

Annex SIM

SIM-F-1

**Calculated Water Quality Distribution (Annual Mean)
(Inflow Load :+20 %, Rate of Diatoms in Southern Area : 0.5)**

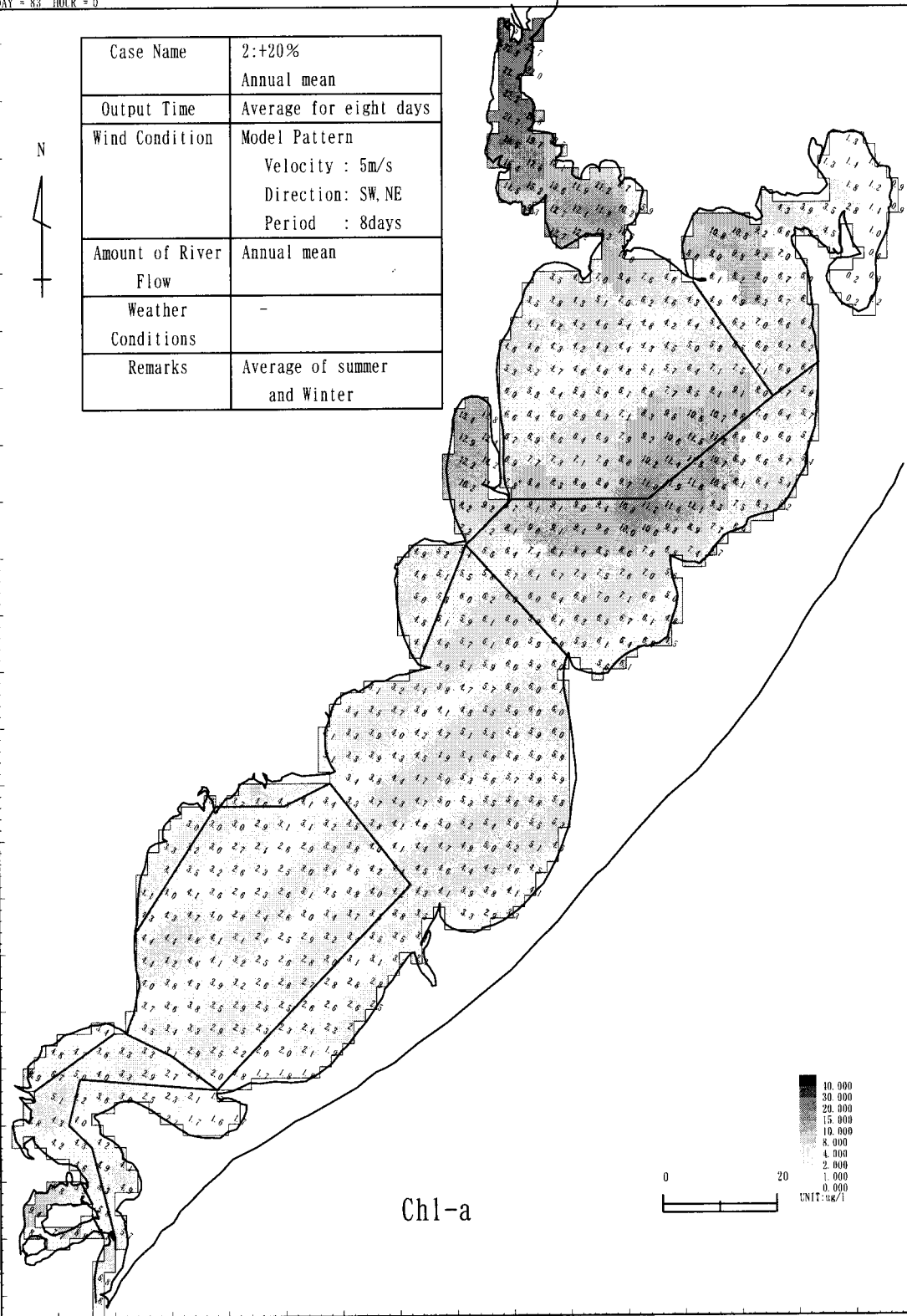
- 1 : Calculated Chl-a Distribution**
- 2 : Calculated T-N Distribution**
- 3 : Calculated T-P Distribution**
- 4 : Calculated BOD Distribution**
- 5 : Calculated COD**
- 6 : Calculated SS**

DAY = 83 HOUR = 0

115
110
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5



Case Name	2:+20% Annual mean
Output Time	Average for eight days
Wind Condition	Model Pattern Velocity : 5m/s Direction: SW, NE Period : 8days
Amount of River Flow	Annual mean
Weather Conditions	-
Remarks	Average of summer and Winter



10.000
30.000
20.000
15.000
10.000
8.000
4.000
2.000
1.000
0.000
UNIT:ug/l

0 20
UNIT:km

Chl-a

DIGa0-2_bodis. Pcl

THE STUDY ON THE ENVIRONMENTAL MANAGEMENT
OF THE HYDROGRAPHIC BASIN OF PATOS AND MIRIM LAKES
IN THE FEDERATIVE REPUBLIC OF BRAZIL

SIM-F-1-1

**Calculated Chl-a
Distribution(Annual Mean)
(Inflow Load:+20%,Rate of
Diatoms in Southern Area:0.5)**

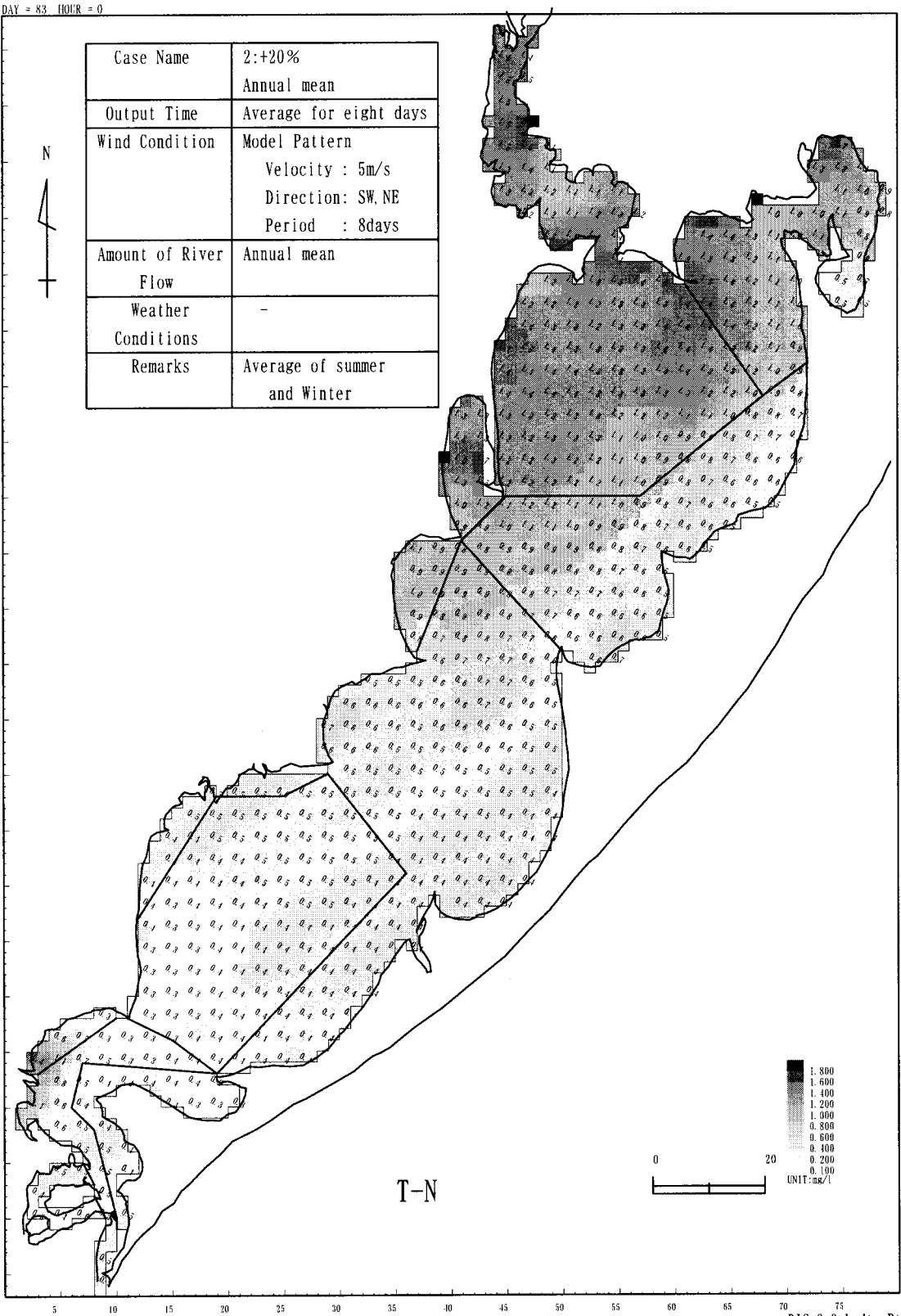
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DAY = 83 HOUR = 0

115
110
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5



Case Name	2:+20% Annual mean
Output Time	Average for eight days
Wind Condition	Model Pattern Velocity : 5m/s Direction: SW, NE Period : 8days
Amount of River Flow	Annual mean
Weather Conditions	-
Remarks	Average of summer and Winter



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SIM-F-1-2

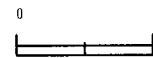
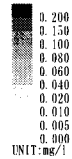
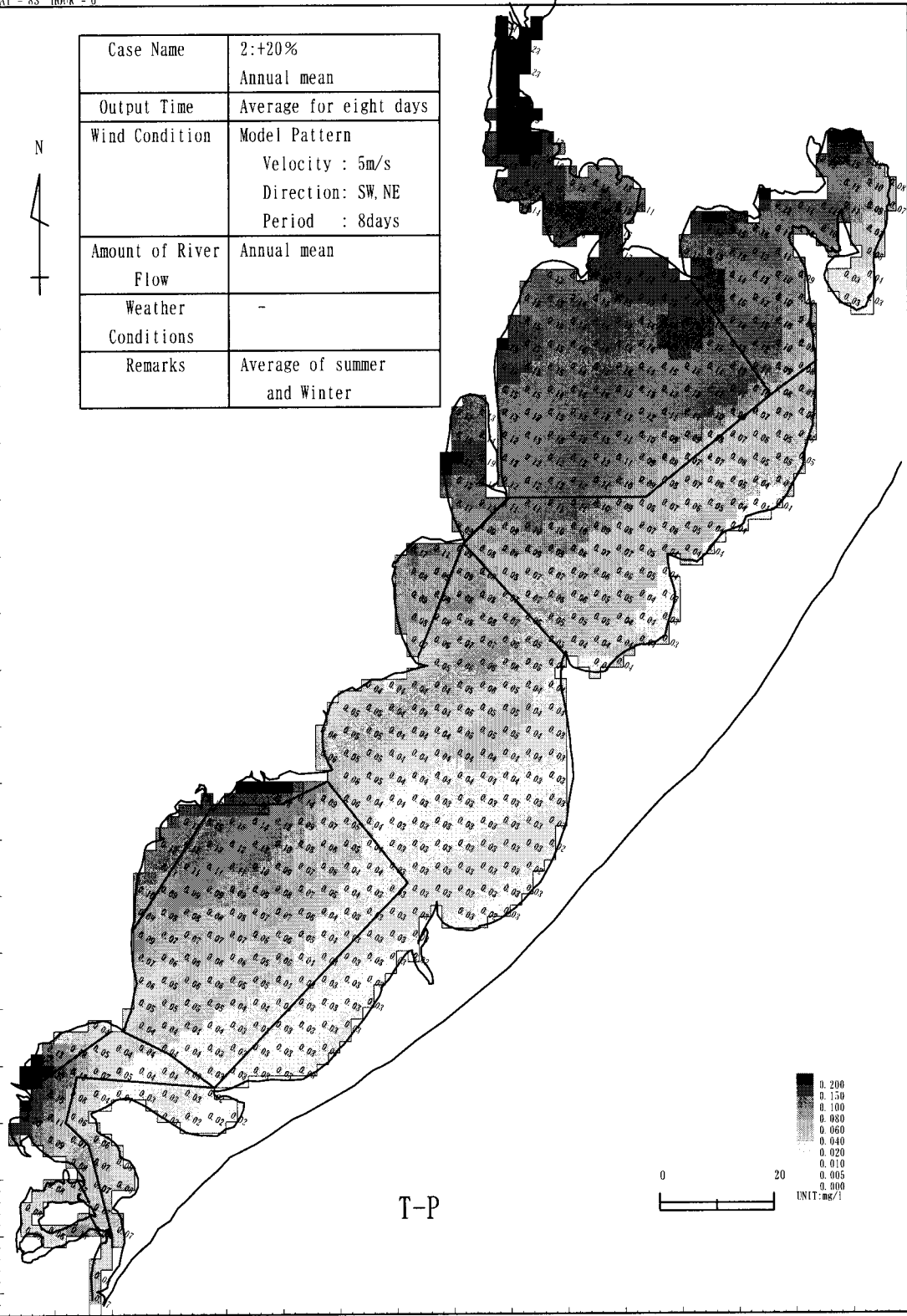
**Calculated T-N
Distribution(Annual Mean)
(Inflow Load:+20%,Rate of
Diatoms in Southern Area:0.5)**

DAY = 8.3 HOUR = 0

115
110
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5



Case Name	2:+20% Annual mean
Output Time	Average for eight days
Wind Condition	Model Pattern Velocity : 5m/s Direction: SW, NE Period : 8days
Amount of River Flow	Annual mean
Weather Conditions	-
Remarks	Average of summer and Winter



DIGa0-2_bod1s.P1p

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SIM-F-1-3

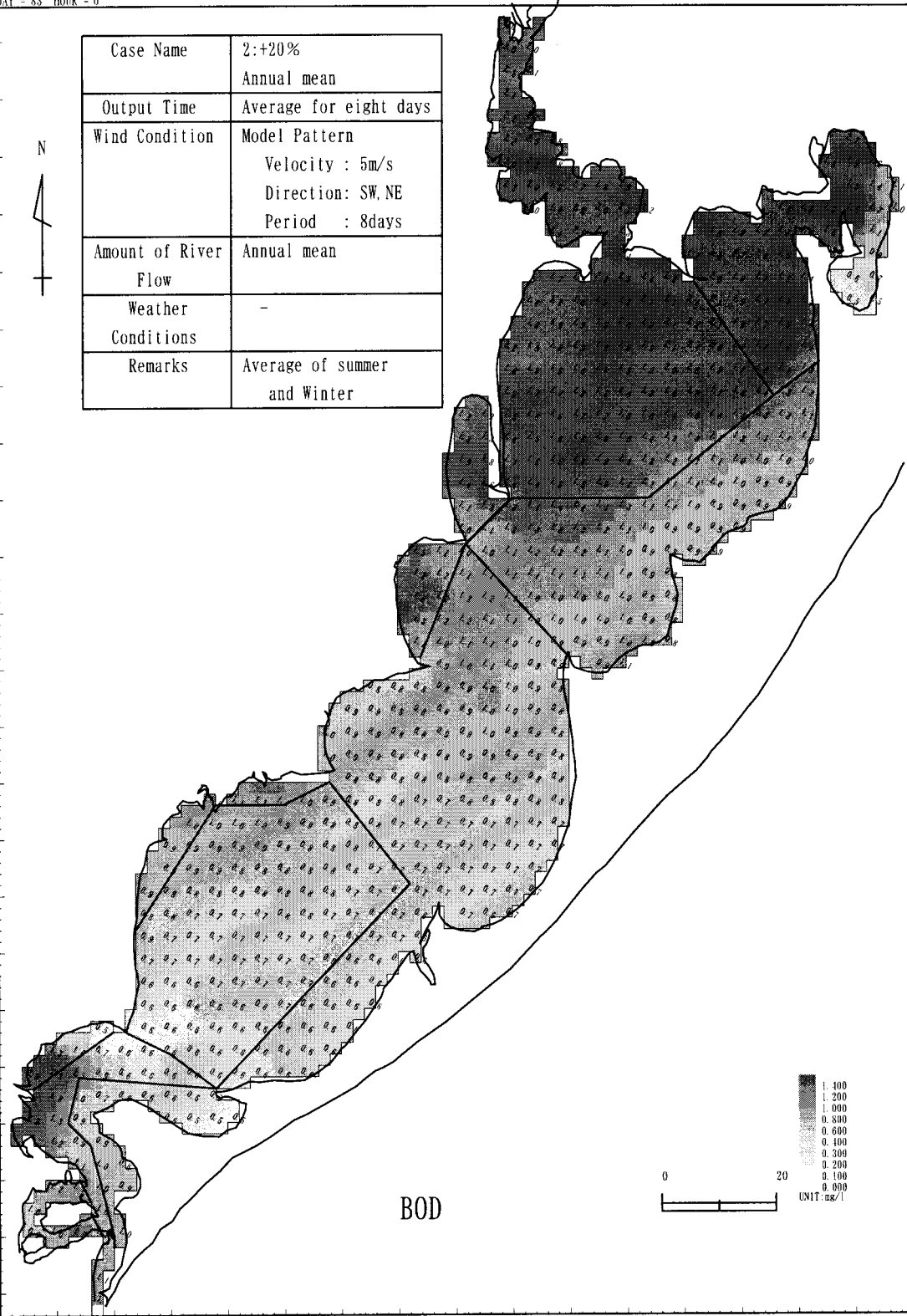
**Calculated T-P
Distribution(Annual Mean)
(Inflow Load:+20%,Rate of
Diatoms in Southern Area:0.5)**

DAY = 83 HOUR = 0

115
110
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5



Case Name	2:+20% Annual mean
Output Time	Average for eight days
Wind Condition	Model Pattern Velocity : 5m/s Direction: SW,NE Period : 8days
Amount of River Flow	Annual mean
Weather Conditions	-
Remarks	Average of summer and Winter



1.400
1.200
1.000
0.800
0.600
0.400
0.300
0.200
0.100
0.000
UNIT:mg/l

0 20

DIGa0-2_bod1s.Pbd

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SIM-F-1-4

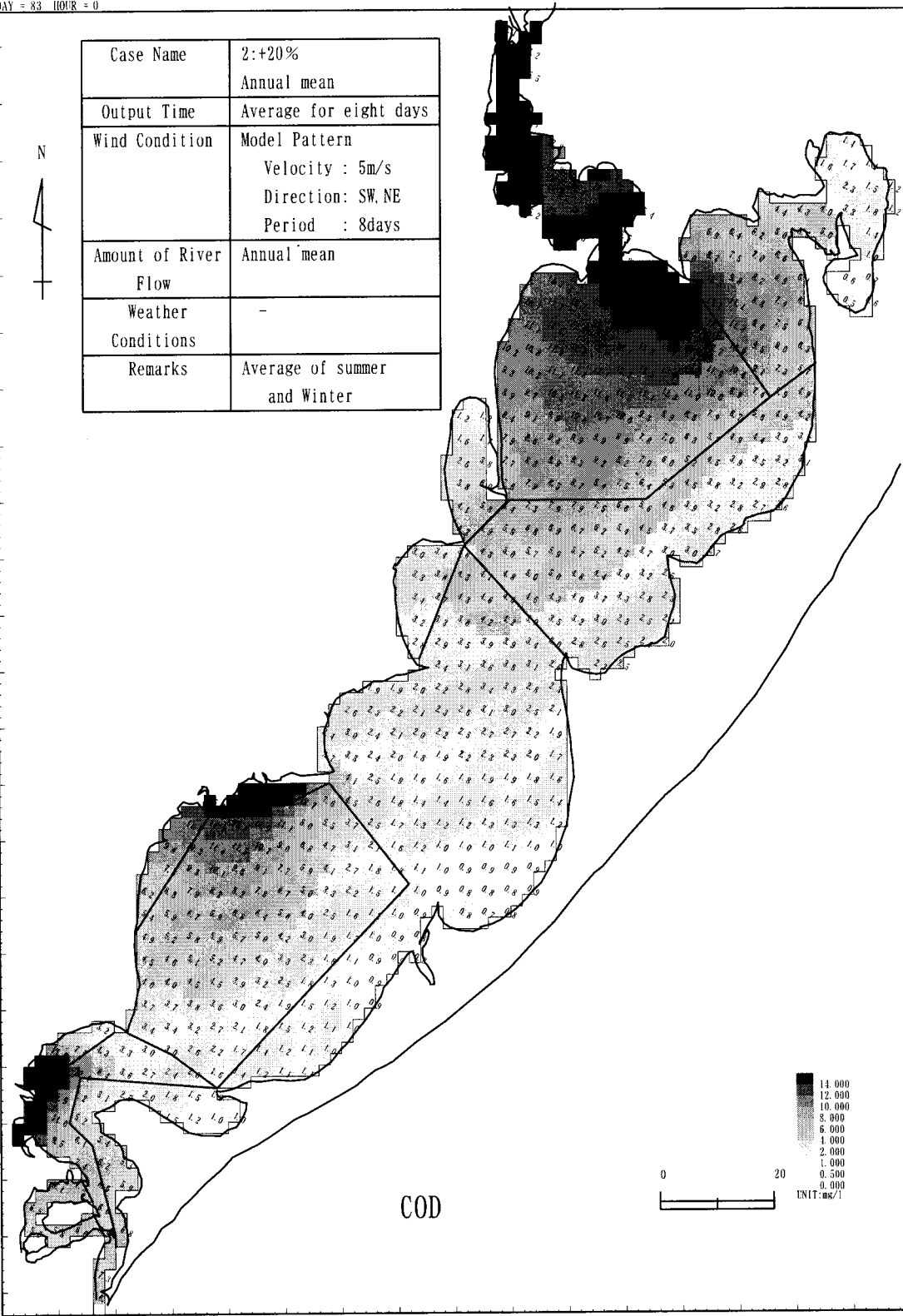
**Calculated BOD
Distribution(Annual Mean)
(Inflow Load:+20%,Rate of
Diatoms in Southern Area:0.5)**

DAY = 83 HOUR = 0

115
110
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5



Case Name	2:+20% Annual mean
Output Time	Average for eight days
Wind Condition	Model Pattern Velocity : 5m/s Direction: SW, NE Period : 8days
Amount of River Flow	Annual mean
Weather Conditions	-
Remarks	Average of summer and Winter



14.000
12.000
10.000
8.000
6.000
4.000
2.000
1.000
0.500
0.000
UNIT:mg/l

0 20

COD

DIGa0-2_codss. Ped

THE STUDY ON THE ENVIRONMENTAL MANAGEMENT
OF THE HYDROGRAPHIC BASIN OF PATOS AND MIRIM LAKES
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SIM-F-1-5

**Calculated COD
Distribution(Annual Mean)
(Inflow Load:+20%,Rate of
Diatoms in Southern Area:0.5)**

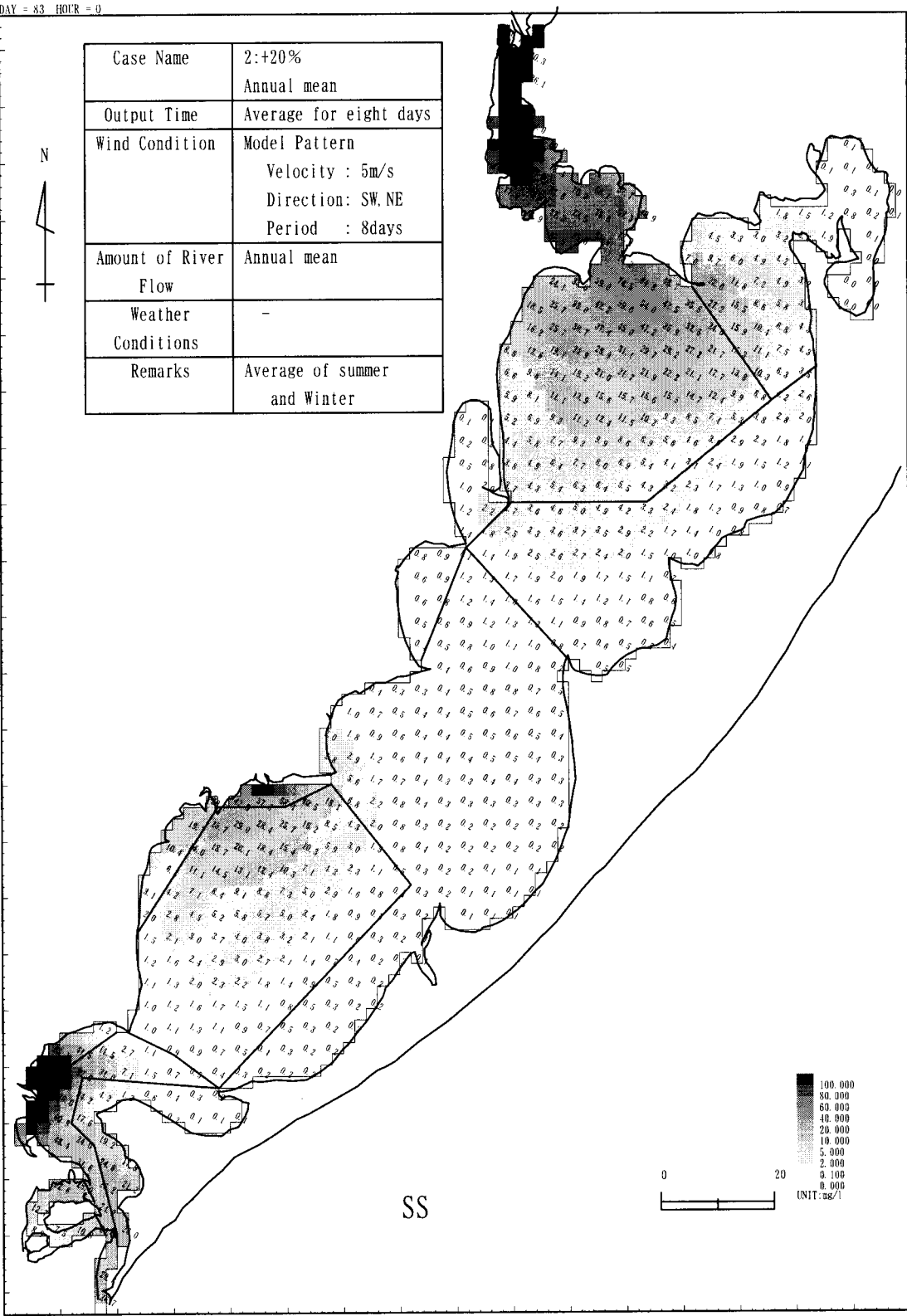
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DAY = 83 HOUR = 0

115
110
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5



Case Name	2:+20% Annual mean
Output Time	Average for eight days
Wind Condition	Model Pattern Velocity : 5m/s Direction: SW, NE Period : 8days
Amount of River Flow	Annual mean
Weather Conditions	-
Remarks	Average of summer and Winter



DIGa0-2_bodts. Pss

THE STUDY ON THE ENVIRONMENTAL MANAGEMENT
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SIM-F-1-6

**Calculated SS
Distribution(Annual Mean)
(Inflow Load:+20%,Rate of
Diatoms in Southern Area:0.5)**

SIM-F-2

Calculated Water Quality Distribution (Summer) (Inflow Load :Present, Rate of Diatoms in Southern Area : 0.2)

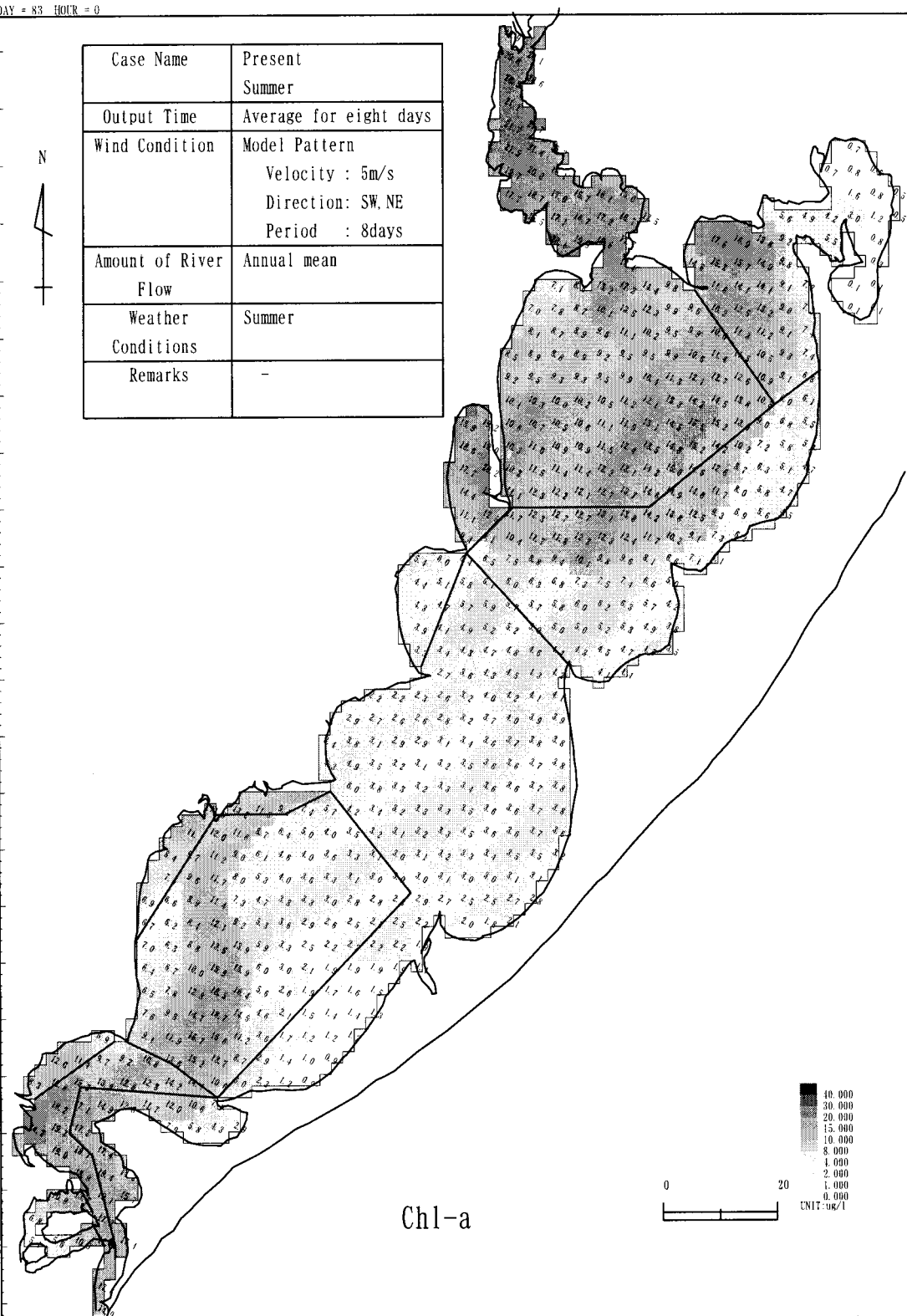
- 1 : Calculated Chl-a Distribution**
- 2 : Calculated T-N Distribution**
- 3 : Calculated T-P Distribution**
- 4 : Calculated BOD Distribution**
- 5 : Calculated COD**
- 6 : Calculated SS**

DAY = 83 HOUR = 0

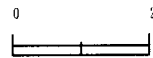
115
110
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5



Case Name	Present Summer
Output Time	Average for eight days
Wind Condition	Model Pattern Velocity : 5m/s Direction: SW,NE Period : 8days
Amount of River Flow	Annual mean
Weather Conditions	Summer
Remarks	-



40.000
30.000
20.000
15.000
10.000
8.000
4.000
2.000
1.000
0.000
UNIT: 10⁶/l



DIGs000_bodts. Pcl

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SIM-F-2-1

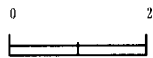
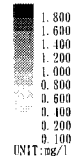
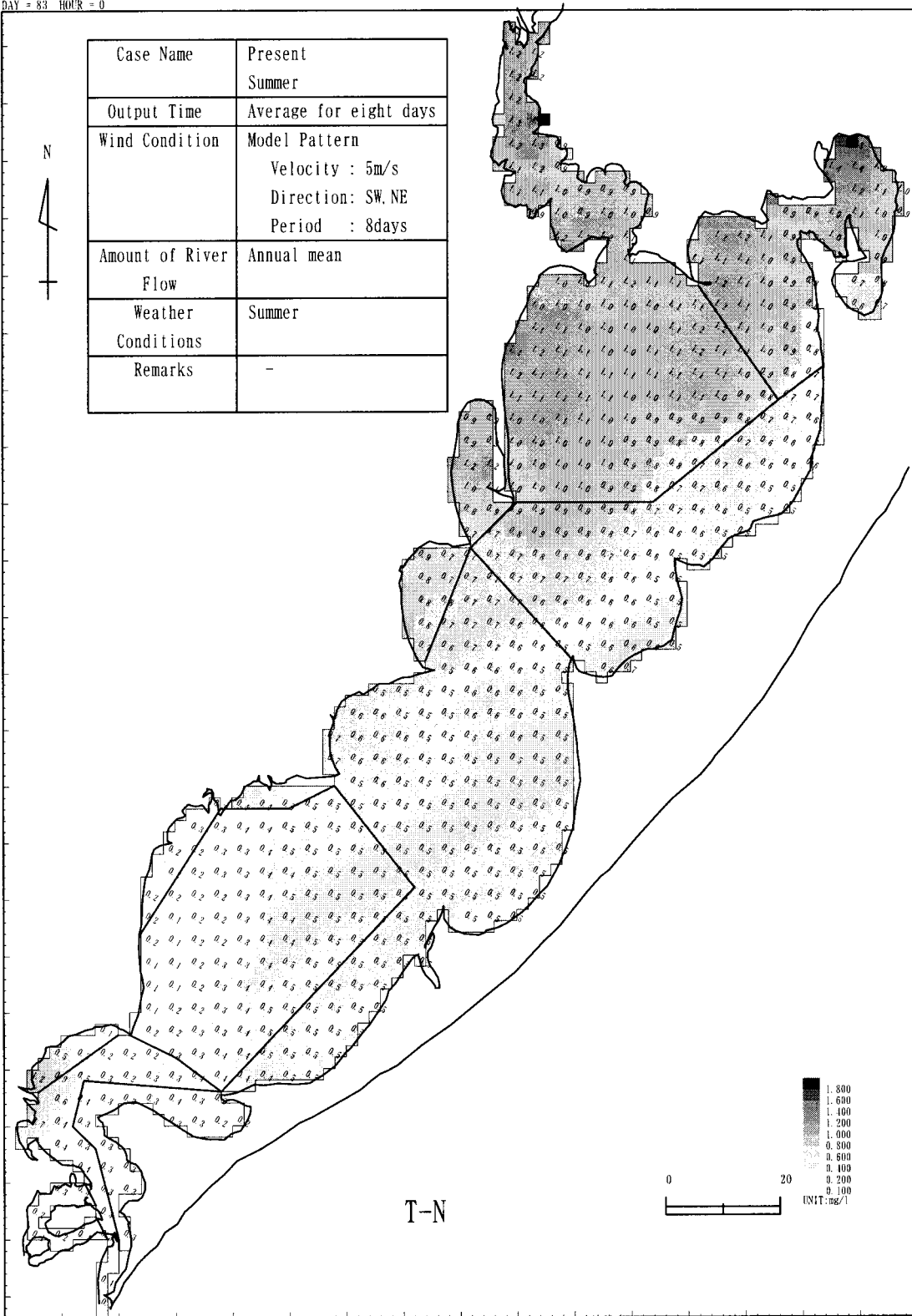
**Calculated Chl-a
Distribution(Summer)**
(Inflow Load:Present,Rate of
Diatoms in Southern Area:0.2)

DAY = 83 HOUR = 0

115
110
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5



Case Name	Present Summer
Output Time	Average for eight days
Wind Condition	Model Pattern Velocity : 5m/s Direction: SW, NE Period : 8days
Amount of River Flow	Annual mean
Weather Conditions	Summer
Remarks	-



DIGs000_bodts. Pln

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SIM-F-2-2

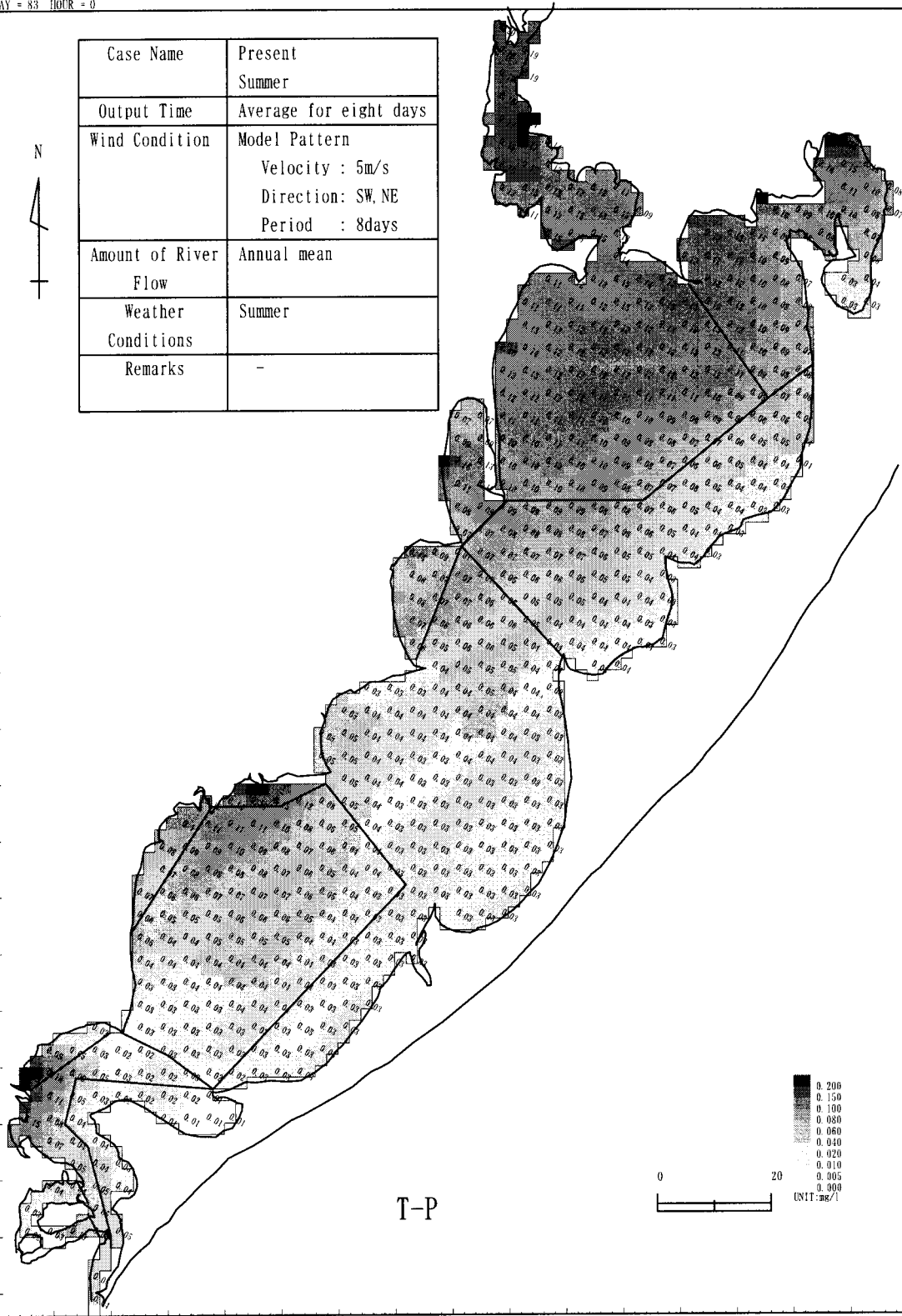
**Calculated T-N
Distribution(Summer)
(Inflow Load:Present,Rate of
Diatoms in Southern Area:0.2)**

DAY = 83 HOUR = 0

115
110
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5



Case Name	Present Summer
Output Time	Average for eight days
Wind Condition	Model Pattern Velocity : 5m/s Direction: SW, NE Period : 8days
Amount of River Flow	Annual mean
Weather Conditions	Summer
Remarks	-



0.200
0.150
0.100
0.080
0.060
0.040
0.020
0.010
0.005
0.000
UNIT: ug/l

0 20

DIGs000_bodts. Ptp

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SIM-F-2-3

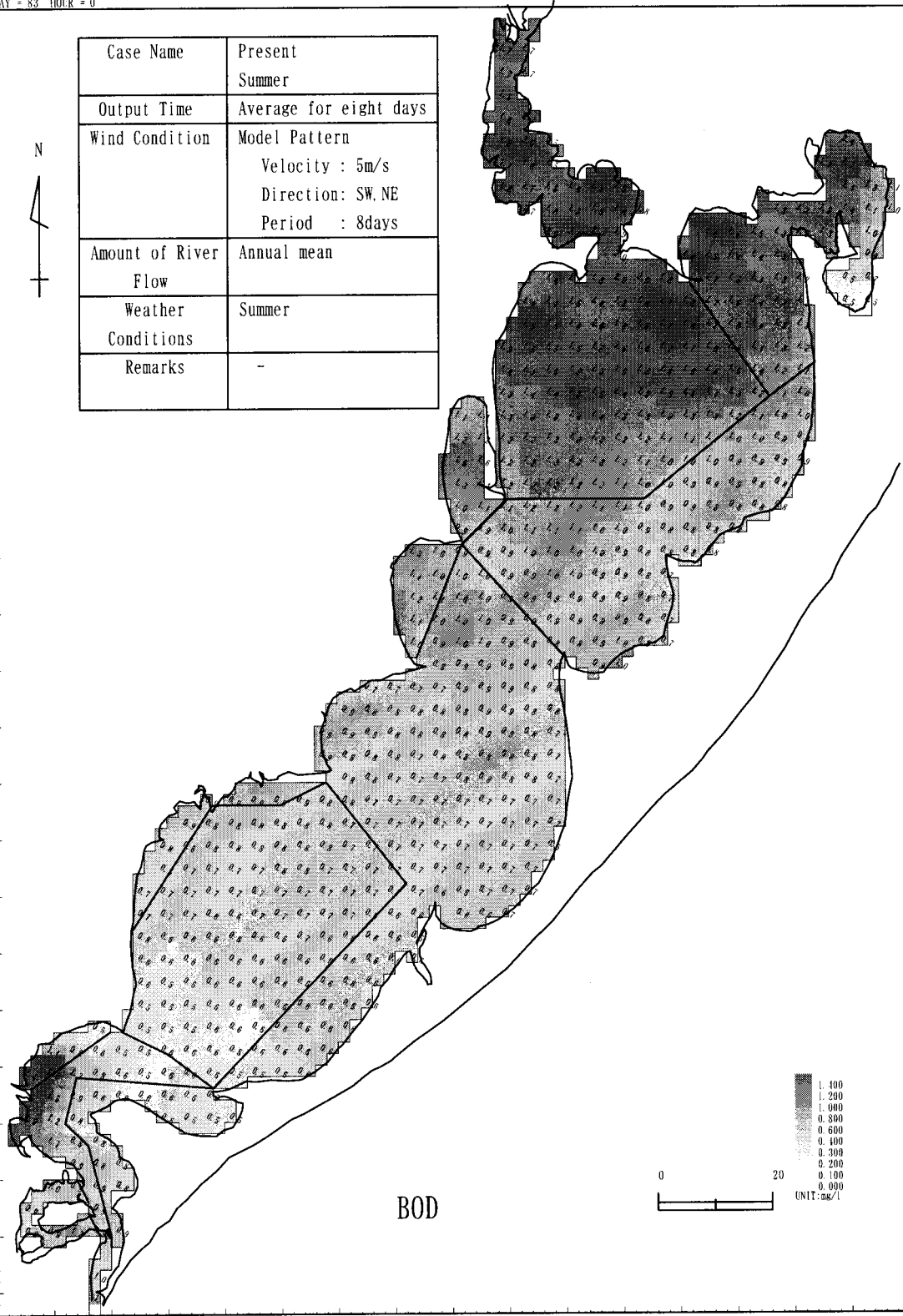
**Calculated T-P
Distribution(Summer)**
(Inflow Load:Present,Rate of
Diatoms in Southern Area:0.2)

DAY = 83 HOUR = 0

115
110
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5



Case Name	Present Summer
Output Time	Average for eight days
Wind Condition	Model Pattern Velocity : 5m/s Direction: SW,NE Period : 8days
Amount of River Flow	Annual mean
Weather Conditions	Summer
Remarks	-



1.400
1.200
1.000
0.800
0.600
0.400
0.300
0.200
0.100
0.090
UNIT:mg/l



DIGs000_bod s. Pbd

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SIM-F-2-4

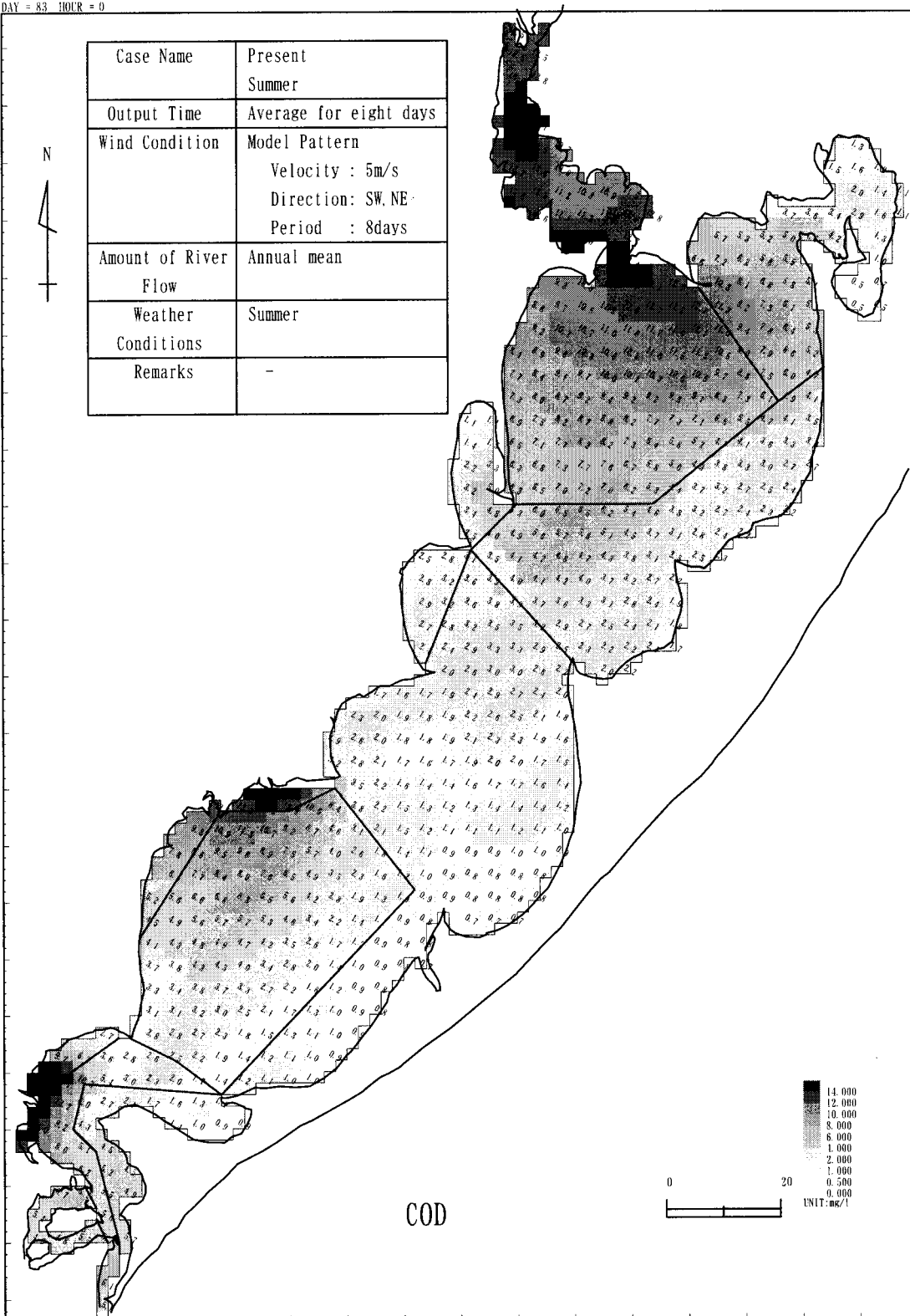
**Calculated BOD
Distribution(Summer)**
(Inflow Load:Present,Rate of
Diatoms in Southern Area:0.2)

DAY = 83 HOUR = 0

115
110
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5



Case Name	Present Summer
Output Time	Average for eight days
Wind Condition	Model Pattern Velocity : 5m/s Direction: SW, NE Period : 8days
Amount of River Flow	Annual mean
Weather Conditions	Summer
Remarks	-



14.000
12.000
10.000
8.000
6.000
4.000
2.000
1.000
0.500
0.000
UNIT:mg/l

0 20

DIGS000_codss.Pcd

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SIM-F-2-5

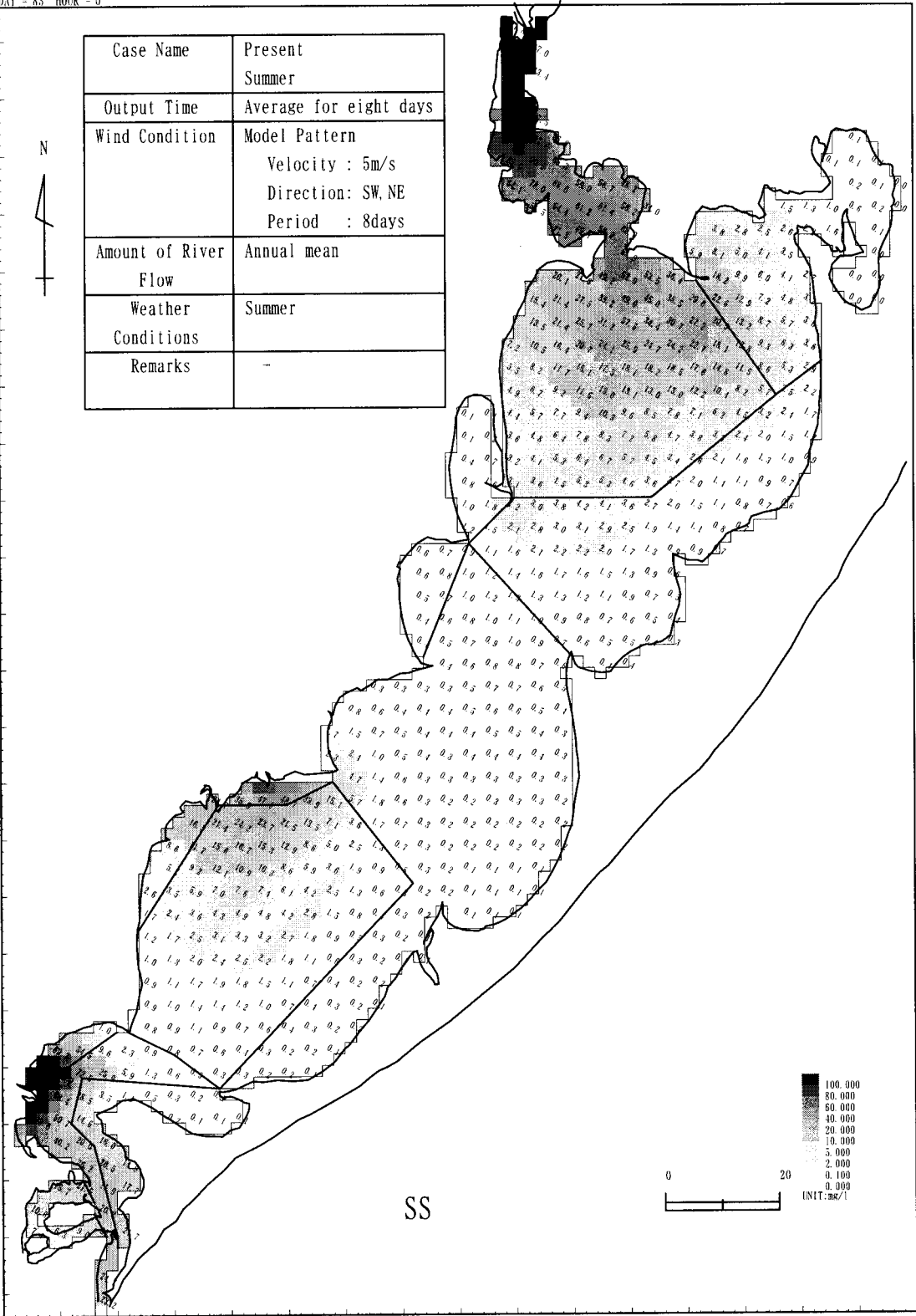
Calculated COD
Distribution(Summer)
(Inflow Load:Present,Rate of
Diatoms in Southern Area:0.2)

DAY = 83 HOUR = 0

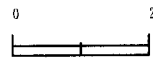
115
110
105
100
95
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85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5



Case Name	Present Summer
Output Time	Average for eight days
Wind Condition	Model Pattern Velocity : 5m/s Direction: SW, NE Period : 8days
Amount of River Flow	Annual mean
Weather Conditions	Summer
Remarks	-



100.000
80.000
60.000
40.000
20.000
10.000
5.000
2.000
0.100
0.000
UNIT:mg/l



SS

DIGs000_bod1s.Pss

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SIM-F-2-6

**Calculated SS
Distribution(Summer)**
(Inflow Load:Present,Rate of
Diatoms in Southern Area:0.2)