤ 40
	H	9600.	298.	≤ 45	≤ 34

TAB. 17C: EXPERIMENT 46 15. 3.77 20.00 - 21.00

TRACER AND EMISSION RATE: CFCL3 12.90 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	510.	239.	130	161
	B	480.	244.	36	88
	C	455.	253.	20	325
	D	425.	258.	519	74
	E	410.	264.	≤ 36	993
	F	500.	273.	≤ 37	298
	G	575.	279.	100	1033
	H	555.	282.	≤ 37	225
	I	545.	287.	300	≤ 36
	K	535.	294.	58	768
	L	515.	300.	59	369
II	A	930.	265.	52	≤ 28
	B	915.	271.	304	-
	C	920.	278.	195	≤ 40
	D	940.	284.	91	212
	E	990.	288.	278	176
	F	1015.	293.	4523	308
	G	1040.	300.	1576	2580
III	A	2025.	261.	78	201
	B	1985.	267.	144	200
	C	1960.	270.	228	858
	D	1925.	275.	601	328
	E	1880.	284.	662	906
	F	1935.	289.	2200	1600
	G	1895.	296.	653	315
	H	1950.	300.	-	-
IV	A	4880.	244.	251	46
	B	4560.	253.	187	753
	C	4600.	257.	≤ 36	73
	D	4865.	264.	101	217
	E	6063.	268.	-	≤ 36
	F	5070.	269.	106	118
	G	5825.	277.	15	238
	H	5475.	285.	283	93
	I	5700.	292.	-	22
V	A	10013.	251.	141	291
	B	9663.	263.	653	419
	C	9200.	268.	565	1131
	D	8825.	276.	31	449
	E	8838.	284.	998	919
	F	9025.	289.	119	≤ 37
	G	9300.	294.	204	669
	H	9600.	298.	167	66

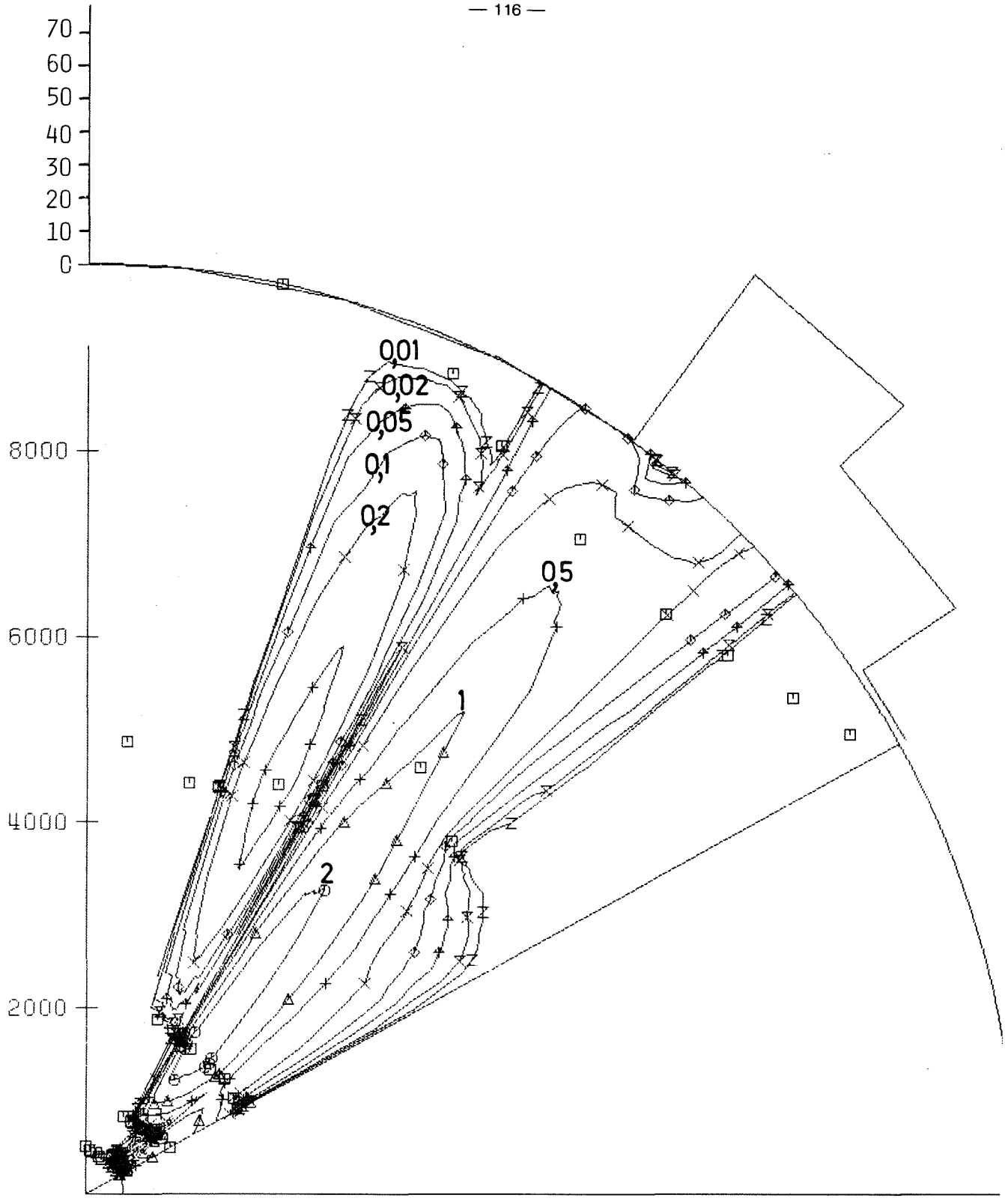

FIG. 17A: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 46/1 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

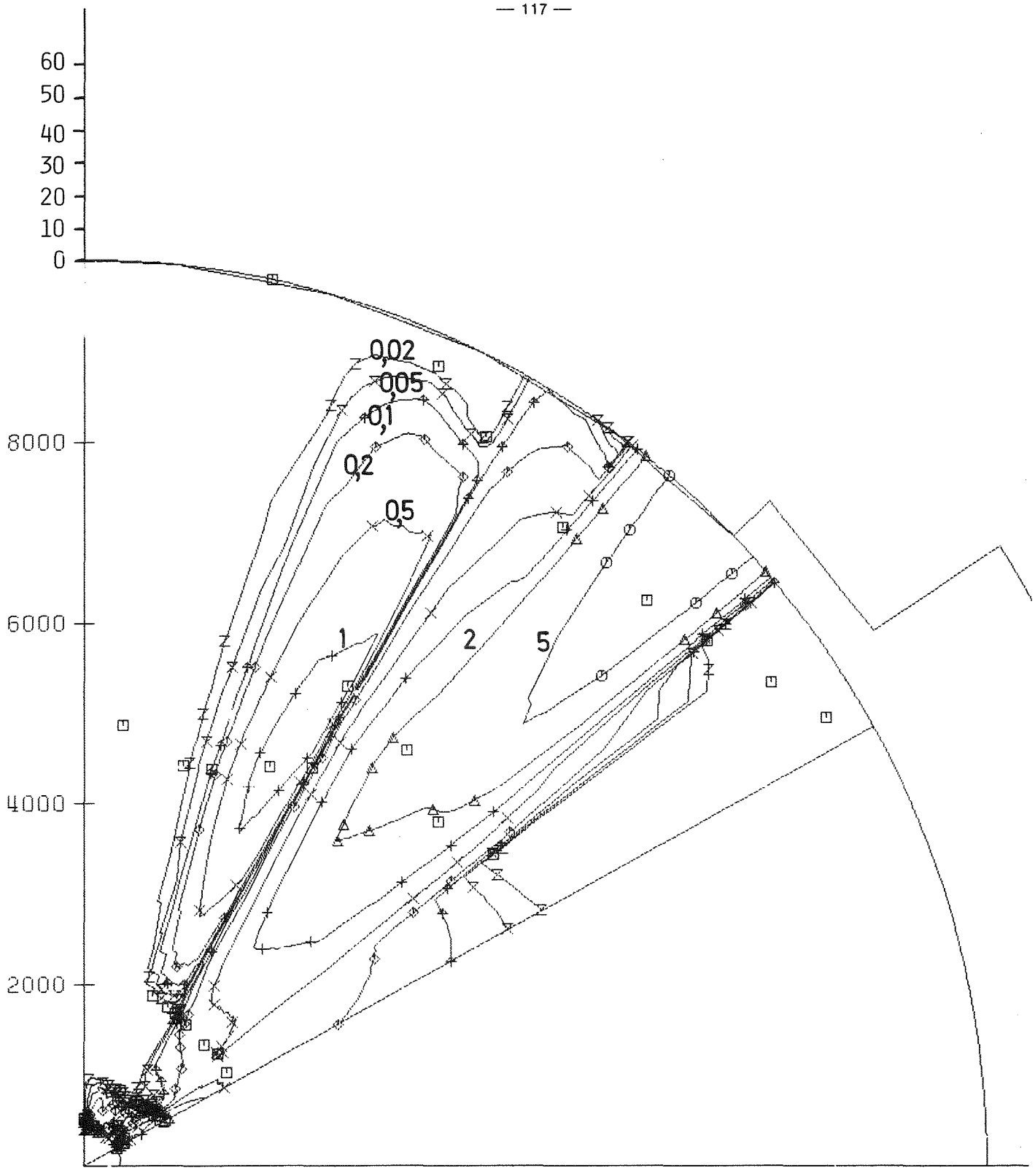

FIG. 17B: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 46/2 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

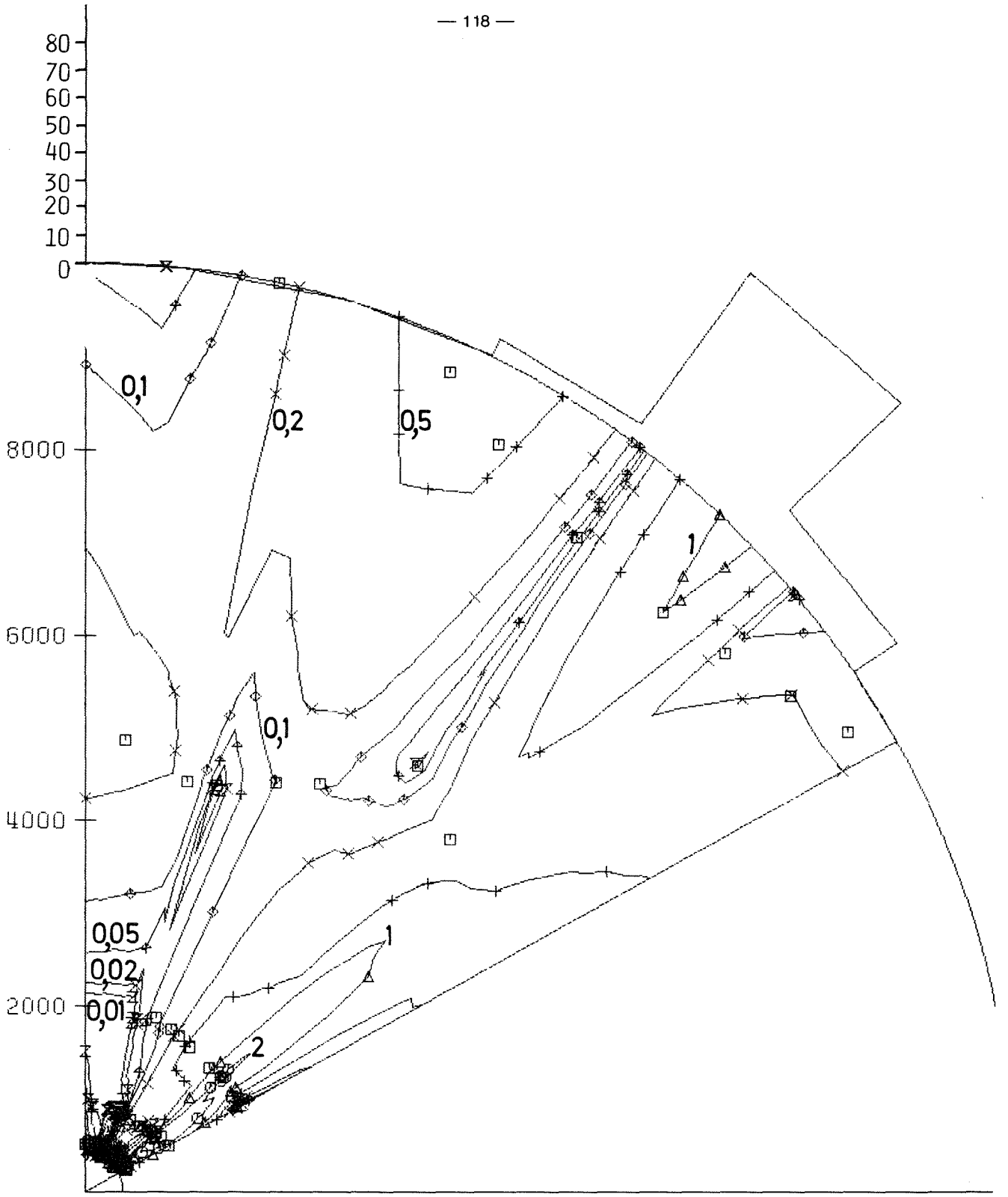

FIG. 17C: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 46/1 CFCL3 H=100 M
FØR DETAILED INFØRMATION SEE FIGURE 6A

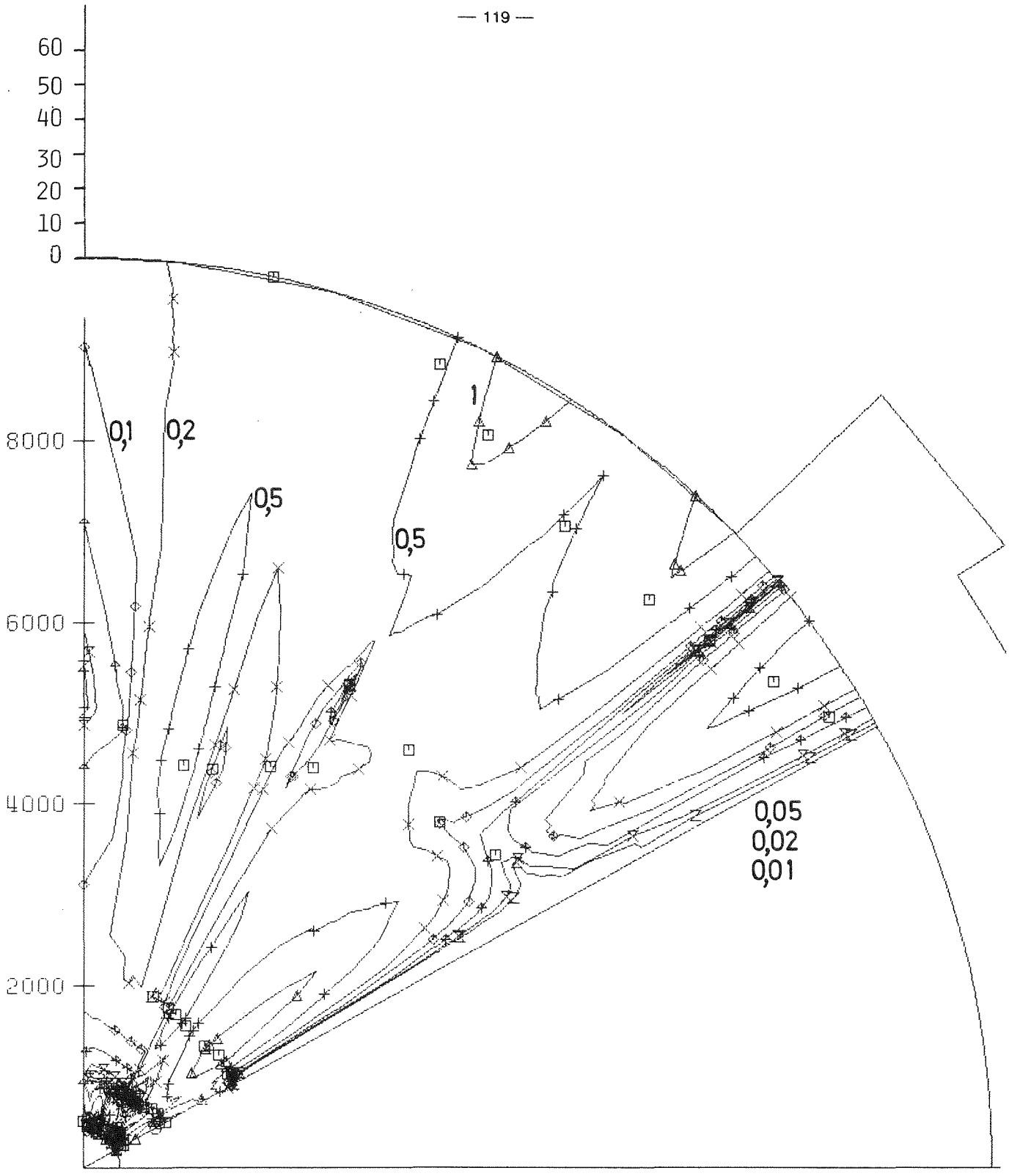

FIG. 17D: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 46/2 CFCL3 H=100 M
FØR DETAILED INFØRMATION SEE FIGURE 6A

TAB. 18A: METEOROLOGICAL DATA OF EXPERIMENT NO. 47

		HEIGHT (M)	1.SAMPLING PERIOD 14.10	14.20	14.30	2.SAMPLING PERIOD 14.40	14.50	15.00
WIND DIRECTION (DEGREE)		40	156	49	121	133	64	28
		60	141	61	114	127	55	31
		100	148	64	124	140	52	23
		160	130	74	124	132	67	4
		200	138	87	131	118	78	357
WIND SPEED (M/S)		40	2.3	3.1	2.9	2.0	2.3	2.2
		60	2.2	3.2	3.2	2.0	2.5	2.7
		100	2.4	3.5	3.0	1.9	2.3	2.8
		160	2.0	3.5	2.7	1.9	2.0	3.1
		200	2.2	3.4	2.5	2.1	1.8	3.4
STANDARD DEVIATION OF WIND DIR. VECTOR VANE (DEGREE)	VER.	40	17.6	18.5	17.4	16.8	18.3	18.4
	HOR.		18.6	22.9	24.6	21.0	20.2	20.5
	VER.	100	21.1	20.2	18.2	18.6	18.5	20.4
	HOR.		****	25.9	25.9	22.2	19.3	****
	VER.	160	****	****	****	****	****	****
	HOR.		****	****	****	****	****	****
STAND. DEVIATION OF HOR. WIND DIRECTION WIND VANE (DEGREE)		100	31.9	****	****	****	****	****
TEMPERATURE GRADIENT (K/100M)		30/100	-1.2	-1.3	-1.5	-1.3	-1.1	-1.2
NET RADIATION (MW/CM**2)			37.1	36.1	33.9	32.9	31.5	30.5
DIFFUSION CATEGORY BASED ON ...	VER. FLUCTUATION			A			A	
	HOR. FLUCTUATION			A			****	
	TEMP. GRADIENT			A			B	
	SYNOP. OBSERV.			B			B	

TAB. 18B: EXPERIMENT 47 20. 4.77 14.00 - 15.00

TRACER AND EMISSION RATE: CF2BR2 5.79 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	85.	163.	-	9757
	B	80.	180.	35950	42141
	C	80.	198.	27465	10913
	D	105.	227.	22613	9090
	E	112.	235.	4662	8116
	F	100.	247.	1960	13552
	G	90.	258.	2601	73306
	H	80.	276.	1389	93799
II	A	220.	185.	2989	35755
	B	220.	195.	≤ 40	5216
	C	220.	206.	31278	6880
	D	210.	216.	20216	4943
	E	210.	225.	4271	4127
	F	210.	236.	-	7225
	G	280.	259.	5810	18506
	H	355.	269.	4418	2252
	I	345.	274.	1781	6851
	K	325.	278.	2819	16898
	L	310.	286.	1428	3697
	M	300.	297.	2607	4705
III	A	450.	177.	48	451
	B	455.	194.	3125	324
	C	400.	213.	681	-
	D	495.	228.	456	1104
	E	395.	234.	326	1045
	F	420.	259.	2457	1079
	G	530.	278.	1196	1094
	H	630.	281.	252	≤ 52
	I	625.	291.	95	≤ 35
	K	590.	304.	314	≤ 43
	L	585.	316.	143	≤ 38
IV	A	1550.	181.	58	121
	B	1410.	189.	178	159
	C	1280.	195.	127	222
	D	1090.	206.	516	236
	E	1030.	218.	225	391
	F	990.	228.	287	971
	G	1020.	238.	≤ 37	-
	H	1060.	244.	343	≤ 59
	I	970.	256.	52	≤ 29
	K	930.	269.	≤ 28	≤ 30
	L	930.	284.	≤ 35	≤ 35
	M	1040.	301.	≤ 35	≤ 42
	N	1090.	309.	≤ 34	≤ 37
V	A	1725.	183.	141	116
	B	1895.	191.	≤ 34	122
	C	1670.	200.	287	242
	D	2045.	210.	76	246
	E	2040.	220.	313	205
	F	2005.	227.	212	-
	G	1910.	236.	339	≤ 34
	H	1810.	247.	94	≤ 38
	I	1980.	264.	147	≤ 29
	K	1900.	276.	≤ 33	≤ 30
	L	1845.	307.	≤ 33	≤ 36

TAB. 18C: EXPERIMENT 47 20. 4.77 14.00 - 15.00

TRACER AND EMISSION RATE: CFCL3 13.20 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	85.	163.	-	62083
	B	80.	180.	1675	30521
	C	80.	198.	7753	13752
	D	105.	227.	2826	15783
	E	112.	235.	2076	21707
	F	100.	247.	2825	59490
	G	90.	258.	5928	74812
	H	80.	276.	11763	58813
	I	80.	295.	36595	93227
	K	90.	309.	62930	26270
	L	105.	324.	37362	42739
II	A	220.	185.	1564	9353
	B	220.	195.	580	861
	C	220.	206.	37817	9380
	D	210.	216.	27357	8640
	E	210.	225.	11404	7153
	F	210.	236.	-	8902
	G	280.	259.	2328	17362
	H	355.	269.	8038	13414
	I	345.	274.	2942	18381
	K	325.	278.	3258	29481
	L	310.	286.	3368	3106
	M	300.	297.	7650	7505
III	A	450.	177.	613	604
	B	455.	194.	≤ 449	138
	C	400.	213.	11558	-
	D	495.	228.	8761	3469
	E	395.	234.	1556	4442
	F	420.	259.	4322	5066
	G	530.	278.	2934	7574
	H	630.	281.	1042	180
	I	625.	291.	691	639
	K	590.	304.	1929	977
	L	585.	316.	130	121
IV	A	1550.	181.	≤ 448	≤ 447
	B	1410.	189.	≤ 447	≤ 446
	C	1280.	195.	≤ 444	140
	D	1090.	206.	408	210
	E	1030.	218.	≤ 444	384
	F	990.	228.	≤ 445	1950
	G	1020.	238.	108	-
	H	1060.	244.	≤ 445	≤ 445
	I	970.	256.	≤ 446	≤ 445
	K	930.	269.	≤ 444	≤ 447
	L	930.	284.	≤ 446	≤ 445
	M	1040.	301.	≤ 445	≤ 446
	N	1090.	309.	≤ 454	≤ 445
V	A	1725.	183.	≤ 446	≤ 446
	B	1895.	191.	≤ 445	482
	C	1670.	200.	≤ 447	≤ 445
	D	2045.	210.	≤ 446	70
	E	2040.	220.	≤ 447	≤ 446
	F	2005.	227.	67	-
	G	1910.	236.	≤ 445	≤ 446
	H	1810.	247.	≤ 447	520
	I	1980.	264.	320	≤ 446
	K	1900.	276.	320	≤ 446
	L	1845.	307.	178	24

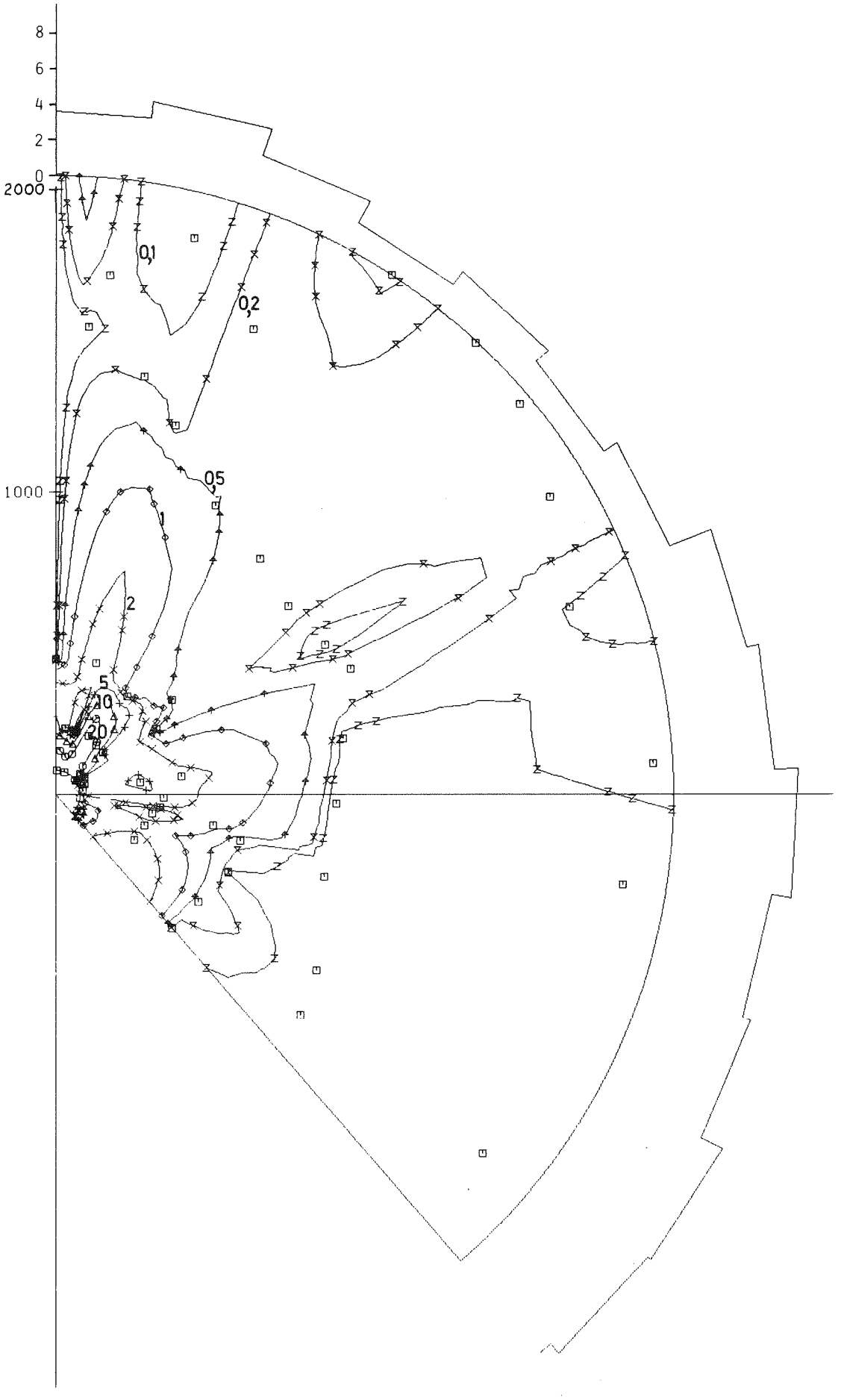

FIG. 18A: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 47/1 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

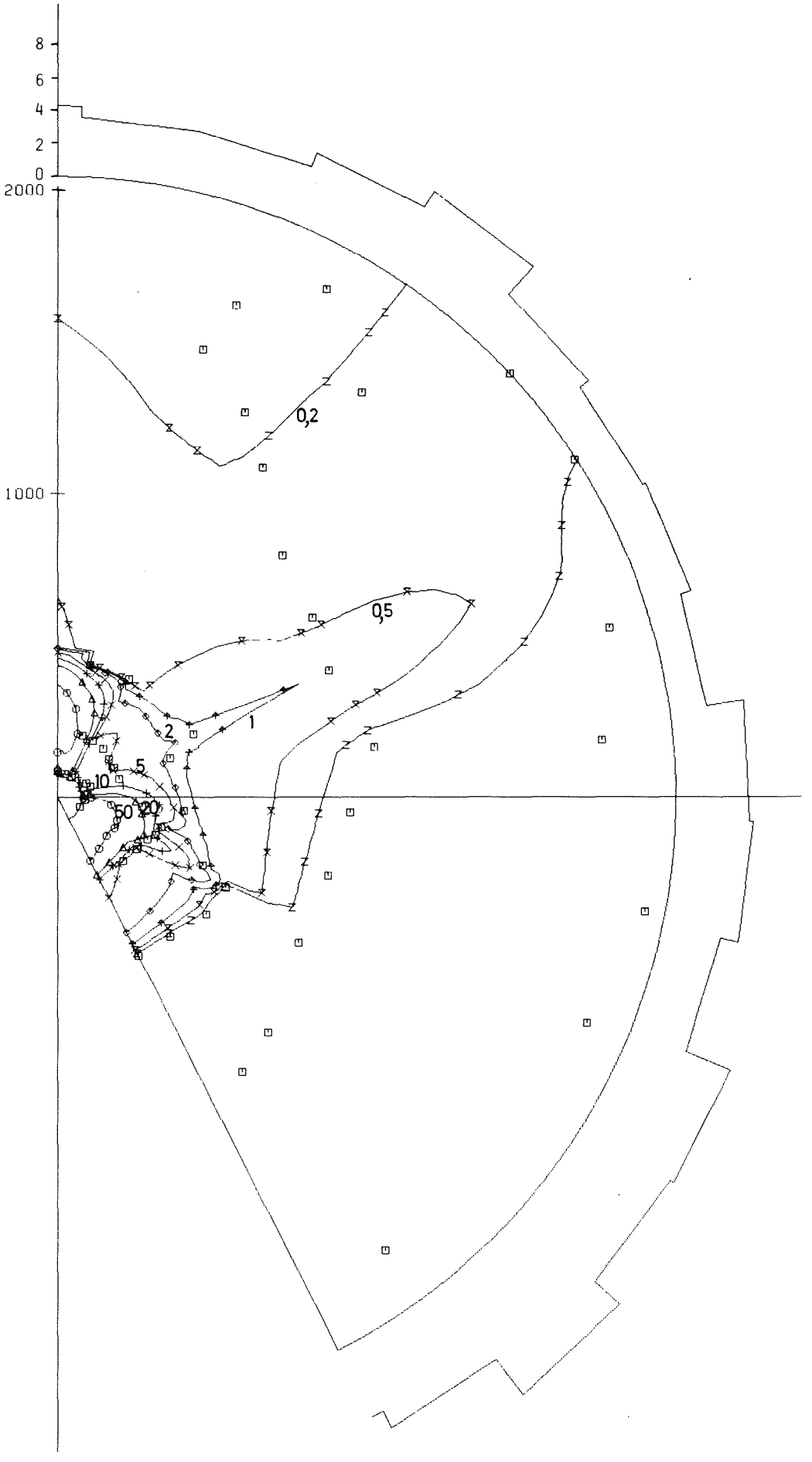

FIG. 18B: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 47/2 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

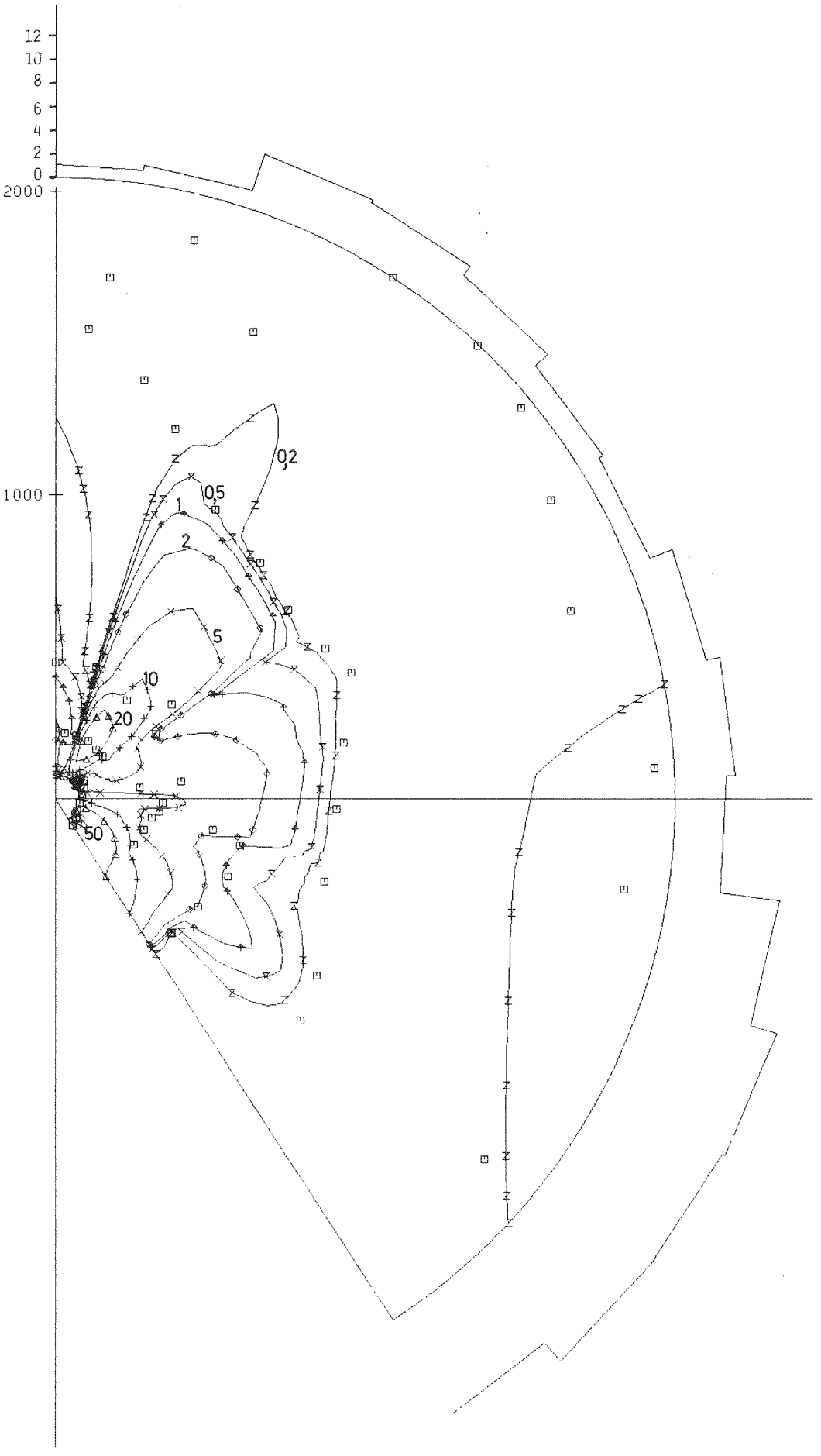

FIG. 18C: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 47/1 CFCL3 H=100 M
FOR DETAILED INFORMATION SEE FIGURE 6A

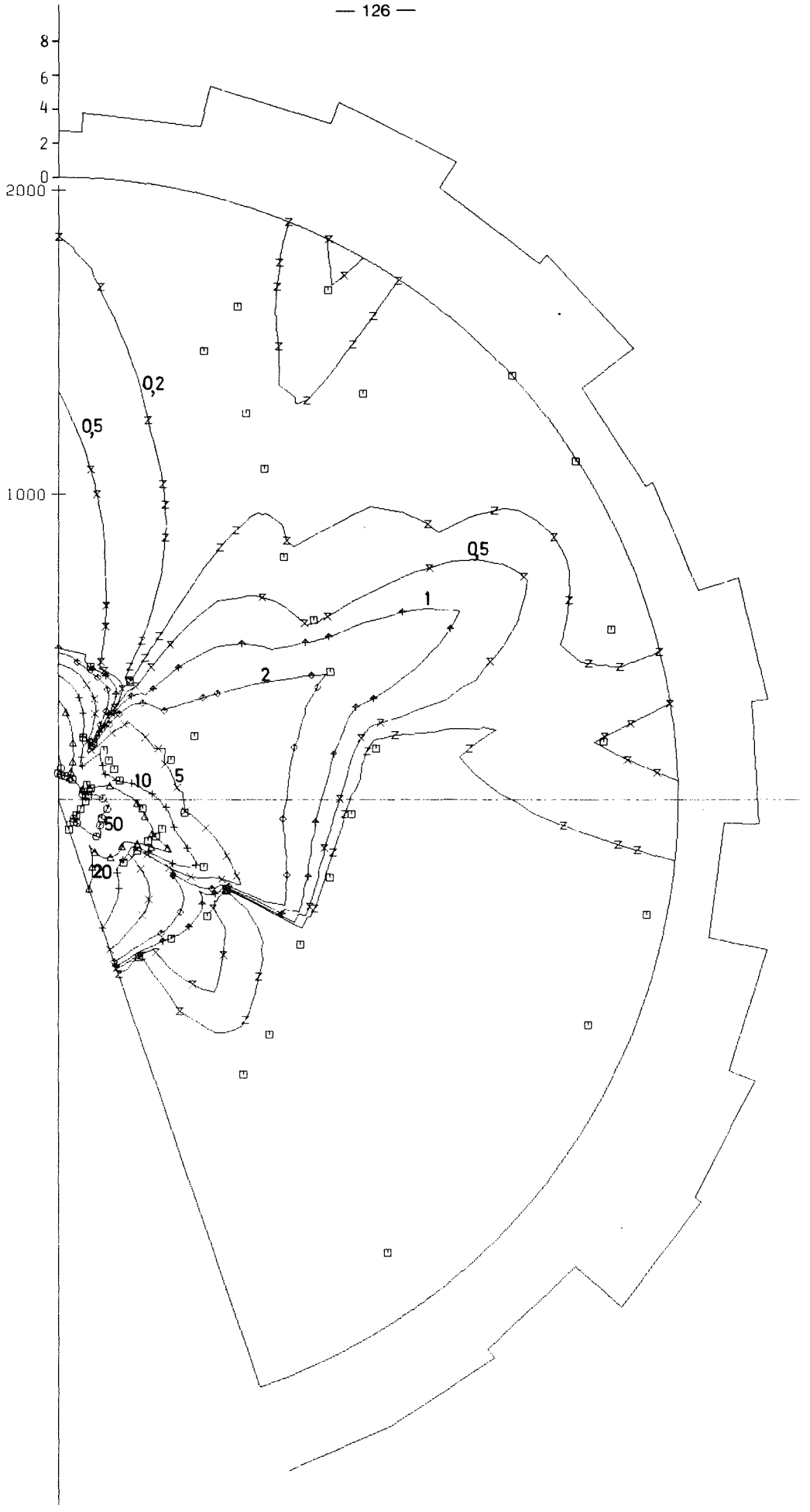

FIG. 18D: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 47/2 CFCL3 H=100 M
FOR DETAILED INFORMATION SEE FIGURE 6A

TAB. 19A: METEOROLOGICAL DATA OF EXPERIMENT NO. 48

		HEIGHT (M)	1.SAMPLING PERIOD 21.10	21.20	21.30	2.SAMPLING PERIOD 21.40	21.50	22.00
WIND DIRECTION (DEGREE)		40	68	70	69	70	73	71
		60	67	67	67	67	69	68
		100	73	73	74	75	77	77
		160	81	84	86	88	90	91
		200	96	97	99	100	102	102
WIND SPEED (M/S)		40	3.4	3.6	3.7	3.8	3.6	3.6
		60	4.9	5.1	5.0	5.3	5.0	4.8
		100	7.3	7.3	7.3	7.2	7.1	7.1
		160	9.4	9.6	9.8	9.7	9.6	9.6
		200	10.3	11.4	****	****	****	****
STANDARD DEVIATION OF WIND DIR. VECTOR VANE (DEGREE)	VER.	40	7.8	7.7	7.5	8.0	8.3	8.5
	HOR.		9.6	9.4	9.4	10.3	11.3	11.6
	VER.	100	4.3	4.6	4.3	4.2	4.0	4.0
	HOR.		4.3	4.0	3.9	3.7	3.8	3.7
	VER.	160	****	****	****	****	****	****
	HOR.		****	****	****	****	****	****
STAND. DEVIATION OF HOR. WIND DIRECTION WIND VANE (DEGREE)		100	3.1	2.4	2.7	3.3	3.8	3.9
TEMPERATURE GRADIENT (K/100M)		30/100	0.8	0.8	0.8	1.0	1.1	1.3
NET RADIATION (MW/CM**2)			-5.8	-5.7	-5.6	-5.6	-5.5	-5.4
DIFFUSION CATEGORY BASED ON ...	VER. FLUCTUATION			D			D	
	HOR. FLUCTUATION			F			F	
	TEMP. GRADIENT			E			E	
	SYNOP. OBSERV.			D			D	

TAB. 19B: EXPERIMENT 48 24. 5.77 21.00 - 22.00

TRACER AND EMISSION RATE: CF2BR2 6.07 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	440.	212.	855	939
	B	400.	221.	≤ 37	2801
	C	470.	226.	7859	11291
	D	440.	236.	5310	6870
	E	540.	239.	18405	17326
	F	490.	245.	8981	18759
	G	520.	257.	4319	14225
	H	450.	257.	12611	11301
	I	485.	266.	682	987
	K	430.	268.	1322	1583
	L	520.	275.	≤ 41	41
II	A	1000.	220.	≤ 38	≤ 34
	B	990.	225.	-	≤ 35
	C	990.	229.	3592	1770
	D	1000.	235.	18134	4734
	E	1030.	240.	19528	3900
	F	1060.	245.	40552	34114
	G	1000.	250.	7265	34266
	H	970.	256.	356	10627
	I	940.	261.	≤ 34	3581
	K	930.	265.	≤ 41	627
	L	915.	270.	≤ 35	≤ 35
	M	920.	275.	7597	≤ 28
III	A	2550.	221.	≤ 51	≤ 53
	B	2510.	231.	522	520
	C	2330.	237.	7849	358
	D	2100.	239.	32770	5430
	E	2280.	249.	39595	4687
	F	1945.	251.	10857	52947
	G	2110.	256.	159	2598
	H	1975.	266.	≤ 51	≤ 52
	I	1905.	276.	≤ 60	≤ 62
	K	1750.	287.	≤ 80	-
	L	1410.	288.	≤ 81	-
IV	A	4880.	229.	≤ 76	≤ 82
	B	5080.	234.	613	338
	C	5250.	244.	6910	5171
	D	5430.	247.	2369	196
	E	5740.	252.	≤ 80	≤ 60
	F	5075.	258.	≤ 75	≤ 62
	G	4890.	264.	≤ 76	≤ 75
	H	6075.	268.	≤ 76	-
	I	5060.	269.	≤ 69	≤ 89
V	A	8987.	226.	191	≤ 36
	B	9225.	236.	266	187
	C	9425.	239.	1429	2705
	D	9625.	244.	1224	2781
	E	9800.	250.	217	167
	F	10225.	254.	≤ 42	342
	G	10375.	259.	≤ 41	-
	H	9550.	265.	≤ 39	≤ 34
	I	9175.	269.	≤ 37	≤ 38
	K	8900.	274.	≤ 38	≤ 37

TAB. 19C: EXPERIMENT 48 24. 5.77 21.00 - 22.00

TRACER AND EMISSION RATE: CFCL3 14.80 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	440.	212.	297	2970
	B	400.	221.	77	573
	C	470.	226.	7200	677
	D	440.	236.	999	1479
	E	540.	239.	1451	949
	F	490.	245.	3148	17094
	G	520.	257.	1914	418
	H	450.	257.	1147	205
	I	485.	266.	684	314
	K	430.	268.	1440	≤ 856
	L	520.	275.	522	351
II	A	1000.	220.	≤ 857	≤ 855
	B	990.	225.	-	≤ 857
	C	990.	229.	1136	673
	D	1000.	235.	2220	950
	E	1030.	240.	2495	892
	F	1060.	245.	5076	8875
	G	1000.	250.	2182	2066
	H	970.	256.	2062	1165
	I	940.	261.	127	473
	K	930.	265.	2595	506
	L	915.	270.	1172	347
	M	920.	275.	2318	2995
III	A	2550.	221.	1604	2387
	B	2510.	231.	1737	≤ 868
	C	2330.	237.	3568	532
	D	2100.	239.	5859	≤ 858
	E	2280.	249.	19089	13041
	F	1945.	251.	6019	9759
	G	2110.	256.	341	3506
	H	1975.	266.	1472	2386
	I	1905.	276.	167	1553
	K	1750.	287.	751	-
	L	1410.	288.	865	-
IV	A	4880.	229.	1589	910
	B	5080.	234.	2147	479
	C	5250.	244.	15306	11479
	D	5430.	247.	1141	2799
	E	5740.	252.	2059	≤ 863
	F	5075.	258.	1425	1008
	G	4890.	264.	≤ 859	1067
	H	6075.	268.	575	-
	I	5060.	269.	936	1176
V	A	8987.	226.	3210	616
	B	9225.	236.	1948	391
	C	9425.	239.	831	2727
	D	9625.	244.	2834	5981
	E	9800.	250.	3192	3613
	F	10225.	254.	4077	1237
	G	10375.	259.	1601	-
	H	9550.	265.	970	1968
	I	9175.	269.	1168	1873
	K	8900.	274.	2680	1319

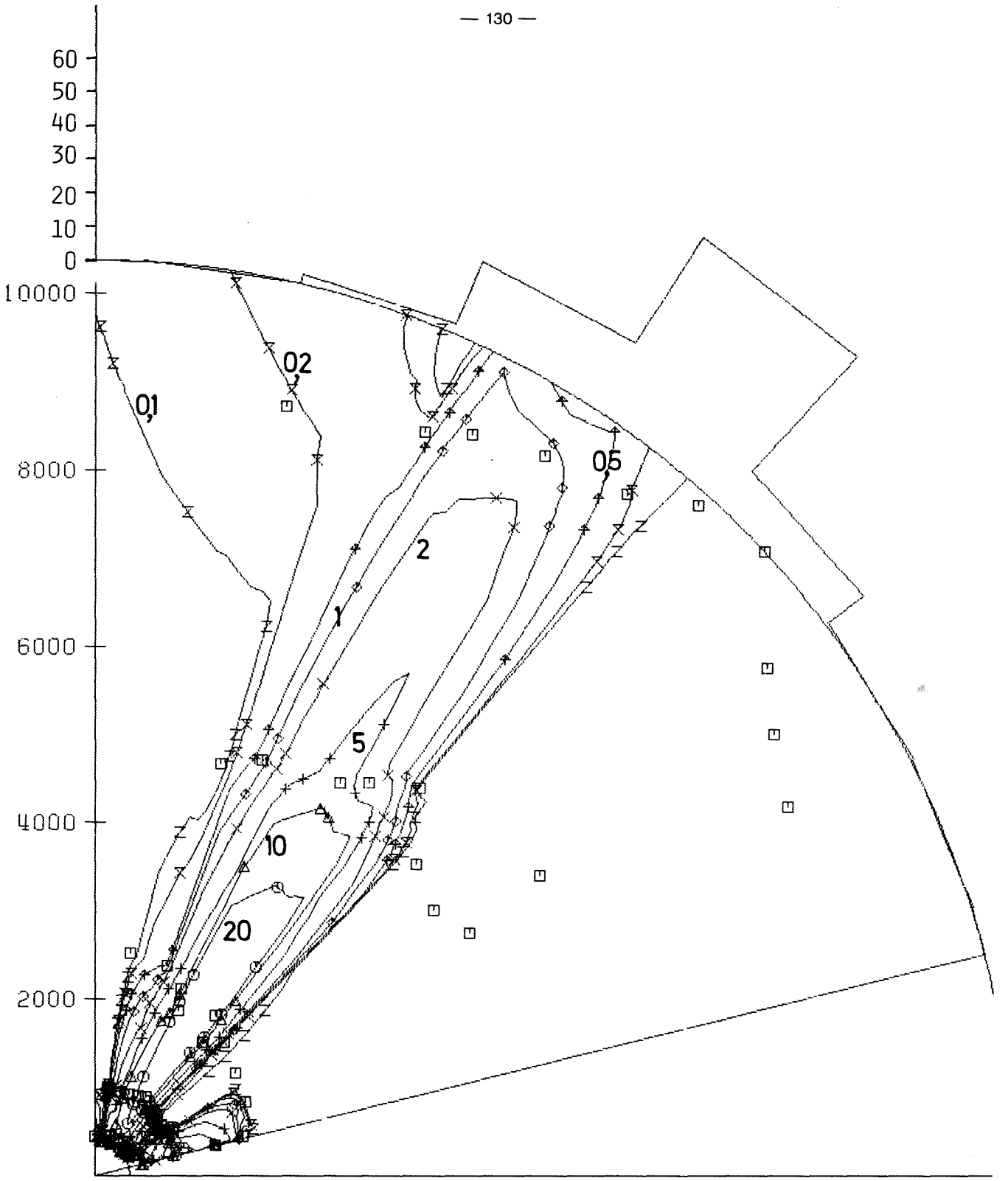

FIG. 19A: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3

EXPERIMENT 48/1 CF2BR2 H=60 M

FOR DETAILED INFORMATION SEE FIGURE 1A

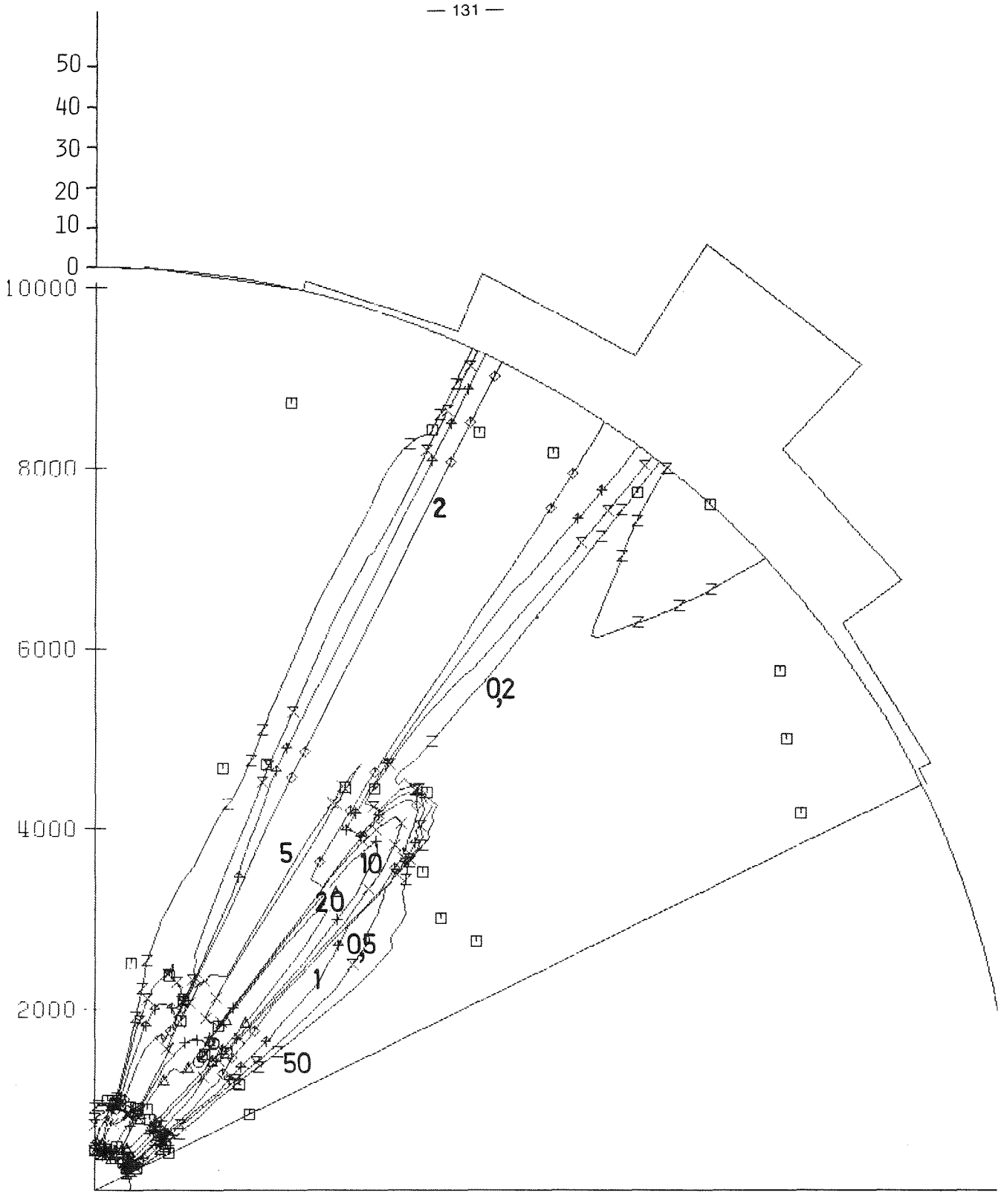

FIG. 19B: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 48/2 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

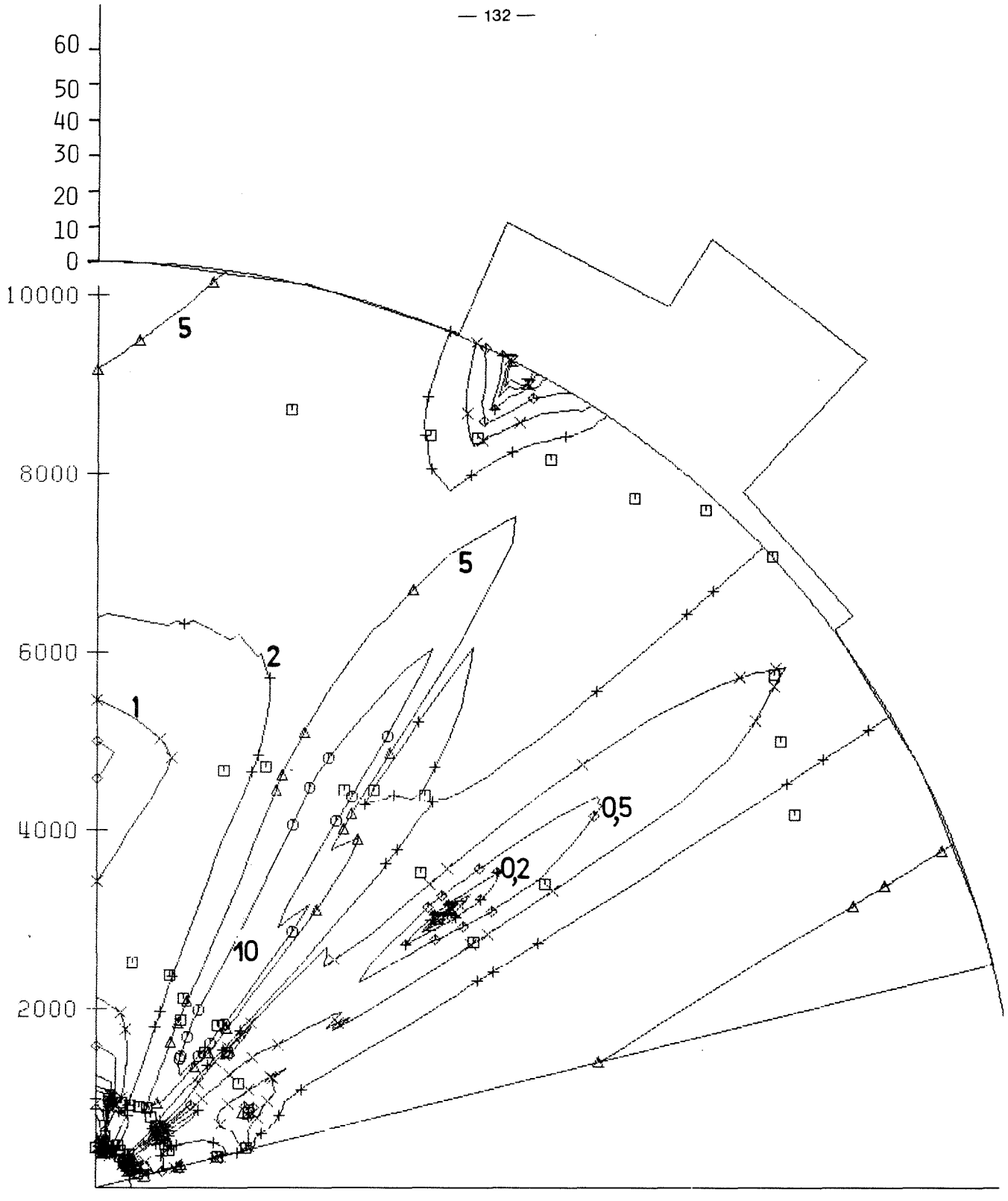

FIG. 19C: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3

EXPERIMENT 48/1 CFCL3 H=100 M

FOR DETAILED INFORMATION SEE FIGURE 6A

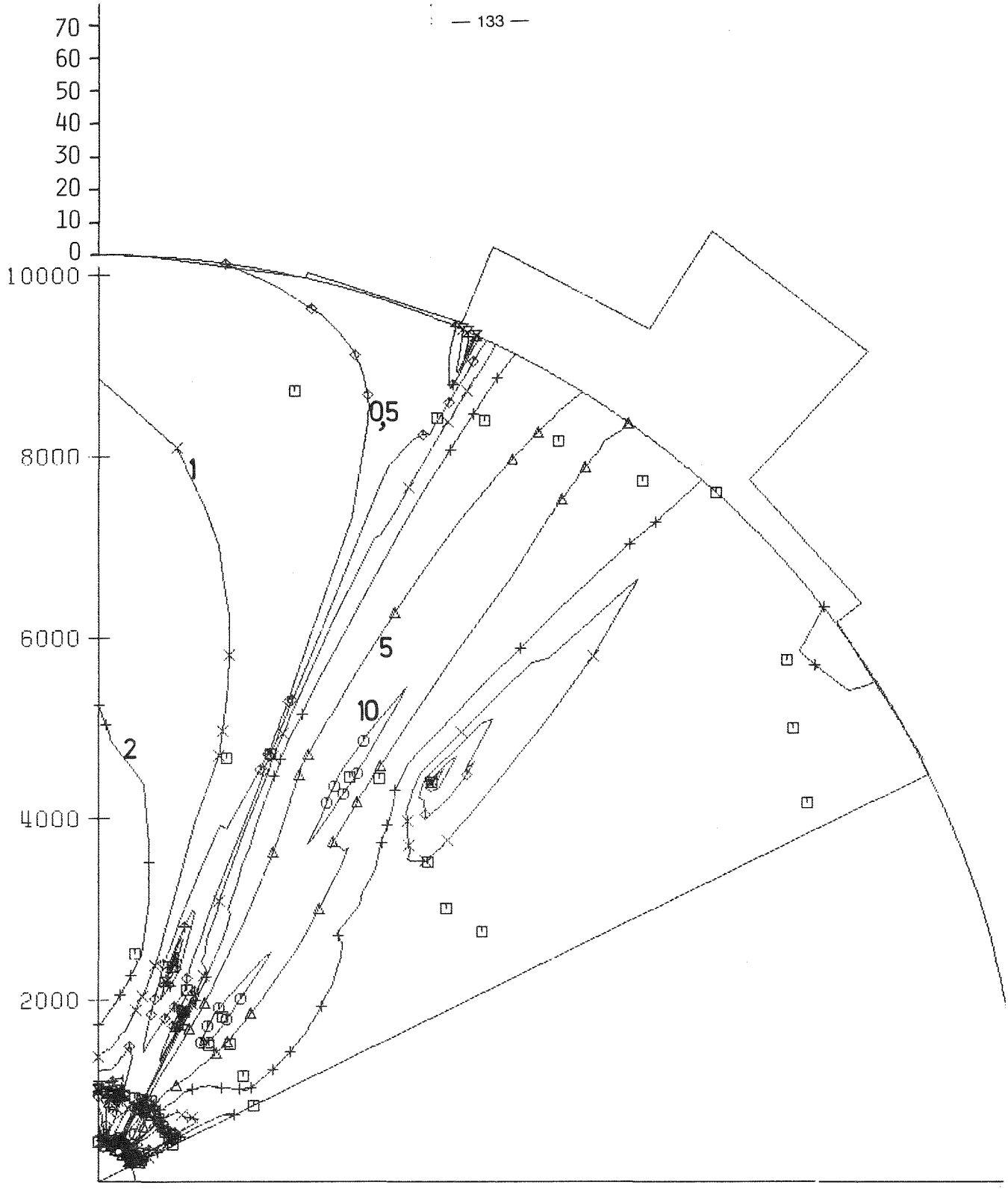

FIG. 19D: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 48/2 CFCL3 H=100 M
FOR DETAILED INFORMATION SEE FIGURE 6A

TAB. 20A: METEOROLOGICAL DATA OF EXPERIMENT NO. 50

		HEIGHT (M)	1.SAMPLING PERIOD 21.10	21.20	21.30	2.SAMPLING PERIOD 21.40	21.50	22.00
WIND DIRECTION (DEGREE)		40	102	114	118	119	119	130
		60	103	112	120	122	124	134
		100	114	123	129	135	139	146
		160	121	124	131	131	131	137
		200	126	126	128	128	130	136
WIND SPEED (M/S)		40	2.0	2.0	1.8	1.8	1.6	1.7
		60	2.8	2.7	2.6	2.6	2.6	2.5
		100	3.1	3.2	3.5	3.9	4.0	3.8
		160	4.2	4.9	4.9	4.8	4.8	4.8
		200	5.6	5.6	5.3	4.9	4.8	4.6
STANDARD DEVIATION OF WIND DIR. VECTOR VANE (DEGREE)	VER.	40	3.5	3.0	2.4	1.9	1.6	1.5
	HOR.	40	5.2	3.8	3.1	2.4	2.4	2.5
	VER.	100	2.6	2.4	2.3	1.8	1.4	1.3
	HOR.	100	3.1	2.6	2.4	2.0	1.5	1.4
	VER.	160	3.7	3.5	3.3	3.0	2.6	2.4
	HOR.	160	2.3	2.0	1.8	1.2	1.1	1.0
STAND. DEVIATION OF HOR. WIND DIRECTION WIND VANE (DEGREE)		100	4.9	3.5	2.7	1.5	1.5	1.8
TEMPERATURE GRADIENT (K/100M)		30/100	0.6	0.2	0.4	0.7	1.0	0.8
NET RADIATION (MW/CM**2)			-2.2	-2.3	-2.0	-2.1	-2.2	-2.2
DIFFUSION CATEGORY BASED ON ...	VER. FLUCTUATION			E			F	
	HOR. FLUCTUATION			F			F	
	TEMP. GRADIENT			E			E	
	SYNOP. OBSERV.			E			E	

TAB. 208: EXPERIMENT 50 2. 8.77 21.00 - 22.00

TRACER AND EMISSION RATE: CF2BR2 5.75 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	420.	256.	≤ 30	-
	B	420.	266.	≤ 37	-
	C	490.	271.	≤ 27	≤ 25
	D	510.	276.	≤ 27	≤ 21
	E	620.	279.	≤ 28	≤ 32
	F	560.	288.	124	≤ 34
	G	520.	293.	258	288
II	A	1070.	243.	≤ 34	-
	B	1030.	247.	≤ 33	≤ 32
	C	980.	253.	≤ 28	≤ 38
	D	945.	259.	≤ 46	≤ 29
	E	930.	265.	≤ 42	≤ 31
	F	915.	271.	≤ 36	≤ 32
	G	915.	277.	≤ 34	≤ 34
	H	935.	283.	342	≤ 32
	I	955.	287.	≤ 39	50
	K	920.	292.	≤ 35	≤ 37
III	A	2340.	249.	≤ 42	4946
	B	2130.	256.	≤ 38	2250
	C	2030.	262.	134	2167
	D	1985.	266.	369	5595
	E	1940.	273.	994	3498
	F	1890.	282.	2806	2294
	G	1930.	288.	4270	1896
	H	2110.	298.	≤ 113	≤ 63
	I	1940.	299.	≤ 58	≤ 69
	K	2255.	306.	≤ 34	≤ 53
IV	A	3950.	248.	≤ 43	≤ 36
	B	4060.	251.	≤ 42	≤ 37
	C	4630.	265.	≤ 42	≤ 46
	D	4320.	269.	≤ 47	417
	E	5800.	275.	≤ 41	≤ 42
	F	4660.	278.	614	4907
	G	4315.	282.	7122	23498
	H	5437.	285.	2315	12368
	I	4195.	288.	1457	4881
	K	5700.	290.	289	-
	L	5850.	297.	≤ 44	≤ 41
	M	6100.	304.	≤ 33	≤ 34
V	A	10350.	246.	-	≤ 44
	B	10125.	251.	-	≤ 41
	C	10300.	259.	≤ 47	≤ 43
	D	9525.	264.	≤ 32	≤ 45
	E	9200.	268.	≤ 44	≤ 36
	F	8825.	276.	≤ 51	≤ 42
	G	8825.	279.	≤ 46	≤ 41
	H	8862.	283.	≤ 39	≤ 44
	I	9000.	289.	≤ 39	≤ 31
	K	9425.	294.	≤ 34	≤ 34
	L	10087.	301.	≤ 35	≤ 36
	M	10550.	304.	≤ 41	≤ 45

TAB. 20C: EXPERIMENT 50 2. 8.77 21.00 - 22.00

TRACER AND EMISSION RATE: CFCL3 15.10 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	420.	256.	≤ 212	-
	B	420.	266.	≤ 213	-
	C	490.	271.	164	≤ 210
	D	510.	276.	312	≤ 212
	E	620.	279.	853	≤ 213
	F	560.	288.	229	246
	G	520.	293.	388	≤ 211
II	A	1070.	243.	≤ 212	-
	B	1030.	247.	≤ 211	≤ 215
	C	980.	253.	1571	≤ 211
	D	945.	259.	322	540
	E	930.	265.	203	735
	F	915.	271.	552	≤ 213
	G	915.	277.	520	114
	H	935.	283.	671	87
	I	955.	287.	175	661
	K	920.	292.	346	301
III	A	2340.	249.	422	2429
	B	2130.	256.	698	2609
	C	2030.	262.	684	2141
	D	1985.	266.	752	6728
	E	1940.	273.	1547	4968
	F	1890.	282.	1172	715
	G	1930.	288.	793	536
	H	2110.	298.	≤ 213	451
	I	1940.	299.	537	≤ 215
	K	2255.	306.	≤ 216	7
IV	A	3950.	248.	99	709
	B	4060.	251.	137	263
	C	4630.	265.	18	≤ 214
	D	4320.	269.	32	255
	E	5800.	275.	314	627
	F	4660.	278.	1165	2484
	G	4315.	282.	5457	9243
	H	5437.	285.	4420	6038
	I	4195.	288.	3401	6349
	K	5700.	290.	3897	-
	L	5850.	297.	231	781
	M	6100.	304.	186	251
V	A	10350.	246.	-	≤ 213
	B	10125.	251.	-	≤ 213
	C	10300.	259.	43	982
	D	9525.	264.	≤ 211	≤ 212
	E	9200.	268.	373	≤ 212
	F	8825.	276.	909	127
	G	8825.	279.	386	219
	H	8862.	283.	≤ 215	≤ 214
	I	9000.	289.	≤ 211	≤ 212
	K	9425.	294.	351	≤ 212
	L	10087.	301.	≤ 211	≤ 212
	M	10550.	304.	314	185

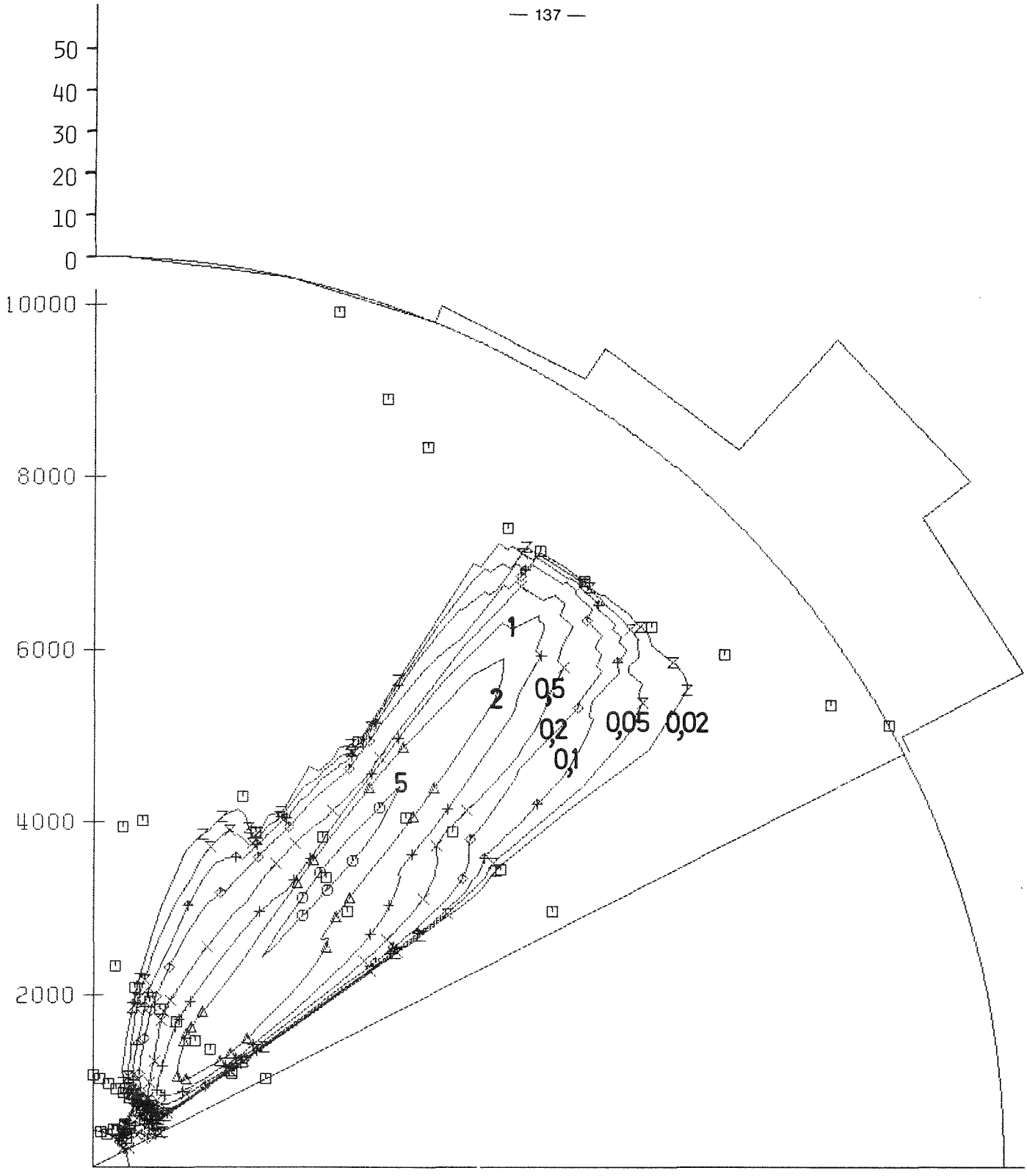

FIG. 20A: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3

EXPERIMENT 50/1 CF2BR2 H=60 M

FOR DETAILED INFORMATION SEE FIGURE 1A

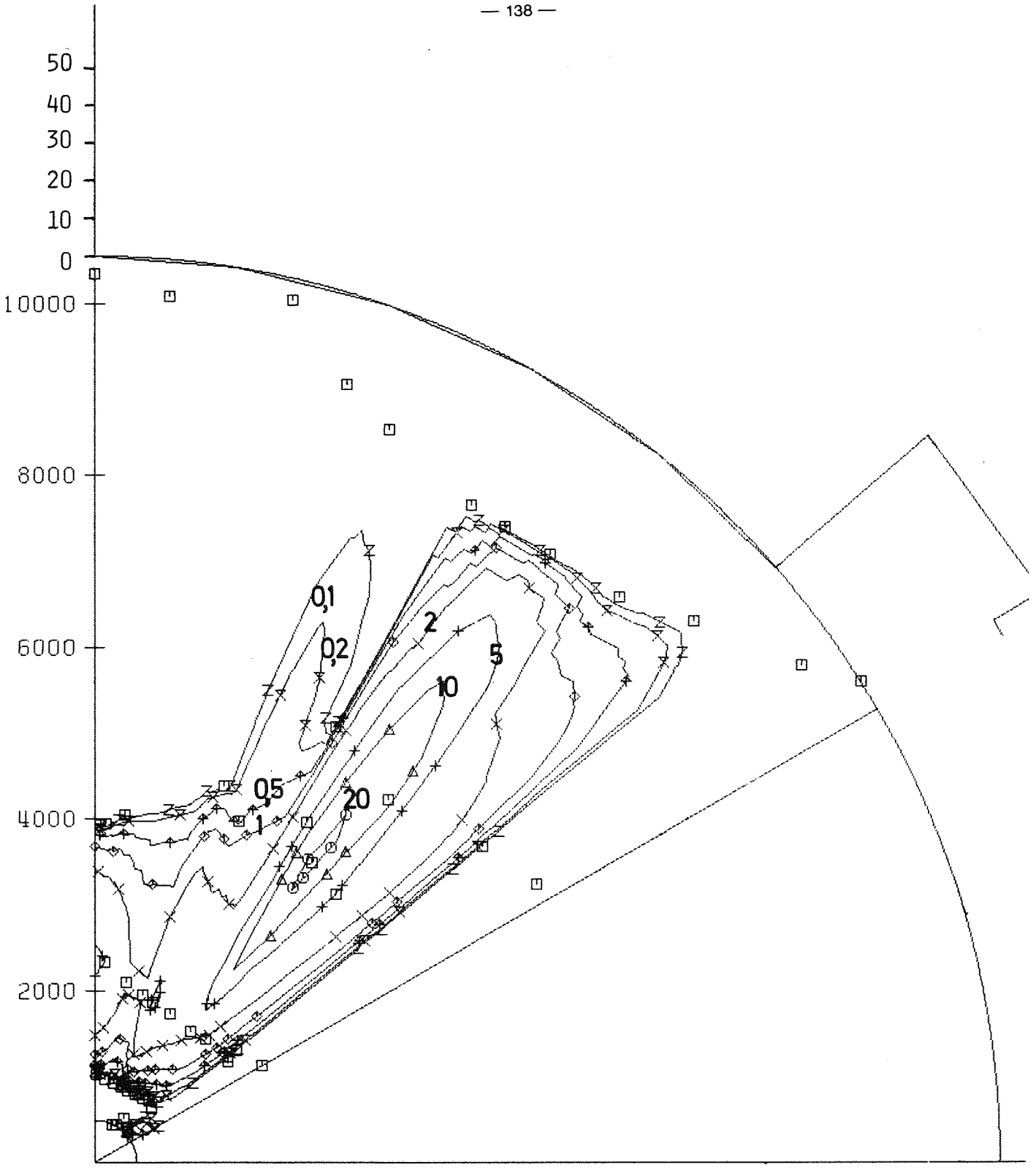

FIG. 20B: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 50/2 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

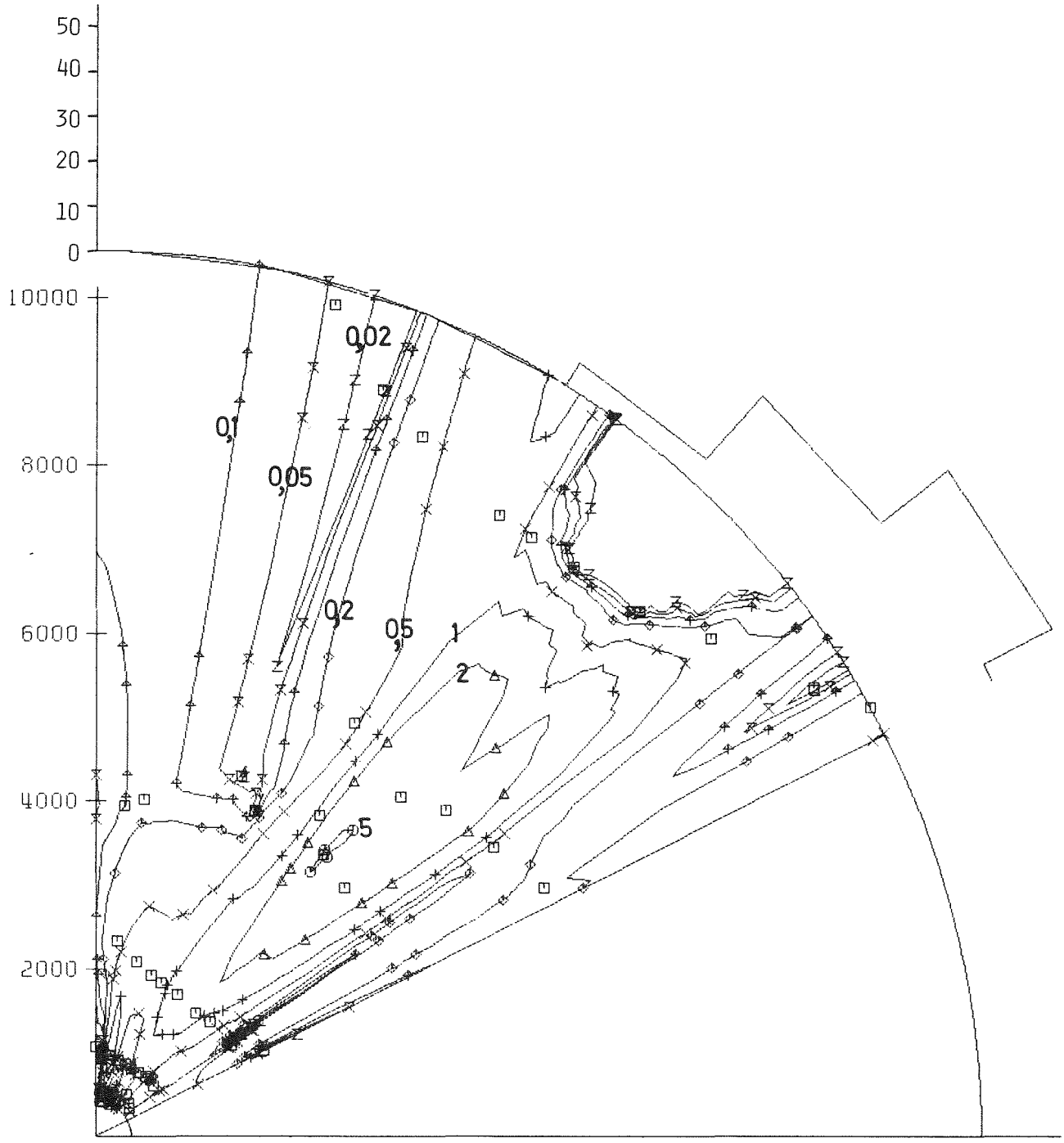

FIG. 20C: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 50/1 CFCL3 H=100 M
FOR DETAILED INFORMATION SEE FIGURE 6A

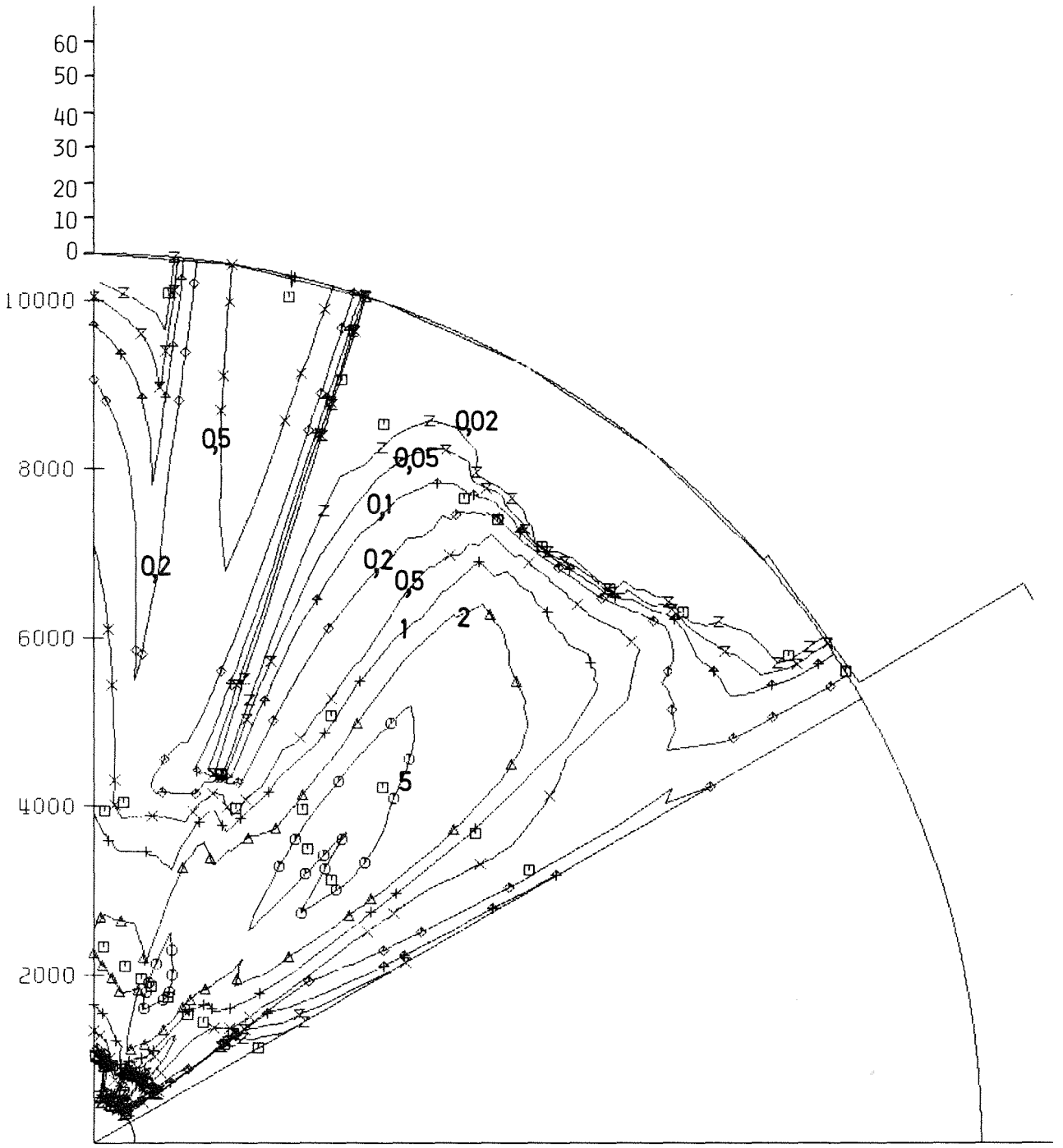

FIG. 20D: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 50/2 CFCL3 H=100 M
FØR DETAILED INFØRMATION SEE FIGURE 6A

TAB. 21A: METEOROLOGICAL DATA OF EXPERIMENT NO. 51

		HEIGHT (M)	1.SAMPLING PERIOD 20.40	20.50	21.00	2.SAMPLING PERIOD 21.10	21.20	21.30
WIND DIRECTION (DEGREE)		40	81	90	105	102	104	105
		60	75	88	102	101	102	104
		100	84	104	112	109	109	113
		160	107	119	123	122	123	126
		200	121	130	133	135	131	132
WIND SPEED (M/S)		40	2.9	3.7	2.7	3.2	3.2	3.4
		60	3.8	4.5	3.6	4.1	4.3	4.3
		100	5.4	5.4	5.1	5.7	6.1	5.9
		160	5.7	6.3	6.4	6.3	6.8	6.3
		200	6.2	6.7	6.1	5.8	6.3	6.1
STANDARD DEVIATION OF WIND DIR. VECTOR VANE (DEGREE)	VER.	40	10.1	10.1	8.9	7.2	6.6	5.6
	HOR.	40	12.8	12.4	10.5	8.1	7.8	6.6
	VER.	100	5.4	5.1	3.3	2.6	2.3	1.9
	HOR.	100	5.2	5.2	3.7	2.9	2.8	2.4
	VER.	160	5.0	4.5	4.2	4.0	3.8	3.5
	HOR.	160	3.9	3.7	3.0	2.5	2.3	1.8
STAND. DEVIATION OF HOR. WIND DIRECTION WIND VANE (DEGREE)		100	7.7	7.0	3.2	3.6	3.6	2.1
TEMPERATURE GRADIENT (K/100M)		30/100	-0.2	0.0	0.2	0.1	0.3	0.3
NET RADIATION (MW/CM**2)			-2.3	-2.7	-3.0	-3.0	-3.3	-3.1
DIFFUSION CATEGORY BASED ON ...	VER. FLUCTUATION			D			E	
	HOR. FLUCTUATION			E			F	
	TEMP. GRADIENT			E			E	
	SYNOP. OBSERV.			D			D	

TAB. 21B: EXPERIMENT 51 16. 8.77 20.30 - 21.30

TRACER AND EMISSION RATE: CF2BR2 5.39 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	455.	225.	≤ 38	-
	B	560.	230.	≤ 36	≤ 20
	C	595.	239.	118	≤ 28
	D	550.	246.	119	≤ 33
	E	490.	247.	329	≤ 31
	F	510.	255.	7893	≤ 38
	G	475.	265.	2870	63
	H	470.	271.	3341	81
	I	535.	275.	4711	166
	K	520.	286.	841	560
	L	450.	295.	54	≤ 25
II	A	990.	230.	≤ 24	≤ 21
	B	1040.	240.	9992	598
	C	1050.	244.	2505	2721
	D	1010.	249.	26873	7094
	E	980.	253.	33825	6387
	F	940.	259.	36159	2507
	G	930.	263.	27844	836
	H	915.	269.	12703	2387
	I	910.	274.	14903	3357
	K	920.	280.	3881	7547
	L	940.	286.	2633	-
III	A	2230.	232.	≤ 47	-
	B	2210.	254.	6763	≤ 40
	C	2100.	259.	6343	≤ 26
	D	2000.	266.	4928	230
	E	1950.	274.	8868	632
	F	1910.	287.	≤ 33	-
IV	A	4110.	224.	≤ 35	-
	B	4010.	230.	≤ 22	≤ 34
	C	4300.	237.	252	≤ 39
	D	4020.	241.	368	≤ 31
	E	4000.	247.	1699	425
	F	4610.	252.	438	863
	G	4010.	255.	507	437
	H	4075.	261.	≤ 30	1364
	I	3900.	263.	266	667
	K	4360.	270.	43	1557
	L	4230.	288.	≤ 35	≤ 29
	M	3770.	292.	-	≤ 23
V	A	7475.	221.	≤ 28	≤ 28
	B	9400.	236.	152	≤ 30
	C	9762.	244.	468	348
	D	9975.	250.	≤ 25	263
	E	10475.	255.	≤ 26	≤ 37
	F	10450.	260.	≤ 27	≤ 28
	G	9725.	264.	≤ 37	≤ 31
	H	9250.	271.	-	≤ 35
	I	9100.	276.	-	≤ 44
	K	9062.	283.	-	≤ 37
	L	9250.	289.	-	≤ 35

TAB. 21C: EXPERIMENT 51 16. 8.77 20.30 - 21.30

TRACER AND EMISSION RATE: CFCL3 13.00 G/S

POSITION		R (M)	ALPHA (DEGREE)	TRACER CONCENTRATION IN NG/M**3 SAMPL. PERIOD 1	SAMPL. PERIOD 2
I	A	455.	225.	534	-
	B	560.	230.	227	90
	C	595.	239.	≤ 133	133
	D	550.	246.	306	207
	E	490.	247.	289	16
	F	510.	255.	74	162
	G	475.	265.	159	721
	H	470.	271.	134	1106
	I	535.	275.	142	176
	K	520.	286.	37	442
	L	450.	295.	184	303
II	A	990.	230.	255	568
	B	1040.	240.	468	227
	C	1050.	244.	282	483
	D	1010.	249.	1874	767
	E	980.	253.	2681	1246
	F	940.	259.	2589	521
	G	930.	263.	1848	431
	H	915.	269.	432	618
	I	910.	274.	312	379
	K	920.	280.	162	358
	L	940.	286.	41	253
III	A	2230.	232.	130	-
	B	2210.	254.	4658	10
	C	2100.	259.	3799	651
	D	2000.	266.	1557	185
	E	1950.	274.	854	≤ 0
	F	1910.	287.	864	-
IV	A	4110.	224.	54	-
	B	4010.	230.	≤ 133	70
	C	4300.	237.	331	127
	D	4020.	241.	277	398
	E	4000.	247.	2386	1182
	F	4610.	252.	827	1137
	G	4010.	255.	316	661
	H	4075.	261.	59	751
	I	3900.	263.	417	15
	K	4360.	270.	≤ 135	549
	L	4230.	288.	≤ 133	159
	M	3770.	292.	-	132
V	A	7475.	221.	≤ 135	≤ 135
	B	9400.	236.	854	579
	C	9762.	244.	1554	344
	D	9975.	250.	60	1418
	E	10475.	255.	≤ 132	≤ 134
	F	10450.	260.	28	≤ 133
	G	9725.	264.	20	158
	H	9250.	271.	-	≤ 135
	I	9100.	276.	-	85
	K	9062.	283.	-	114
	L	9250.	289.	-	≤ 134

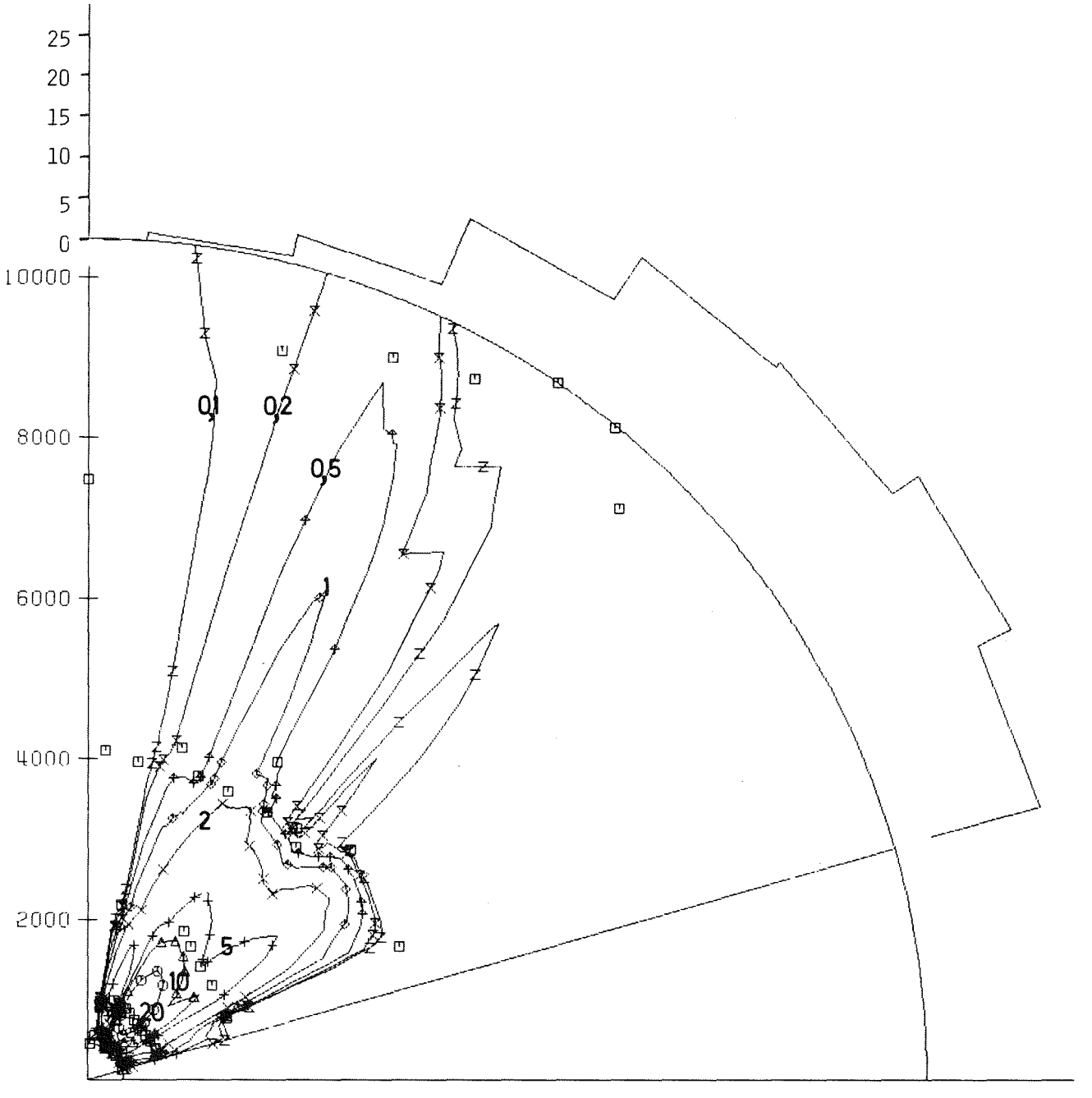

FIG. 21A: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 51/1 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

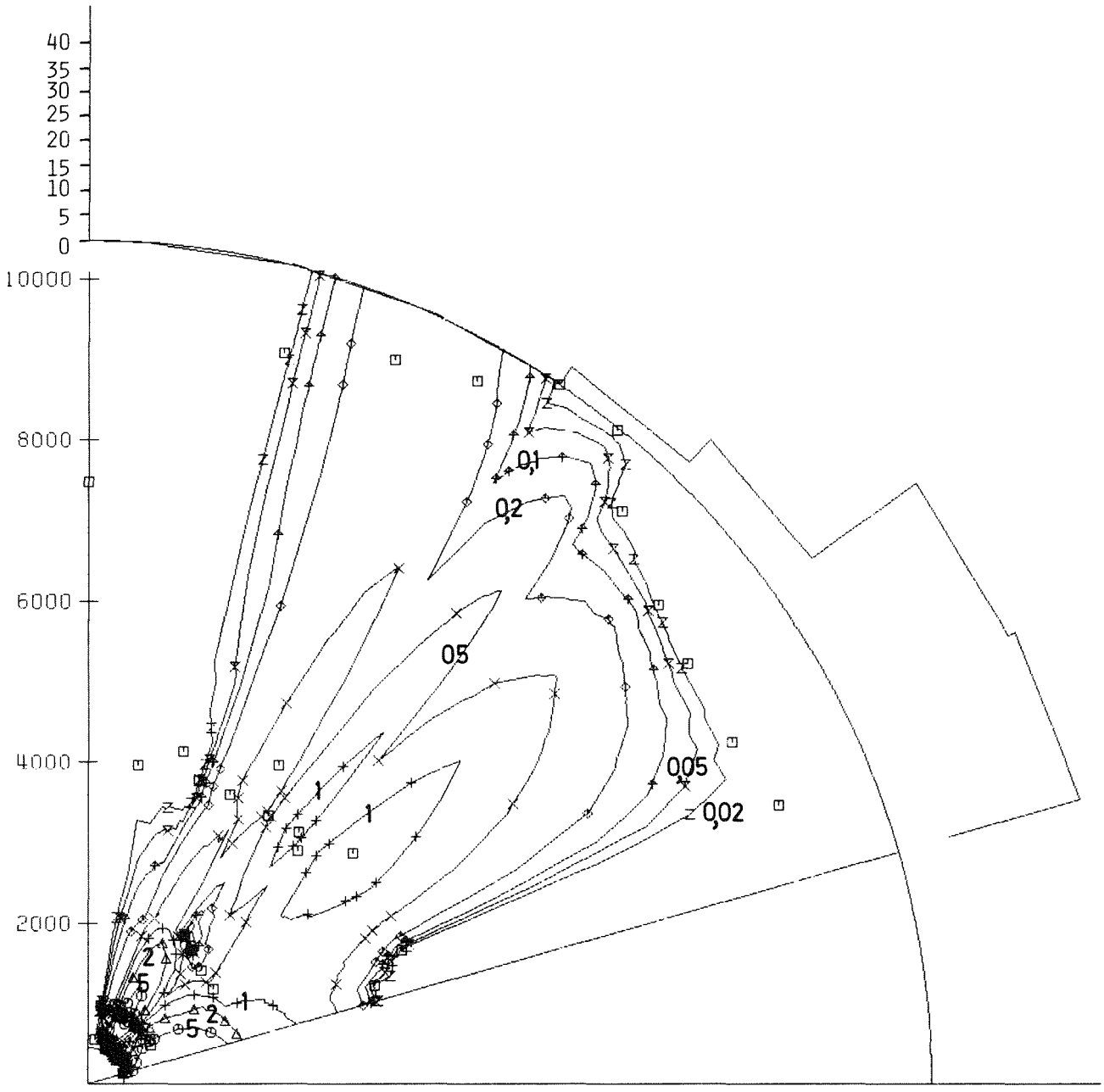

FIG. 21B: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 51/2 CF2BR2 H=60 M
FOR DETAILED INFORMATION SEE FIGURE 1A

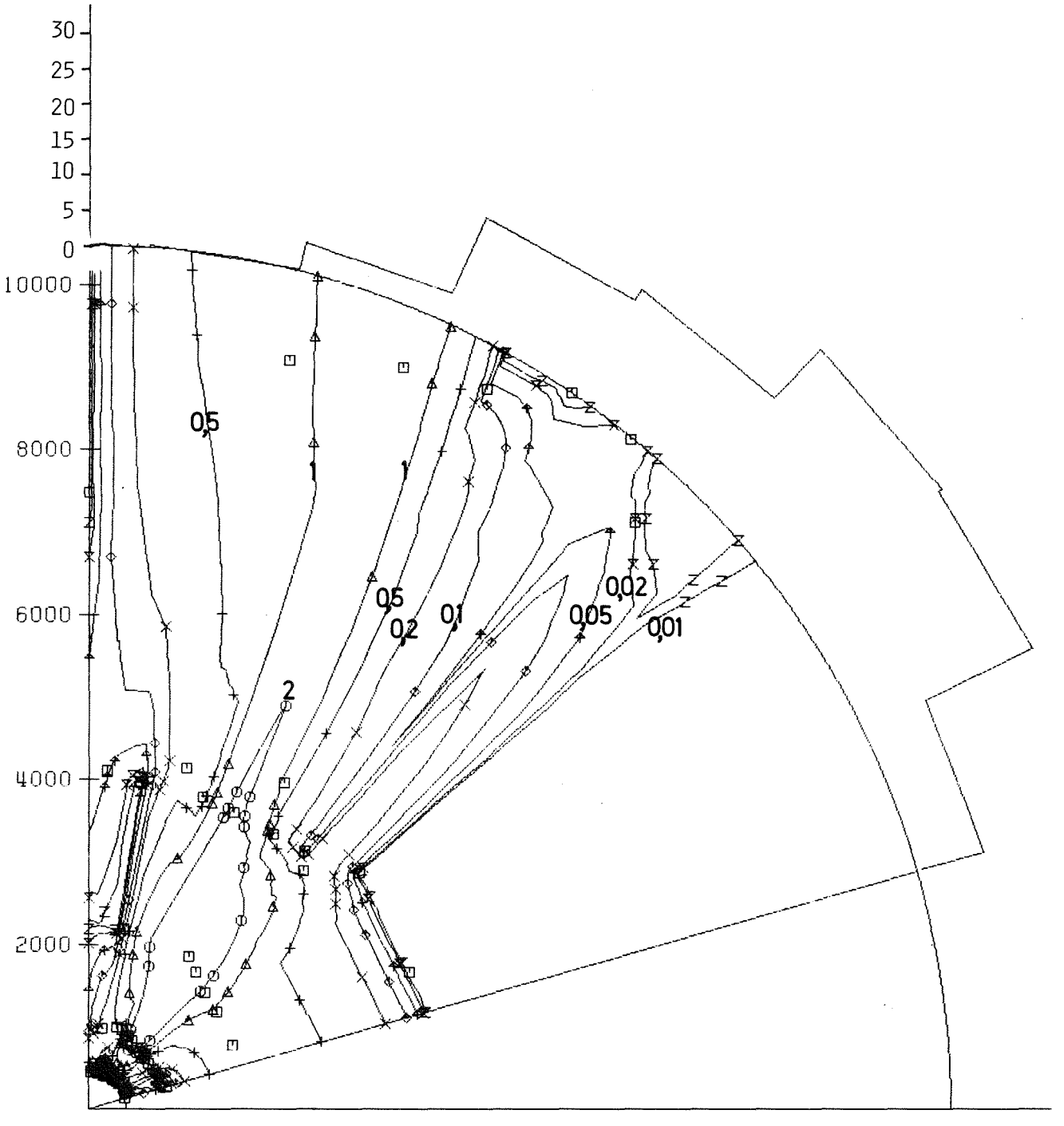

FIG. 21C: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3
EXPERIMENT 51/1 CFCL3 H=100 M
FOR DETAILED INFORMATION SEE FIGURE 6A

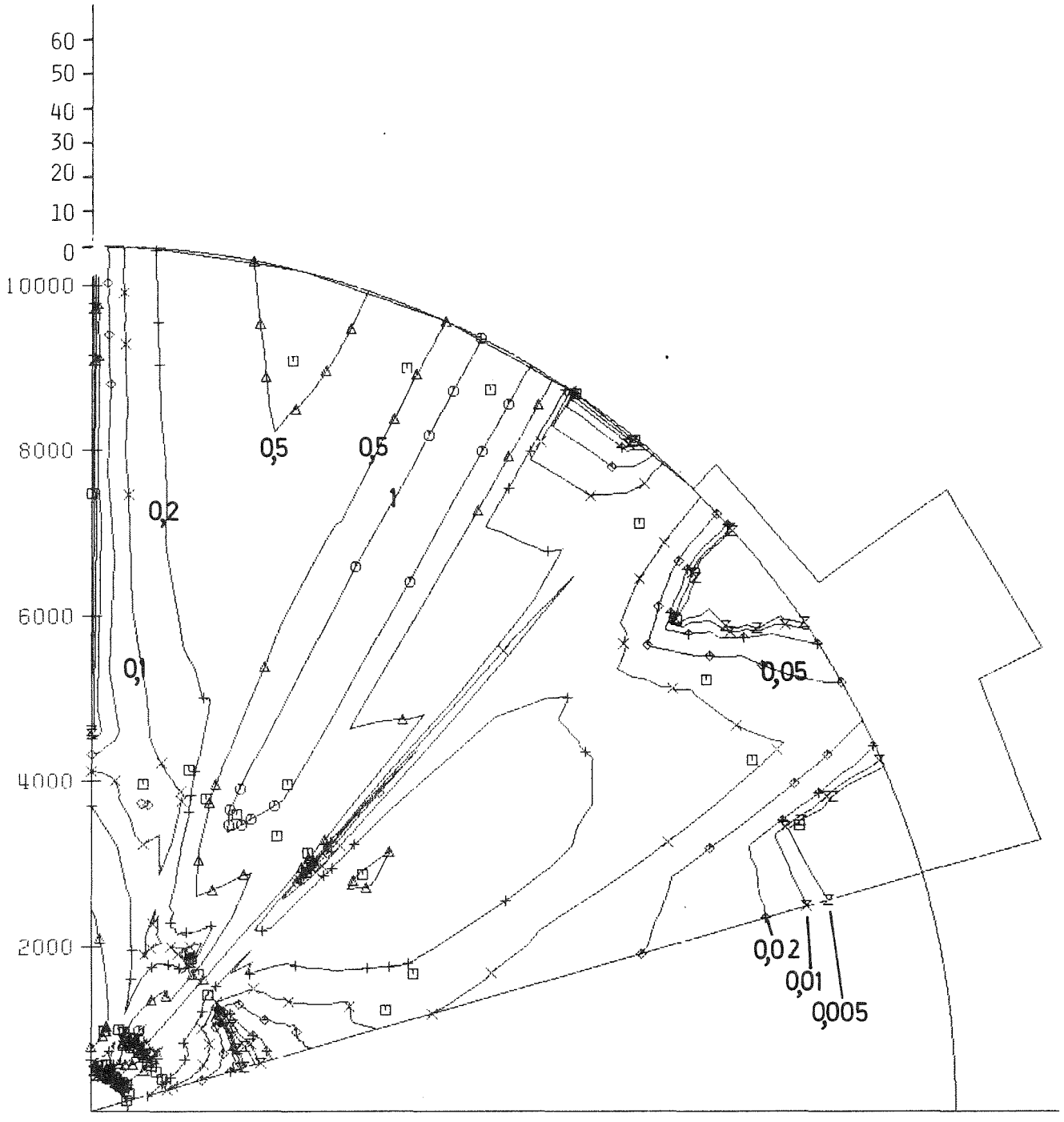

FIG. 21D: CONCENTRATION DISTRIBUTION IN 1/10**6 G/M**3

EXPERIMENT 51/2 CFCL3 H=100 M

FOR DETAILED INFORMATION SEE FIGURE 6A