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INSTITUT SENEGALAIS  
DE RECHERCHES AGRICOLES

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CAMPAGNE CAPRICORNE 7602  
RESULTATS D'OBSERVATIONS

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CENTRE DE RECHERCHES OCEANOGRAPHIQUES  
DE DAKAR-THIAROYE  
(SENEGAL)

ARCHIVE

N°35

MAI 1976

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EST UN DOCUMENT DE TRAVAIL  
ET NE DOIT PAS ETRE  
UTILISE SANS  
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## CAMPAGNE CAPRICORNE 7602

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Cette campagne a été réalisée du 2 au 13 février 1976. Le but de la campagne était une étude hydrologique de la zone frontale des Bissagos.

### 1. Liste des participants

|              |                            |
|--------------|----------------------------|
| J.P. REBERT  | Physicien, chef de mission |
| C. COLIN     | Physicien                  |
| Y. GALLARDO  | Physicien                  |
| PH. AMADE    | Chimiste                   |
| C. CLAVE     | Electronicien              |
| M. PRIVE     | Technicien physique        |
| R. PIANET    | Biologiste                 |
| J.M. STRETTA | Biologiste                 |

## II. Programme

### 1. Physique

26 stations hydrologiques ont été réalisées à la sonde STD0

5 stations de courantométrie ont été réalisées au courantomètre Andraa gréé en "current Profiler", le navire étant en dérive.

Des mesures de surface (T.S) ont été faites le long de la route suivie toutes les heures environ, lorsque les fonds étaient trop faibles pour effectuer des stations.

14 bathythermogrammes ont été effectués en des points intermédiaires ou en cas de mauvais fonctionnement de la sonde,

### 2. Biologie

Des traits obliques au filet WP2 ont été effectués à toutes les stations situées en dehors du plateau continental,

A chaque station sonde des échantillons ont été prélevés à la rosette afin d'analyser le contenu en chlorophylle à 5 niveaux déterminés en fonction de la profondeur de la thermocline.

Sur la radiale où ont été effectuées les stations de courants (stations 17 à 21), des prélèvements à la bouteille de 30 l destinés aux mesures de zooplancton ont été effectuées aux mêmes niveaux que les chlorophylles.

### III. Résultats

#### 1. Figures

- Le parcours suivi et les positions des stations sont illustrés par la figure 1.
- Les figures 2 et 3 représentent les isothermes et isohalines de surface déduites de l'ensemble des mesures ponctuelles (pas d'enregistrement continu)
- La figure 4 représente les profils verticaux de courants (composantes NS et EW) ainsi que de températures pour les cinq stations effectuées au courantmètre Anderaa. Le zéro est arbitraire,
- La planche 5 est constituée des profils de température enregistrés au bathythermographe

#### 2. Hydrologie

Les résultats des stations sondes sont rassemblées dans le tableau 1, Les systèmes de digitalisation n'ayant pas fonctionné, ces résultats ont été transcrits à partir des enregistrements réalisés par l'appareil, Les enregistreurs ayant d'autre part très mal fonctionné' surtout en fin de campagne, ces résultats ne doivent donc être utilisés qu'avec une extrême prudence.

Les teneurs en oxygène dissous sont exprimées en p.p.m. Une comparaison avec des déterminations par la méthode de Winkler indique que ces chiffres sont en excès de 35% environ par rapport aux teneurs réelles.

Les résultats des mesures de surface - hydrologie et météo- sont consignés dans le tableau II.

Le tableau III donne les renseignements annexes (position, météo, etc.,) aux stations sondes.

Les renseignements concernant les bathythermogrammes sont rassemblés dans le tableau IV.

#### 3. Courantométrie

Dans le tableau V figurent toutes les données de courantométrie fournies par les instruments. Les vecteurs courants ont été transformés en leurs composantes rectangulaires comptées positivement vers le Nord et l'Est. Le zéro a été pris à la mesure la plus profonde.

#### 4. Chlorophylle

Les résultats des déterminations des teneurs en chlorophylles figurent dans le tableau VI.

Les analyses ont porté sur la chlorophylle a et les phéopigments,

Nous donnons dans le tableau II les valeurs de chlorophylle a calculées selon deux méthodes différentes, valeurs qui ont chacune leur utilité,

La colonne Chla 1 représente la chlorophylle a globale calculée suivant la formule  $Chla\ 1 = (D665 - D750) \cdot \frac{V}{V_{xc}}$  déduite des relations SCOR-UNESCO.

La chlorophylle a active et la phéophytino ont été calculées d'après les formules de Lorenaen :  $Chla\ 2 = 26,7 (D665 - D665a) \cdot \frac{V}{V}$

$$Phéo = 26,7 (1,7 D665a - D665) \cdot \frac{V}{V}$$

Tous les résultats sont en mg/m<sup>3</sup>

Les volumes filtrés étaient en général le contenu de deux bouteilles à prélèvement standard, soit environ 3,3 l.

#### 5. Zooplancton

Los volumes sédimentés de zooplancton recueillis par traits obliques dans la couche de surface figurent dans le tableau VII ainsi que les renseignements annexes concernant ces traits.

Les résultats des comptages de copépodes prélevés à la bouteille sont les suivants :

|         |   |    |   |    |   |    |   |    |   |    |
|---------|---|----|---|----|---|----|---|----|---|----|
| Station | : | 17 | : | 18 | : | 19 | : | 20 | : | 21 |
|---------|---|----|---|----|---|----|---|----|---|----|

|           |   |      |   |     |   |     |   |      |   |     |
|-----------|---|------|---|-----|---|-----|---|------|---|-----|
| Copépodes | : | 1143 | : | 469 | : | 527 | : | 1122 | : | 710 |
|-----------|---|------|---|-----|---|-----|---|------|---|-----|

Ces résultats sont exprimés en nombre moyen d'individus par m<sup>3</sup>, les effectifs des copépodes étant intégrés sur toute la colonne d'eau (cf tableau VI)

Les déterminations et comptage de larves recueillies dans des traits obliques sont par ailleurs en cours au C.R.O. d'ABIDJAN. Ils ne figurent pas dans le présent document.

Dakar, le 3/7/76

JP. REBERT

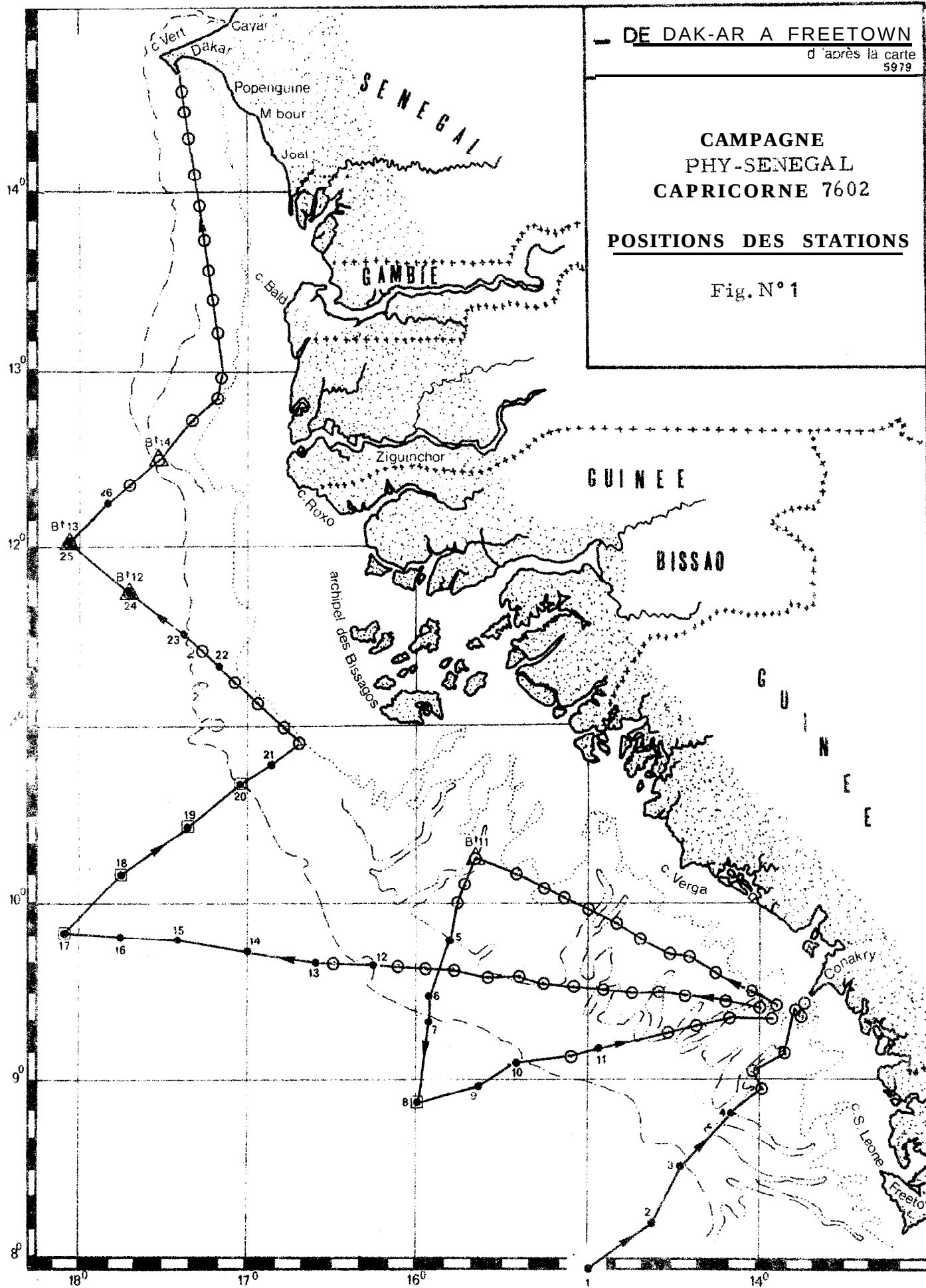
DE DAK-AR A FREETOWN

d'après la carte  
5979

CAMPAGNE  
PHY-SENEGAL  
CAPRICORNE 7602

POSITIONS DES STATIONS

Fig. N° 1



- Station Sonde -      ○ Prélèvement de Surface -
- △ Bathythermographe -      □ Courantographe -

TABLEAU 1

CAMPAGNE CAPRICORNE 7602 .

Résultats des Stations Sonde

(d'après les enregistrements)

| STATION N°1 |       |                    |                           |
|-------------|-------|--------------------|---------------------------|
| Prof,       | T° C  | S‰                 | O <sup>2</sup><br>(P.P.M) |
| 0           | 26.68 | 35.10              | 8.70                      |
| 10          | 26.65 | 35.10              | 8.50                      |
| 20          | 26.54 | 35.09              | 6.75                      |
| 30          | 21.58 | 35.16              | 5.15                      |
| 40          | 18.96 | 35.55              | 3.75                      |
| 50          | 17.45 | 35.58              | 3.30                      |
| 60          | 16.40 | 35.58              | 3.30                      |
| 80          | 15.50 | 35.55              | 3.15                      |
| 100         | 14.83 | 35.49              | 2.85                      |
| 120         | 14.10 | 35.43 <sup>5</sup> | 3.25                      |
| 140         | 13.67 | 35.39              | 3.30                      |
| 160         | 13.38 | 35.36              | 3.25                      |
| 180         | 13.06 | 35.32 <sup>5</sup> | 3.45                      |
| 200         | 12.58 | 35.27              | 3.80                      |
| 240         | 11.16 | 35.19              | 3.90                      |
| 280         | 10.84 | 35.12              | 3.10                      |
| 320         | 10.52 | 35.10              | 2.40                      |
| 360         | 09.64 | 35.03 <sup>5</sup> | 2. M                      |
| 400         | 09.05 | 34.96 <sup>5</sup> | 2.40                      |

| STATION N°2 |       |        |                           |
|-------------|-------|--------|---------------------------|
| Prof,       | T° C  | s ‰    | O <sup>2</sup><br>(P.P.M) |
| 0           | 26.20 | 35.46  | 8.80                      |
| 10          | 26.15 | 35.46  | a.50                      |
| 20          | 23.65 | 35.52  | 8.20                      |
| 30          | 20.50 | 35.60  | 6.00                      |
| 40          | 18.15 | 35.70  | 4.00                      |
| 50          | 17.55 | 35.70  | 3.20                      |
| 60          | 16.20 | 35.64  | 2.70                      |
| 80          | 15.65 | 35.64  | 2.40                      |
| 100         | 15.20 | 35.60  | 2.60                      |
| 120         | 14.95 | 35.57  | 2.80                      |
| 140         | 14.60 | 35.53  | 3.10                      |
| 160         | 14.20 | 35.4-a | 3.30                      |
| 180         | 14.00 | 35.43  | 3.40                      |
| 200         | 13.45 | 35.36  | 3.30                      |
| 240         | 12.50 | 35.26  | 4.00                      |
| 280         | 11.80 | 35.23  | 3.40                      |
| 320         | 11.15 | 35.16  | 2.40                      |
| 360         | 10.50 | 35.13  | 2.00                      |
| 400         | 09.50 | 35.01  | 2.30                      |
| 450         | 08.75 | 34.93  | 2.60                      |
| 500         | 08.25 | 34. a7 | 3.20                      |

Suite TABLEAU 1

| STATION N° 3 |       |       |                            |
|--------------|-------|-------|----------------------------|
| Prof.        | T°C   | S‰    | O <sup>2</sup><br>(P.P.M.) |
| 0            | 24.35 | 34.99 | 8.90                       |
| 10           | 24.30 | 35.06 | 8.60                       |
| 20           | 21.25 | 35.58 | 7.60                       |
| 30           | 18.60 | 35.56 | 4.60                       |
| 40           | 16.17 | 35.56 | 3.30                       |
| 50           | 15.27 | 35.55 | 3.10                       |
| 60           | 15.00 | 35.56 | 3.00                       |
| 80           | 14.71 | 35.57 | 3.00                       |
| 100          | 14.55 | 35.57 | 3.10                       |

| STATION N°6 |       |       |                            |
|-------------|-------|-------|----------------------------|
| Prof.       | T°C   | S‰    | O <sup>2</sup><br>(P.P.M.) |
| 0           | 22.72 | 35.07 | 9.50                       |
| 10          | 20.80 | 35.37 | 8.60                       |
| 20          | 19.50 | 35.50 | 6.30                       |
| 30          | 18.72 | 35.49 | 5.70                       |
| 40          | 16.28 | 35.58 | 4.40                       |
| 50          | 15.34 | 35.64 | 3.00                       |
| 60          | 14.89 | 35.64 | 2.90                       |
| 80          | 14.68 | 35.60 | 2.80                       |

| STATION N° 4 |       |       |      |
|--------------|-------|-------|------|
| 0            | 25.10 | 35.11 | 8.90 |
| 10           | 22.00 | 35.44 | 8.20 |
| 20           | 19.00 | 35.50 | 6.20 |
| 30           | 18.15 | 35.62 | 4.20 |

| STATIONS N°5 |       |       |      |
|--------------|-------|-------|------|
| 0            | 22.85 | 34.90 | 9.70 |
| 10           | 19.80 | 35.21 | 9.40 |
| 20           | 18.40 | 35.56 | 5.40 |
| 30           | 16.45 | 35.60 | 3.50 |

| STATION N°7 |       |       |  |
|-------------|-------|-------|--|
| 0           | 22.28 | 35.24 |  |
| 5           | 22.30 | 35.24 |  |
| 10          | 22.27 | 35.21 |  |
| 20          | 18.40 | 35.59 |  |
| 30          | 17.68 | 35.75 |  |
| 40          | 17.44 | 35.73 |  |
| 50          | 16.32 | 35.71 |  |
| 60          | 15.58 | 35.71 |  |
| 80          | 14.83 | 35.64 |  |
| 100         | 14.25 | 35.62 |  |
| 120         | 14.05 | 35.59 |  |
| 140         | 13.68 | 35.55 |  |
| 160         | 13.43 | 35.53 |  |
| 180         | 13.27 | 35.50 |  |
| 190         | 13.14 | 35.50 |  |

Suite TABLEAU 1

| STATION N°8 |       |                    |                            |
|-------------|-------|--------------------|----------------------------|
| Prof.       | TOC   | S‰                 | O <sup>2</sup><br>(P.P.M.) |
| 0           | 23.78 | 35.01              | 9.70                       |
| 5           | 23.77 | 35.015             | 9.70                       |
| 10          | 23.72 | 35.02 <sup>5</sup> | 9.60                       |
| 20          | 22.30 | 35.59              | 9.20                       |
| 30          | 19.62 | 35.67              | 7.30                       |
| 40          | 17.32 | 35.57 <sup>5</sup> | 5.40                       |
| 50          | 16.48 | 35.55              | 4.50                       |
| 60          | 15.80 | 35.53              | 4.00                       |
| 80          | 14.96 | 35.48              | 3.25                       |
| 100         | 14.52 | 35.43              | 3.65                       |
| 120         | 14.04 | 35.33              | 4.00                       |
| 140         | 13.52 | 35.34              | 4.20                       |
| 160         | 13.20 | 35.31              | 4.10                       |
| 180         | 12.80 | 35.28              | 4.00                       |
| 200         | 12.53 | 35.22 <sup>5</sup> | 4.10                       |
| 240         | 11.75 | 35.15              | 3.85                       |
| 280         | 11.22 | 35.16              | 3.00                       |
| 320         | 10.76 | 35.13              | 2.50                       |
| 350         | 10.15 | 35.11              | 2.20                       |

| STATION N°9 |       |                    |                            |
|-------------|-------|--------------------|----------------------------|
| Prof.       | TOC   | S‰                 | O <sup>2</sup><br>(P.P.M.) |
| 0           | 24.45 | 34.80              | 9.90                       |
| 5           | 24.45 | 34.77              | 9.85                       |
| 10          | 24.40 | 34.76              | 9.70                       |
| 20          | 21.45 | 35.58              | 4.20                       |
| 30          | 19.10 | 35.56              | 3.80                       |
| 40          | 17.20 | 35.56              | 11.00                      |
| 50          | 16.60 | 35.51              | 3.55                       |
| 60          | 15.75 | 35.51              | 3.40                       |
| 80          | 15.35 | 35.45              | 3.10                       |
| 100         | 14.85 | 35.42              | 3.55                       |
| 120         | 14.60 | 35.39              | 3.95                       |
| 140         | 14.25 | 35.36 <sup>5</sup> | 4.35                       |
| 160         | 14.10 | 35.335             | 4.40                       |
| 180         | 13.70 | 35.27 <sup>5</sup> | 4.00                       |
| 200         | 13.20 | 35.24 <sup>5</sup> | 4.00                       |
| 240         | 12.25 | 35.135             | 4.00                       |
| 280         | 11.50 | 35.11              | 3.15                       |
| 320         | 10.85 | 35.04              | 2.45                       |
| 360         | 10.20 | 34.99              | 2.20                       |
| 400         | 09.45 | 34.90 <sup>5</sup> | 2.10                       |
| 450         | 08.70 | 34.86              | 2.60                       |
| 500         | 06.30 | 34.83              | 2.95                       |

Suite TABLEAU 1

| STATION N° 10 |       |                    |                            |
|---------------|-------|--------------------|----------------------------|
| Prof.         | T° C  | S‰                 | O <sup>2</sup><br>(P.P.M.) |
| 0             | 24.90 | 34.55 <sup>5</sup> |                            |
| 5             | 24.90 | 34.515             |                            |
| 10            | 24.85 | 34.70              |                            |
| 20            | 20.02 | 35.28 <sup>5</sup> |                            |
| 30            | 15.70 | 35.447             |                            |
| 40            | 15.07 | 35.47              |                            |
| 50            | 15.05 | 35.49 <sup>5</sup> |                            |
| 60            | 15.05 | 35.46 <sup>5</sup> |                            |
| 80            | 14.95 | 35.44              |                            |
| 100           | 14.70 | 35.41 <sup>5</sup> |                            |
| 120           | 14.60 | 35.40 <sup>5</sup> |                            |
| 140           | 14.20 | 35.37              |                            |
| 160           | 14.20 | 35.36 <sup>5</sup> |                            |
| 175           | 14.20 | 35.37              |                            |

| STATION N° 12 |       |                    |                            |
|---------------|-------|--------------------|----------------------------|
| Prof.         | T° C  | S ‰                | O <sup>2</sup><br>(P.P.M.) |
| 0             | 20.22 | 35.18              | 10.30                      |
| 5             | 19.20 | 35.21              | 10.70                      |
| 10            | 18.20 | 35.24 <sup>5</sup> | 10.00                      |
| 20            | 18.02 | 35.31              | 6.30                       |
| 30            | 17.18 | 35.39              | 4.60                       |
| 40            | 16.45 | 35.44              | 4.10                       |
| 50            | 15.27 | 35.47              | 3.60                       |
| 60            | 15.08 | 35.46 <sup>5</sup> | 3.55                       |
| 80            | 14.55 | 35.40              | 3.60                       |
| 100           | 13.74 | 35.36              | 4.00                       |
| 120           | 13.30 | 35.31              | 3.85                       |
| 140           | 12.89 | 35.30              | 3.90                       |
| 160           | 12.84 | 35.29              | 3.90                       |
| 180           | 12.59 | 35.25              | 3.90                       |

| STATION N° 11 |       |       |                            |
|---------------|-------|-------|----------------------------|
|               | T° C  | S‰    | O <sup>2</sup><br>(P.P.M.) |
| 0             | 24.40 | 34.80 | 9.40                       |
| 5             | 24.32 | 35.38 | 9.30                       |
| 10            | 18.32 | 35.46 | 8.30                       |
| 20            | 17.12 | 35.47 | 3.80                       |
| 30            | 15.95 | 35.45 | 3.05                       |
| 40            | 15.16 | 35.43 | 2.85                       |

Suite TABLEAU 1

| STATION N° 13 |       |                    |                            |
|---------------|-------|--------------------|----------------------------|
| Prof.         | T° C  | S‰                 | O <sup>2</sup><br>(P.P.M.) |
| 0             | 21.32 | 35.09              | 10.15                      |
| 5             | 21.20 | 35.09              | 9.90                       |
| 10            | 21.15 | 35.10              | 9.80                       |
| 20            | 19.65 | 35.48              | 7.20                       |
| 30            | 17.75 | 35.51 <sup>5</sup> | 5.75                       |
| 40            | 17.00 | 35.52              | 3.65                       |
| 50            | 16.39 | 35.52              | 3.40                       |
| 60            | 16.10 | 35.51              | 3.15                       |
|               | 15.12 | 35.48              | 3.00                       |
| 100           | 14.78 | 35.43              | 2.95                       |
| 120           | 14.12 | 35.39              | 3.40                       |
| 140           | 13.65 | 35.34              | 4.00                       |
| 160           | 13.08 | 35.29 <sup>5</sup> | 3.80                       |
| 180           | 12.70 | 35.24 <sup>5</sup> | 3.90                       |
| 200           | 12.14 | 35.22 <sup>5</sup> | 3.70                       |
| 240           | 11.62 | 35.18              | 3.35                       |
| 280           | 10.97 | 35.14 <sup>5</sup> | 2.70                       |
| 320           | 10.32 | 35.07              | 2.35                       |
| 360           | 09.64 | 35.01 <sup>5</sup> | 2.25                       |

| STATION N° 14 |        |                    |                            |
|---------------|--------|--------------------|----------------------------|
| Prof.         | T° C   | S‰                 | O <sup>2</sup><br>(P.P.M.) |
|               | 21.77  | 35.13              | 9.65                       |
| 15            | 21.59  | 35.11 <sup>5</sup> | 9.45                       |
|               | 21.15  | 35.10              | 9.40                       |
| 20            | 20.65? | 35.36              | 6.45                       |
| 30            | 16.20  | 35.50 <sup>5</sup> | 4.35                       |
| 40            | 15.87  | 35.51 <sup>5</sup> | 3.30                       |
| 50            | 15.07  | 35.50 <sup>5</sup> | 3.00                       |
| 60            | 14.88  | 35.49              | 2.88                       |
| 80            | 14.64  | 35.46              | 2.85                       |
| 100           | 14.10  | 35.42              | 3.15                       |
| 120           | 13.77  | 35.38              | 3.55                       |
| 140           | 13.49  | 35.34 <sup>5</sup> | 3.80                       |
| 160           | 12.97  | 35.30              | 3.85                       |
| 180           | 12.48  | 35.24 <sup>5</sup> | 3.70                       |
| 200           | 11.76  | 35.19 <sup>5</sup> | 3.65                       |
| 240           | 10.98  | 35.15 <sup>5</sup> | 2.80                       |
| 255           | 10.72  | 35.22              | 2.60                       |
| 265           | 10.92  | 35.23              | 2.45                       |
| 285           | 10.91  | 35.16              | 2.30                       |
| 300           | 09.62  | 35.02 <sup>5</sup> | 2.25                       |

Suite TABLEAU I

| STATION N° 15 |       |                    |                            |
|---------------|-------|--------------------|----------------------------|
| Prof.         | T°C   | S‰                 | O <sup>2</sup><br>(P.P.M.) |
| 0             | 21.45 | 35.24              | 10.50                      |
| 5             | 21.40 | 35.29              | 9.65                       |
| 10            | 21.30 | 35.28              | 9.40                       |
| 20            | 18.50 | 35.25              | 6.50                       |
| 30            | 16.70 | 35.24              | 4.70                       |
| 40            | 15.90 | 35.24              | 4.35                       |
| 50            | 15.30 | 35.26              | 4.30                       |
|               | 15.10 | 35.55              | 3.85                       |
| 80            | 14.80 | 35.74              | 3.30                       |
| 100           | 14.40 | 35.45              | 3.40                       |
| 120           | 14.10 | 35.37 <sup>5</sup> | 3.70                       |
| 140           | 13.60 | 35.31 <sup>5</sup> | 3.90                       |
| 160           | 13.30 | 35.26              | 4.00                       |
| 180           | 12.90 | 35.21              | 3.90                       |
| 200           | 12.60 | 35.17              | 3.80                       |
| 240           | 12.40 | 35.11 <sup>5</sup> | 3.85                       |
| 280           | 11.80 |                    | 3.30                       |
| 320           | 11.20 | —                  | 2.75                       |
| 350           | 10.60 | —                  | 2.30                       |

| STATION N° 16 |       |                    |                            |
|---------------|-------|--------------------|----------------------------|
| Prof.         | T°C   | S ‰                | O <sup>2</sup><br>(P.P.M.) |
| 0             | 21.40 | 35.18              | 10.10                      |
| 5             | 21.10 | 35.20              | 9.95                       |
| 10            | 20.95 | 35.24              | 9.95                       |
| 20            | 20.57 | 35.36              | 9.95                       |
| 30            | 20.52 | 35.39              | 9.45                       |
| 40            | 19.58 | 35.043             | 7.45                       |
| 50            | 16.20 | 35.45 <sup>5</sup> | 4.00                       |
| 60            | 14.99 | 35.45 <sup>5</sup> | 3.25                       |
| 80            | 14.45 | 35.38              | 3.00                       |
| 100           | 13.71 | 35.32              | 3.80                       |
| 120           | 13.25 | 35.27              | 3.55                       |
| 140           | 12.79 | 35.21 <sup>5</sup> | 3.75                       |
| 160           | 12.46 | 35.135             | 3.75                       |
| 180           | 12.28 | 35.12              | 3.55                       |
| 200           | 11.97 | 35.105             | 3.95                       |
| 240           | 11.52 | 35.10              | 3.35                       |
| 280           | 11.02 |                    | 3.05                       |
| 320           | 10.85 |                    | 2.50                       |
| 350           | 10.50 |                    | 2.35                       |

Suite TABLEAU 1

| STATION N° 17 |            |                    |                            |
|---------------|------------|--------------------|----------------------------|
| Prof.         | T° C       | S‰                 | O <sup>2</sup><br>(P.P.M.) |
| 0             | 22.50      | 35.20 <sup>5</sup> | 9.90                       |
| 5             | 22.50      | 35.20              | 9.85                       |
| 10            | 22.30      | 35.18              | 9.75                       |
| 20            | 22.10      | 35.21              | 9.60                       |
| 30            | 20.50      | 35.34              | 9.20                       |
| 40            | 17.40      | 35.48              | 5.60                       |
| 50            | 16.25      | 35.44              | 4.50                       |
| 60            | 15.00      | 35.37 <sup>5</sup> | 4.05                       |
| 80            | 13.50      | 35.28              | 3.75                       |
| 100           | 13.20      | 35.23              | 3.65                       |
| 120           | 12.90      | 35.20              | 4.30                       |
| 140           |            | 35.19              | 4.70                       |
| 160           | 12.80 12.6 | 35.15              | 4.95                       |
| 180           | 12.25      | 35.13              | 4.85                       |
| 200           | 12.10      | 35.11              | 4.85                       |
| 240           | 11.50      | 35.09 <sup>5</sup> | 4.40                       |
| 280           | 11.25      | 35.11              | 4.25                       |
| 320           | 10.80      | 35.095             | 2.95                       |
| 350           | 10.20      | 35.02              | 2.50                       |

| STATION N° 18 |       |                    |                            |
|---------------|-------|--------------------|----------------------------|
| Prof.         | T° C  | S‰                 | O <sup>2</sup><br>(P.P.M.) |
| 0             | 20.90 | 35.55 <sup>5</sup> | 10.45                      |
| 5             | 20.87 | 35.54              | 10.20                      |
| 10            | 19.70 | 35.41              | 10.00                      |
| 20            | 18.22 | 35.40 <sup>5</sup> | 5.45                       |
| 30            | 16.13 | 35.39 <sup>5</sup> | 4.55                       |
| 40            | 15.52 | 35.38              | 4.15                       |
| 50            | 15.32 | 35.37              | 3.90                       |
| 60            | 14.66 | 35.36 <sup>5</sup> | 3.65                       |
| 80            | 13.85 | 35.35              | 3.50                       |
| 100           | 13.64 | 35.12              | 3.60                       |
| 120           | 13.33 | 35.10              | 3.85                       |
| 140           | 13.03 | 35.13              | 3.90                       |
| 160           | 12.75 | 35.115             | 3.95                       |
| 180           | 12.54 | 35.115             | 4.05                       |
| 200           | 12.33 | 35.09 <sup>5</sup> | 3.75                       |
| 240           | 11.77 | 34.97              | 3.20                       |
| 280           | 11.30 | -                  | 2.90                       |
| 320           | 10.88 | -                  | 2.55                       |
| 350           | 10.49 | -                  | 2.25                       |

Suite TABLEAU 1

| STATION N° 19 |       |                    |                            |
|---------------|-------|--------------------|----------------------------|
| Prof          | T° C  | S‰                 | O <sup>2</sup><br>(P.P.F.) |
| 0             | 22.70 | 35.31 <sup>5</sup> | 12.20                      |
| 5             | 27.90 | 35.28              | 12.05                      |
| 10            | 24.70 | 35.28              | 11.80                      |
| 20            | 19.80 | 35.34 <sup>5</sup> | 3.45                       |
| 30            | 17.90 | 35.43 <sup>5</sup> | 5.60                       |
| 40            | 16.30 | 35.44 <sup>5</sup> | 4.35                       |
| 50            | 16.10 | 35.43 <sup>5</sup> | 3.55                       |
| 60            | 15.80 | 35.42 <sup>5</sup> | 3.45                       |
| 80            | 15.25 | 35.40              | 3.40                       |
| 100           | 14.90 | 35.31;             | 3.50                       |
| 120           | 14.50 | 35.32              | 3.75                       |
| 140           | 14.10 | 35.28              | 3.95                       |
| 160           | 13.75 | 35.25 <sup>5</sup> | 3.95                       |
| 180           | 13.40 | 35.205             | 3.95                       |
| 200           | 13.10 | 35.175             | 3.70                       |
| 240           | 12.40 | 35.105             | 3.15                       |
| 280           | -     | 35.09              | 2.80                       |
| 320           | -     | 35.06              | 2.45                       |

| STATION N° 20 |       |                    |                            |
|---------------|-------|--------------------|----------------------------|
| Prof.         | T° C  | S‰                 | O <sup>2</sup><br>(P.P.F.) |
| 0             | 19.05 | 35.44              | 11.80                      |
| 5             | 18.50 | 35.37 <sup>5</sup> | 10.00                      |
| 10            | 18.10 | 35.35              | 9.95                       |
| 20            | 18.09 | 35.34              | 9.60                       |
| 30            | 17.70 | 35.44              | 7.80                       |
| 40            | 17.58 | 35.44              | 7.25                       |
| 50            | 17.27 | 35.42              | 6.35                       |
| 60            | 16.85 | 35.415             | 5.60                       |
| 80            | 16.07 | 35.42              | 4.35                       |
| 100           | 15.34 | 35.42 <sup>5</sup> | 3.70                       |
| 120           | 15.12 | 35.43              | 3.55                       |
| 140           | 15.03 | 35.425             | 3.45                       |
| 160           | 14.97 | 35.41              | 3.30                       |
| 180           | 14.60 | 35.40              | 3.30                       |
| 200           | 14.34 | 35.39 <sup>5</sup> | 3.30                       |
| 240           | w. 15 | 35.37              | 3.40                       |
| 280           | 13.94 | 35.35 <sup>5</sup> | 3.45                       |
| 320           | -     | 35.33              | 3.70                       |
| 350           | -     | 35.30 <sup>5</sup> | 3.95                       |

Suite TABLEAU 1

| STATION NO21 |       |                    |                            |
|--------------|-------|--------------------|----------------------------|
| Prof.        | T°C   | S‰                 | O <sub>2</sub><br>(P.P.M.) |
| 0            | 20.54 | 35.00              | 11.90                      |
| 5            | 18.73 | 35.20              | 10.00                      |
| 10           | 17.95 | 35.27 <sup>5</sup> | 9.50                       |
| 20           | 17.84 | 35.38              | 6.60                       |
| 30           | 15.90 | 35.435             | 4.55                       |
| 40           | 15.36 | 35.45              | 3.20                       |
| 50           | 14.96 | 35.40              |                            |
| 60           |       | 35.41 <sup>5</sup> |                            |

| STATION N°22 |       |       |       |
|--------------|-------|-------|-------|
| 0            | 19.50 | 35.13 | 11.45 |
| 5            | 11.02 | 35.14 | 8.60  |
| 10           | 11.97 | 35.43 | 7.90  |
| 15           | 16.98 | 35.46 | 8.20  |
| 20           | 17.10 | 35.46 | 8.25  |
| 25           | 18.06 | 35.40 | 6.85  |
| 30           | 17.35 | 35.22 | 4.00  |
| 35           | 16.53 | 35.45 |       |

| STATION N° 23 |       |                    |                            |
|---------------|-------|--------------------|----------------------------|
| Prof.         | T°C   | S‰                 | O <sub>2</sub><br>(P.P.M.) |
| 0             | 16.66 | 35.45              | 9.75                       |
| 5             | 16.63 | 35.45              | 9.50                       |
| 10            | 16.60 | 35.119             | 9.05                       |
| 20            | 16.50 | 35.43              | 8.00                       |
| 30            | 15.75 | 35.35              | 4.05                       |
| 40            | 15.06 | 35.395             | 4.00                       |
| 50            | 14.72 | 35.38              | 3.50                       |
| 60            | 14.55 | 35.37 <sup>5</sup> | 3.40                       |
| 80            | 14.30 | 35.36 <sup>5</sup> | 3.55                       |
| 100           | 14.20 | 35.34 <sup>5</sup> | 3.65                       |
| 120           | 13.85 | 35.31              | 3.35                       |
| 140           | 13.60 | 35.275             | 2.85                       |
| 160           |       | 35.24 <sup>5</sup> | 2.45                       |
| 180           | -     | 35.23              |                            |

| STATION N°24 |        |   |      |
|--------------|--------|---|------|
| 0            | (17.5) | - | 9.60 |
| 5            | -      | - | 9.70 |
| 10           | 14.67  | - | 9.30 |
| 20           | 14.60  | - | 7.40 |
| 30           | 14.37  | - | 4.45 |
| 40           | 14.37  | - | 4.15 |
| 50           | 14.35  | - | 3.90 |
| 60           | 14.32  | - | 3.70 |
| 80           | 14.25  | - | 3.85 |
| 100          | 14.27  | - | 3.95 |

(station douteuse, enregistrement illisible) ,  
Voir BT 12.

Suite et fin ~~TAB~~TAU 1

| STATION N° 25 |                    |                    |                            |
|---------------|--------------------|--------------------|----------------------------|
| Prof.         | T° C               | S‰                 | O <sup>2</sup><br>(P.P.M.) |
| 0             | 19.72              | 35.40              | 11.30                      |
| 5             | 19.73              | 35.38              | 11.00                      |
| 10            | 19.70              | 35.355             | 10.45                      |
| 20            | 19.42              | 35.36              | 6.65                       |
| 30            | 17.79              | 35.445             | 3.95                       |
| 40            | 16.82              | 35.43 <sup>5</sup> | 4.05                       |
| 50            | 15.92              | 35.41 <sup>5</sup> | 4.35                       |
| 60            | 15.16              | 35.38              | 4.80                       |
| 80            | 14.08              | 35.32 <sup>5</sup> | 5.10                       |
| 100           | 13.56              | 35.28              | 4.45                       |
| 120           | 13.15              | 35.24              | 4.50                       |
| 140           | 12.34              | 35.21              | 4.45                       |
| 160           | 12.06              | 35.18              | 4.70                       |
| 180           | 12.29              | 35.16              | 4.45                       |
| 200           | 12.05              | 35.15              | 4.25                       |
| 240           | 11.66 <sup>9</sup> | 35.14              | 3.85                       |
| 280           | (11.47)            | 35.16              | 3.50                       |
| 320           | -                  | 35.19 <sup>5</sup> | 3.80                       |
| 350           | -                  | 35.19              | 3.50                       |

| STATION N° 26 |             |                    |                            |
|---------------|-------------|--------------------|----------------------------|
| Prof.         | T° C        | S‰                 | O <sup>2</sup><br>(P.P.M.) |
| 0             | 18.00       | 35.49              | 11.20                      |
| 5             | 18.10       | 35.048             | 10.50                      |
| 10            | 18.20       | 35.475             | 9.85                       |
| 20            | 18.20       | 35.48              | 9.70                       |
| 30            | 13.00       | 35.48              | 6.90                       |
| 40            |             | 35.46              | 3.20                       |
| 50            | 16.70 15.60 | 35.43              | 3.30                       |
| 60            | 15.30       | 35.38 <sup>5</sup> | 3.45                       |
| 80            | 14.40       | 35.33              | 3.70                       |
| 100           | 14.30       | 35.030             | 3.90                       |
| 120           | 14.20       | 35.27              | 3.80                       |
| 140           | 14.10       | 35.24              | 4.05                       |
| 160           | 13.50       | 35.205             | 4.30                       |
| 180           | 13.00       | 35.185             | 4.35                       |
| 200           | 12.50       | 35.17 <sup>5</sup> | 4.00                       |
| 240           |             | 35.18              | 3.65                       |
| 280           |             | 35.21 <sup>5</sup> | 3.15                       |
| 320           |             | 35.24              | 2.25                       |
| 350           |             | 35.21              |                            |

Voir BT 13

TABLEAU II

PRELEVEMENTS DE SURFACE

| DATE   | HEURE | ST<br>ou<br>BT | POSITION |         | T°<br>SURF. | T° AIR |        | VENT |       | FOND | S %<br>SURF. |
|--------|-------|----------------|----------|---------|-------------|--------|--------|------|-------|------|--------------|
|        |       |                | Lat. N   | Long. W |             | SEC    | HUMIDE | DIR  | V m/s |      |              |
| 6/2/76 | 06.00 |                | 08.57    | 14.02   | 25.1        | 24.1   | 22.5   | 31°  | 7     | 3°   | 34.55        |
| "      | 07.00 |                | 09.03    | 13.56   | 25.3        | 24.1   | 22.5   | 31°  | 7     | 22   | 34.70        |
| "      | 08.00 |                | 09.11    | 13.49   | 26.3        | 24.4   | 22.7   | 320  | 5     | 27   | 34.20        |
| 7/2/76 | 15.00 |                | 09.22'5  | 13.44   | 26.8        | 25.5   | 22.3   | 240  | 6     | 24   | 33.99        |
| "      | 16.00 |                | 09.24'5  | 13.53   | 27.2        | 25.7   | 22.2   | 240  | 5     | 17   | 34.18        |
| "      | 17.00 |                | 09.30    | 14.04   | 26.5        | 25.8   | 22.3   | 250  | 5     | 23   | 34.32        |
| "      | 18.00 |                | 09.36    | 14.14'5 | 25.8        | 25.6   | 22.5   | 240  | 4     | 22   | 34.54        |
| "      | 19.00 |                | 09.41    | 14.24   | 25.4        | 25.2   | 22.7   | 240  | 4     | 24   | 34.50        |
| "      | 20.00 |                | 09.44    | 14.31   | 24.7        | 25.0   | 22.8   | 270  | 5     | 28   | 34.66        |
| "      | 21.00 |                | 09.48    | 14.41   | 24.9        | 24.6   | 22.7   | 290  | 5     | 25   | 34.53        |
| "      | 22.00 |                | 09.53    | 14.50   | 24.2        | 24.6   | 22.7   | 250  | 4     | 37   | 34.64        |
| "      | 23.00 |                | 09.58    | 15.00   | 24.4        | 24.4   | 22.8   | 230  | 5     | 30   | 34.85        |
| 8/2/76 | 00.00 |                | 10.02    | 15.08   | 24.6        | 23.7   | 22.6   | 290  | 5     | 21   | 34.80        |
| "      | 01.00 |                | 10.06    | 15.16   | 24.9        | 23.5   | 21.8   | 290  | 6     | 17   | 34.76        |
| "      | 02.00 |                | 10.12    | 15.26   | 24.5        | 23.0   | 21.2   | 320  | 5     | 20   | 34.88        |
| "      | 03.15 | BT 11          | 10.16    | 15.40   | 23.4        | 22.7   | 20.7   | 310  | 5     | 45   | 34.31        |

TABLEAU II

PRELEVEMENTS DE SURFACE (suite)

| DATE    | HEURE | ST<br>ou<br>BT | POSITION |          | T°<br>SURF. | T° AIR |        | VENT |       | FOND | S <sub>0</sub><br>SURF. |
|---------|-------|----------------|----------|----------|-------------|--------|--------|------|-------|------|-------------------------|
|         |       |                | Lat. N   | Long. W  |             | SEC    | HUMIDE | DIR  | V m/s |      |                         |
| 8/2/76  | 04.00 |                | 10.08    | 15.44    | 23.1        | 22.5   | 20.4   | 310  | 5     | -    | 34.51                   |
| "       | 05.00 |                | 10.00 '5 | 15.46 '5 | 23.0        | 22.3   | 20.3   | 310  | 5     | 30   | 34.59                   |
| "       | 06.00 | ST.5           | 09.49 '5 | 15.48    | 22.6        | 22.0   | 20.0   | 310  | 5     | 41   | 34.74                   |
| 9/2/76  | 00.00 |                | 09.08    | 15.05    | 24.2        | 23.2   | 21.8   | 290  | 5     | 70   | 34.62                   |
| "       | 04.00 |                | 09.16    | 14.31    | 25.1        | 23.6   | 21.6   | 130  | 3     | -    | 34.80                   |
| "       | 05.00 |                | 09.18    | 14.21    | 25.6        | 24.0   | 22.0   | 100  | 4     | 32   | 34.59                   |
| "       | 06.00 |                | 09.20    | 14.08 '5 | 25.9        | 24.3   | 22.0   | 260  | 2     | 43   | 34.23                   |
| "       | 07.00 |                | 09.20    | 13.55    | 26.2        | 24.5   | 22.3   | 080  | 1     | 25   | 34.22                   |
| "       | 08.00 |                | 09.21 '5 | 13.46    | 26.1        | 24.0   | 19.3   | 050  | 1     | 19   | 34.27                   |
| "       | 09.00 |                | 09.25    | 13.44    | 26.3        | 24.6   | 19.9   | 030  | 1     | 18   | 34.03                   |
| "       | 20.00 |                | 09.25    | 14.00    | 26.4        | 25.3   | 22.1   | 240  | 7     | 13   | 34.38                   |
| "       | 21.00 |                | 09.27    | 14.11    | 26.0        | 25.0   | 23.0   | 230  | 6     | 42   | 34.35                   |
| "       | 22.00 |                | 09.29    | 14.24    | 25.7        | 24.5   | 23.2   | 240  | 6     | 24   | 34.57                   |
| "       | 23.00 |                | 09.30    | 14.34    | 25.4        | 24.2   | 23.1   | 260  | 5     | 35   | 34.68                   |
| 10/2/76 | 00.00 |                | 09.29    | 14.45    | 24.9        | 23.9   | 23.1   | 260  | 5     | 36   | 34.76                   |
| "       | 01.00 |                | 09.31    | 14.55    | 24.6        | 23.5   | 22.6   | 260  | 5     | 31   | 34.70                   |

TABLEAU II

PRELEVEMENTS DE SURFACE (suite)

| DATE    | HEURE | ST<br>ou<br>BT | POSITION         |                  | T°<br>SURF.     | T° AIR          |        | VENT |                   | FOND | S <sub>50</sub><br>SURF. |
|---------|-------|----------------|------------------|------------------|-----------------|-----------------|--------|------|-------------------|------|--------------------------|
|         |       |                | Lat. N           | Long. W          |                 | SEC             | HUMIDE | DIR. | V <sup>m</sup> /s |      |                          |
| 10/2/76 | 02.00 |                | 09.32            | 15.05            | 24.4            | 22.7            | 21.6   | 270  | 7                 | 40   | 34.76                    |
| "       | 03.00 |                | 09.34            | 15.15            | 24.1            | 22.4            | 21.3   | 260  | 9                 | 32   | 34.92                    |
| "       | 04.00 |                | 09.36            | 15.25            | 23.9            | 22.0            | 20.4   | 270  | 5                 | 27   | 35.61                    |
| "       | 05.00 |                | 09.35            | 15.35            | 23.5            | 21.7            | 19.7   | 320  | 5                 | 40   | 35.04                    |
| "       | 06.00 |                | 09.38            | 15.45 '5         | 22.9            | 21.3            | 19.8   | 320  | 6                 | 43   | 34.74                    |
| "       | 07.00 |                | 09.38            | 15.57            | <del>22.0</del> | <del>21.0</del> | 19.7   | 280  | 4                 | 53   | 34.78                    |
| "       | 08.00 |                | 09.39            | 16.07            | 20.8            | 20.1            | 19.0   | 280  | 1                 | 92   | 35.05                    |
| "       | 11.25 |                | 09.40            | 16.30            | 21.0            | 20.9            | 19.2   | 270  | 2                 | -    | 35.10                    |
| 12/2/76 | 04.00 |                | 10.54            | 16.40            | 22.6            | 22.4            | 20.0   | 350  | 5                 | 22   | 34.56                    |
| "       | 05.00 |                | 11.00            | 16.47            | 22.2            | 21.9            | 19.8   | 040  | 5                 | 20   | 34.66                    |
| "       | 06.00 |                | 11.09            | 16.57            | 20.4            | 21.7            | 19.0   | 040  | 5                 | 24   | 34.84                    |
| "       | 07.00 |                | 11.15            | 17.06            | 19.3            | 20.9            | 18.2   | 040  | 6                 | 40   | 35.01                    |
| "       | 08.40 |                | 11.25            | 17.17            | 18.9            | 18.4            | 17.3   | 010  | 5                 | 100  | 35.52                    |
| "       | 22.30 |                | 12.22            | 17.43            | 18.8            | 20.1            | 16.9   | N    | 8                 | -    | 35.56                    |
| "       | 23.30 | BT 14          | <del>12.30</del> | <del>17.53</del> | 16.5            | 18.5            | 15.8   | N    | 8                 | 100  | 35.55                    |
| 13/"/76 | 01.00 |                | 12.43            | 17.20            | 16.3            | -               | -      | -    | -                 | -    | -                        |

TABLEAU II

PRELEVEMENTS DE SURFACE .. (suite)

| DATE    | HEURE | ST<br>ou<br>BT | POSITION |          | T°<br>SURF. | T° AIR |        | VENT |       | FOND | S‰<br>SURF. |
|---------|-------|----------------|----------|----------|-------------|--------|--------|------|-------|------|-------------|
|         |       |                | Lat. N   | Long. W  |             | SEC    | HUMIDE | DIR. | V m/s |      |             |
| 13/2/76 | 02.00 | —              | 12.49    | 17.11    | 16.9        | —      | —      | —    | —     | —    | 35.56       |
| "       | 03.00 | —              | 12.59    | 17.10    | 16.7        | —      | —      | —    | —     | —    | —           |
| "       | 04.00 | —              | 13.11 '5 | 17.12    | 16.1        | —      | —      | —    | —     | —    | —           |
| "       | 05.00 | —              | 13.23    | 17.14    | 14.9        | —      | —      | —    | —     | —    | —           |
| "       | 06.00 | —              | 13.33    | 17.15 '5 | 15.0        | —      | —      | —    | —     | —    | —           |
| "       | 07.00 | —              | 13.43 '5 | 17.16 '5 | 14.9        | —      | —      | —    | —     | —    | —           |
| "       | 08.00 | —              | 13.55    | 17.19    | 15.0        | —      | —      | —    | —     | —    | —           |
| "       | 09.00 | —              | 14.06    | 17.20    | 15.5        | —      | —      | —    | —     | —    | —           |
| "       | 10.00 | —              | 14.18    | 17.21    | 14.2        | —      | —      | —    | —     | —    | —           |
| "       | 11.00 | —              | 14.28    | 17.23    | 14.2        | —      | —      | —    | —     | —    | —           |
| "       | 11.30 | —              | 14.34    | 17.23    | 14.1        | —      | —      | —    | —     | —    | —           |

TABLEAU III  
STATION SONDE (METEO ET OBSERVATIONS DE SURFACE)

| DATE    | HEURE | STATION | POSITION |                     | T°<br>SURF. | T° AIR |        | VENT |       | FOND<br>(m) | S <sub>50</sub><br>SURF. |
|---------|-------|---------|----------|---------------------|-------------|--------|--------|------|-------|-------------|--------------------------|
|         |       |         | Lat. N   | Long. W             |             | SEC    | HUMIDE | DIR  | V m/s |             |                          |
| 5/2/76  | 16.30 | 1       | 07.55    | 15.09               | 26.6        | 24.1   | 21.9   | 320  | 4     | 3600        | 35.10                    |
| 5/2/76  | 20.10 | 2       | 08.13    | 14.37               | 25.4        | 23.8   | 21.4   | 320  | 5     | 3050        | 35.41                    |
| 6/2/76  | 00.30 | 3       | 08.32    | 14.27               | 24.3        | —      | —      | —    | —     | 200         | 34099                    |
| 6/2/76  | 05.00 | 4       | 08.51    | 14.10               | 24.6        | 23.9   | 22.4   | 300  | 5     | 40          | 35.11                    |
| 6/2/76  | 06.30 | 5       | 09.48    | 15.48 <sup>15</sup> | 22.3        | 21.4   | 19.7   | 310  | 4     | 41          | 34.90                    |
| "       | 08.05 | 6       | 09.30    | 15.55               | 22.3        | 21.4   | 19.7   | 310  | 5     | 105         | 35.07                    |
| "       | 09.45 | 7       | 09.20    | 15.55               | 22.1        | 21.5   | 20.0   | 320  | 6     | 230         | 35.24                    |
| "       | 16.00 | 8       | 08.51    | 15.58               | 23.6        | 22.7   | 20.3   | 300  | 5     | 3150        | 35.01                    |
| "       | 19.00 | 9       | 08.58    | 15.38               | 23.7        | 22.7   | 21.6   | 270  | 6     | 2800        | 34.80                    |
| "       | 22.40 | 10      | 09.05    | 15.15               | 24.3        | 23.1   | 21.5   | 260  | 4     | 200         | 34.55                    |
| 9/2/76  | 01.00 | 11      | 09.11    | 14.56               | 24.2        | 23.2   | 21.6   | 270  | 5     | 51          | 34.80                    |
| 10/2/76 | 09.30 | 12      | 09.39    | 16.16               | 20.0        | 20.4   | 19.7   | 150  | 1     | 200         | 35.18                    |
| "       | 12.30 | 13      | 09.40    | 16.36               | 20.8        | 20.7   | 19.2   | 280  | 2     | —           | 35.09                    |
| "       | 15.30 | 14      | 09.44    | 17.00               | 21.9        | 22.1   | 19.8   | 210  | 2     | 620         | 35.13                    |
| "       | 18.30 | 15      | 09.48    | 17.23               | 21.4        | 21.7   | 19.6   | 230  | 4     | 700         | 35.24                    |
| "       | 20.45 | 16      | 09.49    | 17.44               | 21.3        | 21.7   | 20.3   | 010  | 1     | 1200        | 35.18                    |

TABLEAU III

STATIONS SONDE (METEO ET OBSERVATIONS DE SURFACE)

| DATE    | HEURE | STATION | POSITION |         | T°<br>SURF. | T° AIR |        | VENT |                    | FOND<br>(m) | S‰<br>SURF.        |
|---------|-------|---------|----------|---------|-------------|--------|--------|------|--------------------|-------------|--------------------|
|         |       |         | Lat. N   | Long. W |             | SEC.   | HUMIDE | DIR. | V <sup>ft</sup> /s |             |                    |
| 11/2/76 | 01.35 | 17      | 09.51    | 18.06   | 21.6        | 21.4   | 20.2   | 010  | 3                  | 3200        | 35.20 <sup>5</sup> |
| 11/2/76 | 09.00 | 18      | 10.10    | 17.43   | 20.7        | 21.1   | 20.4   | 030  | 1                  | 1100        | 35.55 <sup>5</sup> |
| "       | 18.00 | 19      | 10.26    | 17.21   | 21.1        | 21.4   | 19.5   | 100  | 5                  | 430         | 35.31 <sup>5</sup> |
| "       | 22.20 | 20      | 10.40    | 17.03   | 19.0        | 19.6   | 18.7   | N    | 4                  | 195         | (35.44)            |
| 12/2/76 | 01.30 | 21      | 10.46    | 16.50   | 20.5        | 20.7   | 19.5   | 320  | 5                  | 75          | 35.00              |
| "       | 07.40 | 22      | 11.20    | 17.11   | 19.3        | 21.0   | 18.4   | 040  | 5                  | 46          | 35.13              |
| "       | 10.00 | 23      | 11.29    | 17.23   | 16.6        | 18.2   | 17.0   | 020  | 5                  | 400         | 35.45              |
| "       | 13.00 | 24      | 11.44    | 17.42   | 17.5        | 19.0   | 16.2   | 010  | 4                  | 2150        | 35.57              |
| "       | 17.50 | 25      | 12.01    | 18.04   | 19.6        | 20.4   | 17.3   | N    | 5                  | 3600        | 35.40              |
| "       | 20.30 | 26      | 12.16    | 17.50   | 18.6        | 19.6   | 17.3   | 340  | 7                  | -           | 35.49              |

TABLEAU IV

BATHYTHERMOGRAPHIE N° 2232

| DATE    | HEURE | BT<br>N° | POSITION |         | T°<br>SURF. | FOND<br>(m) | S°<br>SURF. |
|---------|-------|----------|----------|---------|-------------|-------------|-------------|
|         |       |          | Lat. N   | Long. W |             |             |             |
| 3/2/76  | 13.00 | 1        | 04.15    | 07.56   | 25.2        | 76          | 34.96       |
| "       | 19.00 | 2        | 04.26    | 08.43   | 26.8        | 250         | 35.01       |
| 4/2/76  | 01.00 | 3        | 04.47    | 09.34   | 27.6        | 250         | 34.57       |
| "       | 07.00 | 4        | 05.12    | 11.33   | 27.4        | 250         | 34.56       |
| "       | 13.00 | 5        | 05.42    | 11.13   | 27.7        | 250         | 34.54       |
| "       | 18.30 | 6        | 06.08    | 11.57   | 27.3        | 250         | 34.55       |
| 5/2/76  | 01.00 | 7        | 06.43    | 12.50   | 26.3        | 250         | 34.68       |
| "       | 07.15 | 8        | 07.18    | 13.46   | 26.0        | 250         | 35.21       |
| "       | 12.15 | 9        | 07.40 '5 | 14.29   | 26.5        | 250         | 35.19       |
| "       | 17.30 | 10       | 08.00    | 15.00   | 26.5        | 250         | 35.13       |
| 6/2/76  | 03.15 | 11       | 10.16    | 15.40   | 23.4        | 45          | 34.31       |
| 12/2/76 | 13.25 | 12       | 11.47    | 17.12   | 17.5        | 2150        | 35.57       |
| "       | 17.50 | 13       | 12.01    | 18.04   | 19.6        | 3600        | 35.54       |
| "       | 23.30 | 14       | 12.30    | 17.33   | 16.5        | 100         | 35.55       |

TABLEAU V

## RESULTATS DES STATIONS COURANTOMETRIE

(d'après courantomètre ANDERAA)

| STATION N°8 |        |                    |     |       |       |                    |     |       |       |                    |     |
|-------------|--------|--------------------|-----|-------|-------|--------------------|-----|-------|-------|--------------------|-----|
| Prof.       | T° C   | Composante<br>cm/s |     | Prof. | T° C  | Composante<br>cm/s |     | Prof. | T° C  | Composante<br>cm/s |     |
|             |        | E-W                | N-S |       |       | E-W                | N-S |       |       | E-W                | N-S |
| 0           | 24.49  | 32                 | -37 | 139   | 13.73 | 8                  | 1   | 325   | 11.10 | 0                  | 0   |
| 1           | 24.62  | 43                 | -10 | 146   | 13.58 | 10                 | 1   | 331   | 11.07 | 0                  | 0   |
| 2           | 24.96  | 37                 | -10 | 152   | 13.45 | 12                 | -3  | 336   | 11.07 | 1                  | 0   |
| 7           | 25.08  | 21                 | -10 | 159   | 13.33 | 13                 | -4  | 342   | 11.00 | 1                  | 0   |
| 11          | 25.21  | 16                 | -16 | 167   | 13.23 | 13                 | -4  | 345   | 10.94 | 1                  | 0   |
| 13          | 25.21  | 12                 | -15 | 174   | 13.14 | 3                  | -4  | 350   | 10.75 | 0                  | 0   |
| 15          | 24.31  | 12                 | -9  | 181   | 13.08 | 3                  | -4  | 354   | 10.62 | 0                  | 0   |
| 18          | 23.24  | 11                 | -9  | 187   | 12.99 | 2                  | -4  | 358   | 10.50 | 1                  | 0   |
| 20          | 23.12  | 11                 | -6  | 194   | 12.86 | 2                  | -4  | 361   | 10.31 | 1                  | 0   |
| 24          | 22.03  | 13                 | -4  | 201   | 12.80 | 3                  | -4  | 364   | 10.21 | 1                  | 0   |
| 28          | 20.94  | 13                 | -4  | 208   | 12.70 | 3                  | -4  | 367   | 10.10 | 1                  | 0   |
| 32          | 21.75  | 7                  | -3  | 214   | 12.58 | 3                  | -4  | 371   | 10.15 | 1                  | 0   |
| 35          | 21.29  | 5                  | -4  | 221   | 12.52 | 3                  | -4  | 374   | 9.95  | 1                  | 0   |
| 36          | 19.83  | 2                  | -4  | 226   | 12.39 | 3                  | -4  | 376   | 9.53  | 1                  | 0   |
| 39          | 18.89  | 0                  | -5  | 233   | 12.33 | 15                 | -4  | 379   | 9.80  | 1                  | 0   |
| 42          | 18.56  | -2                 | -0  | 239   | 12.17 | 15                 | -4  | 382   | 9.76  | 1                  | 0   |
| 44          | 17.30  | -1                 | -0  | 245   | 12.08 | 15                 | -4  | 385   | 9.60  | 0                  | 0   |
| 49          | 16.97  | 0                  | 0   | 249   | 12.01 | 15                 | -4  | 387   | 9.60  | 0                  | 0   |
| 54          | 16.54  | 0                  | 6   | 255   | 11.89 | 14                 | -4  | 388   | 9.60  | 0                  | 0   |
| 63          | 16.42  | 1                  | 5   | 261   | 11.79 | 3                  | -4  |       |       |                    |     |
| 68          | 15.37  | 2                  | 0   | 268   | 11.73 | 3                  | -4  |       |       |                    |     |
| 75          | 15.037 | 3                  | -4  | 274   | 11.70 | 3                  | -4  |       |       |                    |     |
| 81          | 15.30  | 1                  | -4  | 279   | 11.57 | 3                  | -4  |       |       |                    |     |
| 88          | 14.88  | 1                  | -4  | 283   | 11.57 | 3                  | -4  |       |       |                    |     |
| 93          | 14.75  | 1                  | -4  | 288   | 11.45 | 3                  | -4  |       |       |                    |     |
| 97          | 14.63  | 1                  | -4  | 294   | 11.32 | 3                  | -4  |       |       |                    |     |
| 102         | 14.54  | 1                  | -4  | 299   | 11.29 | 2                  | 0   |       |       |                    |     |
| 109         | 14.41  | 1                  | -4  | 305   | 11.26 | 2                  | 0   |       |       |                    |     |
| 115         | 14.28  | 1                  | -4  | 311   | 11.23 | 2                  | 0   |       |       |                    |     |
| 123         | 14.71  | 2                  | -4  | 316   | 11.16 | 0                  | 0   |       |       |                    |     |
| 130         | 13.89  | 3                  | -4  | 327   | 11.15 | 0                  | 0   |       |       |                    |     |

Sui-ix? TABLEAU V

| STATION N° 17 |       |                    |     |       |       |                    |     |
|---------------|-------|--------------------|-----|-------|-------|--------------------|-----|
| Prof.         | T° C  | Composante<br>cm/s |     | Prof. | T° C  | Composante<br>cm/s |     |
|               |       | E-W                | N-S |       |       | E-W                | N-S |
| 12            | 22.36 | -5                 | -30 | 97    | 13.92 | 0                  | 9   |
|               | 22.27 | -3                 | -30 | 101   | 13.89 | 0                  | 9   |
|               | 22.27 | 0                  | -18 | 105   | 13.83 | 0                  | 9   |
|               | 22.33 | -6                 | -11 | 108   | 13.79 | 0                  | 9   |
|               | 22.33 | -6                 | -11 | 113   | 13.67 | 0                  | 9   |
|               | 22.33 | -6                 | -11 | 116   | 13.52 | -3                 | 9   |
|               | 22.33 | -6                 | -11 | 121   | 13.48 | -3                 | 9   |
|               | 22.32 | -6                 | -11 | 125   | 13.39 | -4                 | 10  |
|               | 22.31 | -7                 | -6  | 128   | 13.30 | -4                 | 10  |
|               | 22.33 | -9                 | -7  | 133   | 13.27 | -5                 | 10  |
| 20            | 22.39 | -9                 | -7  | 136   | 13.17 | -5                 | 10  |
| 23            | 22.27 | -4                 | -1  | 141   | 13.08 | -5                 | 10  |
| 26            | 21.81 | -12                | -1  | 144   | 13.02 | -5                 | 10  |
| 29            | 21.79 | -15                | 2   | 148   | 12.95 | -6                 | 10  |
| 32            | 21.78 | -16                | 2   | 151   | 12.89 | -6                 | 10  |
| 35            | 21.68 | -17                | 1   | 153   | 12.86 | -5                 | 10  |
| 35            | 21.29 | -16                | -3  | 158   | 12.63 | -5                 | 10  |
| 37            | 21.29 | -19                | 0   | 162   | 12.80 | -3                 | Y   |
| 40            | a.53  | -20                | 0   | 167   | 12.58 | -2                 | 15  |
| 41            | 20.38 | -21                | 6   | 172   | 12.48 | -2                 | 15  |
| 43            | 19.23 | -18                | 7   | 177   | 12.48 | -0                 | 15  |
| 46            | 18.10 | -20                | 13  | 181   | 12.45 | 0                  | 15  |
| 49            | 17.82 | -19                | 13  | 184   | 12.39 | 1                  | 15  |
| 53            | 37.55 | -16                | 14  | 187   | 12.33 | 1                  | 15  |
| 59            | 16.91 | -4                 | 10  | 191   | 12.30 | 1                  | 15  |
| 65            | 16.66 | -3                 | 10  | 196   | 12.20 | 0                  | 15  |
| 70            | 15.53 | 1                  | 15  | 200   | 11.95 | -5                 | 10  |
| 75            | 14.62 | 1                  | 15  | 212   | 11.86 | -5                 | 10  |
| 79            | 14.48 | 1                  | 15  | 215   | 11.83 | -5                 | 10  |
| 85            | 14.23 | 2                  | 14  | 220   | 11.79 | -6                 | 10  |
| 89            | 14.04 | 2                  | 14  | 223   | 11.79 | -6                 | 10  |
| 94            | 13.95 | 2                  | 45  | 226   | 11.76 | -5                 | 10  |

Suite TABLEAU V

| STATION N°18 |       |                     |     |       |       |                    |     |
|--------------|-------|---------------------|-----|-------|-------|--------------------|-----|
| Prof.        | T° C  | Composantes<br>cm/s |     | Prof. | T° C  | Composante<br>cm/s |     |
|              |       | E-W                 | N-S |       |       | E-W                | N-S |
| 0            | 21.54 | 17                  | 0   | 68    | 15.16 | 13                 | -5  |
| 2            | 21.48 | 15                  | 10  | 70    | 15.03 | 13                 | -5  |
| 4            | 21.48 | 7                   | 15  | 76    | 14.85 | 9                  | -1  |
| 5            | 21.48 | 8                   | 26  | 78    | 14.79 | 9                  | -2  |
| 6            | 21.36 | 8                   | 32  | 81    | 14.66 | 6                  | -2  |
| 7            | 21.29 | 8                   | 32  | 84    | 14.41 | 4                  | -2  |
| 9            | 21.24 | 8                   | 32  | 86    | 14.29 | 4                  | -2  |
| 11           | 21.20 | 7                   | 26  | 90    | 14.07 | 3                  | -7  |
| 12           | 21.14 | 7                   | 26  | 91    | 14.01 | 4                  | -7  |
| 15           | 20.87 | 6                   | 27  | 93    | 13.95 | 5                  | -7  |
| 16           | 20.53 | 6                   | 27  | 94    | 13.95 | 5                  | -7  |
| 17           | 19.71 | 5                   | 22  | 95    | 13.92 | 5                  | -7  |
| 18           | 19.35 | 5                   | 15  | 97    | 13.92 | 5                  | -7  |
| 20           | 19.04 | 6                   | 10  | 99    | 13.69 | 5                  | -7  |
| 22           | 18.89 | 6                   | 10  | 100   | 13.53 | 6                  | -2  |
| 25           | 18.59 | 7                   | 15  | 101   | 13.76 | 6                  | -2  |
| 25           | 18.49 | 7                   | 15  | 102   | 13.76 | 7                  | -2  |
| 29           | 17.98 | 8                   | 15  | 104   | 13.73 | 9                  | -2  |
| 30           | 17.70 | 9                   | 15  | 106   | 13.70 | 6                  | 3   |
| 32           | 17.33 | 12                  | 14  | 108   | 13.70 | 6                  | 3   |
| 34           | 16.94 | 14                  | 12  | 109   | 13.64 | 6                  | 4   |
| 35           | 15.91 | 19                  | 14  | 111   | 13.61 | 5                  | 4   |
| 37           | 16.45 | 23                  | 18  | 113   | 13.61 | 6                  | 4   |
| 38           | 16.14 | 23                  | 18  | 115   | 13.61 | 6                  | 3   |
| 40           | 16.08 | 24                  | 17  | 119   | 13.61 | 6                  | 3   |
| 41           | 16.05 | 25                  | 16  | 121   | 13.58 | 6                  | 3   |
| 45           | 15.89 | 22                  | 9   | 124   | 13.55 | 6                  | 3   |
| 46           | 15.83 | 23                  | 5   | 126   | 13.55 | 5                  | 3   |
| 49           | 15.74 | 23                  | 3   | 128   | 13.55 | 5                  | 3   |
| 51           | 15.66 | 17                  | 3   | 131   | 13.48 | 4                  | 3   |
| 53           | 15.65 | 17                  | 3   | 133   | 13.45 | 4                  | 3   |
| 56           | 15.59 | 17                  | 1   | 135   | 13.42 | 4                  | 3   |
| 59           | 15.53 | 16                  | 0   | 138   | 13.42 | 4                  | 4   |
| 61           | 15.46 | 15                  | -2  | 140   | 13.42 | 4                  | 4   |
| 63           | 15.40 | 15                  | -3  | 142   | 13.39 | 4                  | 4   |
| 66           | 15.28 | 14                  | -3  | 144   | 13.36 | 4                  | 4   |

| Suite STATION N°18 |       |            |     |       |       |            |     |
|--------------------|-------|------------|-----|-------|-------|------------|-----|
| Prof.              | T° C  | Composante |     | Prof. | T° C  | Composante |     |
|                    |       | cm/s       |     |       |       | cm/s       |     |
|                    |       | E-W        | N-S |       |       | E-W        | N-S |
| 145                | 13.33 | 4          | 4   | 209   | 12.42 | -8         | -7  |
| 147                | 13.27 | 4          | 4   | 210   | 12.42 | -3         | -3  |
| 149                | 13.23 | 0          | 6   | 212   | 12.42 | -4         | -1  |
| 150                | 13.23 | 0          | 6   | 214   | 12.36 | -5         | 0   |
| 151                | 13.20 | 0          | 6   | 216   | 12.36 | -6         | 2   |
| 152                | 13.20 | -1         | 4   | 218   | 12.33 | -6         | 3   |
| 154                | 13.20 | -1         | 4   | 220   | 12.33 | -6         | 3   |
| 156                | 13.17 | -1         | 4   | 221   | 12.30 | -6         | 3   |
| 158                | 13.11 | -1         | 4   | 223   | 12.30 | -6         | 5   |
| 159                | 13.11 | -1         | 4   | 225   | 12.30 | -6         | 5   |
| 161                | 13.00 | -1         | 4   | 227   | 12.27 | -6         | 5   |
| 162                | 13.05 | -1         | 5   | 229   | 12.23 | -6         | 6   |
| 165                | 13.02 | -1         | 5   | 232   | 12.23 | -5         | 6   |
| 167                | 13.02 | -6         | 6   | 234   | 12.23 | -5         | 7   |
| 169                | 13.02 | -6         | 6   | 236   | 12.20 | -5         | 7   |
| 171                | 12.95 | -1         | 5   | 237   | 12.08 | -5         | 7   |
| 173                | 12.92 | -1         | 4   | 240   | 12.01 | 0          | 6   |
| 175                | 12.86 | -1         | 4   | 242   | 11.96 | 0          | 6   |
| 177                | 12.83 | -1         | 4   | 243   | 11.95 | 0          | 6   |
| 179                | 12.83 | -1         | 3   | 245   | 11.92 | 0          | 6   |
| 181                | 12.77 | 0          | 1   | 247   | 11.89 | 0          | 6   |
| 183                | 12.74 | 0          | 1   | 249   | 11.86 | -5         | 8   |
| 184                | 12.74 | 0          | 0   | 251   | 11.86 | -4         | 9   |
| 186                | 12.74 | 0          | 0   | 253   | 11.83 | -4         | 10  |
| 187                | 12.70 | 0          | 0   | 255   | 11.79 | -4         | 10  |
| 190                | 12.70 | 0          | 0   | 257   | 11.76 | -5         | Y   |
| 192                | 12.70 | -3         | -4  | 260   | 11.76 | -5         | 8   |
| 193                | 12.67 | -3         | -4  | 263   | 11.70 | -5         | 7   |
| 197                | 12.61 | -2         |     | 265   | 11.67 | -5         | 7   |
| 198                | 12.58 |            |     | 267   | 11.67 | -5         | 7   |
| 201                | 12.52 |            |     | 269   | 11.67 | -5         | 7   |
| 202                | 12.52 |            |     | 271   | 11.67 | -4         | 5   |
| 204                | 12.46 |            | -9  | 274   | 11.64 | -1         | 4   |
| 205                | 12.45 |            | -9  | 275   | 11.64 | -1         | 4   |
| 207                | 12.45 |            | -8  | 277   | 11.64 | -1         | 3   |

Suite TABLEAU V

| STATION N° 19 |         |            |     |       |         |           |     |
|---------------|---------|------------|-----|-------|---------|-----------|-----|
| Prof.         | T° C    | Composante |     | Prof. | T° C    | ompo: nte |     |
|               |         | cm/s       |     |       |         | cm/s      |     |
|               |         | W          | N-S |       |         | W         | N-S |
| 0             | 22.27   | -3         | 3   | 62    | 15.25   | 0         | -2  |
| 1             | 22.27   | -3         | 3   | 63    | 15.25   | 0         | -4  |
| 2             | 21.57   | 0          | 0   | 65    | 15.19   | 0         | -4  |
| 5             | 21.46   | 7          | 3   | 67    | 15.16   | 0         | -4  |
| 7             | 21.36   | 8          | 14  | 68    | 15.13   | -5        | -6  |
| 9             | 20.81   | 9          | 19  | 71    | 15.21   | -4        | -7  |
| 10            | 20.72   | 9          | 19  | 74    | 14.69   | -10       | -10 |
| 11            | 20.66   | 9          | 19  | 76    | 14.66   | -10       | -9  |
| 13            | 20.62   | 8          | 19  | 78    | 14.63   | -11       | -7  |
| 15            | 20.55   | 9          | 25  | 83    | 14.60   | -11       | -5  |
| 16            | 20.46   | 7          | 25  | 85    | 14.57   | -16       | -2  |
| 17            | 19.35   | 7          | 31  | 89    | 14.57   | -16       | -2  |
| 18            | 18.89   | 11         | 31  | 92    | 14.57   | -16       | -1  |
| 19            | 18.77   | 10         | 25  | 97    | 14.51   | -16       | 1   |
| 21            | 18.57   | 17         | 23  | 100   | 14.48   | -16       | 1   |
| 23            | 16.34   | 19         | 22  | 102   | 14.41   | -22       | 3   |
| 26            | 15.11   | 22         | 21  | 106   | 14.38   | -22       | 3   |
| 27            | 17.53   | 20         | 15  | 109   | 14.35   | -21       | 3   |
| 29            | 17.55   | 20         | 15  | 112   | 14.29   | -20       | 7   |
| 32            | 17.30   | 20         | 14  | 115   | 14.29   | -20       | 7   |
| 34            | 17.25   | 20         | 14  | 118   | 14.29   | -20       | 8   |
| 35            | 17.21   | 20         | 14  | 121   | (14.38) | -14       | 7   |
| 37            | 17.06   | 20         | 14  | 125   | (14.46) | -14       | 7   |
| 40            | 16.92   | 20         | 15  | 127   | h - 73  | -13       | 8   |
| 42            | 16.93   | 14         | 13  | 128   | 14.14   | -8        | 6   |
| 44            | (17.18) | 13         | 13  | 130   | 14.11   | -8        | 7   |
| 46            | (17.70) | 12         | 13  | 133   | 14.04   | -7        | 8   |
| 49            | (17.06) | 8          | 8   | 134   | 14.01   | -7        | 8   |
| 51            | 16.42   | 6          | 3   | 136   | 13.95   | -7        | 8   |
| 52            | 15.59   | 6          | -2  | 139   | 13.89   | -7        | 8   |
| 54            | 15.51   | 5          | -2  | 140   | 13.83   | -7        | 7   |
| 56            | 15.44   | 0          | 0   | 142   | 13.76   | -7        | 7   |
| 58            | (15.45) | 0          | -2  | 144   | 13.73   | -8        | 7   |
| 60            | (15.56) | 0          | -2  | 145   | 13.67   | -8        | 7   |

Suite TABLEAU V

| Suite STATION N° 19 |       |                    |     |       |       |                    |     |
|---------------------|-------|--------------------|-----|-------|-------|--------------------|-----|
| Prof.               | T° C  | Composante<br>cm/s |     | Prof. | T° C  | Composante<br>cm/s |     |
|                     |       | E-W                | N-S |       |       | E-W<br>c c         | N-S |
| 147                 | 13.61 | -12                | 10  | 213   | 12.17 | -3                 | 4   |
| 149                 | 13.55 | -12                | 10  | 215   | 12.14 | -2                 | 4   |
| 151                 | 13.45 | -12                | 10  | 217   | 12.14 | -2                 | 4   |
| 152                 | 13.45 | -12                | 10  | 220   | 12.11 | -2                 | 4   |
| 154                 | 13.45 | -13                | 9   | 221   | 12.05 | -2                 | 4   |
| 156                 | 13.42 | -13                | 3   | 223   | 12.05 | -2                 | 4   |
| 159                 | 13.36 | -13                | 7   | 225   | 12.01 | -2                 | 5   |
| 161                 | 13.33 | -9                 | 4   | 227   | 12.01 | -1                 | 5   |
| 164                 | 13.30 | -9                 | 4   | 229   | 11.98 | -1                 | 5   |
| 165                 | 13.20 | -9                 | 4   | 232   | 11.92 | -2                 | 5   |
| 167                 | 13.14 | -9                 | 4   | 234   | 11.92 | -2                 | 5   |
| 170                 | 13.08 | -4                 | 2   | 236   | 11.89 | -6                 | 9   |
| 173                 | 13.08 | -4                 | 2   | 238   | 11.86 | -7                 | 8   |
| 174                 | 13.03 | -4                 | 3   | 241   | 11.36 | -7                 | 3   |
| 177                 | 13.05 | -3                 | 3   | 243   | 11.83 | -11                | 11  |
| 171                 | 13.02 | -8                 | 6   | 245   | 11.83 | -11                | 11  |
| 162                 | 12.92 | -7                 | 7   | 245   | 11.79 | -11                | 11  |
| 183                 | 12.89 | -7                 | 8   | 248   | 11.79 | -11                | 11  |
| 184                 | 12.80 | -6                 | 9   | 250   | 11.79 | -11                | 11  |
| 187                 | 12.67 | -6                 | 9   | 252   | 11.79 | -11                | 11  |
| 188                 | 12.64 | -2                 | 5   | 254   | 11.76 | -11                | 11  |
| 191                 | 12.61 | -2                 | 4   | 257   | 11.70 | -11                | 11  |
| 192                 | 12.58 | -3                 | 4   | 258   | 11.64 | -11                | 10  |
| 194                 | 12.58 | -3                 | 3   | 260   | 11.61 | -12                | 10  |
| 197                 | 12.55 | -4                 | 2   | 264   | 11.57 | -12                | 10  |
| 198                 | 12.52 | -4                 | 2   | 266   | 11.51 | -13                | 9   |
| 200                 | 12.42 | -4                 | 1   | 268   | 11.38 | -9                 | 6   |
| 202                 | 12.39 | -4                 | 1   | 269   | 11.29 | -8                 | 7   |
| 204                 | 12.33 | -4                 | 1   | 271   | 11.26 | -7                 | 7   |
| 206                 | 12.30 | -4                 | 2   | 273   | 11.23 | -7                 | 7   |
| 208                 | 12.30 | -4                 | 2   | 275   | 11.19 | -7                 | 7   |
| 210                 | 12.27 | -4                 | 3   | 276   | 11.16 | -7                 | 7   |
| 211                 | 12.23 | -3                 | 4   | 278   | 11.10 | -7                 | 8   |

Suite et f.n TABLEAU V

| STATION N° 20 |        |                    |     |       |        |                    |     |
|---------------|--------|--------------------|-----|-------|--------|--------------------|-----|
| Prof.         | TOC    | Composante<br>cm/s |     | Prof. | T° C   | Composante<br>cm/s |     |
|               |        | E-W                | N-S |       |        | E-W                | N-S |
|               | C I -  |                    |     |       |        |                    |     |
| 0             | 19.59  | -5                 | -37 | 102   | 14.66  | 1                  | 18  |
| 2             | 19.54  | -5                 | -29 | 106   | 14.48  | 1                  | 17  |
| 4             | 19.50  | 10                 | -12 | 111   | 14.41  | 1                  | 17  |
| 6             | 18.92  | 10                 | -9  | 114   | 14.26  | 2                  | 12  |
| 7             | 18.77  | 11                 | -4  | 119   | 14.20  | 1                  | 11  |
|               | 18.43  | 11                 | -4  | 124   | 14.14  | 0                  | 11  |
|               | ICI.19 | 12                 | 1   | 127   | 14.07  | -1                 | 11  |
| 15            | 18.19  | 13                 | 1   | 130   | 14.04  | -1                 | 11  |
| 17            | 18.19  | 15                 | 1   | 134   | 14.04  | -3                 | 10  |
| 19            | 18.13  | 15                 | 1   | 139   | 14.01  | -4                 | 10  |
| 2 3           | 17.82  | 14                 | -4  | 142   | 13.98  | -4                 | 10  |
| 26            | 17.70  | 14                 | -4  | 144   | 13.98  | -5                 | 9   |
| 29            | 17.52  | 13                 | -4  | 147   | 13.98  | -5                 | 9   |
| 32            | 17.46  | 12                 | -9  | 149   | 13.9s  | -5                 | 9   |
| 39            | 17.35  | 11                 | -9  | 151   | 13.9s  | -5                 | 9   |
| 40            | 17.24  | 11                 | -9  | 153   | 13.9s  | -5                 | 9   |
| 45            | 16.97  | 7                  | 15  | 155   | 13.95  | -2                 | 10  |
| 49            | 16.66  | 6                  | 15  | 157   | 13.92  | -2                 | 10  |
| 55            | 16.42  | 1                  | 11  | 160   | 13.73  | -2                 | 10  |
| 56            | 16.42  | 1                  | -5  | 162   | 13.73  | -1                 | 11  |
| 59            | 16.42  | 2                  | -5  | 164   | 13.071 | 0                  | 6   |
| 63            | 16.42  | 5                  | -4  | 167   | 13.71  | 0                  | 6   |
| 66            | 16.42  | 8                  | 1   | 169   | 13.71  | 0                  | 6   |
| 69            | 16.42  | 9                  | 1   | 170   | 13.66  | 1                  | 6   |
| 73            | 15.13  | 9                  | 7   | 173   | 13.61  | 1                  |     |
| 76            | 15.06  | 9                  | 7   | 175   | 13.61  | 2                  | 6   |
| 80            | 14.94  | 8                  | 7   | 177   | 13.53  | 2                  | 6   |
| 85            | 14.85  | 3                  | 7   | 179   | 13.58  | 3                  | 1   |
| 90            | 14.82  | 2                  | 12  | 180   | 13.55  | 8                  | -4  |
| 95            | 14.79  | 2                  |     |       |        |                    |     |
| 97            | 14.69  | 2                  |     |       |        |                    |     |

TABLEAU VI

## RESULTATS DES ANALYSES CHLOROPHYLLE

| Prof.   | STATION N° 1 |         |       |
|---------|--------------|---------|-------|
|         | chl'a 1      | chl'a 2 | PHEO  |
| Surface | 0.105        | 0.162   | 0.113 |
| 20      | 0.140        | 0.162   | 0.036 |
| 30      | 0.260        | 0.324   | 0.255 |
| 40      | 0.730        | 0.623   | 0.548 |
| 60      | 0.437        | 0.324   | 0.186 |
| 75      | 0.243        | 0.314   | 0.097 |

| STATION N° 4 |         |         |       |
|--------------|---------|---------|-------|
| Prof.        | chl'a 1 | chl'a 2 | PHEO  |
| Surface      | 0.244   | 0.243   | 0.012 |
| 8            | 0.227   | 0.283   | 0.000 |
| 15           | 0.384   | 0.364   | 0.061 |
| 25           | 0.472   | 0.323   | 0.271 |
| 35           | 0.367   | 0.243   | 0.239 |
| -            | -       | -       | -     |

| STATION N° 2 |       |       |       |
|--------------|-------|-------|-------|
| Surface      | 0.122 | 0.121 | 0.142 |
| 15           | 0.122 | 0.081 | 0.089 |
| 25           | 0.279 | 0.243 | 0.040 |
| 40           | 0.437 | 0.404 | 0.077 |
| 60           | 0.244 | 0.202 | 0.109 |
| 75           | 0.105 | 0.121 | 0.000 |

| STATION N° 5 |       |       |       |
|--------------|-------|-------|-------|
| Surface      | 0.419 | 0.364 | 0.000 |
| 10           | 0.472 | 0.485 | 0.024 |
| 20           | 0.489 | 0.364 | 0.231 |
| 30           | 2.114 | 1.942 | 0.182 |
| 37           | 0.332 | 0.202 | 0.251 |
|              | -     | -     | -     |

| STATION N° 3 |       |       |       |
|--------------|-------|-------|-------|
| Surface      | 0.314 | 0.202 | 0.222 |
| 15           | 0.367 | 0.323 | 0.101 |
| 25           | 0.646 | 0.404 | 0.473 |
| 35           | 0.384 | 0.283 | 0.198 |
| 45           | 0.262 | 0.202 | 0.109 |
| 65           | 0.140 | 0.162 | 0.000 |

| STATION N° 6 |       |       |       |
|--------------|-------|-------|-------|
| Surface      | 0.681 | 0.566 | 0.198 |
| 10           | 1.310 | 1.133 | 0.255 |
| 20           | 1.572 | 1.213 | 0.514 |
| 30           | 0.629 | 0.445 | 0.320 |
| 43           | 0.262 | 0.162 | 0.109 |
| 60           | 0.192 | 0.162 | 0.036 |

Suite TABLEAU VI

| STATION N° 7 |          |          |       |
|--------------|----------|----------|-------|
| Prof.        | chl 'a 1 | chl 'a 2 | PHED  |
| Surface      | 2.428    | 2.144    | 0.279 |
| 12           | 2.673    | 2.467    | 0.194 |
| 25           | 1.586    | 1.334    | 0.301 |
| 35           | 0.559    | 0.404    | 0.275 |
| 50           | 0.244    | 0.121    | 0.218 |
| 70           | 0.192    | 0.162    | 0.065 |

| STATION N° 10 |          |          |       |
|---------------|----------|----------|-------|
| Prof,         | Chl 'a 1 | chl 'a 2 | PHED  |
| Surface       | 0.193    | 0.000    | 0.311 |
| 15            | 1.153    | 1.068    | 0.146 |
| 25            | 2.287    | 1.958    | 0.440 |
| 35            | 0.345    | 0.267    | 0.169 |
| 50            | 0.193    | 0.133    | 0.147 |
| 70            | 0.134    | 0.089    | 0.067 |

| STATION N° 8 |       |       |       |
|--------------|-------|-------|-------|
| Surface      | 0.244 | 0.202 | 0.109 |
| 15           | 0.262 | 0.243 | 0.040 |
| 25           | 0.769 | 0.688 | 1.278 |
| 35           | 1.432 | 1.173 | 0.384 |
| 50           | 0.524 | 0.404 | 0.218 |
| 70           | 0.192 | 0.161 | 0.065 |

| STATION N° 11 |       |       |       |
|---------------|-------|-------|-------|
| Surface       | 0.192 | 0.162 | 0.036 |
| 5             | 0.244 | 0.323 | 0.154 |
| 15            | 0.411 | 5.380 | 1.331 |
| 25            | 0.856 | 0.445 | 0.559 |
| 35            | 0.468 | 0.243 | 0.000 |
| 45            | 0.279 | 0.243 | 0.040 |

| STATION N° 9 |       |       |       |
|--------------|-------|-------|-------|
| Surface      | 0.402 | 0.404 | 0.048 |
| 15           | 0.751 | 0.647 | 0.230 |
| 25           | 0.524 | 0.526 | 0.069 |
| 35           | 0.402 | 0.283 | 0.137 |
| 50           | 0.262 | 0.163 | 0.235 |
| 80           | 0.144 | 0.167 | 0.099 |

| STATION N° 12 |       |       |       |
|---------------|-------|-------|-------|
| Surface       | 5.223 | 4.409 | 1.084 |
| 10            | 5.503 | 4.773 | 0.946 |
| 20            | 5.520 | 4.854 | 0.781 |
| 35            | 3.861 | 3.398 | 0.595 |
| 45            | 1.485 | 1.213 | 0.400 |
| 60            | 0.175 | 0.081 | 0.174 |

Suite TABLEAU VI

| STATION N° 13. |         |         |       |
|----------------|---------|---------|-------|
| Prof.          | chl'a 1 | chl'a 2 | PHEO  |
| Surface        | 1.275   | 1.052   | 0.307 |
| 5              | 1.188   | 1.011   | 0.235 |
| 15             | 1.677   | 1.335   | 0.477 |
| 35             | 1.660   | 1.254   | 0.615 |
| 60             | 0.681   | 0.323   | 0.582 |
| 60             | 0.227   | 0.081   | 0.231 |

| STATION N° 16 |         |         |       |
|---------------|---------|---------|-------|
| Prof.         | chl'a 1 | chl'a 2 | PHEO  |
| Surface       | 0.334   | 0.283   | 0.170 |
| 10            | 0.926   | 0.769   | 0.222 |
| 20            | 1.031   | 0.769   | 0.226 |
| 30            | 2.952   | 1.699   | 1.982 |
| 40            | 2.306   | 1.578   | 1.112 |
| 60            | 0.332   | 0.121   | 0.332 |

| STATION N° 14. |       |       |       |
|----------------|-------|-------|-------|
| Surface        | 0.542 | 0.445 | 0.150 |
| 10             | 0.629 | 0.404 | 0.388 |
| 20             | 0.943 | 0.688 | 0.388 |
| 30             | 0.716 | 0.485 | 0.364 |
| 45             | 0.211 | 0.133 | 0.275 |
| 60             | 0.192 | 0.081 | 0.174 |

| STATION N° 17 |       |       |       |
|---------------|-------|-------|-------|
| Surface       | 0.245 | 0.300 | 0.000 |
| 25            | 0.490 | 0.367 | 0.194 |
| 35            | 0.908 | 0.700 | 0.304 |
| 50            | 0.403 | 0.233 | 0.304 |
| 60            | 0.418 | 0.400 | 0.247 |
| 60            | 0.245 | 0.134 | 0.170 |

| STATION N° 15 |       |       |       |
|---------------|-------|-------|-------|
| Surface       | 2.229 | 1.942 | 0.040 |
| 15            | 1.979 | 1.780 | 0.000 |
| 25            | 0.345 | 0.283 | 0.057 |
| 35            | 0.422 | 0.323 | 0.101 |
| 55            | 0.596 | 0.485 | 0.081 |
| 80            | 0.116 | 0.081 | 0.032 |

| STATION N° 18 |       |       |       |
|---------------|-------|-------|-------|
| Surface       | 0.303 | 0.200 | 0.244 |
| 5             | 0.317 | 0.200 | 0.220 |
| 15            | 0.504 | 0.367 | 0.264 |
| 35            | 1.254 | 0.667 | 0.991 |
| 60            | 0.346 | 0.100 | 0.437 |
| 80            | 0.158 | 0.333 | 0.224 |

Suite TABLEAU VI

| STATION N° 19 |         |         |       |
|---------------|---------|---------|-------|
| Prof.         | chl'a 1 | chl'a 2 | PHED  |
| Surface       | 0.552   | 0.467   | 0.187 |
| 5             | 0.533   | 0.467   | 0.117 |
| 15            | 2.638   | 2.170   | 0.611 |
| 25            | 0.778   | 0.400   | 0.651 |
| 40            | 0.519   | 0.400   | 0.207 |
| 60            | 0.288   | 0.100   | 3.320 |

| STATION N° 22 |         |         |       |
|---------------|---------|---------|-------|
| Prof.         | chl'a 1 | chl'a 2 | PHED  |
| Surface       | 4.210   | 3.640   | 0.777 |
| 10            | 2.026   | 1.416   | 0.703 |
| 20            | 3.581   | 3.034   | 0.704 |
| 30            | 29795   | 2.467   | 0.562 |
| 40            | 0.769   | 0.445   | 0.603 |
| -             | -       | -       | -     |

| STATION N° 20 |       |       |       |
|---------------|-------|-------|-------|
| Surface       | 0.447 | 0.266 | 0.364 |
| 5             | 0.461 | 0.266 | 0.364 |
| 15            | 3.323 | 2.536 | 1.178 |
| 25            | 2.407 | 1.802 | 0.931 |
| 40            | 1.326 | 0.868 | 0.767 |
| 60            | 0.520 | 0.367 | 0.450 |

| STATION N° 23 |       |       |       |
|---------------|-------|-------|-------|
| Surface       | 4.973 | 4.422 | 0.717 |
| 5             | 4.699 | 4.288 | 0.469 |
| 15            | 3.561 | 3.115 | 0.679 |
| 25            | 5.066 | 4.571 | 0.554 |
| 40            | 1.310 | 1.052 | 0.449 |
| 60            | 0.244 | 0.162 | 0.204 |

| STATION N° 21 |       |       |       |
|---------------|-------|-------|-------|
| Surface       | 3.000 | 2.336 | 1.004 |
| 5             | 3.156 | 2.636 | 0.774 |
| 15            | 2.810 | 2.269 | 0.814 |
| 25            | 2.292 | 1.802 | 0.814 |
| 40            | 2.453 | 2.002 | 0.637 |
| 55            | 1.370 | 1.034 | 0.531 |

| STATION N° 24 |       |       |       |
|---------------|-------|-------|-------|
| Surface       | 0.447 | 0.501 | 0.013 |
| 10            | 0.465 | 0.421 | 0.103 |
| 20            | 0.769 | 1.218 | 0.323 |
| 30            | 0.991 | 0.655 | 0.590 |
| 40            | 1.124 | 1.077 | 0.857 |
| 50            | 1.598 | 1.264 | 0.506 |

Suite et fin TABLEAU VI

| STATION N° 25 |         |         |       |
|---------------|---------|---------|-------|
| Prof.         | chl'a 1 | chl'a 2 | PIED  |
| Surface       | 3.135   | 1.335   | 0.576 |
| 10            | 3.876   | 3.600   | 0.279 |
| 20            | 4.263   | 3.924   | 0.324 |
| 30            | 2.708   | 2.225   | 0.720 |
| 40            | 3.214   | 2.225   | 1.541 |
| 50            | 1.625   | 1.133   | 0.736 |

| STATION N° 26 |       |       |       |
|---------------|-------|-------|-------|
| Surface       | 2.428 | 2.063 | 0.485 |
| 20            | 2.198 | 0.833 | 0.901 |
| 30            | 1.450 | 1.052 | 0.619 |
| 40            | 0.996 | 0.688 | 0.530 |
| 50            | 0.594 | 0.243 | 0.692 |
| 60            | 0.419 | 0.263 | 0.255 |

TABLEAU VII

## PLANCTON DE SURFACE

| Station | Station<br>Sonde | Position |         | Date | Heure | Durée | T° Surf. | Prof.<br>THERM | Volume<br>filtré<br>(m3) | Volume<br>plancton<br>(cm/3) | Plancton<br>ml/1000m. |
|---------|------------------|----------|---------|------|-------|-------|----------|----------------|--------------------------|------------------------------|-----------------------|
|         |                  | Lat.     | Long.   |      |       |       |          |                |                          |                              |                       |
| 1       |                  | 04.15    | 07.56   | 3.2  | 13.06 | 11.15 | 25.3     | 15             | 707                      | 350                          | 0.50                  |
| 2       |                  | 04.26    | 08.43   | 3.2  | 19.15 | 10.30 | 26.8     | 25             | 526                      | 300                          | 0.57                  |
| 3       |                  | 04.47    | 09.34   | 4.2  | 01.15 | 11.00 | 27.6     | 30             | 621                      | 440                          | 0.71                  |
| 4       |                  | 05.12    | 10.34   | 4.2  | 07.05 | 16.00 | 27.4     | 25             | 940                      | 640                          | 0.68                  |
| 5       |                  | 05.42    | 11.13   | 4.2  | 13.07 | 10.00 | 27.7     | 15             | 741                      | 125                          | 0.17                  |
| 6       |                  | 06.08    | 11.57   | 4.2  | 18.45 | 10.00 | 27.3     | 10             | 620                      | 550                          | 0.89                  |
| 7       |                  | 06.43    | 12.50   | 5.2  | 01.10 | 10.00 | 26.3     | 18             | 782                      | 520                          | 0.66                  |
|         |                  | 07.18    | 13.46   | 5.2  | 07.25 | 10.00 | 26.0     | 15             | 712                      | 280                          | 0.39                  |
|         | 1                | 07.55    | 15.00   | 5.2  | 19.10 | 10.00 | 26.6     | 20             | 868                      | 135                          | 0.16                  |
|         | 2                | 08.13    | 14.37   | 5.2  | 23.02 | 10.00 | 25.6     | 15             | 635                      | 270                          | 0.39                  |
|         | 3                | 08.32    | 14.27   | 6.2  | 01.15 | 10.00 | 24.0     | 15             | 775                      | 670                          | 0.86                  |
|         | 5                | 09.48    | 15.48'5 | 8.2  | 07.00 | 10.00 | 22.7     | 5              | 543                      | 2000                         | 3.68                  |
|         | 7                | 109.20   | 15.55   | 8.2  | 10.30 | 10.00 | 22.1     | 7.5            | 593                      | 3840                         | 6.47                  |
|         | 8                | 08.51    | 15.58   | 8.2  | 13.30 | 10.00 | 23.6     | 10             | 603                      | 1500                         | 2'4.8                 |
|         | 9                | 08.58    | 15.38   | 8.2  | 19.45 | 10.00 | 23.7     | 25             | 427                      | 1400                         | 3.28                  |
|         | 10               | 09.05    | 15.15   | 8.2  | 22.10 | 8.00  | 24.3     | 20             | 493                      | 390                          | 0.79                  |

DE DAKAR A FREETOWN

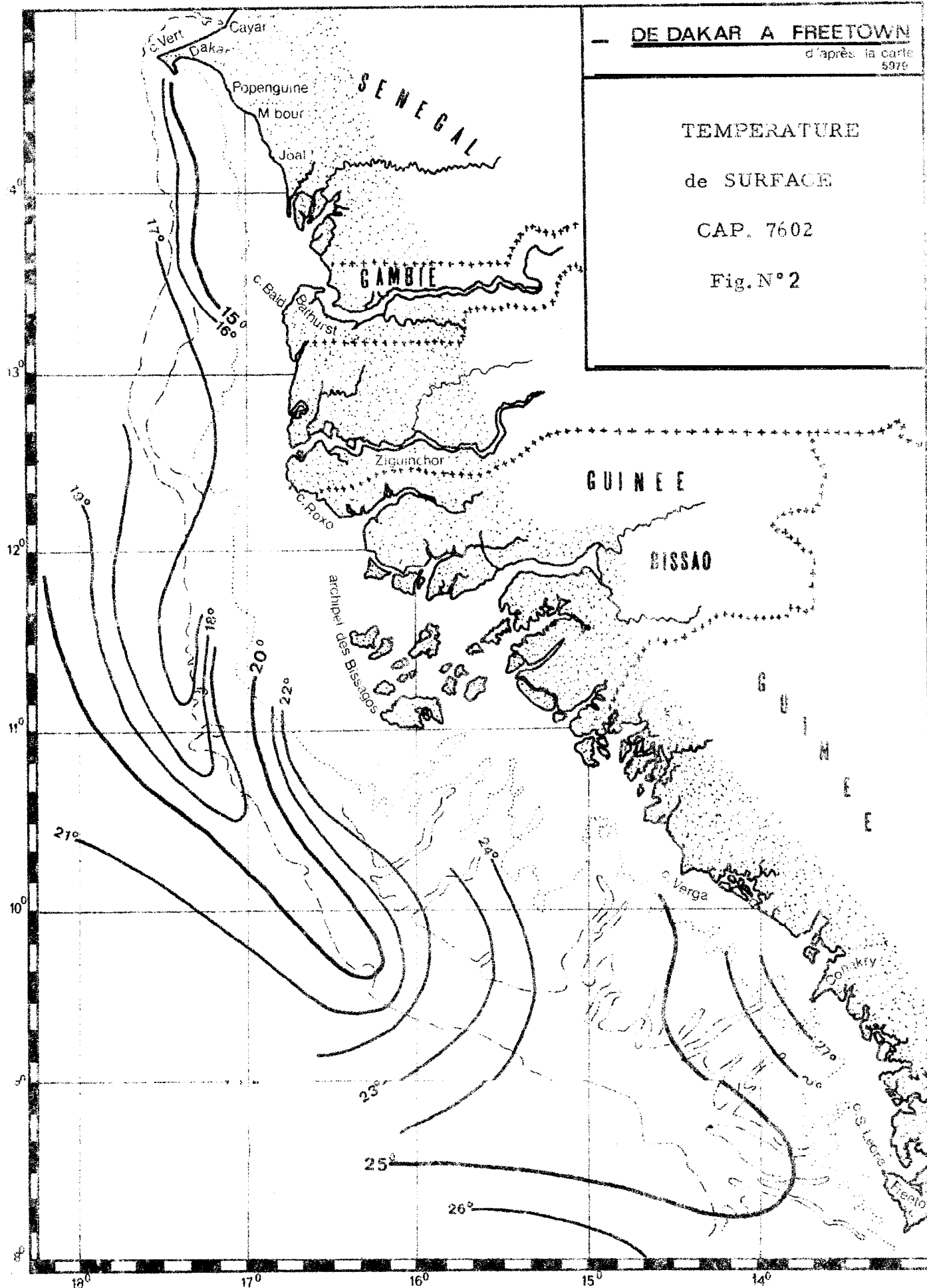
d'après la carte  
5979

TEMPERATURE

de SURFACE

CAP. 7602

Fig. N°2

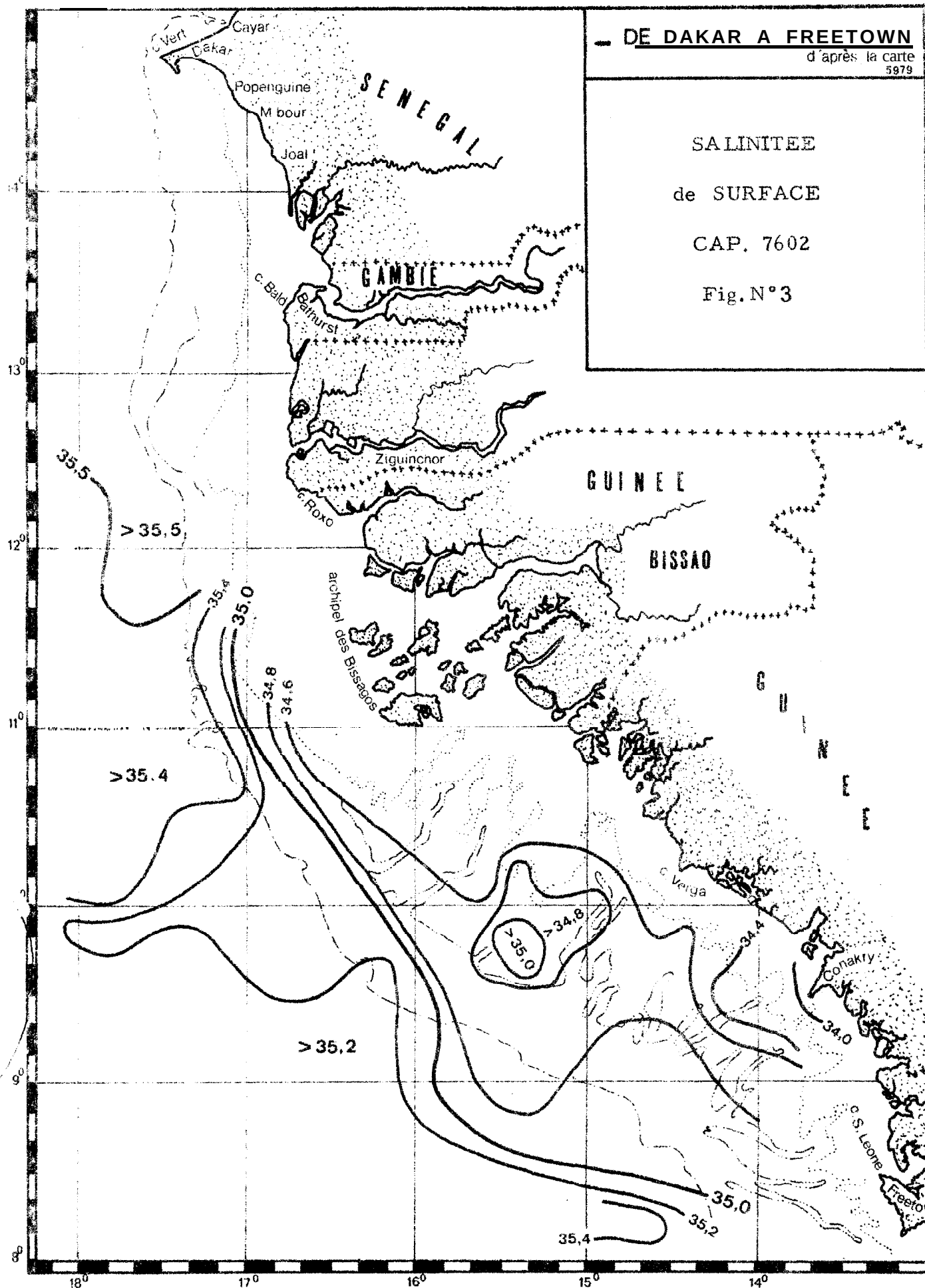


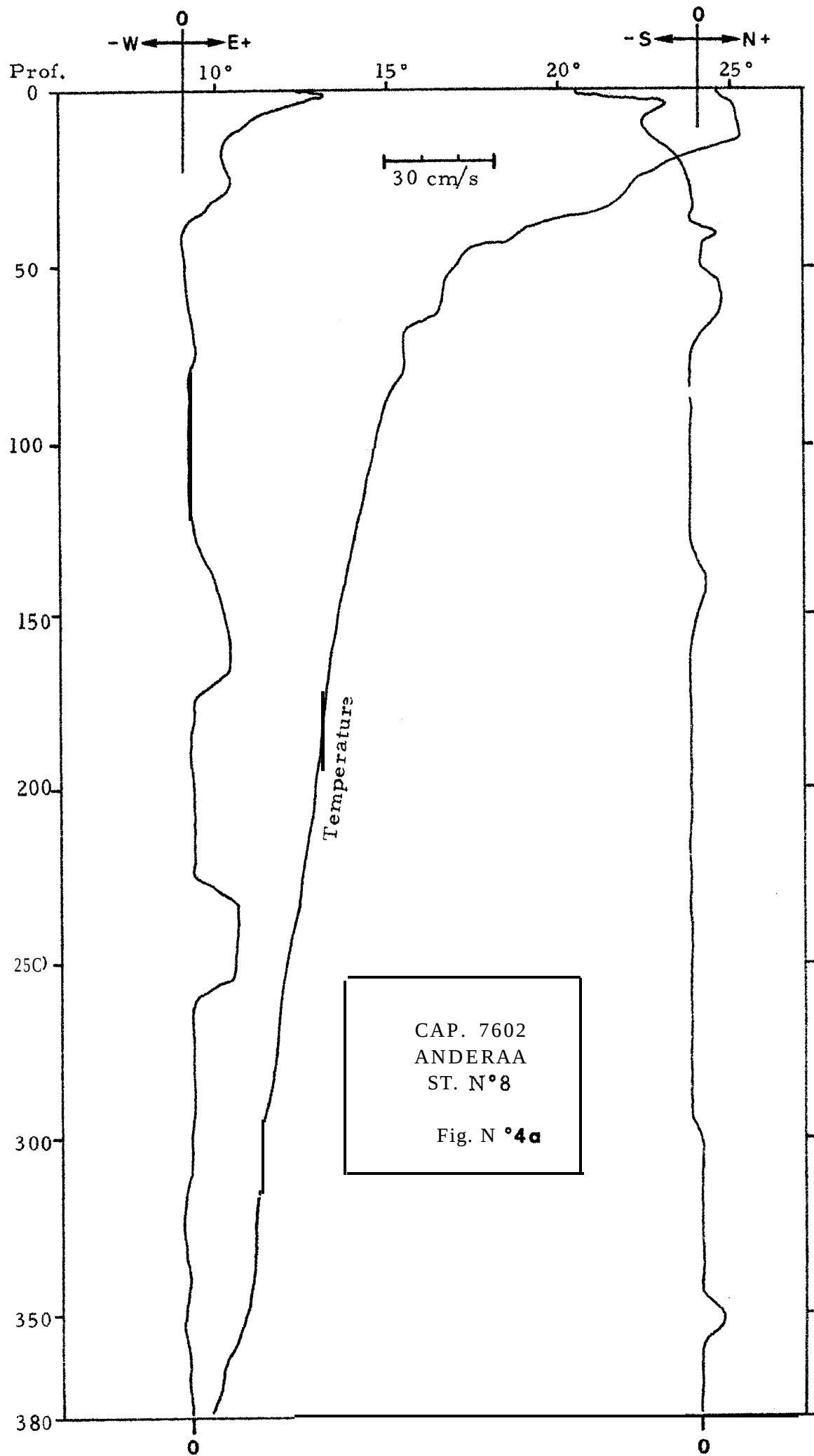
**DE DAKAR A FREETOWN**

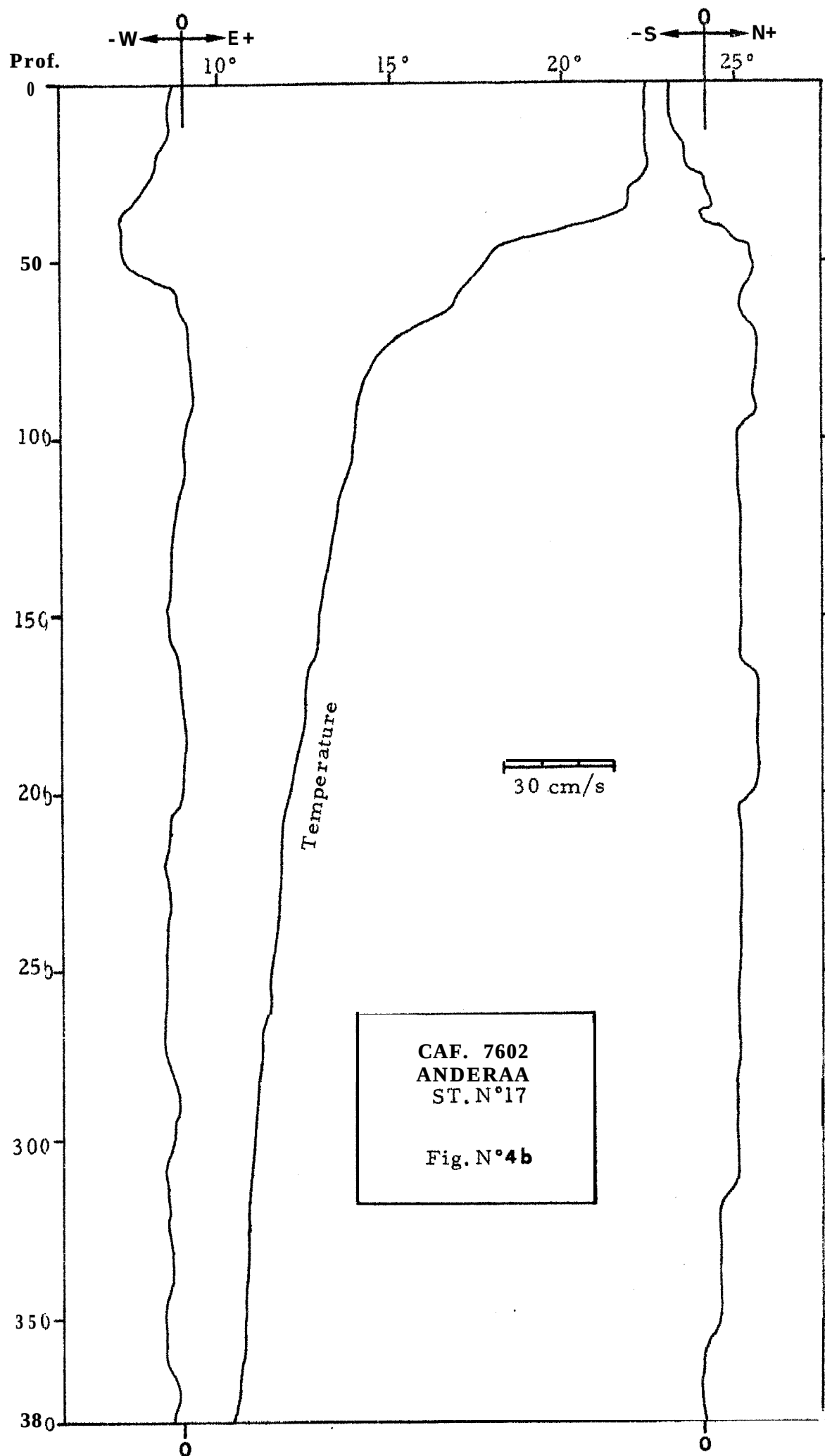
d'après la carte  
5979

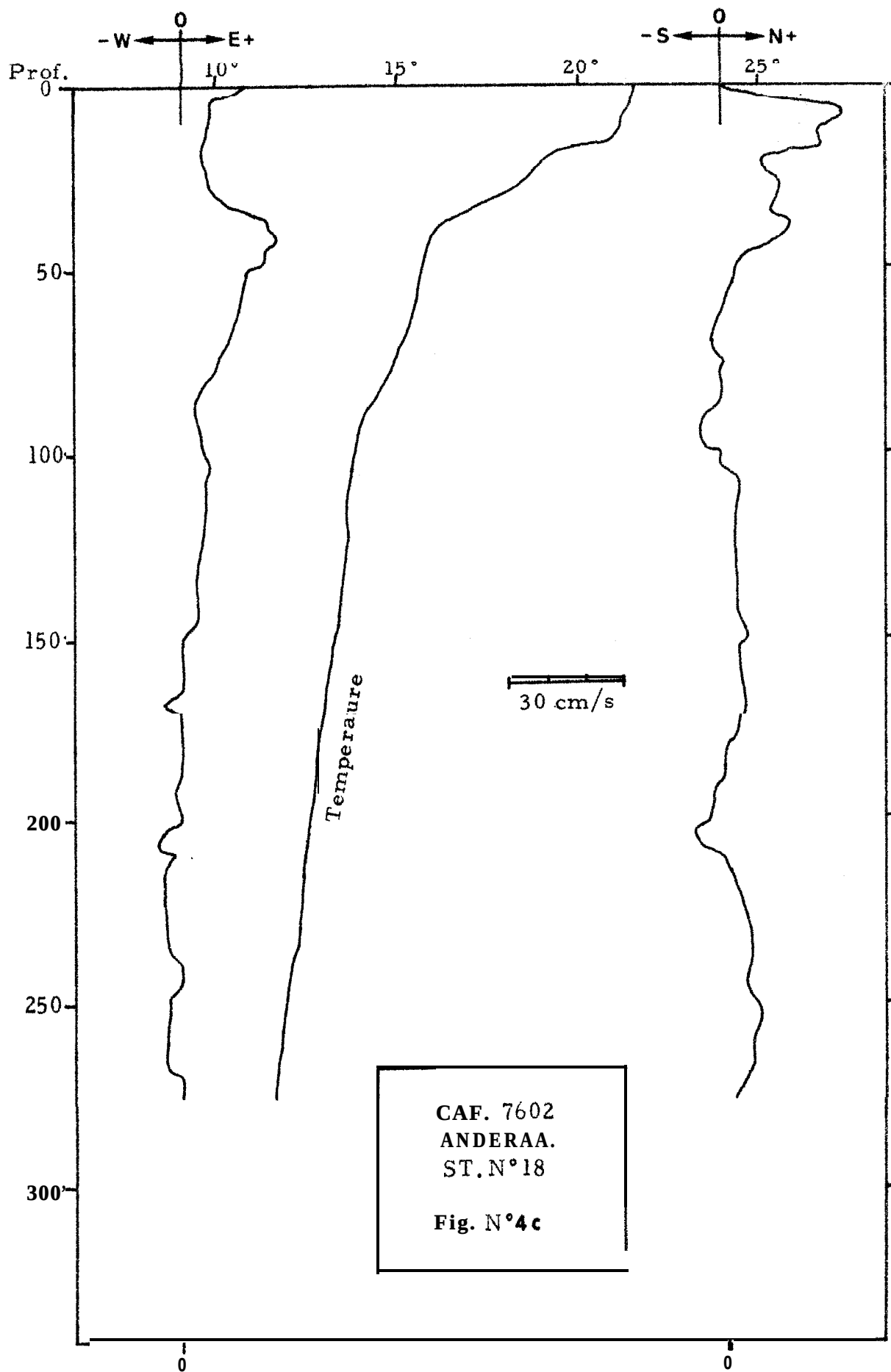
SALINITEE  
de SURFACE  
CAP. 7602

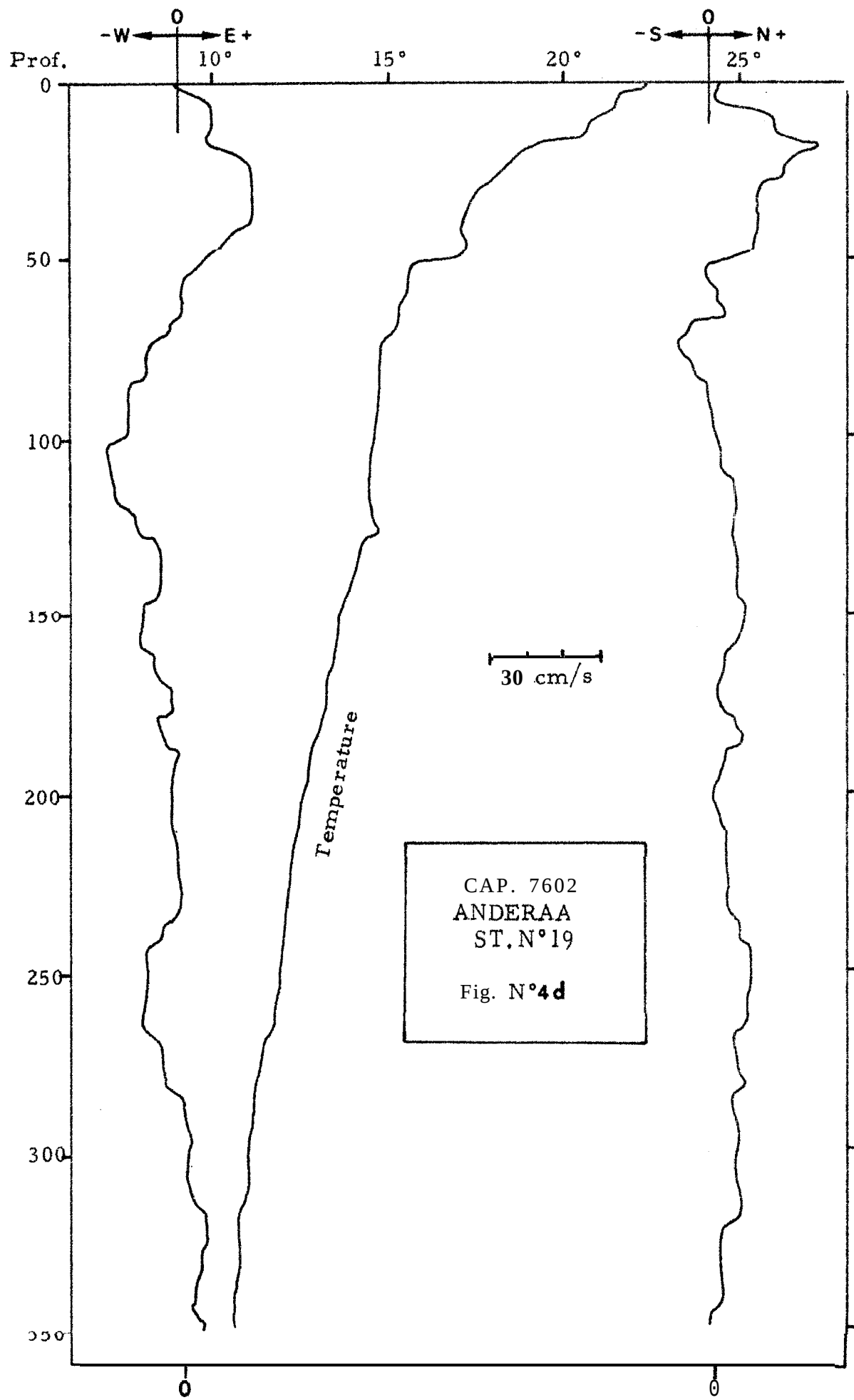
Fig. N°3

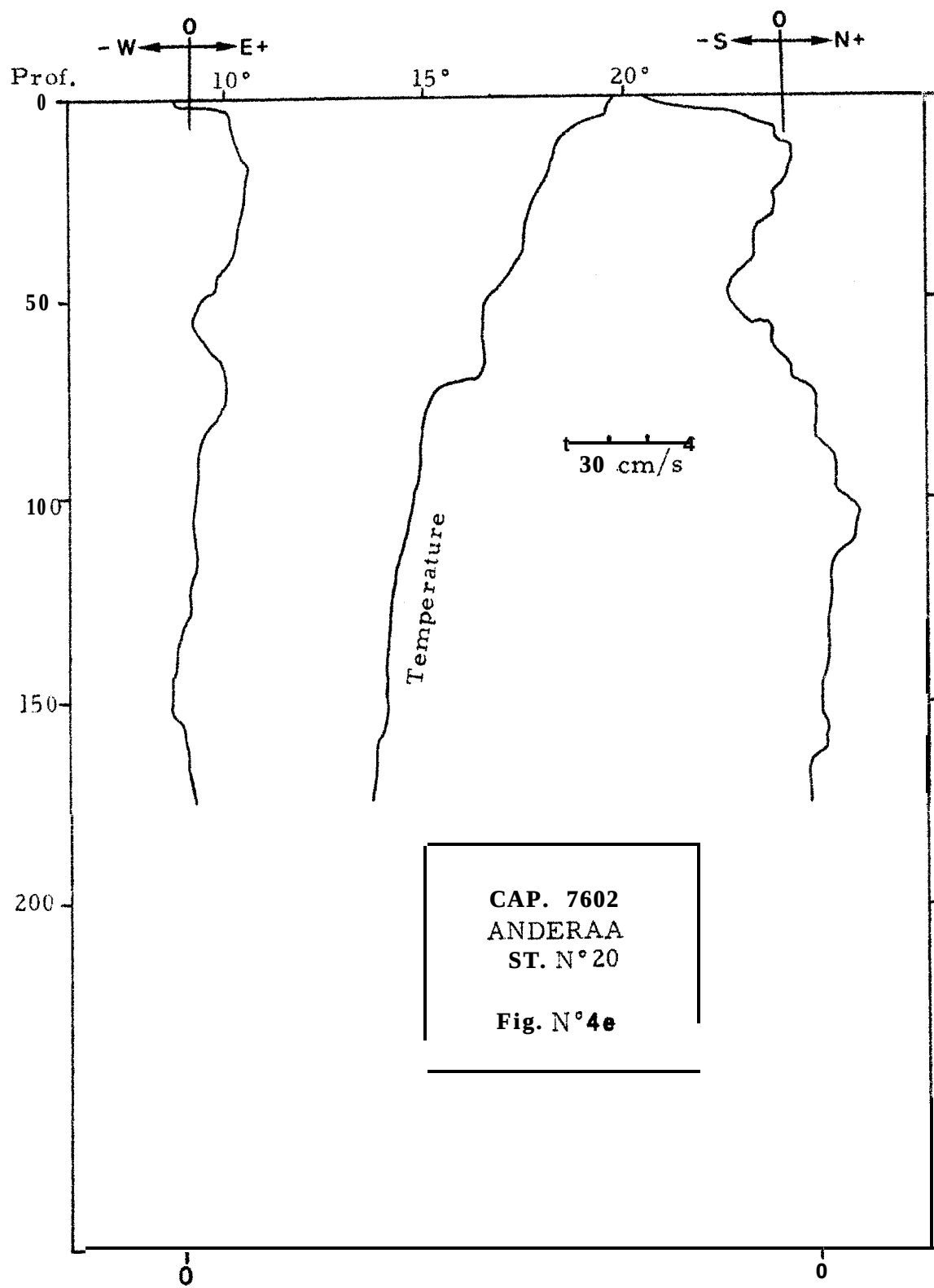












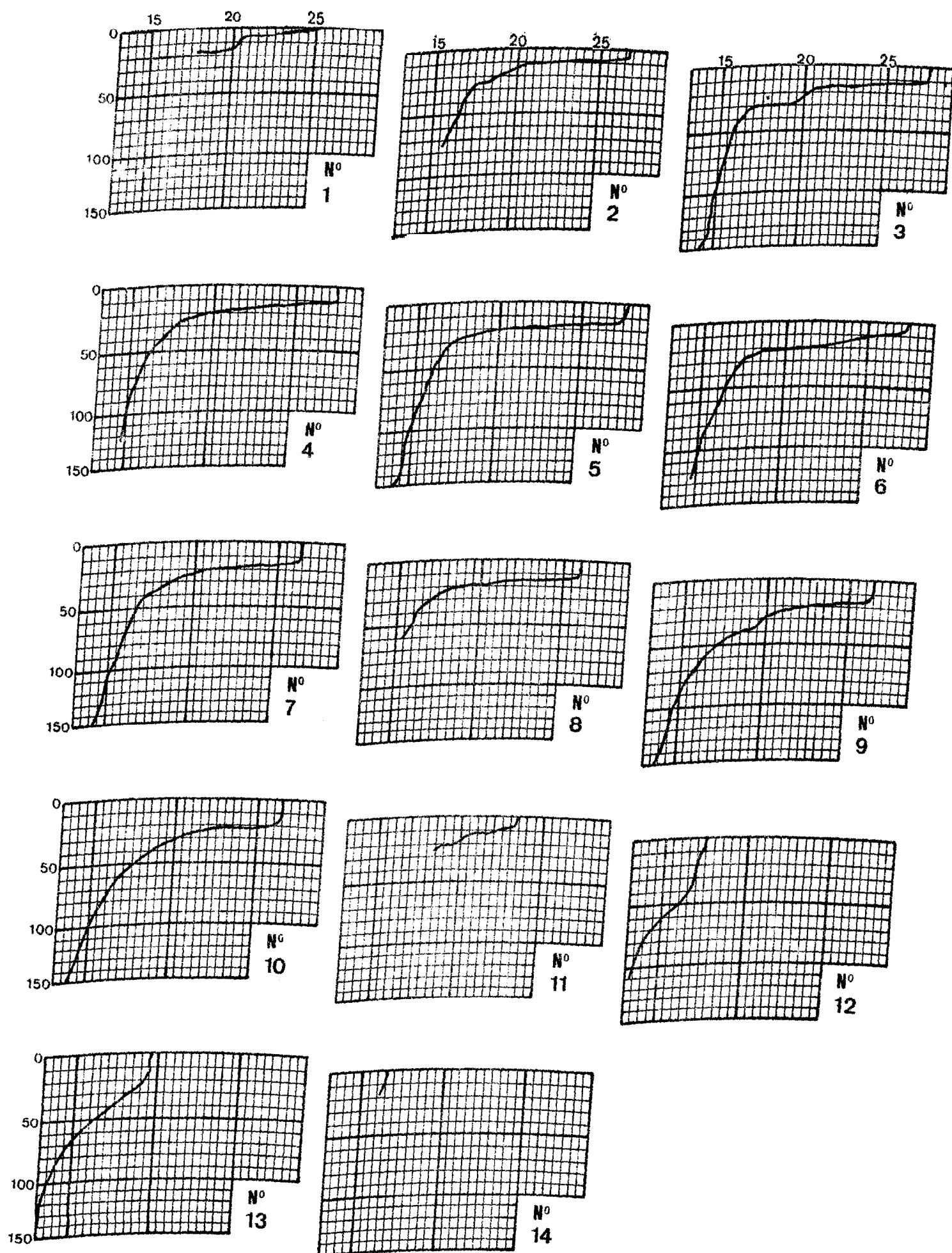


Fig. N° 5 -- BATHYTHERMOGRAMMES