

Electricité de France

**ETUDE ECOLOGIQUE
SITE DE GRAVELINES
RAPPORT FINAL**

VOLUME III

COUPES HORIZONTALES



**Centre National pour l'Exploitation des Océans
Unité Littoral**

**INSTITUT DE BIOLOGIE MARINE ET REGIONALE
DE WIMEREUX**

UNIVERSITE DE LILLE

JUIN 76

ETUDE ECOLOGIQUE DU SITE DE
GRAVELINES

VOLUME III
COUPES HORIZONTALES

Dans ce volume est présenté sous forme graphique, l'ensemble des données hydrobiologiques qui a fait l'objet du volume II.

Ces "coupes horizontales", à différents niveaux, ont été regroupées selon la nature des paramètres et les campagnes.

Ces groupes sont :

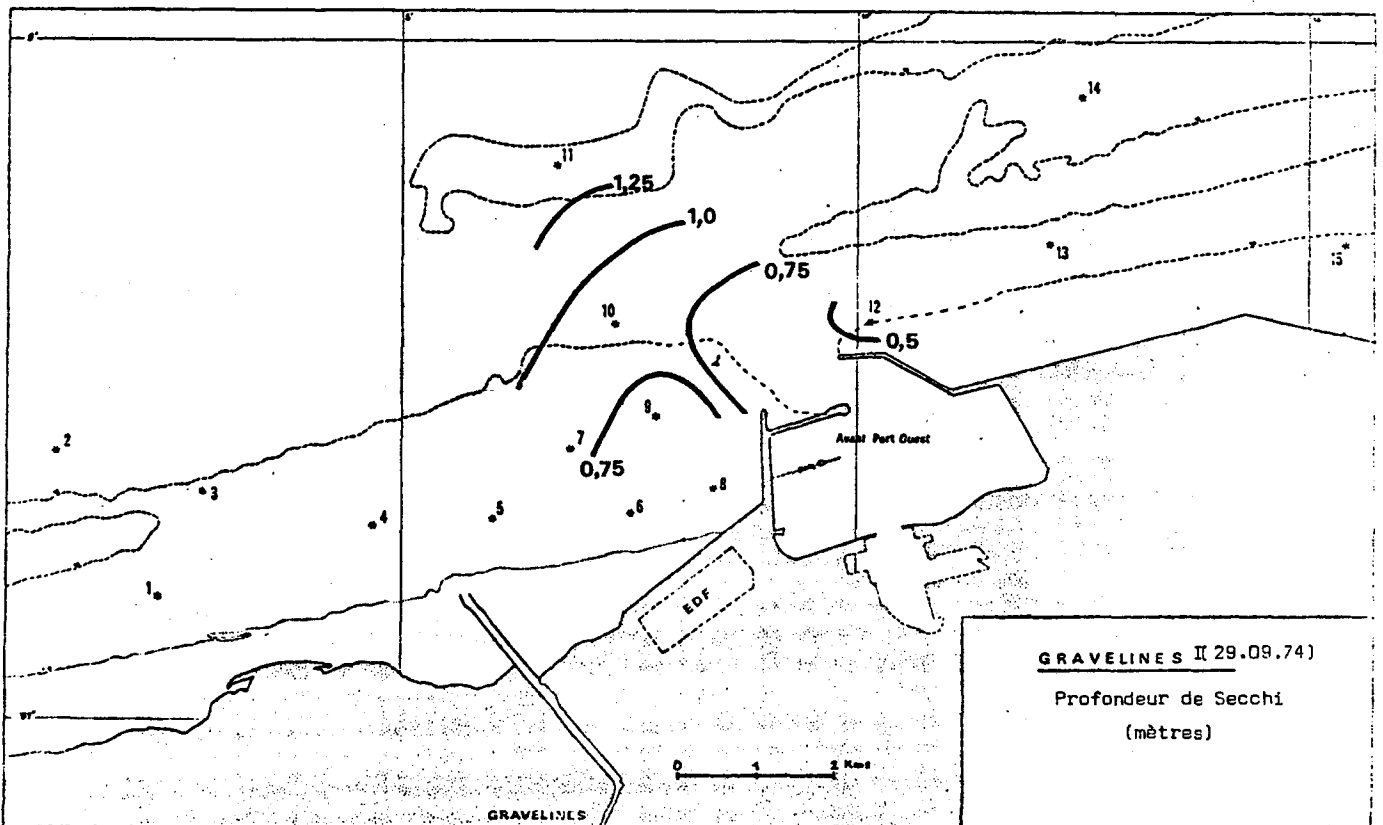
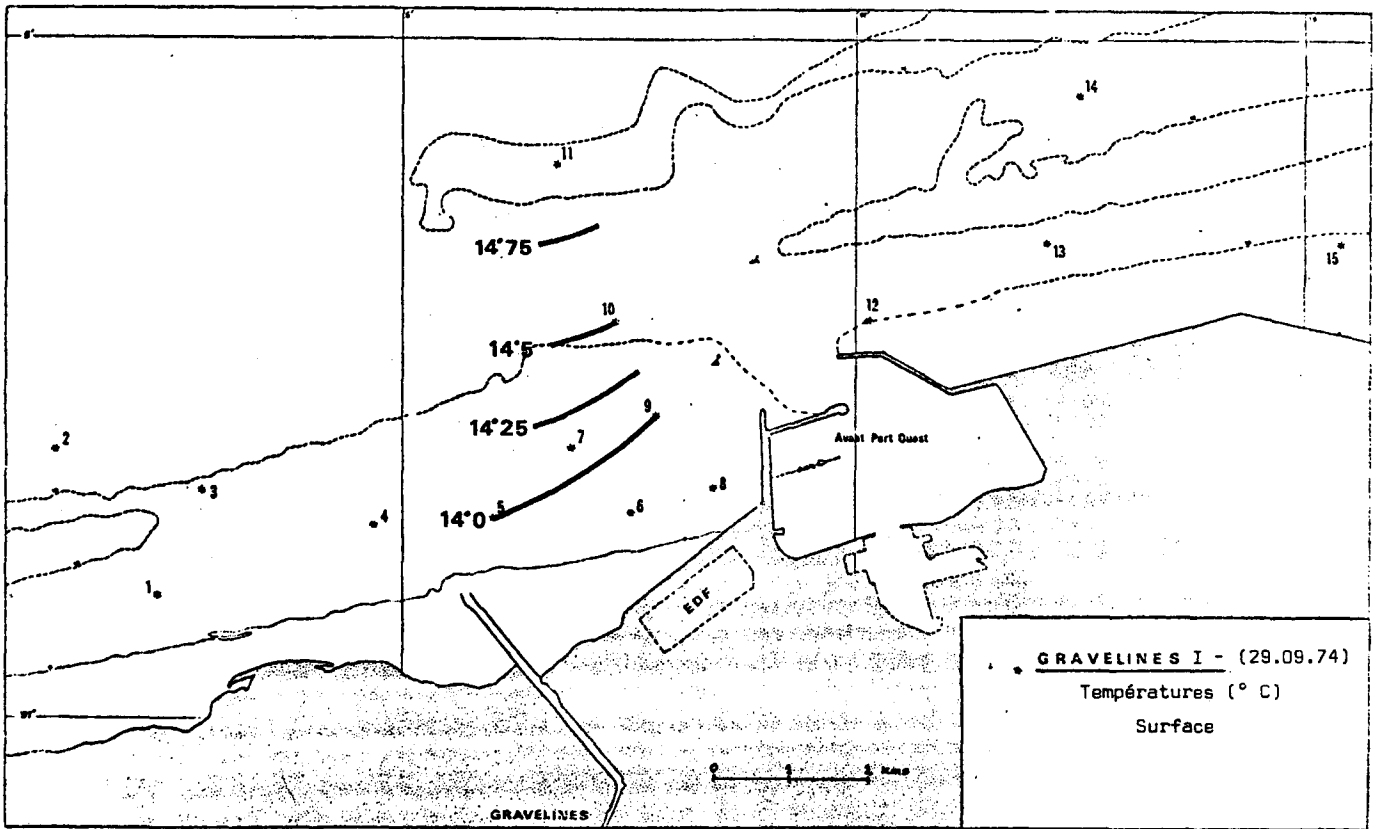
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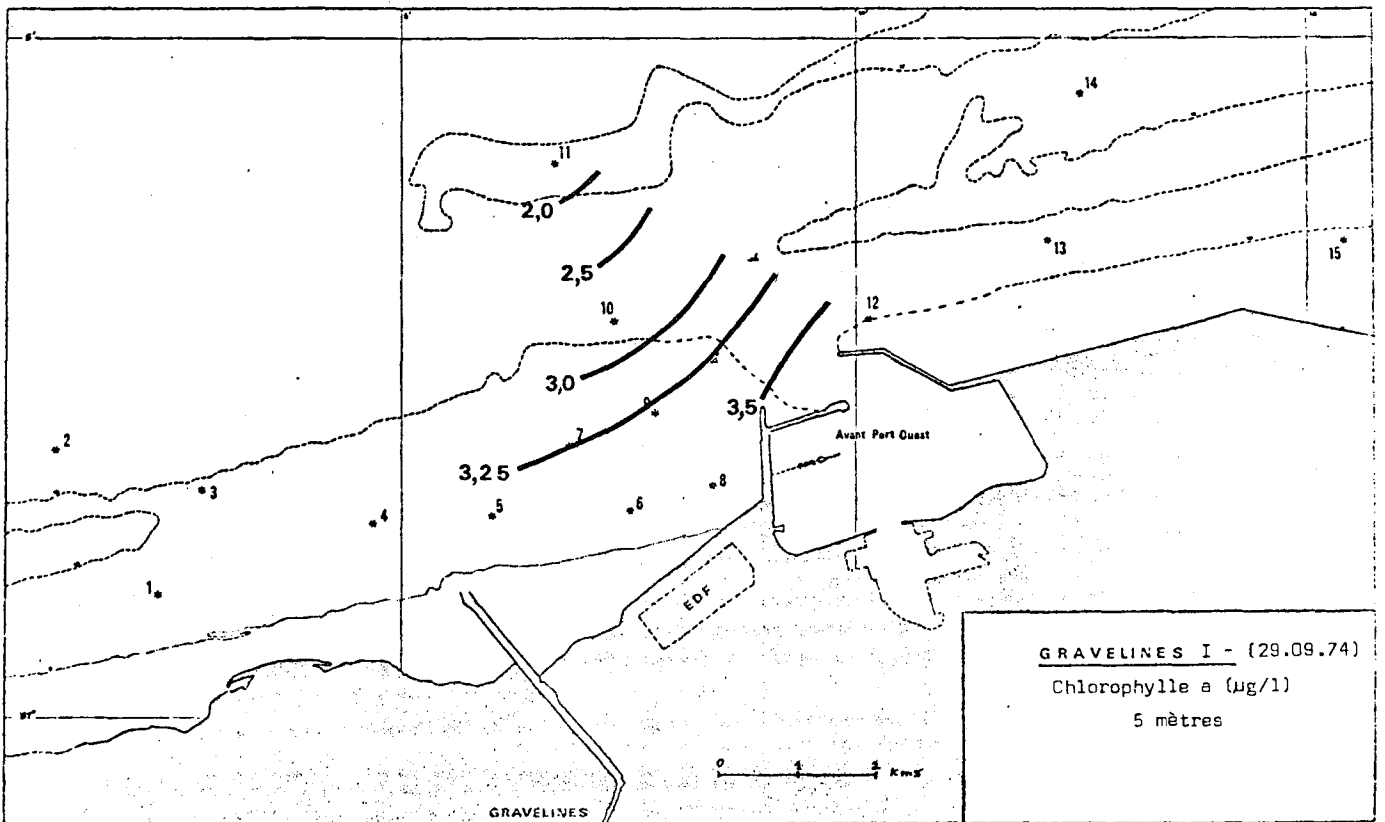
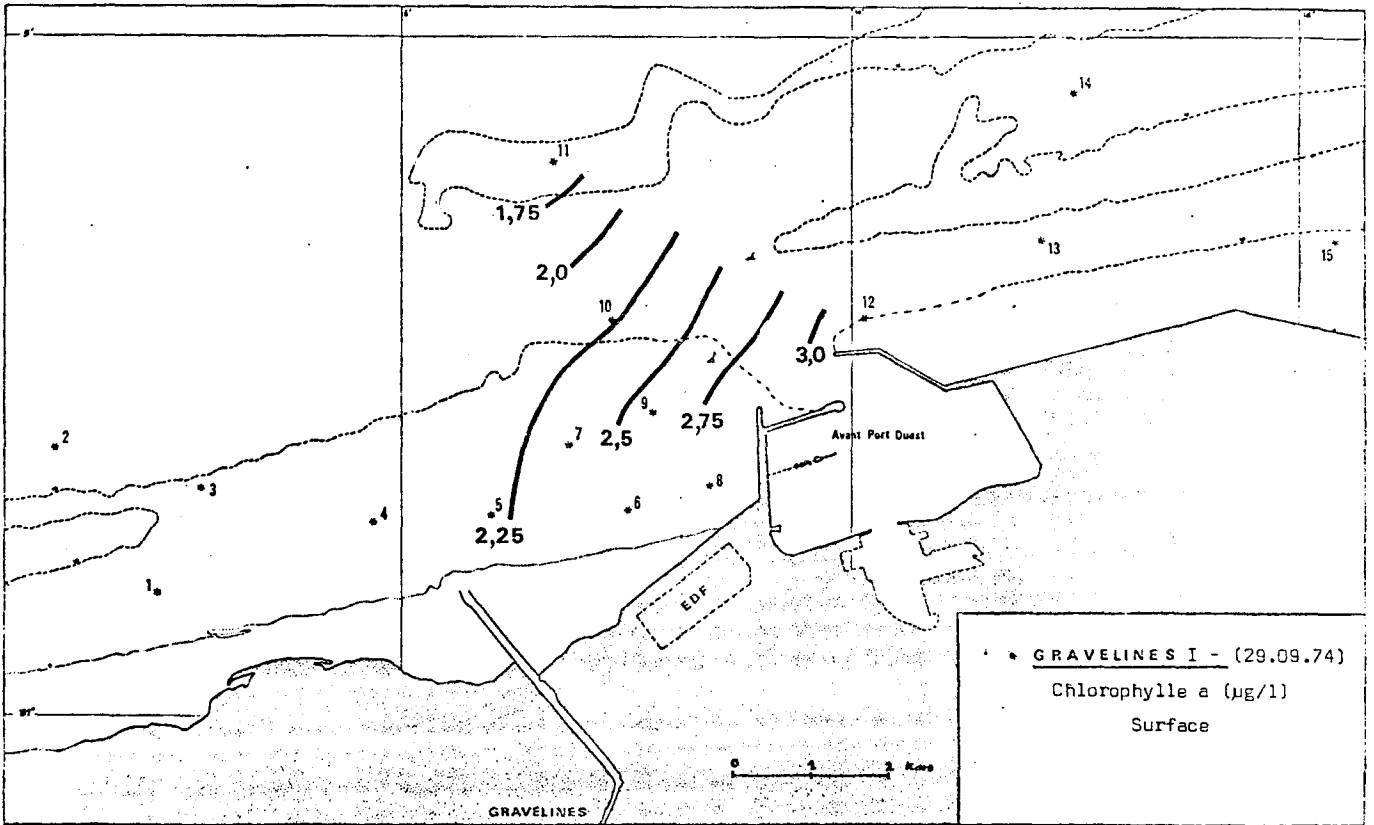
- Les PARAMETRES PHYSICO-CHIMIQUES (température, salinité, pH, oxygène dissous, profondeur de Secchi, nitrates, nitrites, silicates, phosphates, matières en suspension, chlorophylle a, indice pigmentaire, pheopigments. Quoique n'appartenant pas à ce groupe, nous y avons inclus le microplancton et la production primaire..... 1 à 109

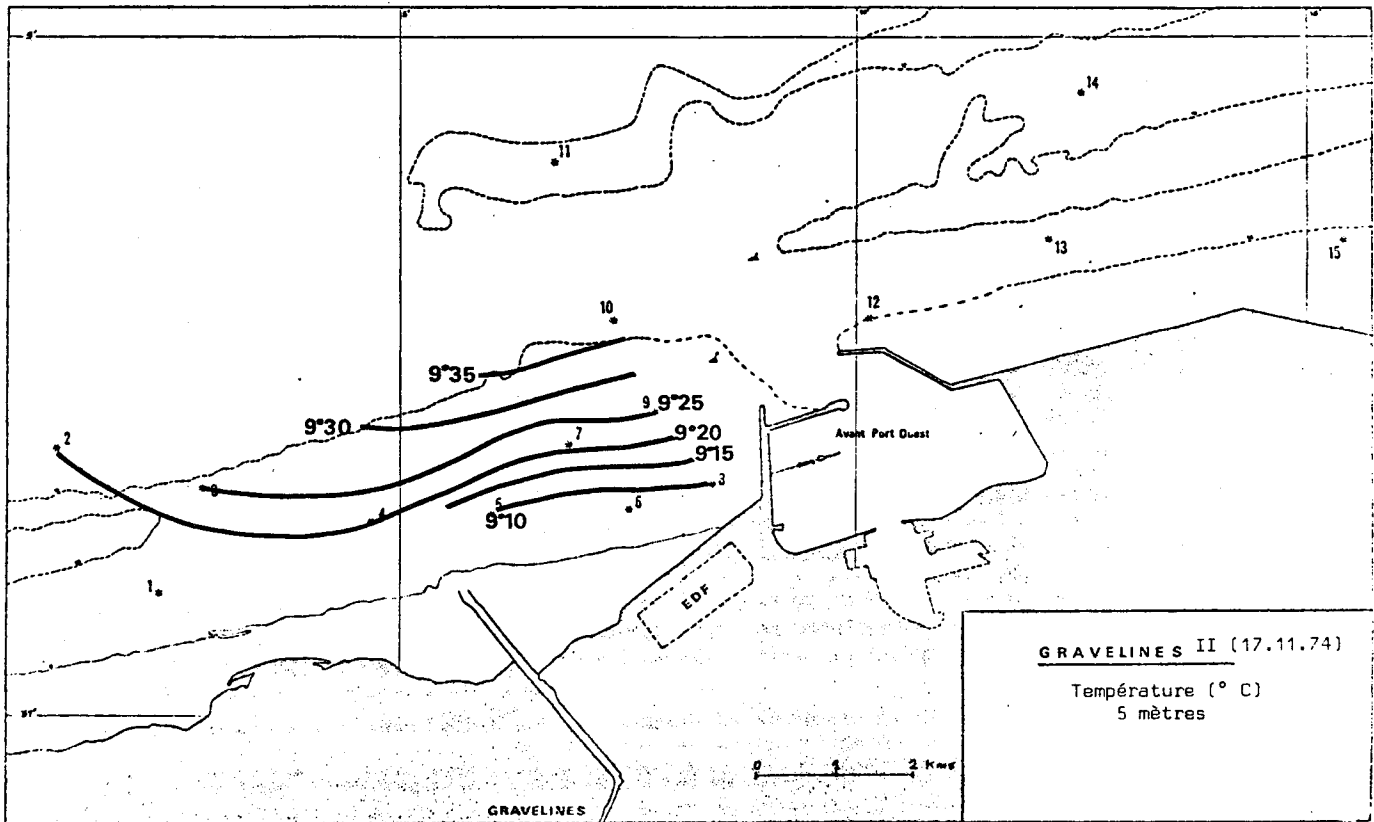
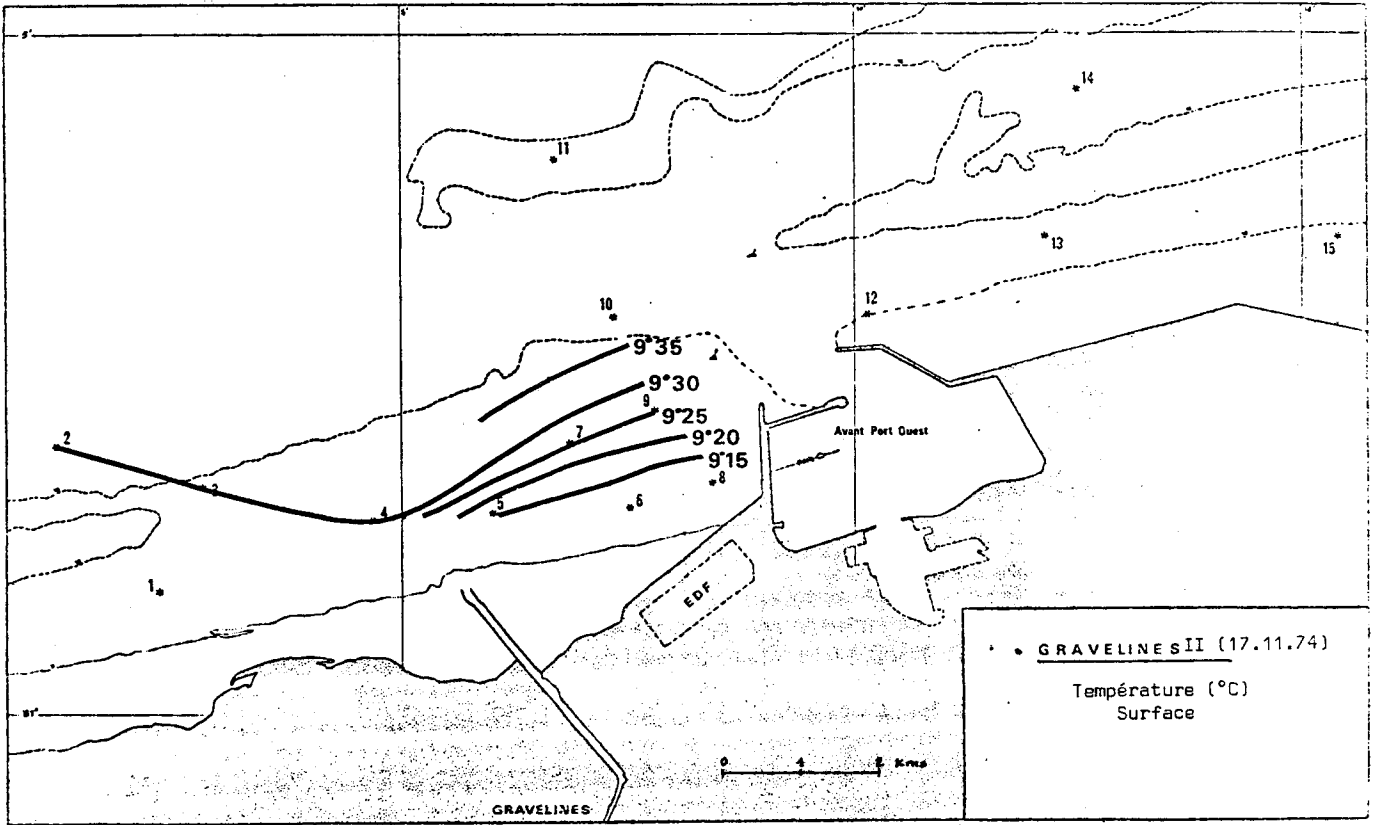
- Le PHYTOPLANCTON
Distribution d'après les espèces en pourcentage de dominance..... 109 à 135

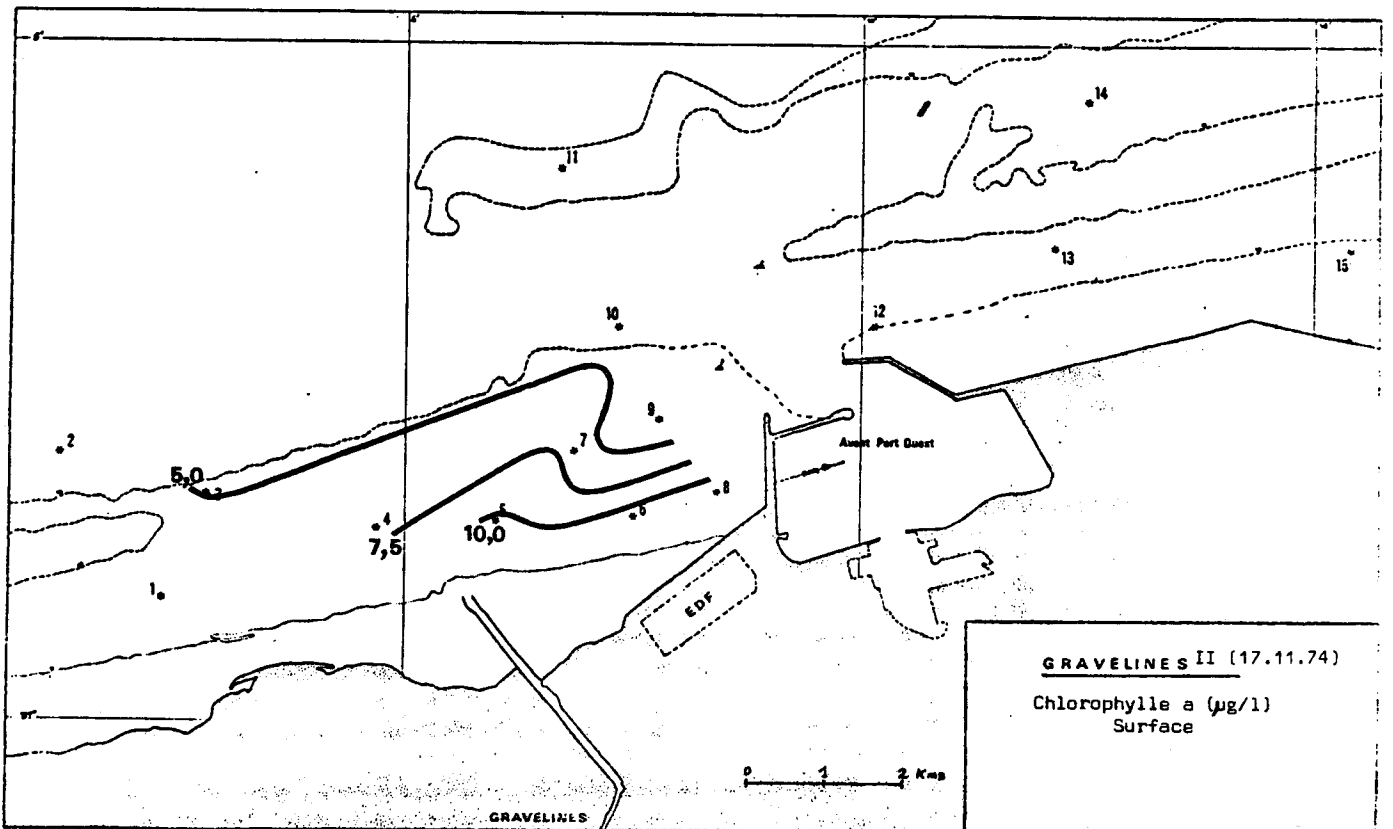
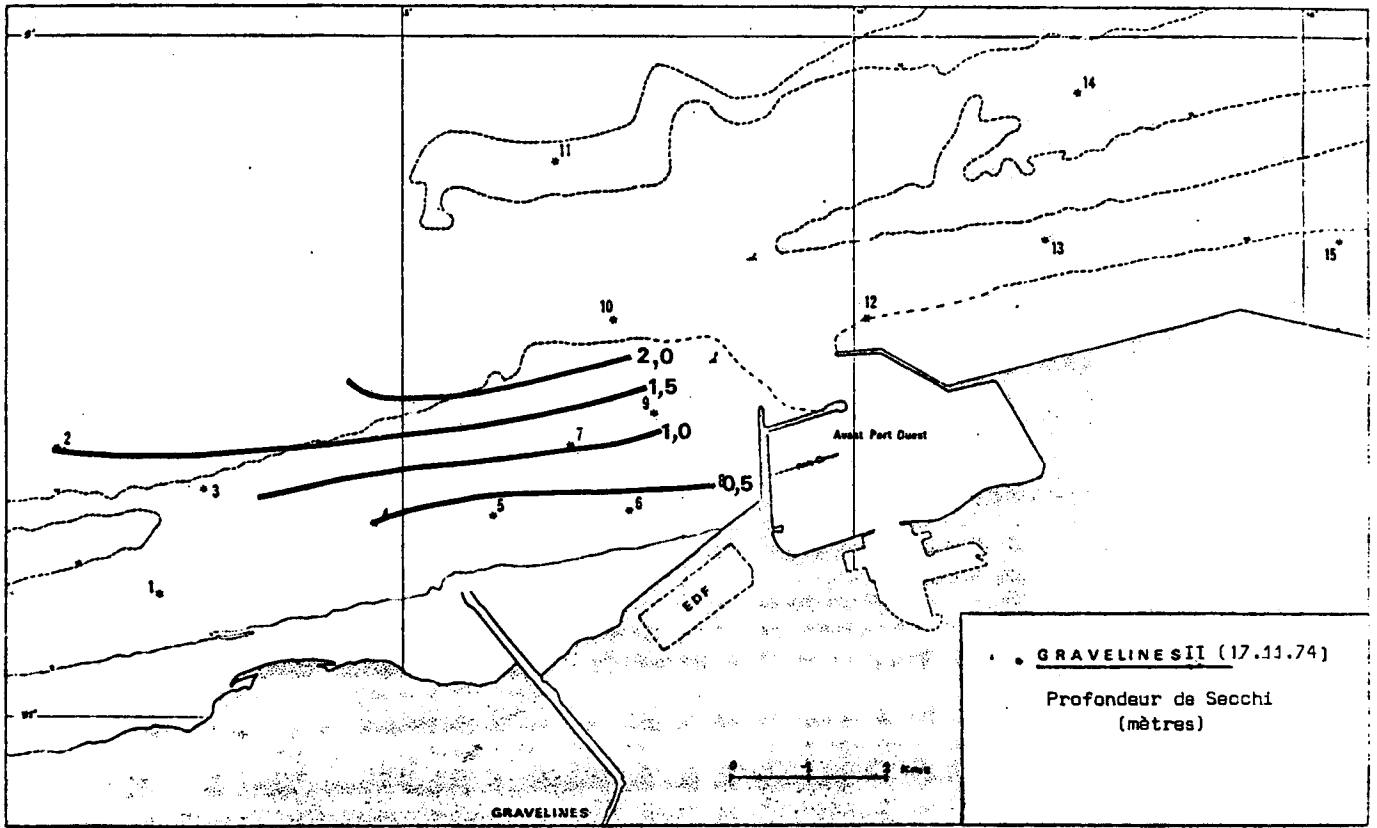
- Le ZOOPLANCTON
Expression des nombres d'individus d'une espèce donnée par volume de 10 m^3 , du total des individus pour l'ensemble des espèces représentées dans 10 m^2 , des quantités de matières organiques et du carbone organique..... 136 à 160

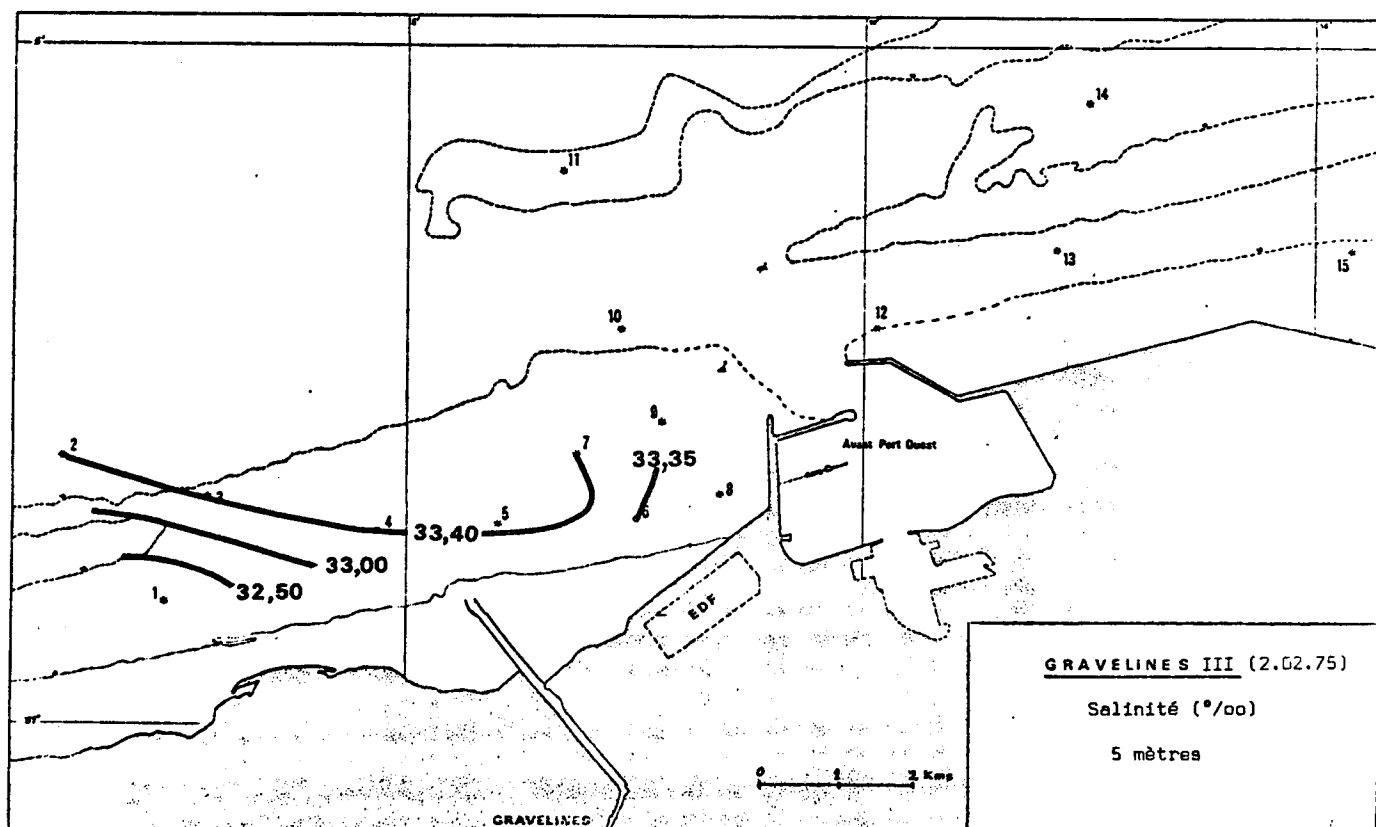
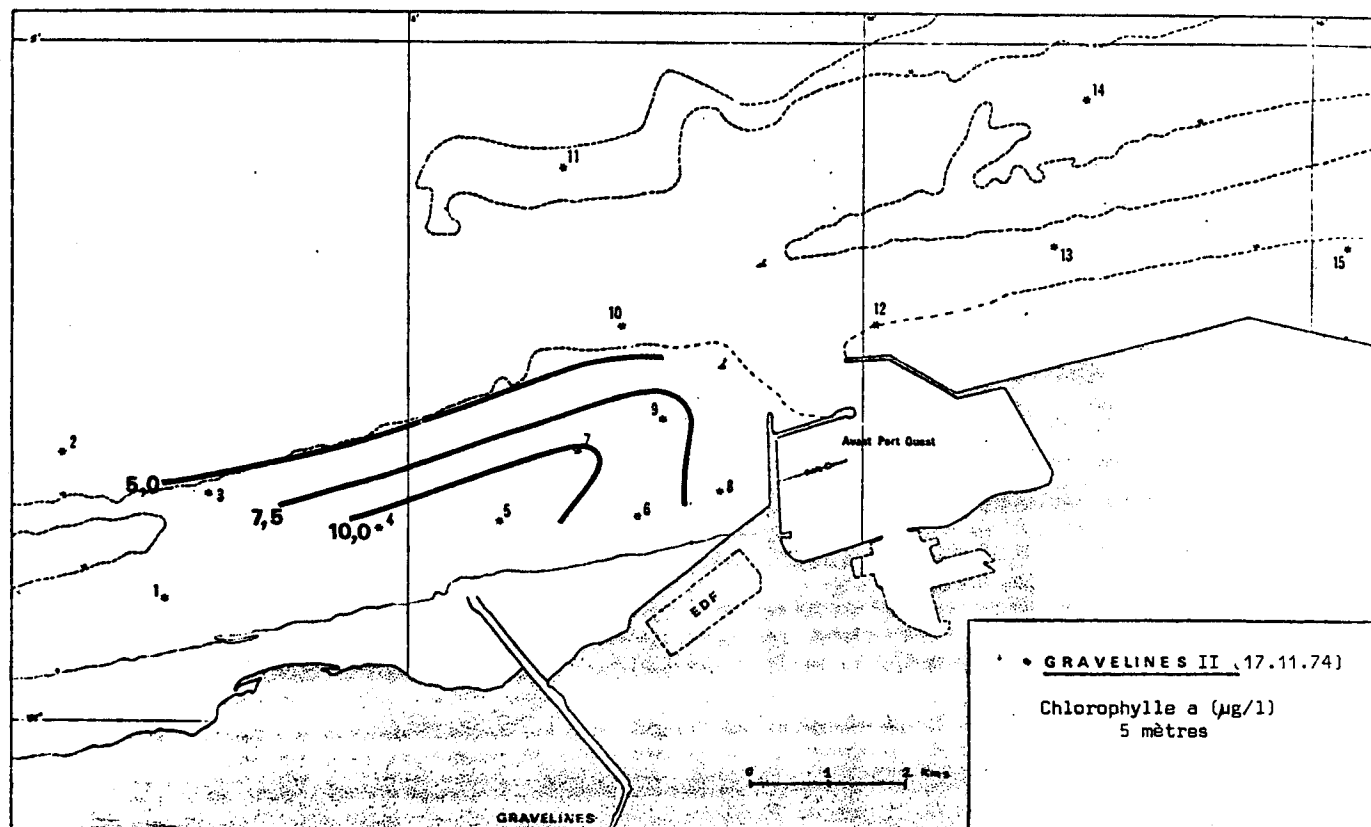
PARAMETRES PHYSICO-CHIMIQUES

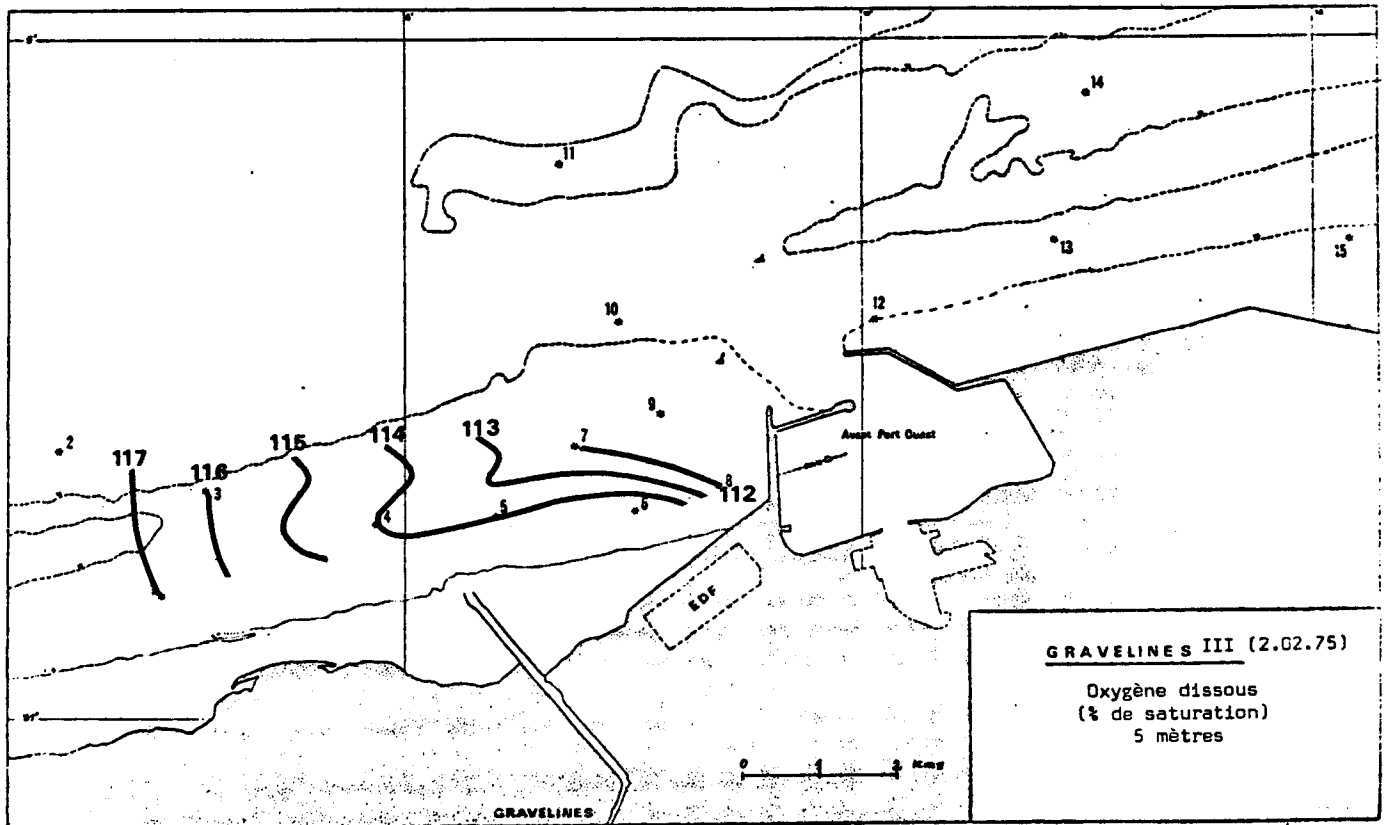
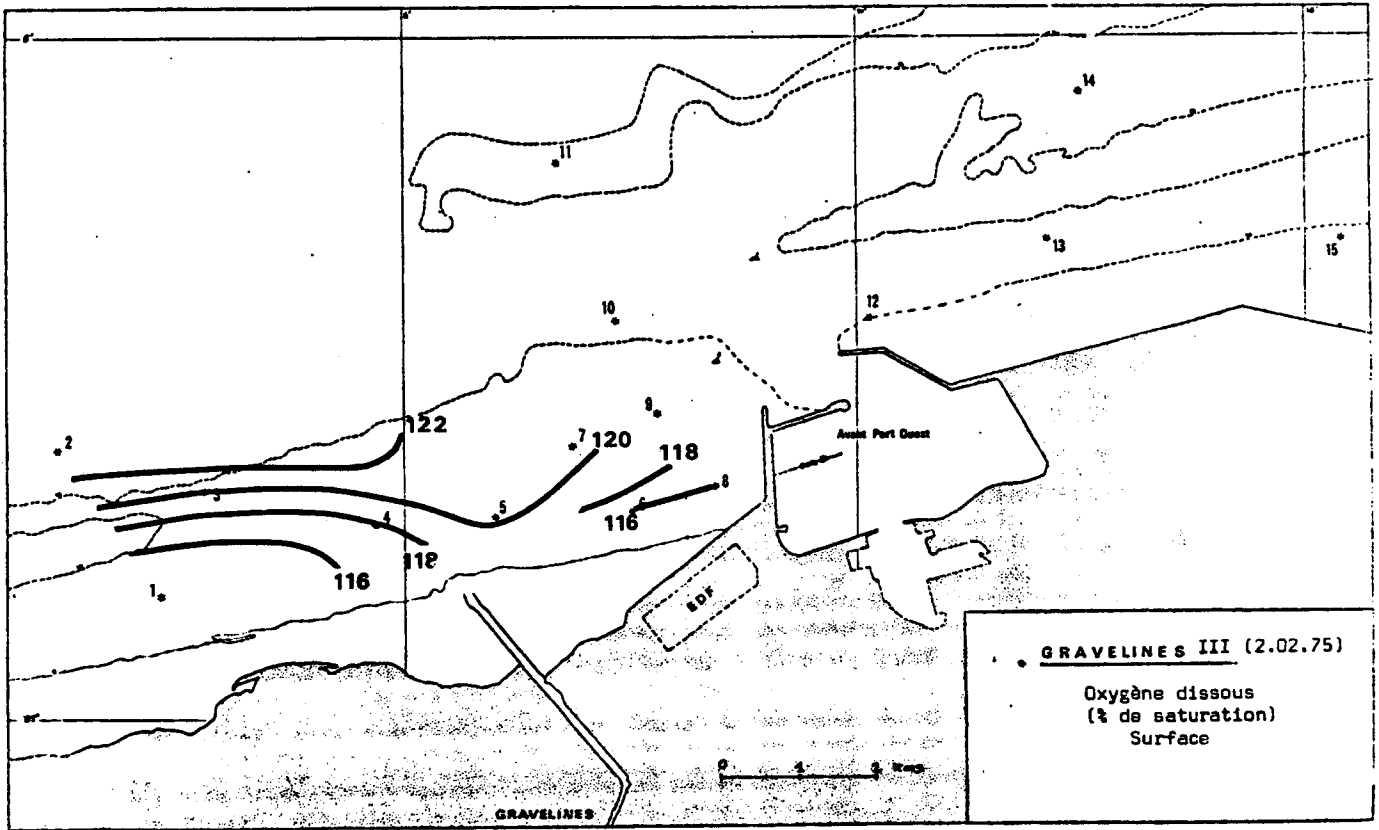


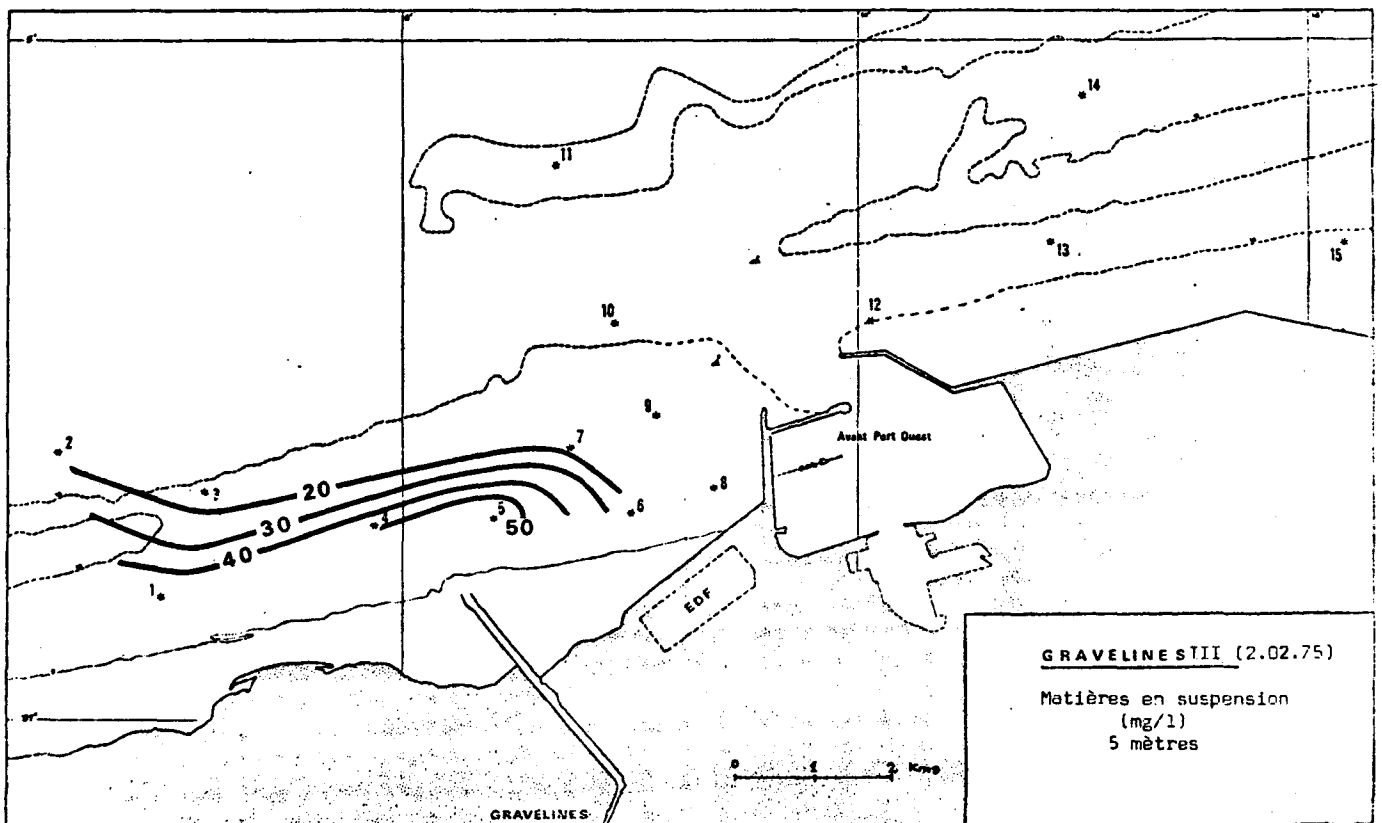
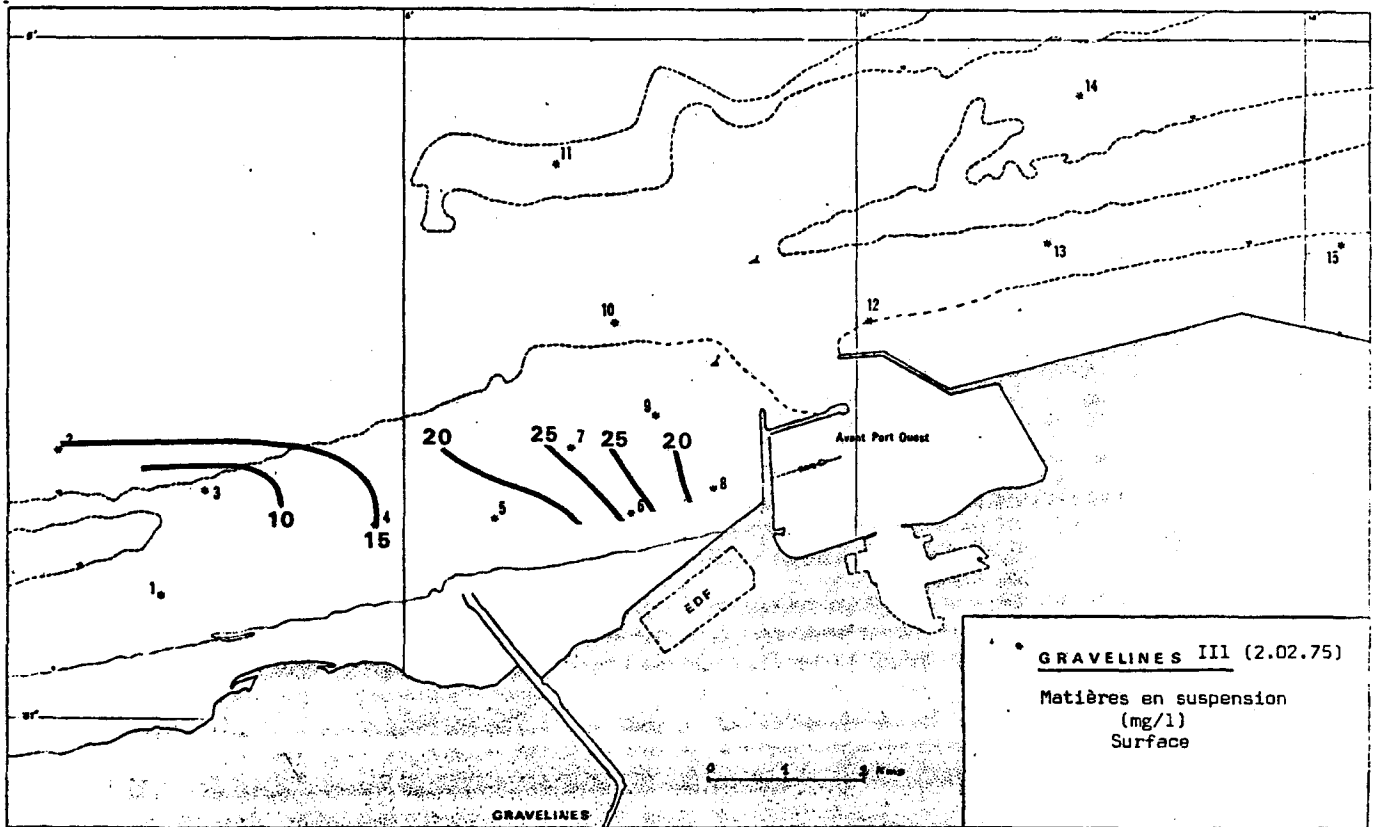


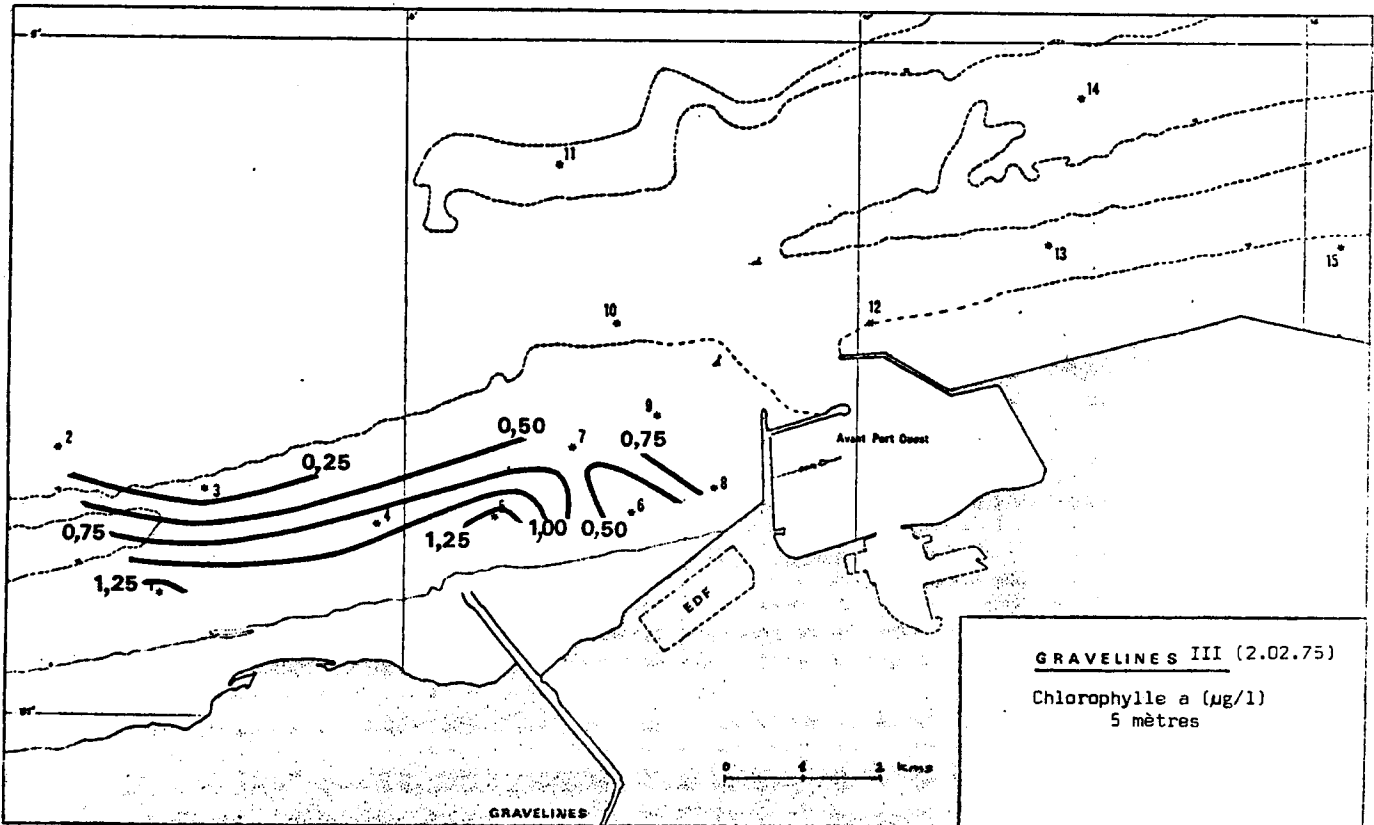
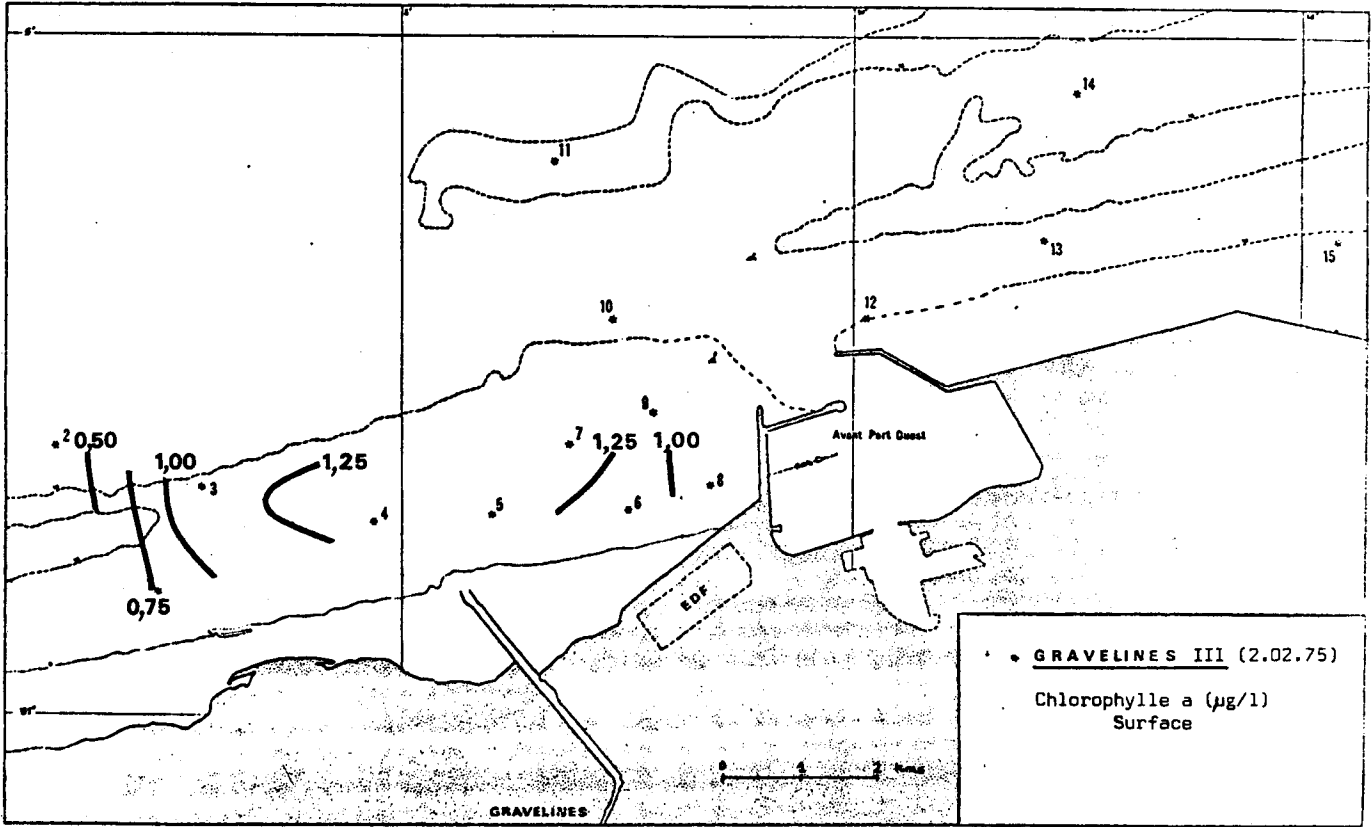


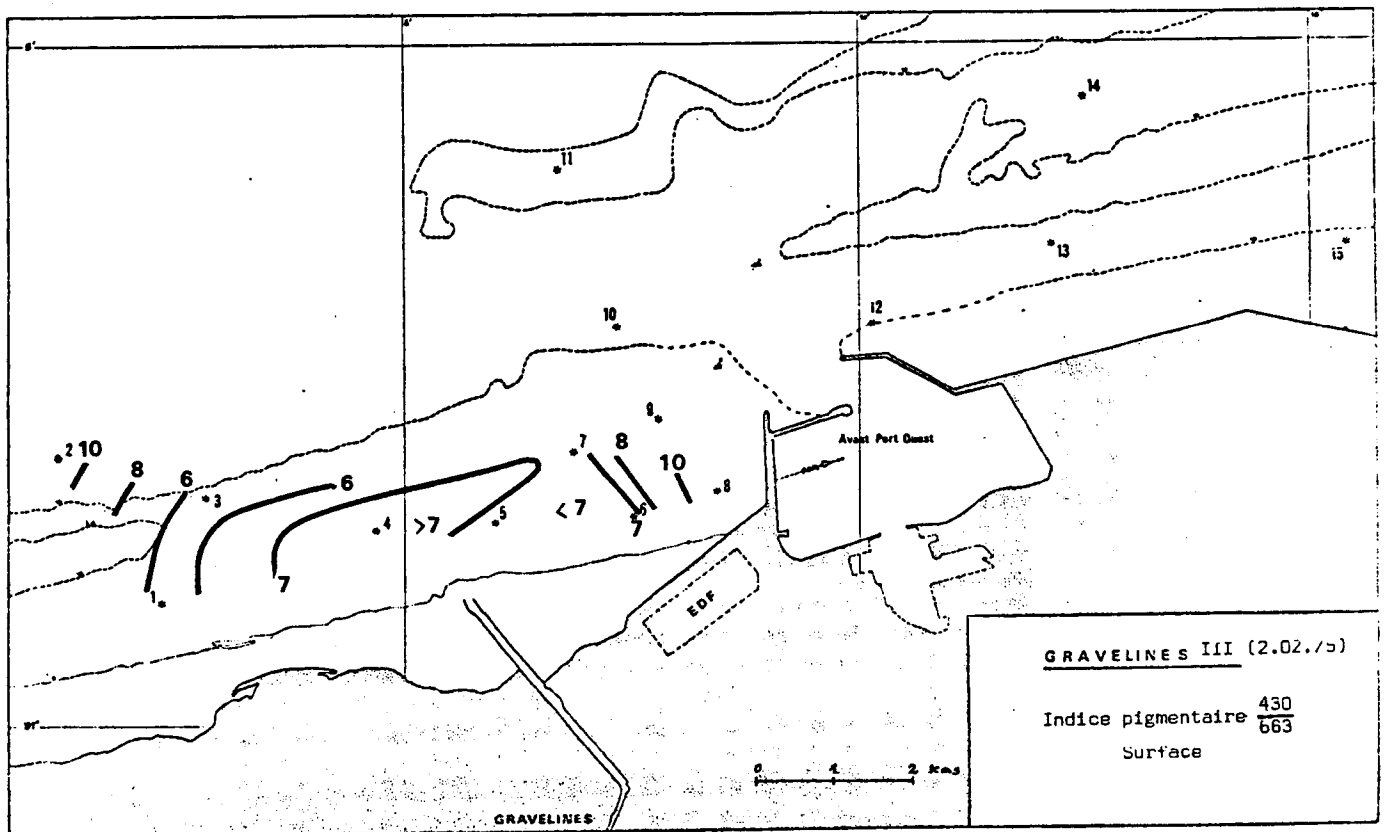
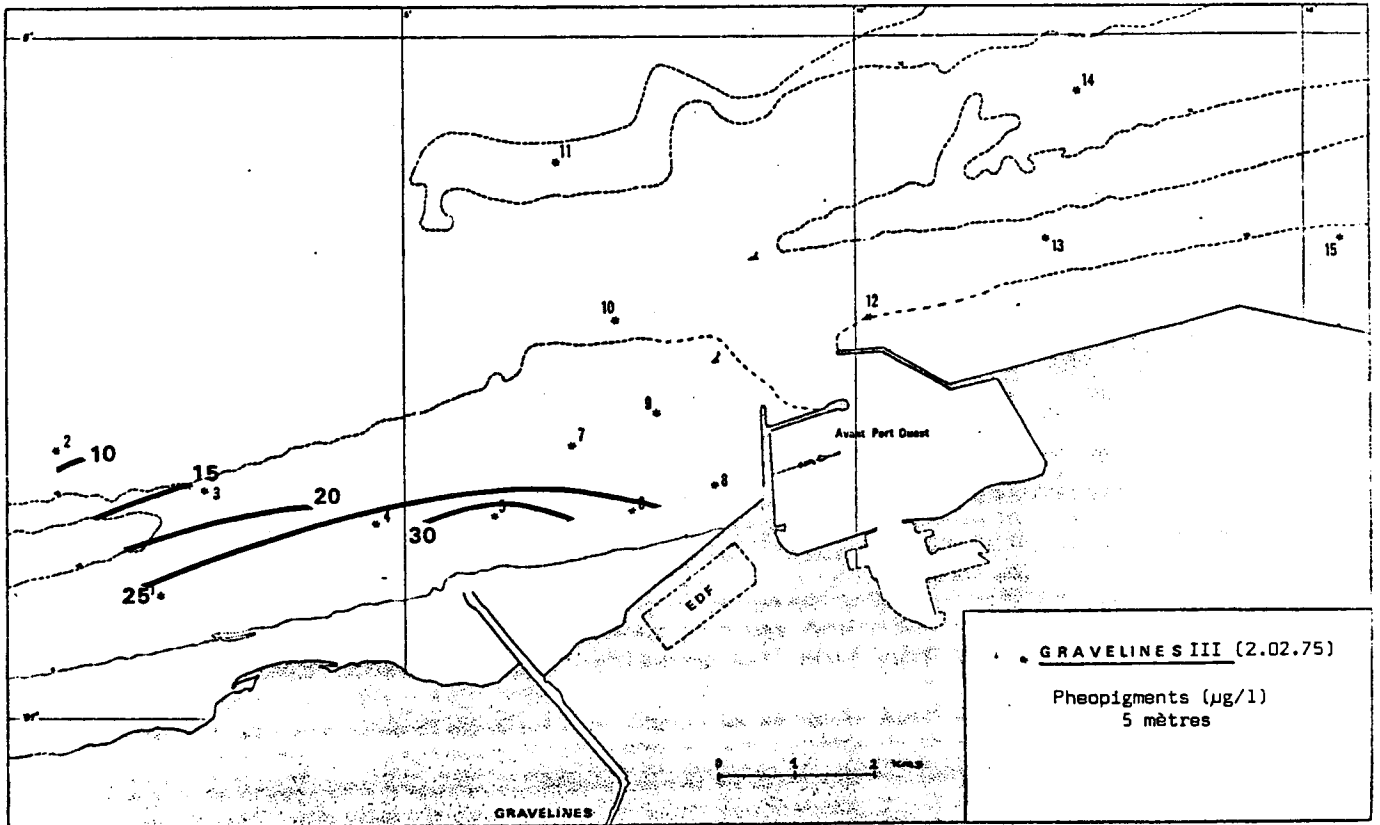


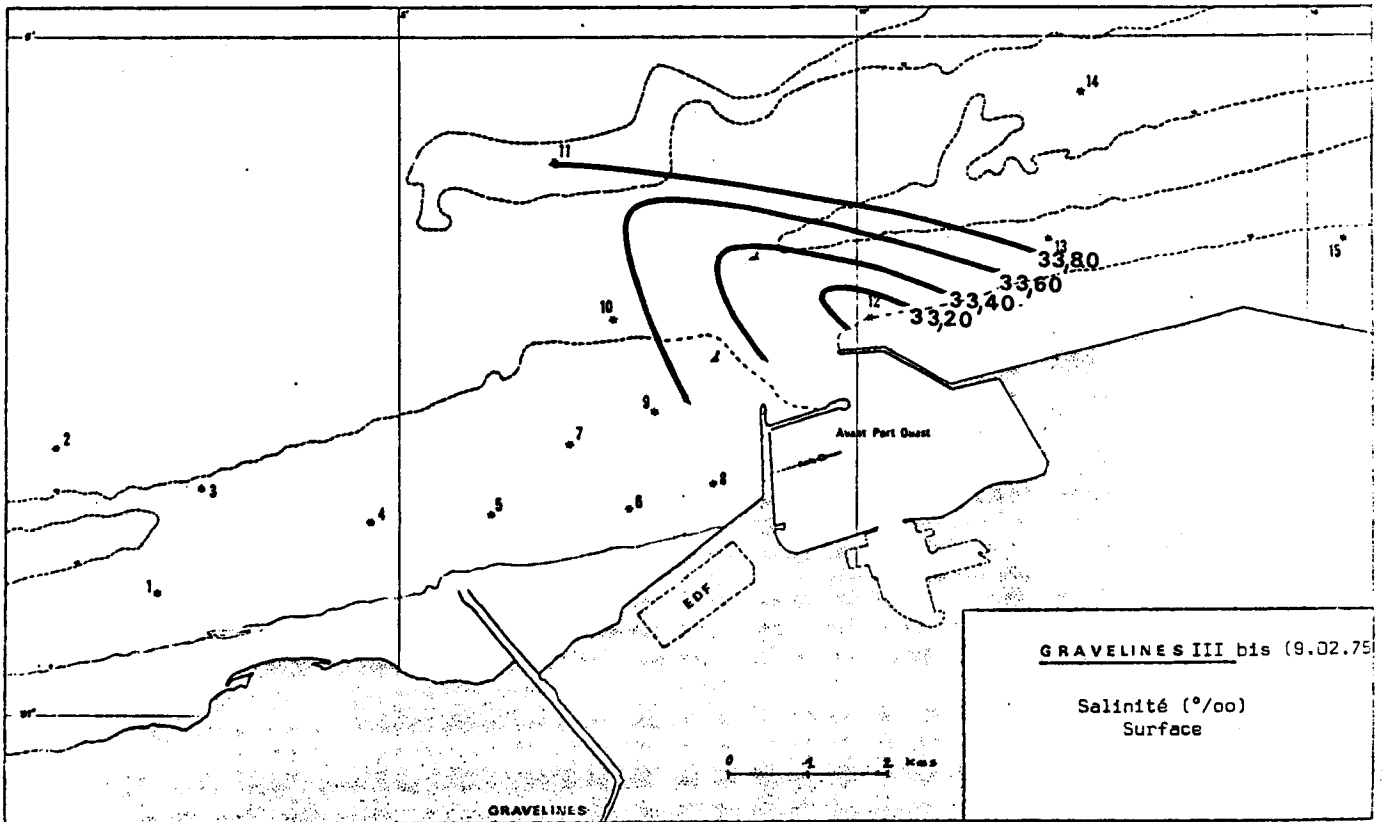
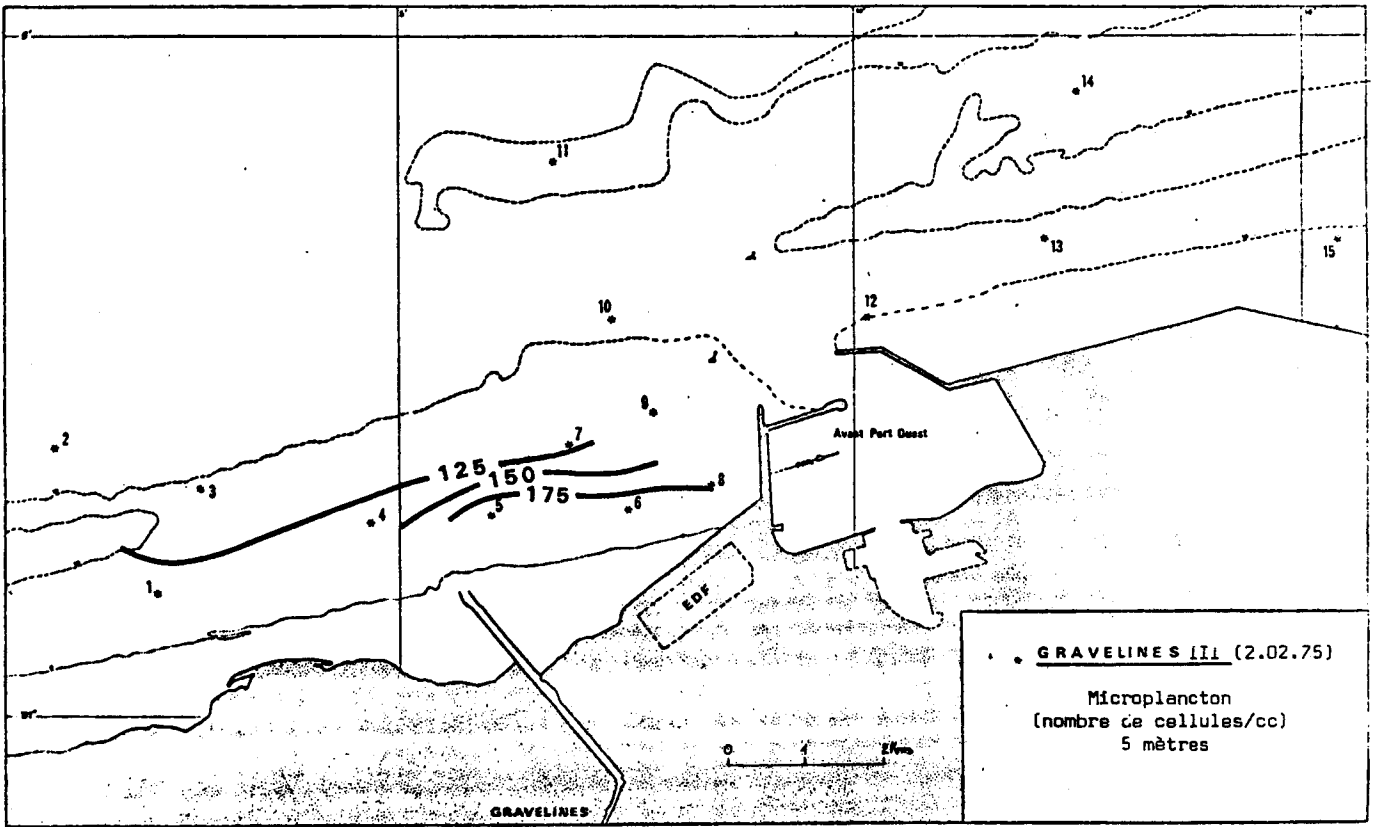


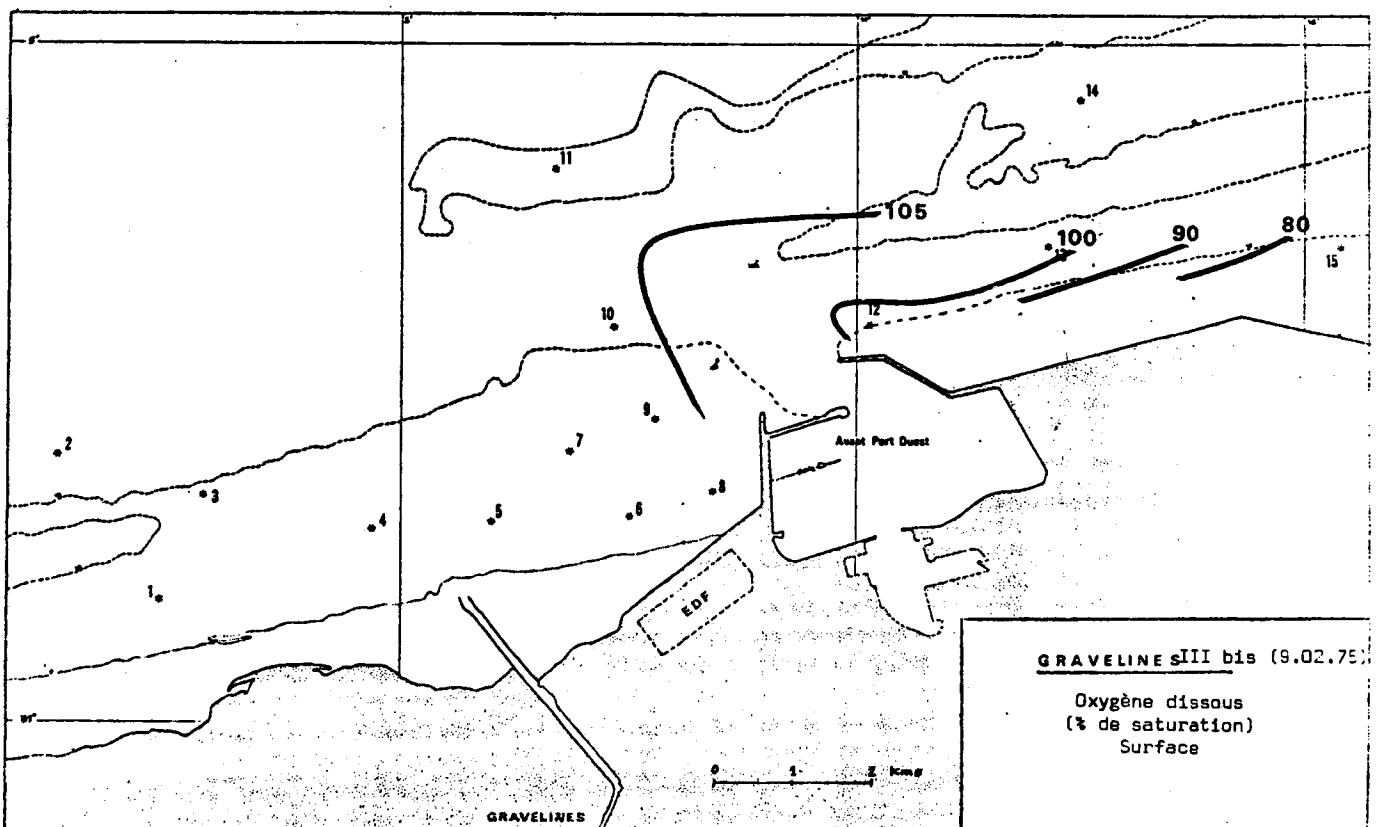
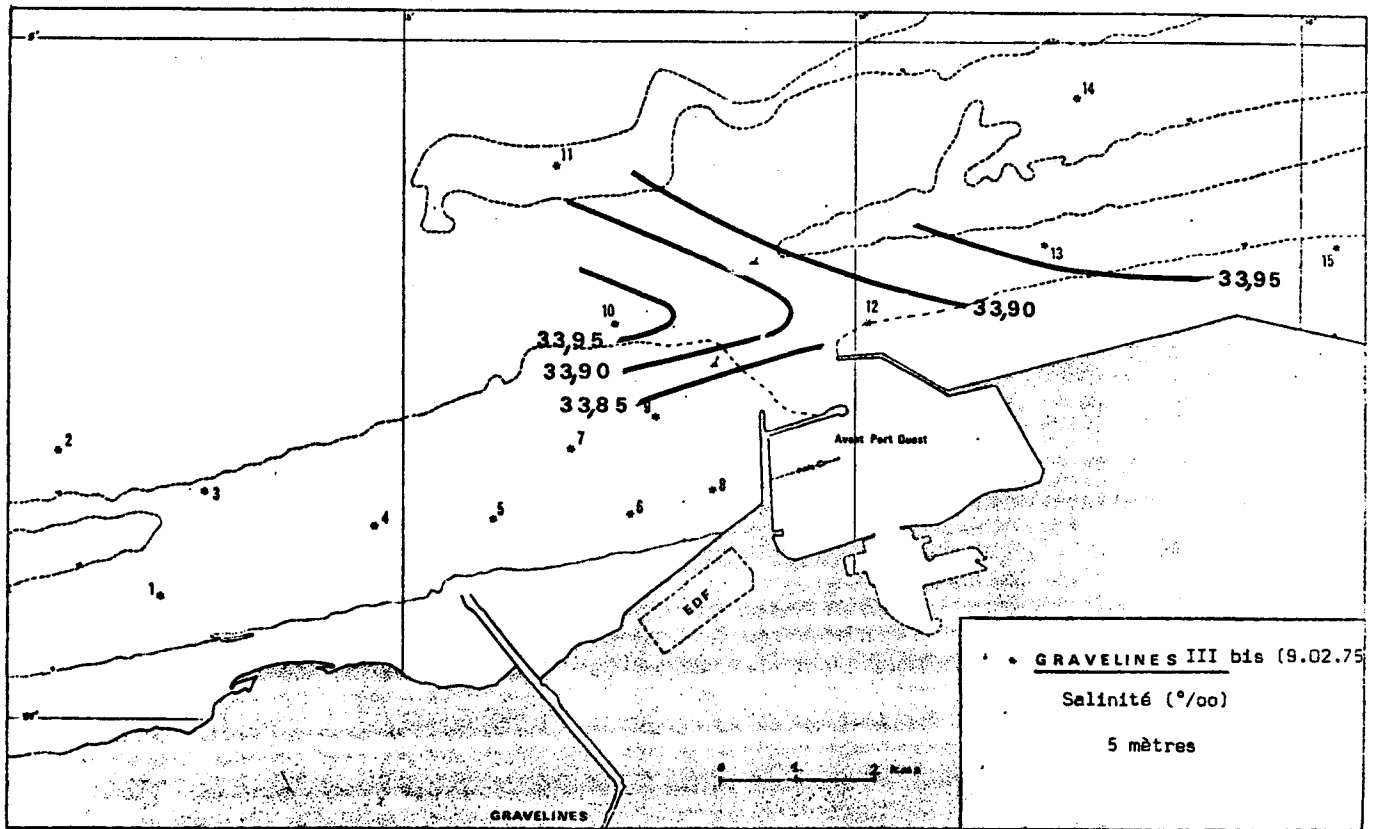


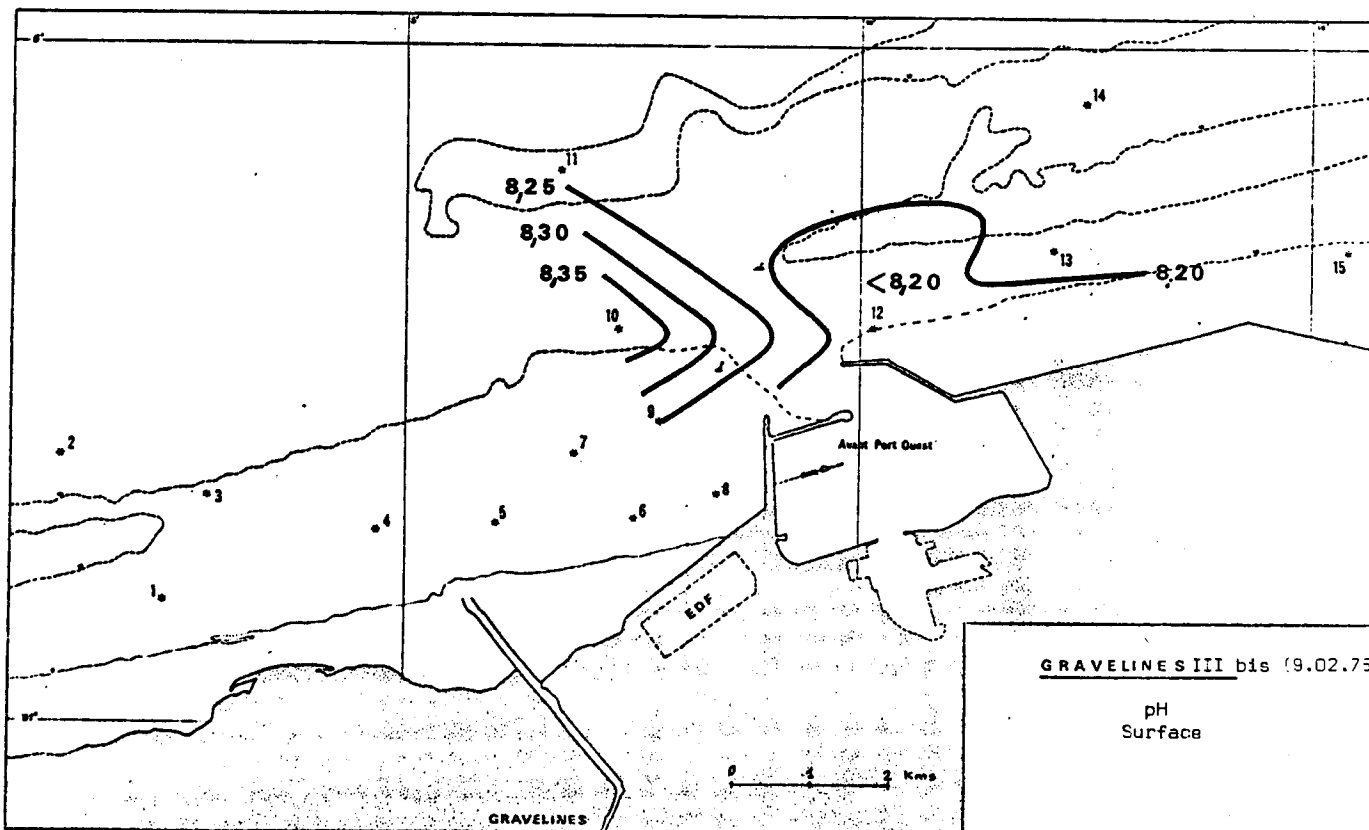
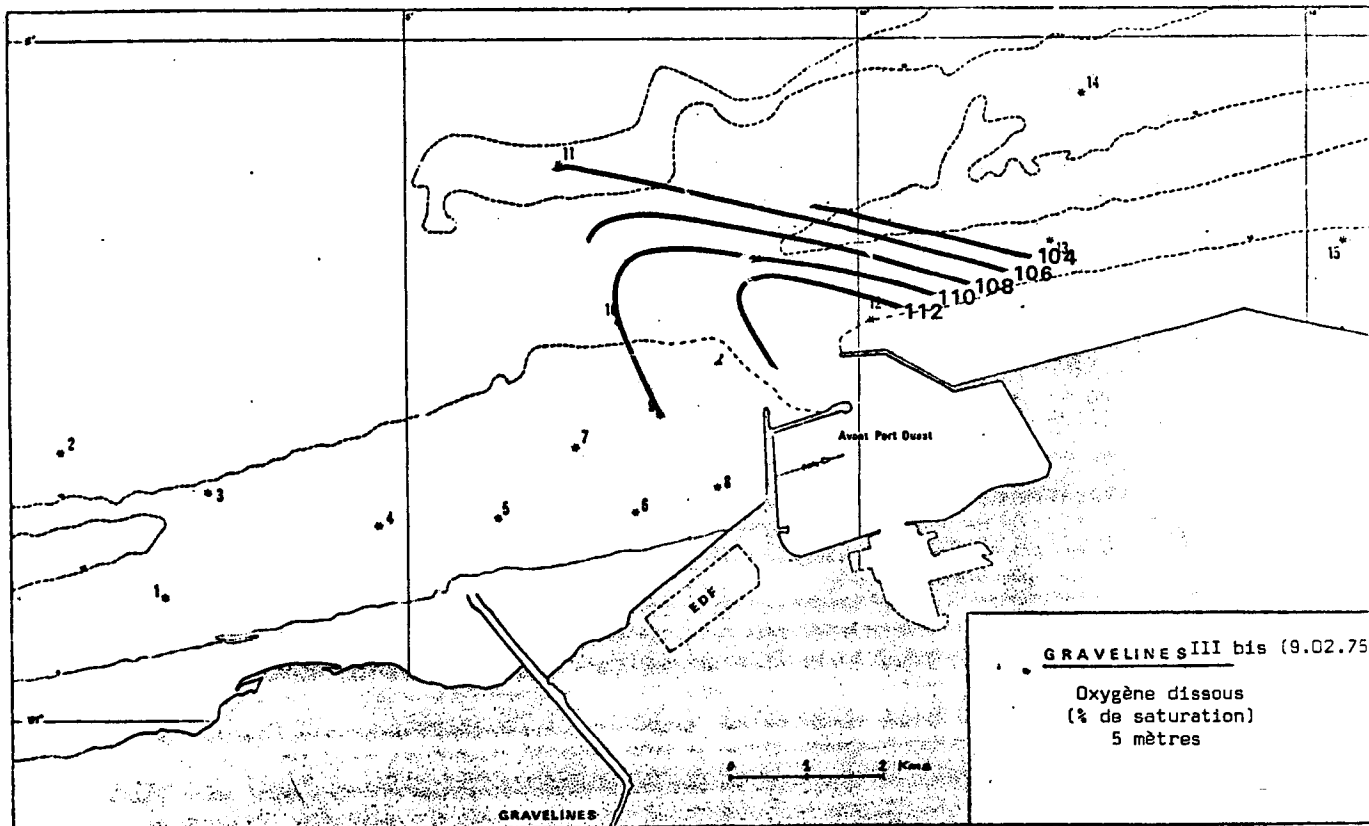


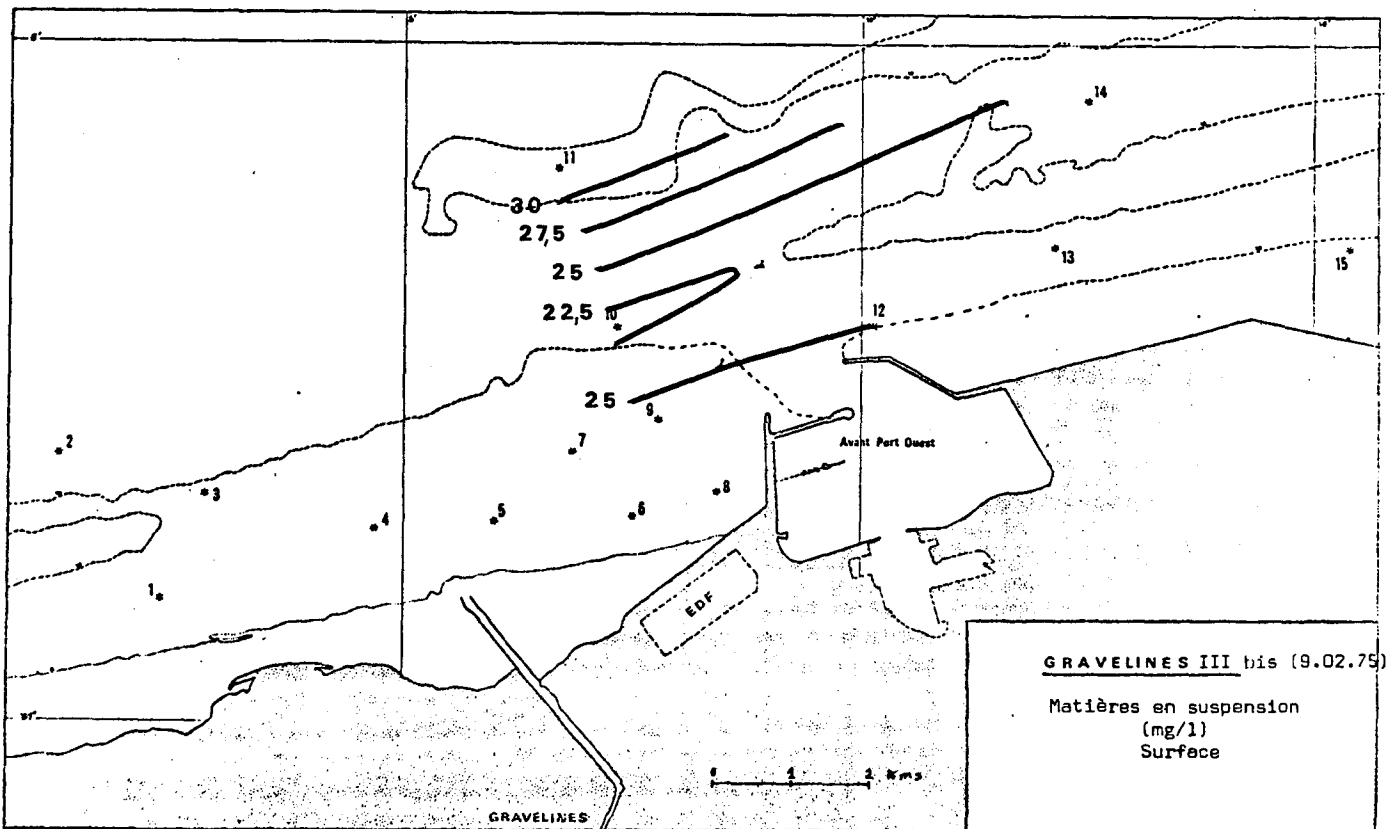
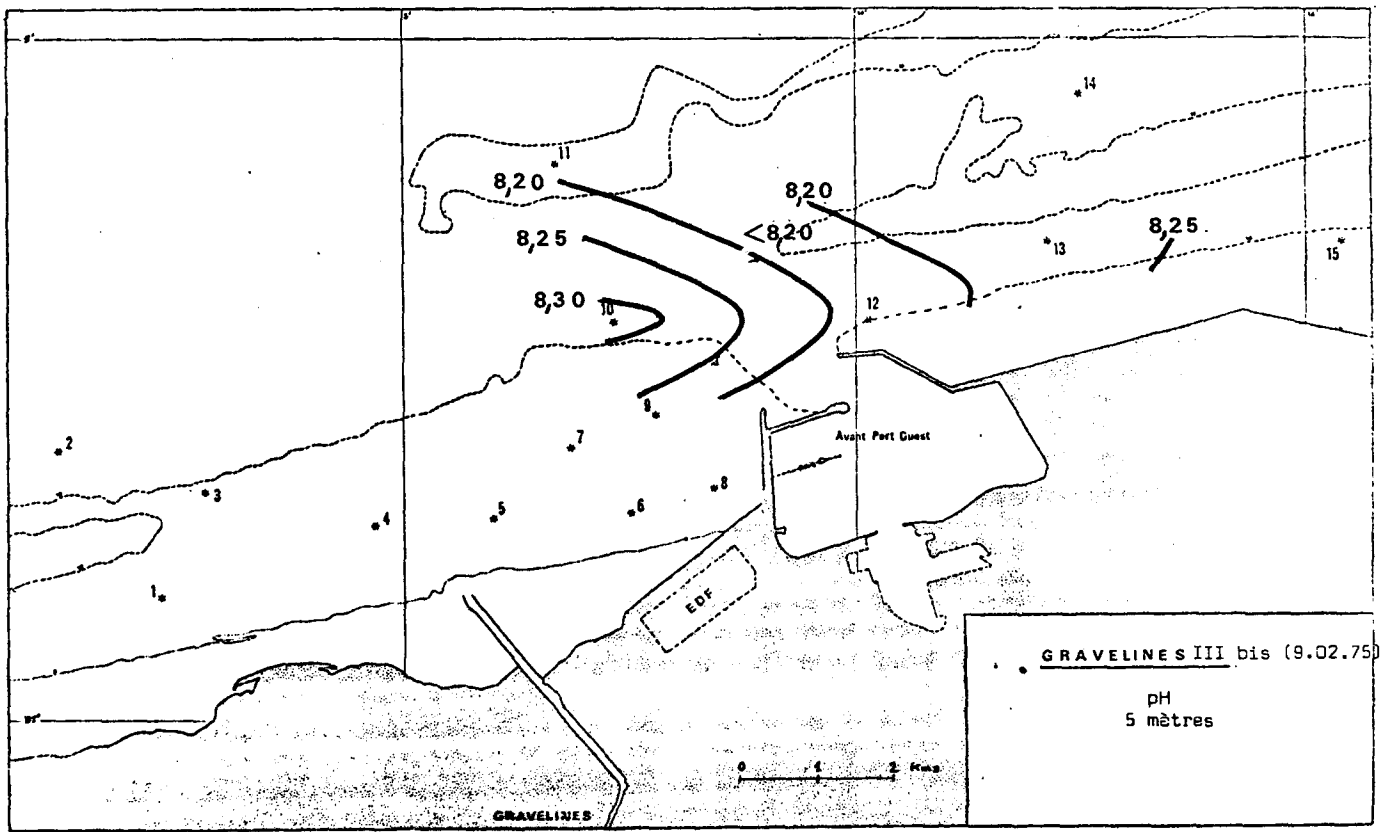


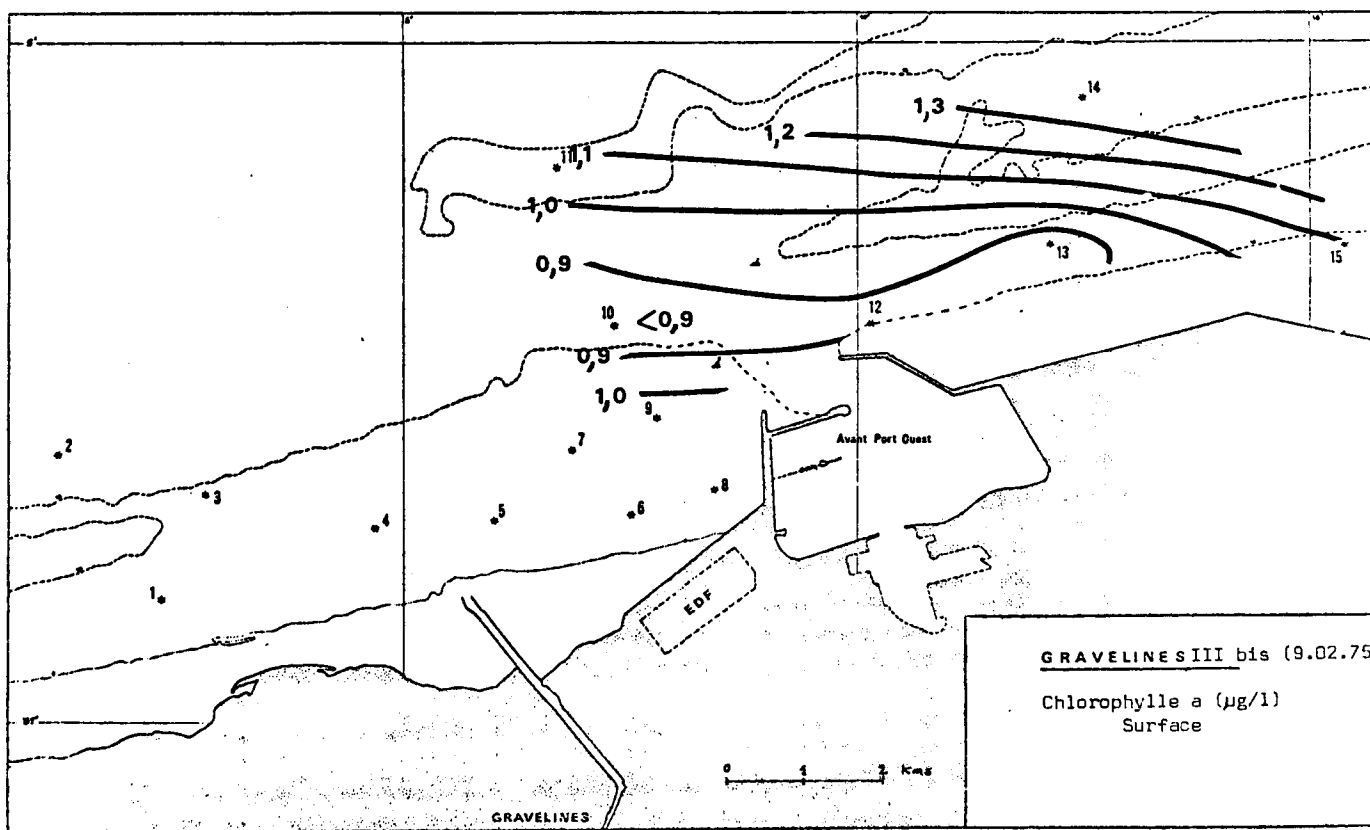
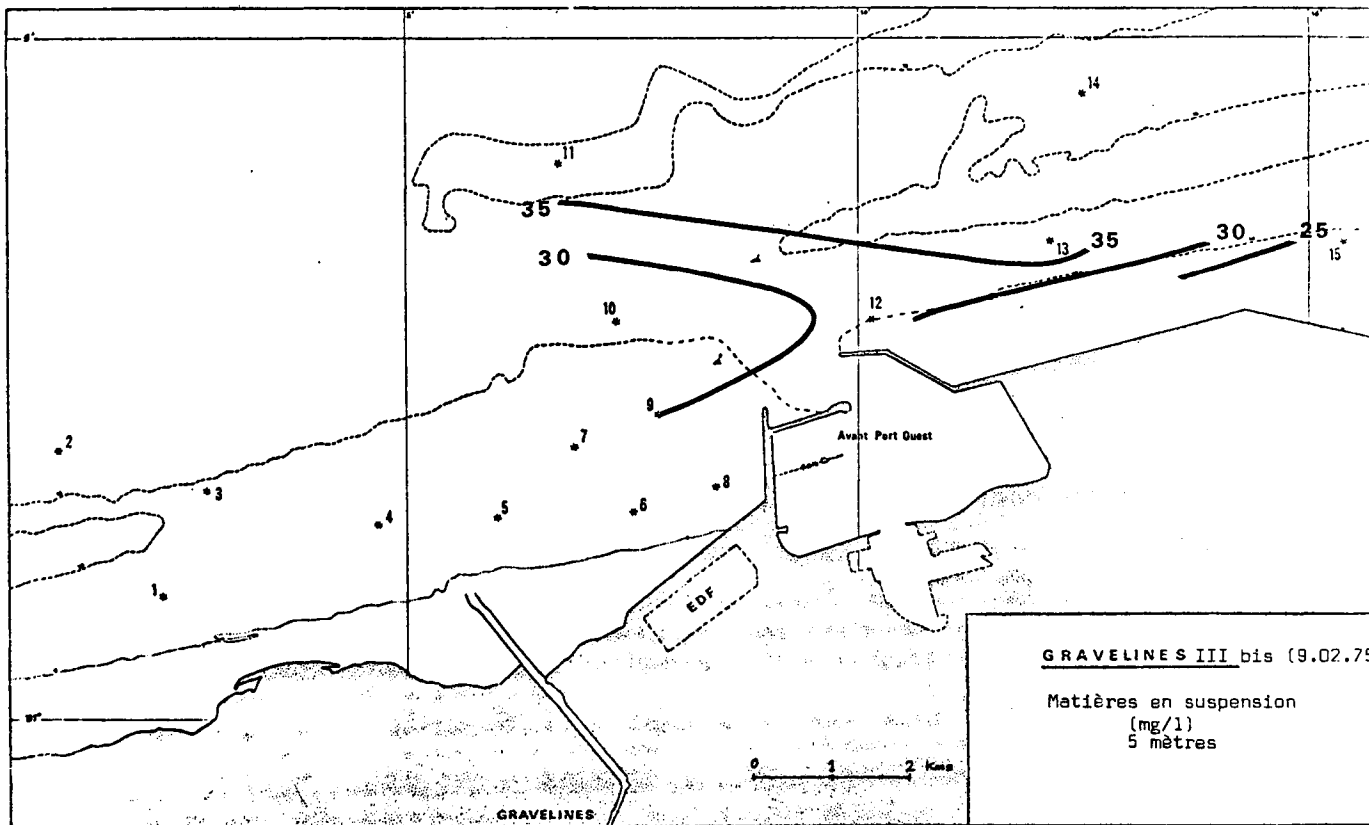


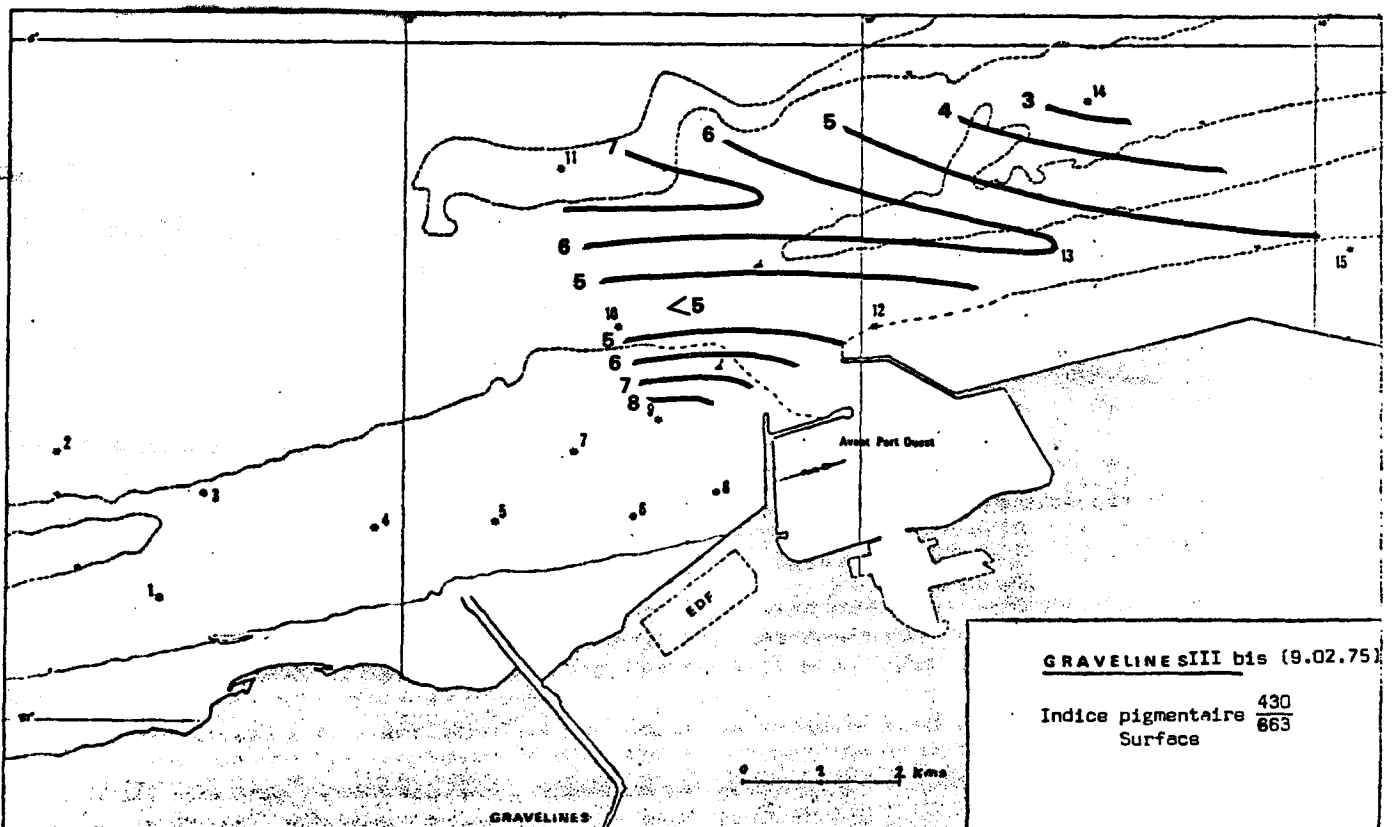
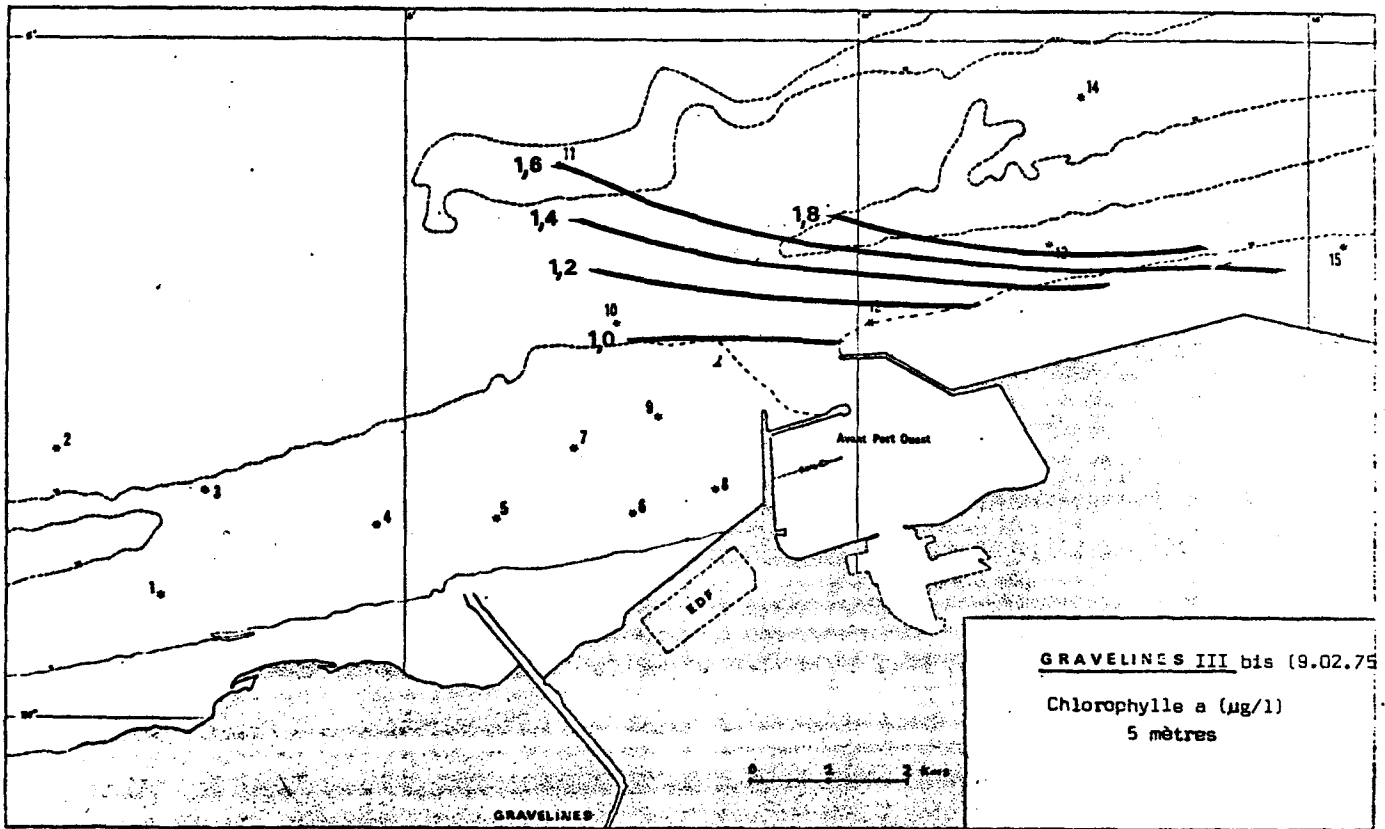


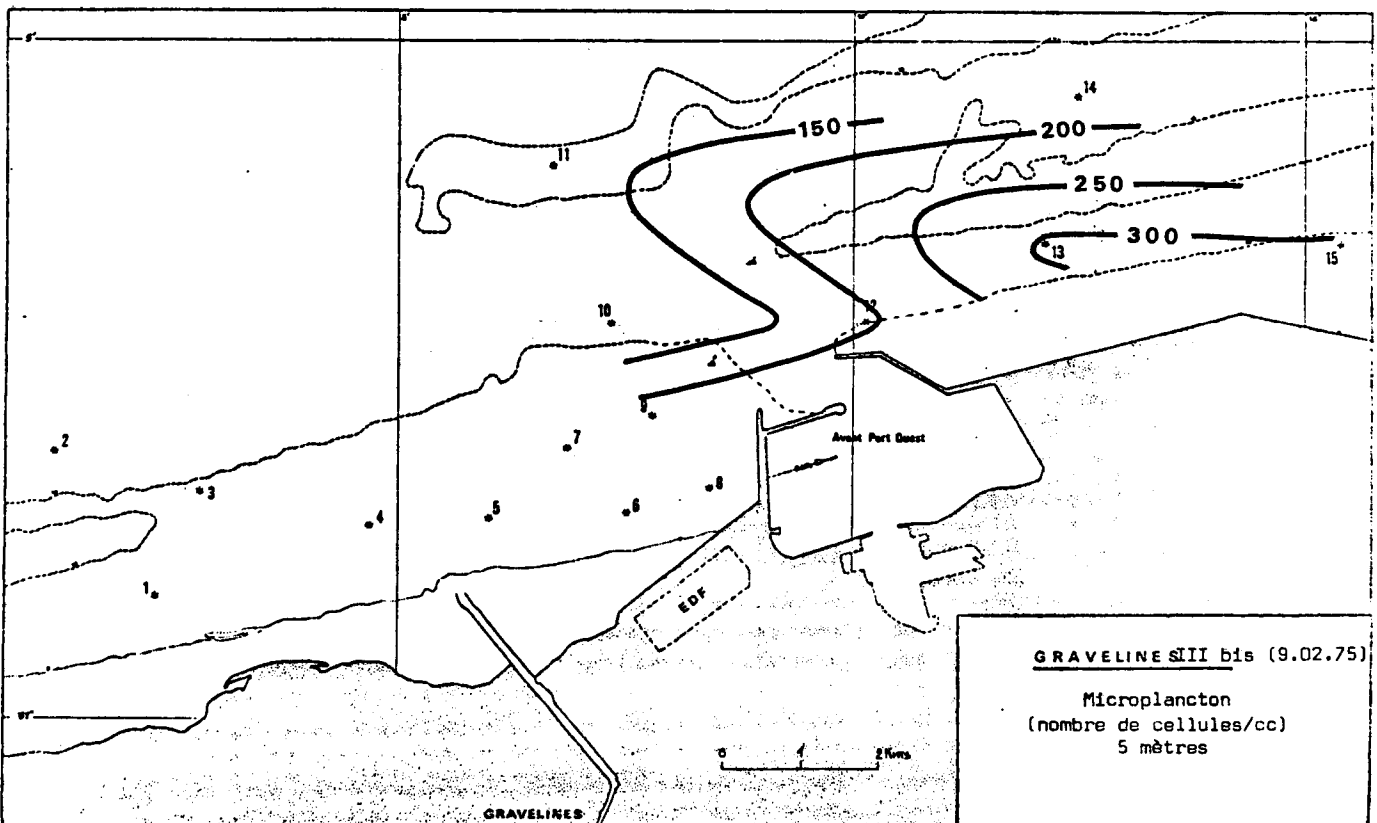
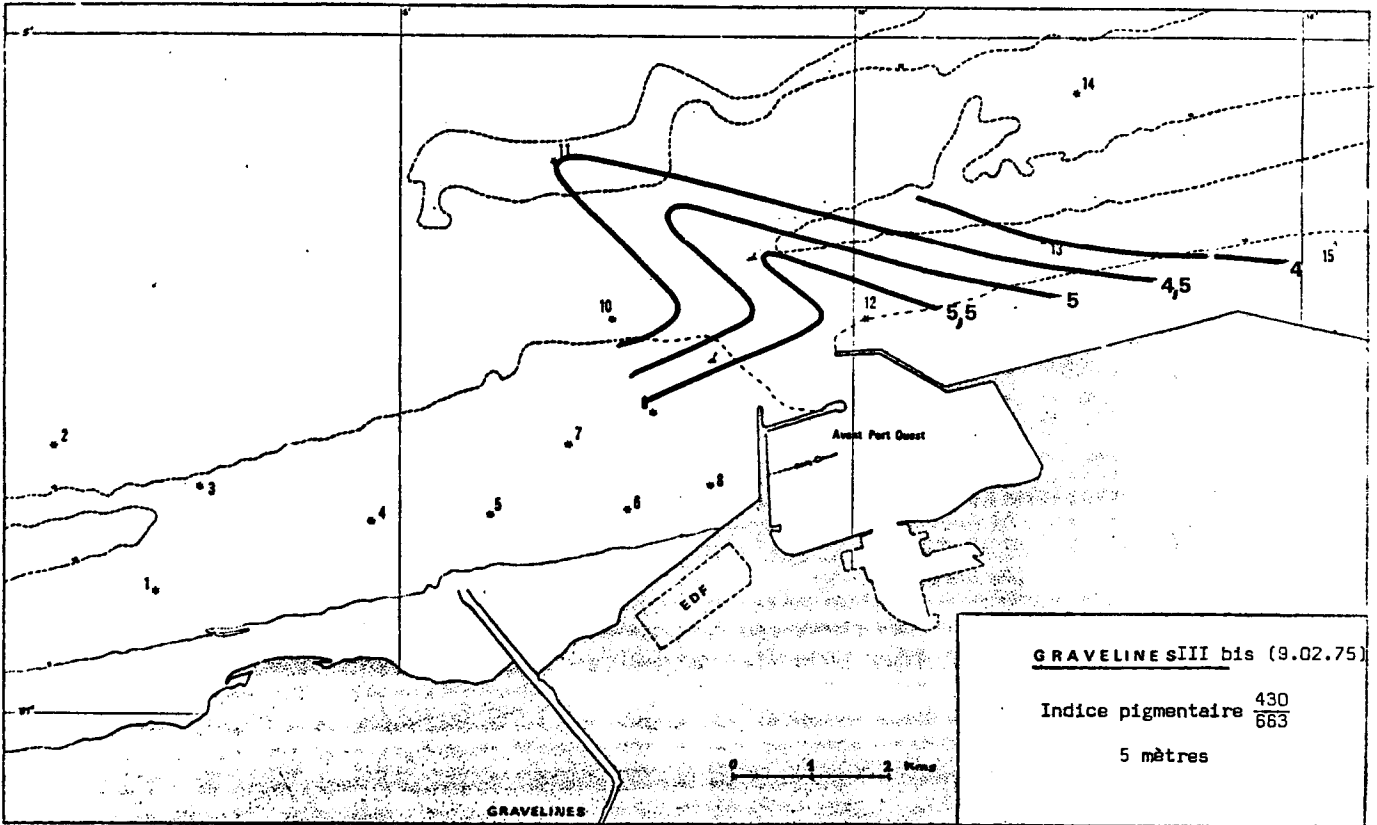


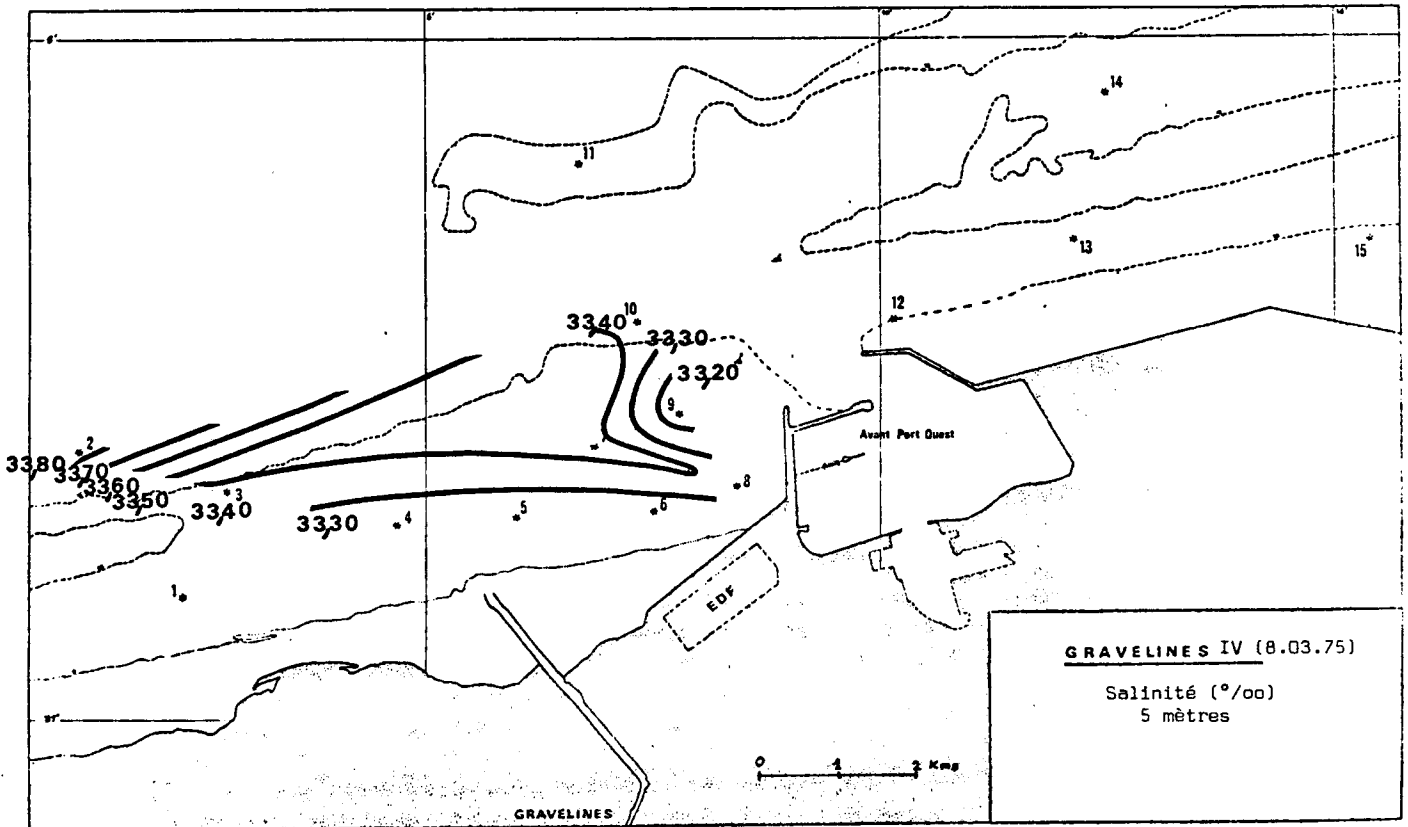
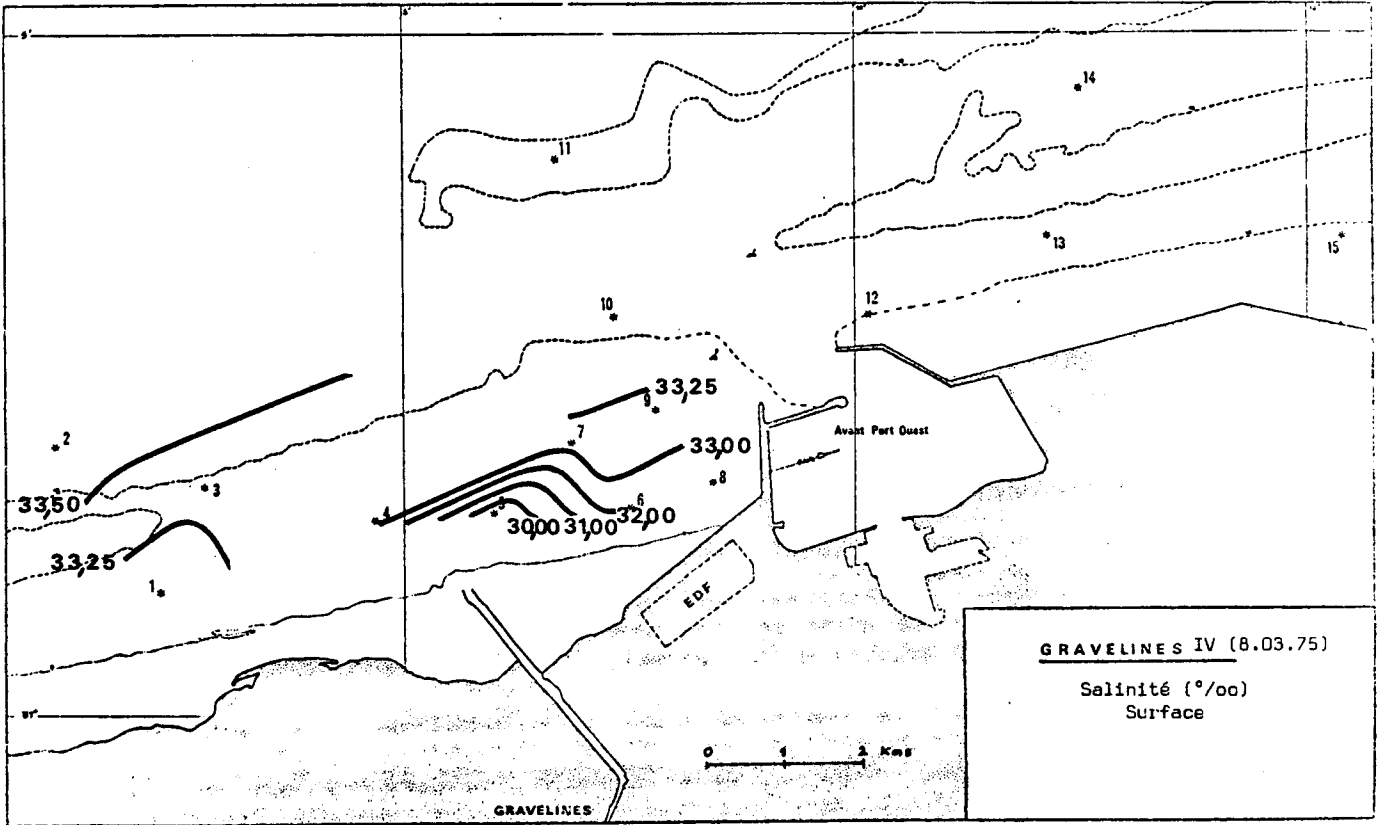


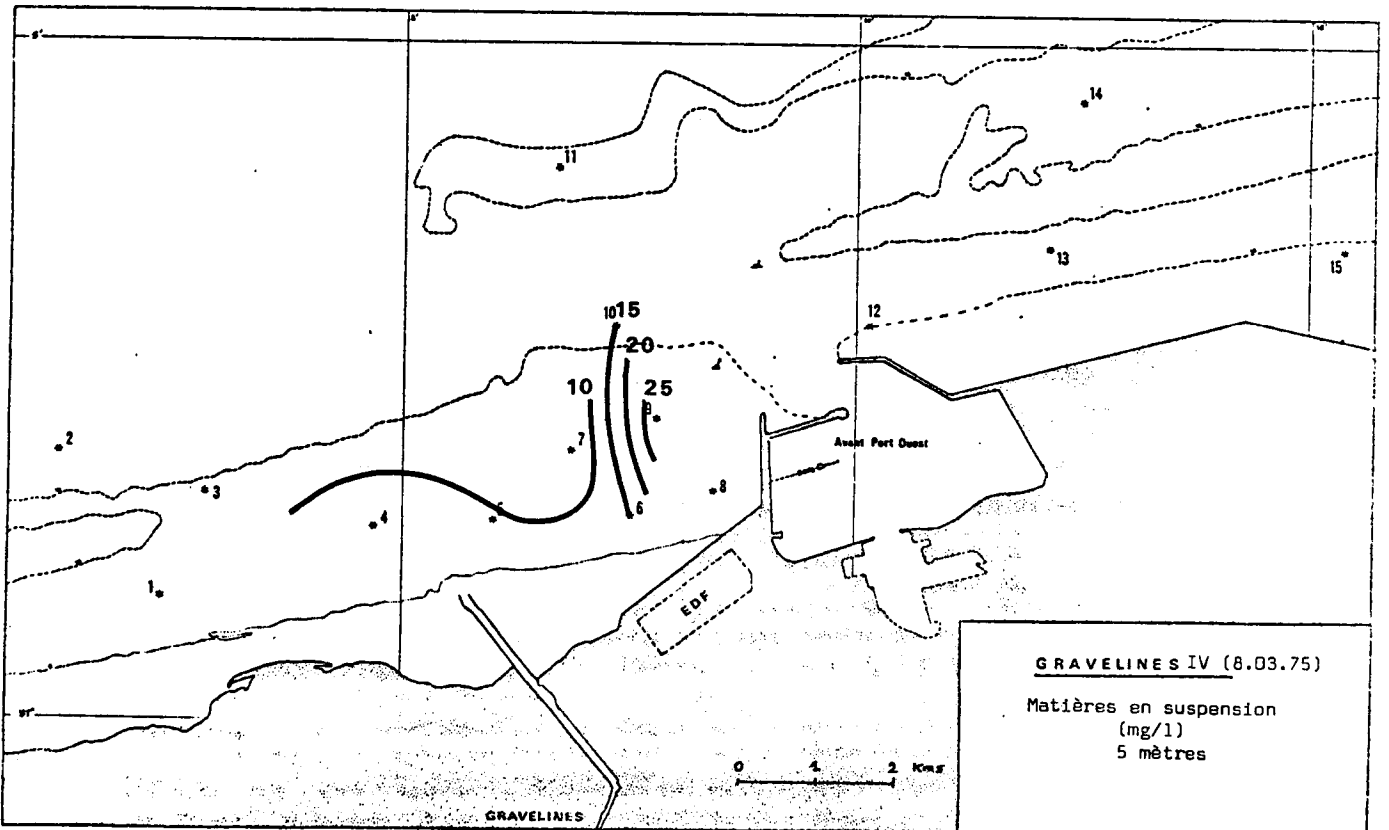
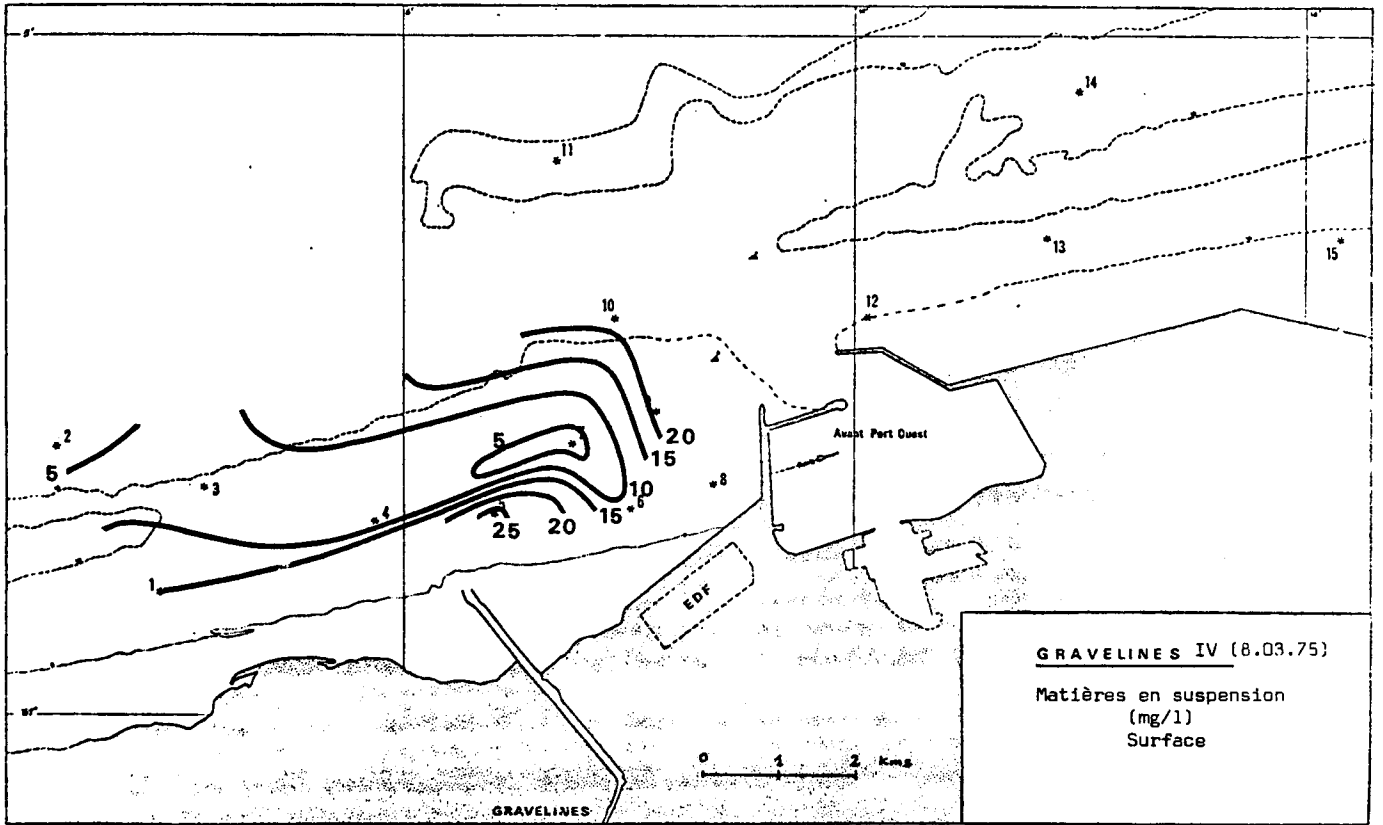


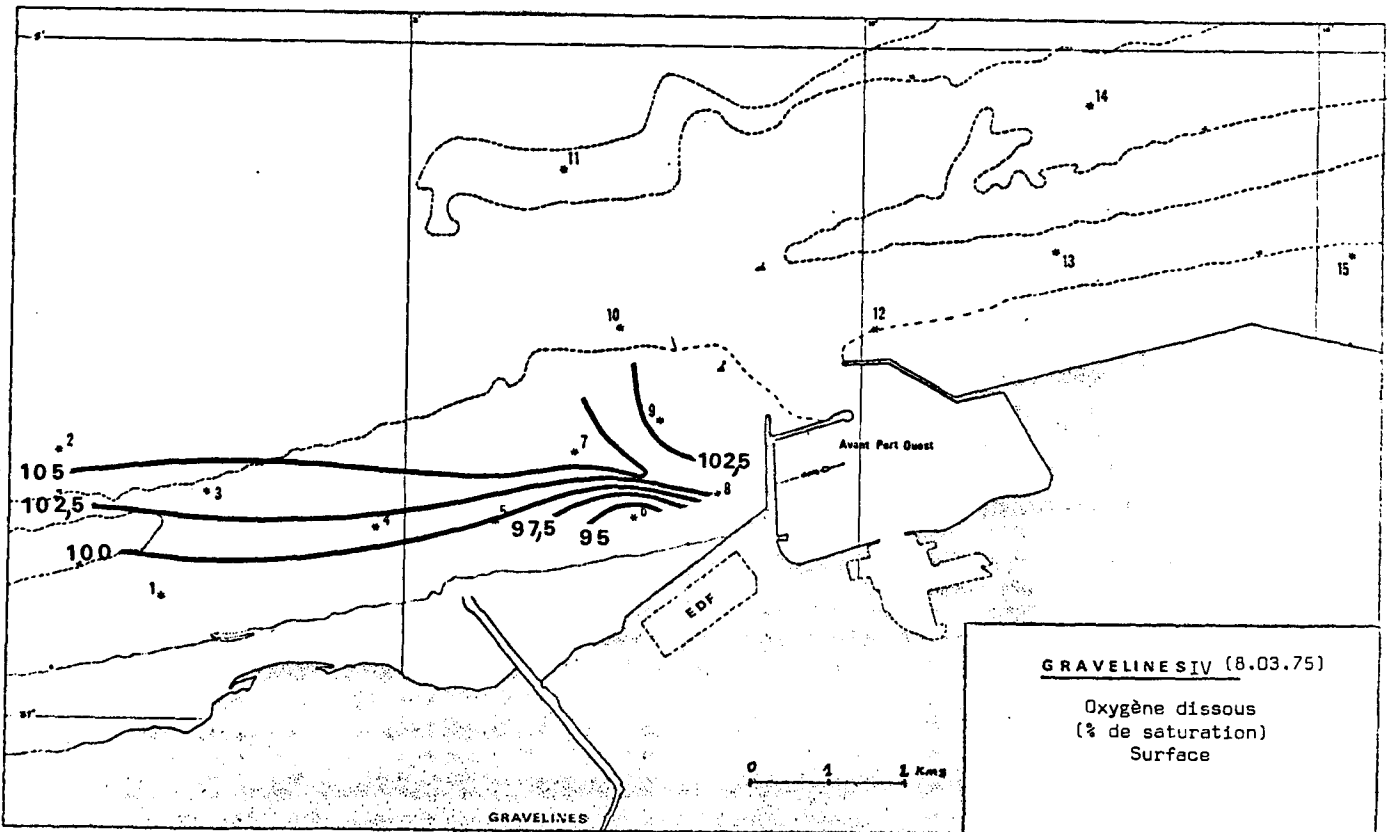
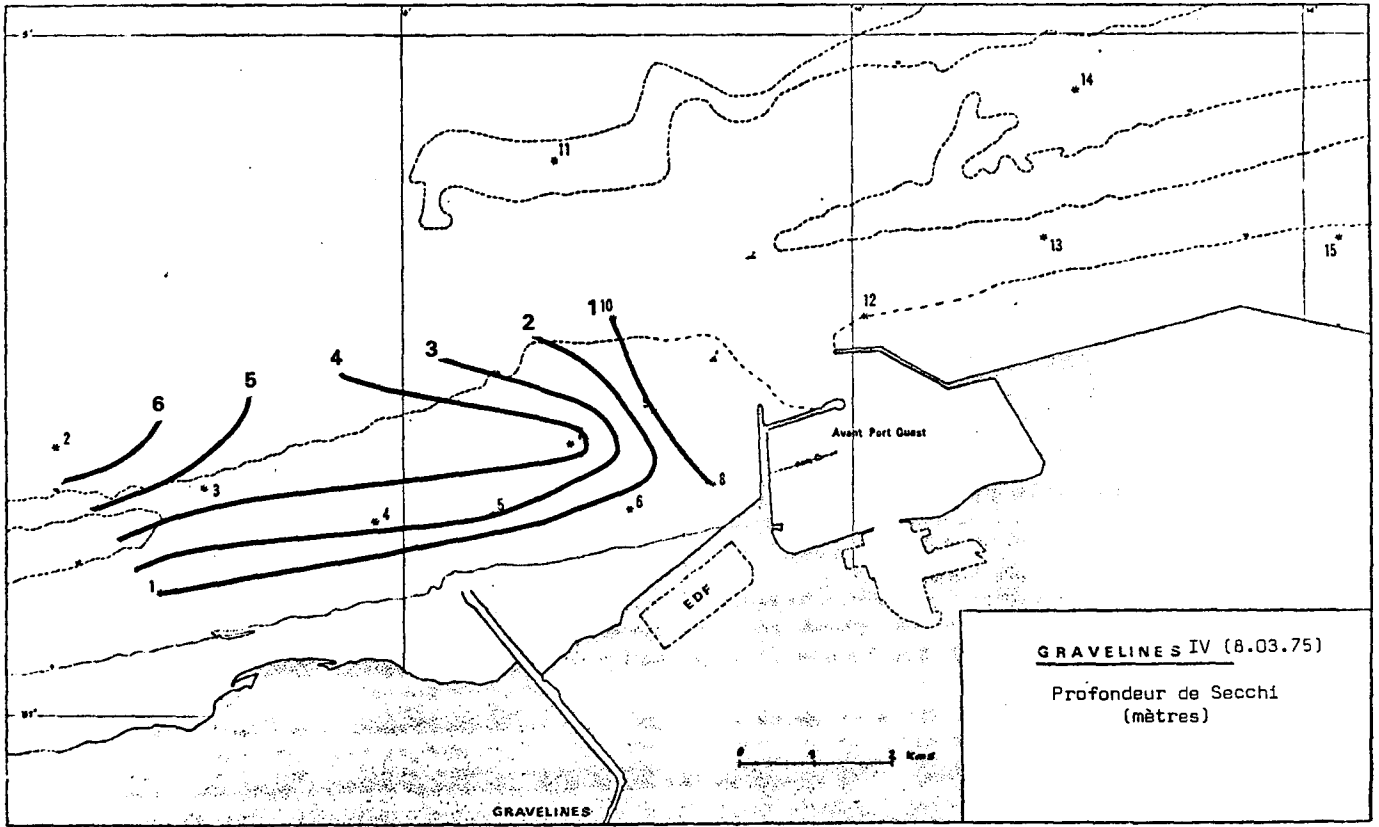


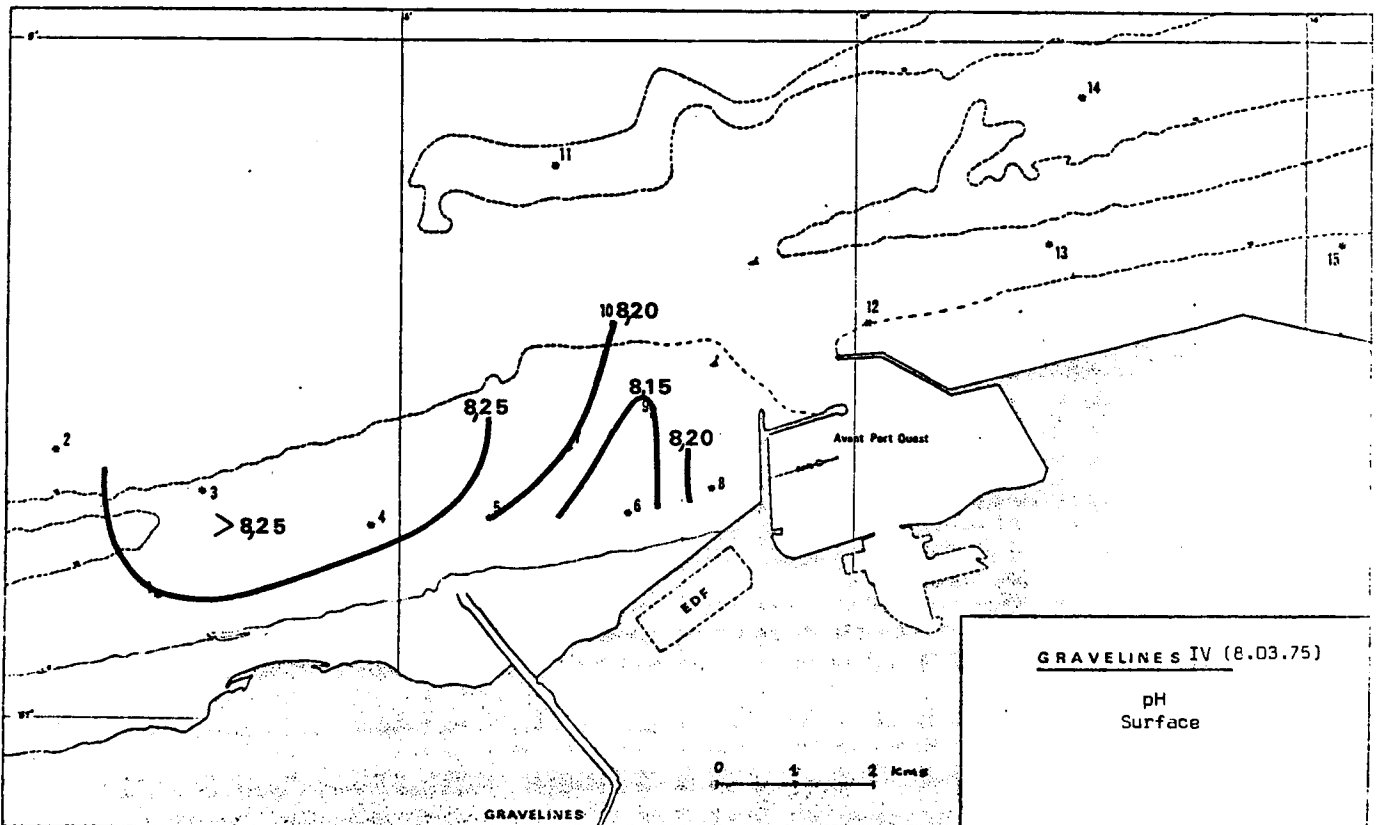
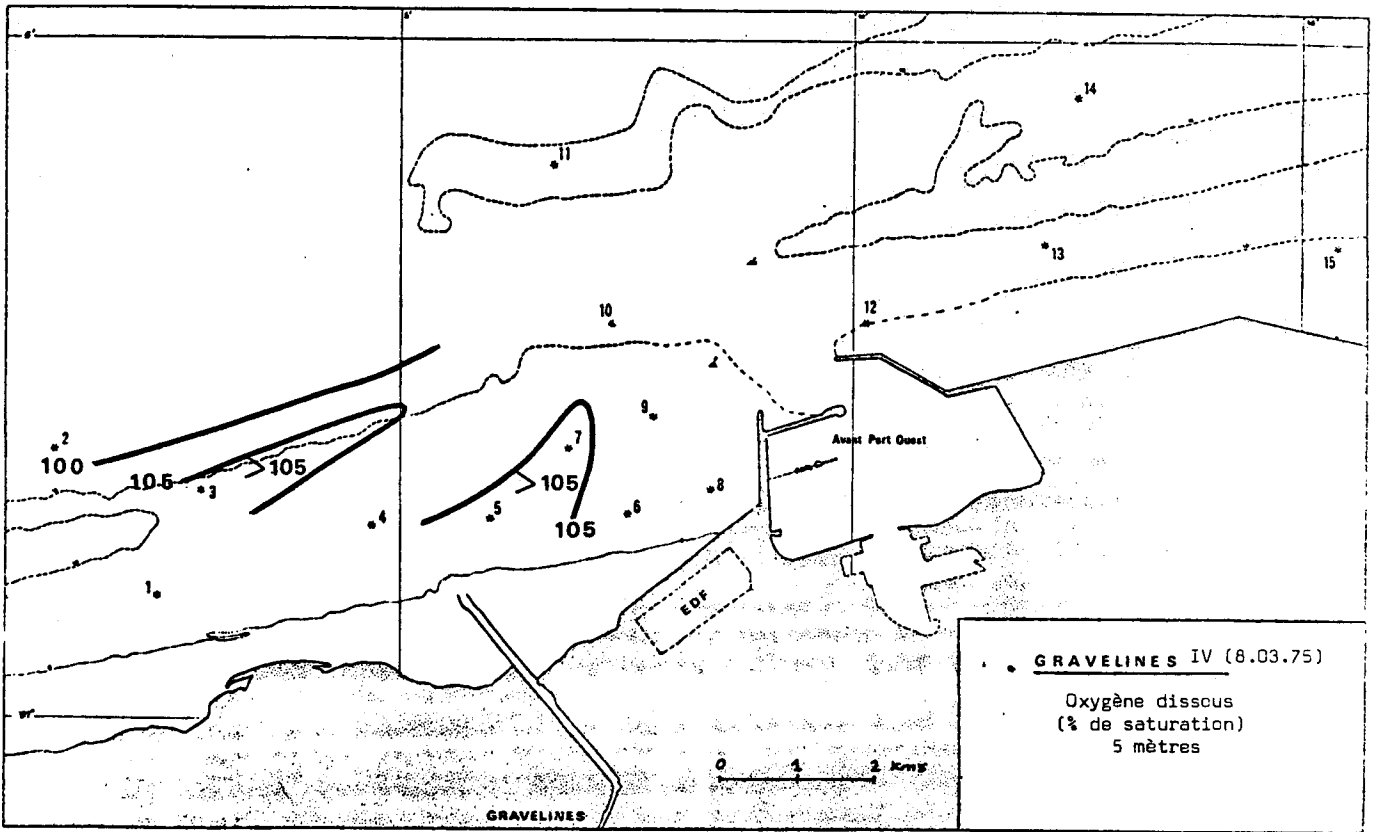


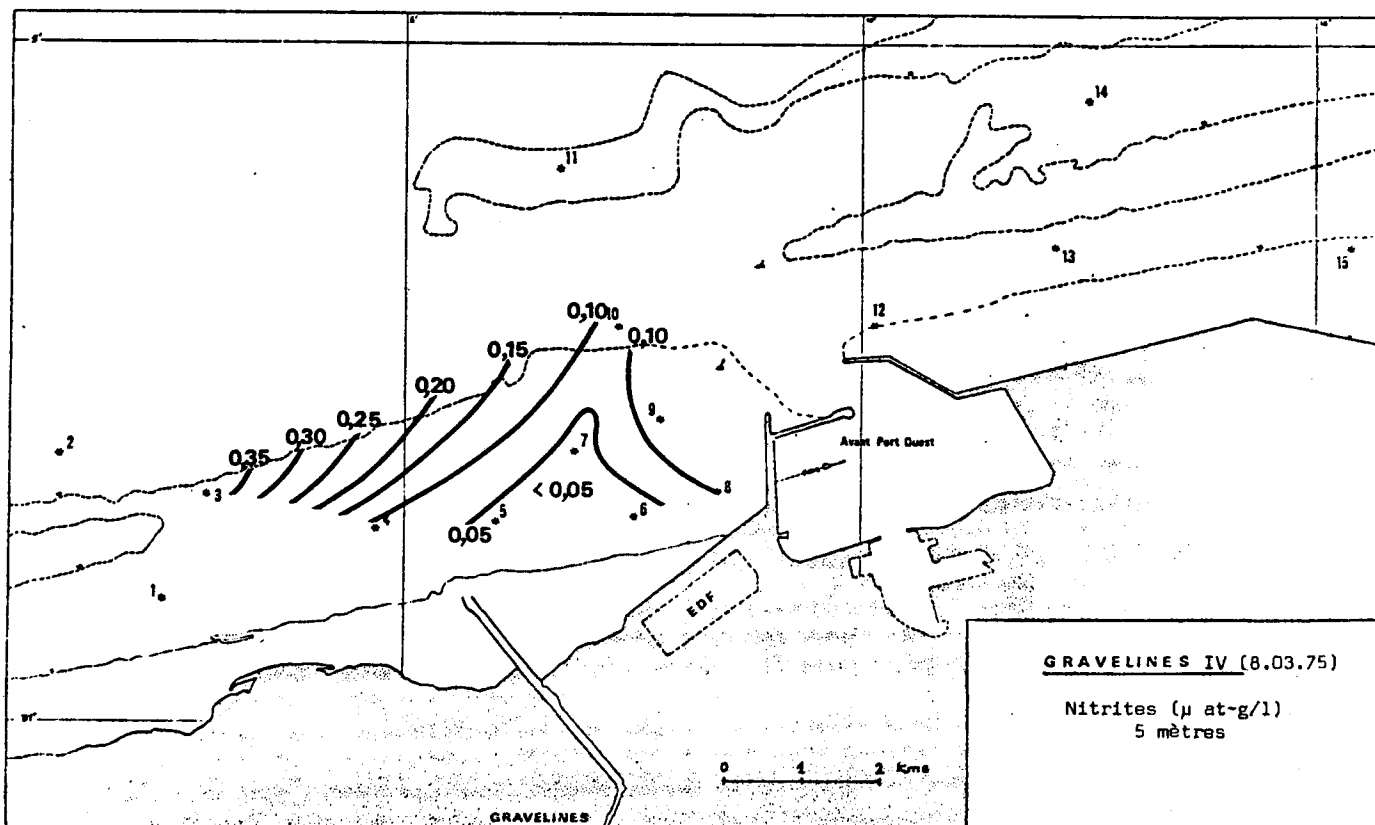
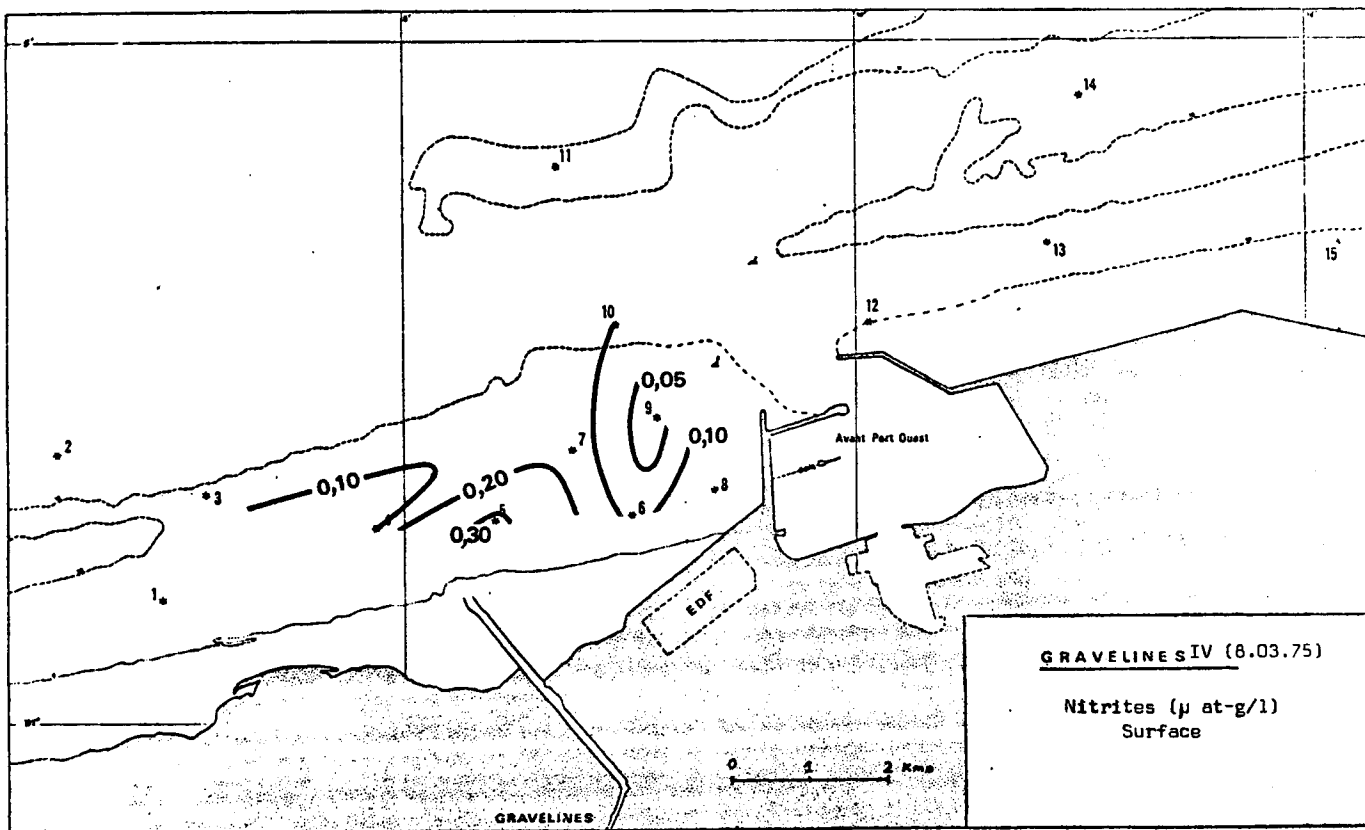


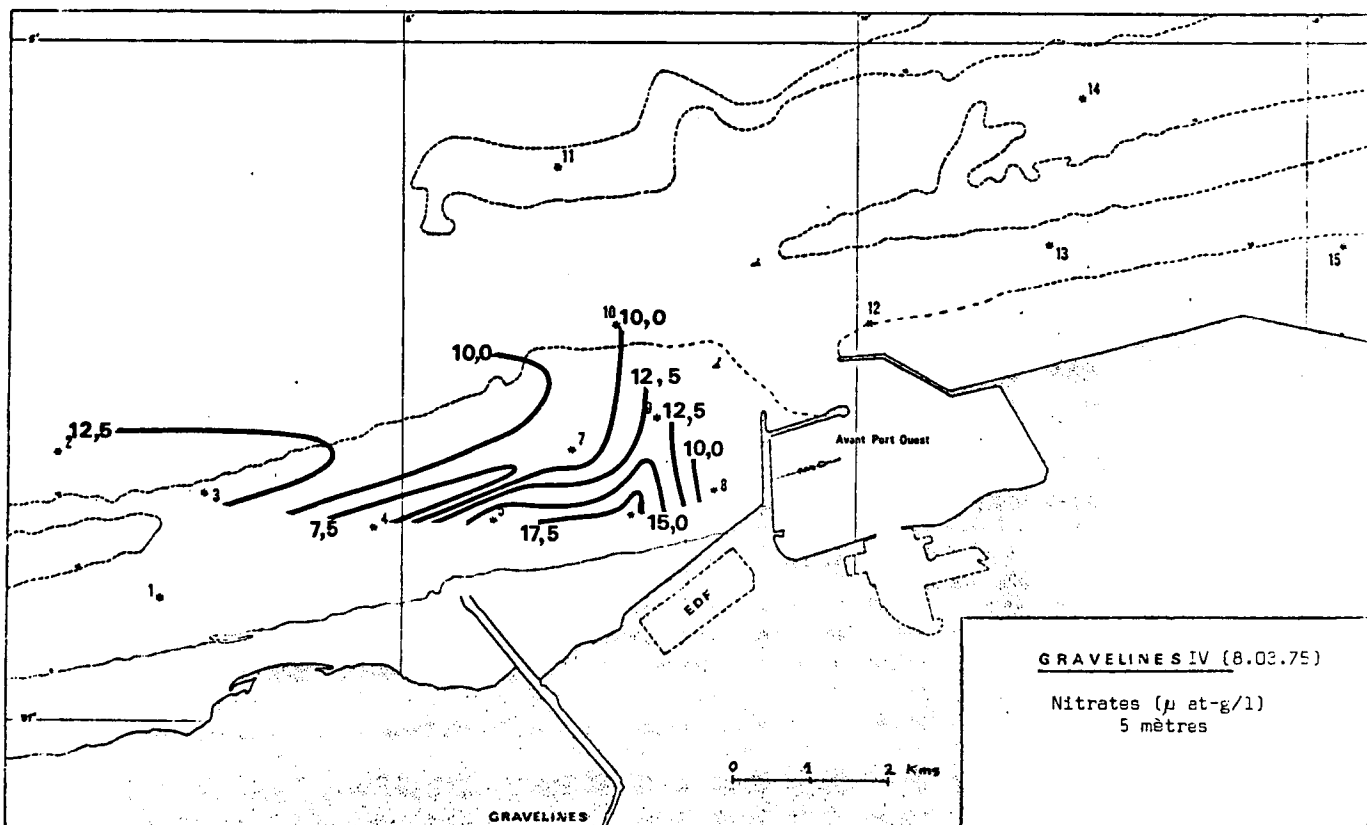
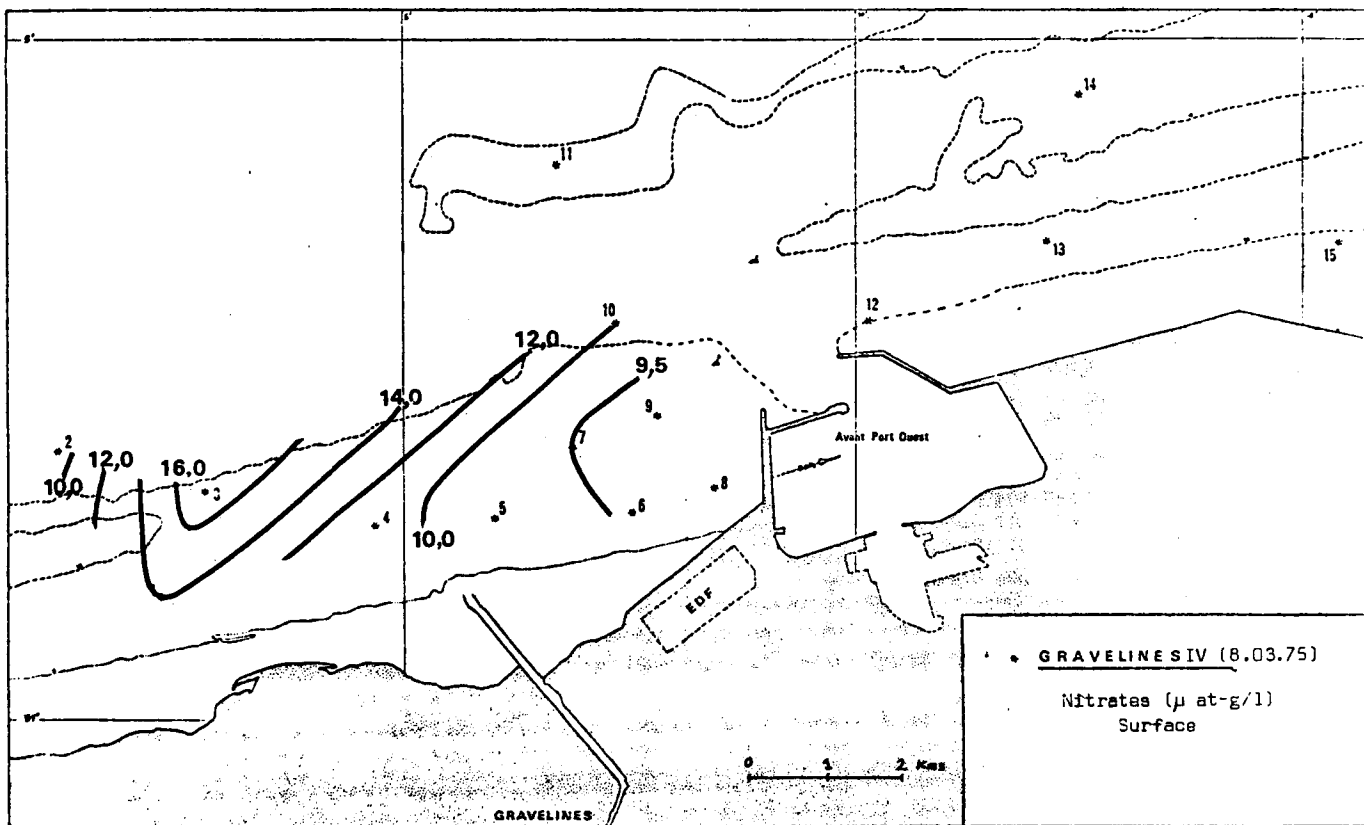


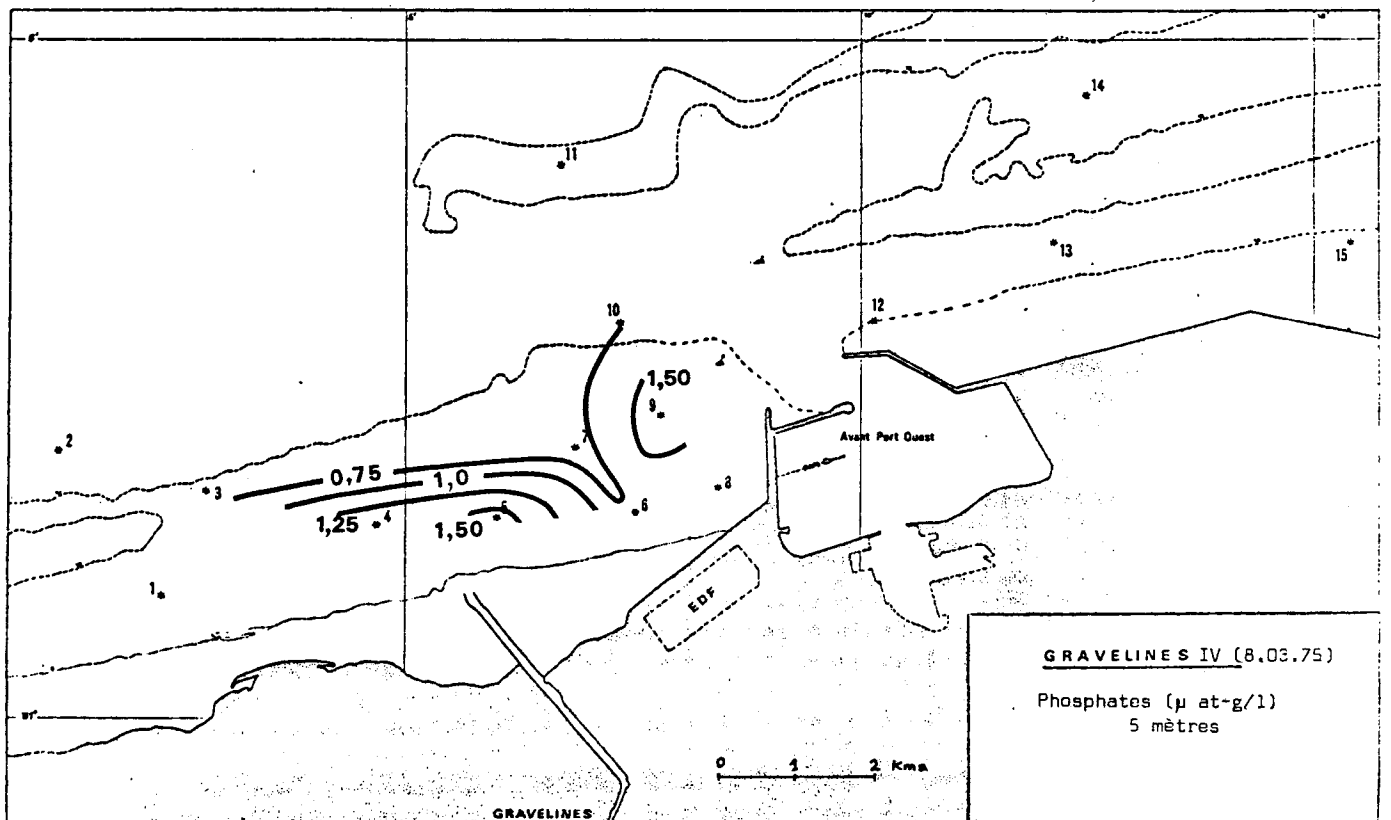
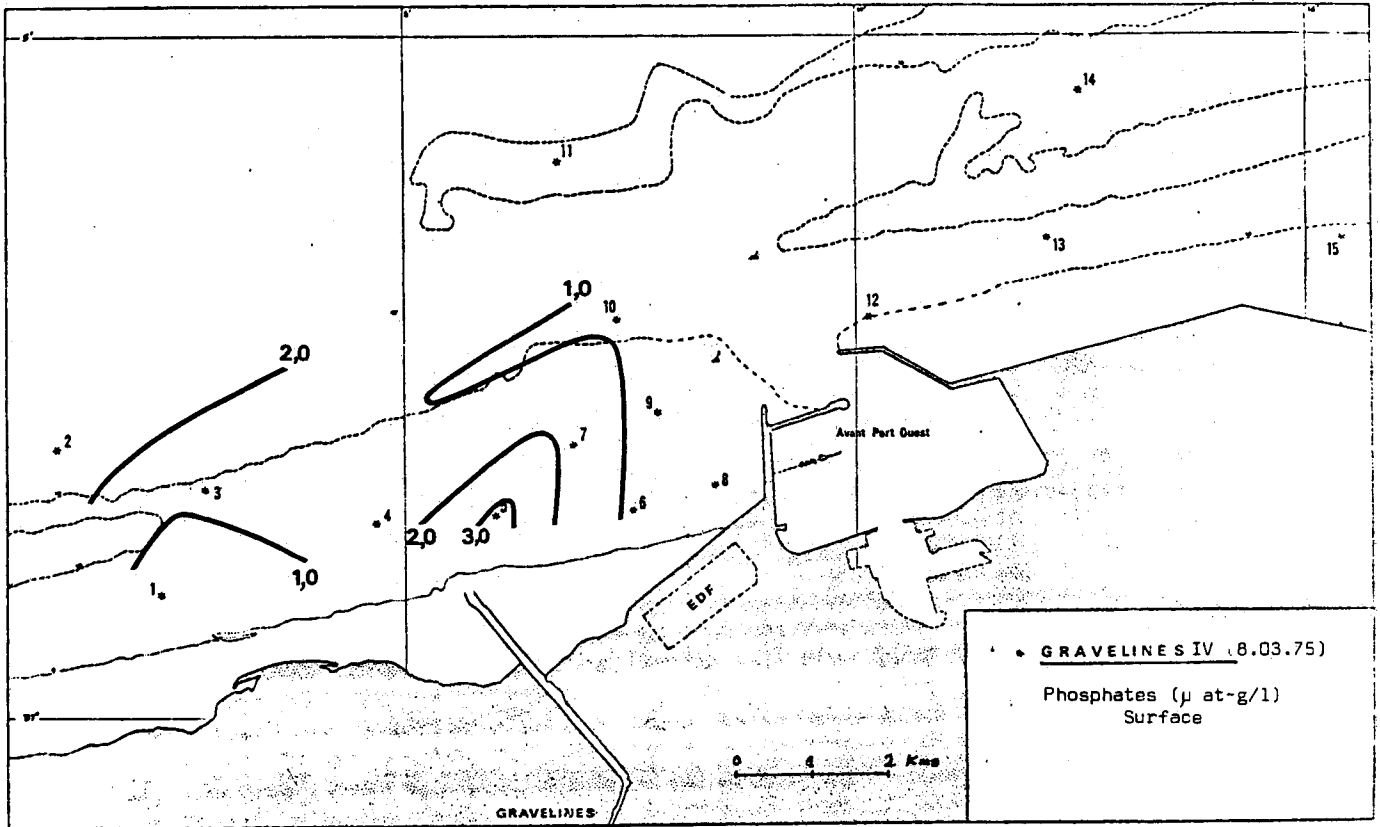


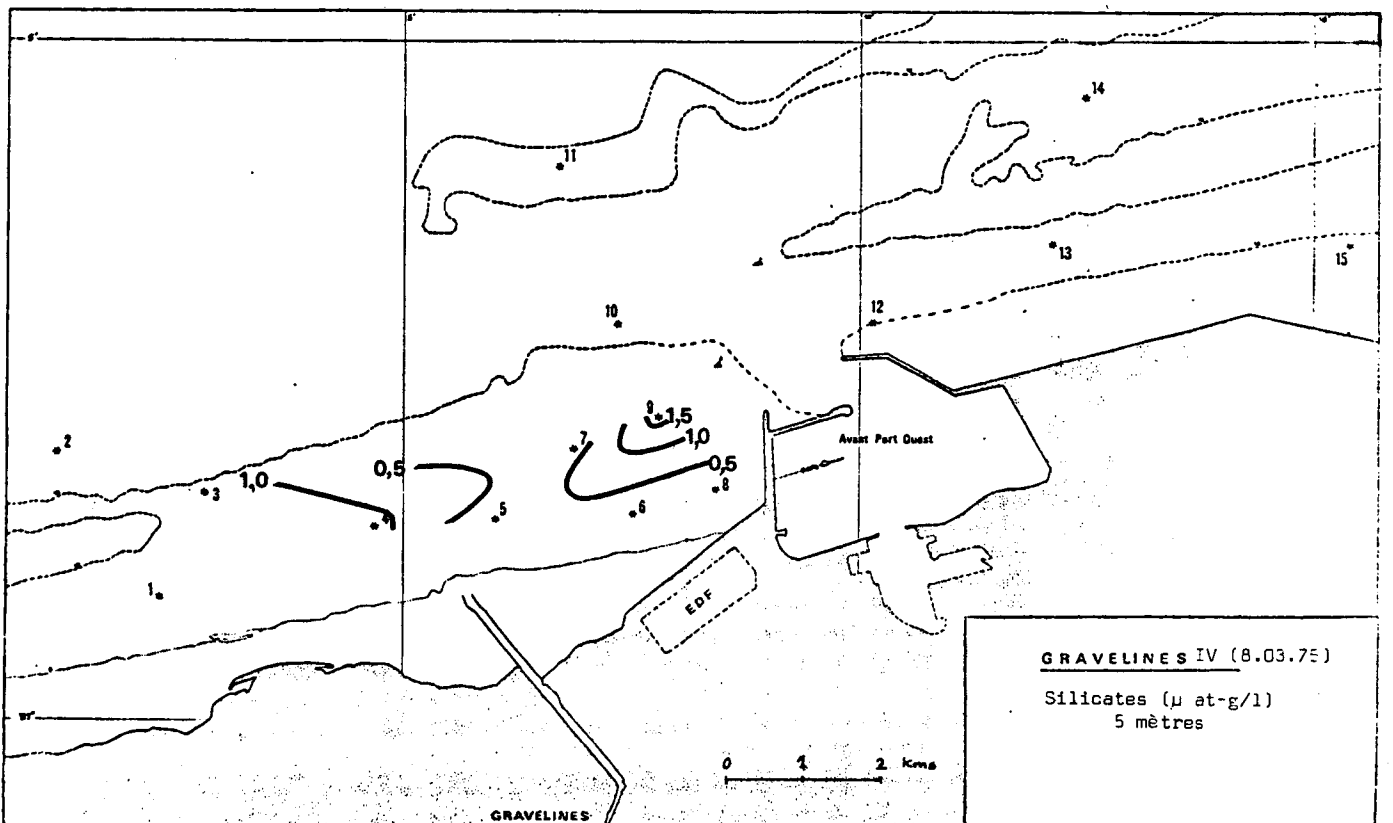
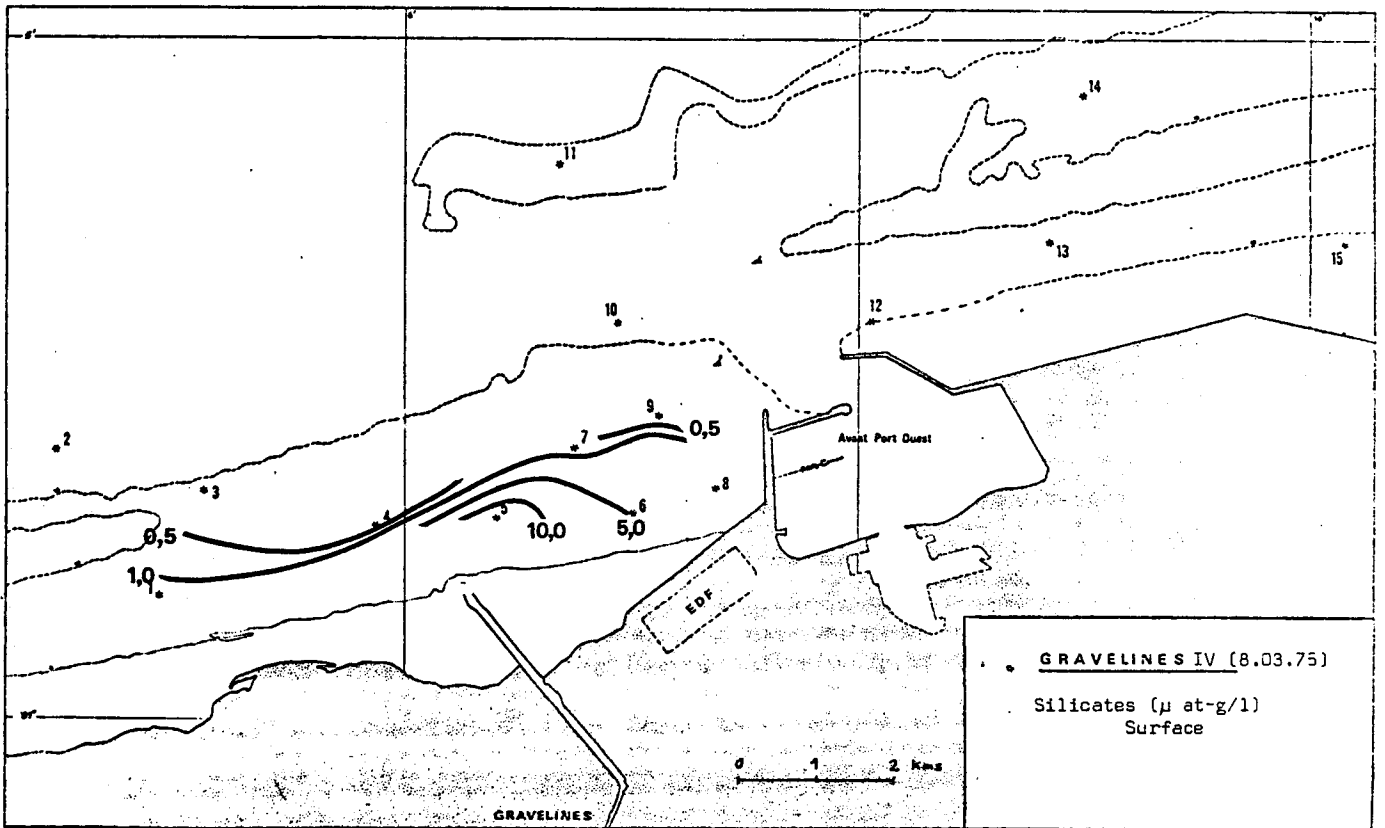


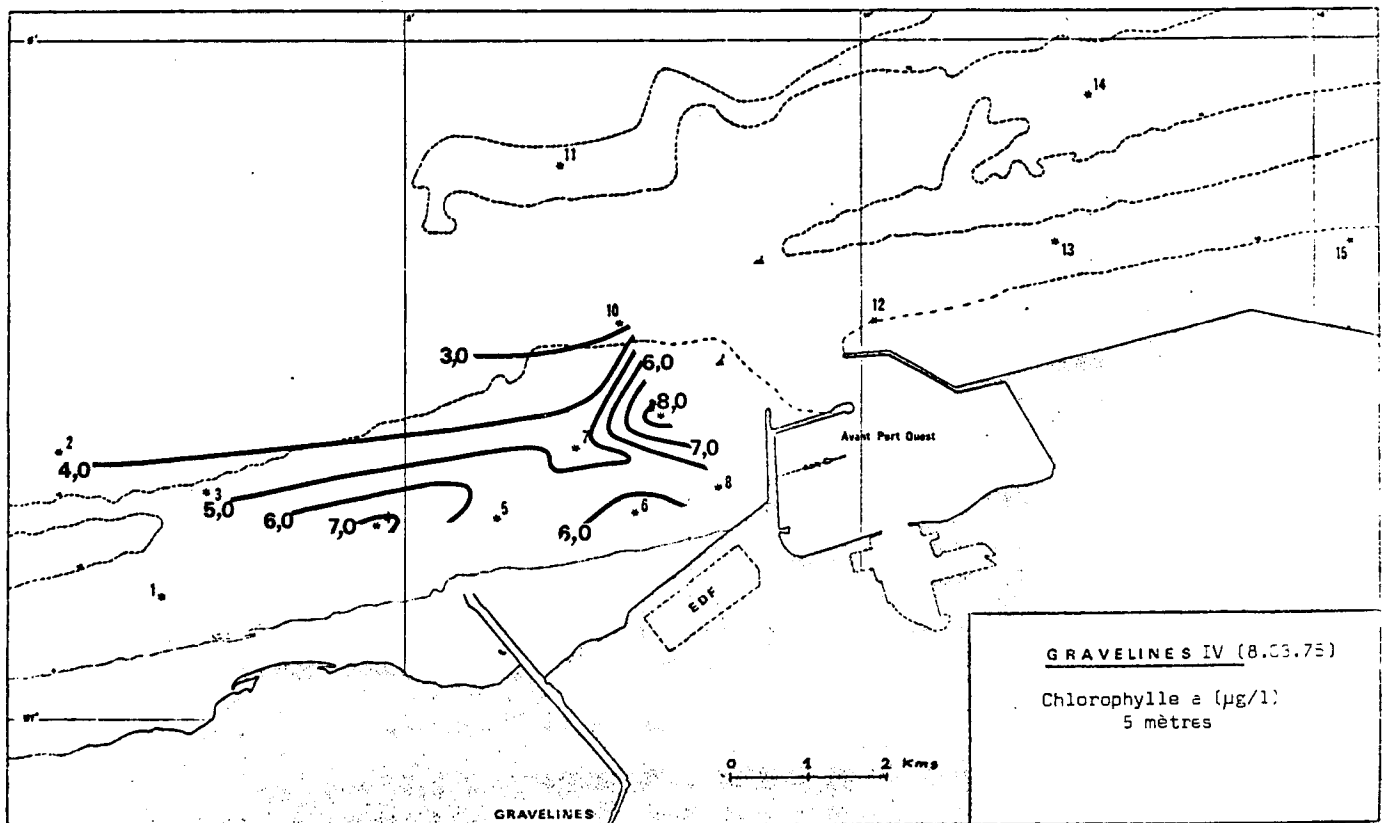
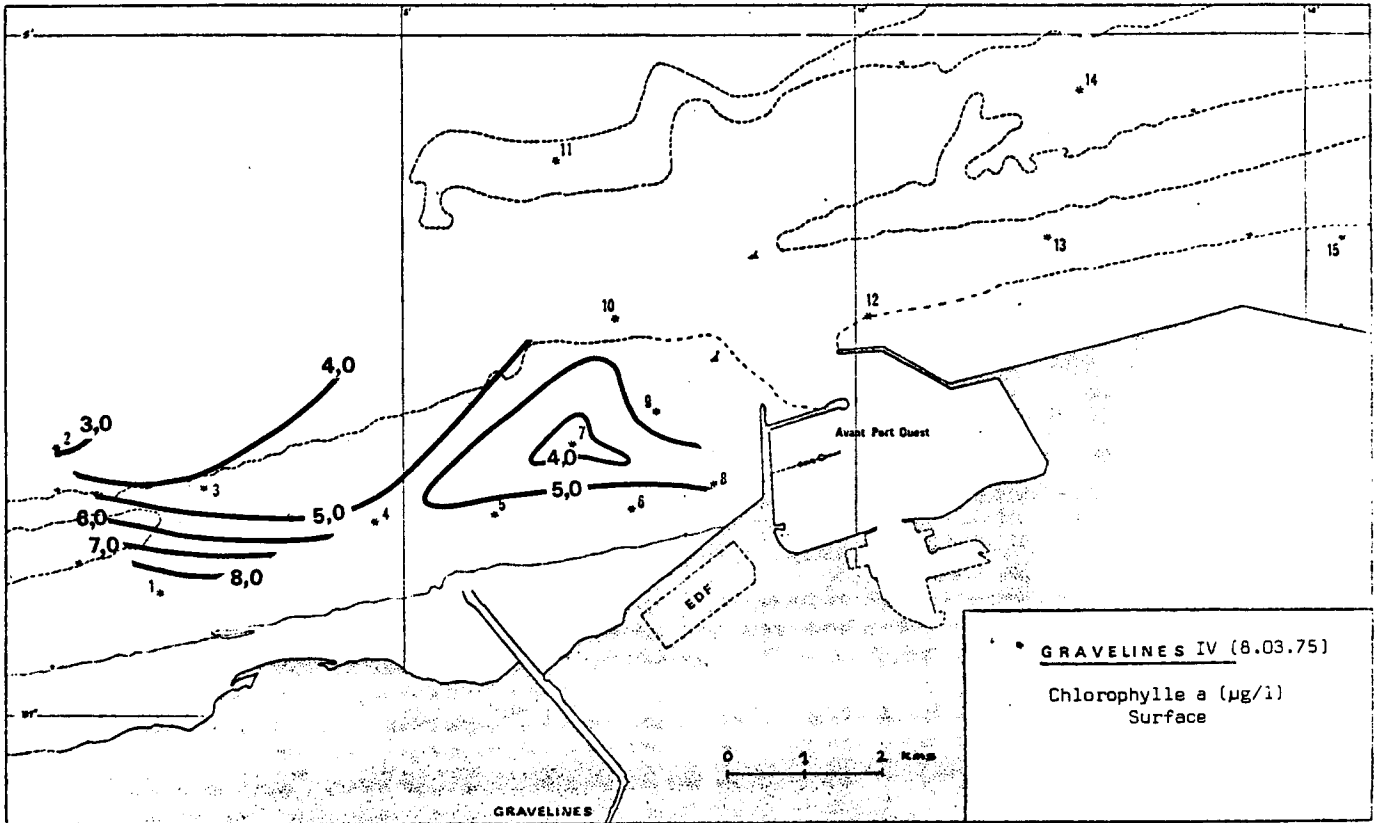


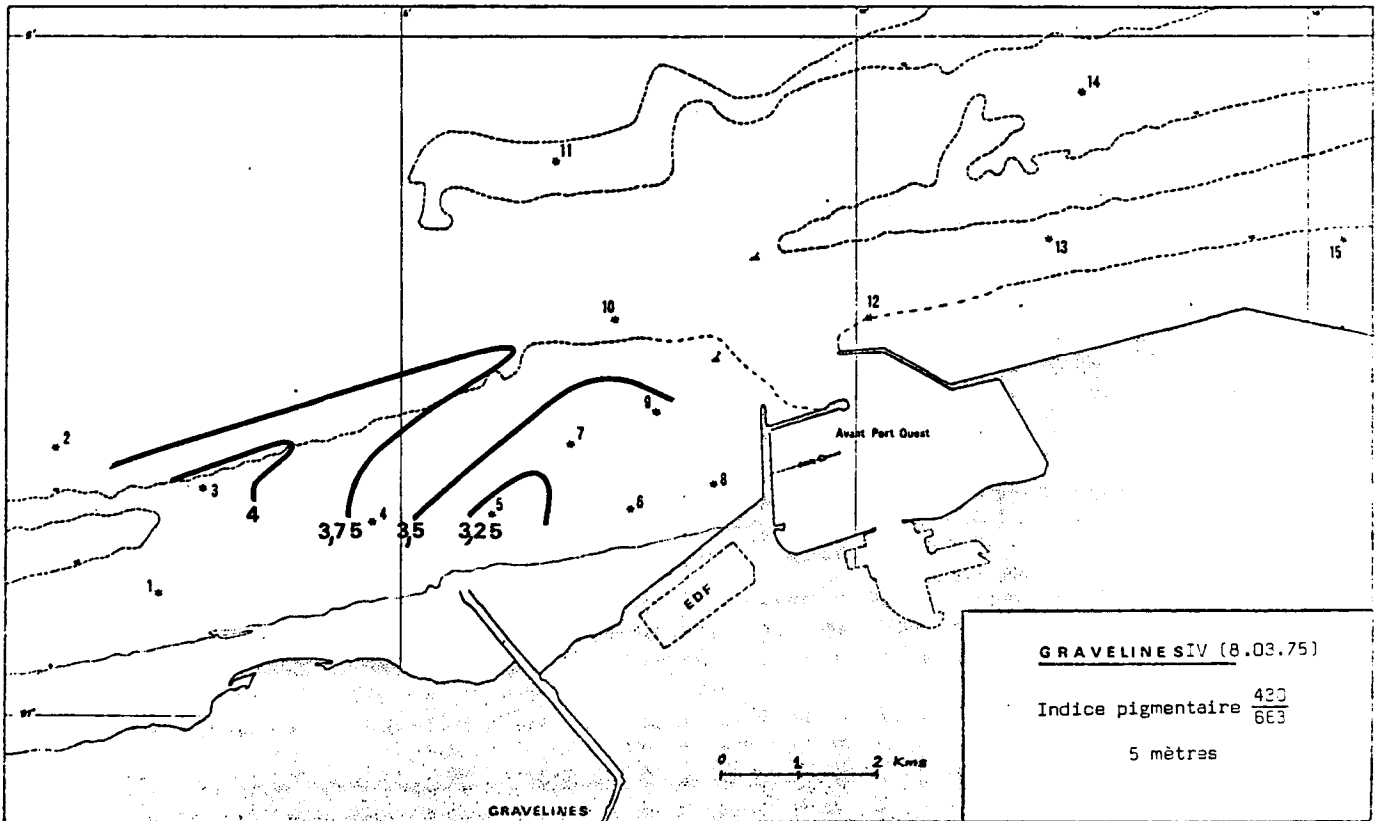
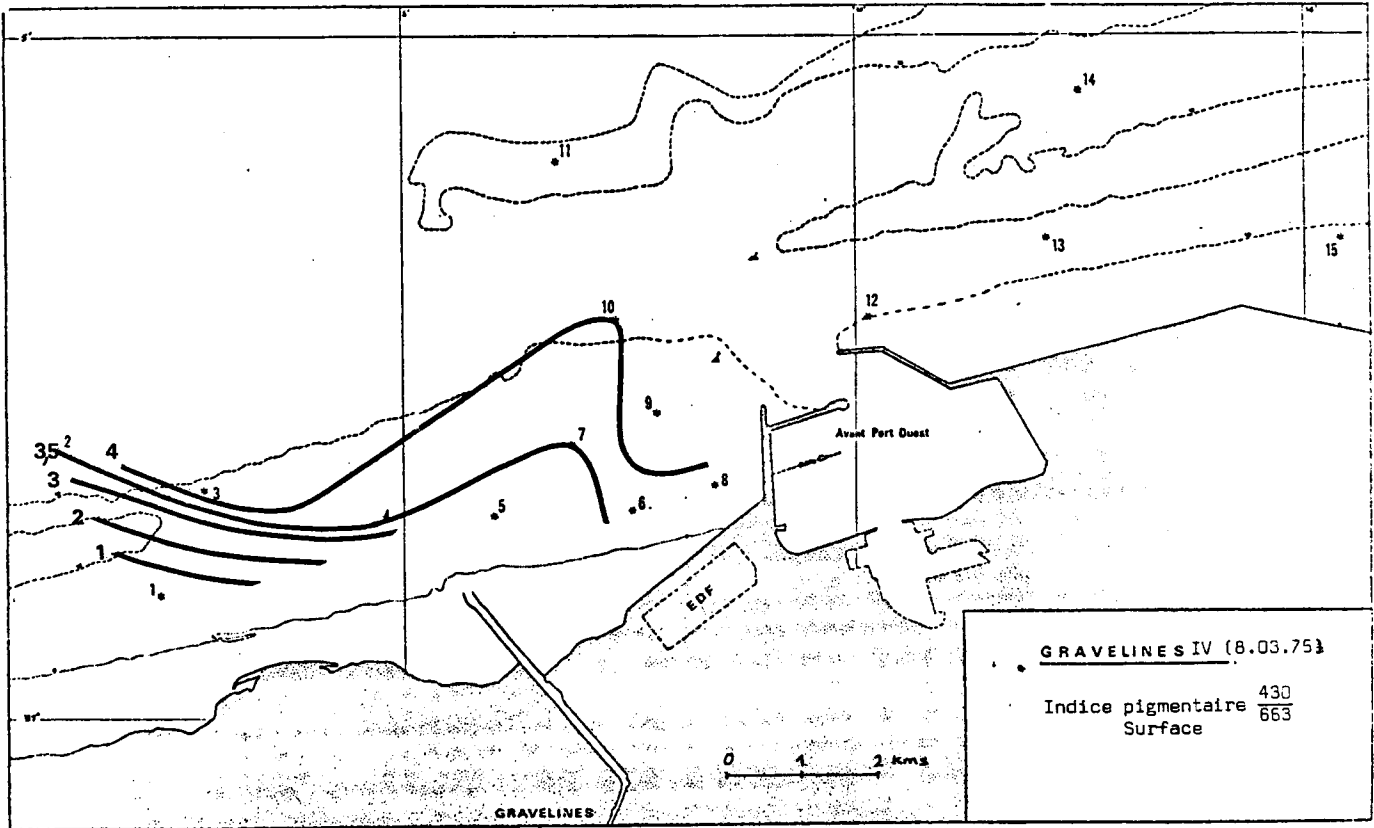


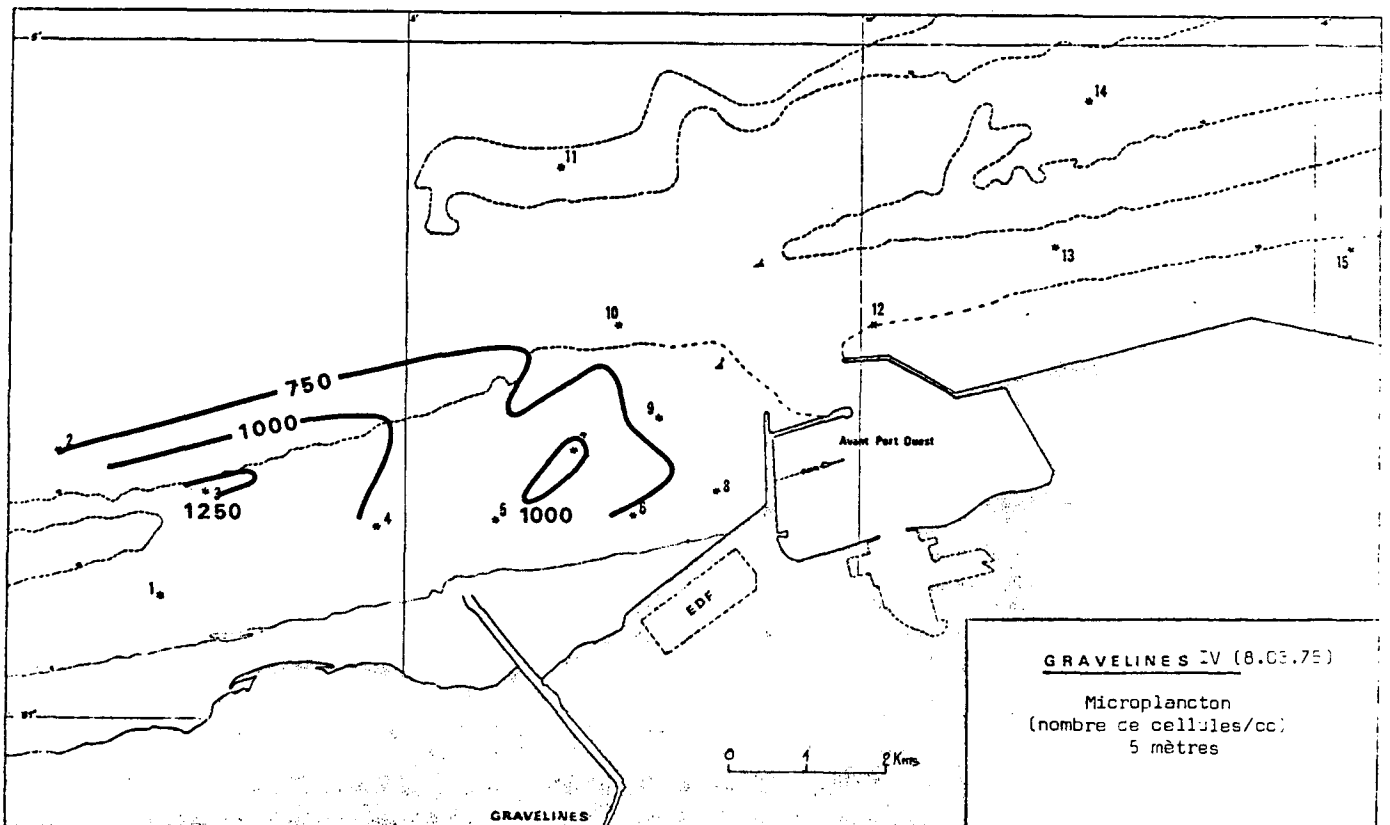
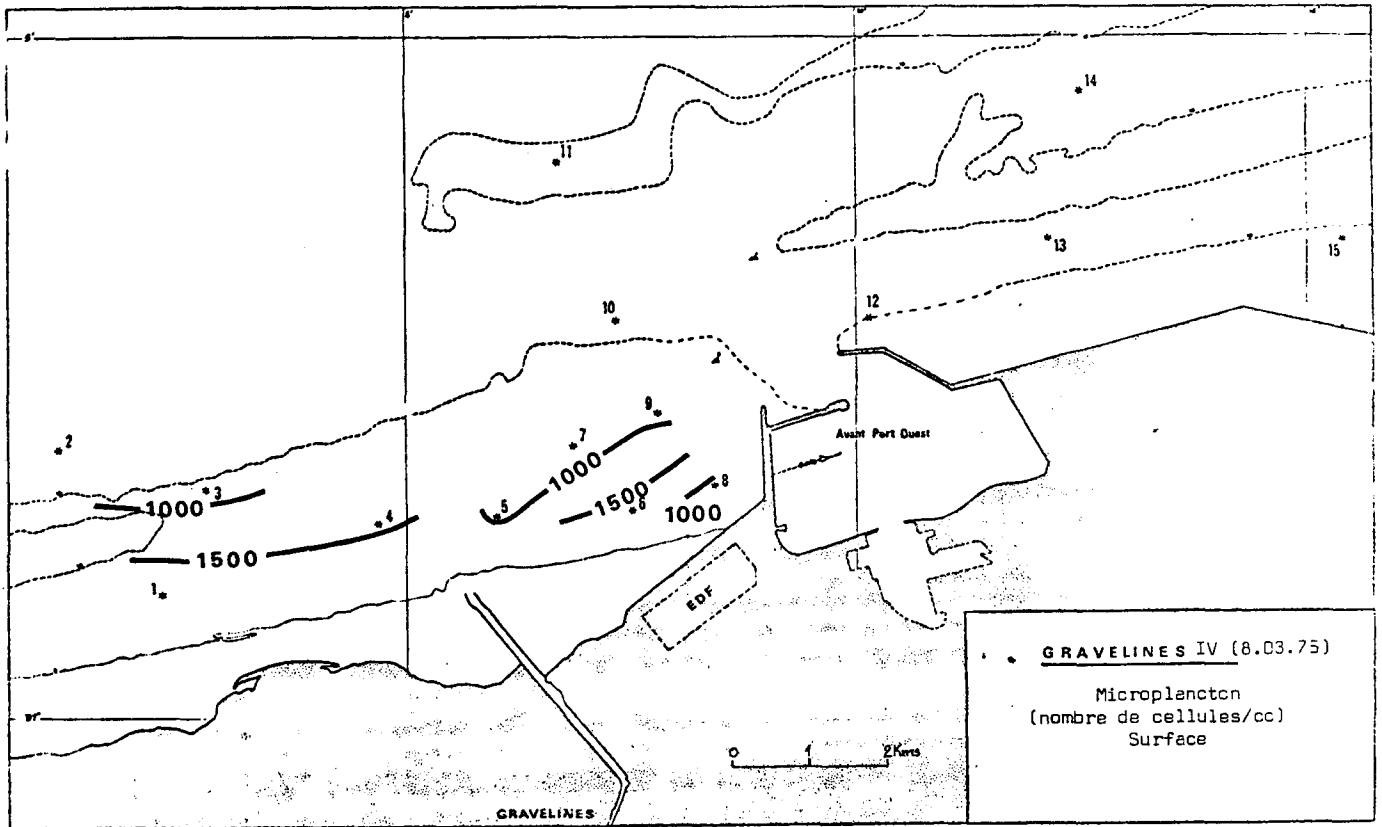


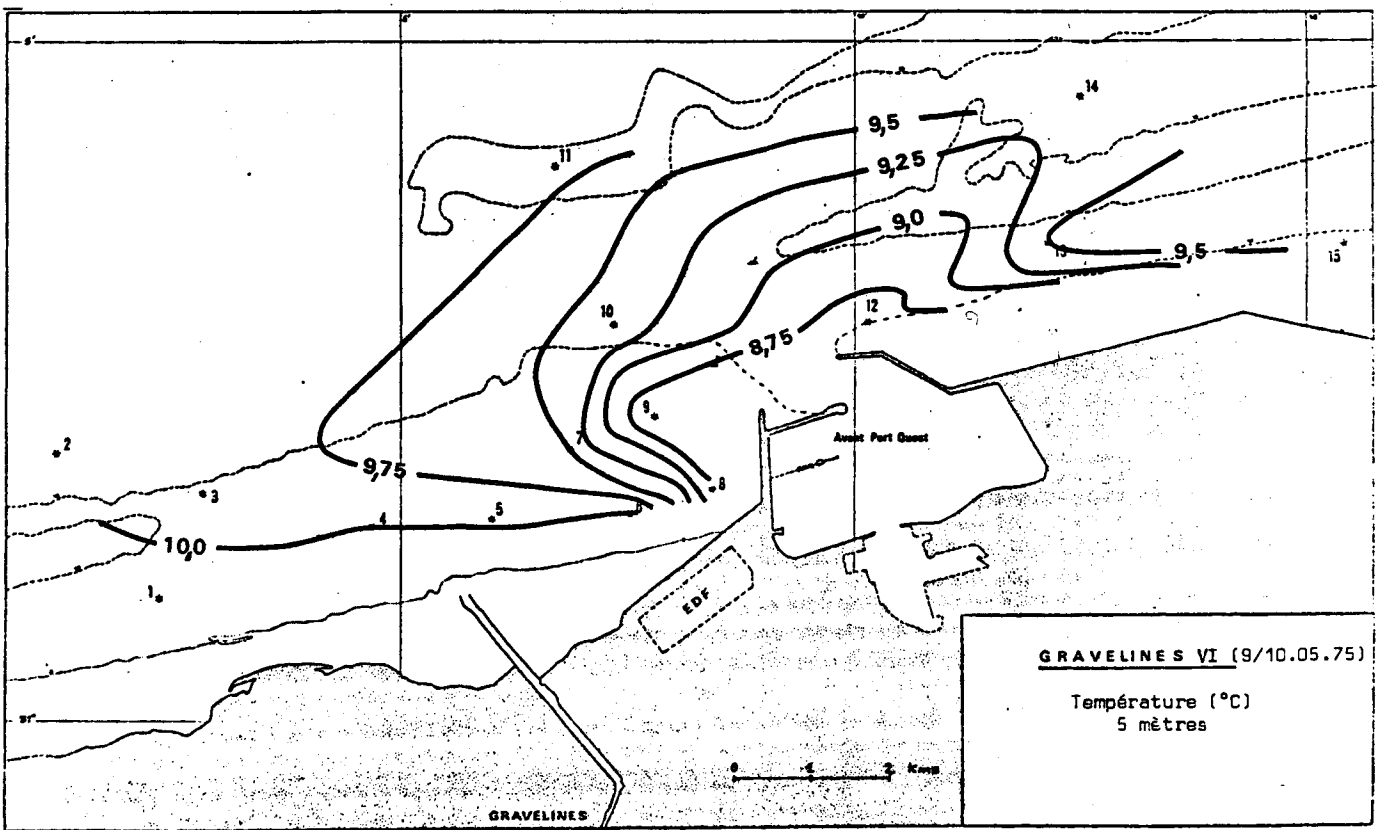
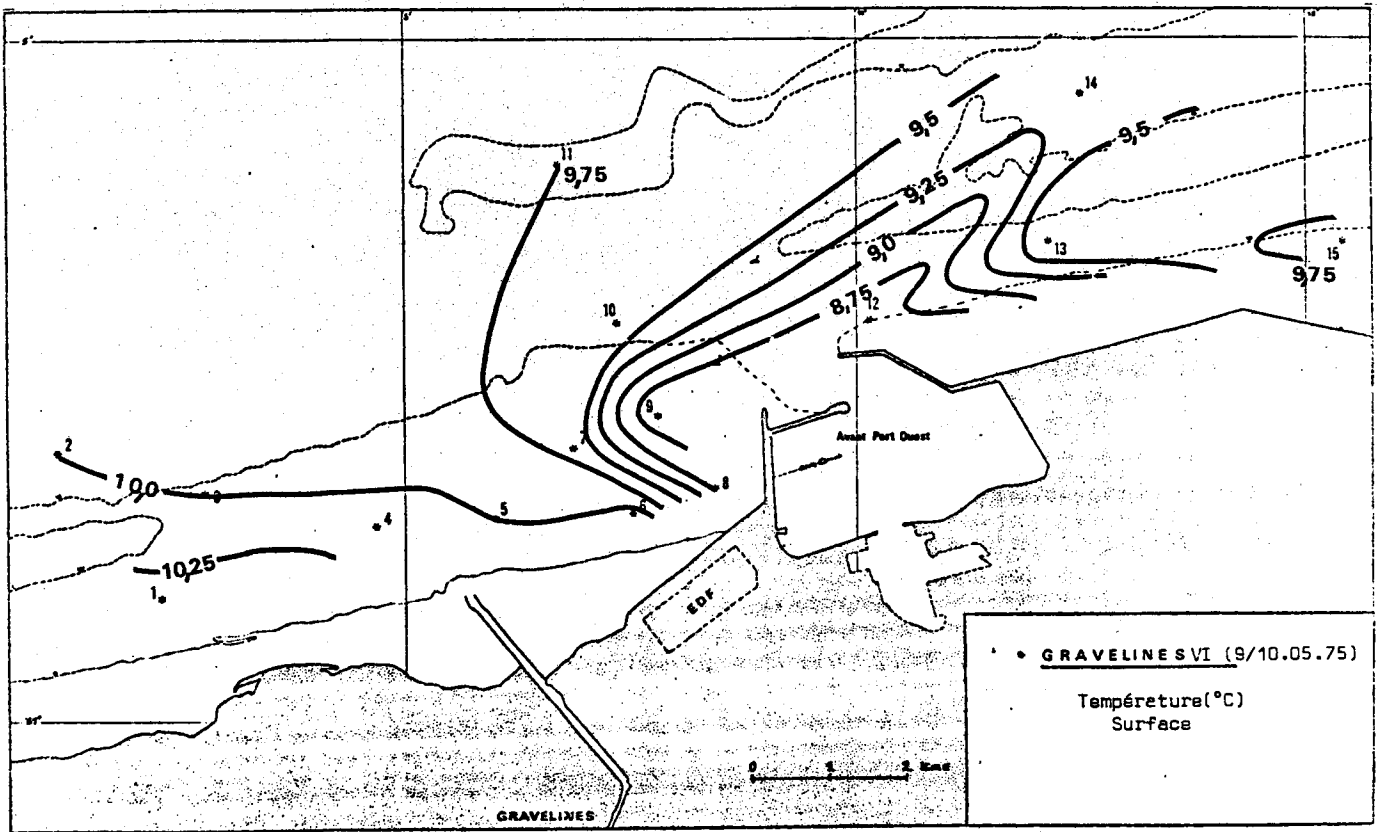


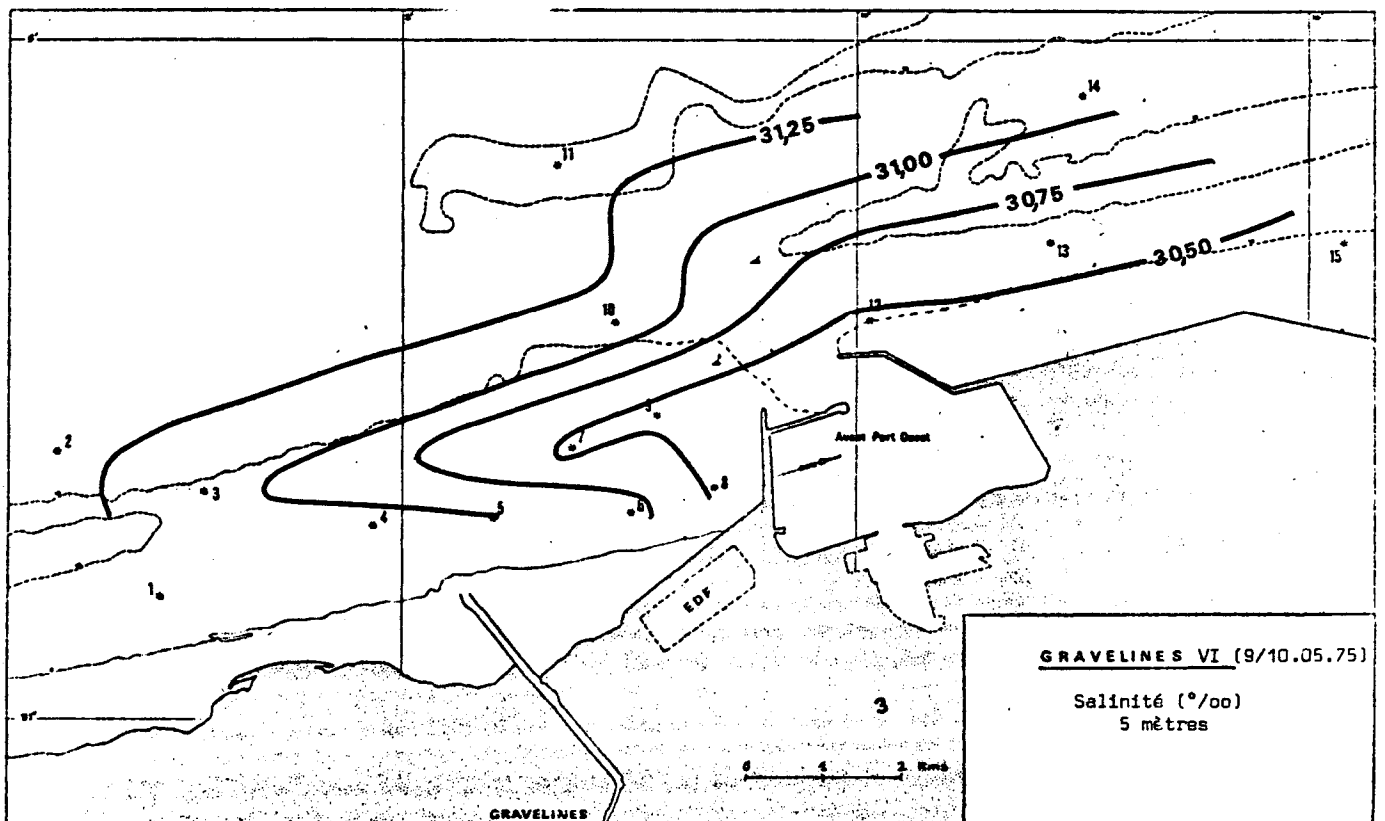
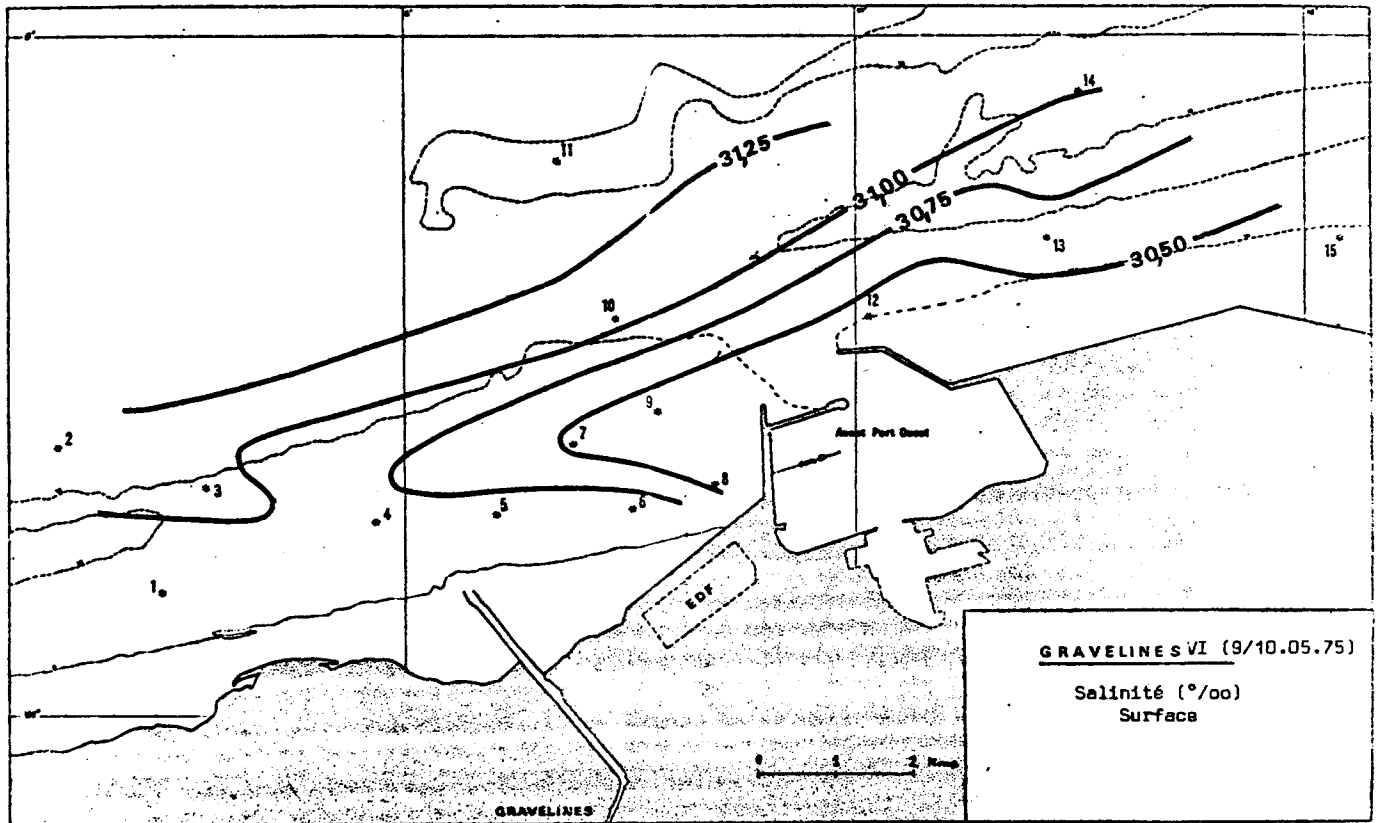


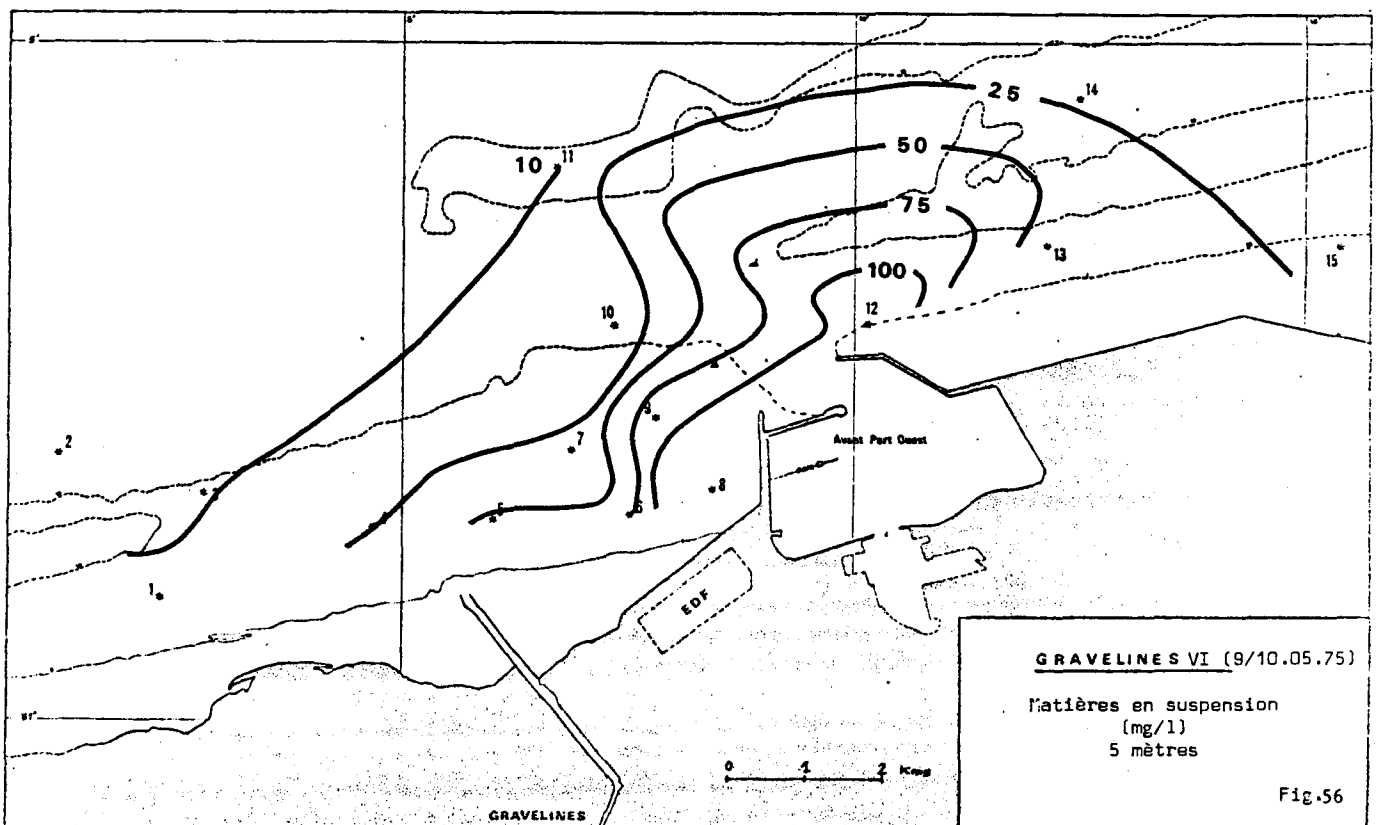
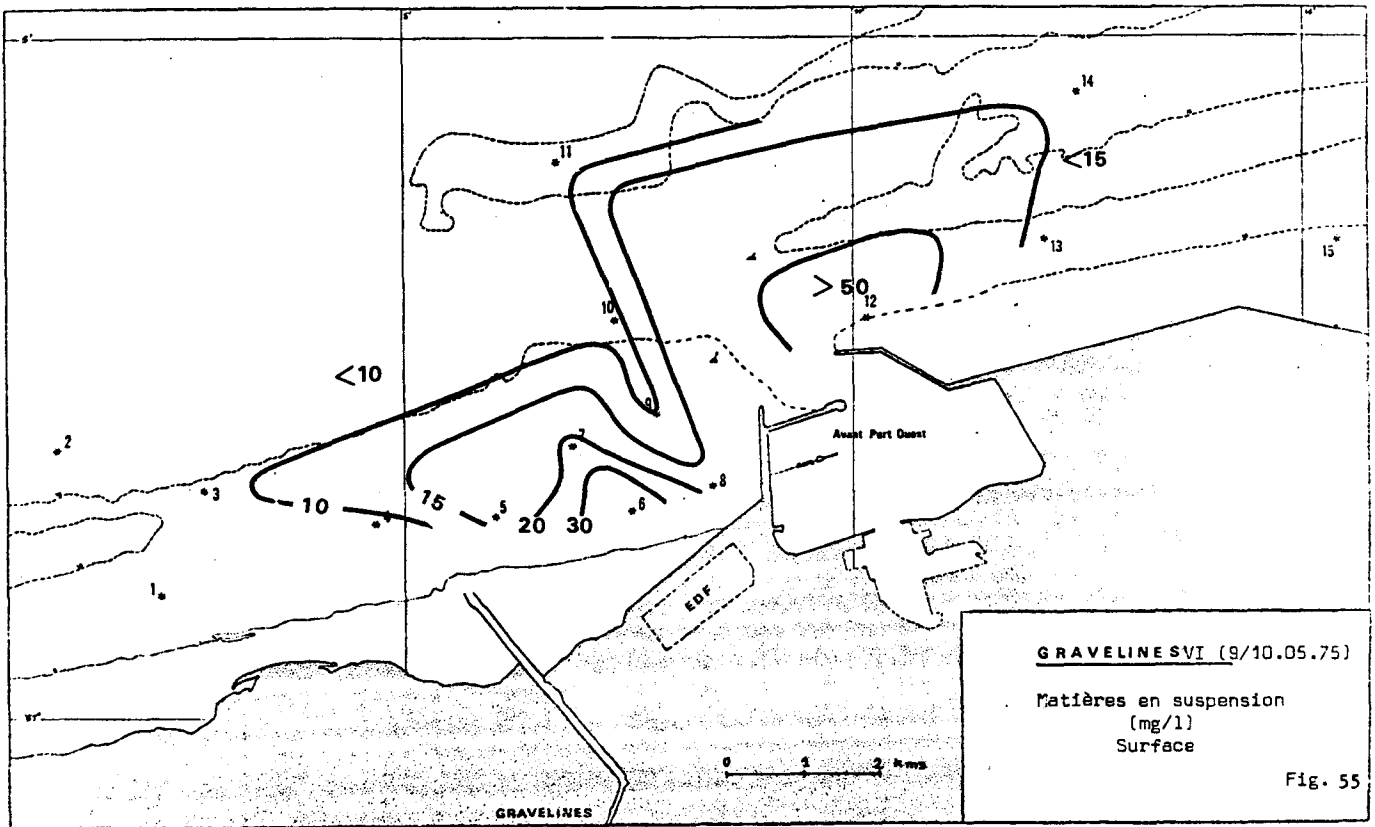


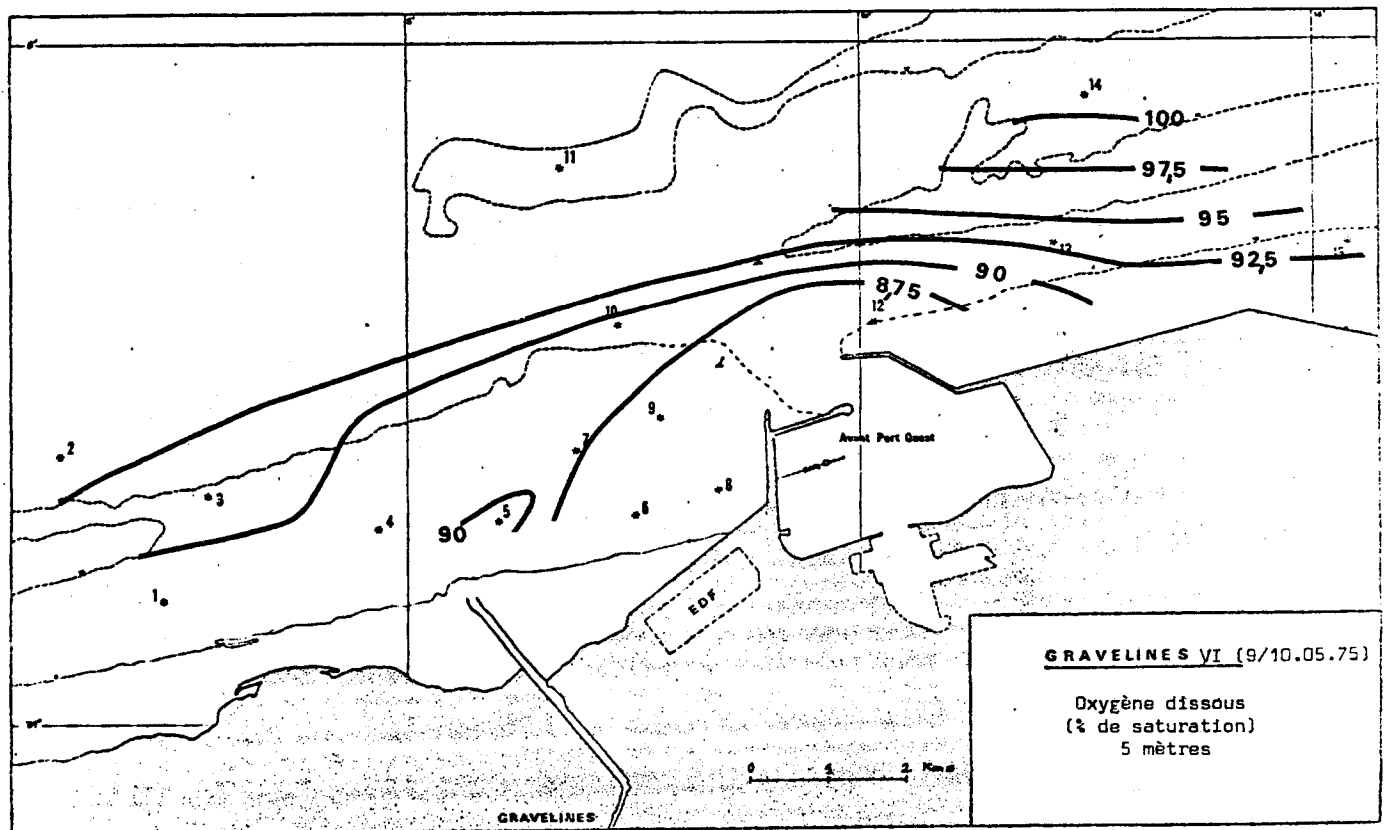
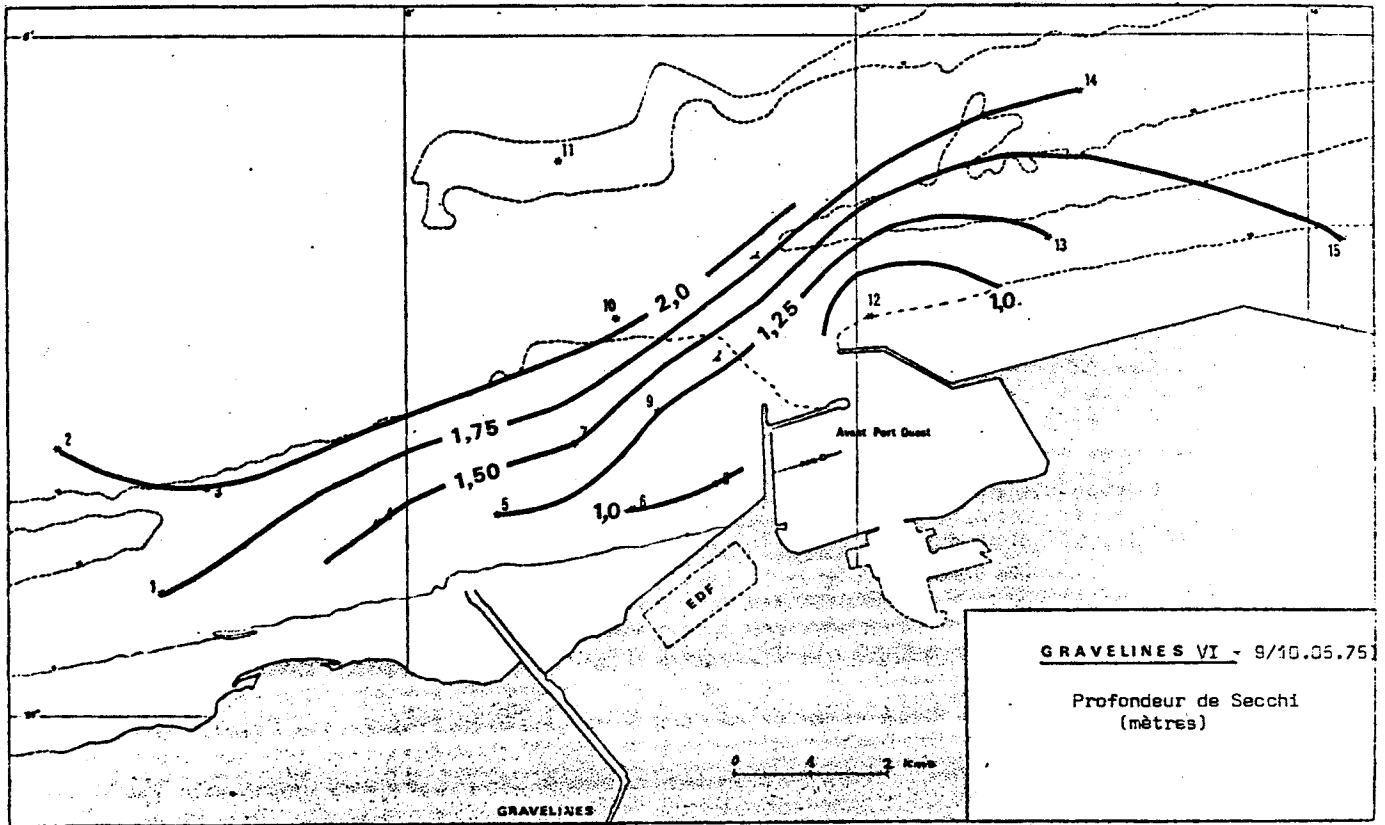


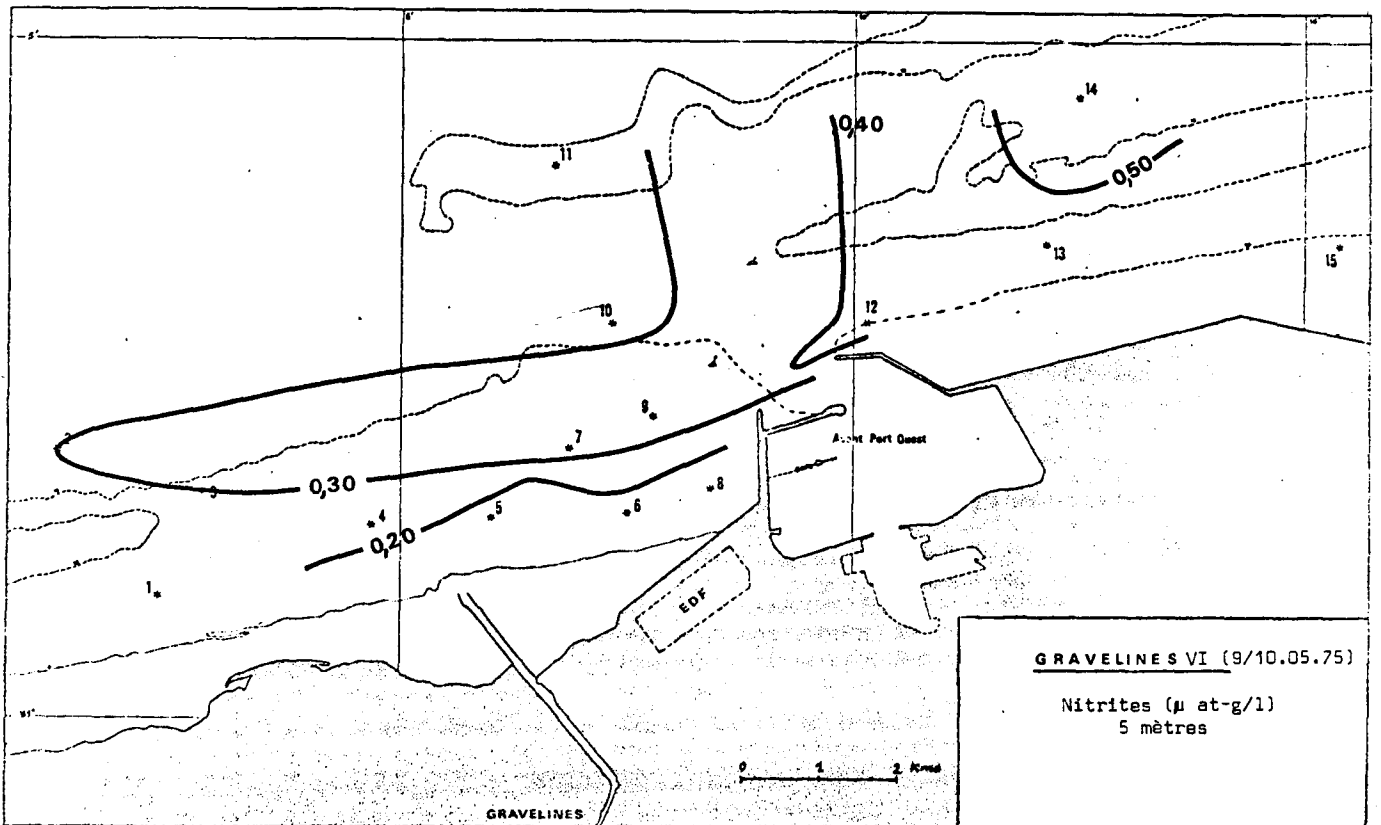
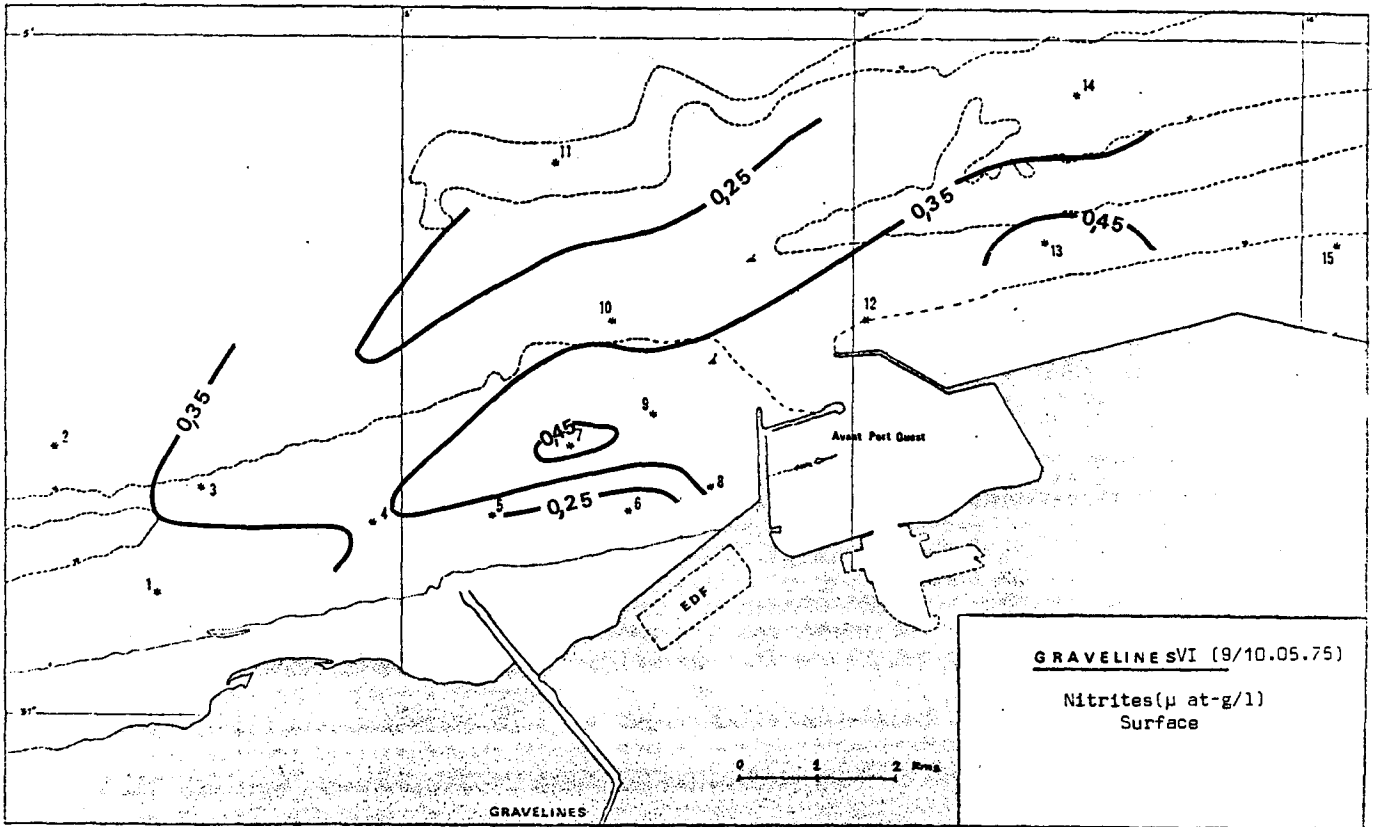


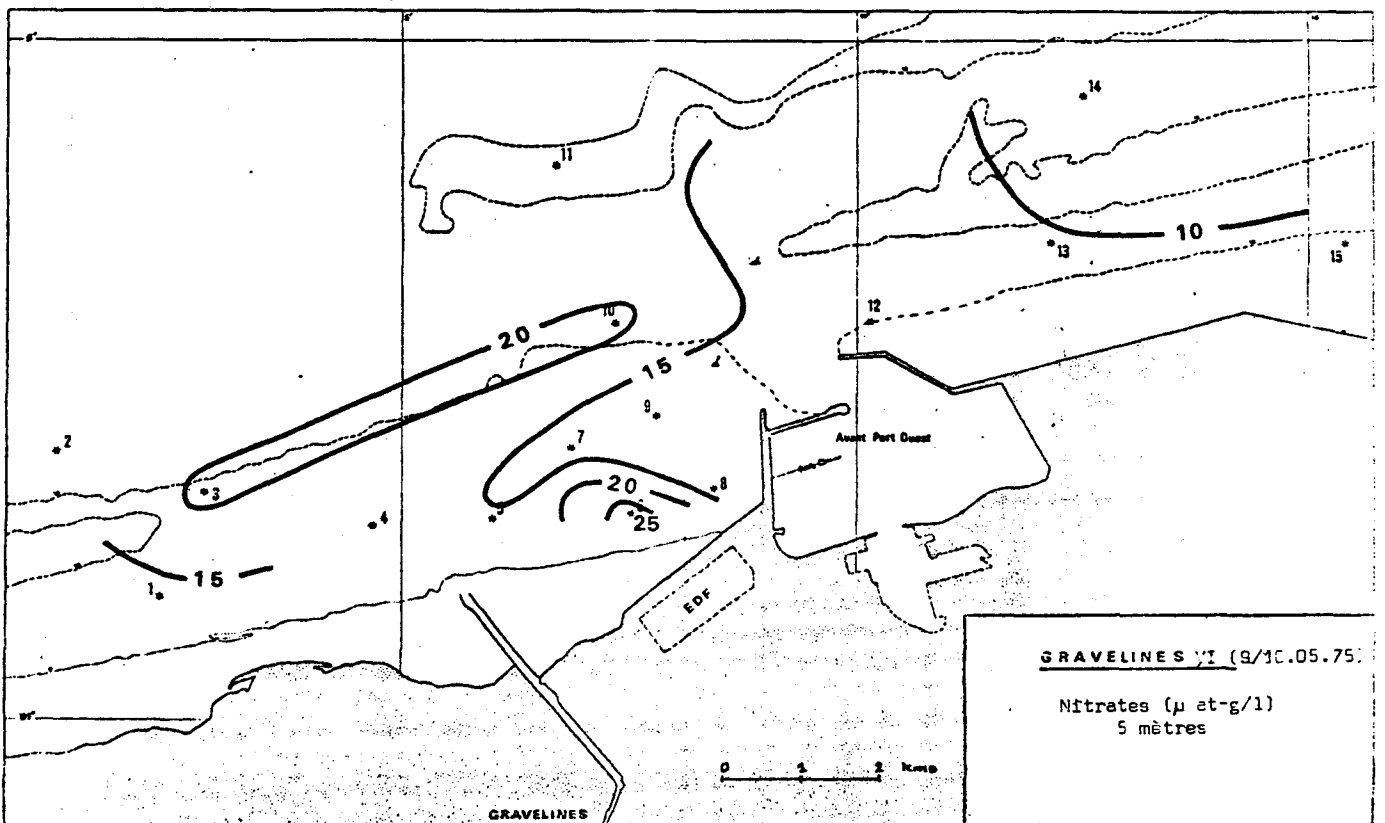
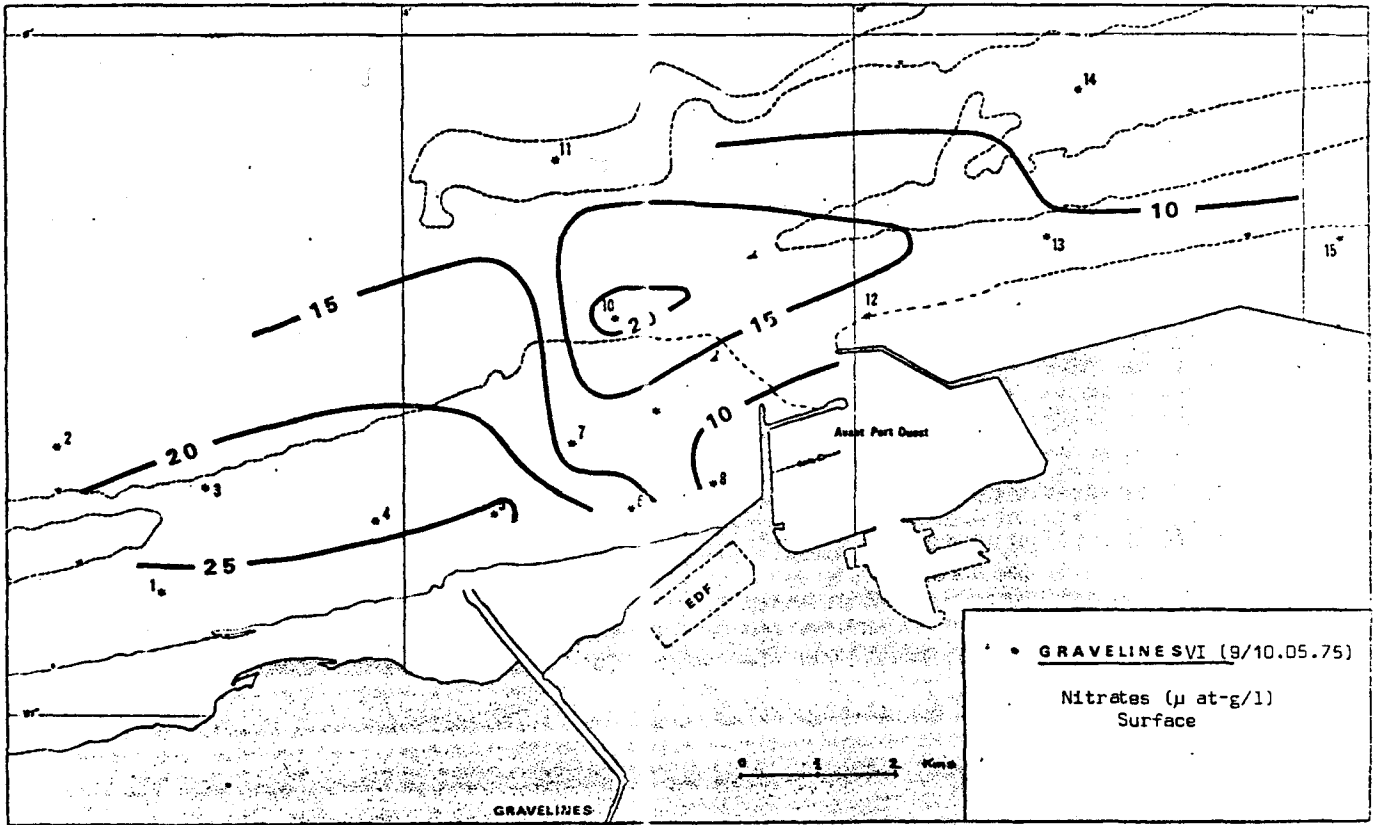


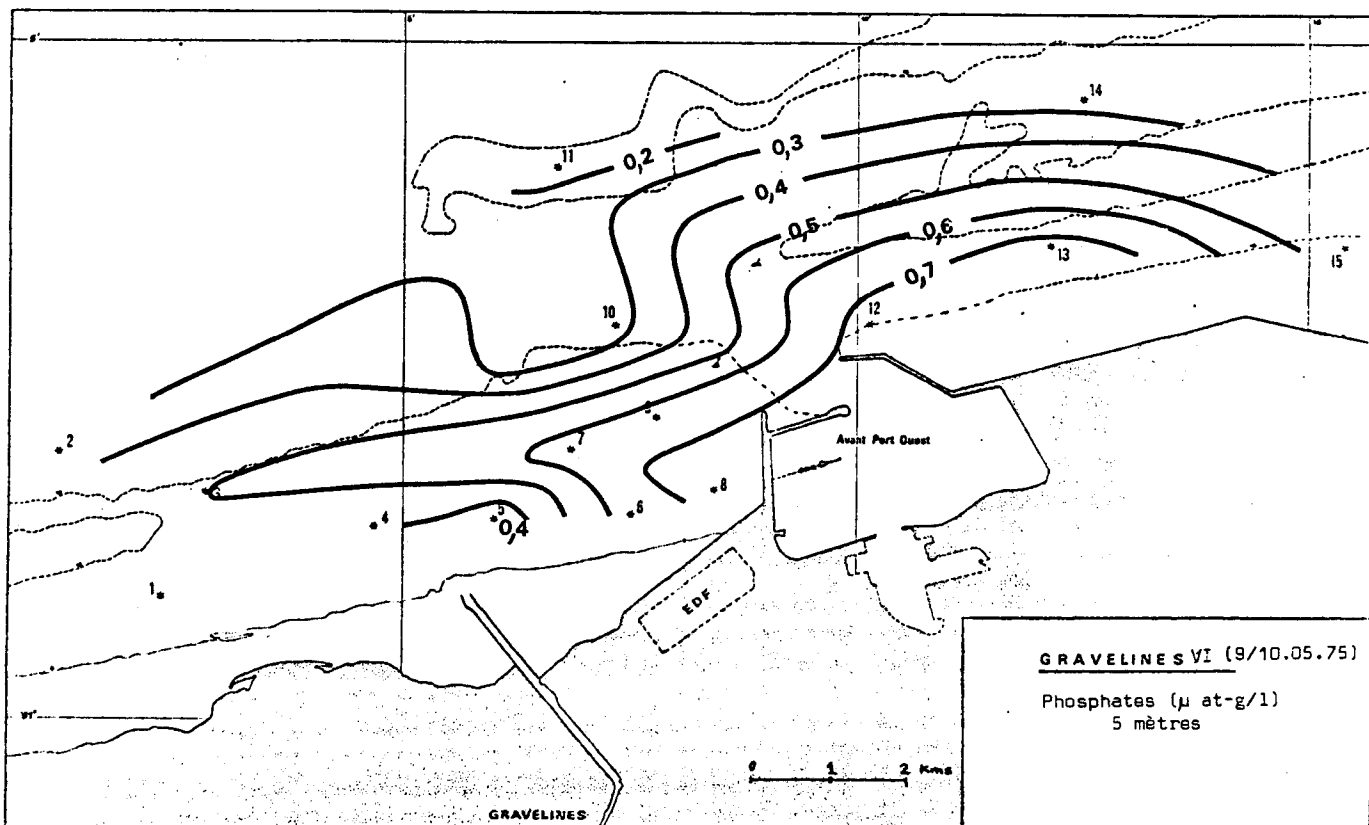
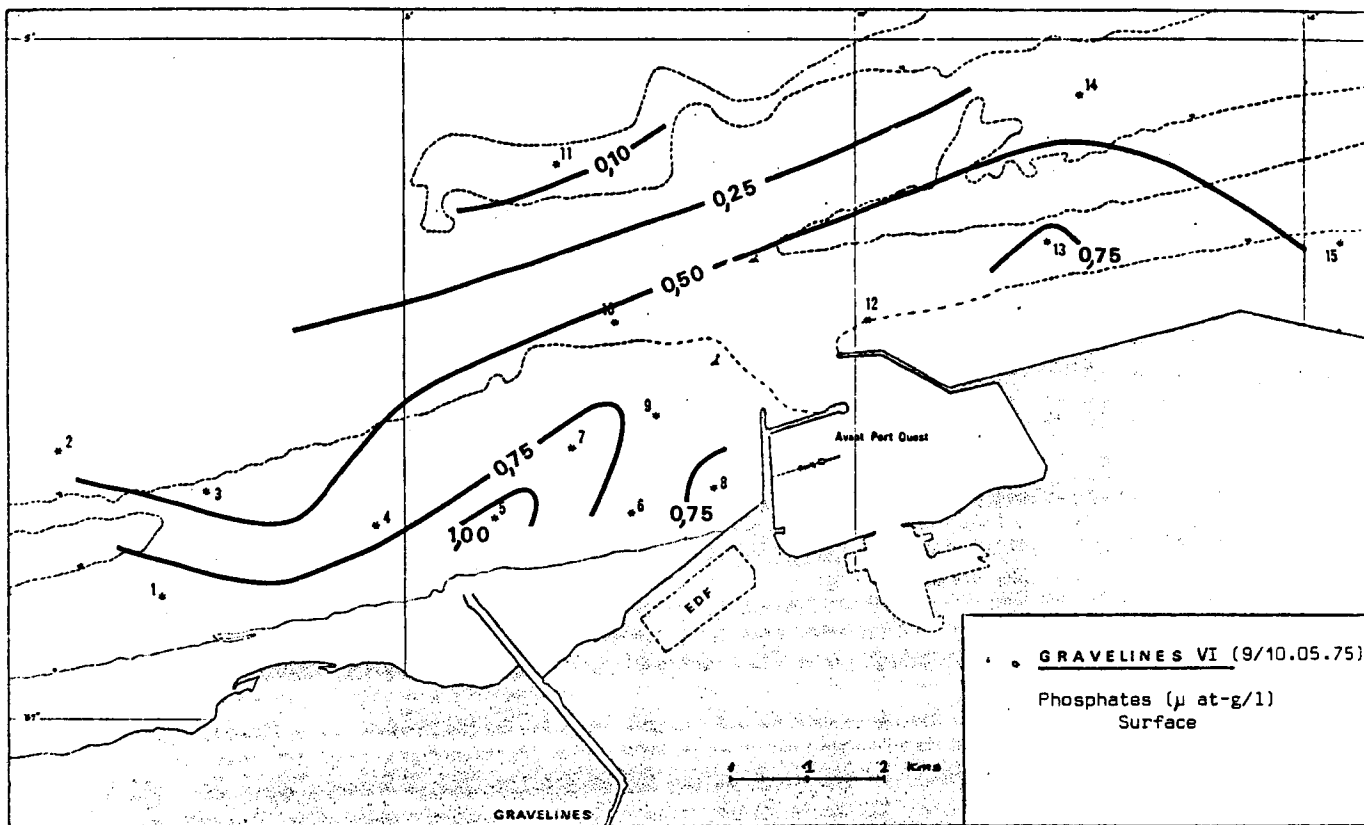


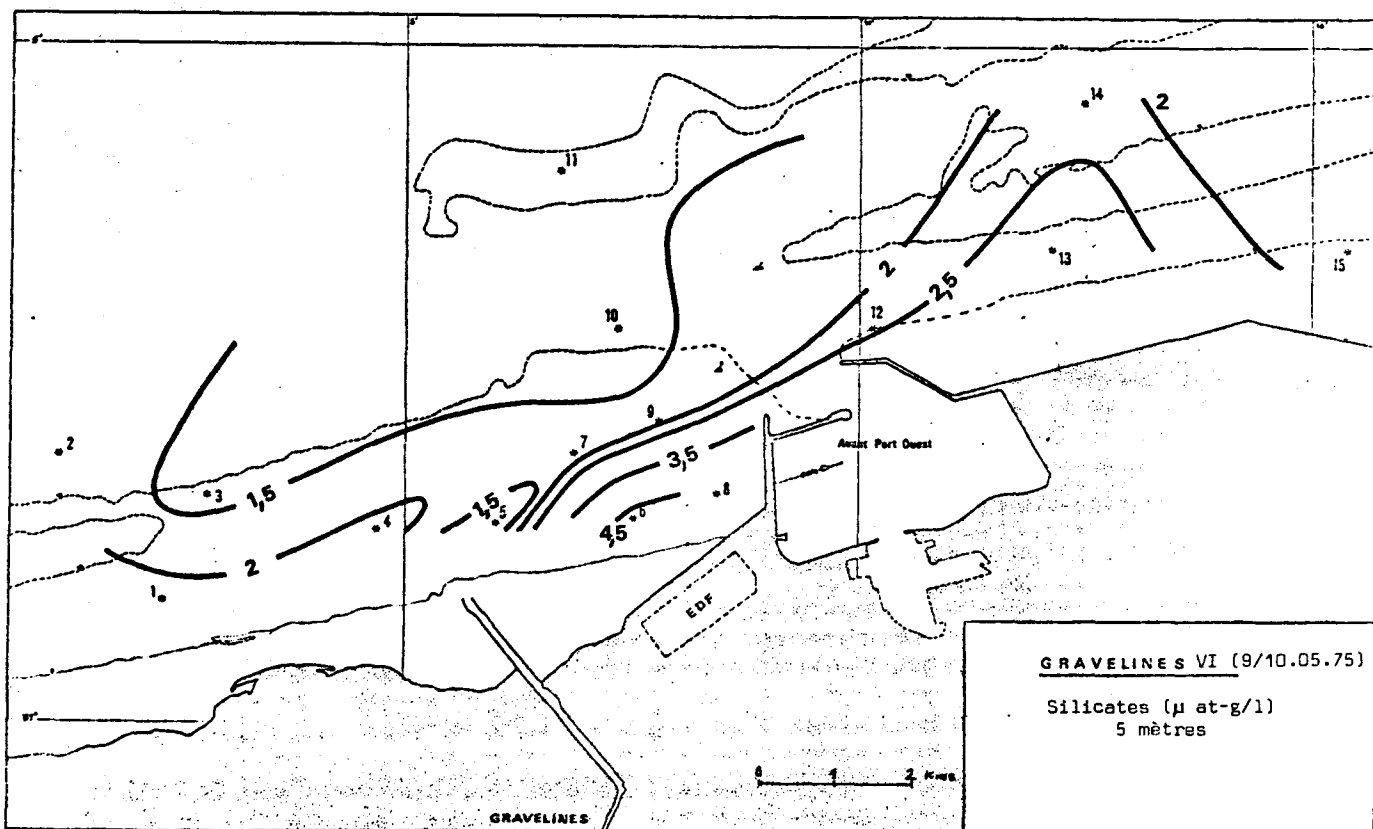
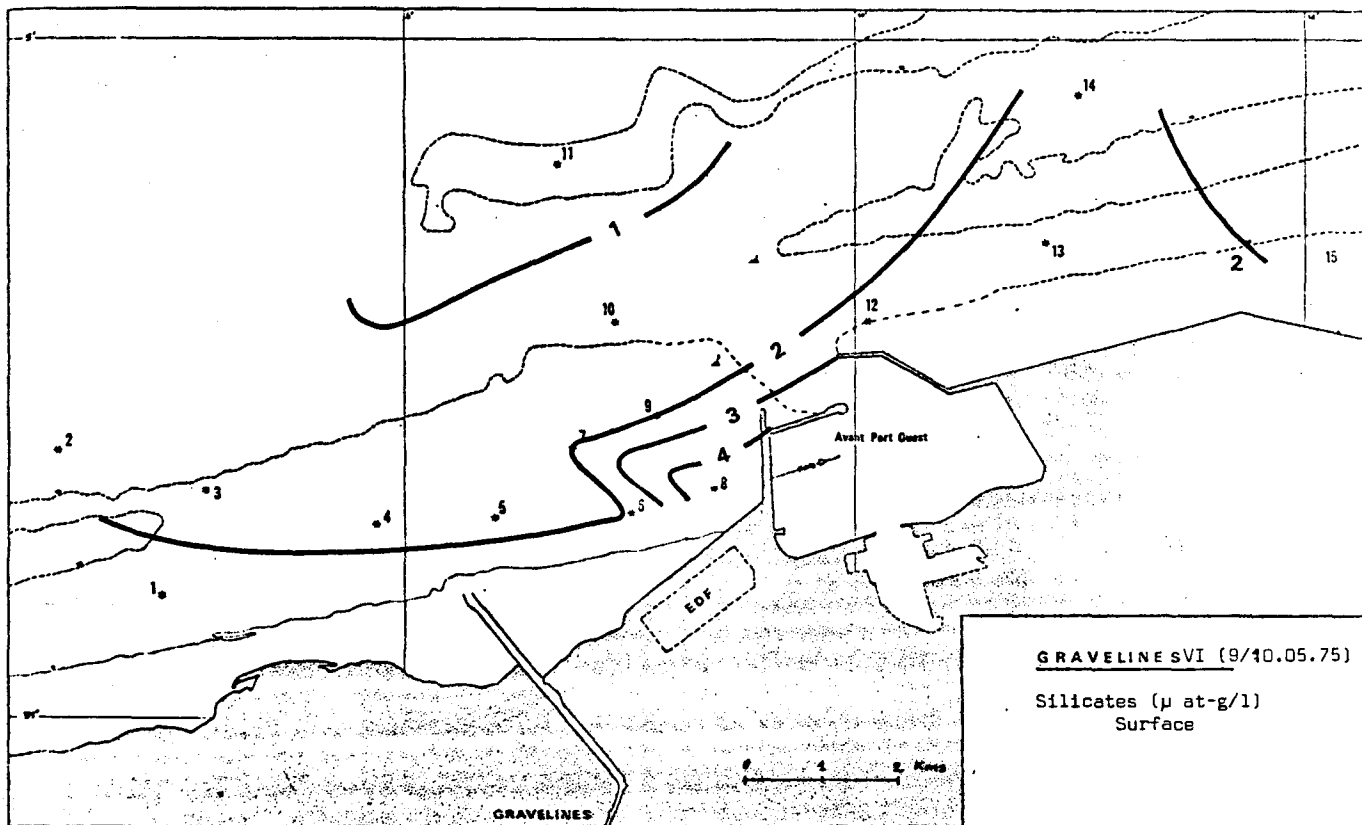


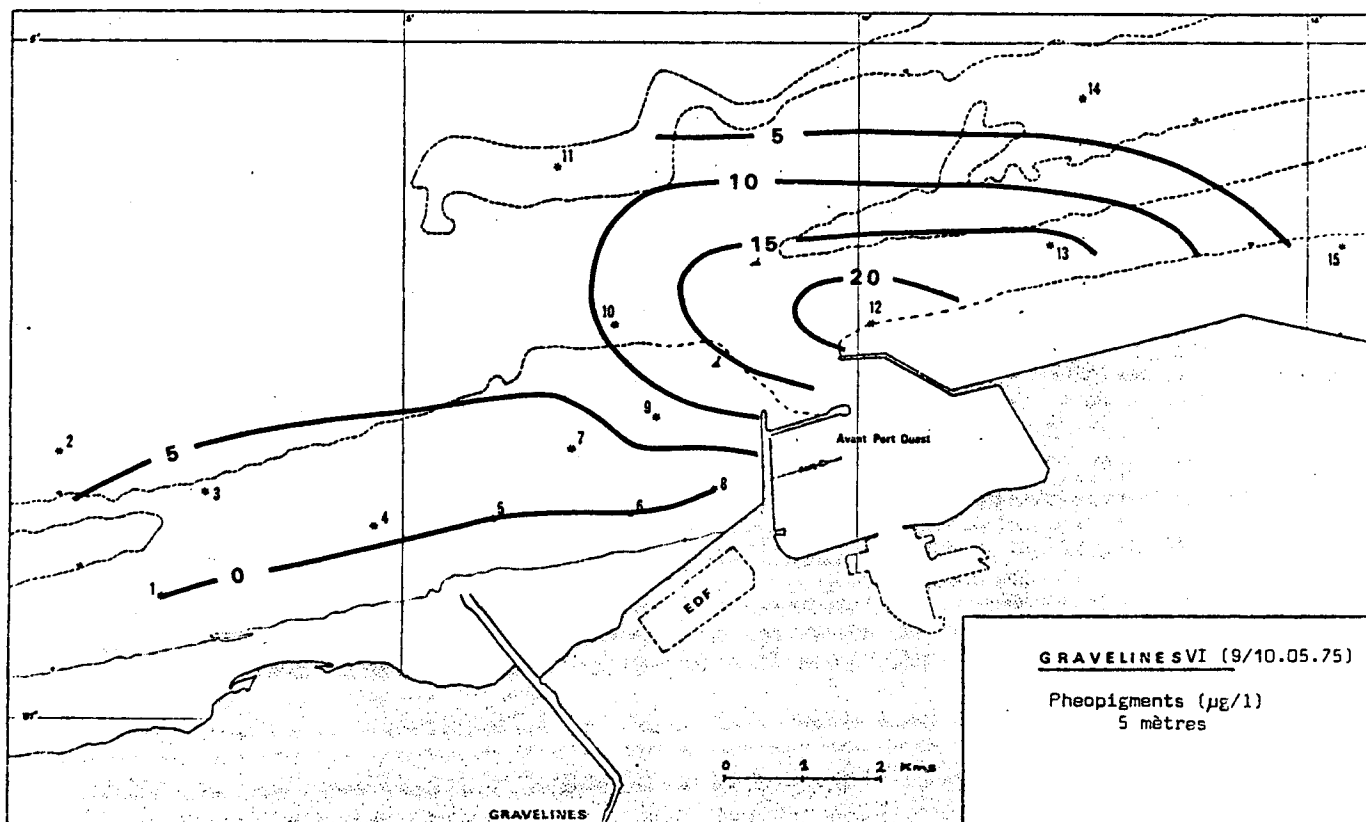
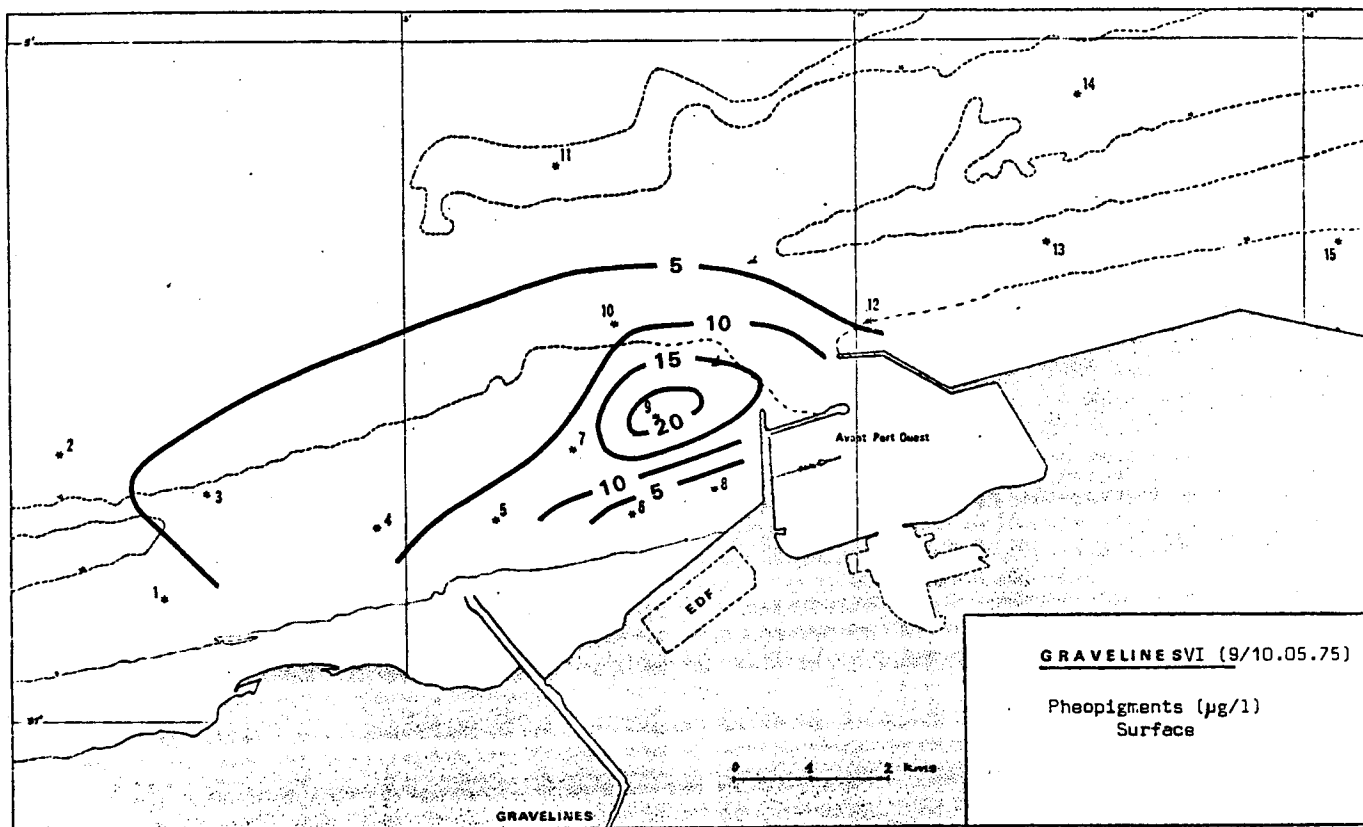


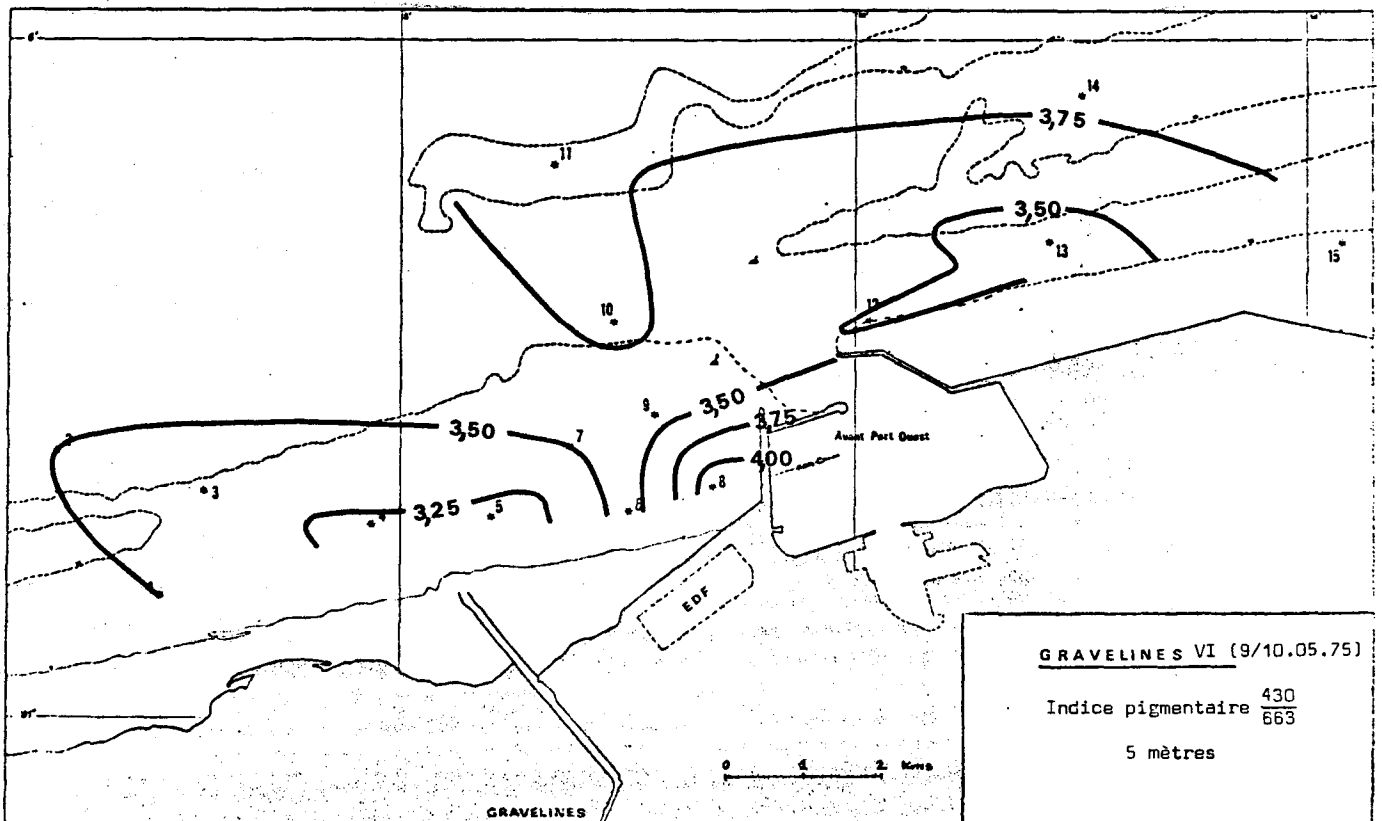
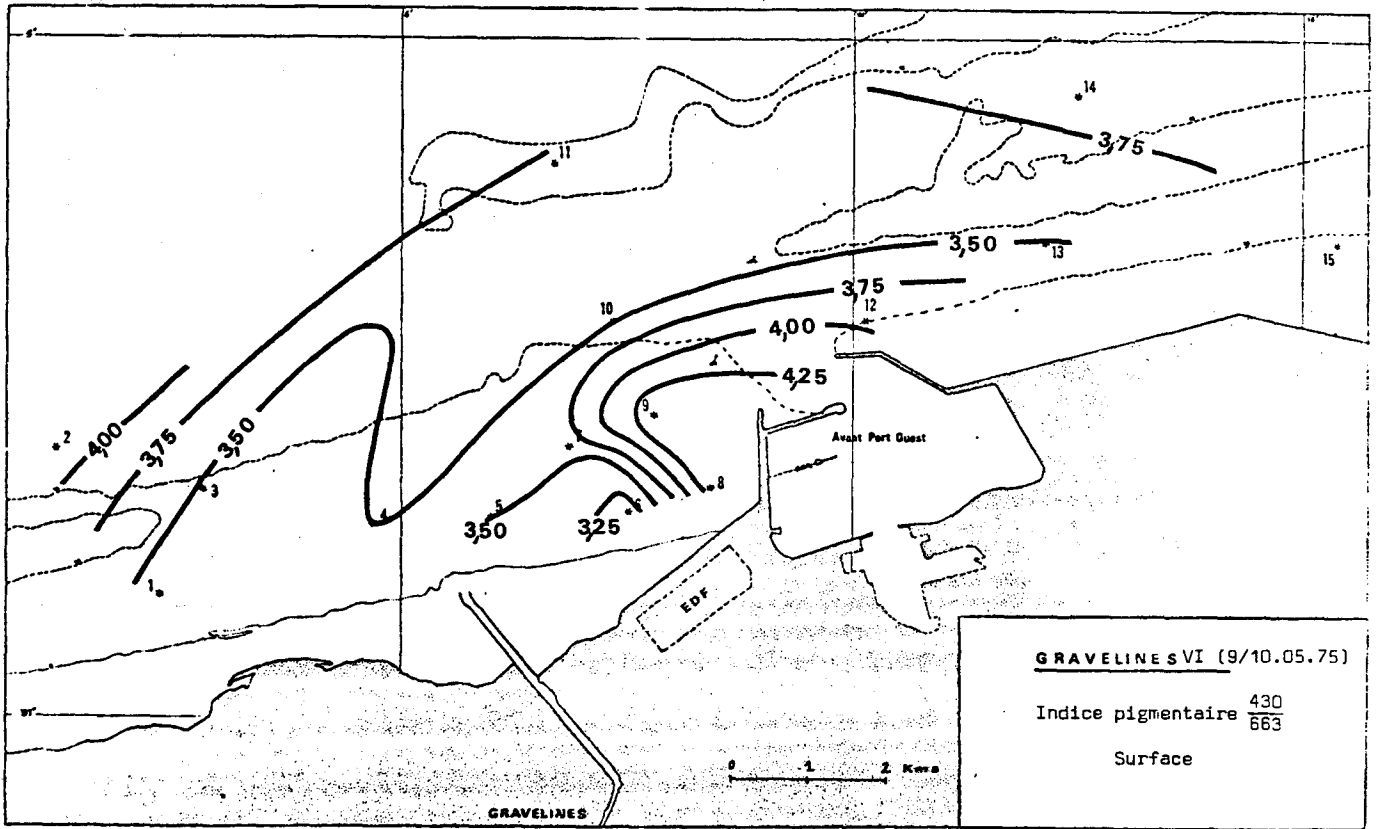


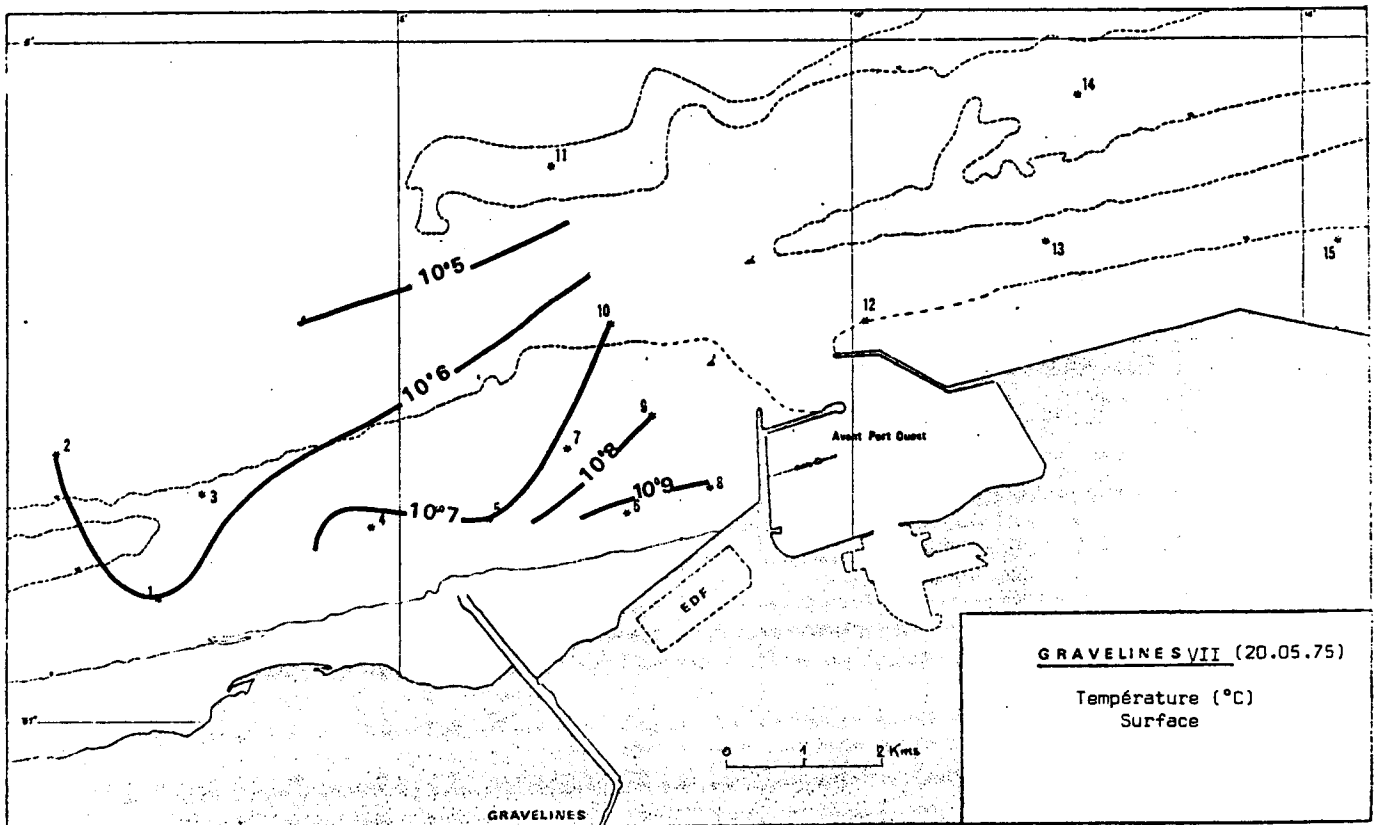
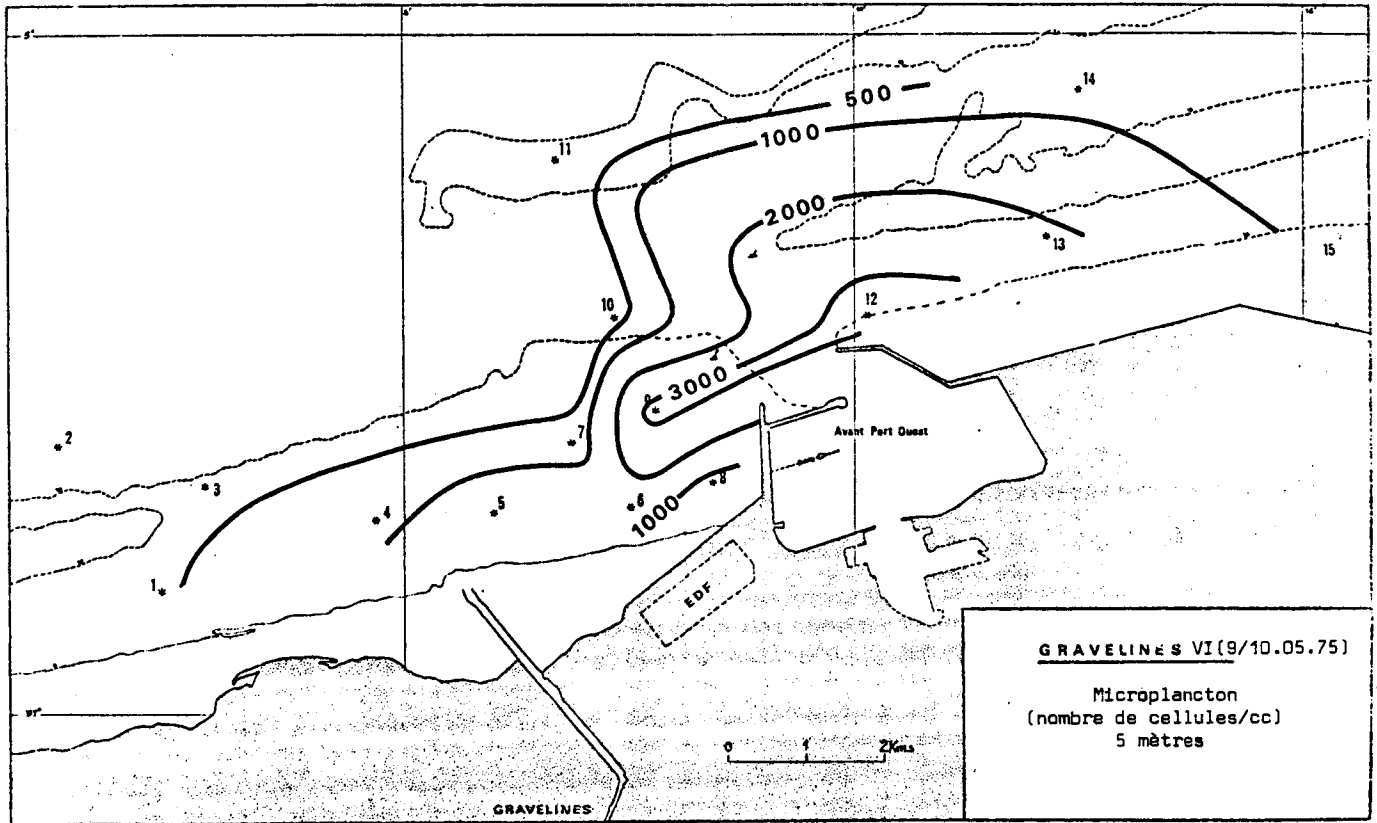


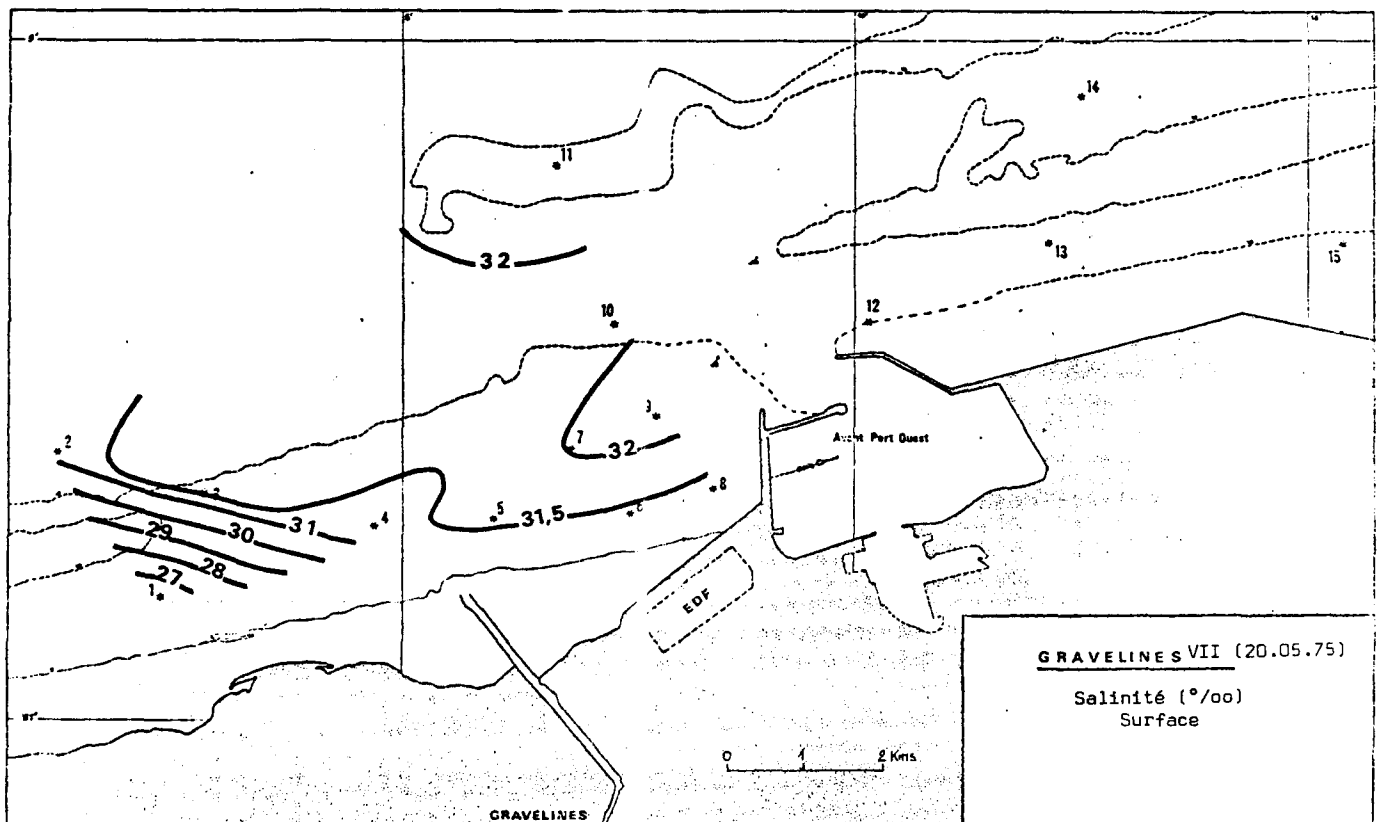
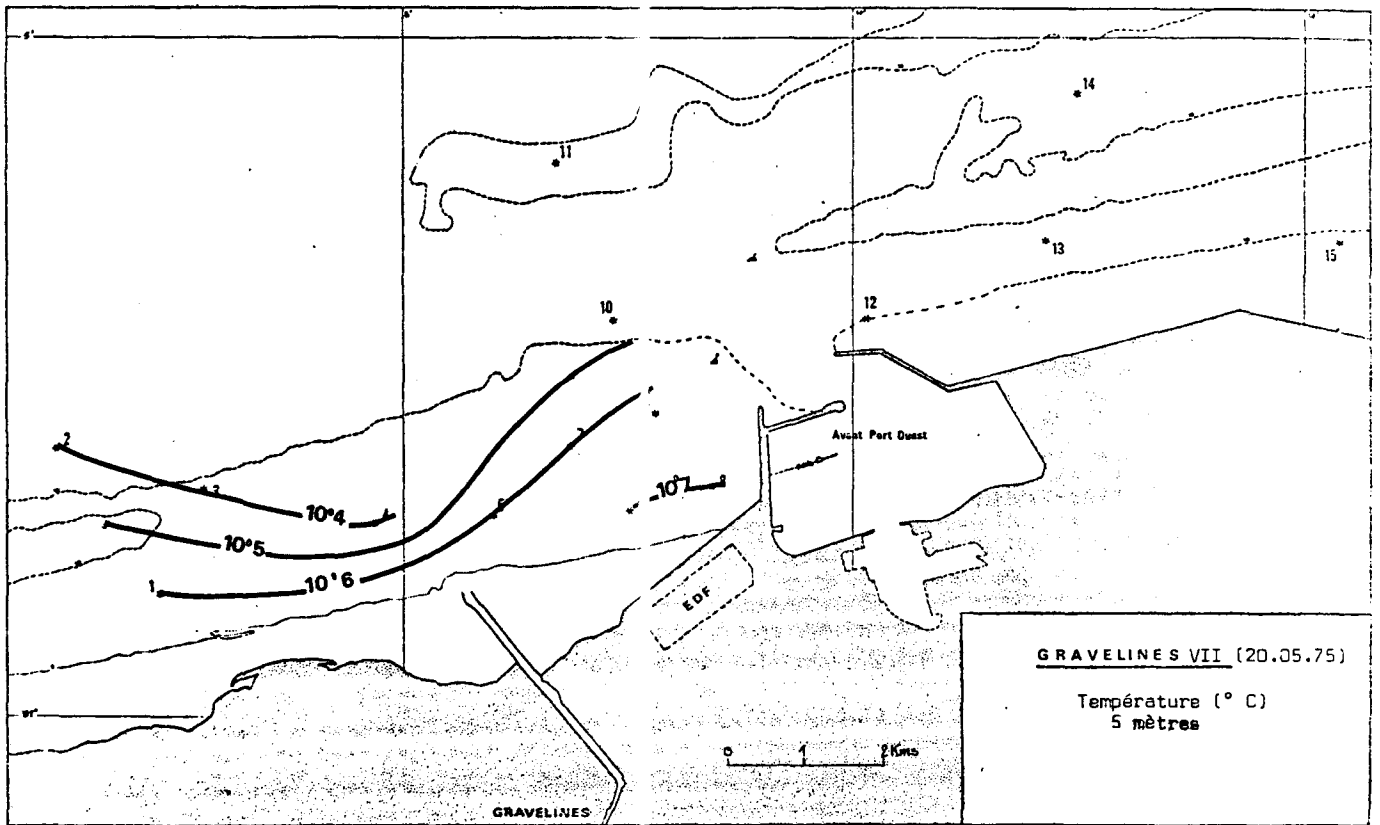


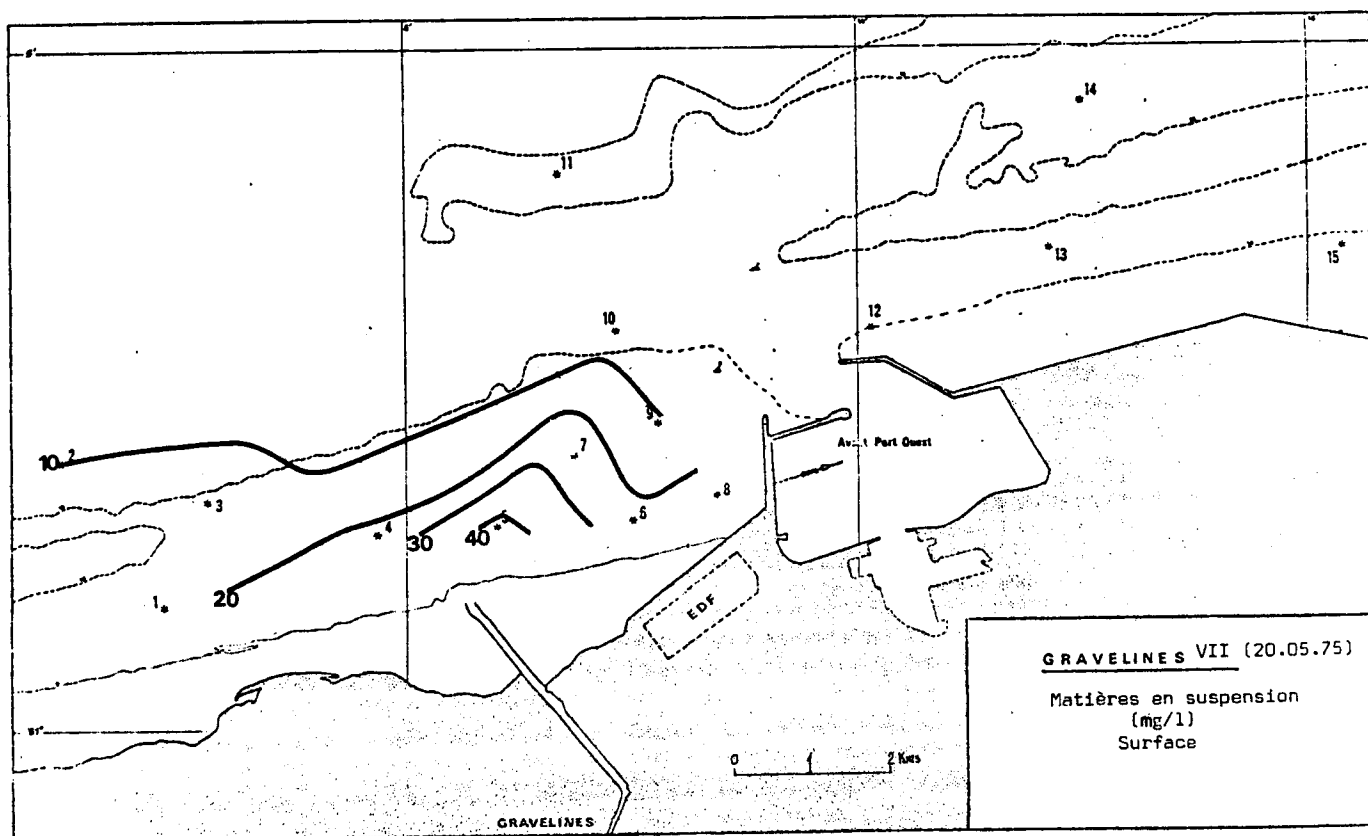
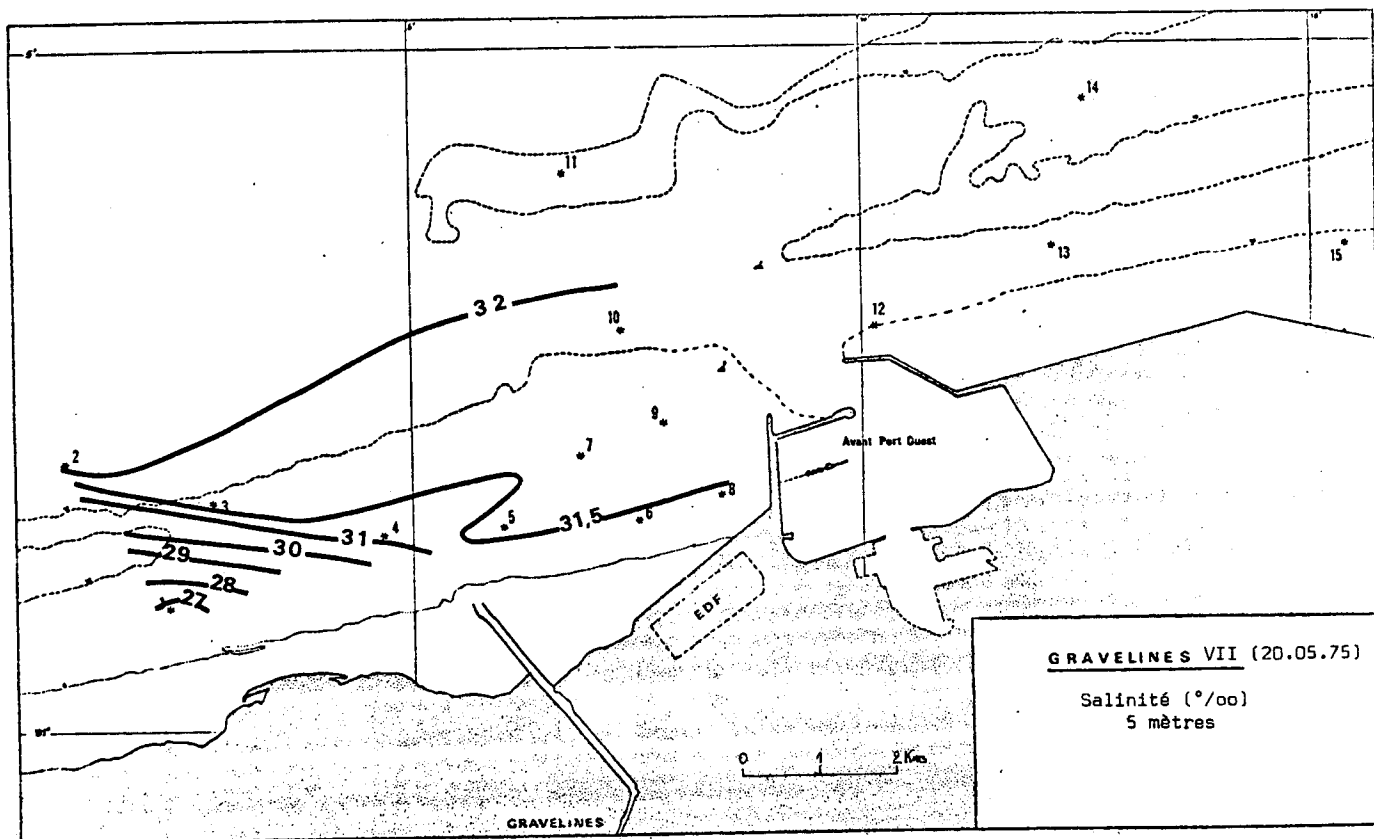


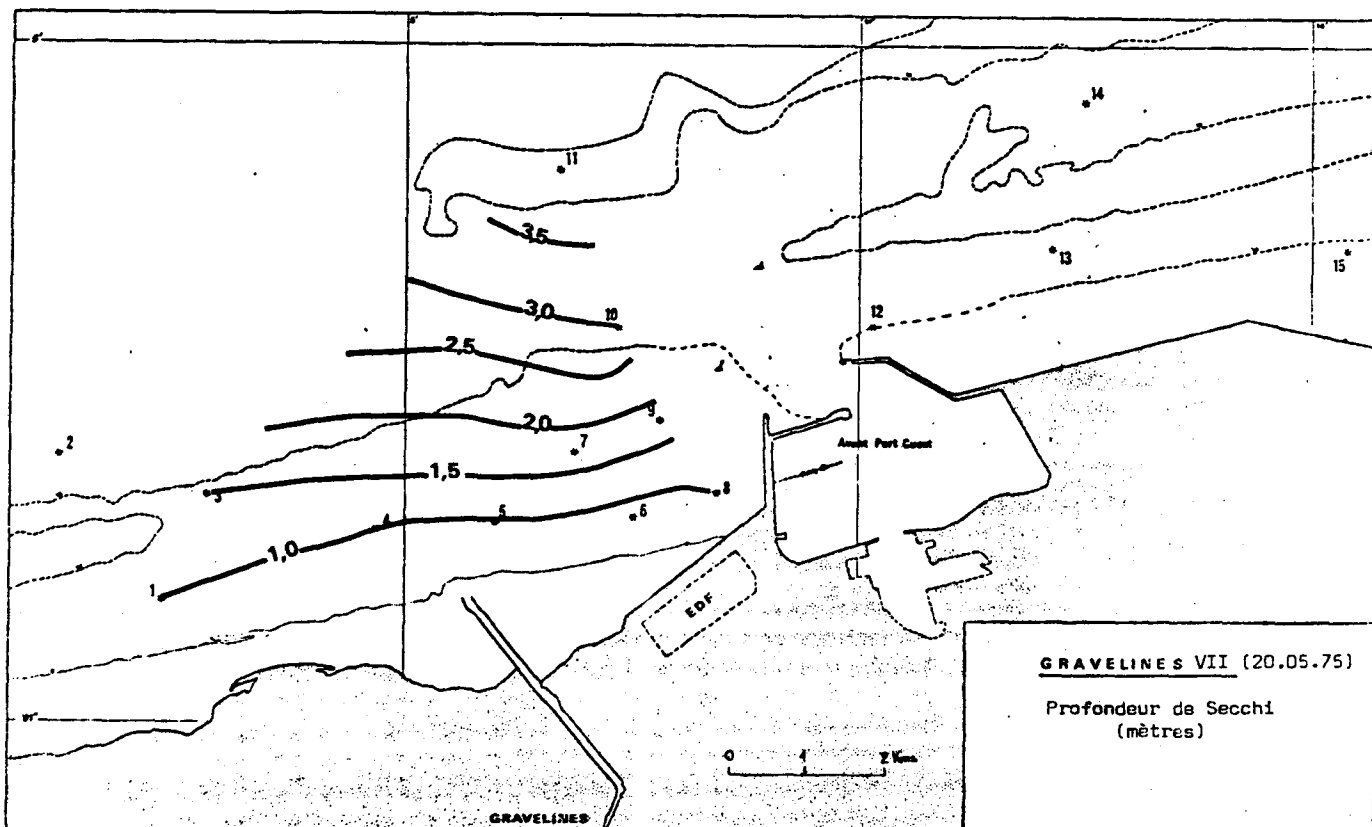
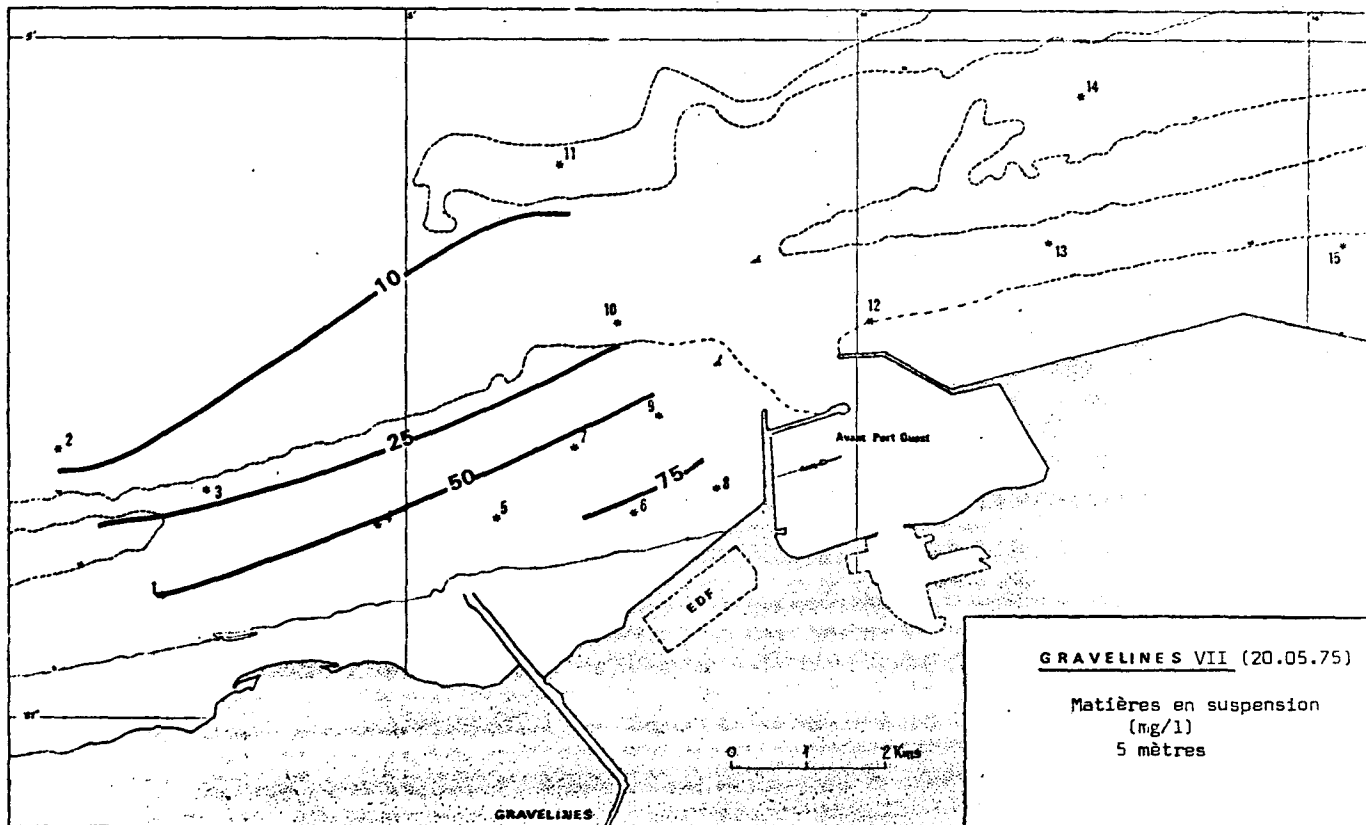


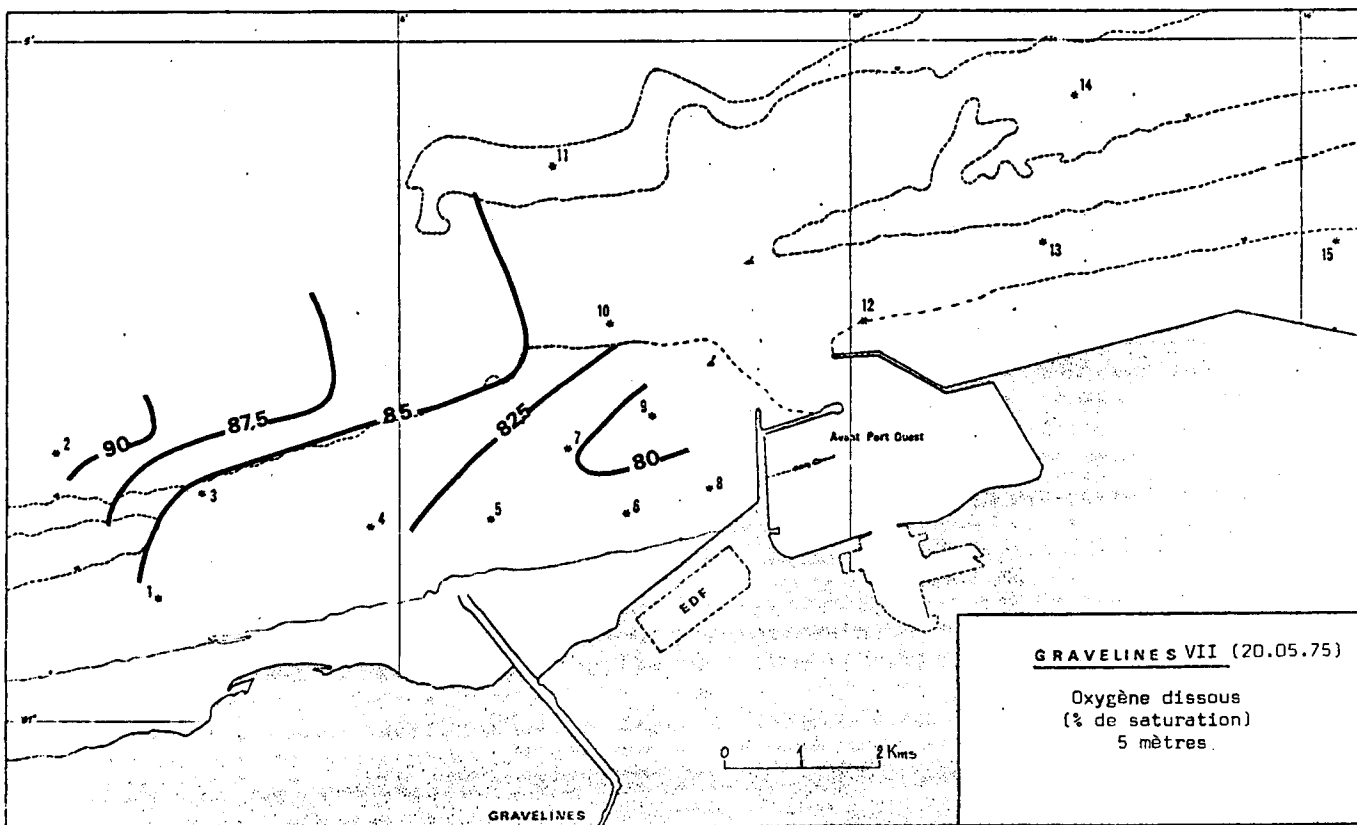
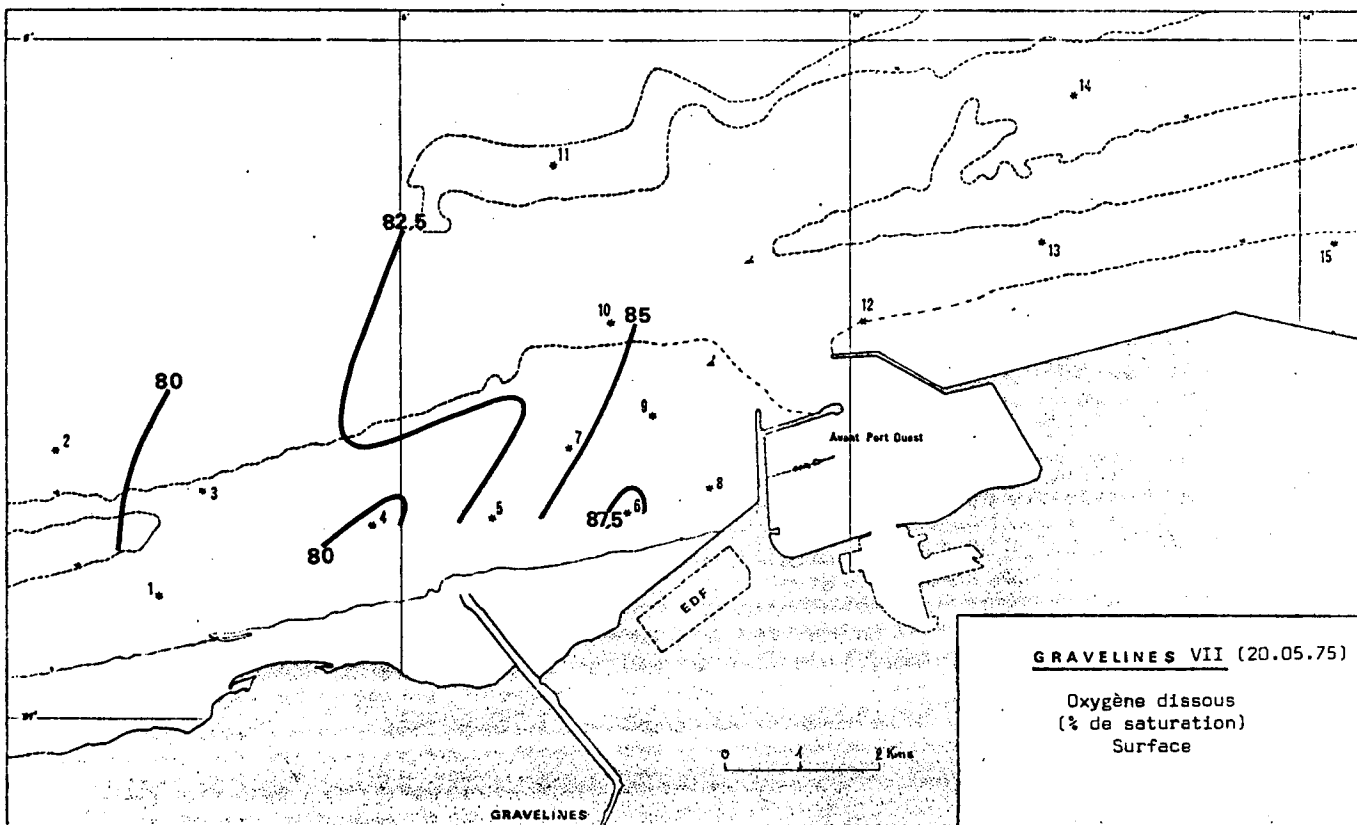


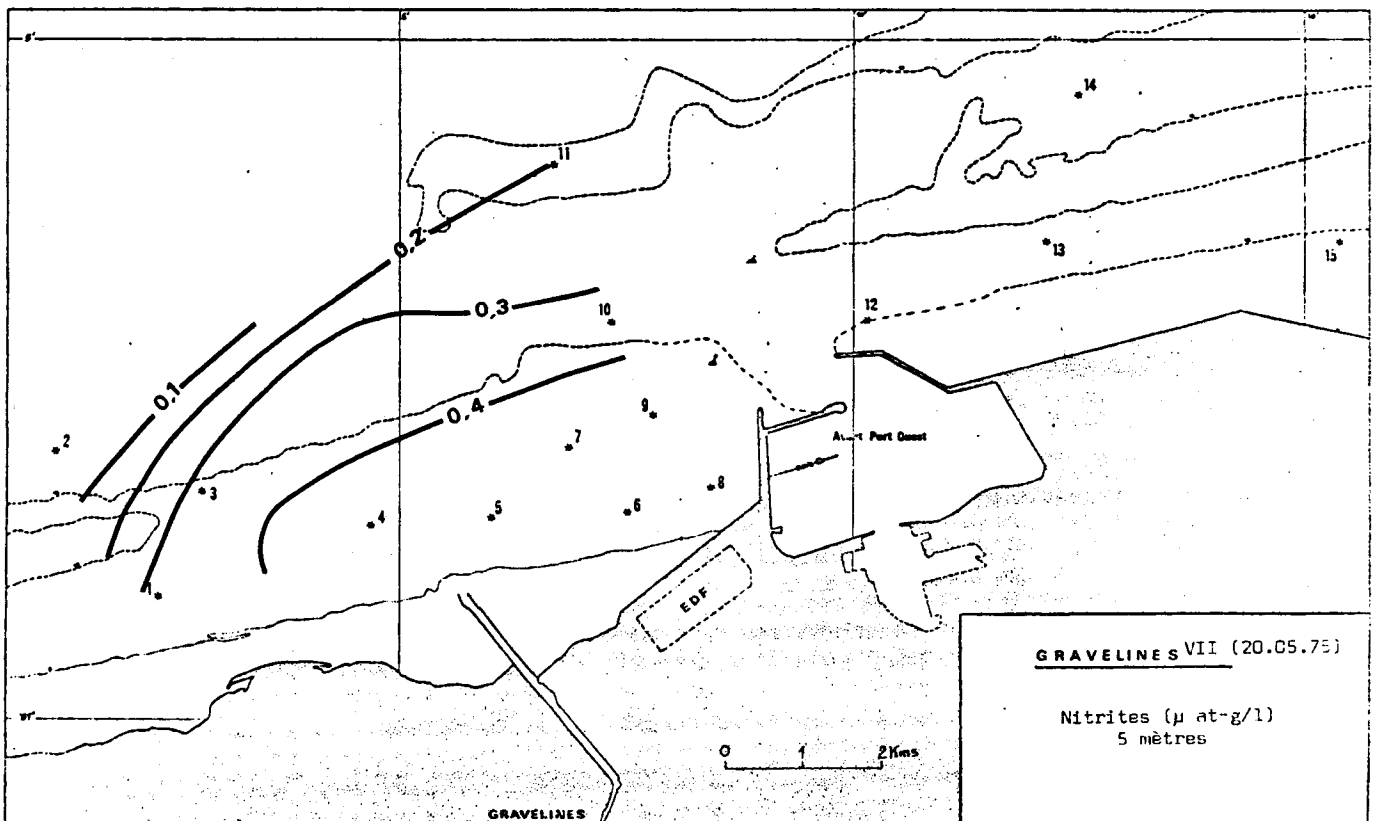
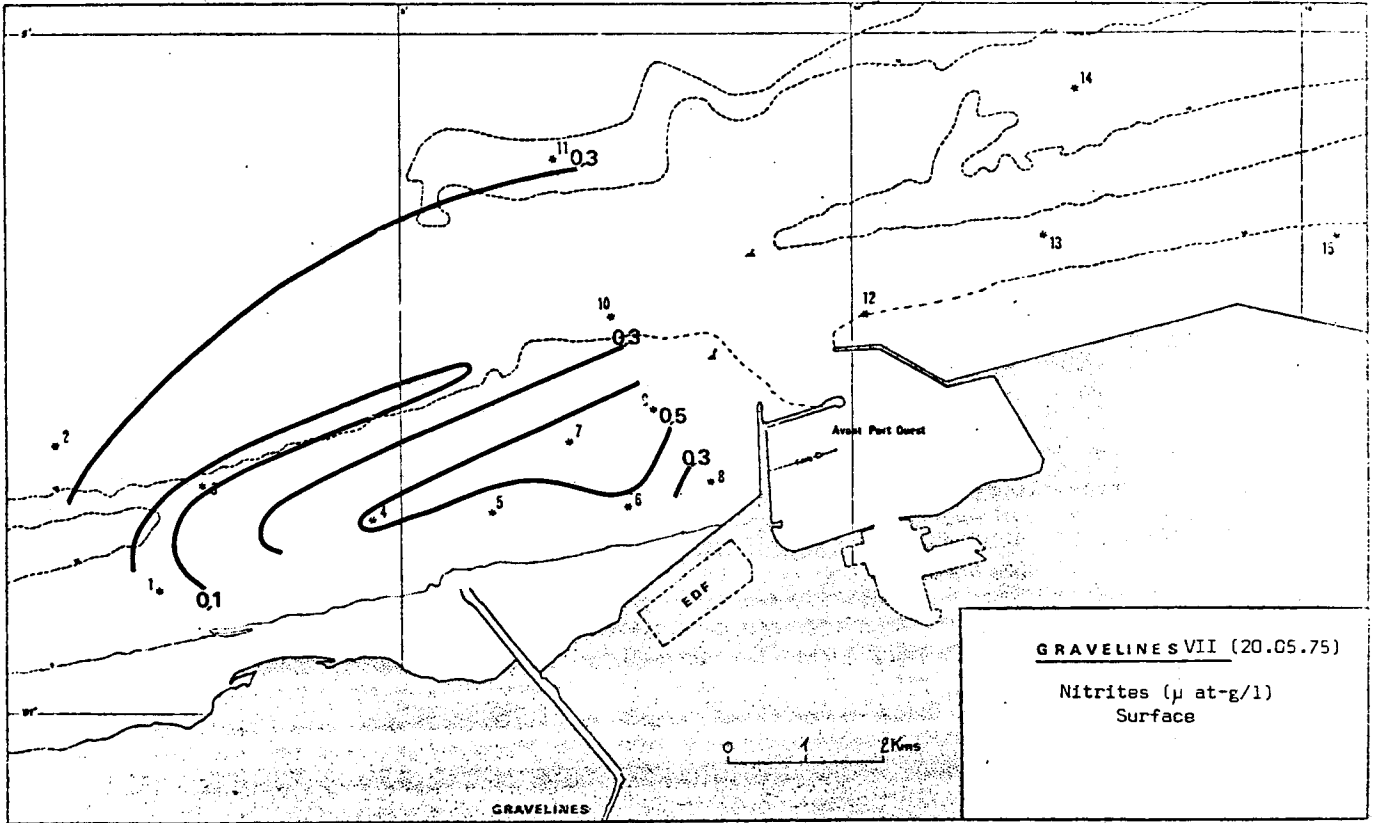


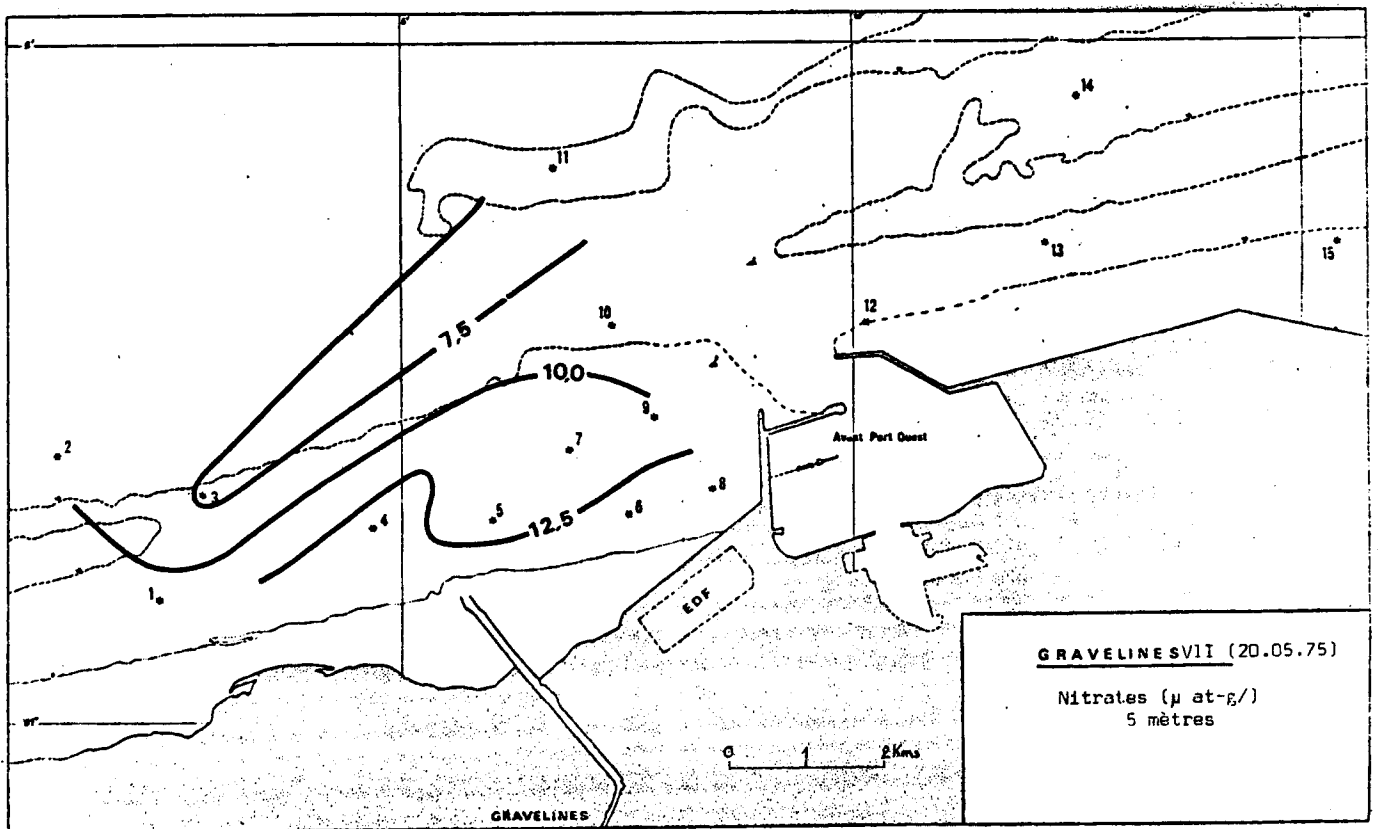
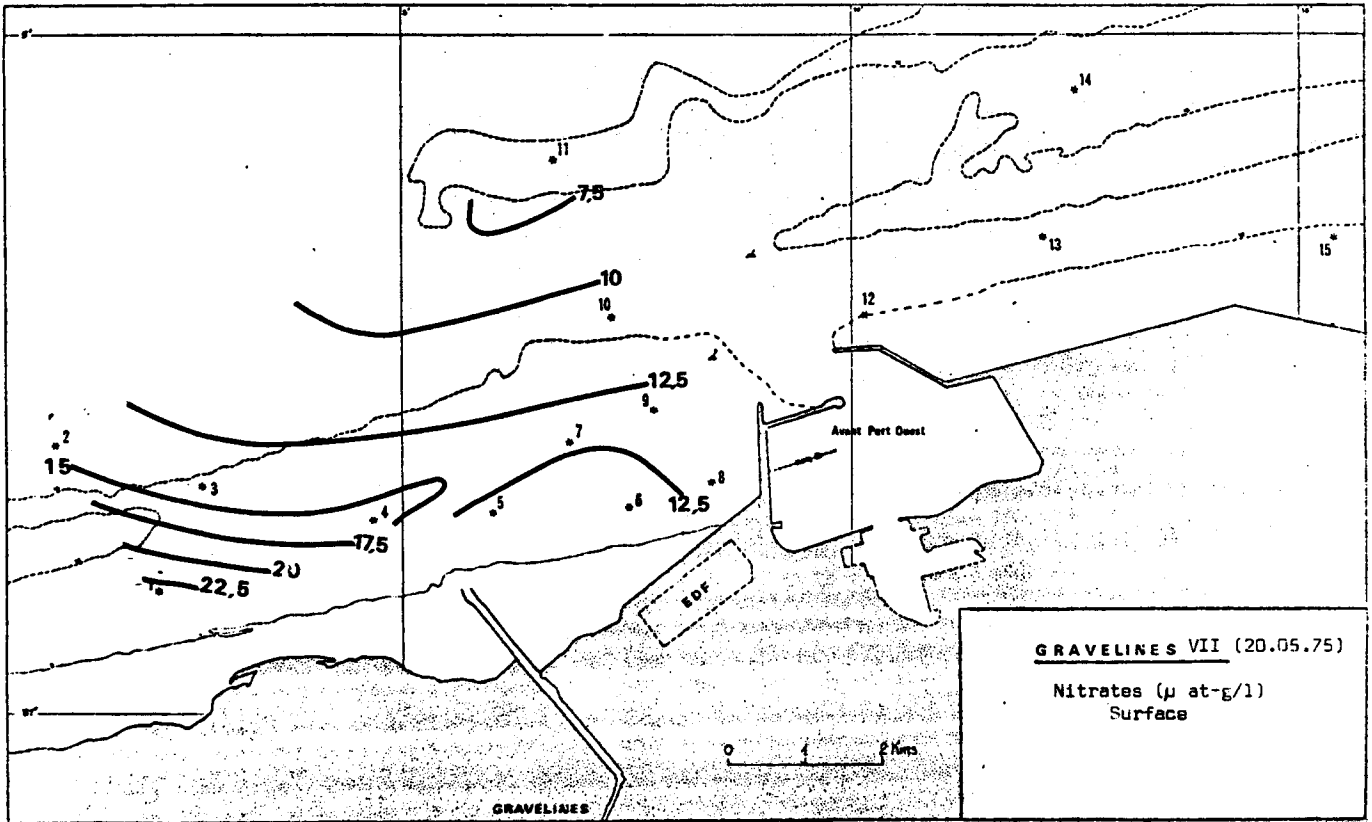


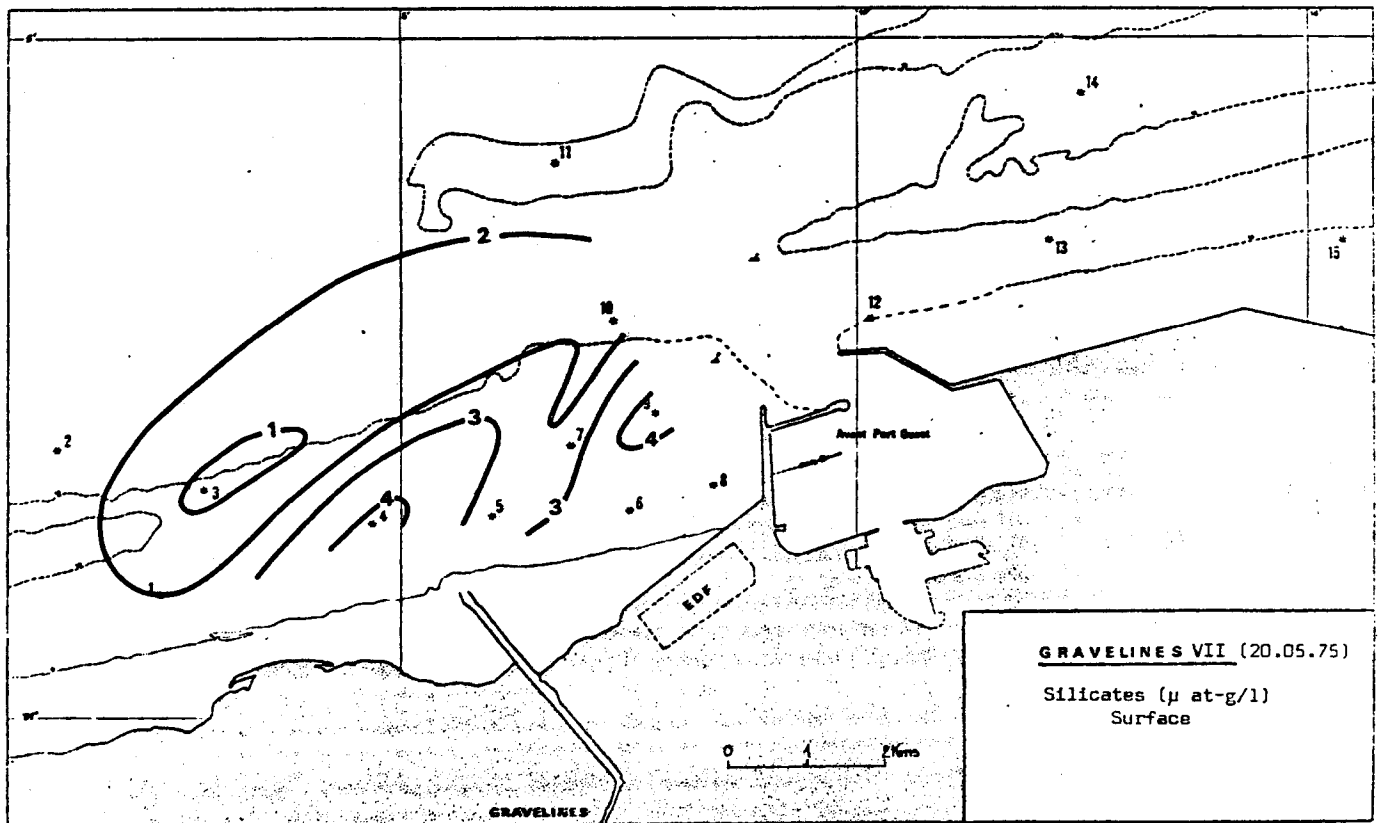
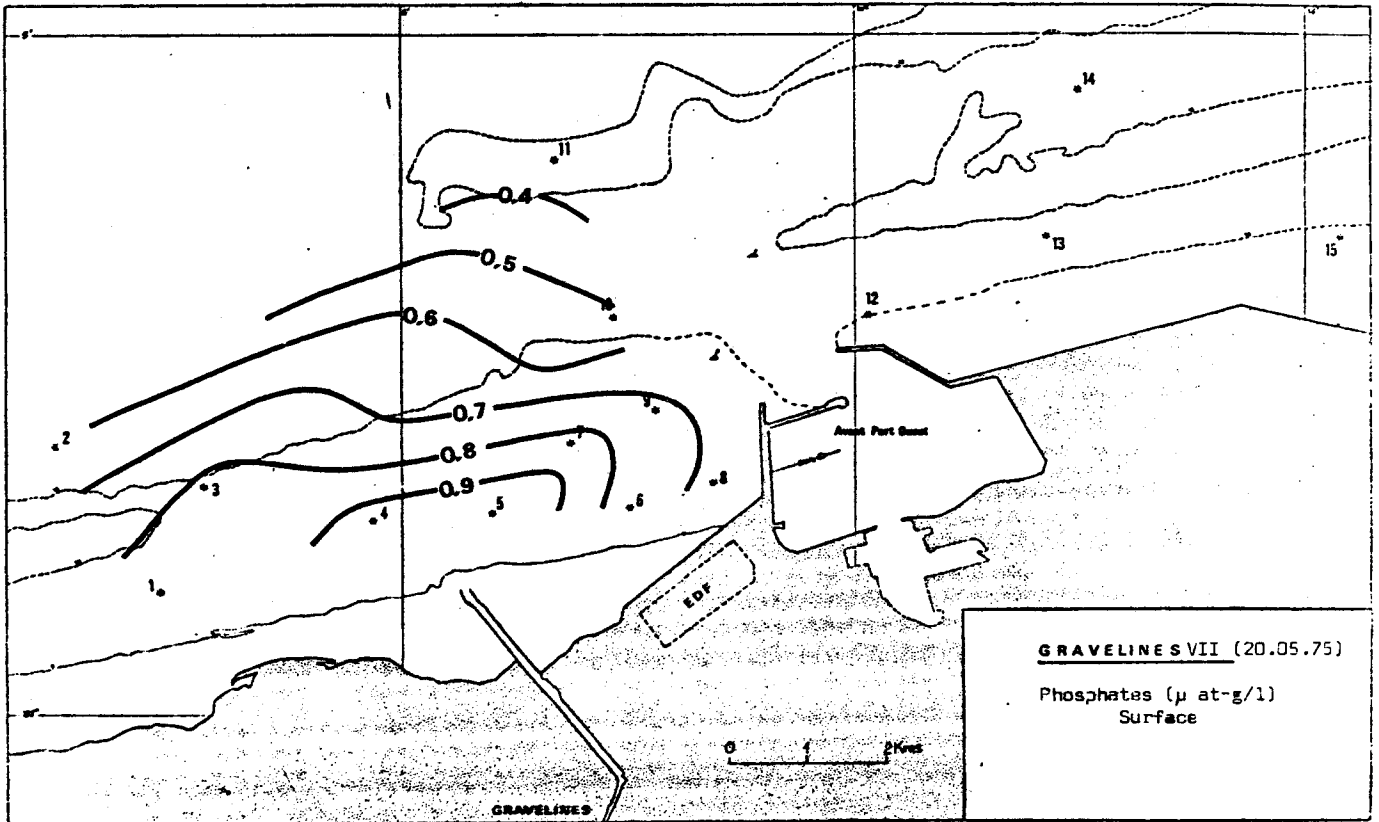


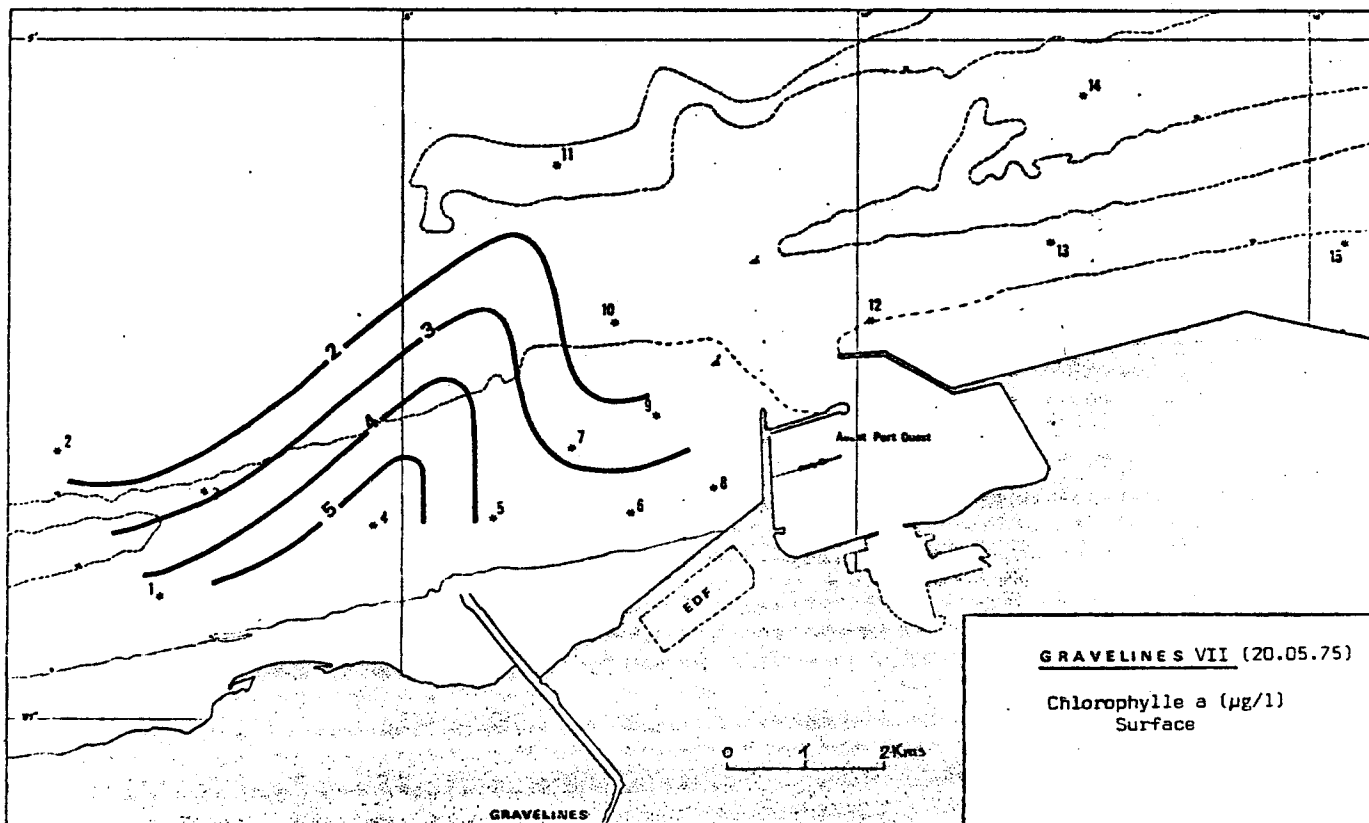
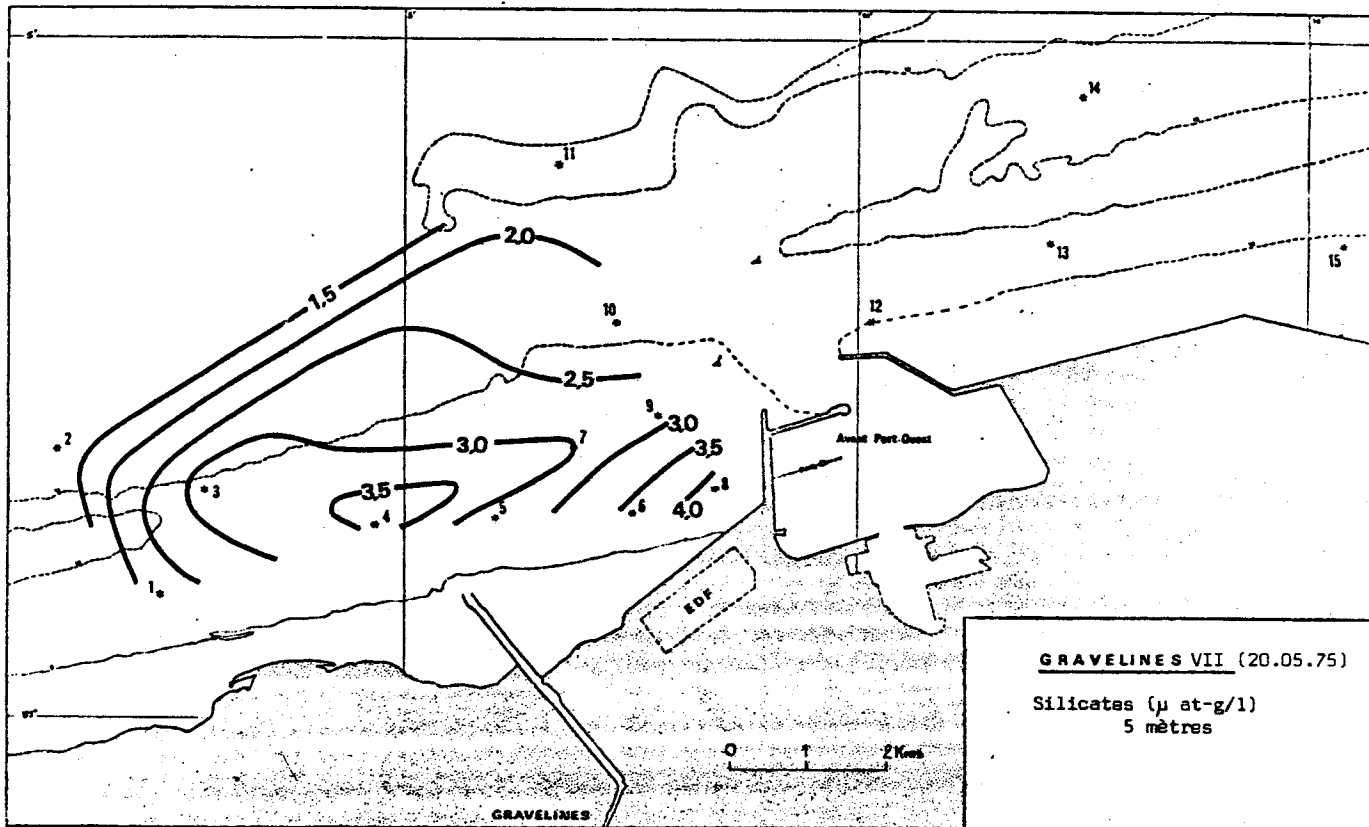


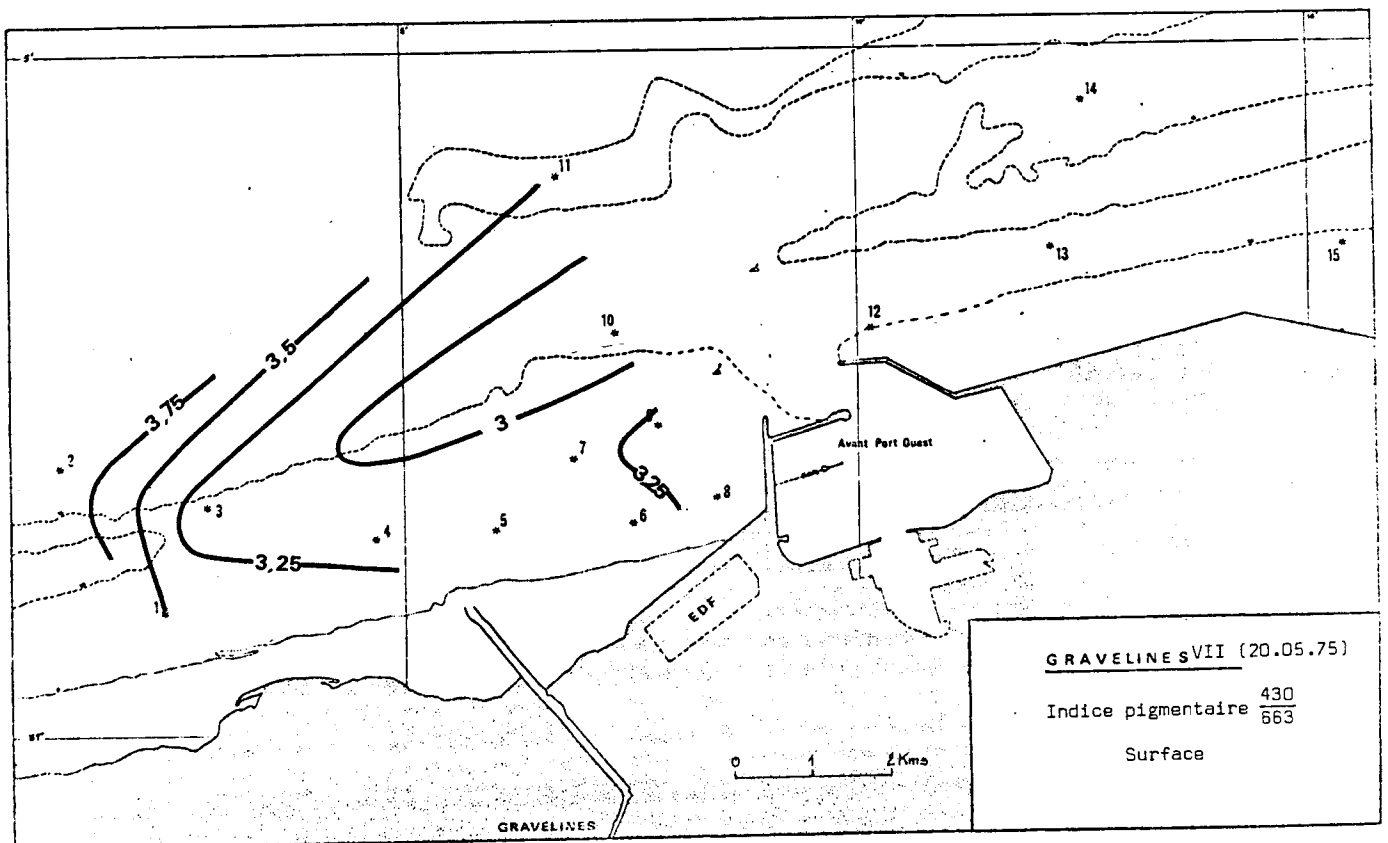
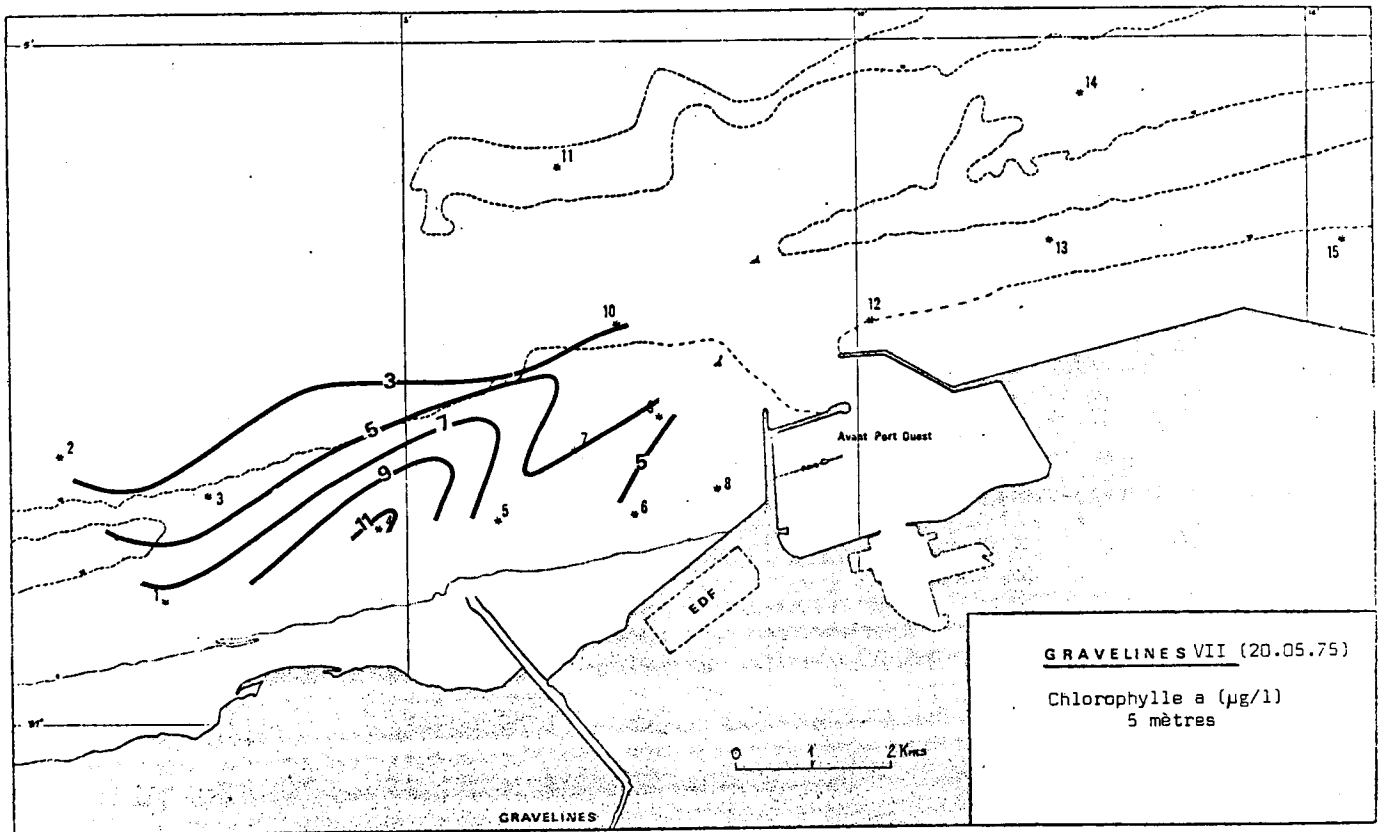


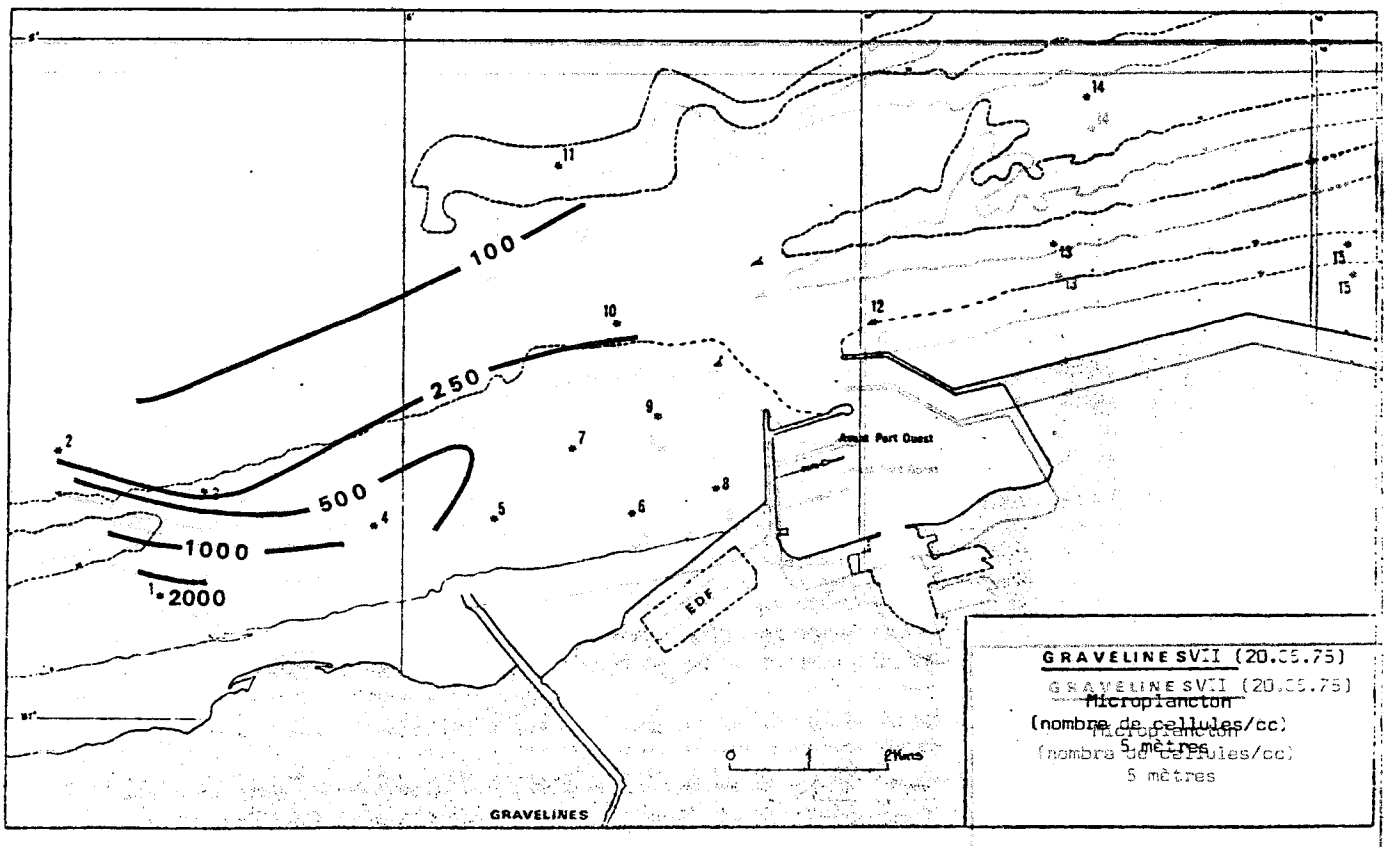
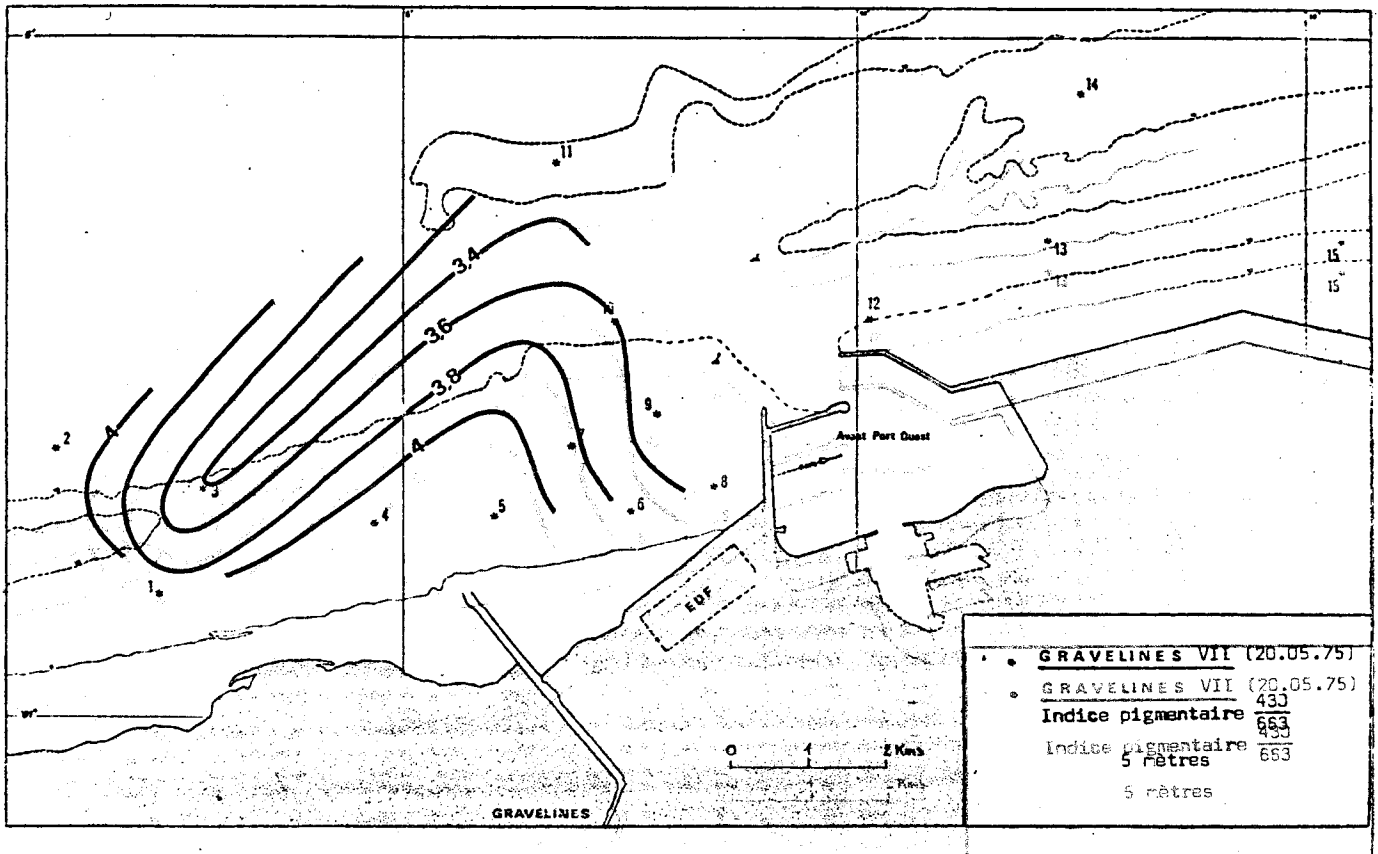


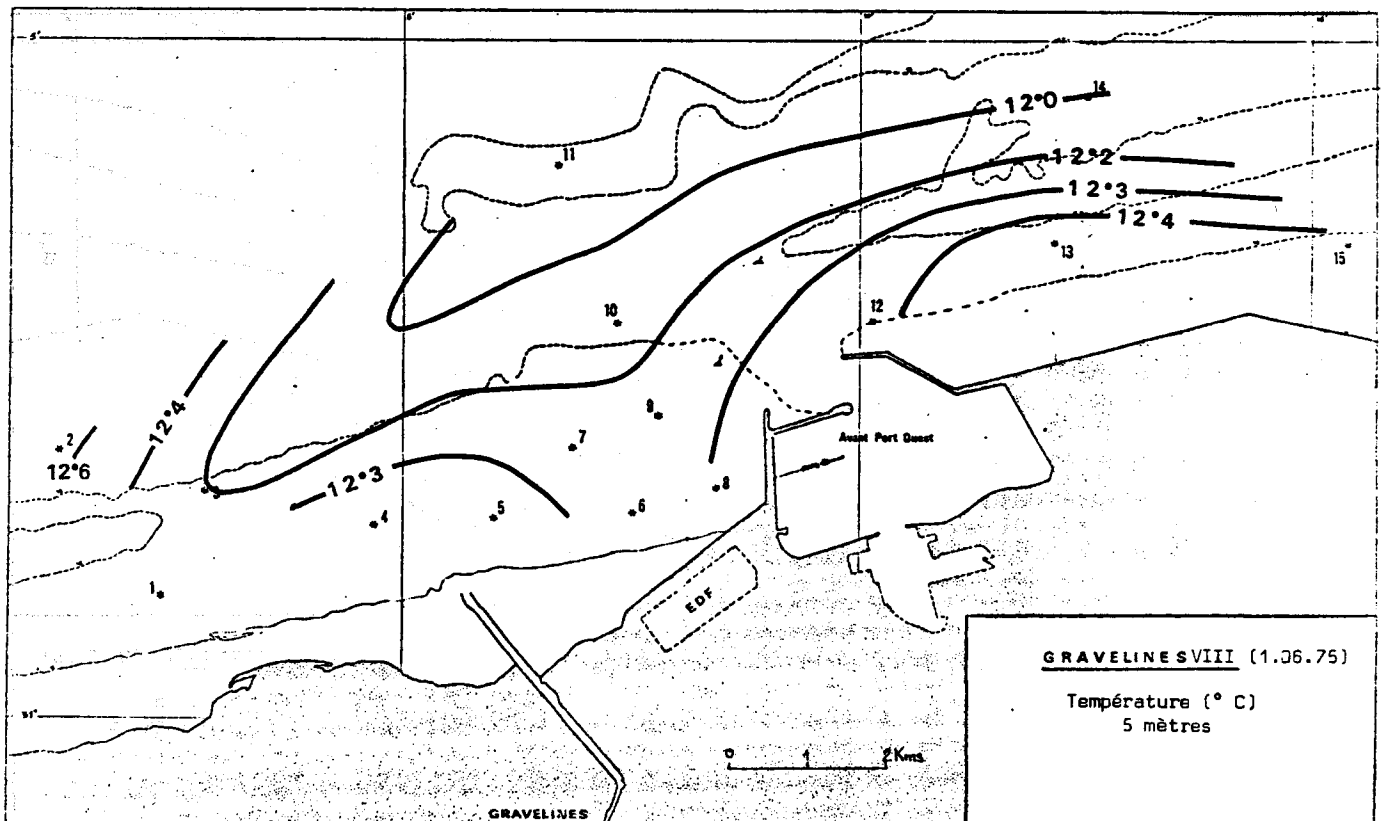
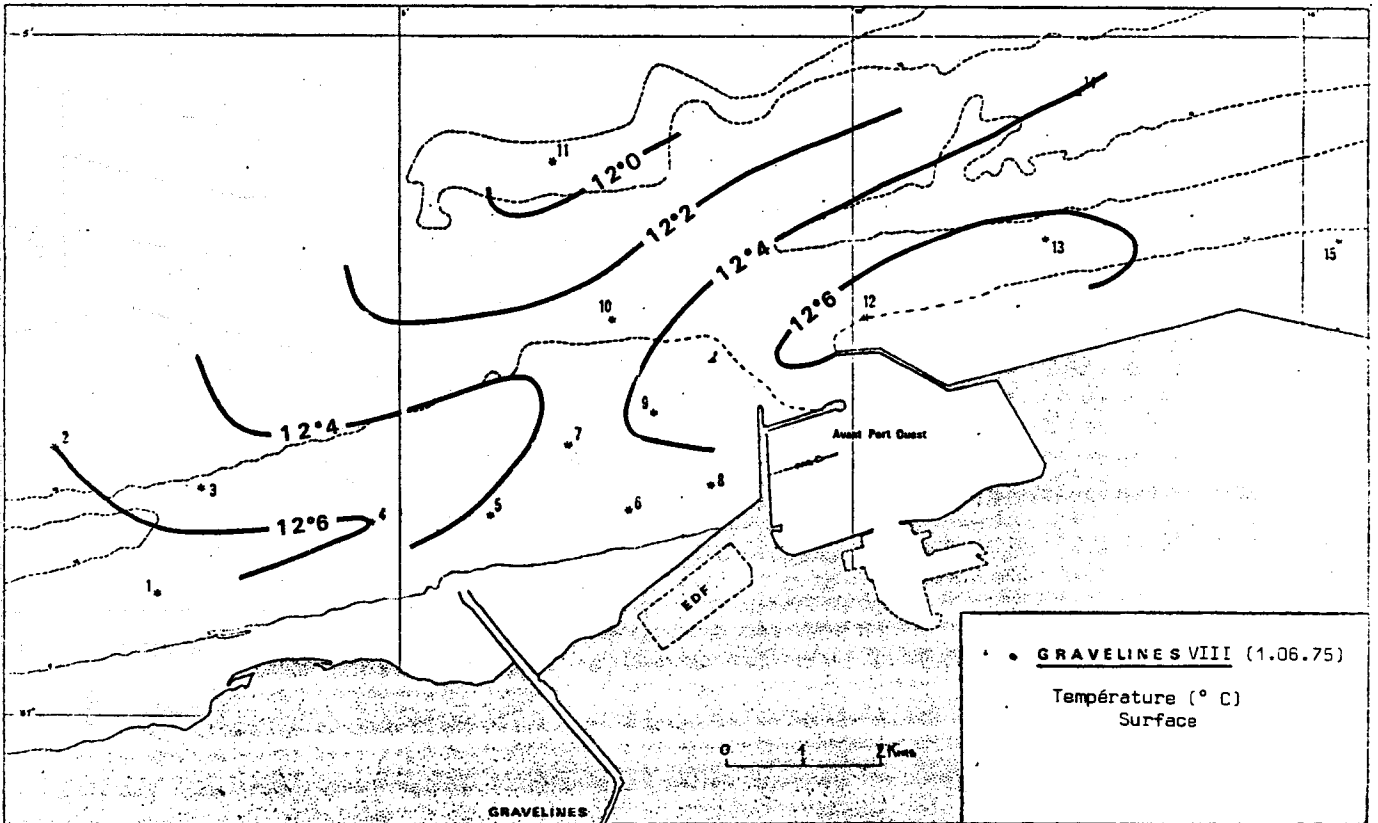


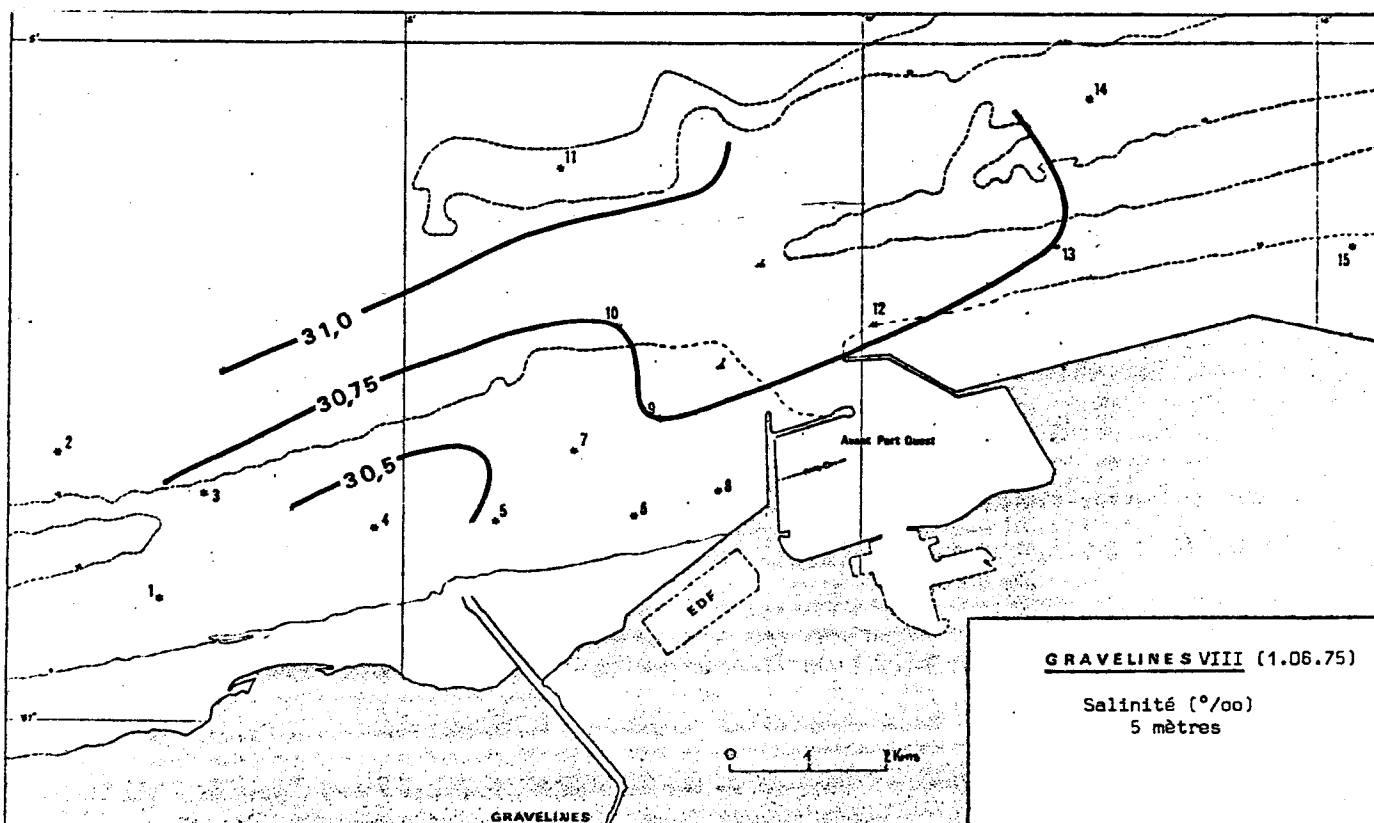
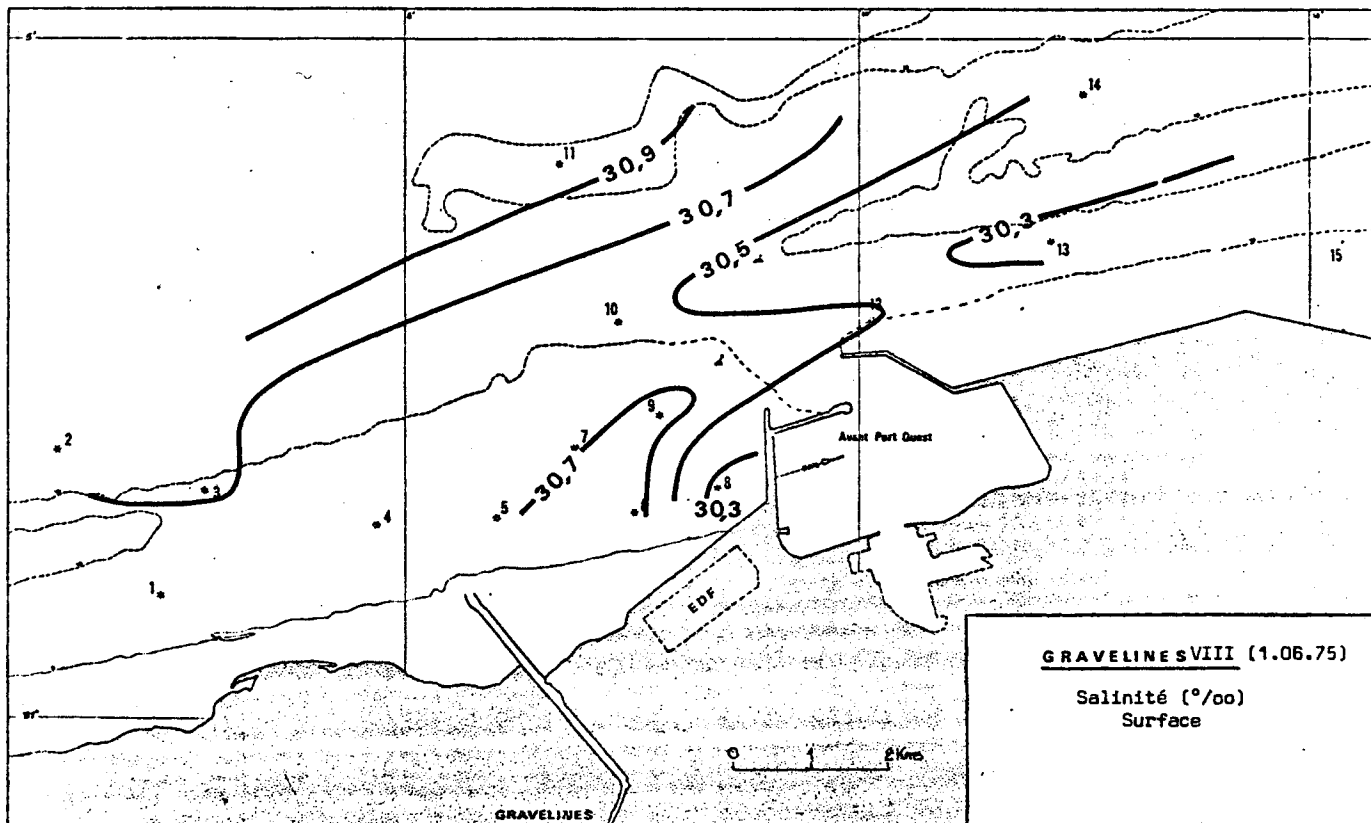


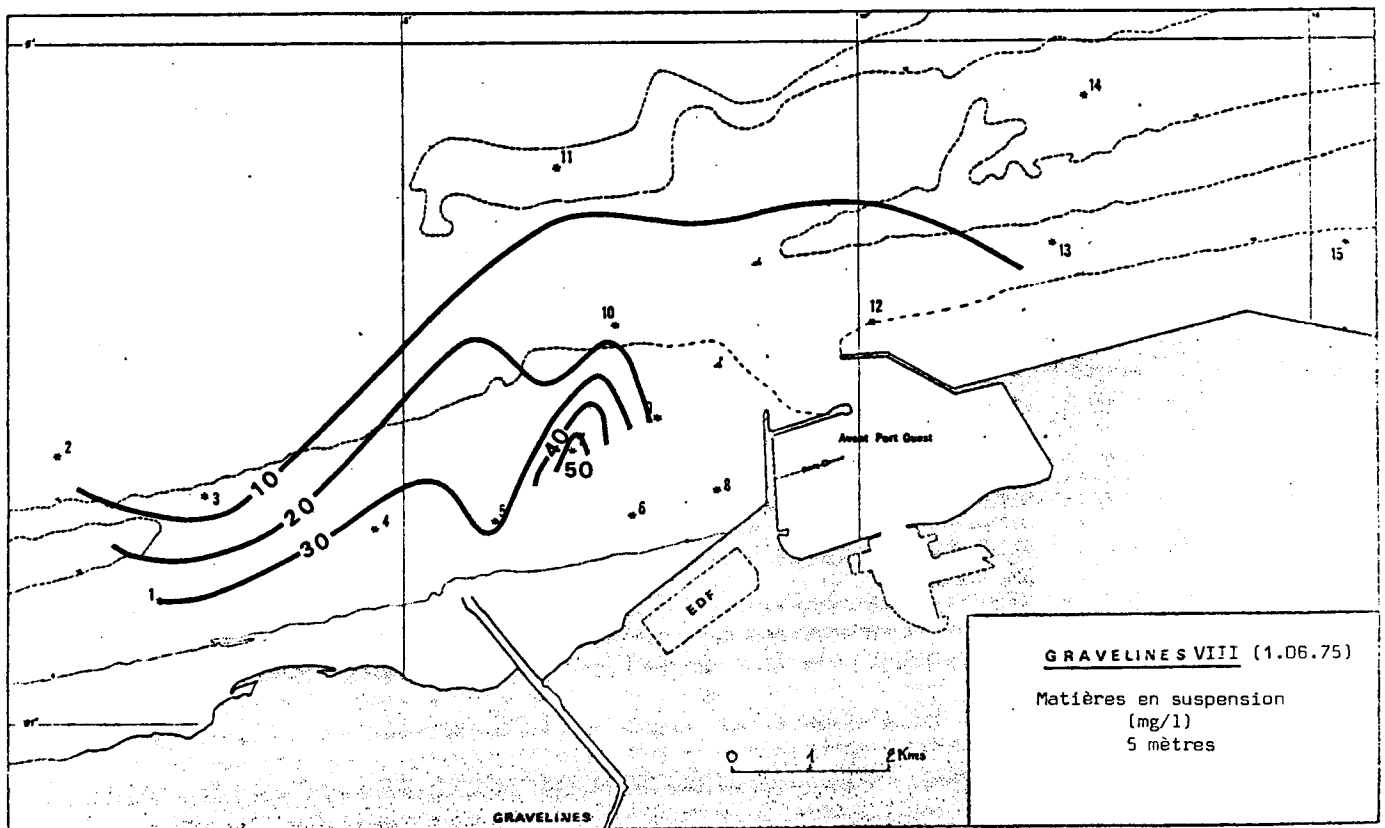
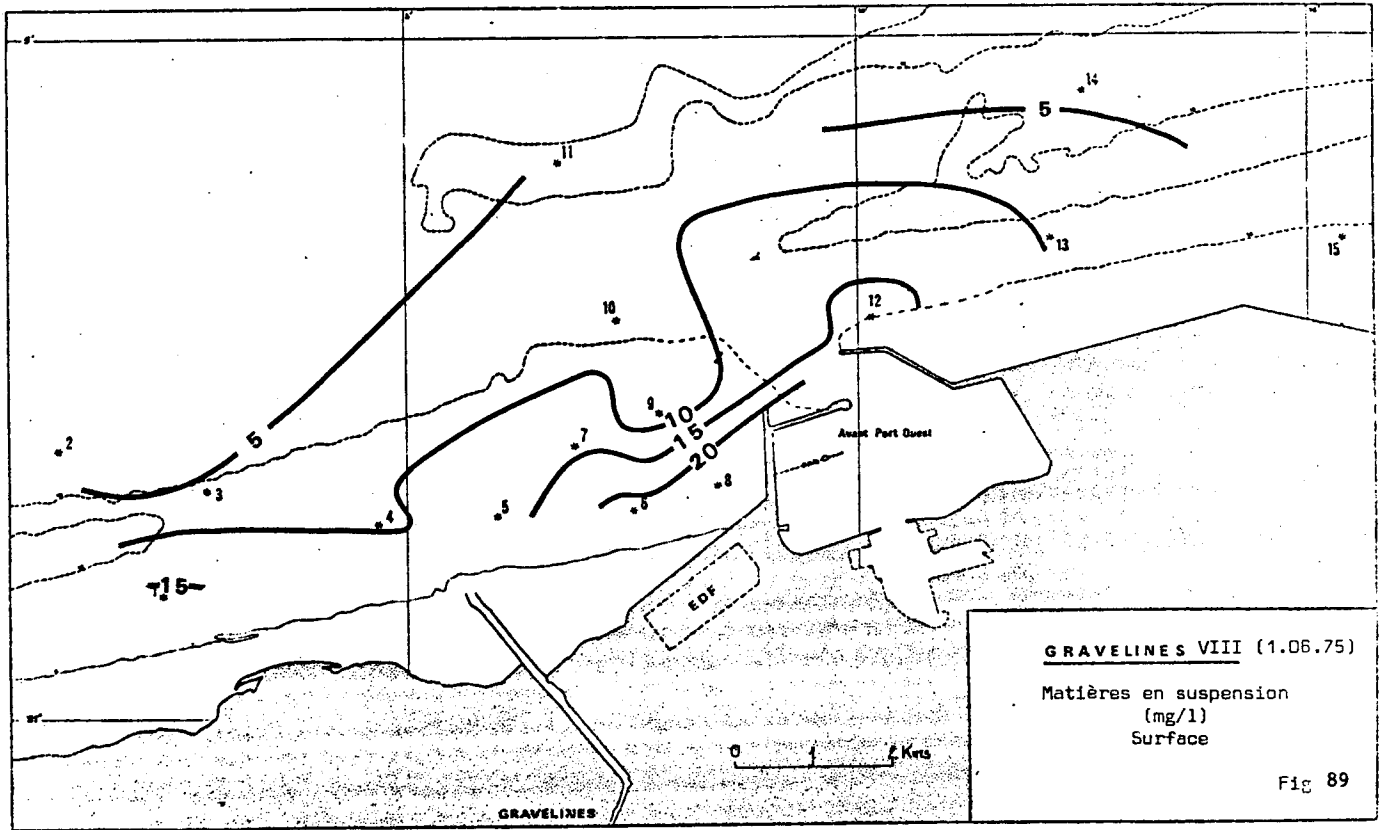


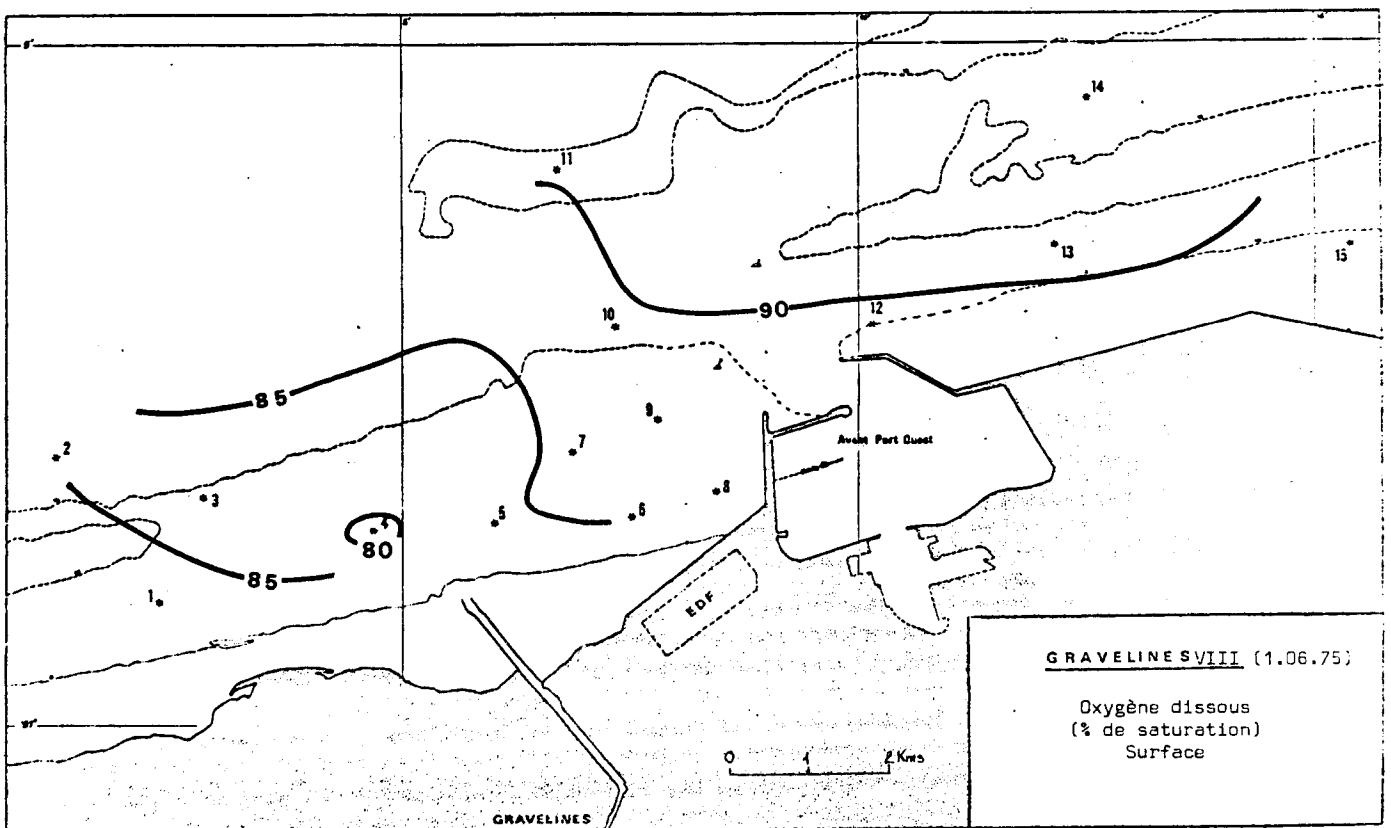
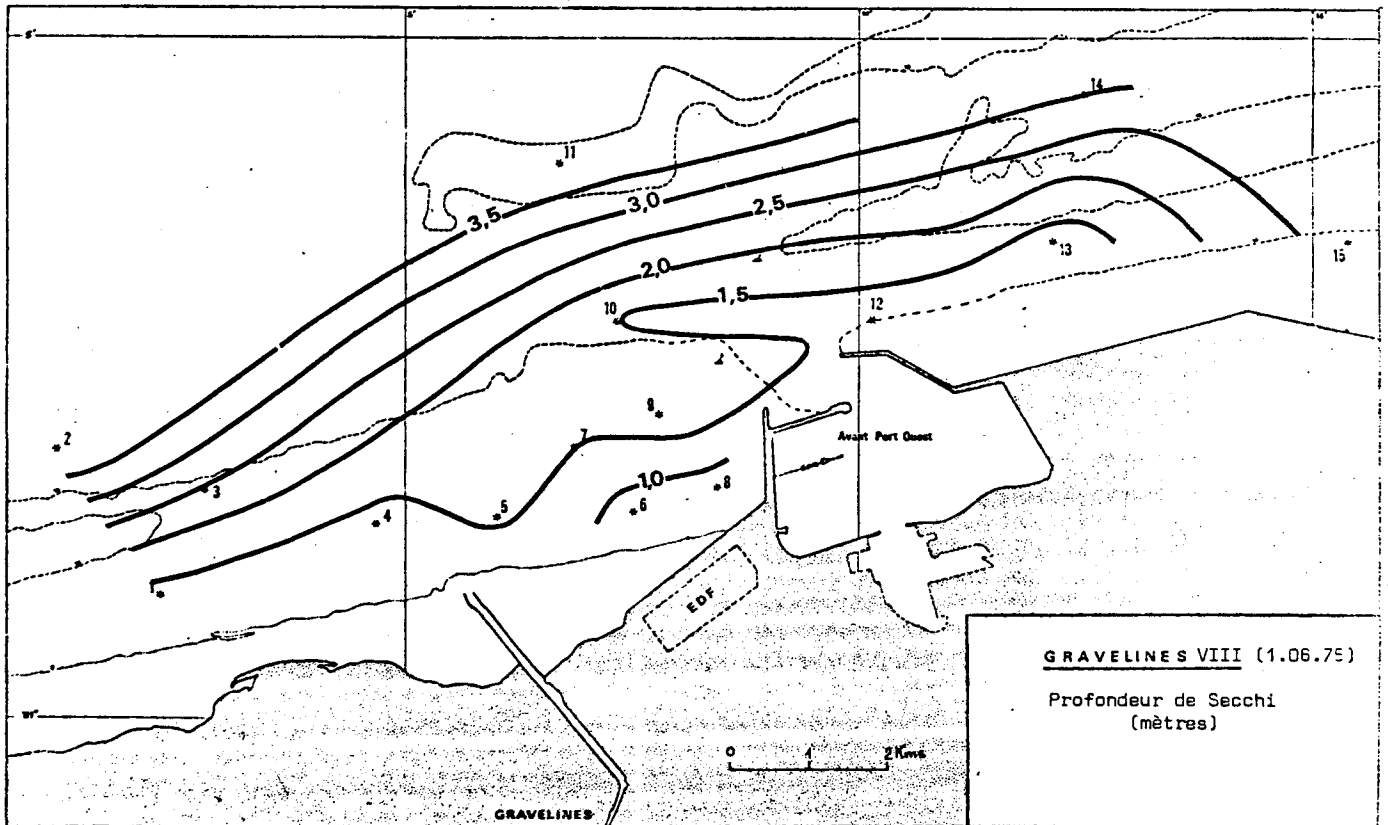


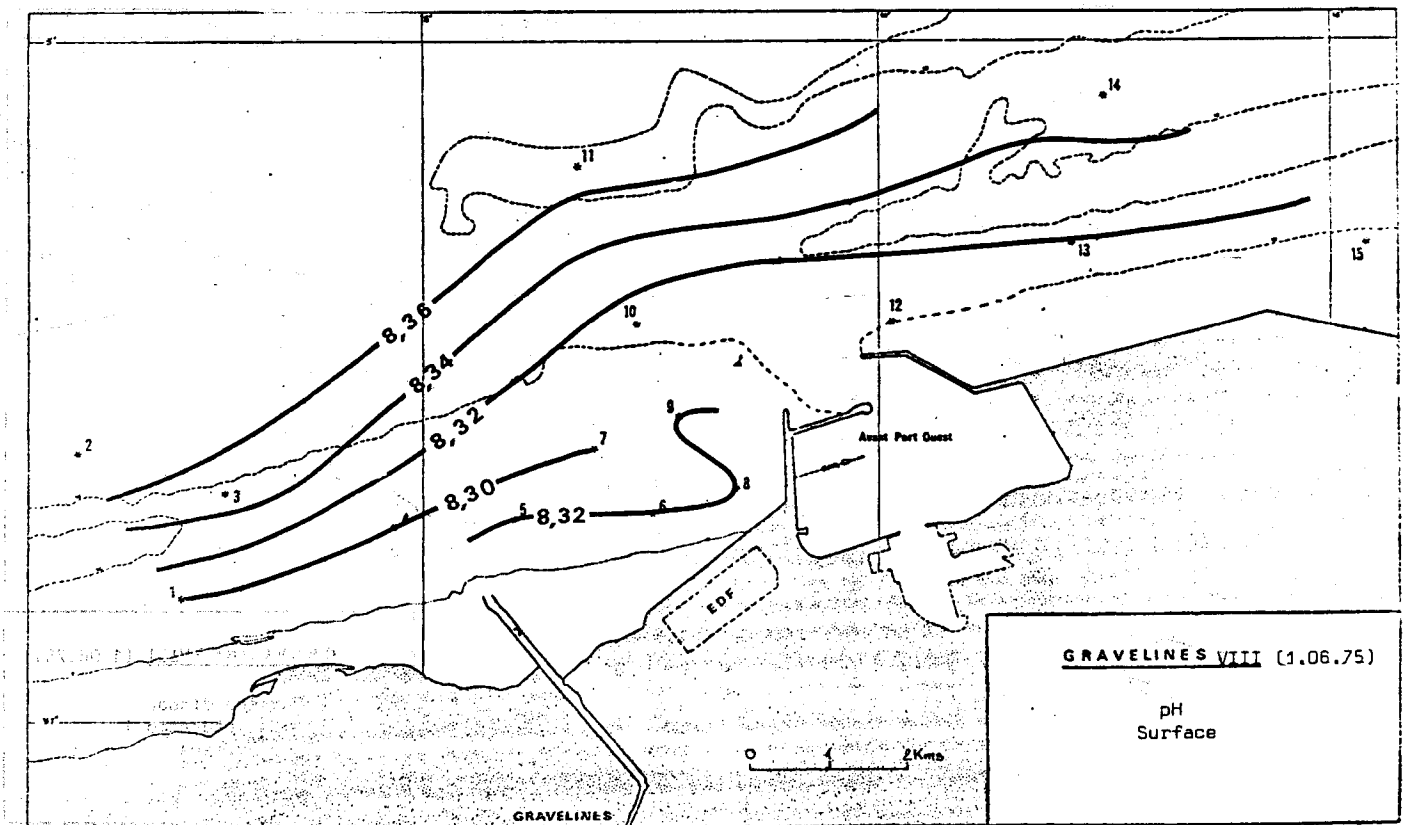
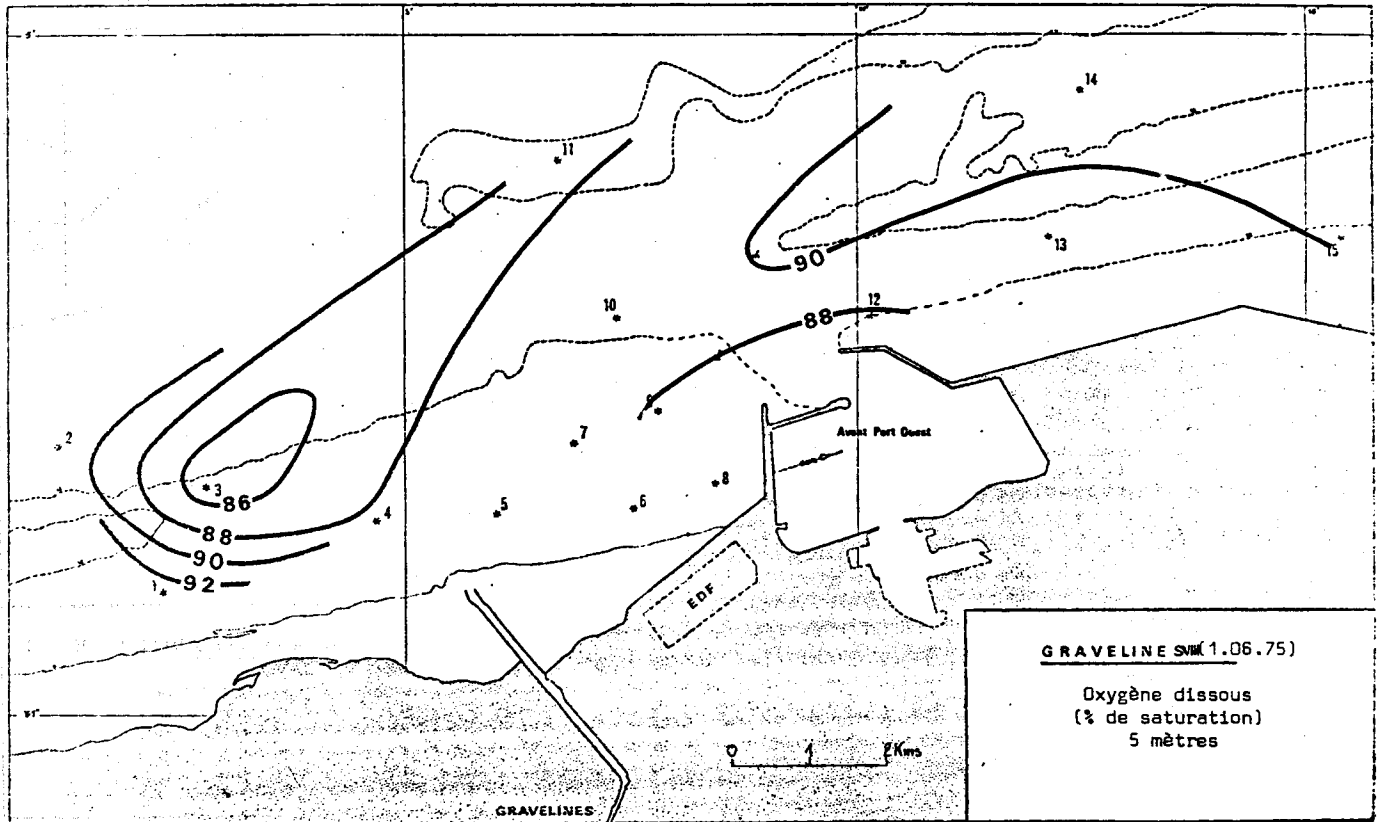


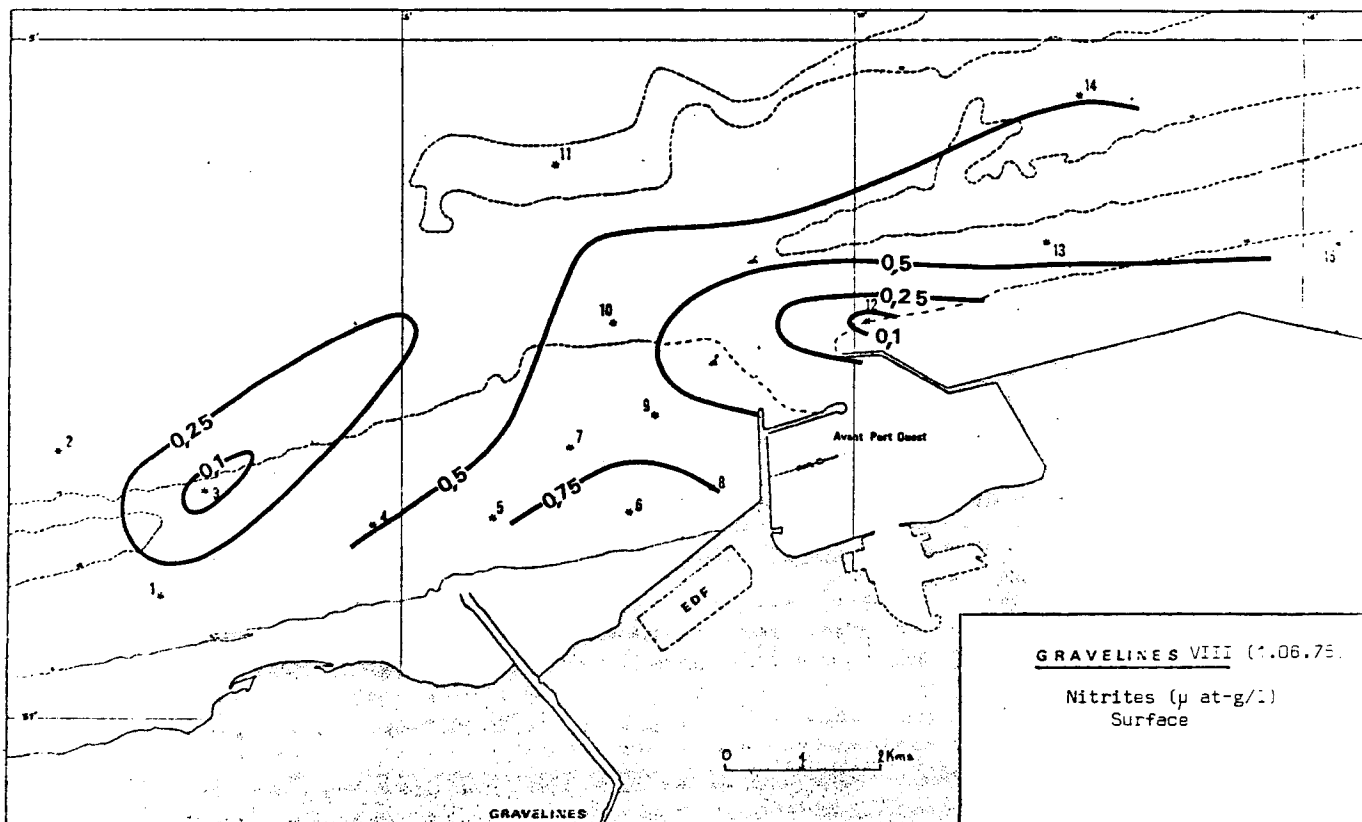
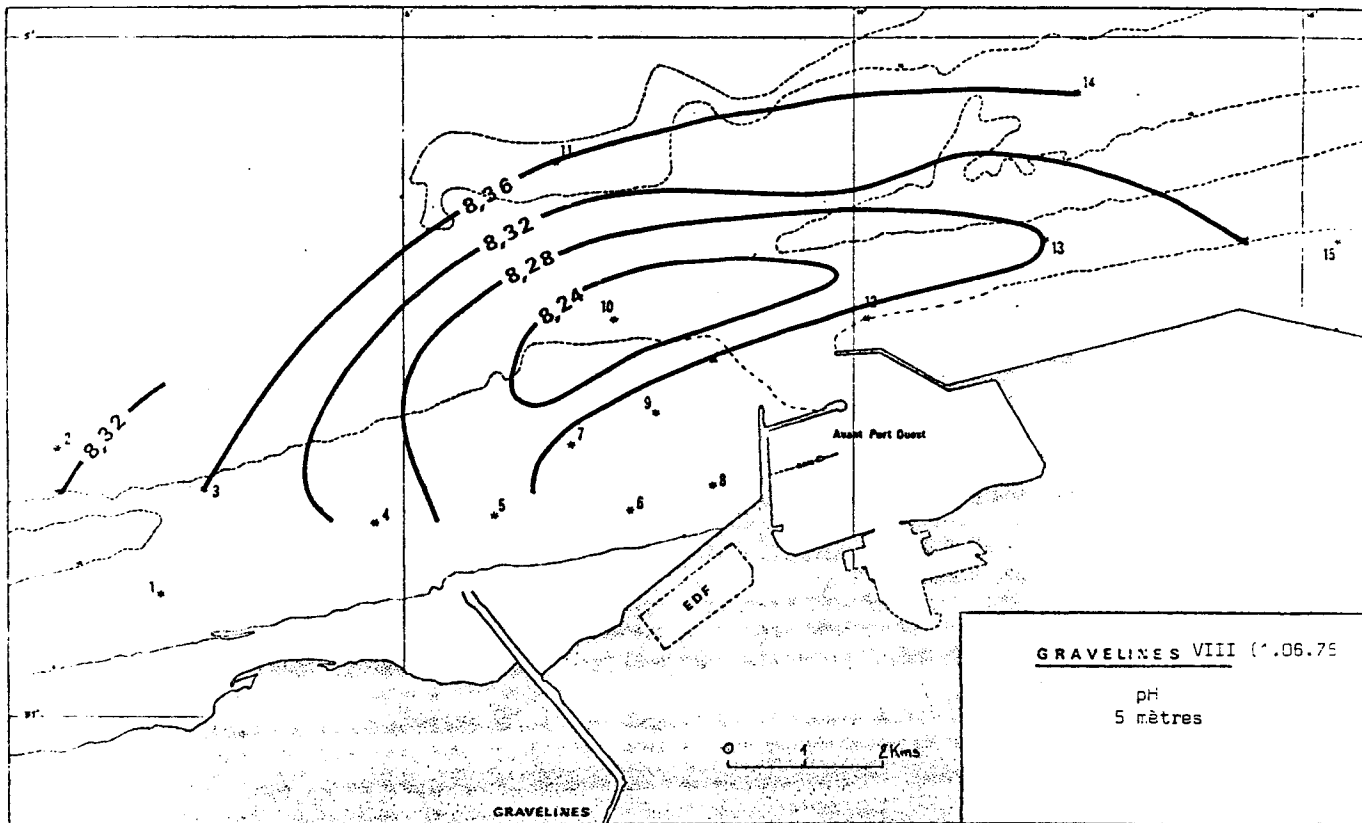


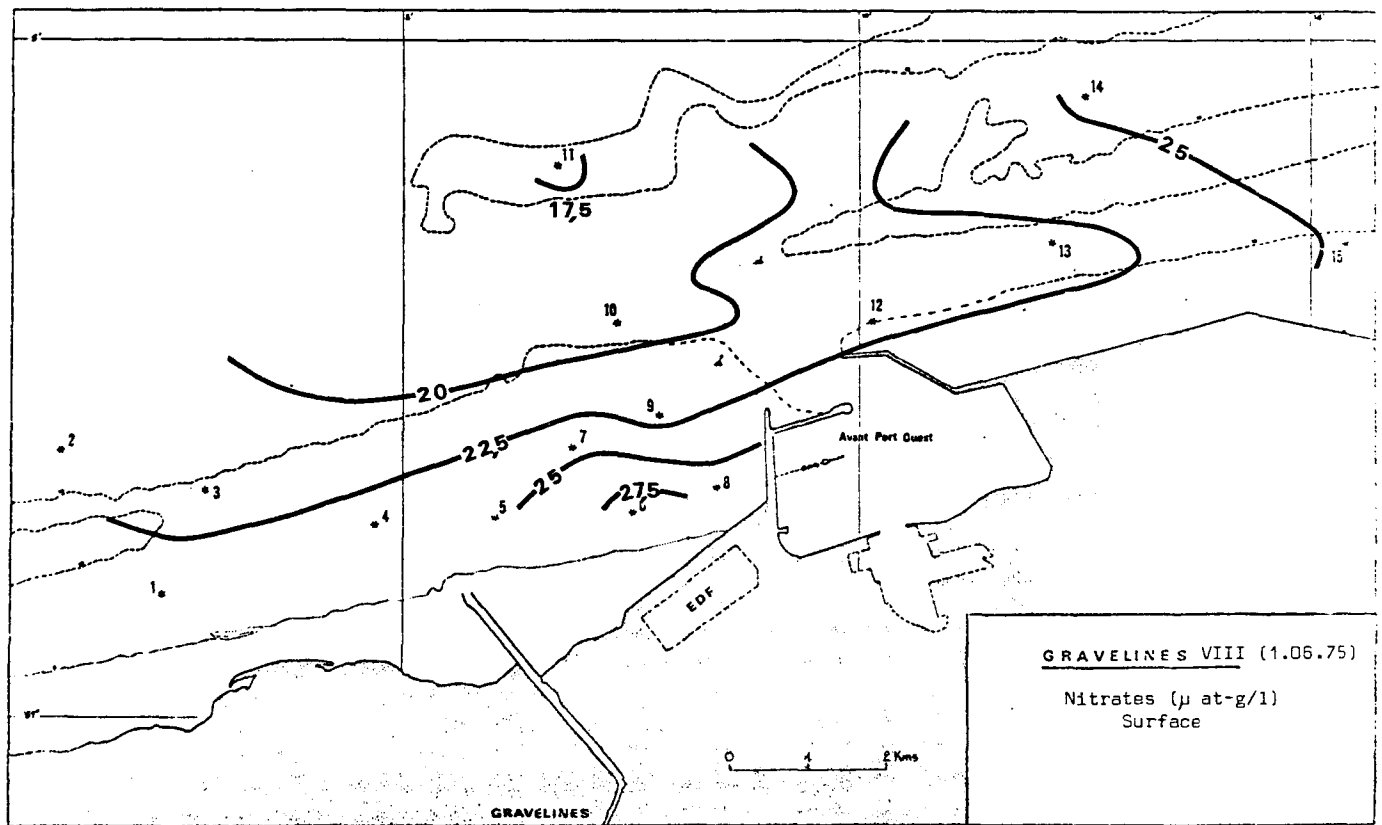
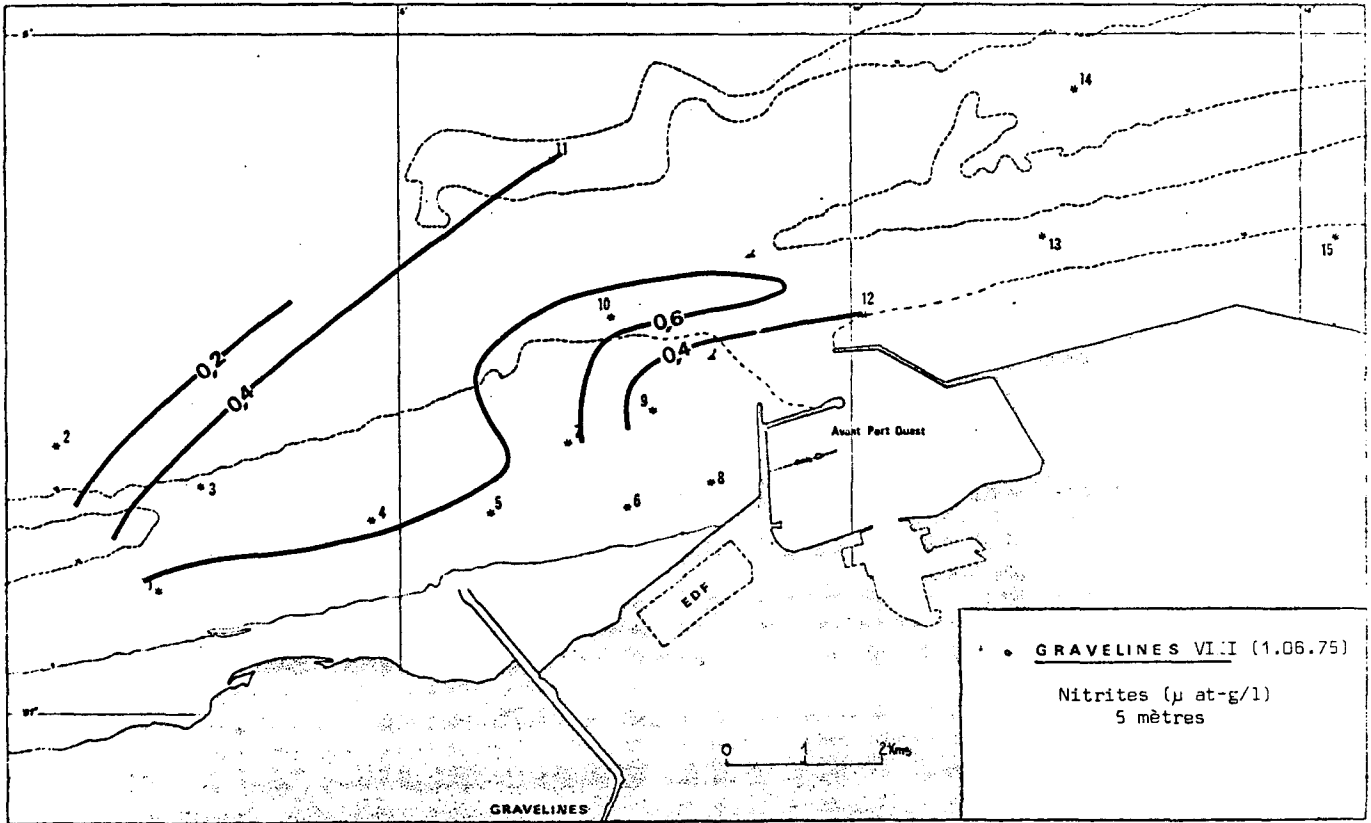


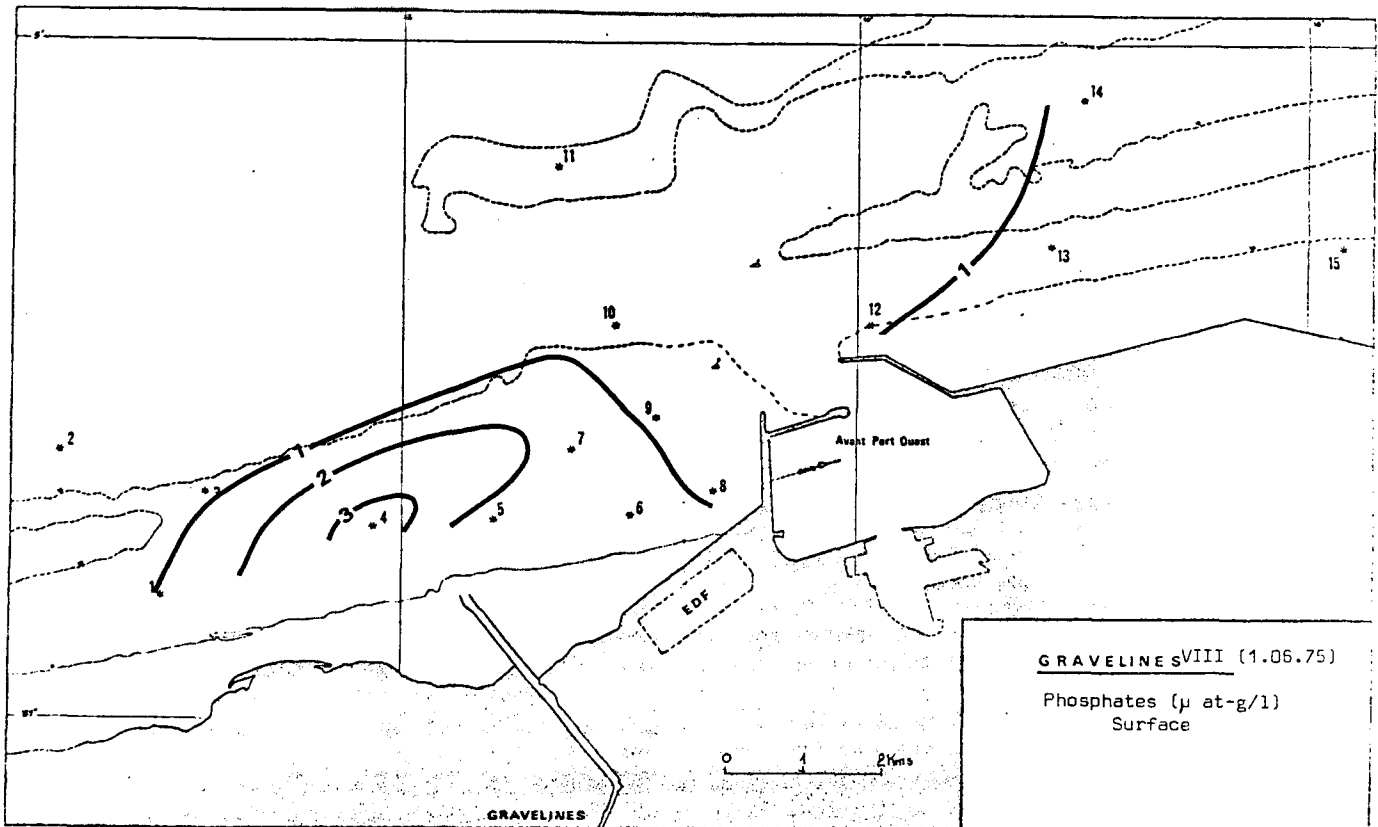
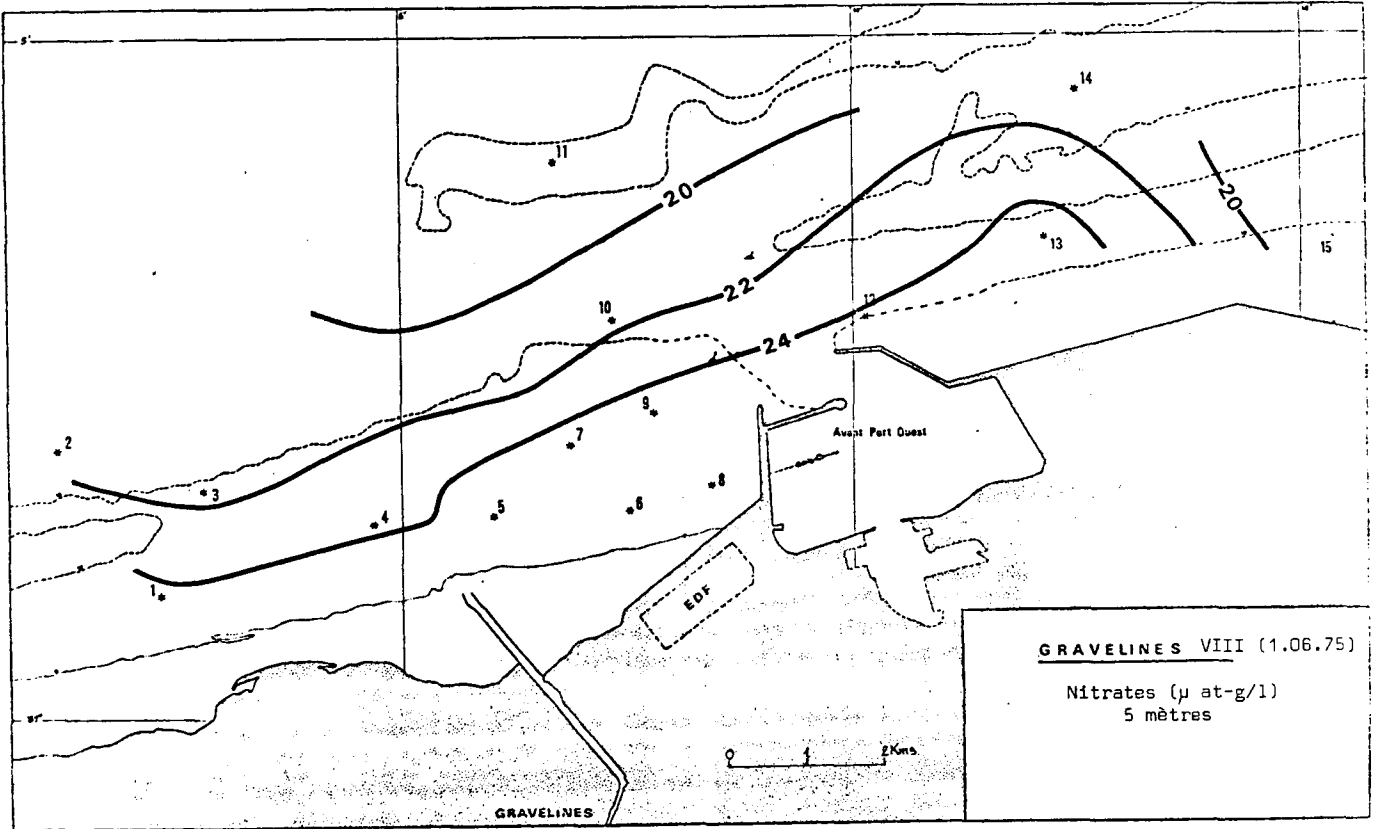


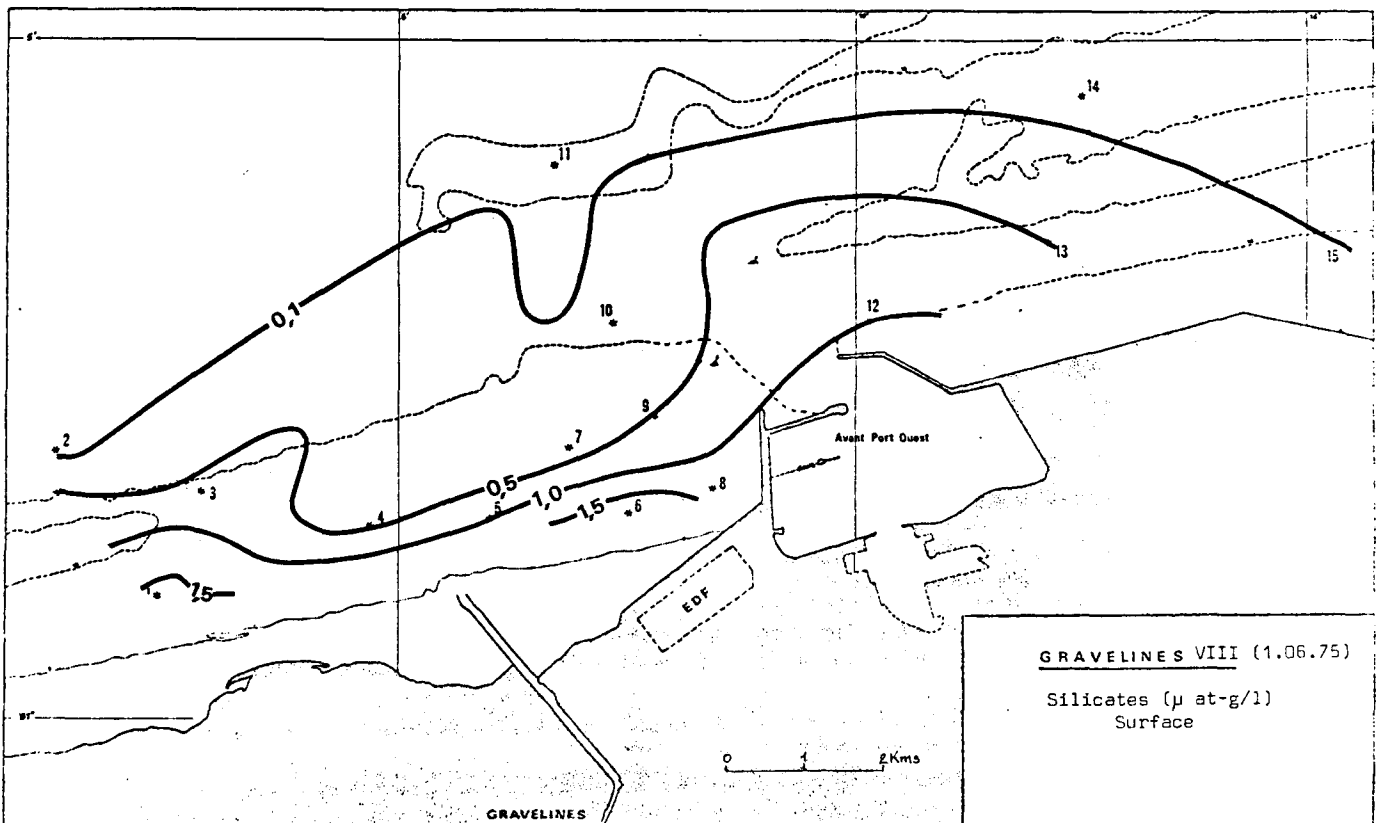
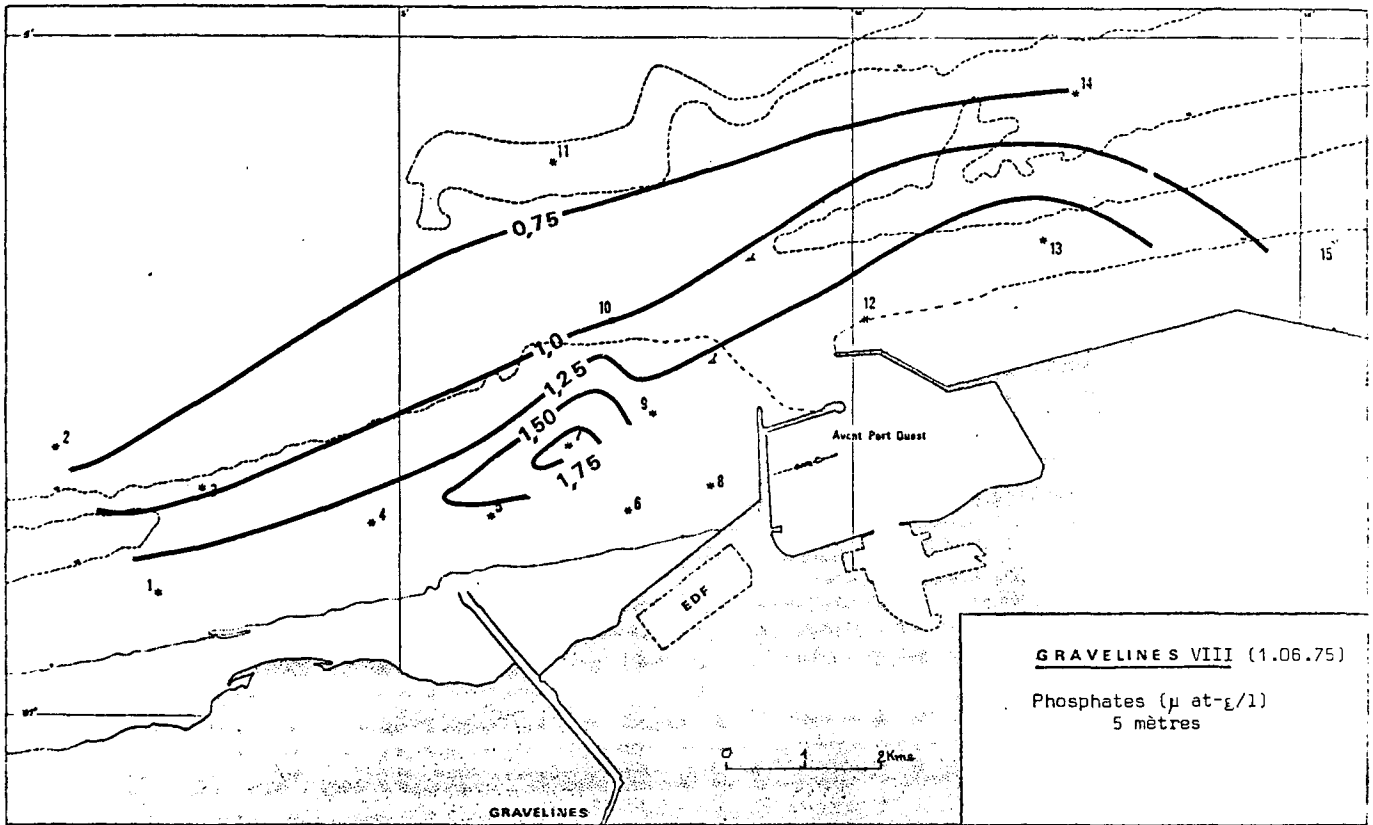


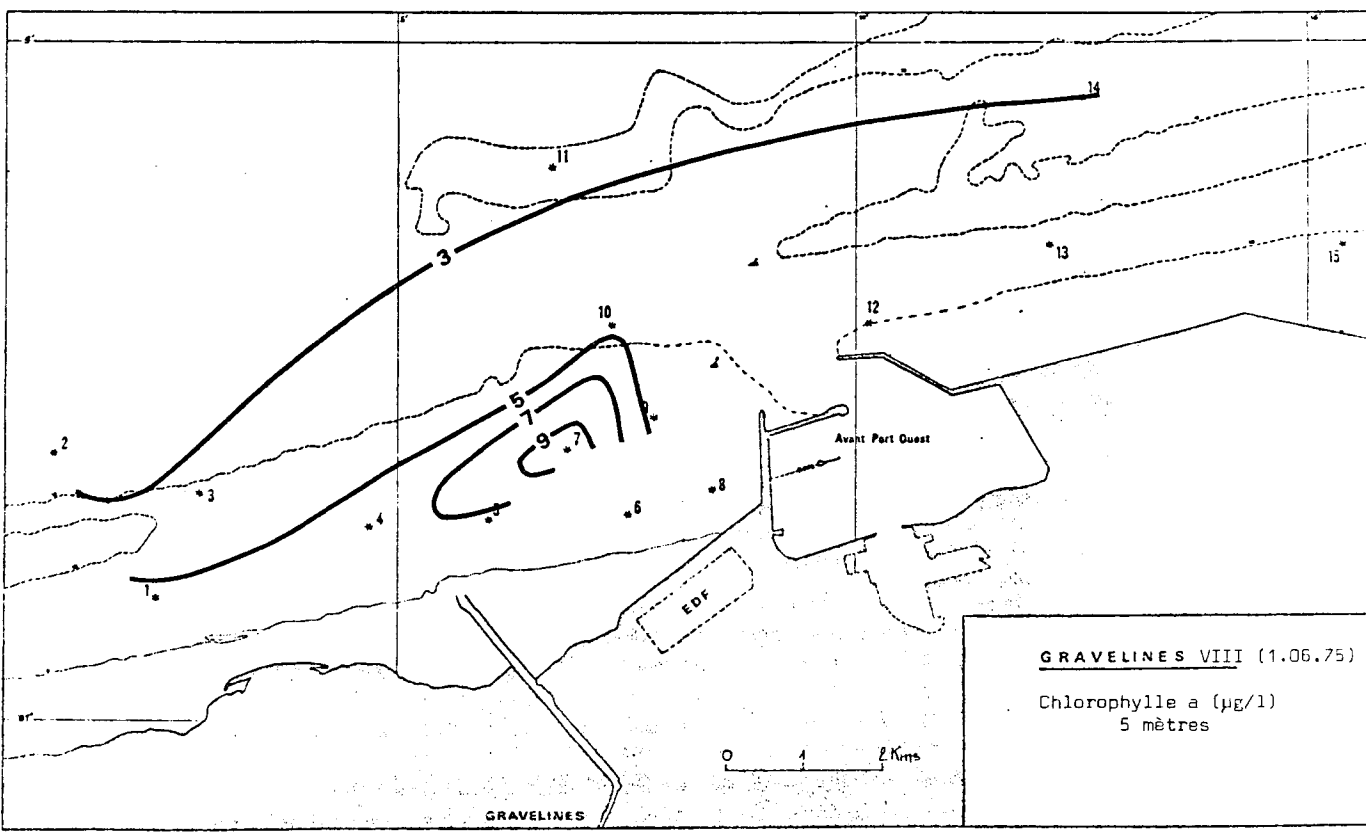
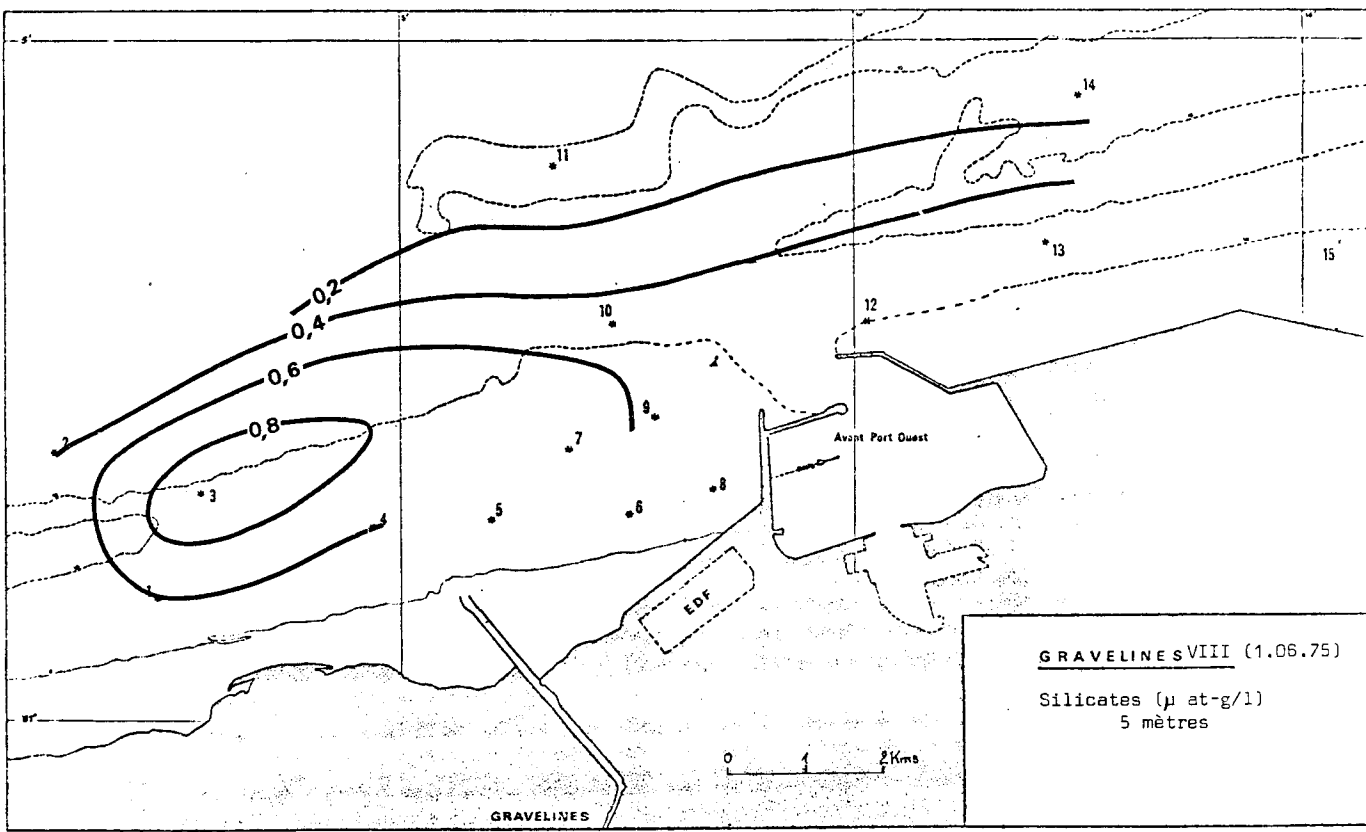


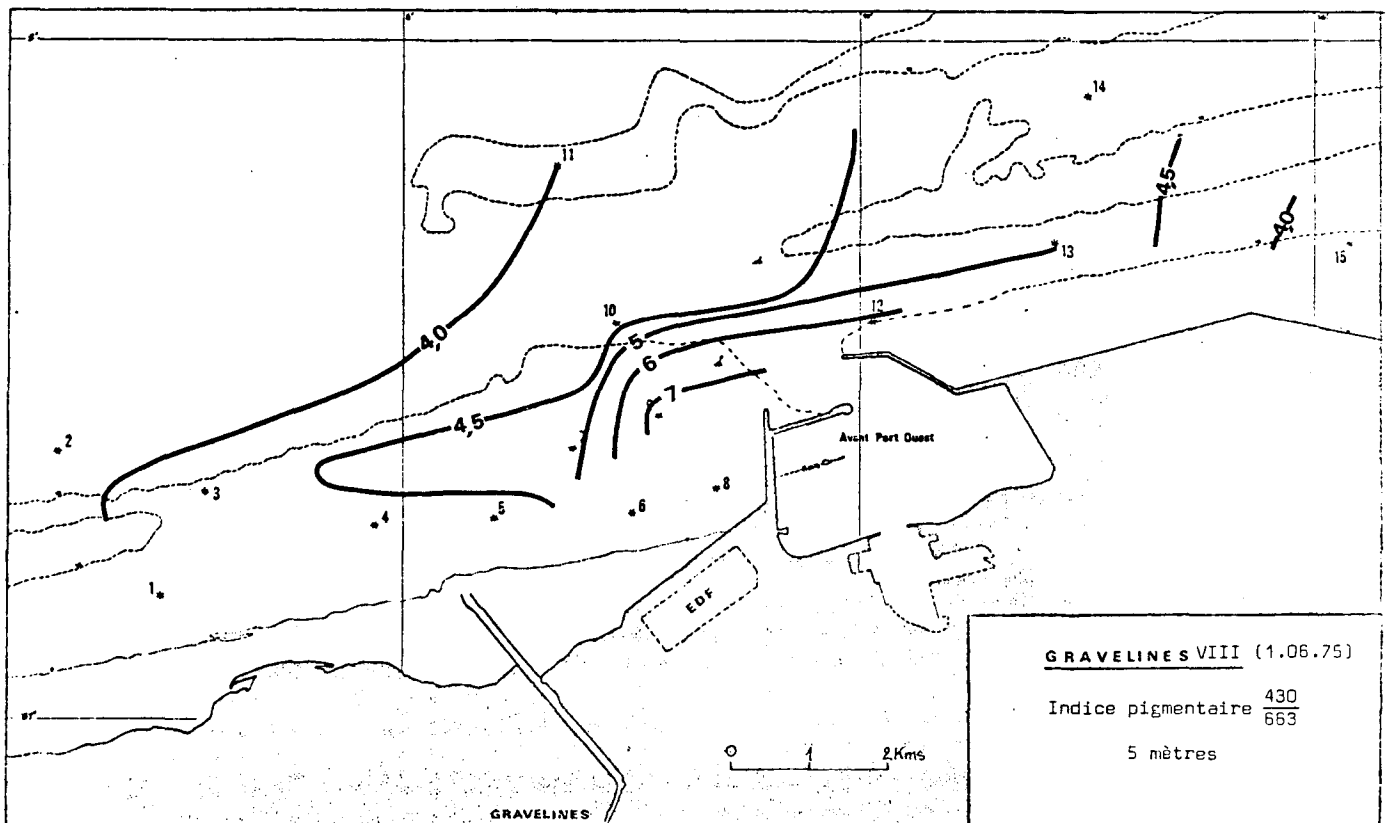
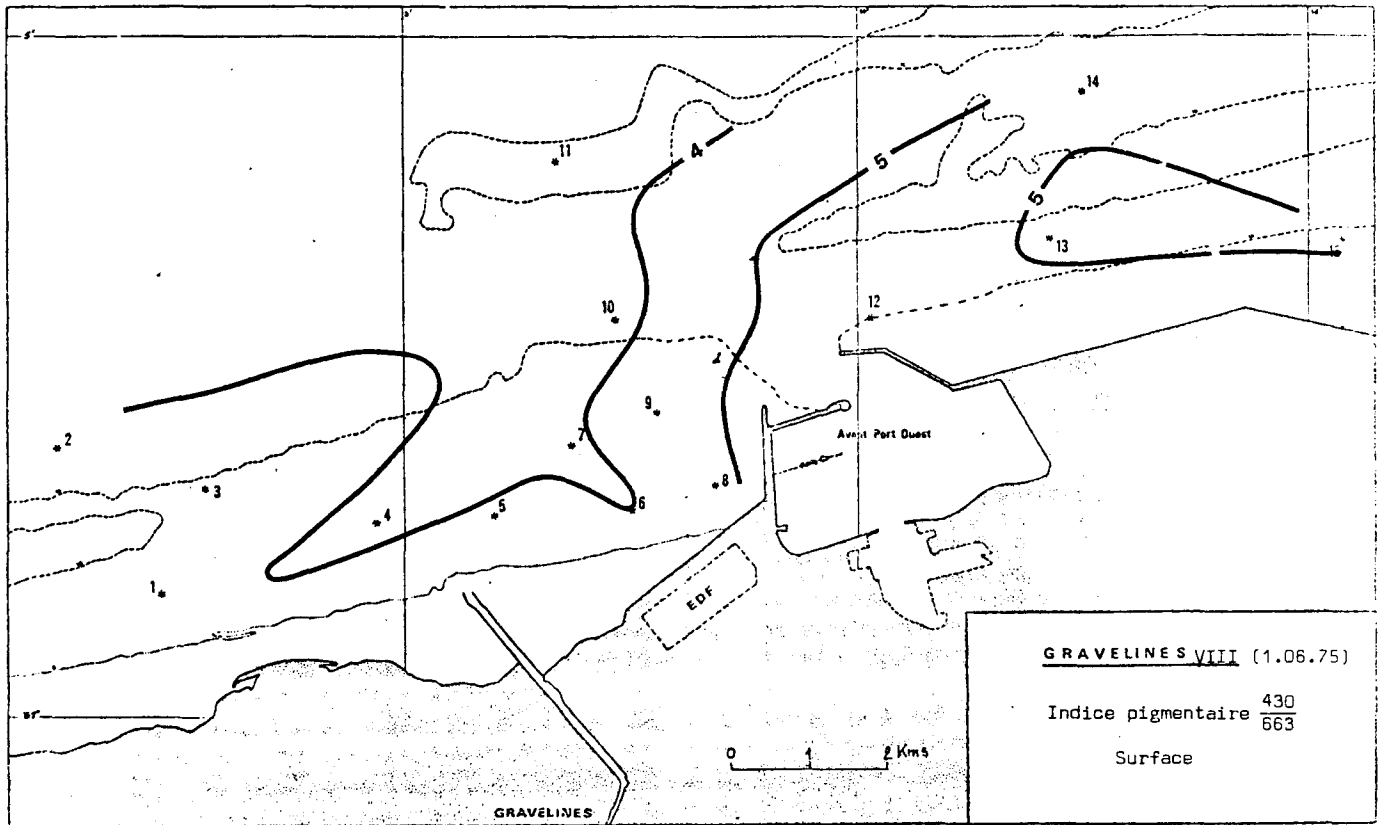


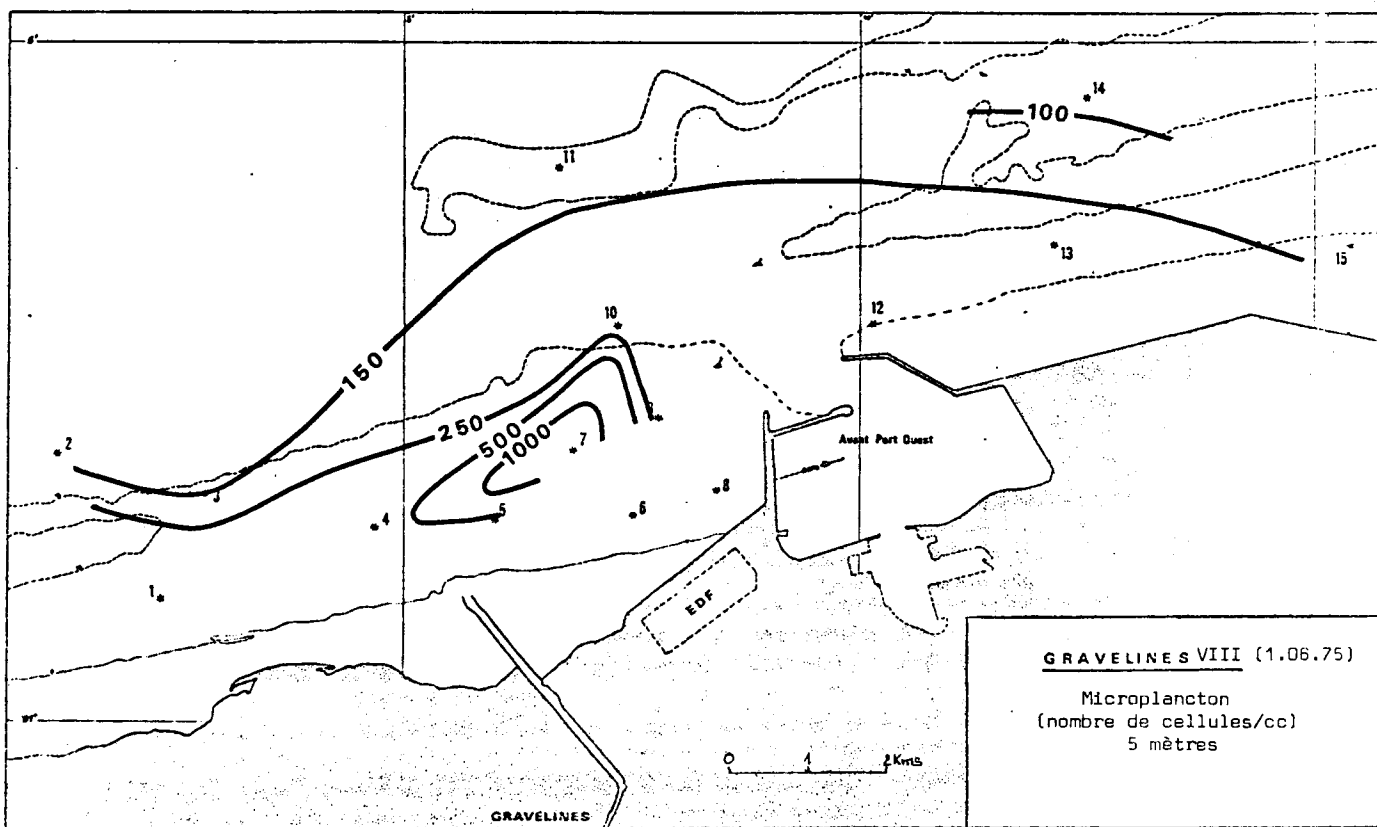
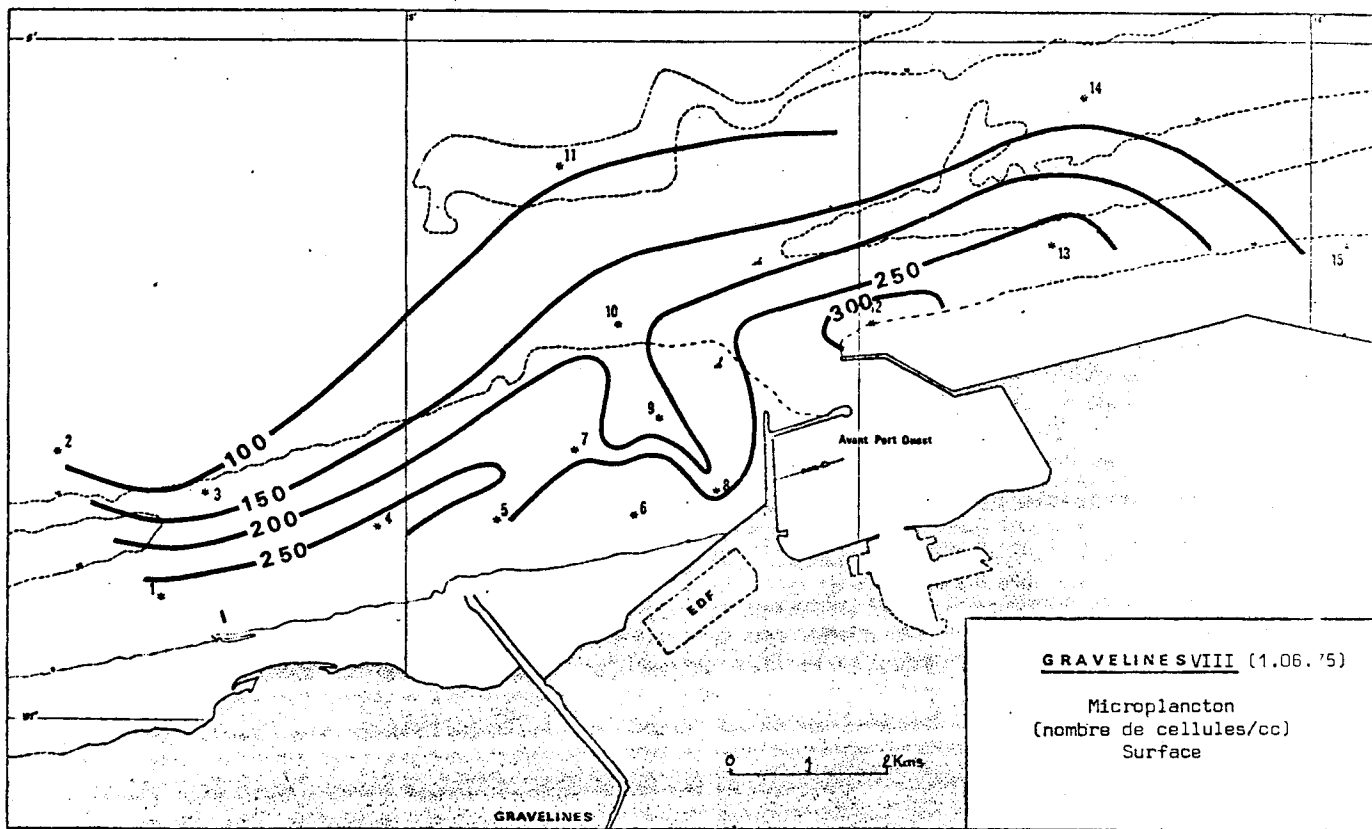


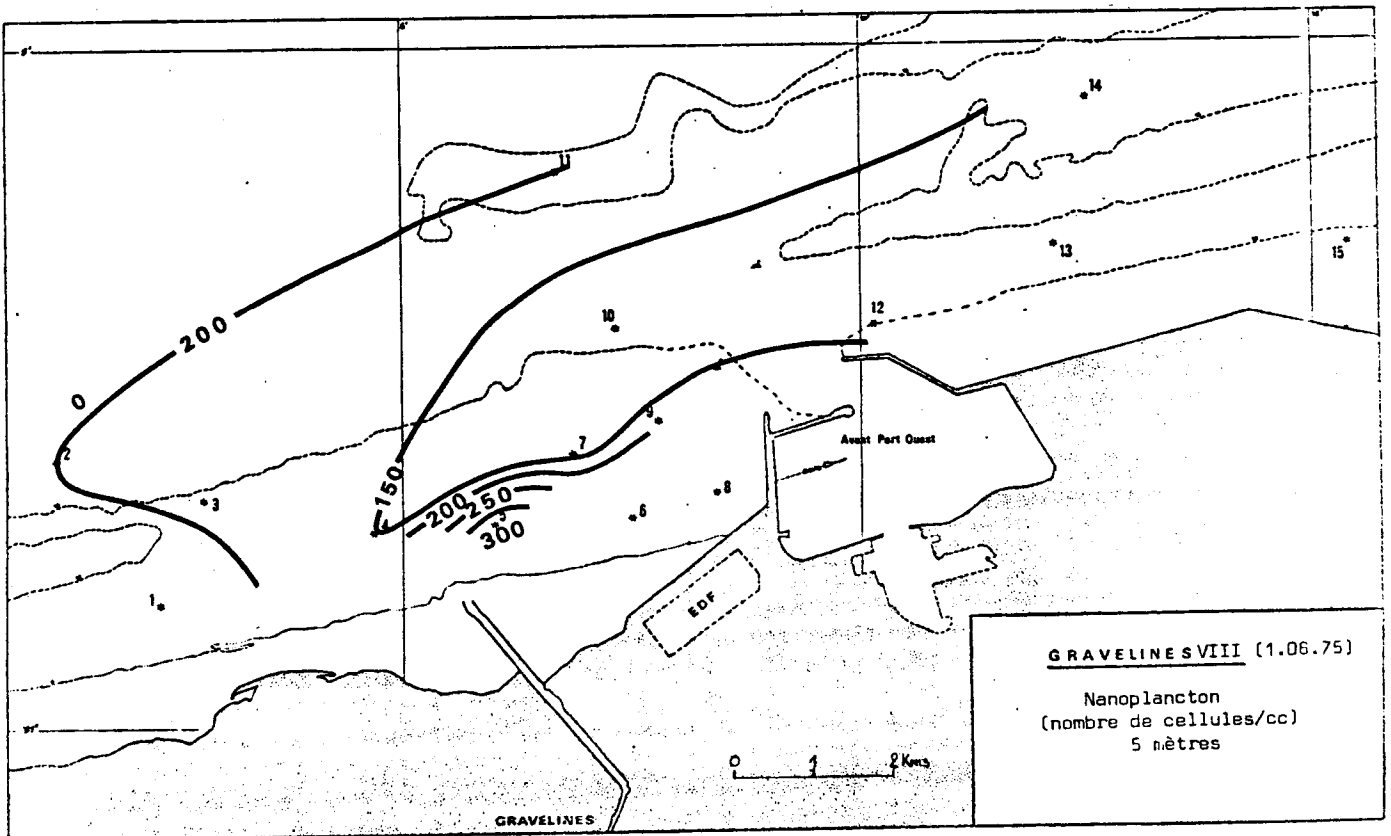
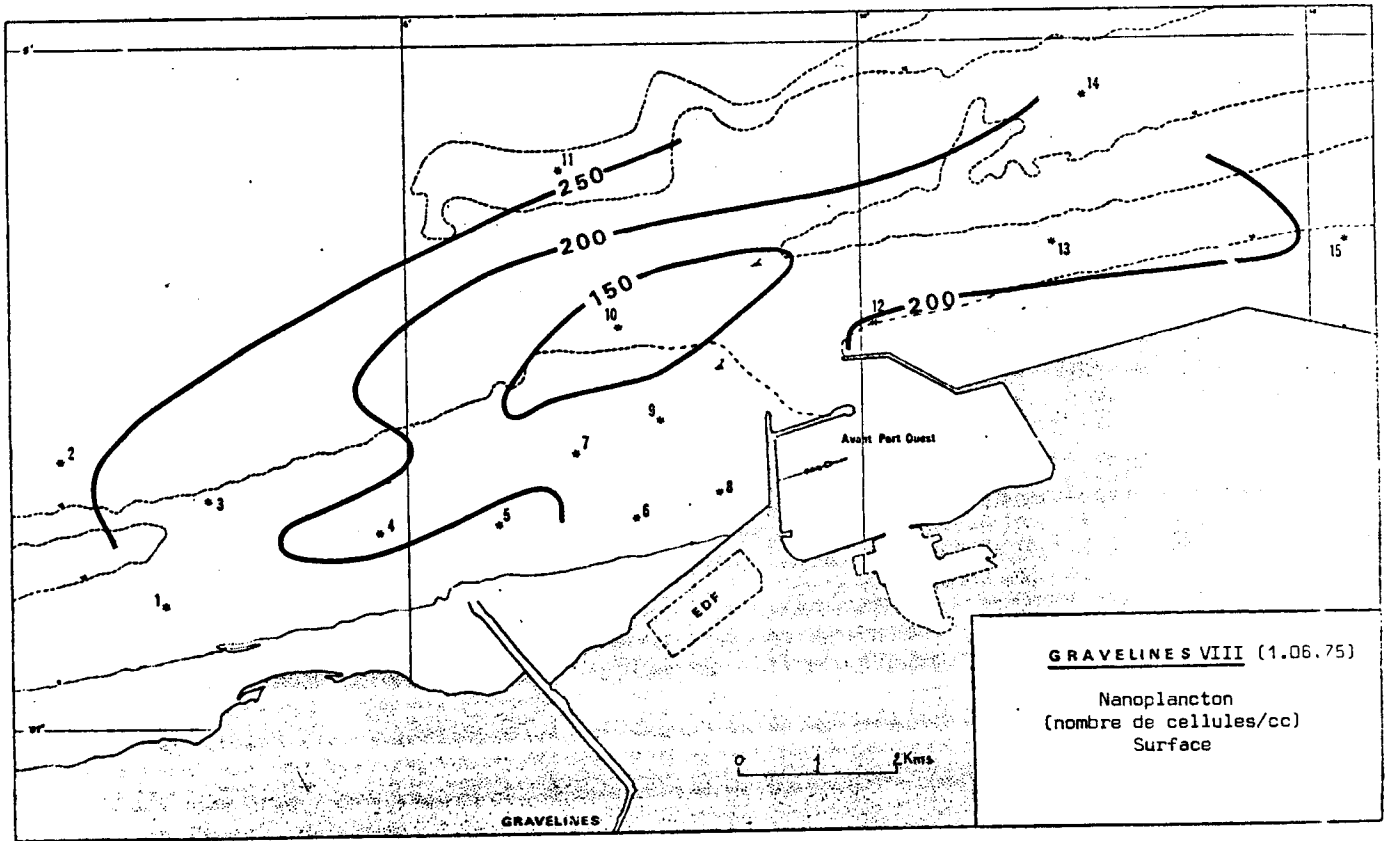


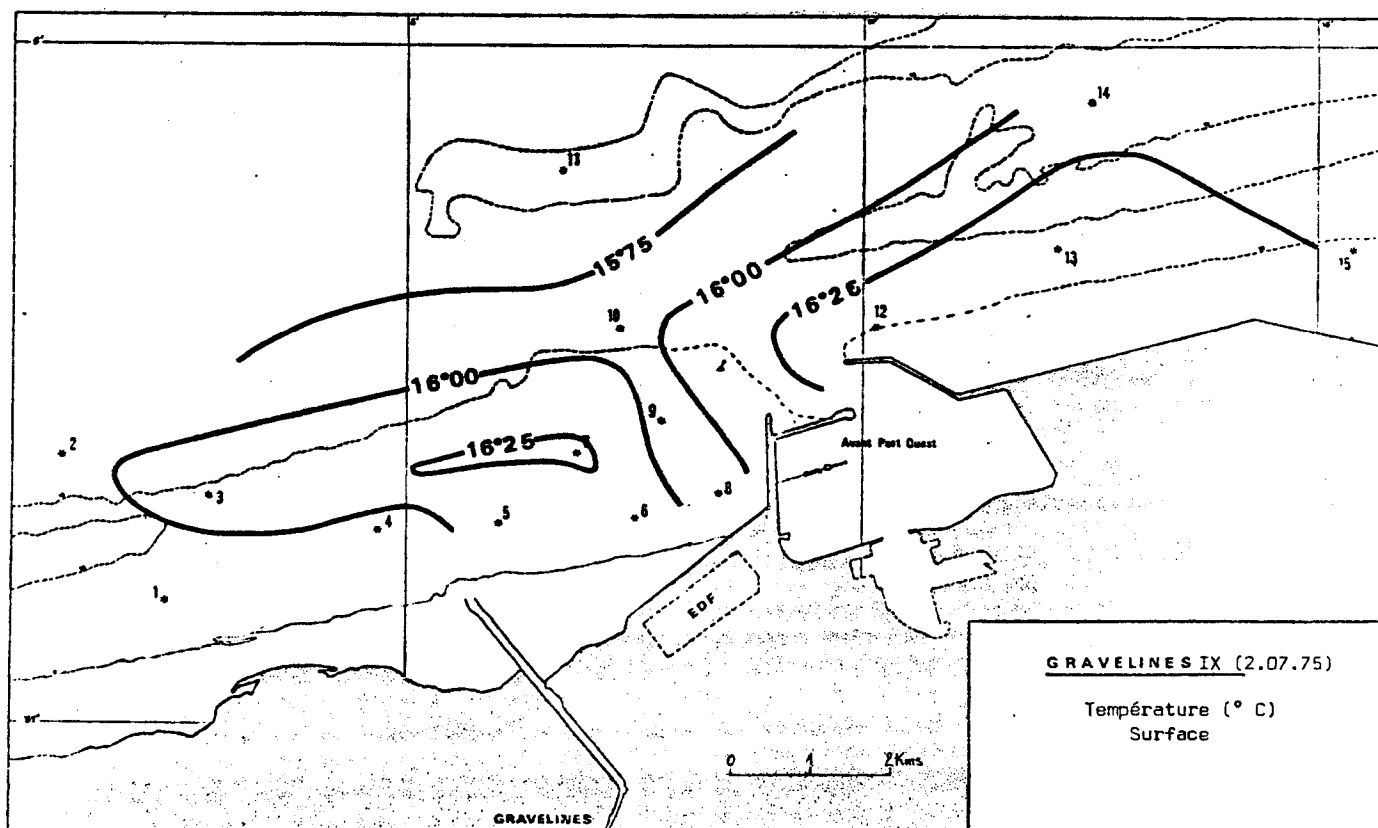
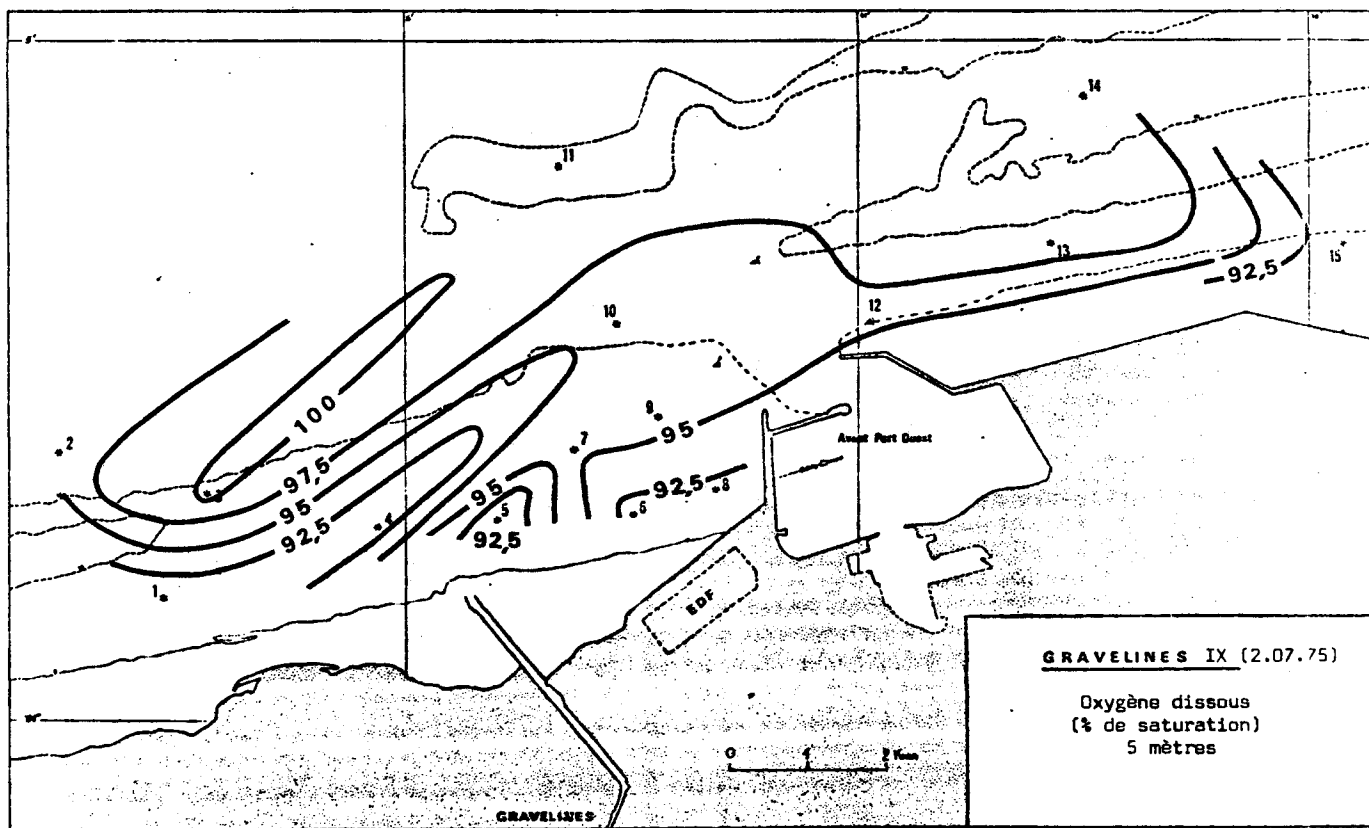


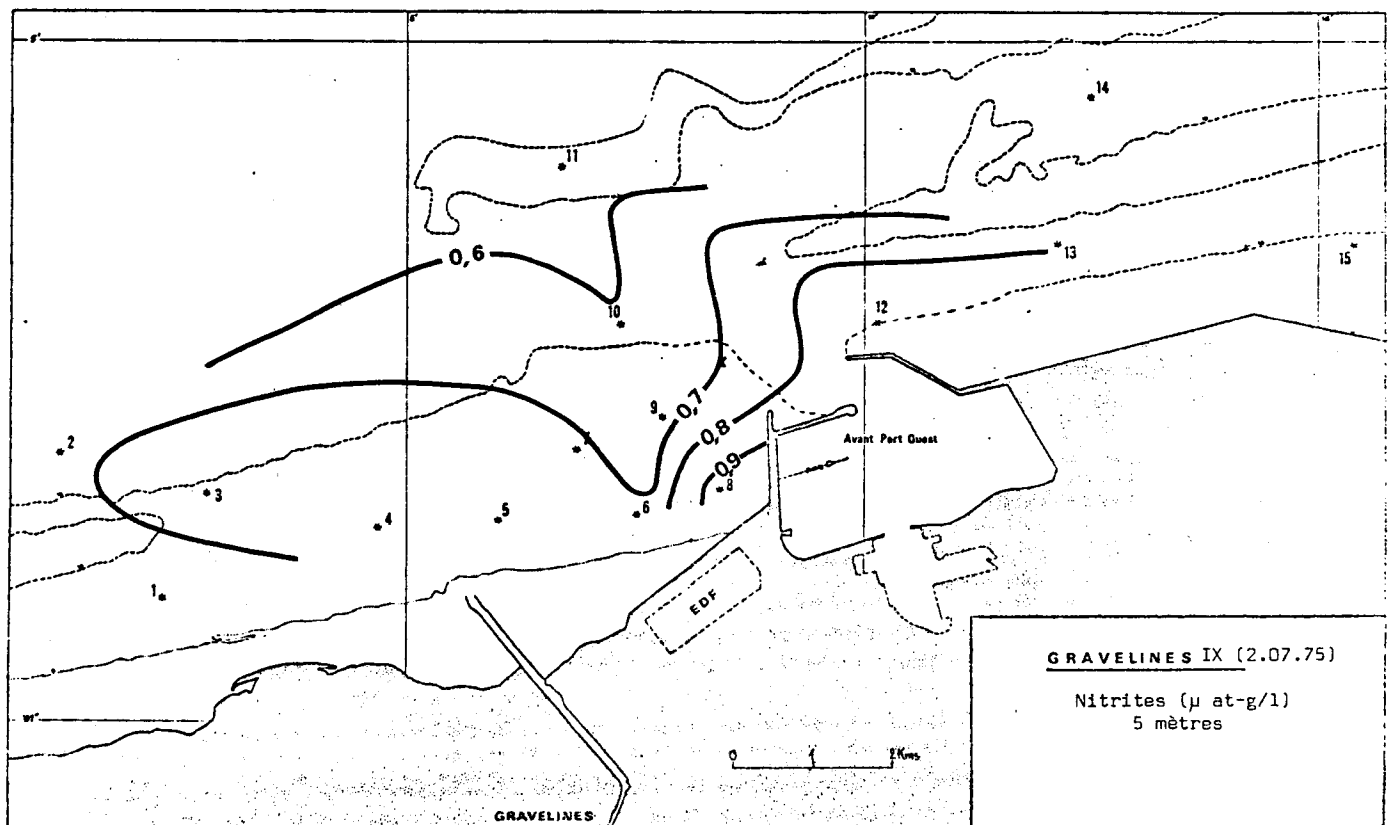
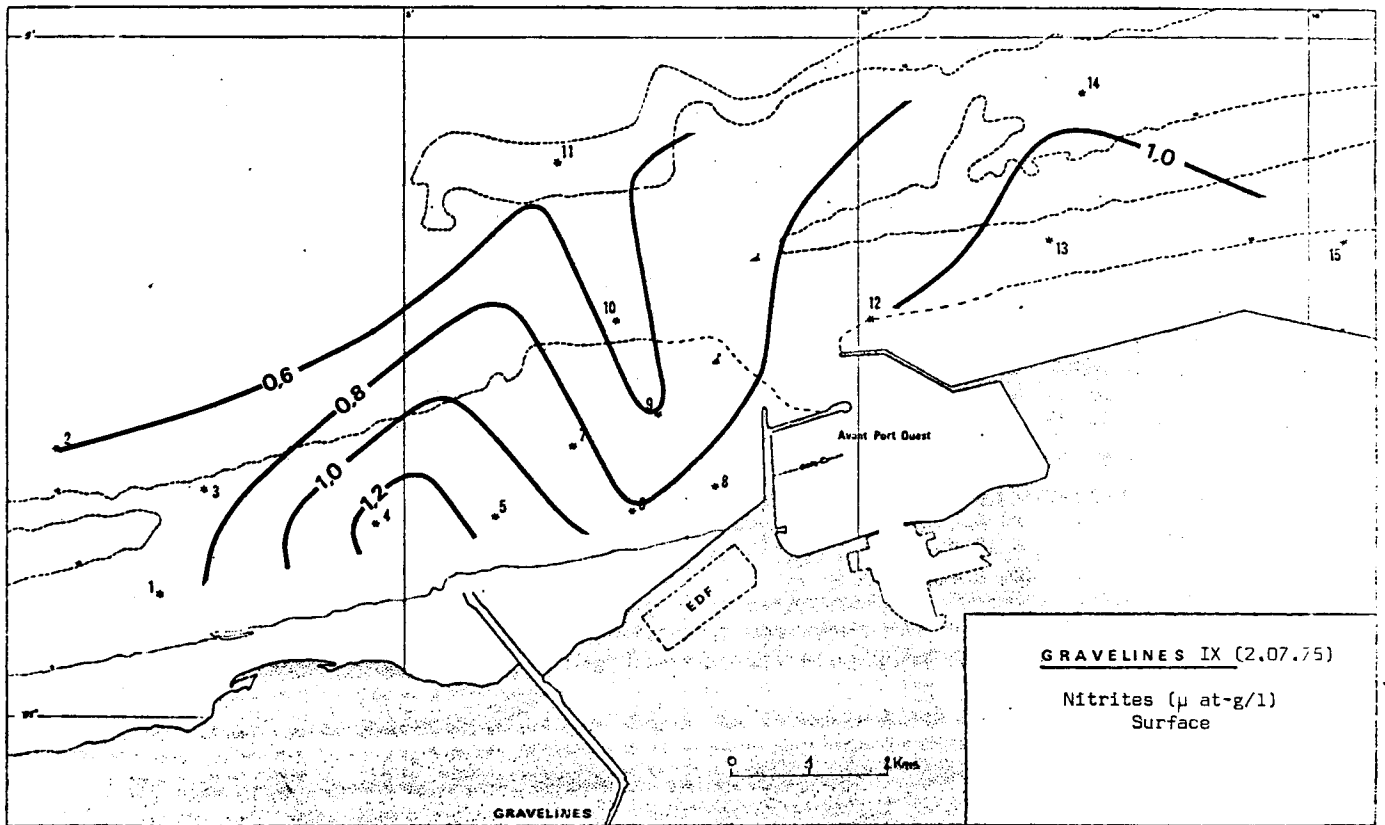


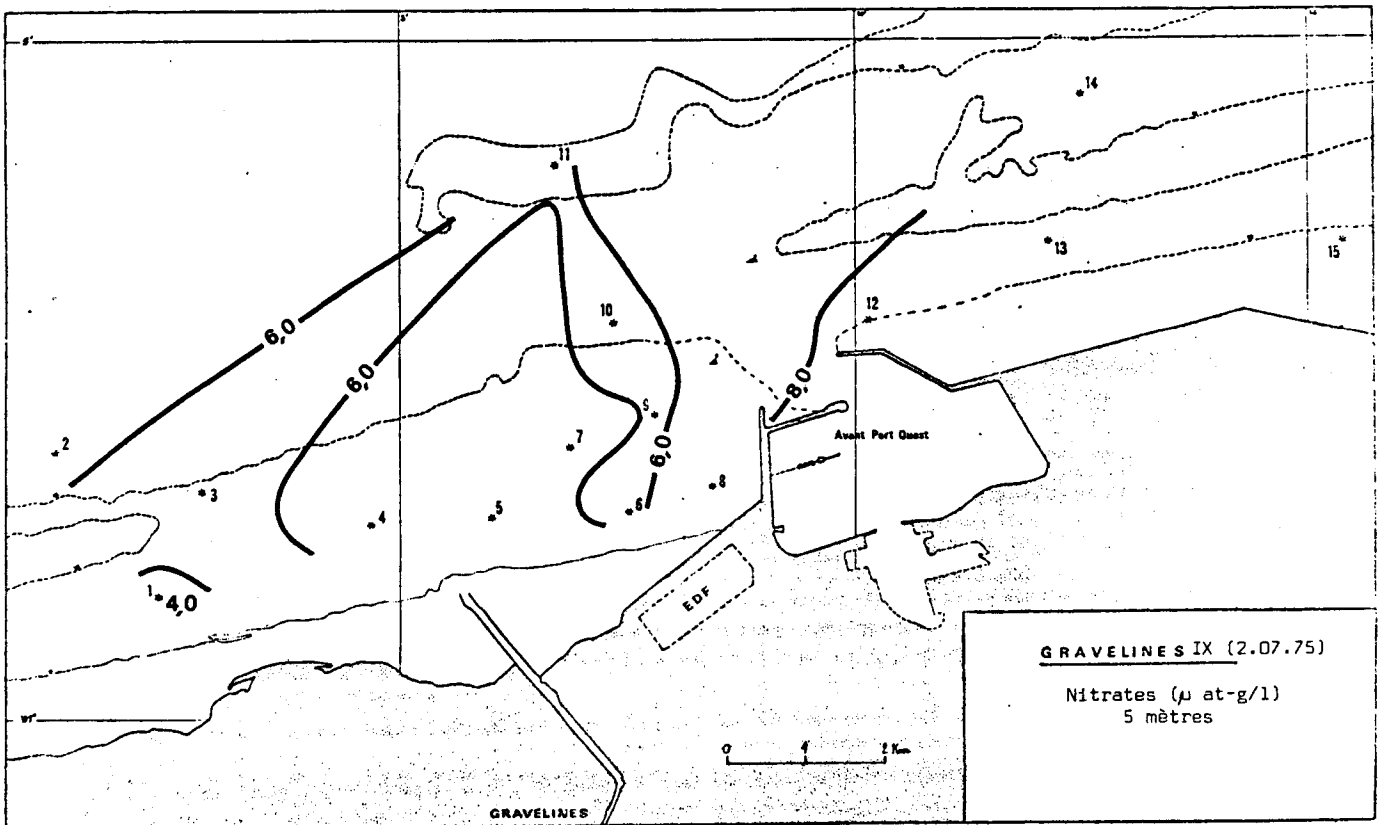
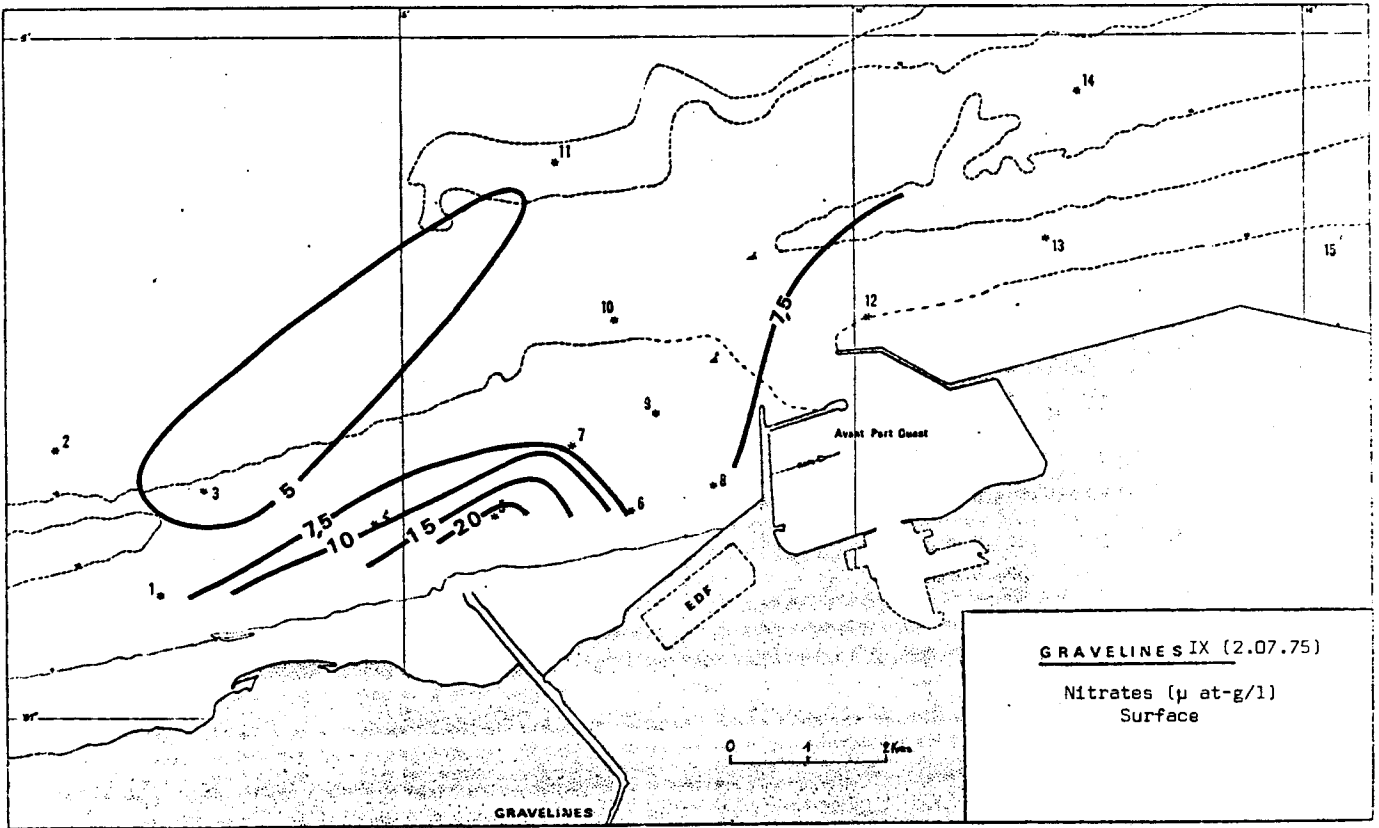


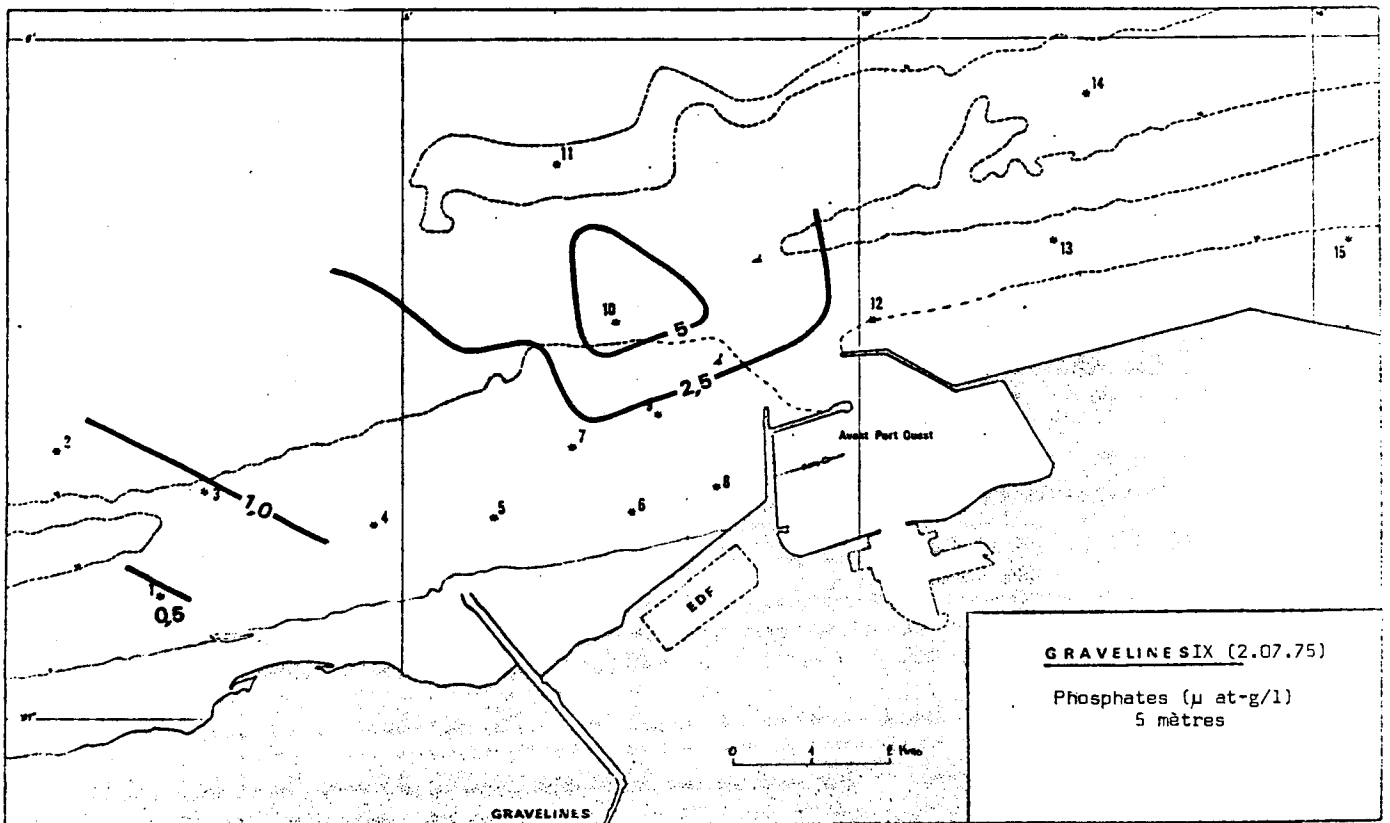
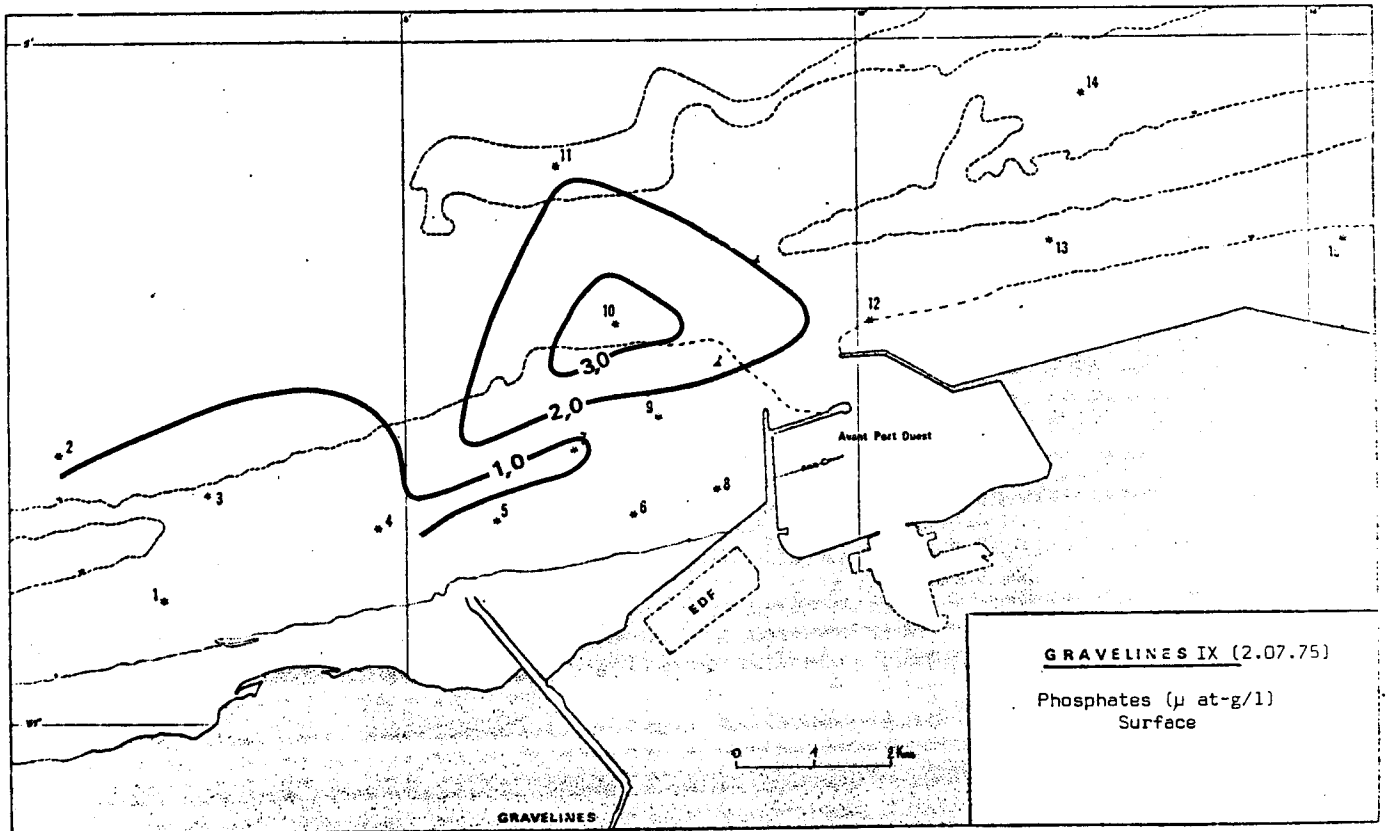


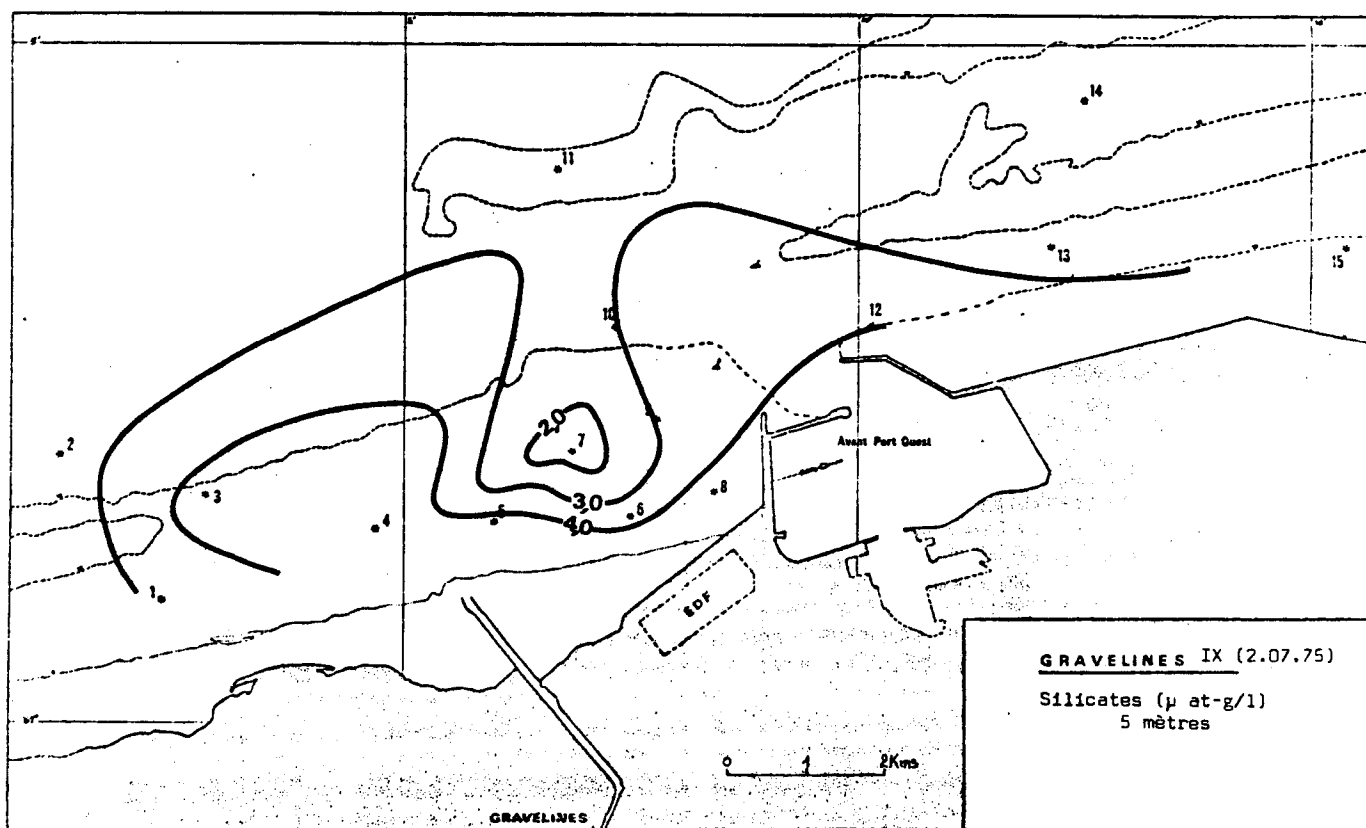
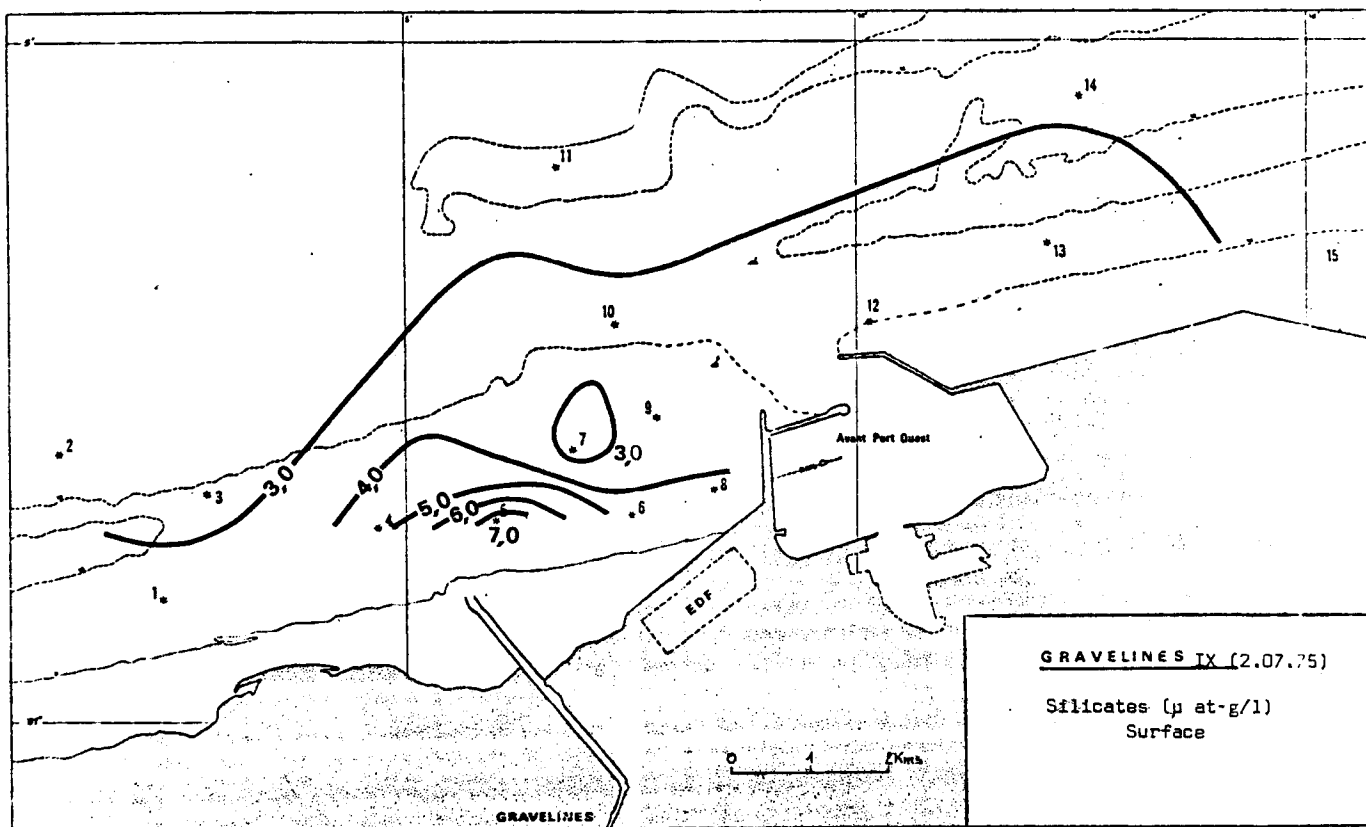


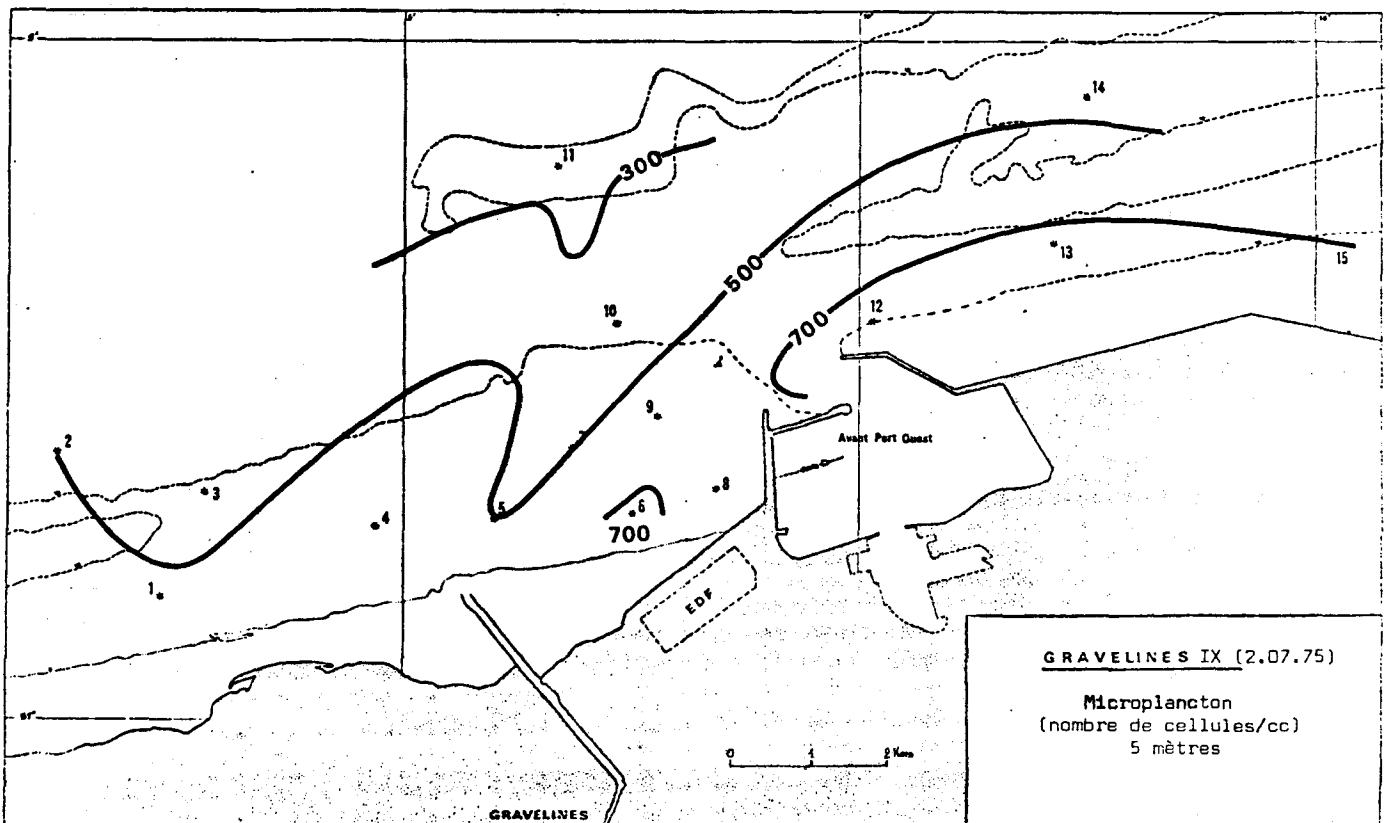
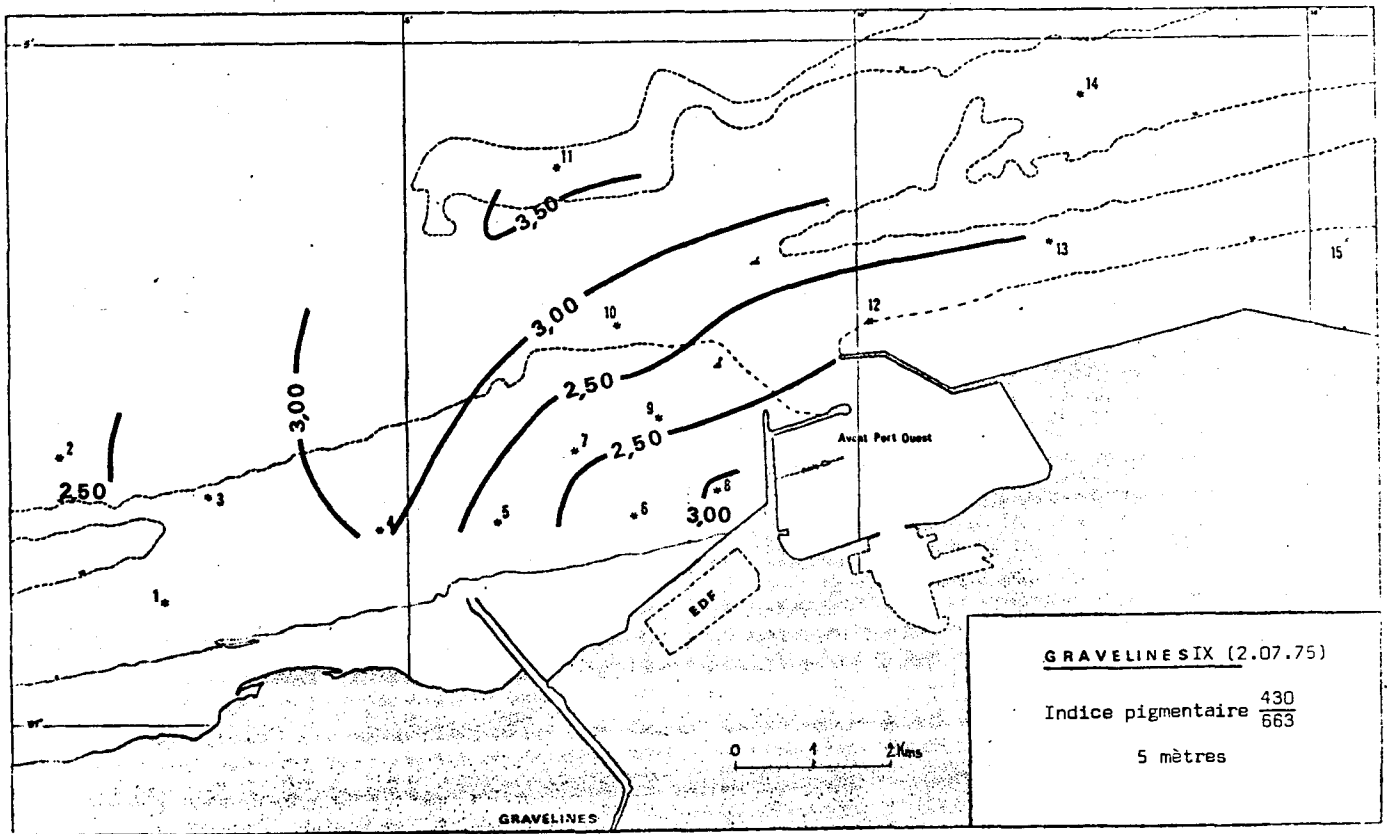


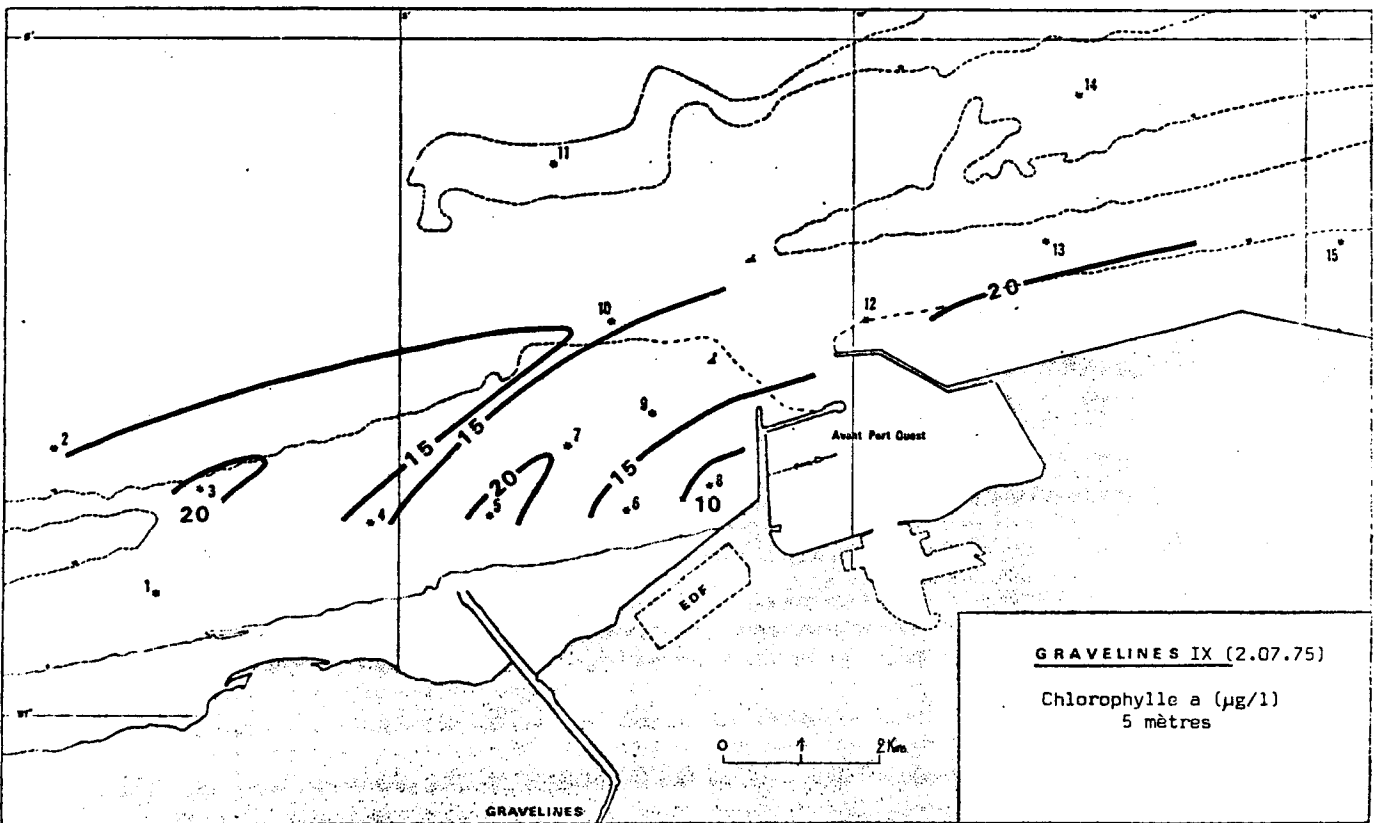
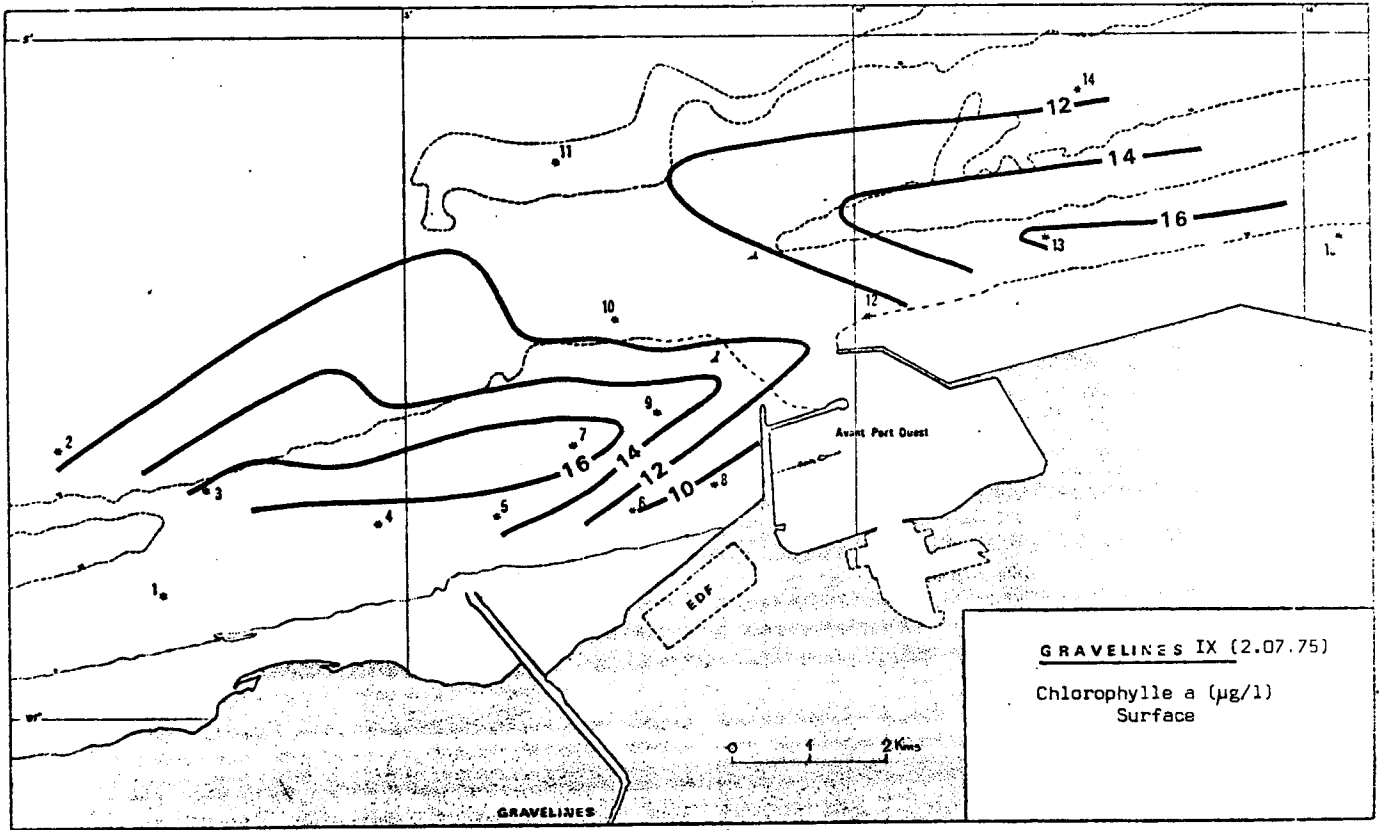


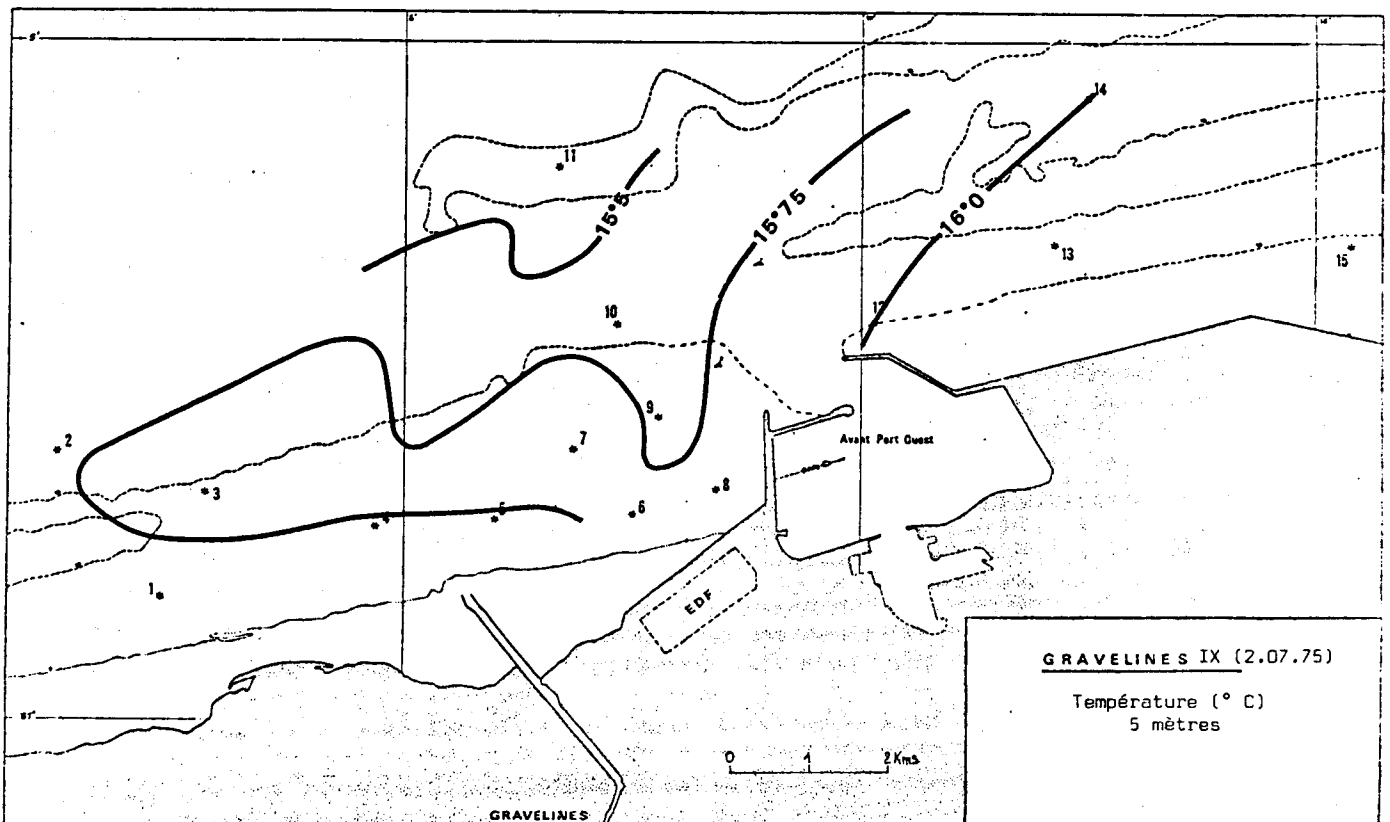
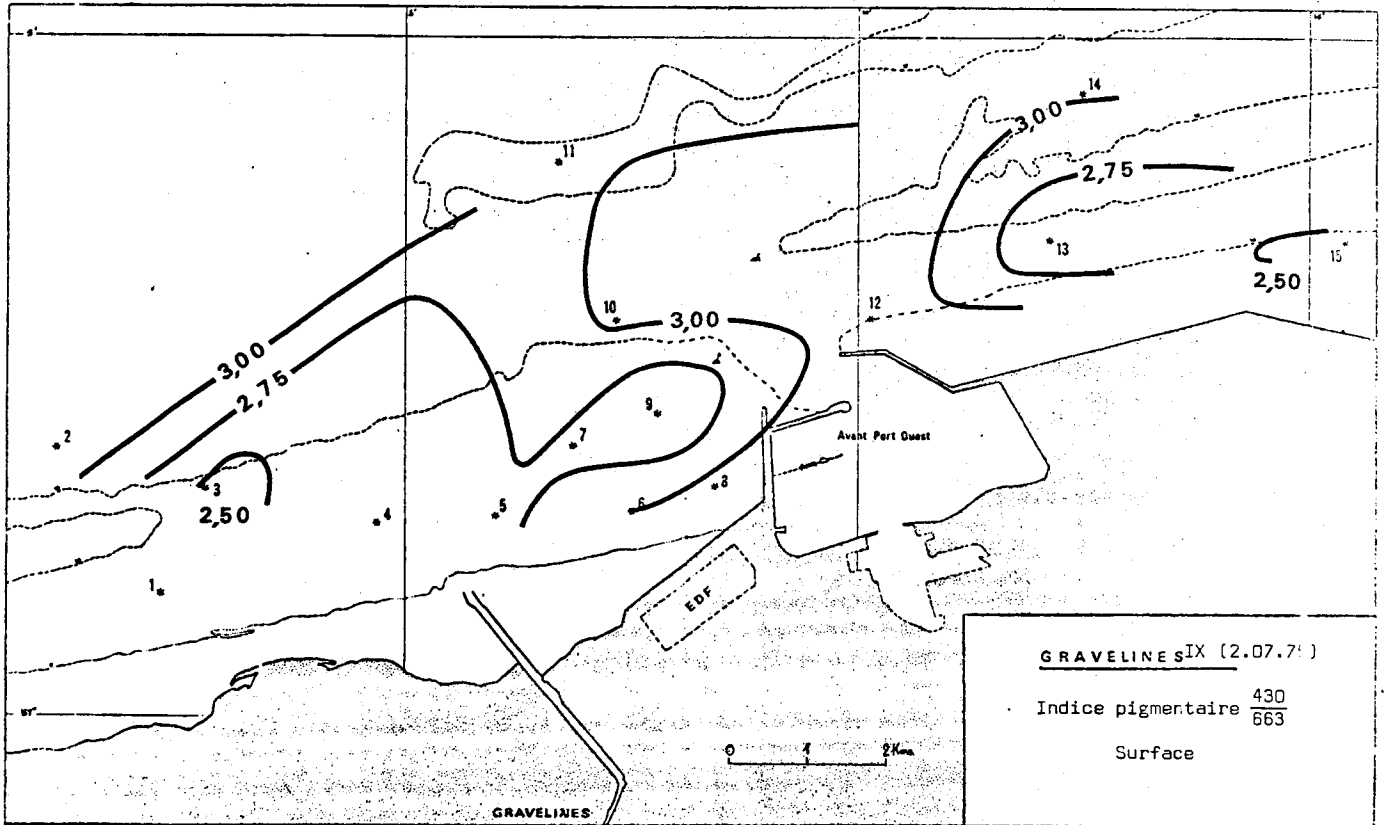


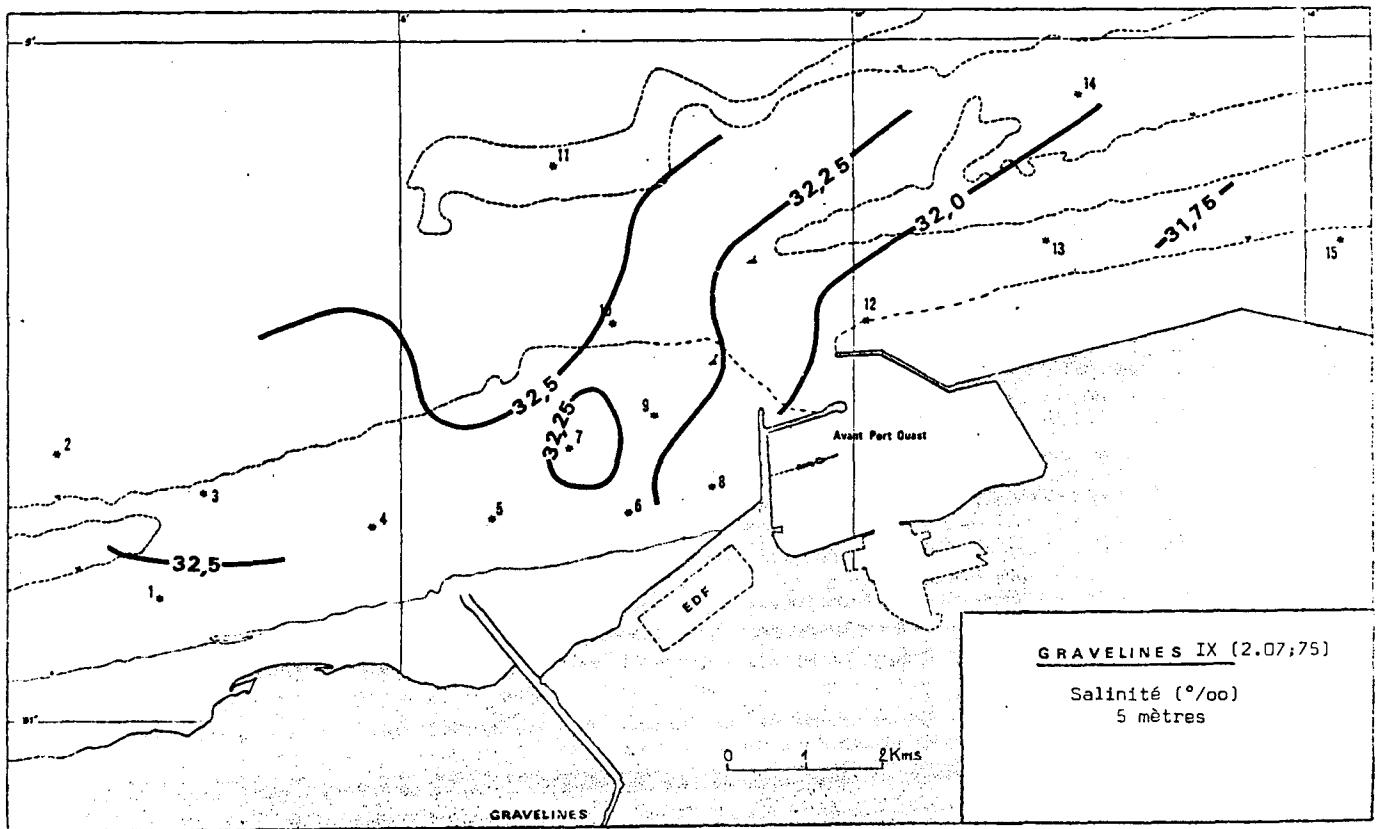
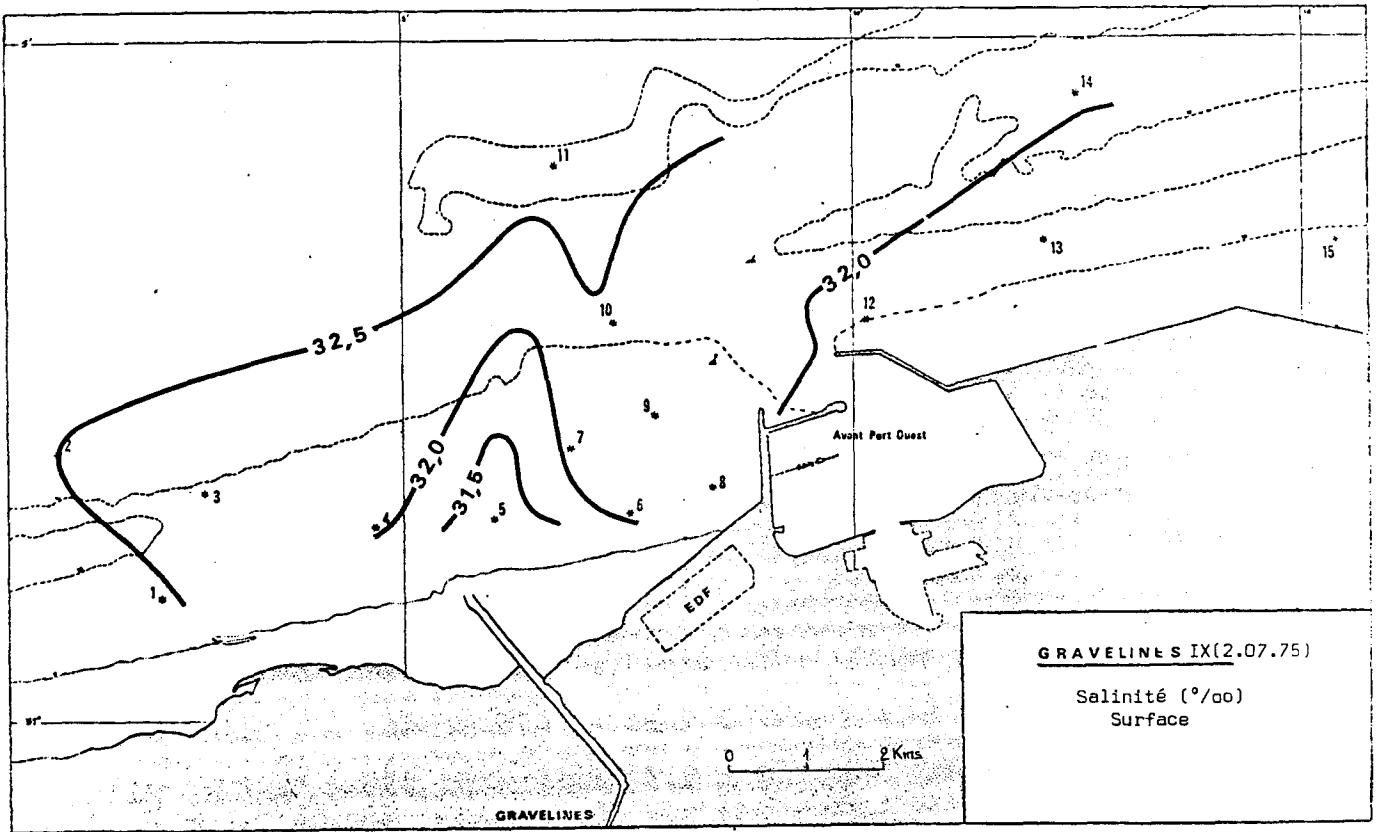


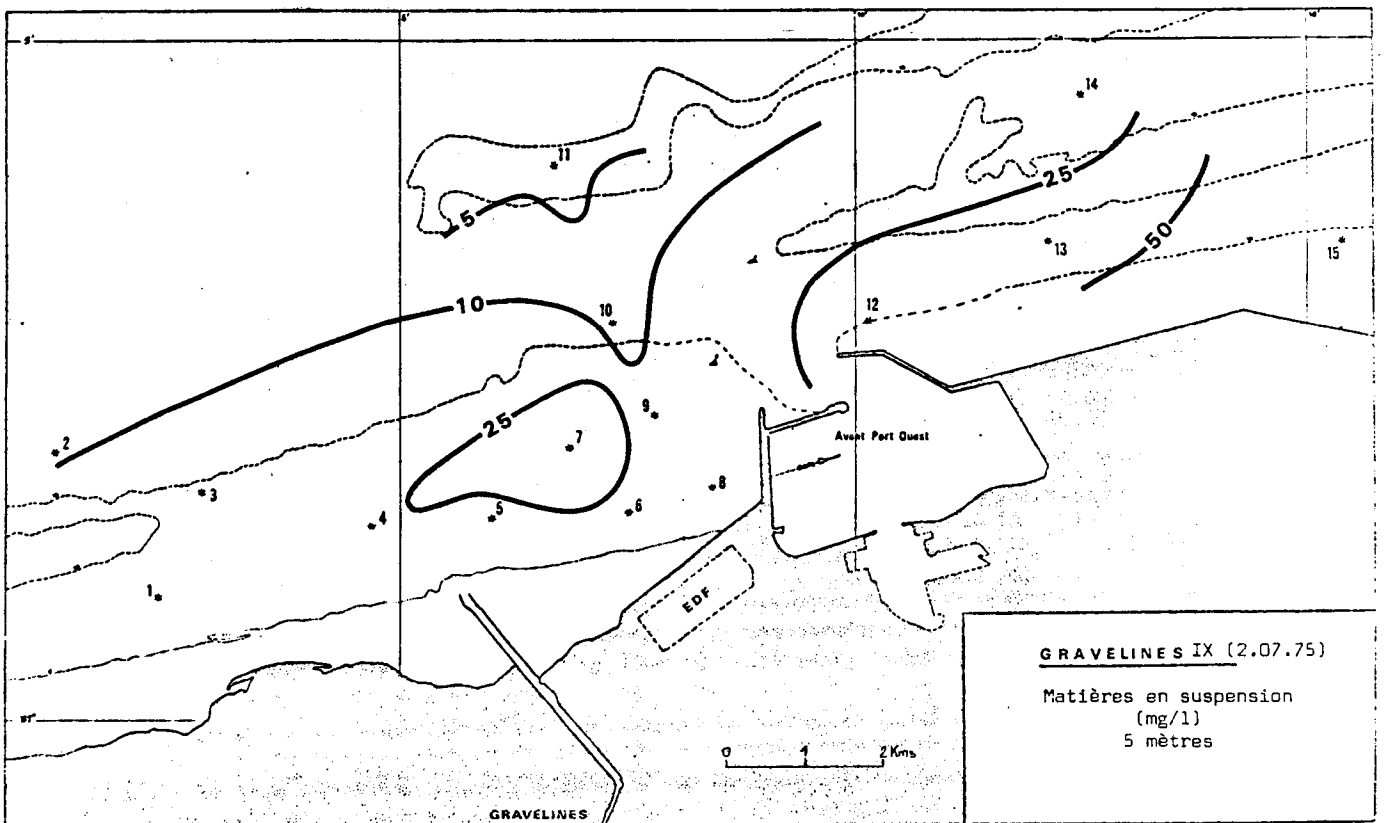
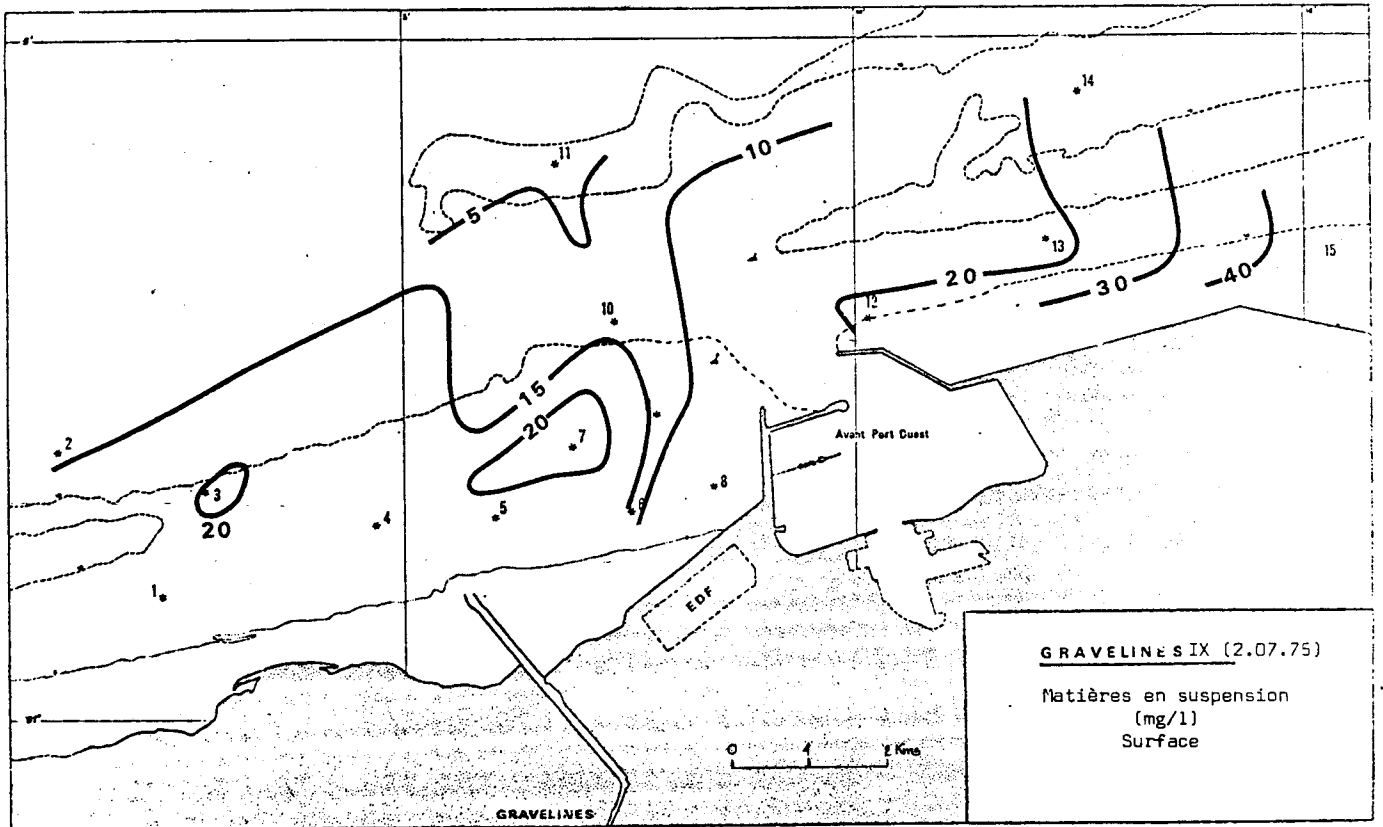


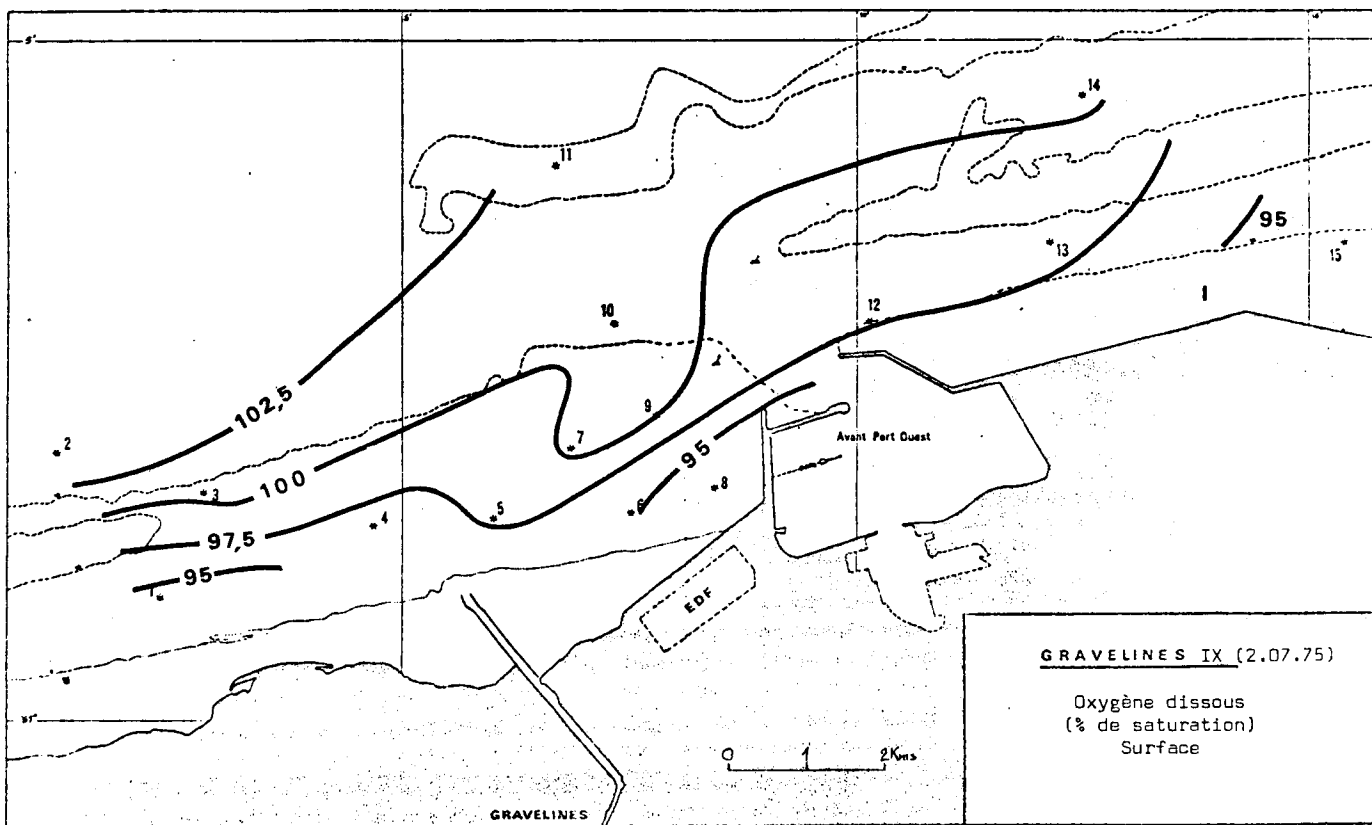
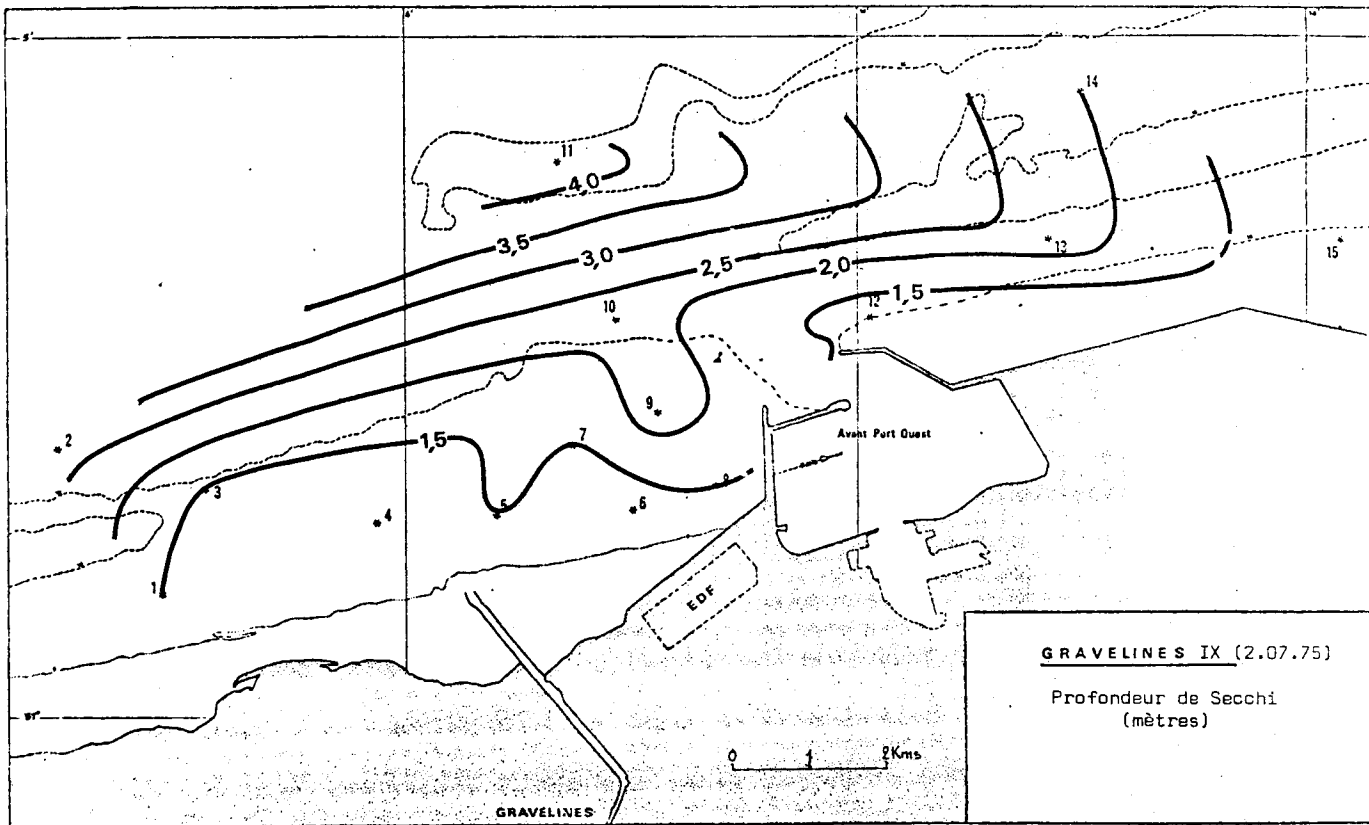


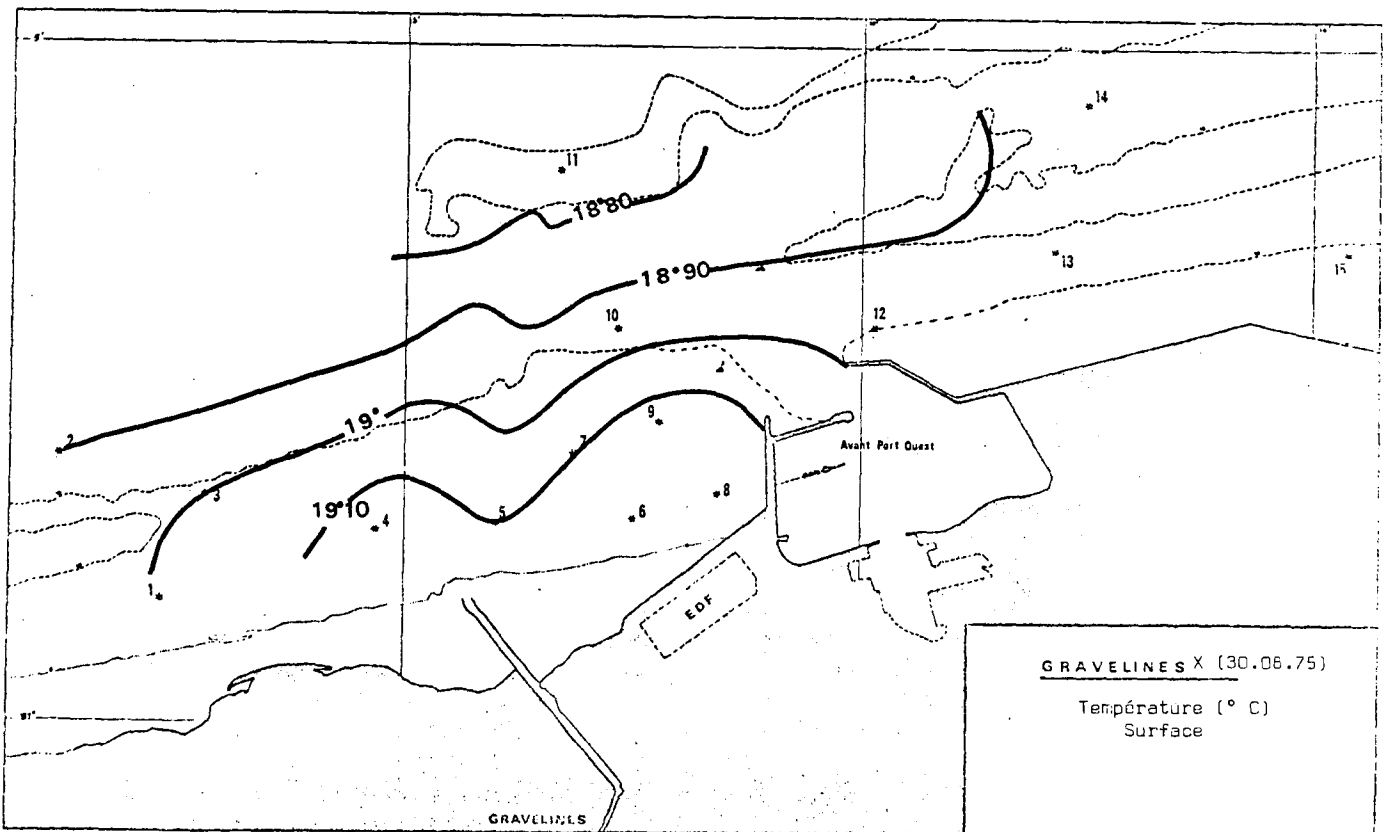
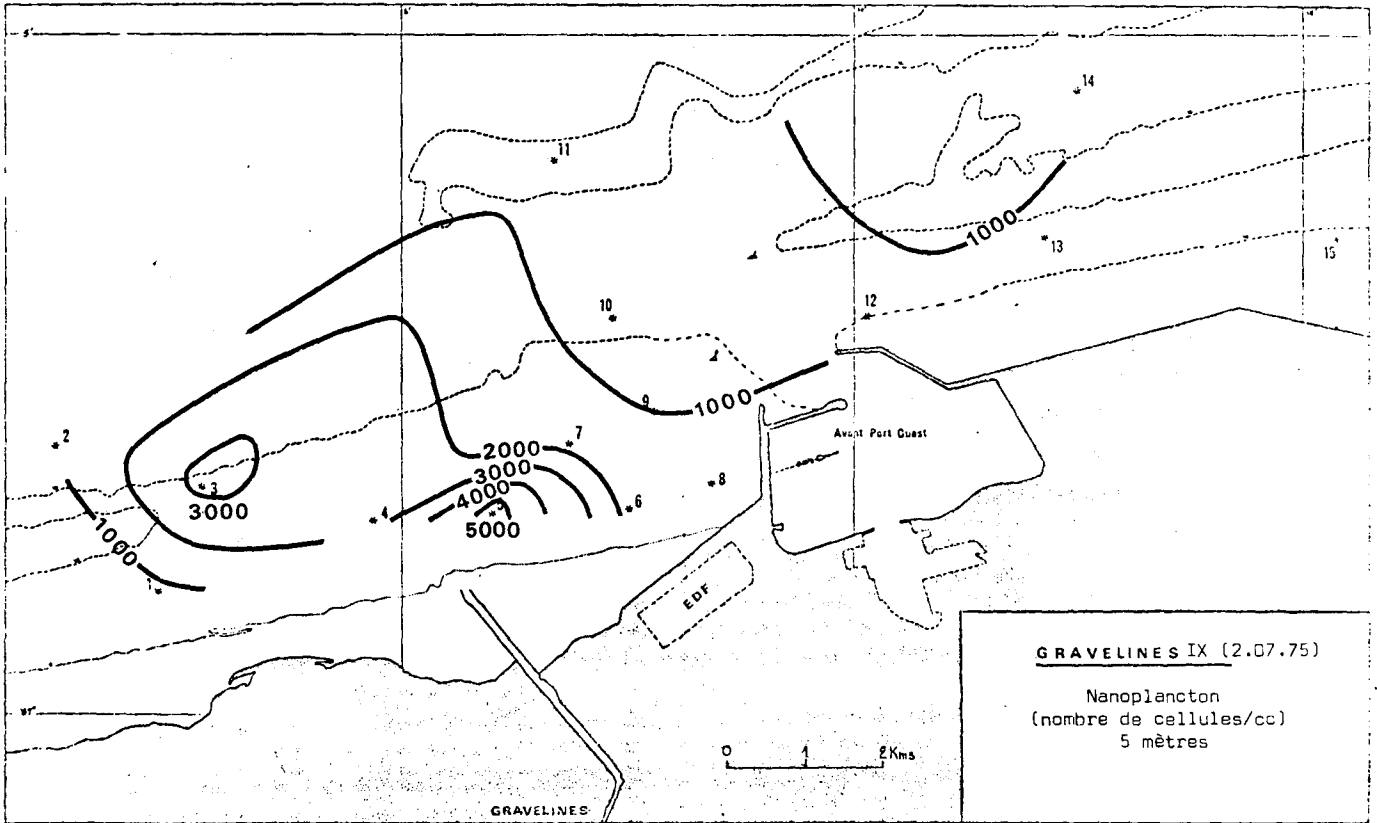


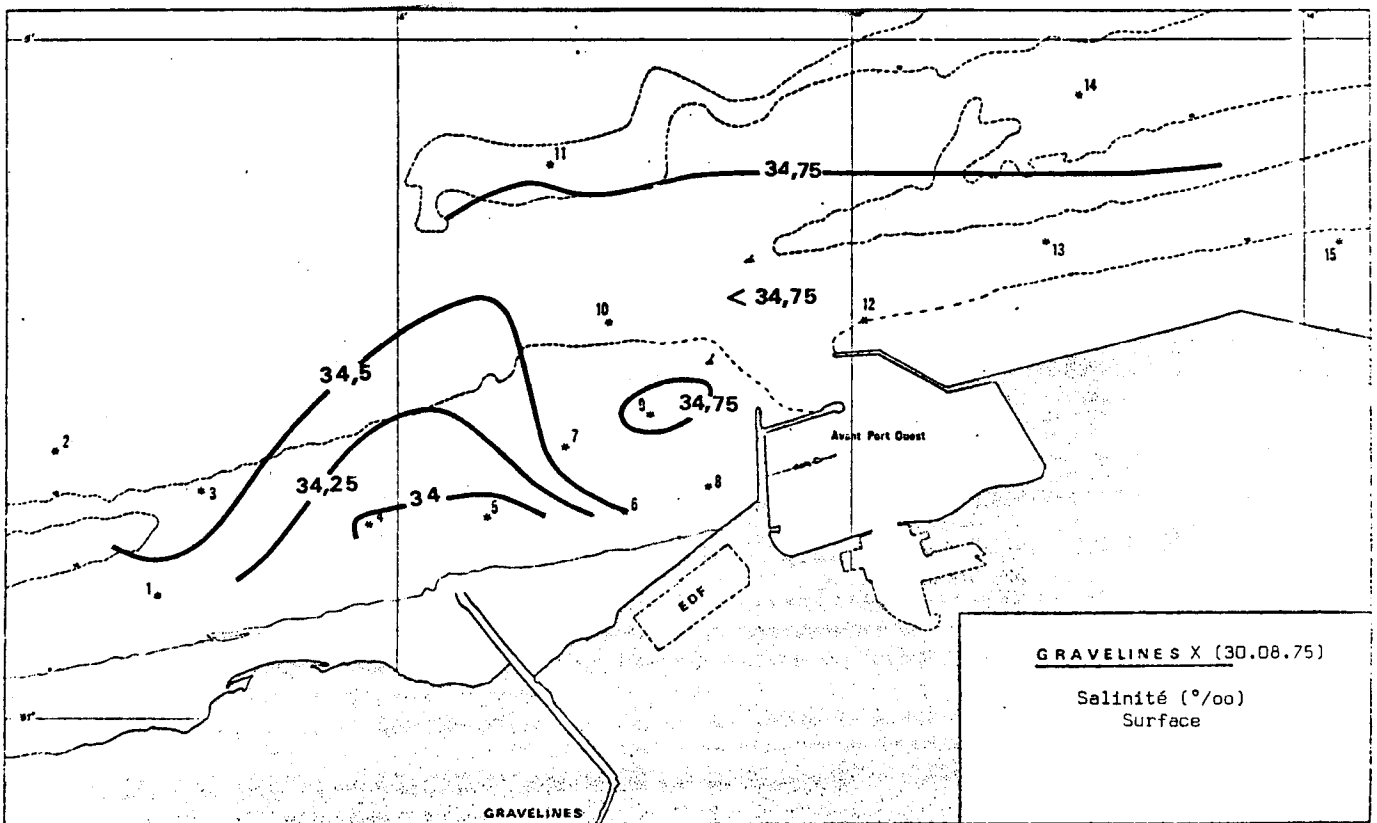
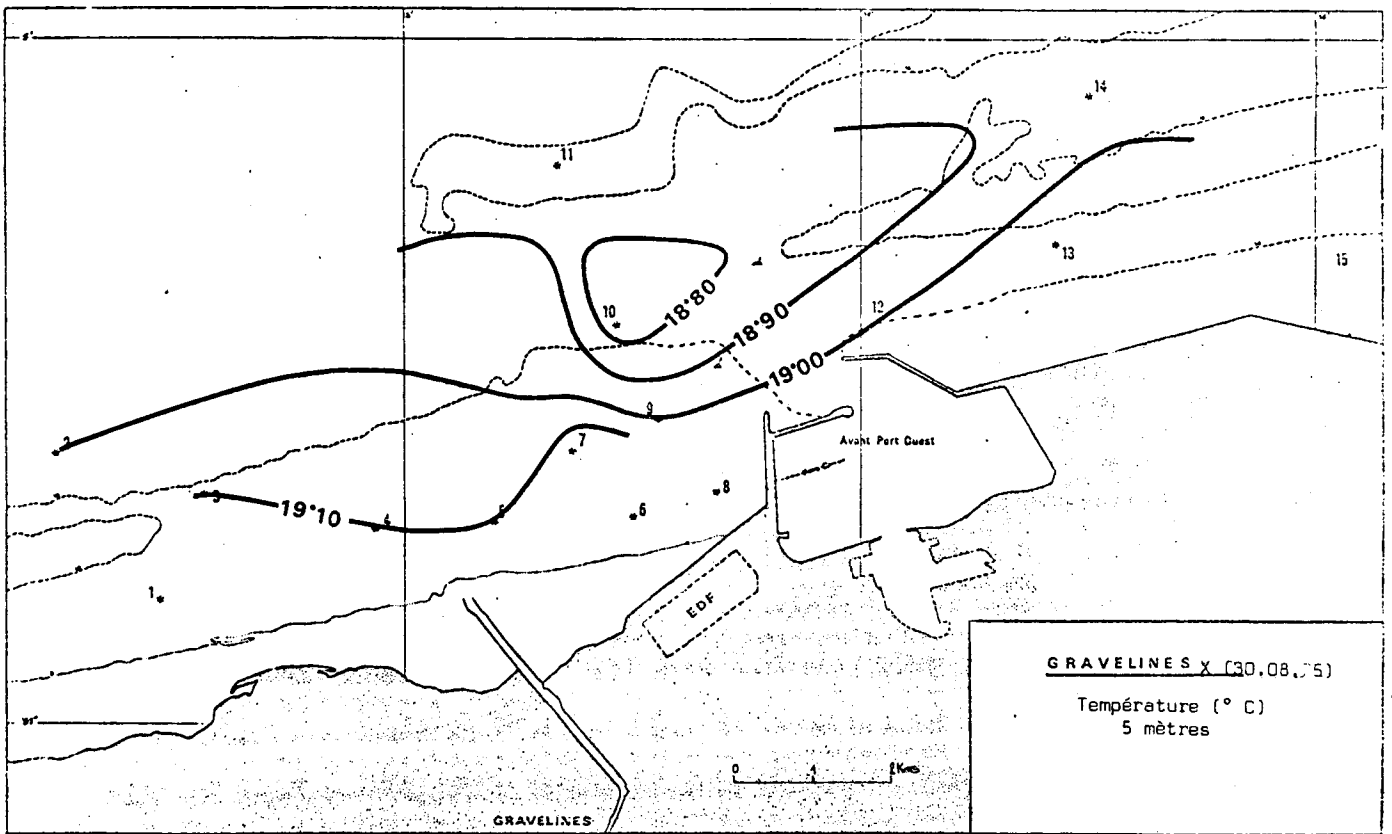


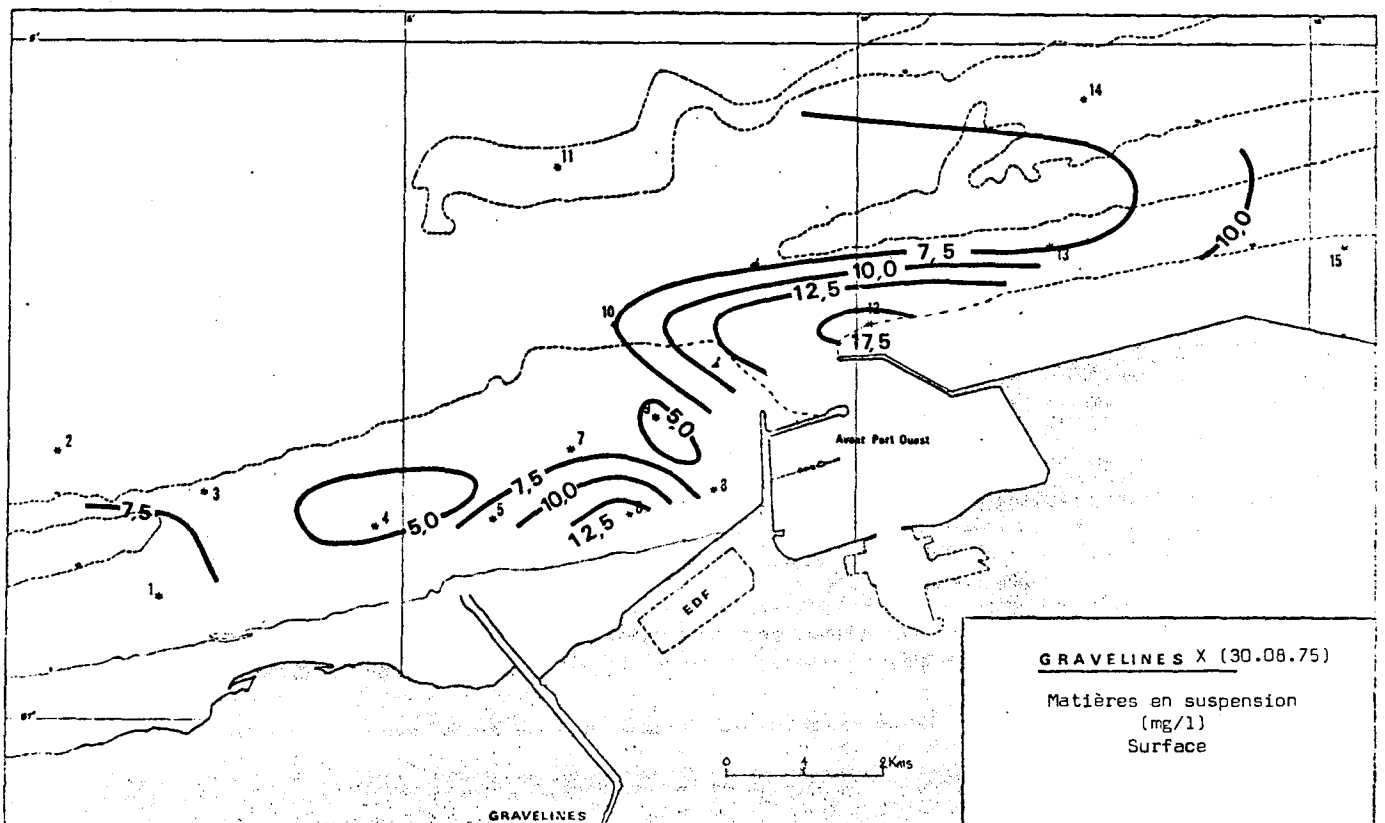
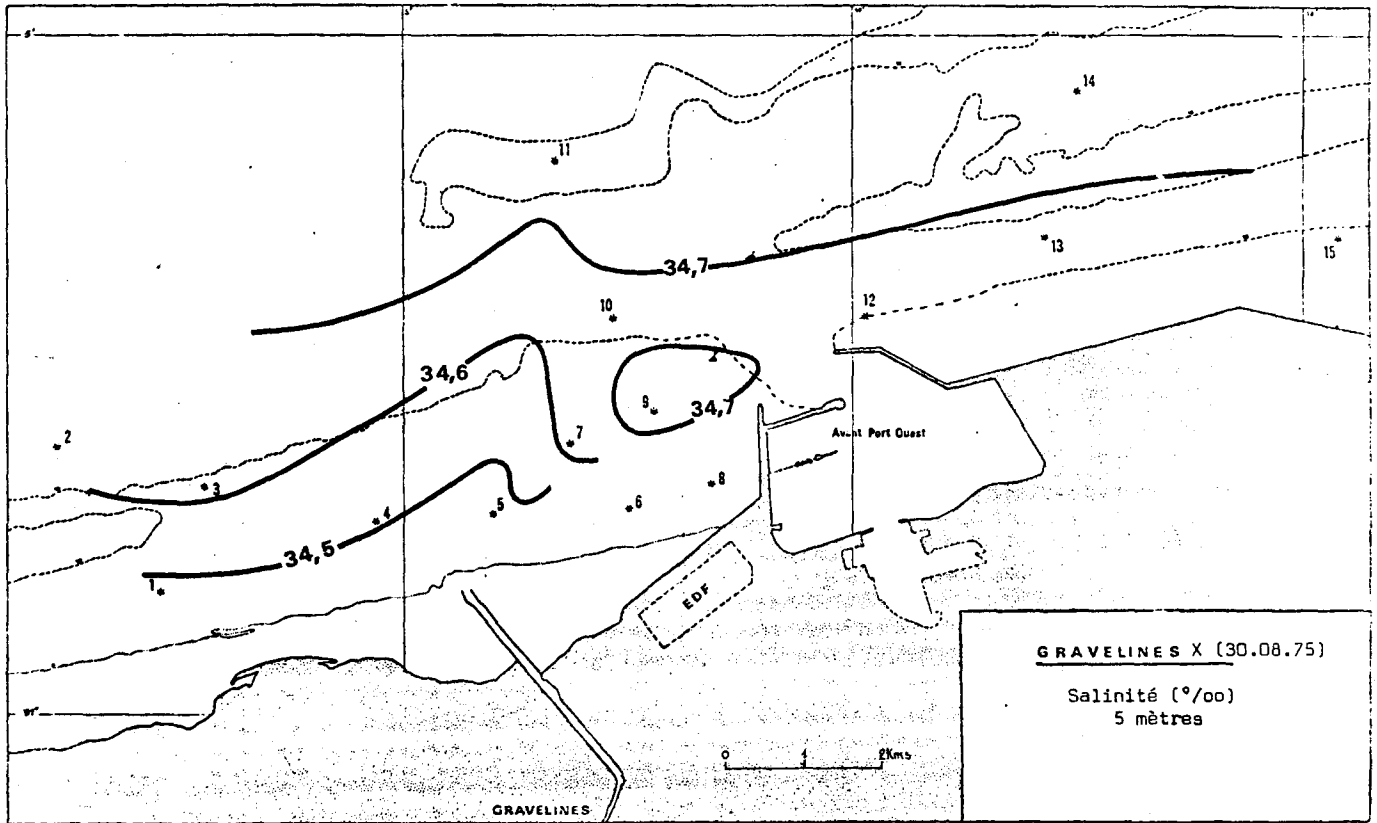


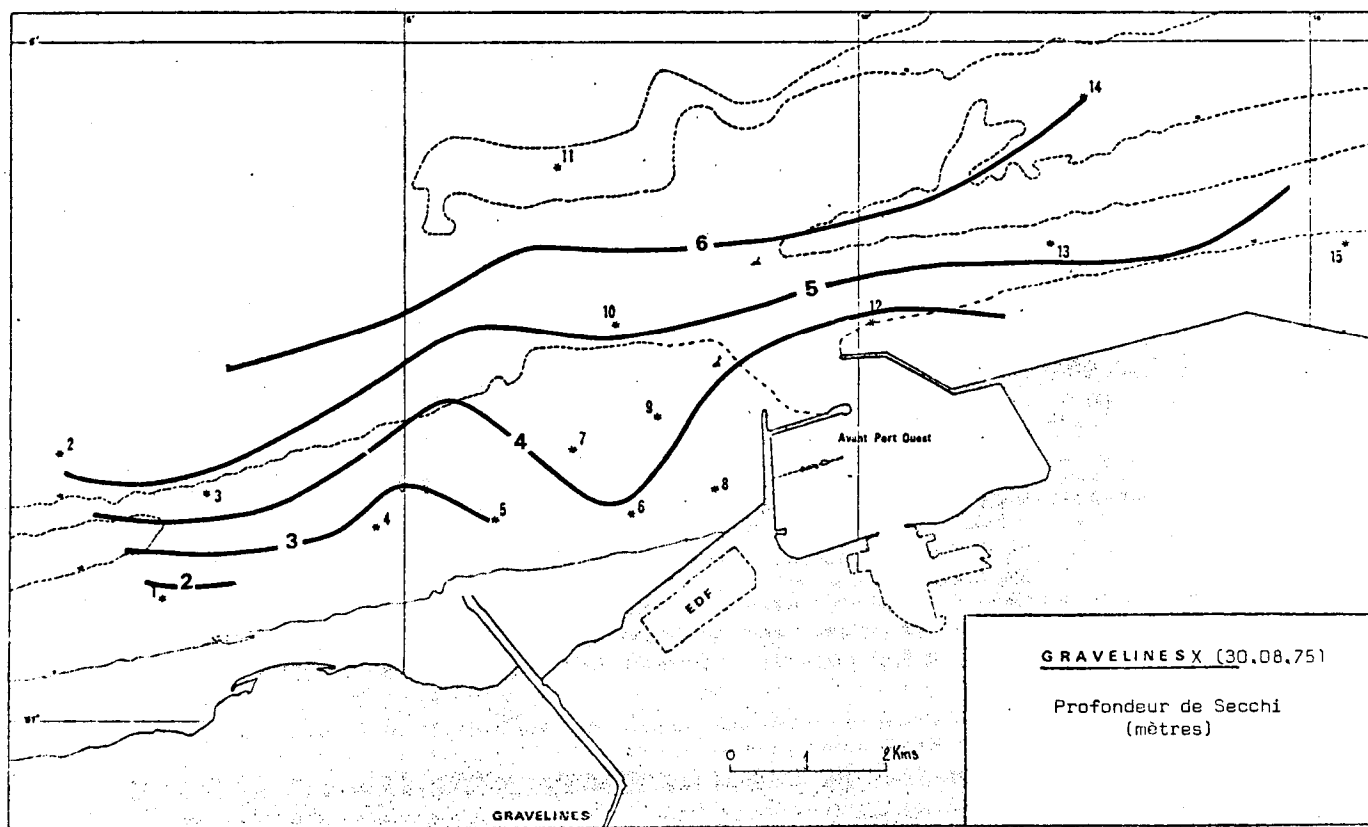
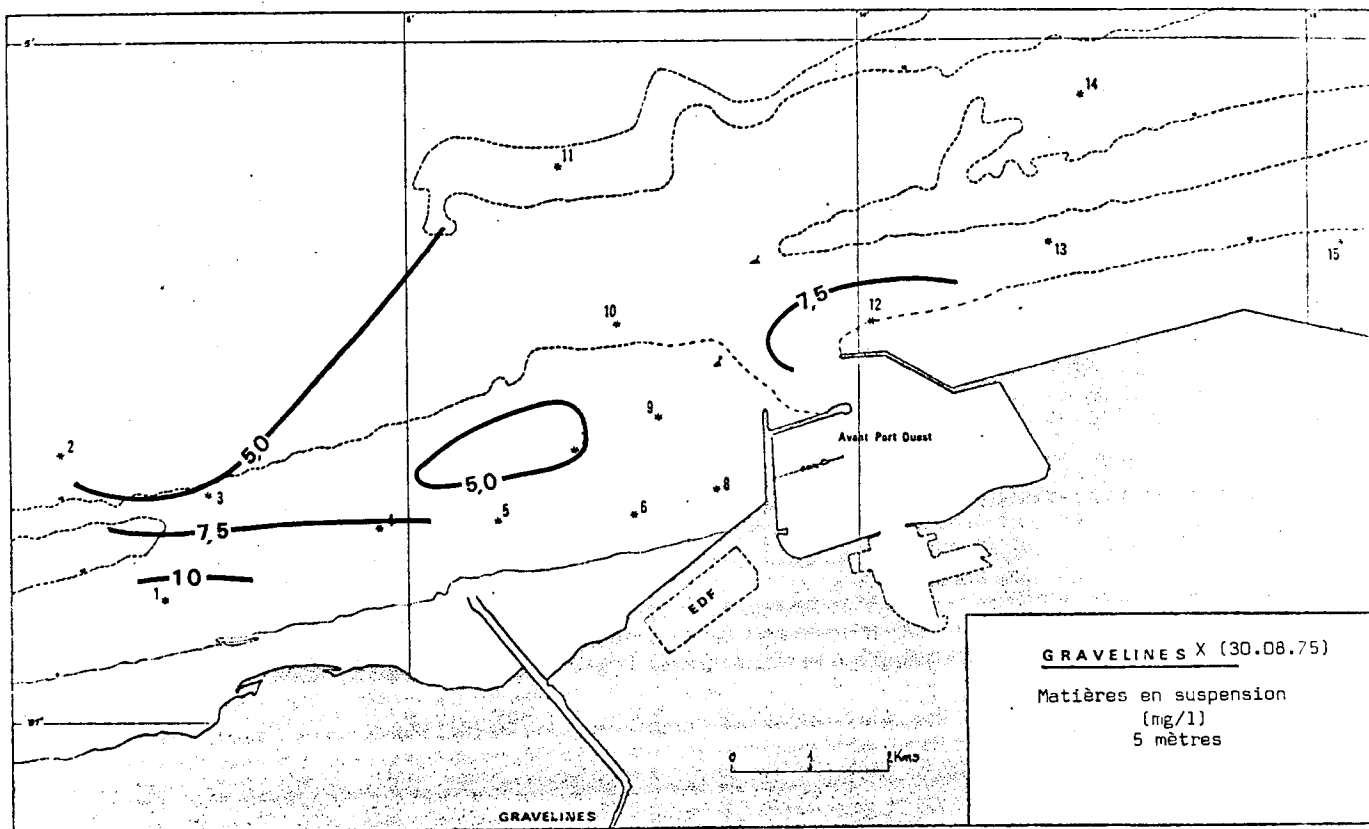


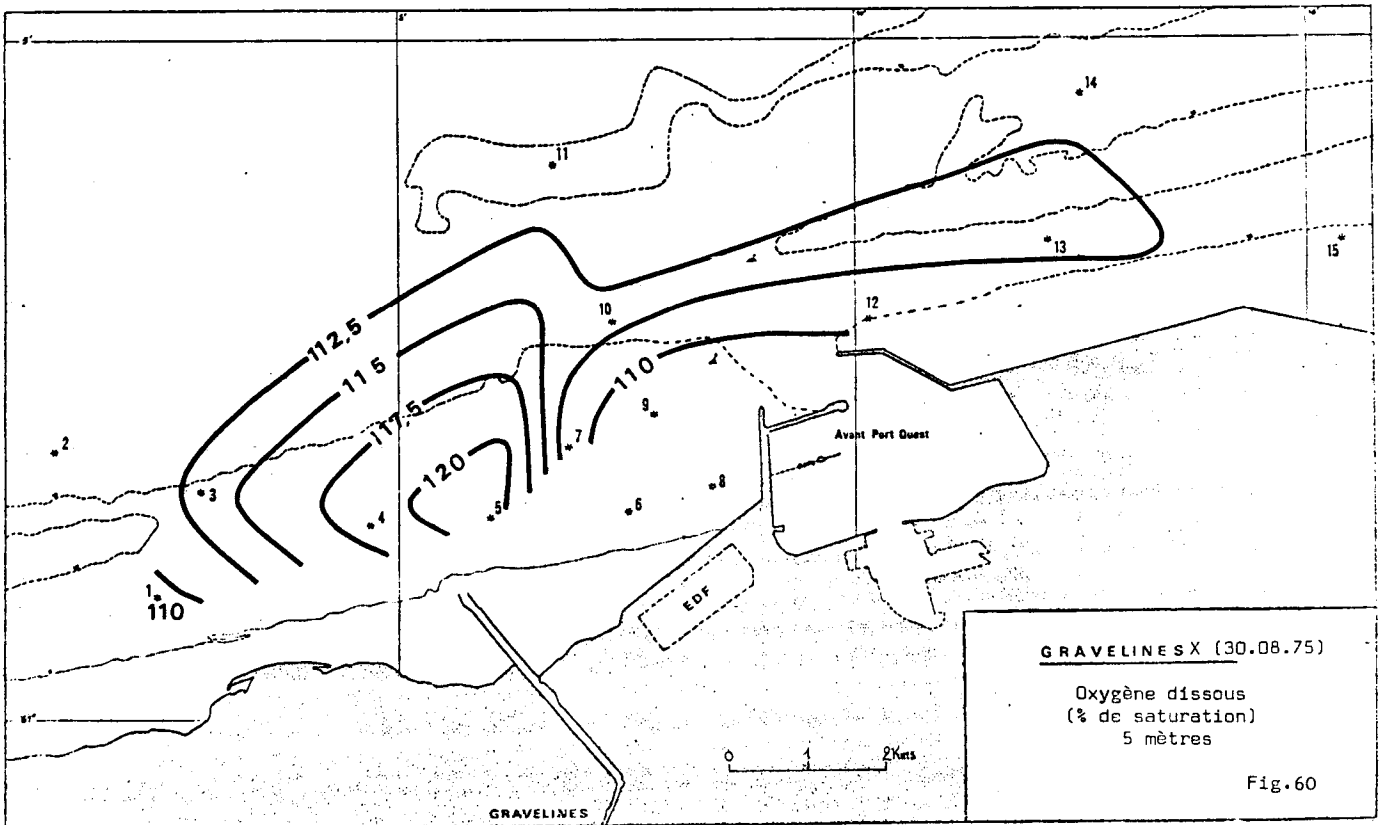
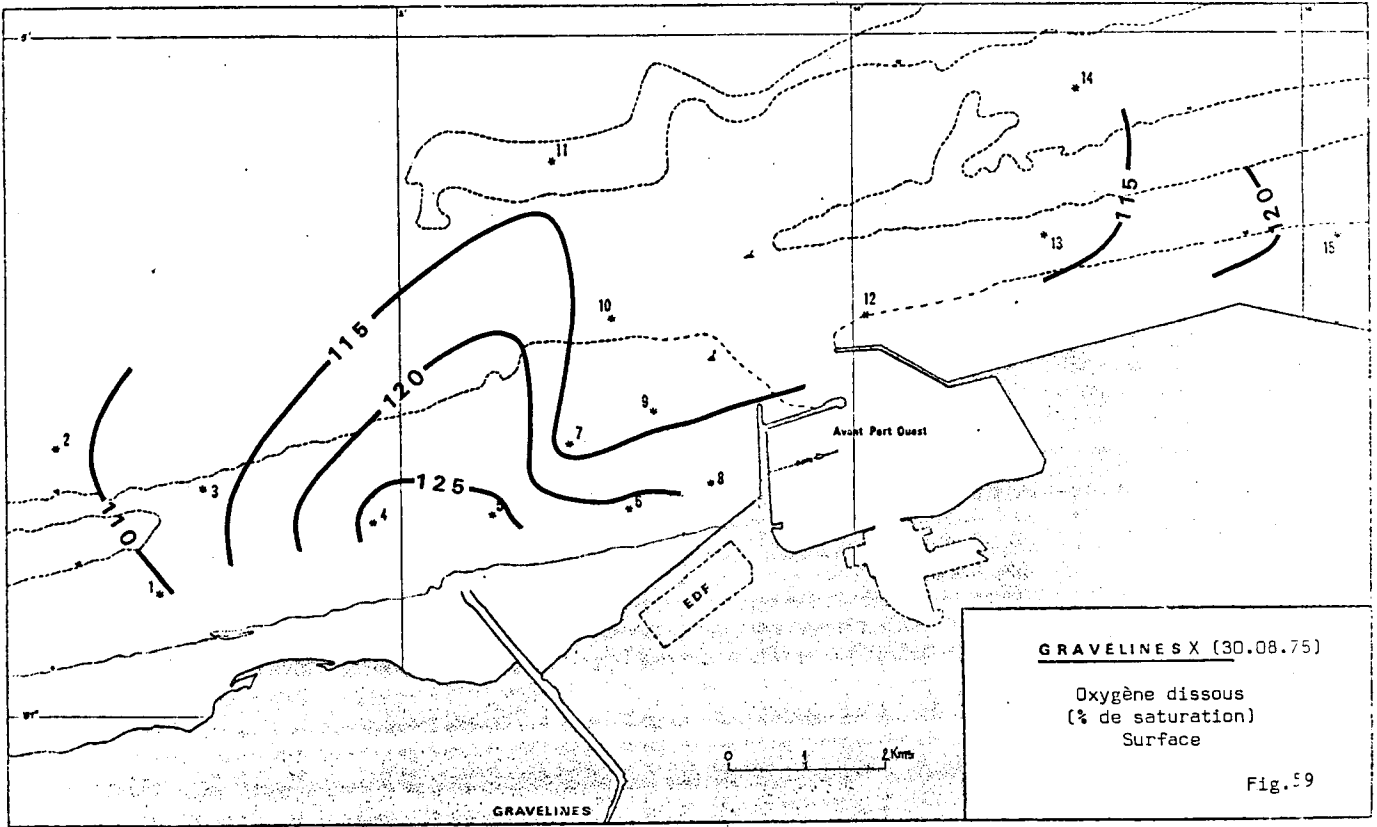


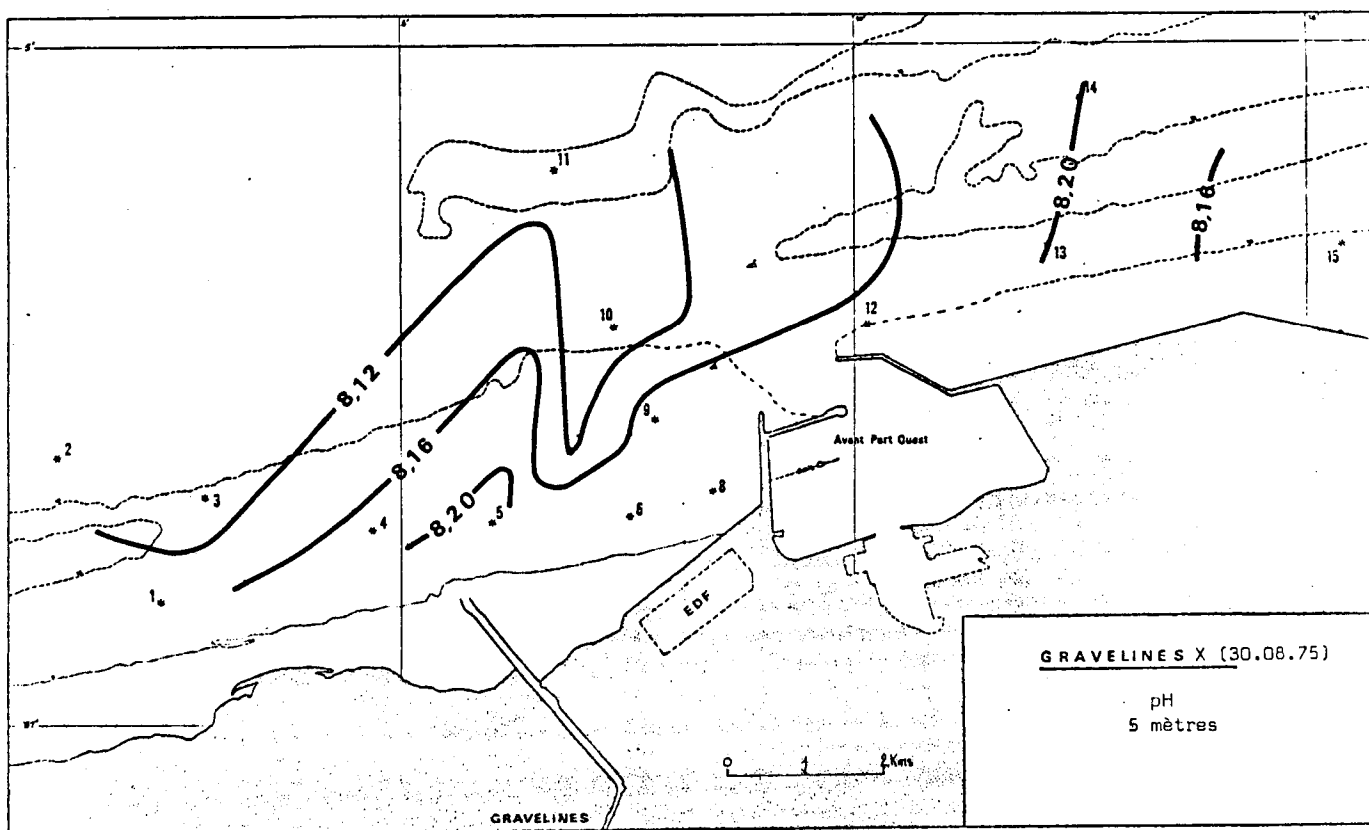
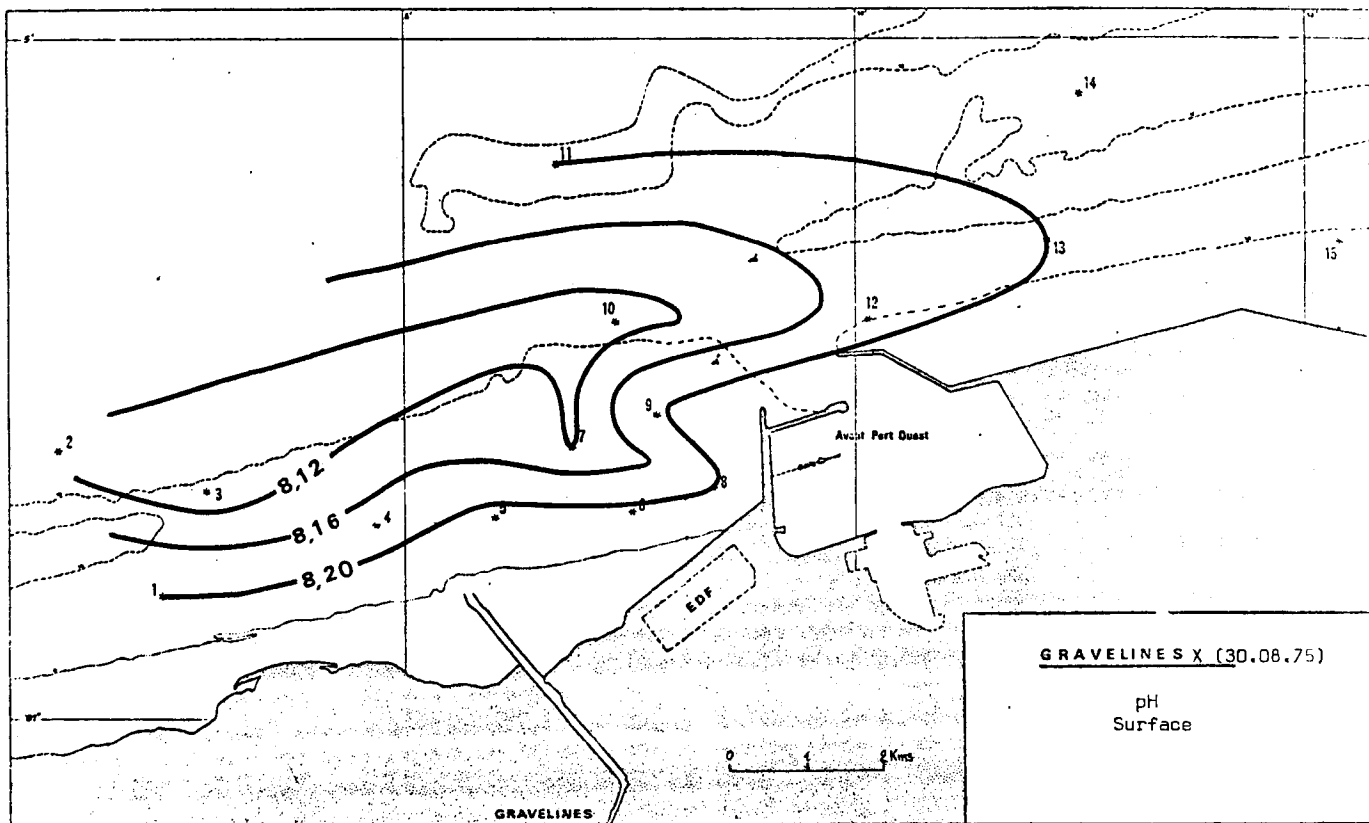


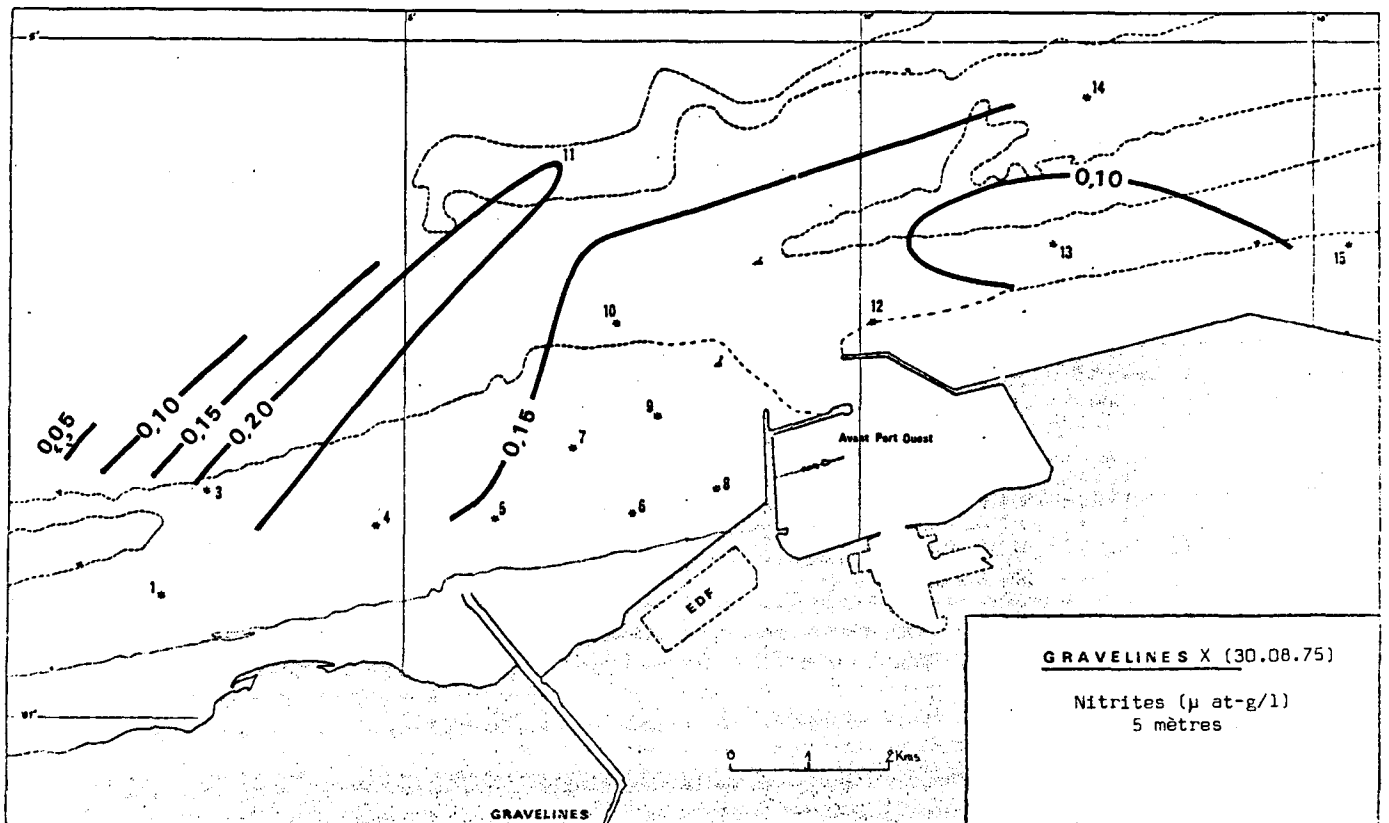
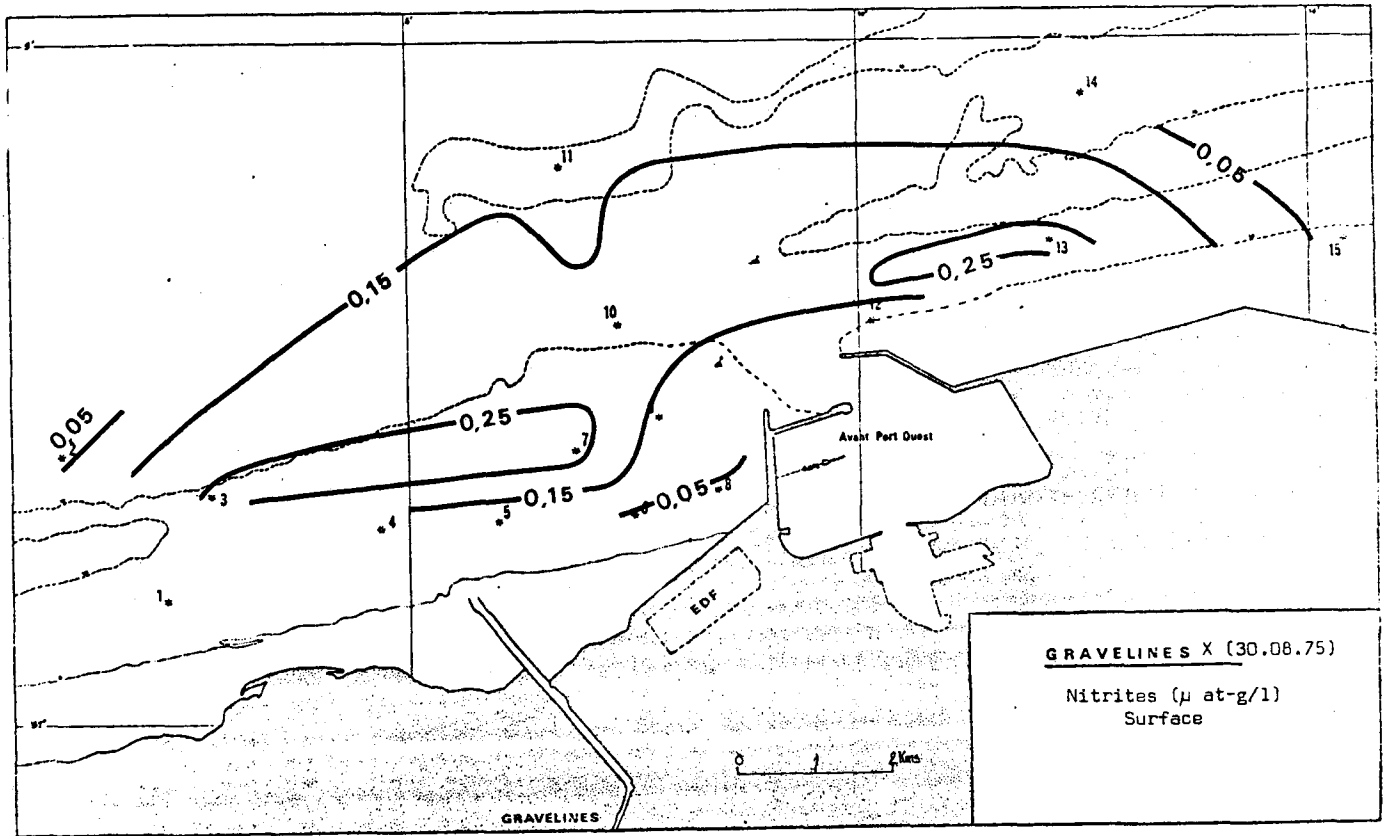


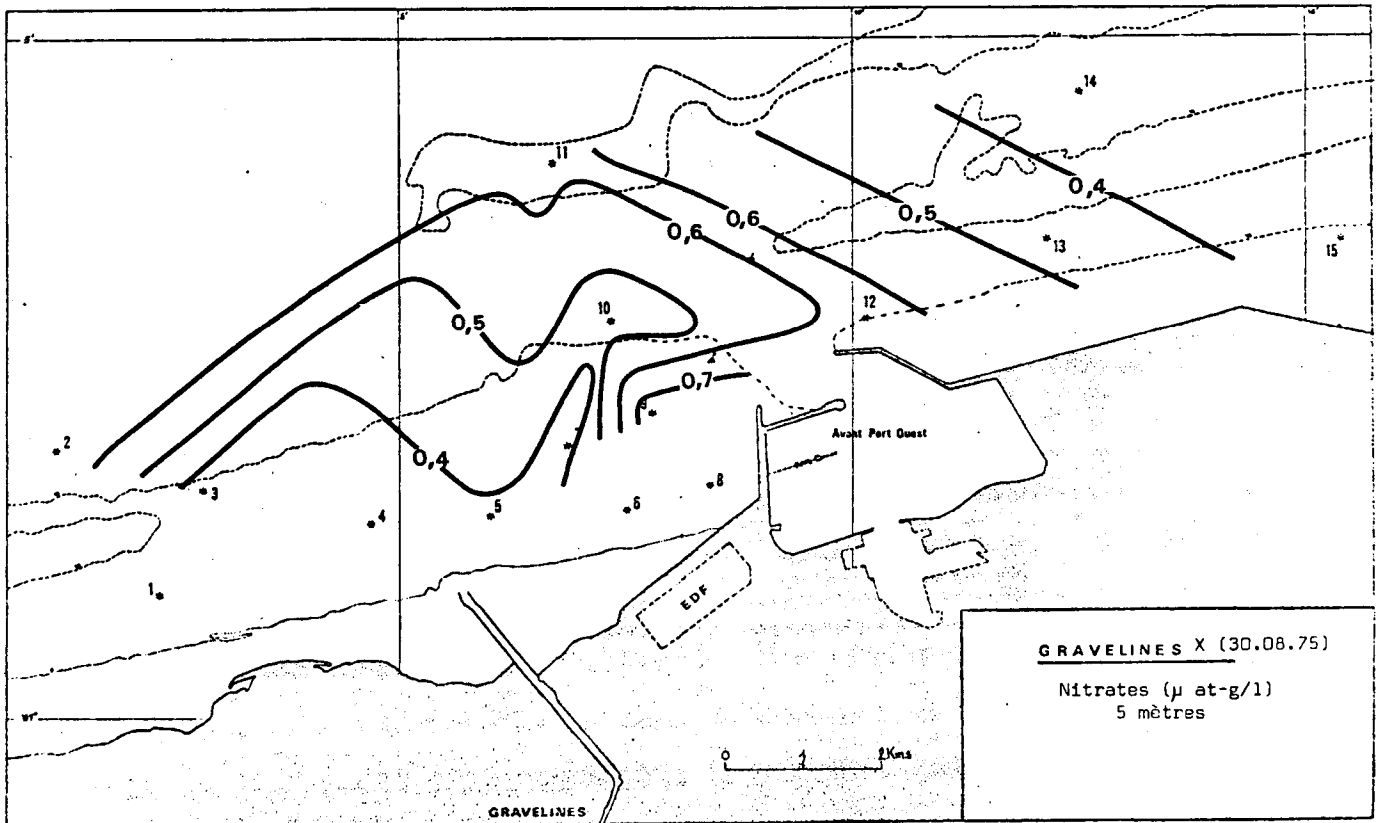
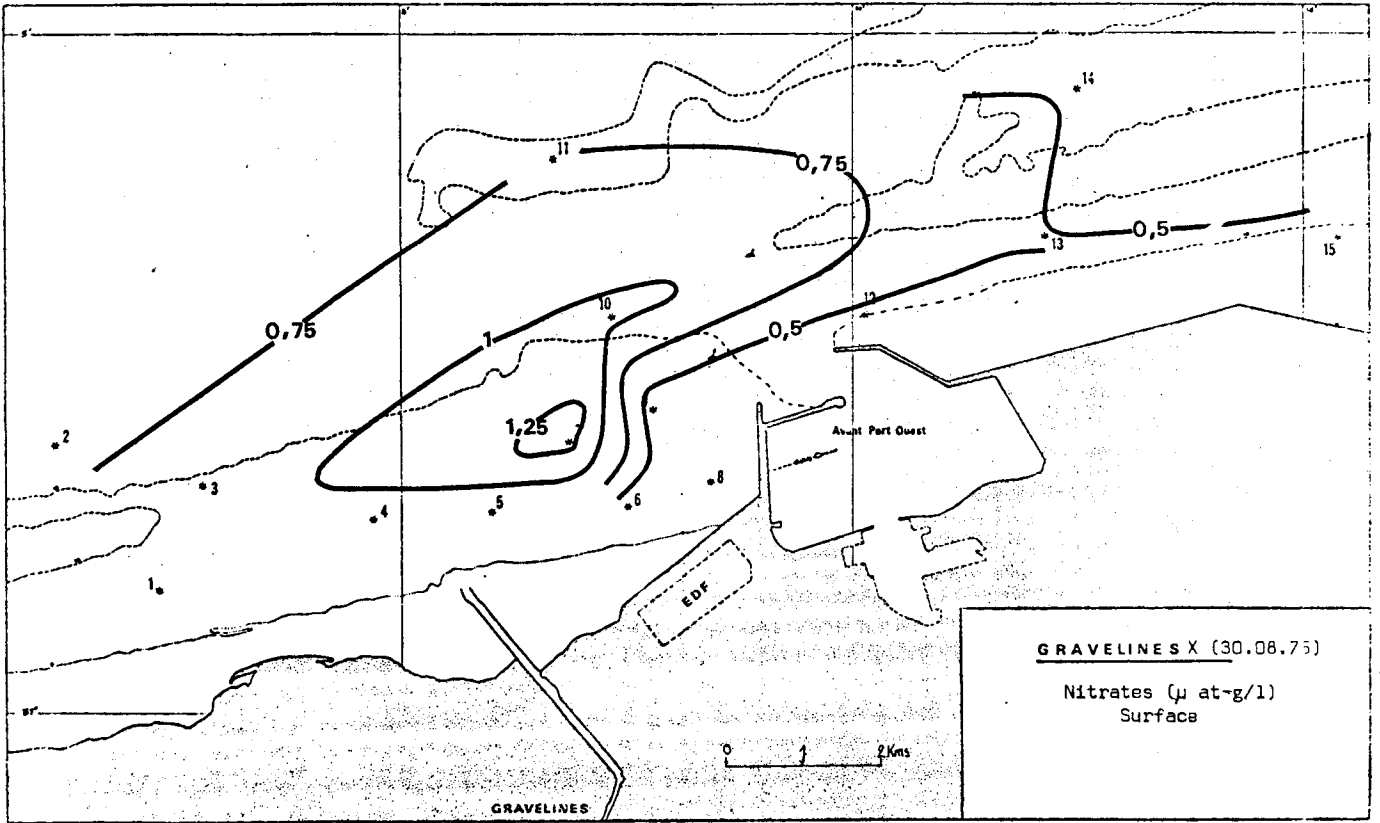


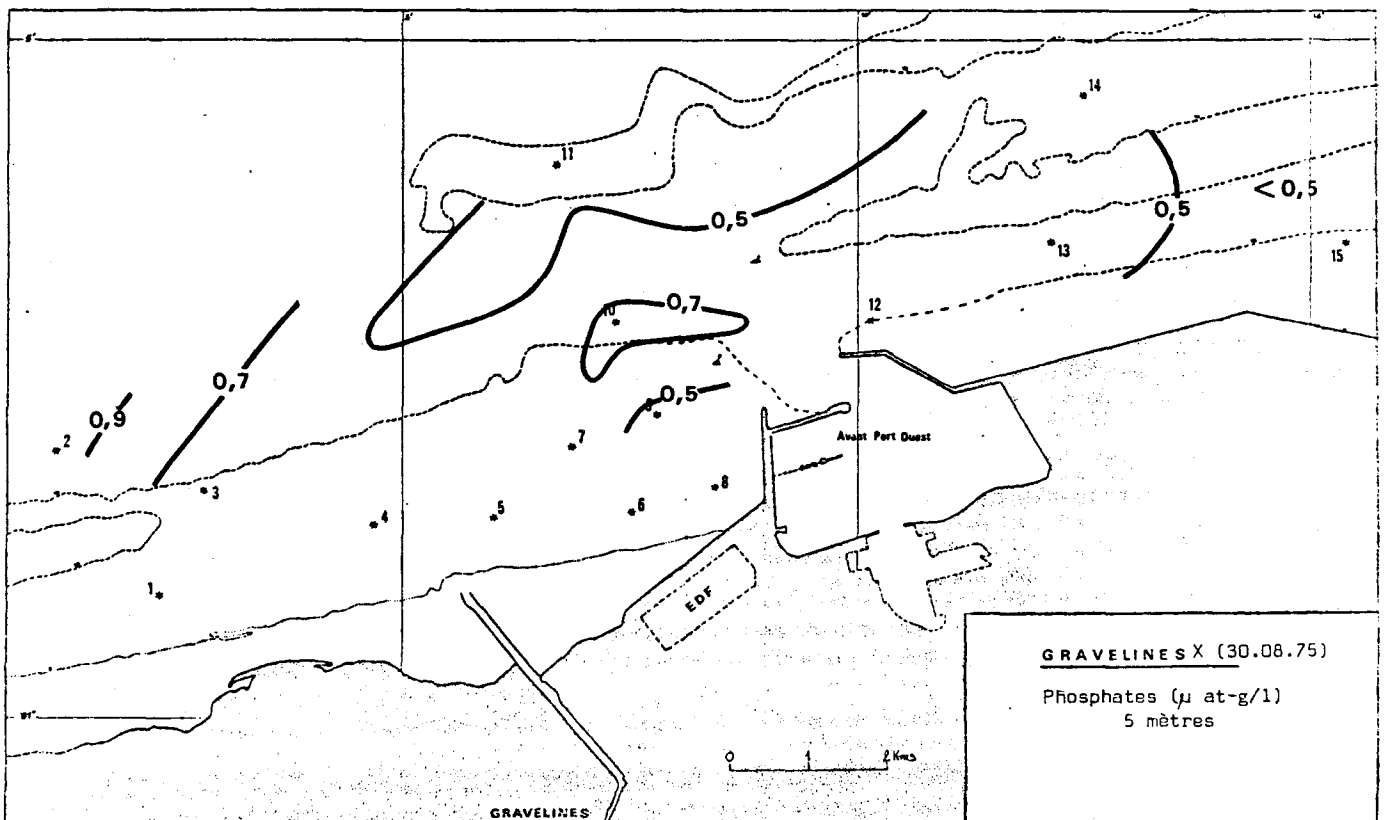
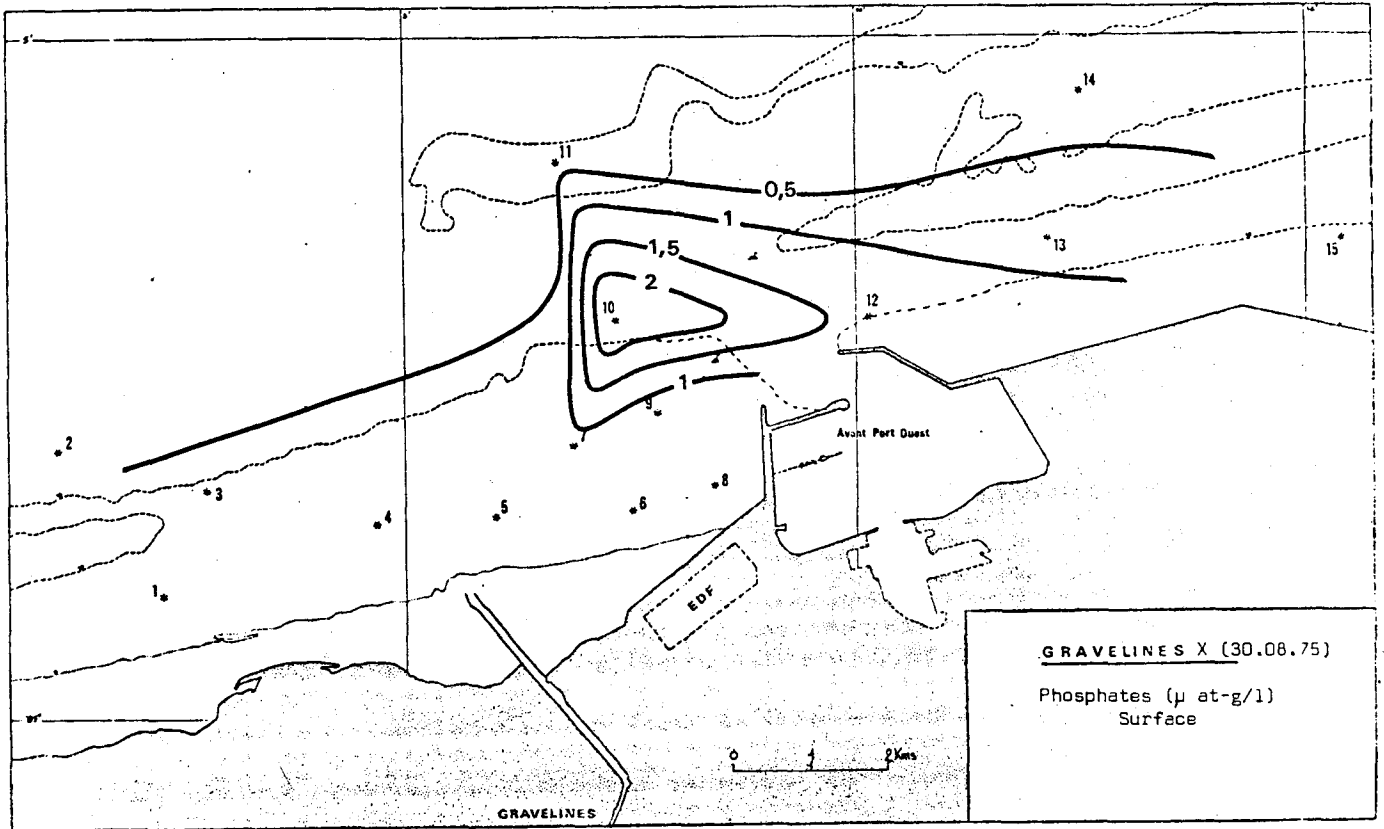


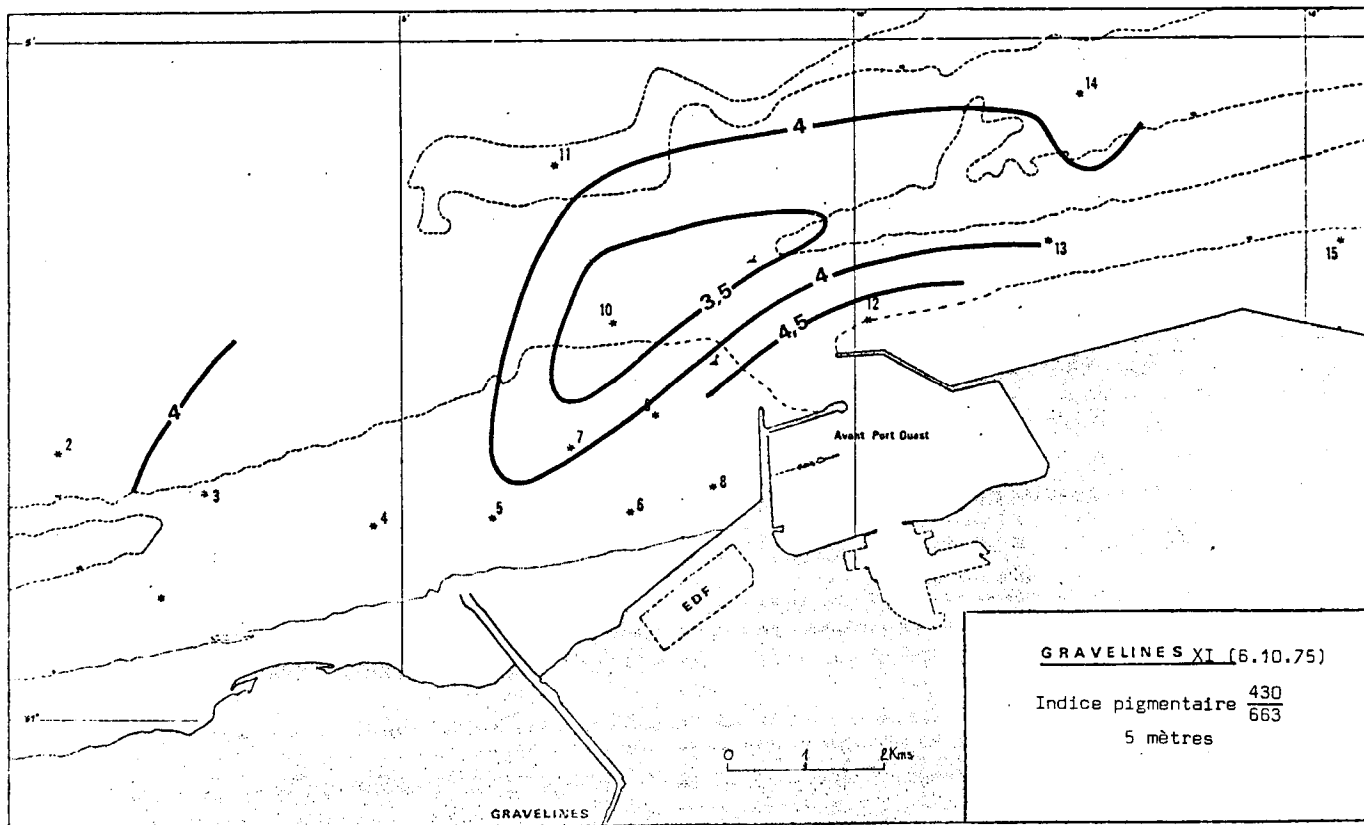
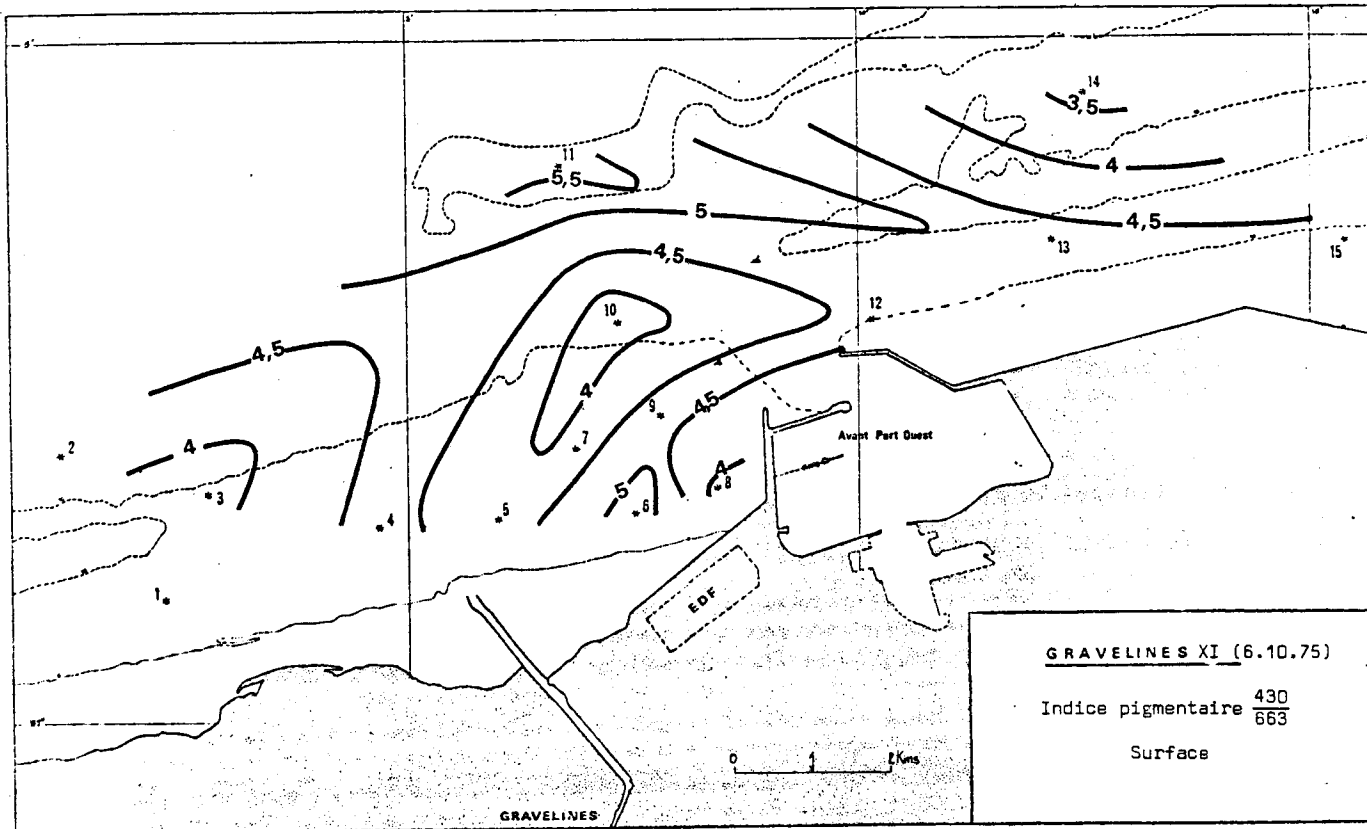


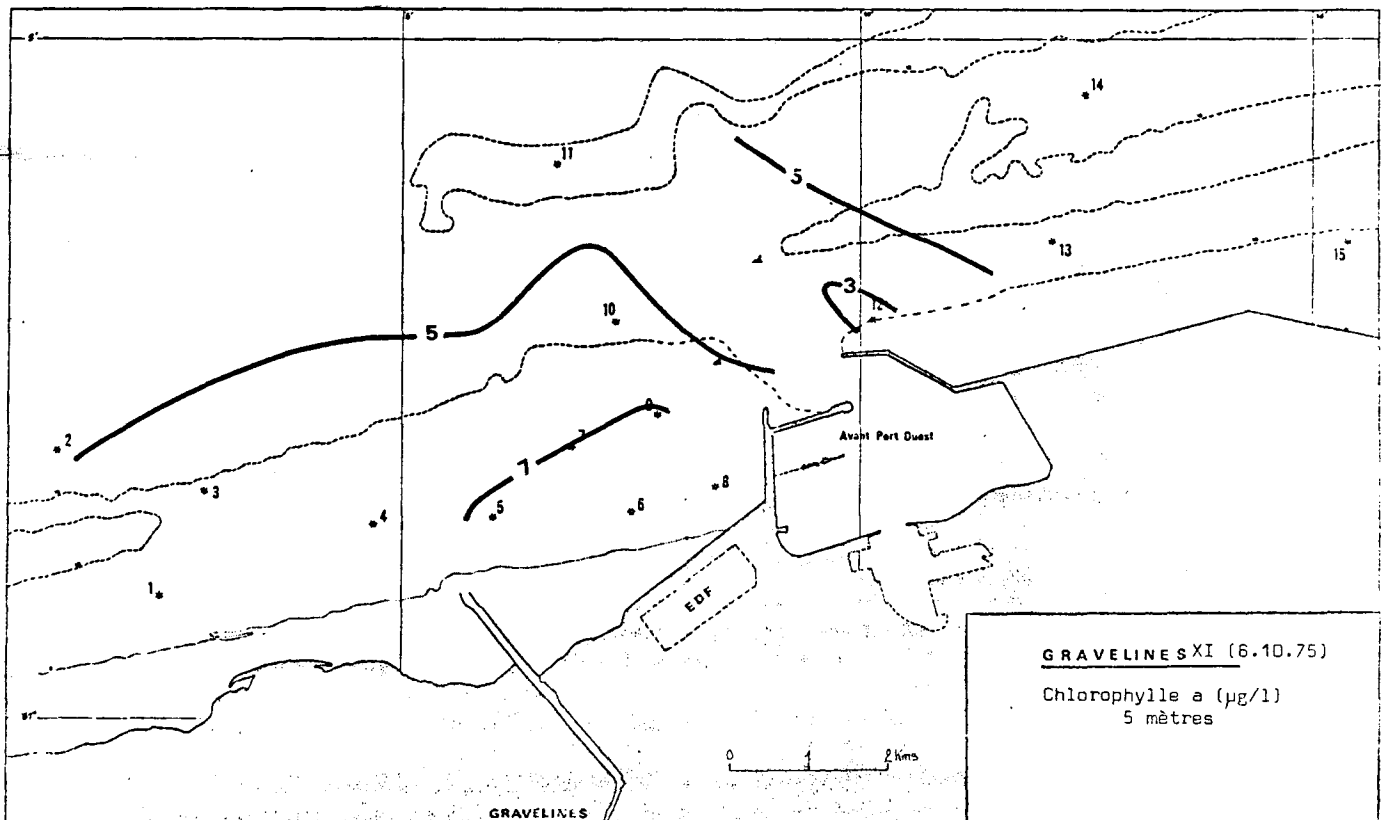
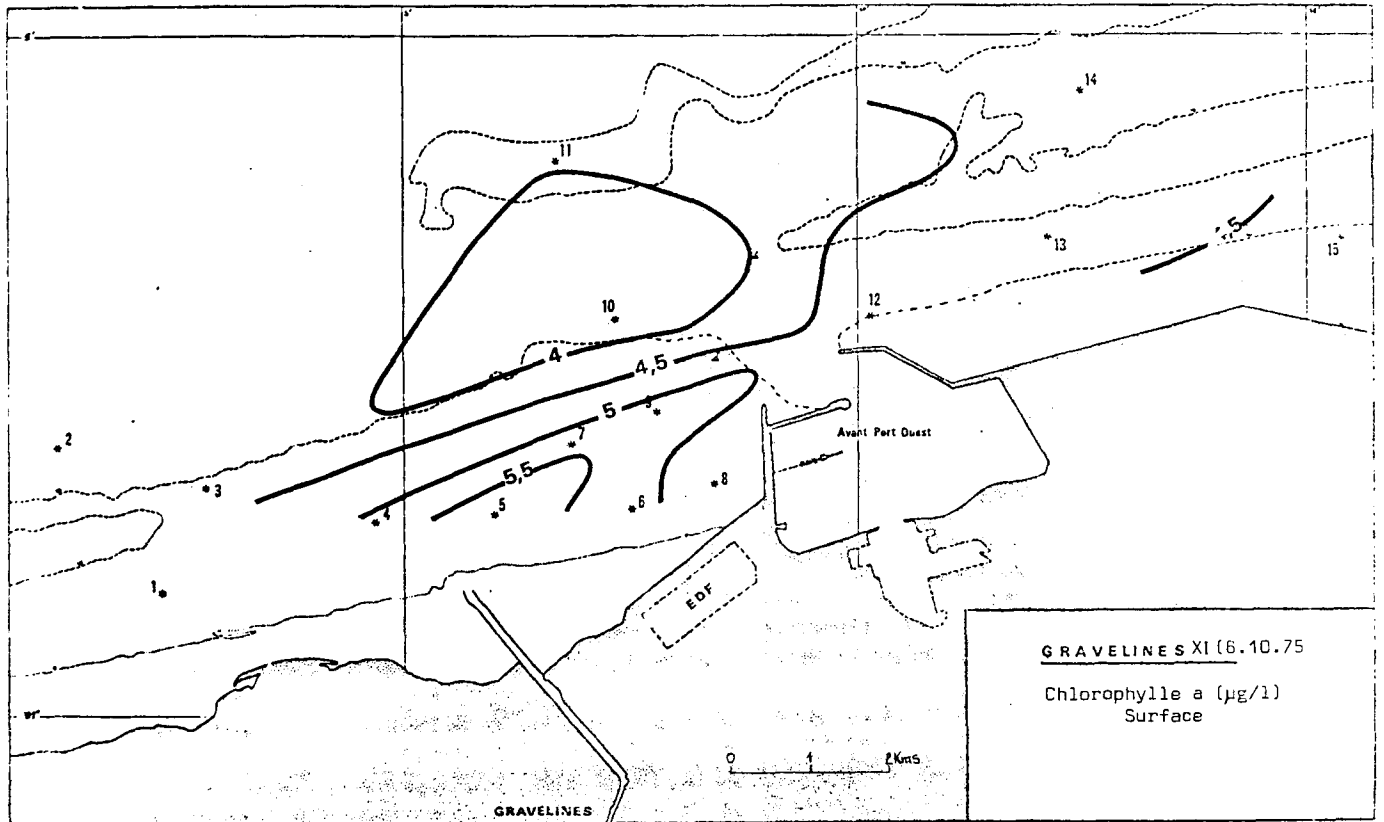


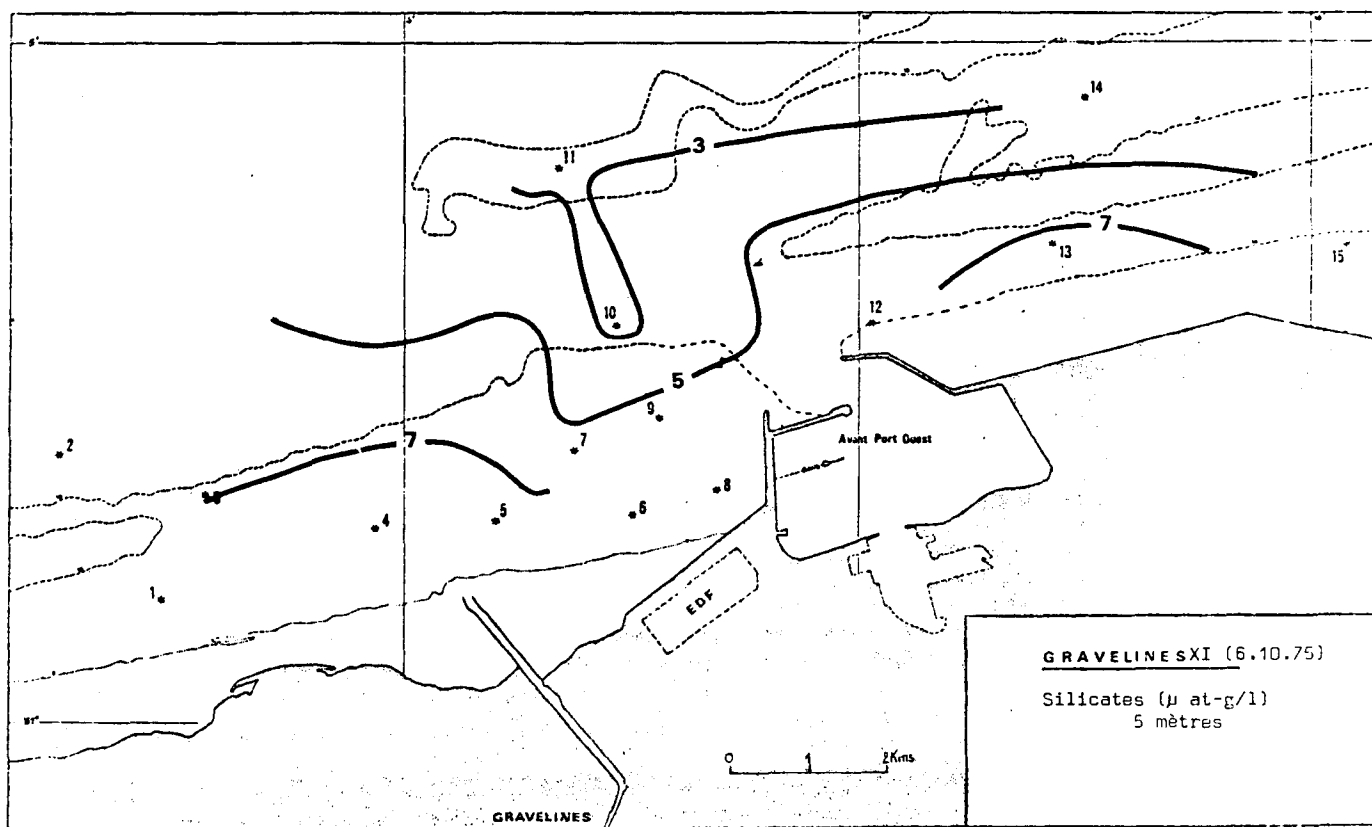
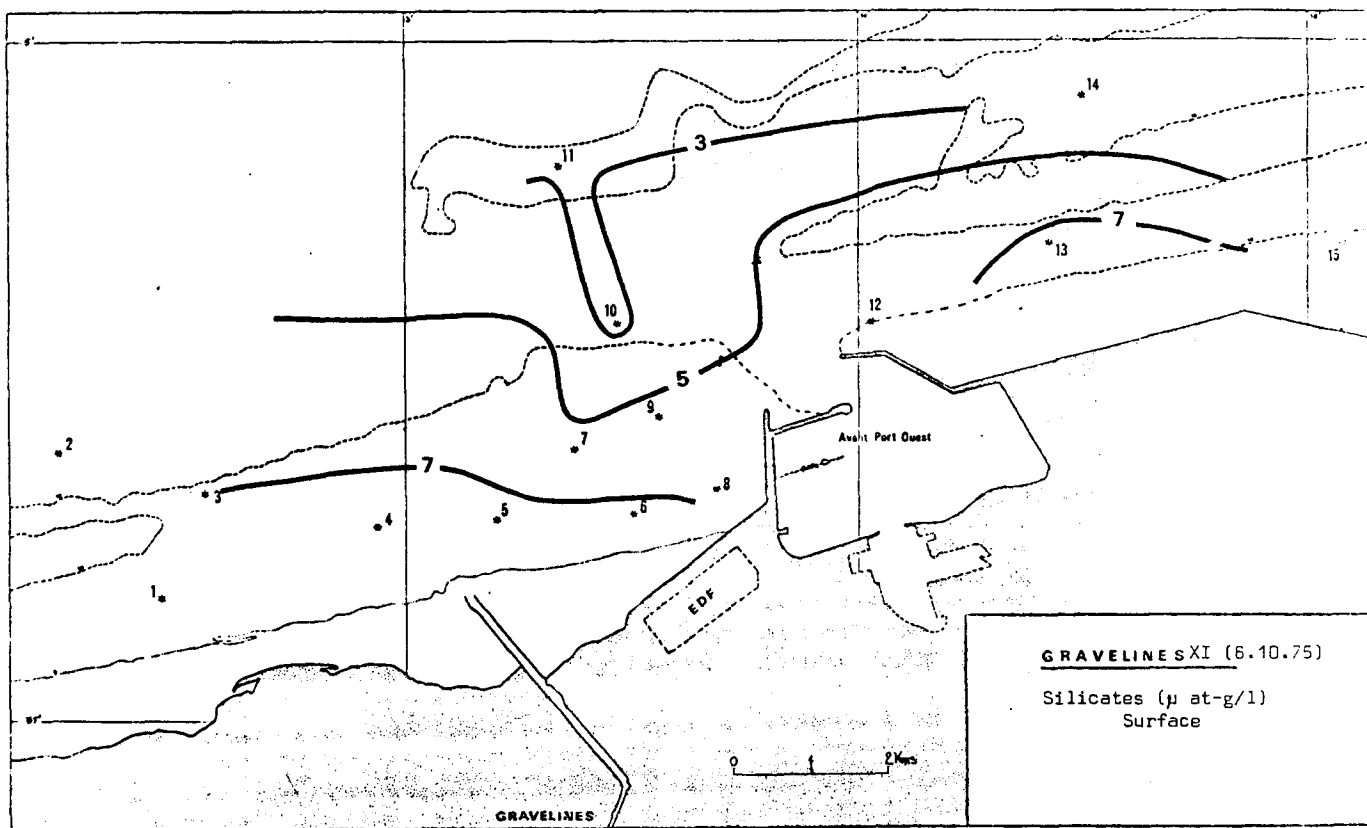


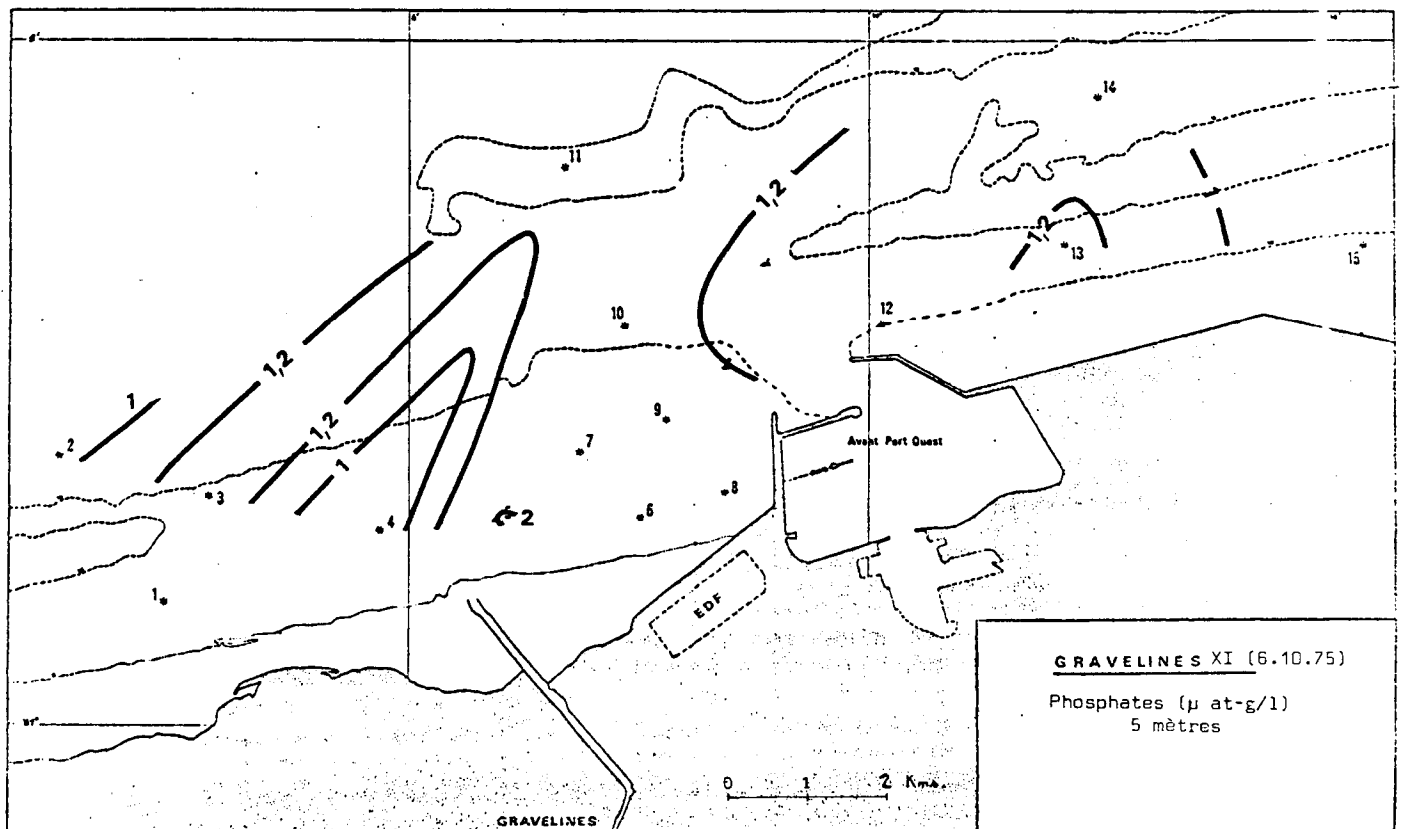
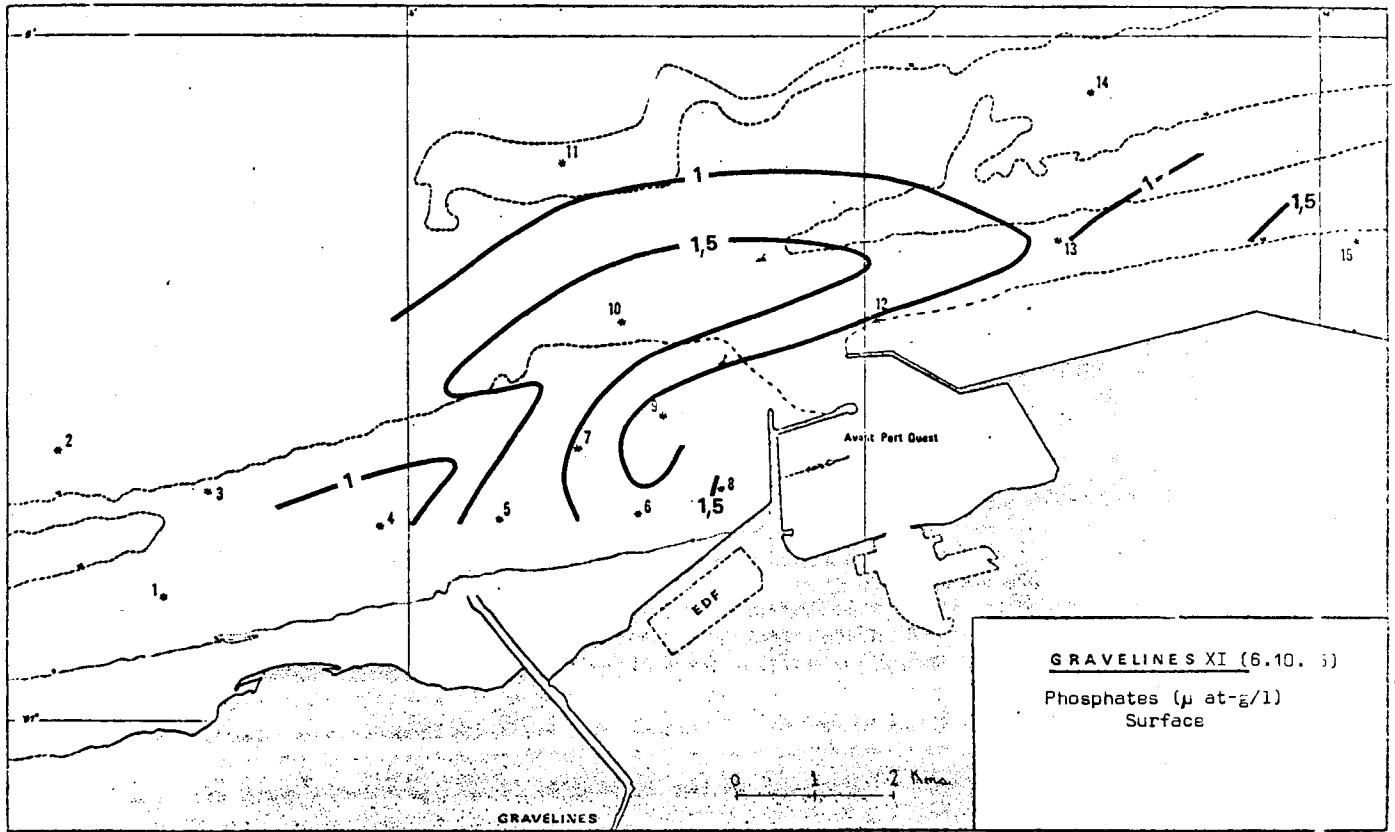


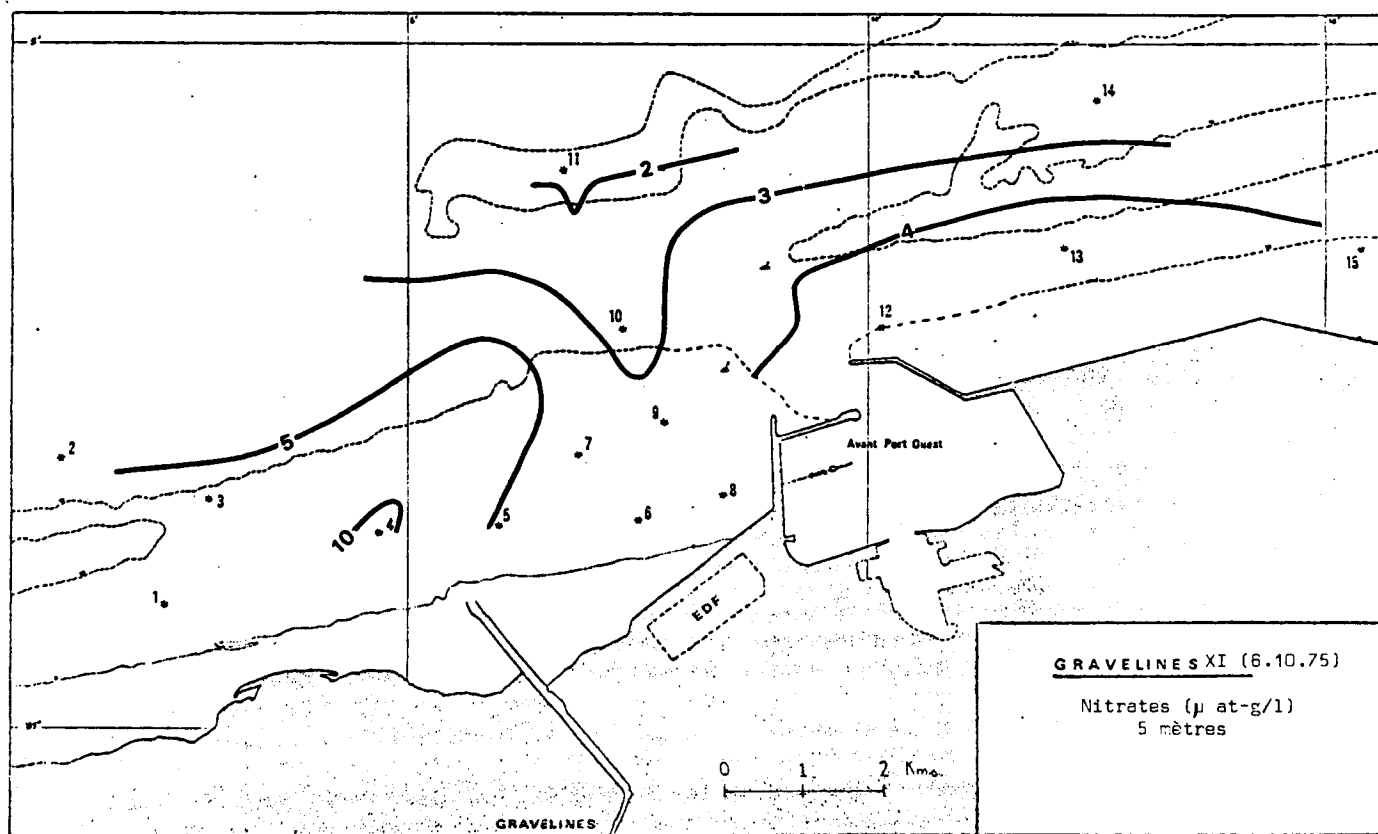
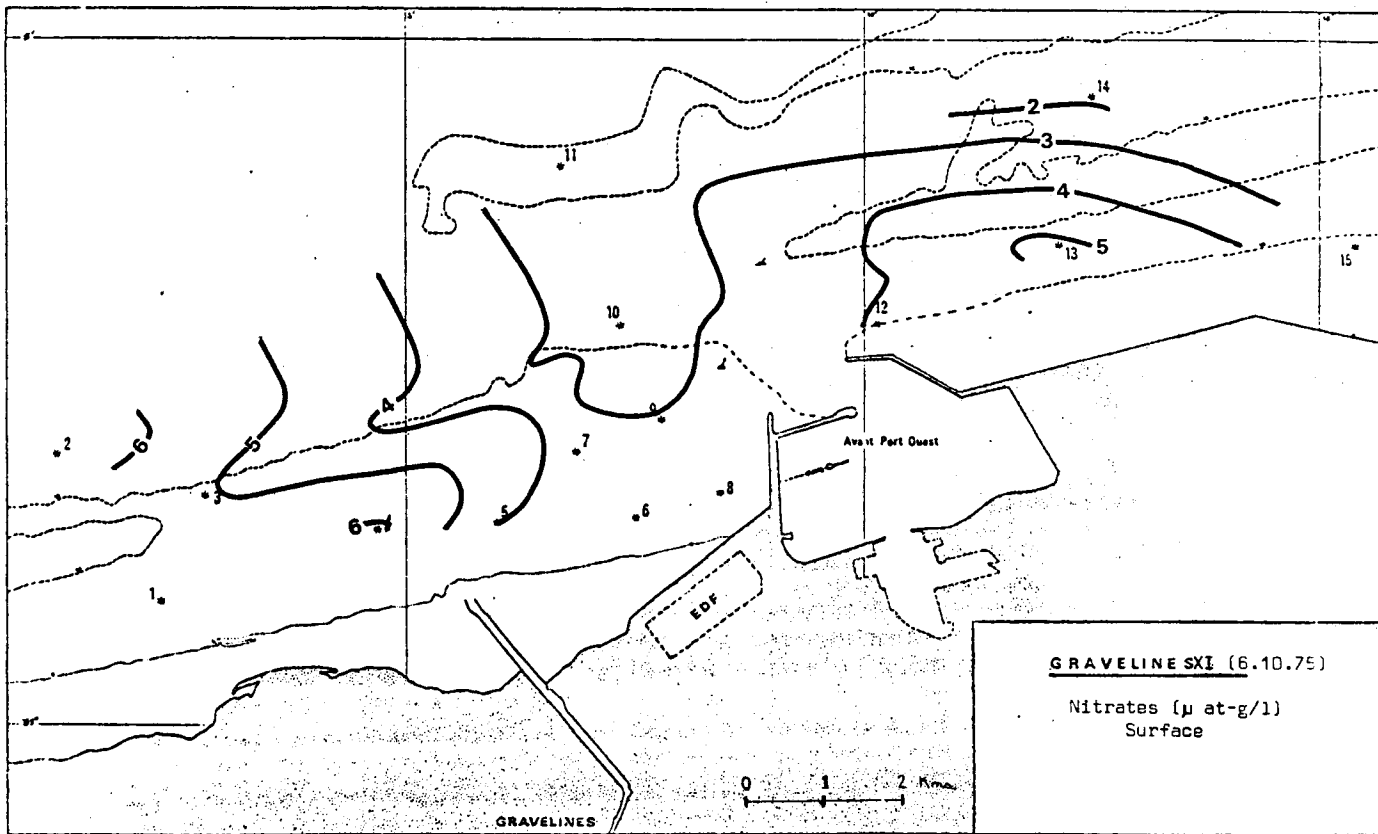


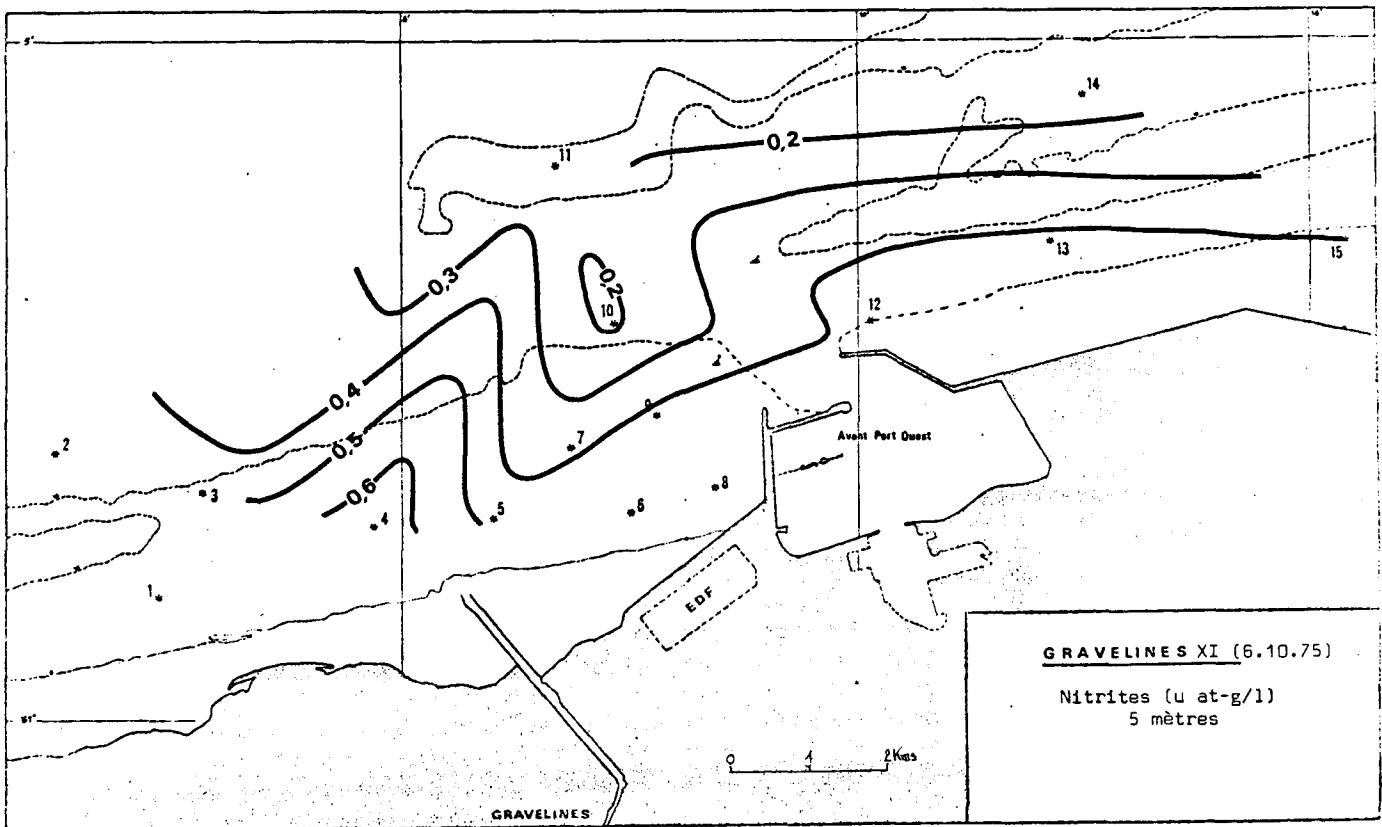
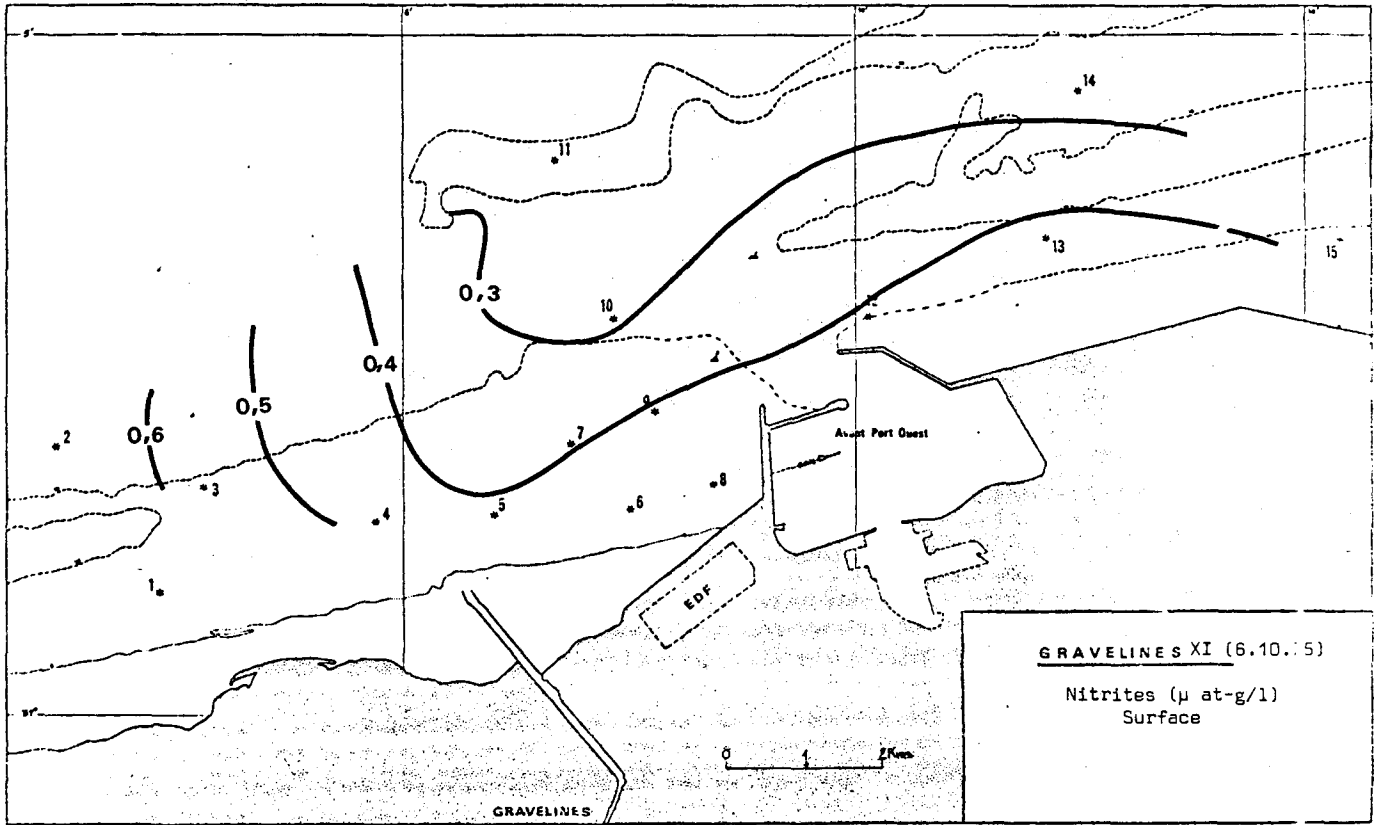


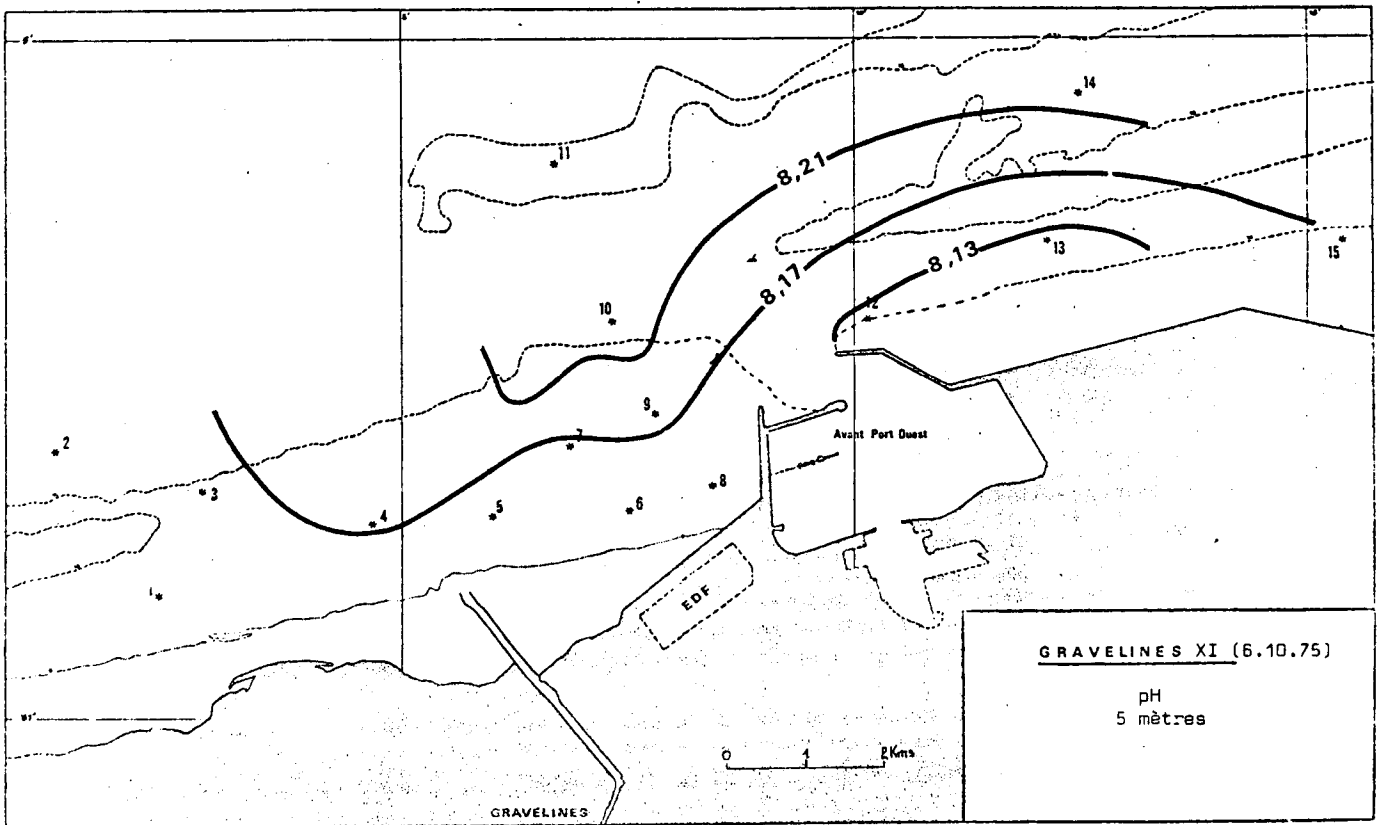
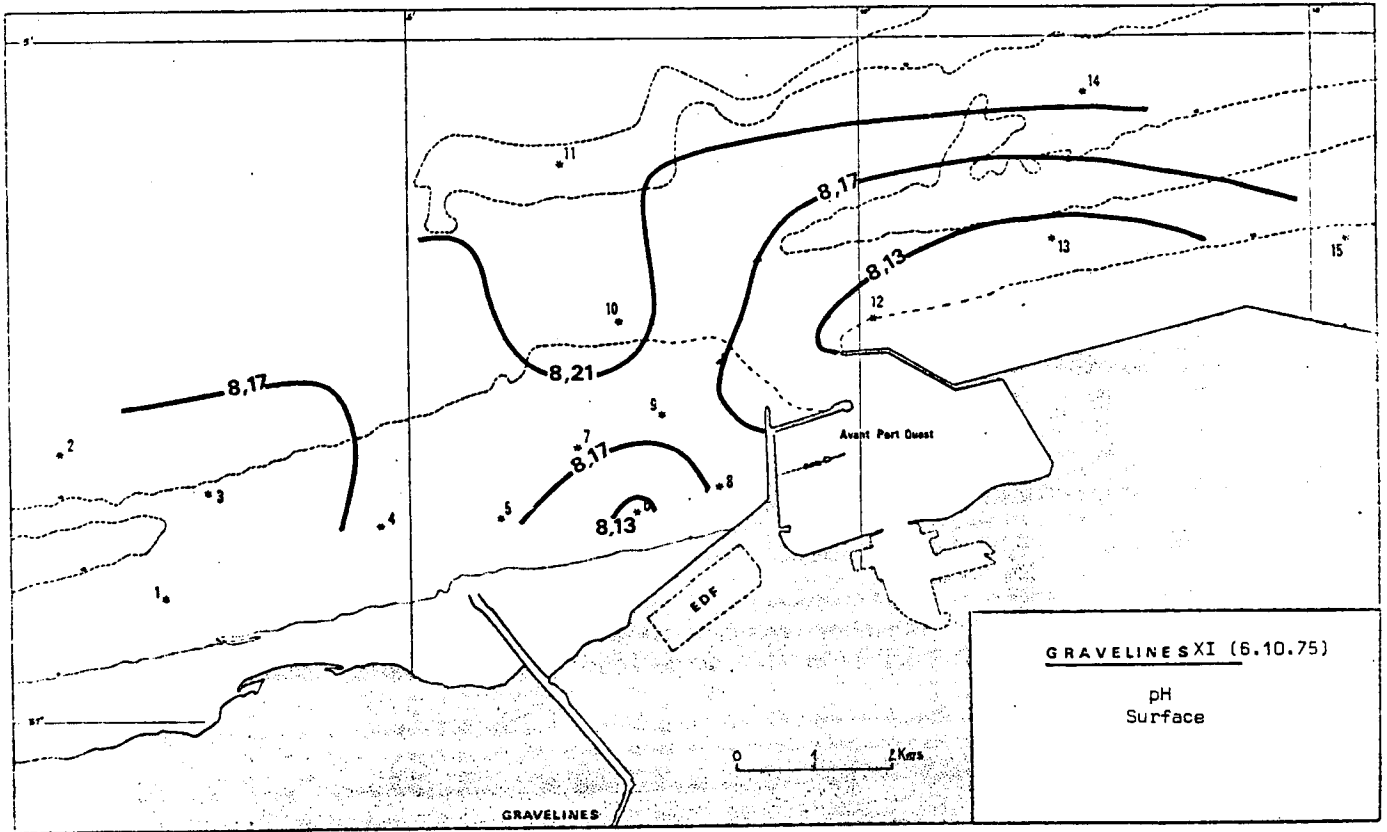


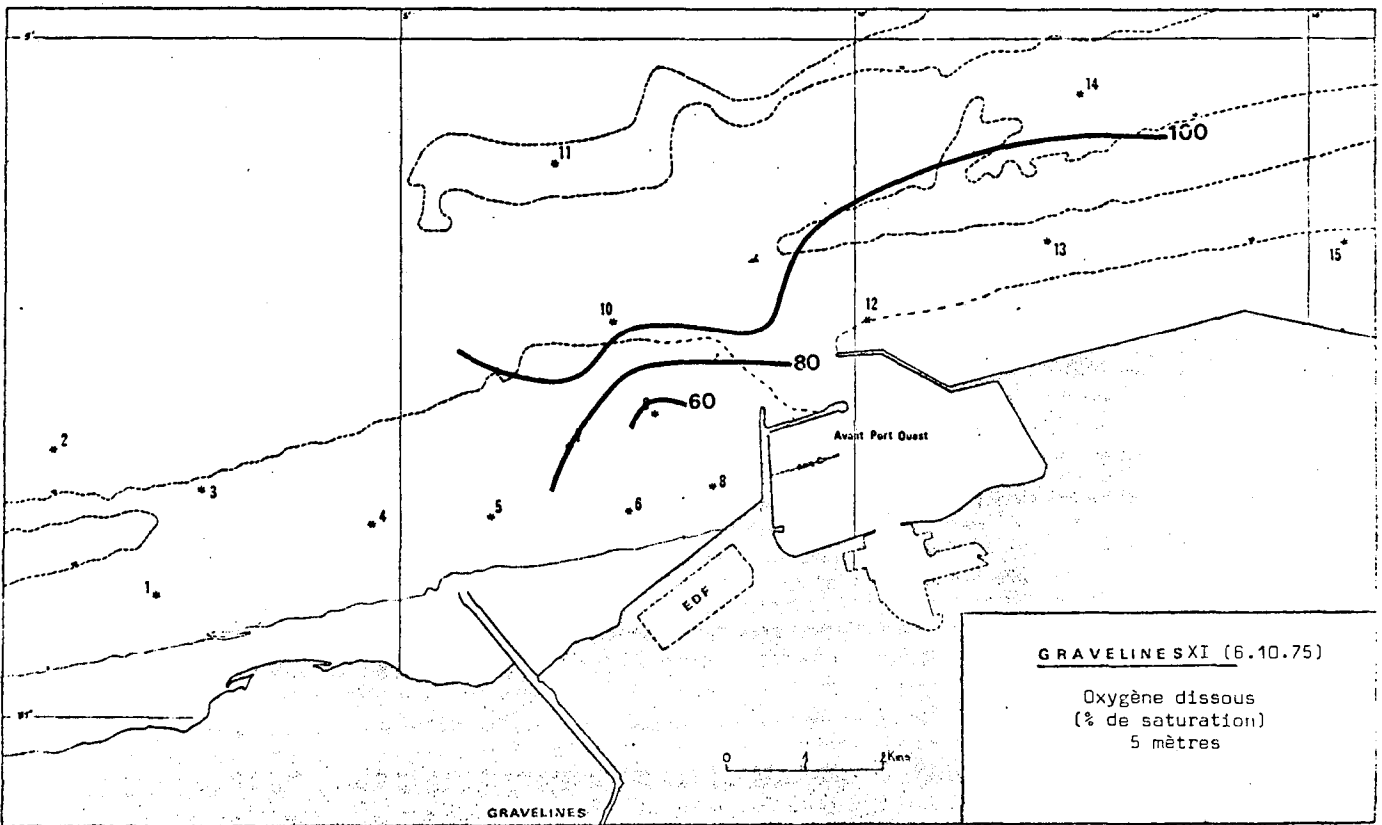
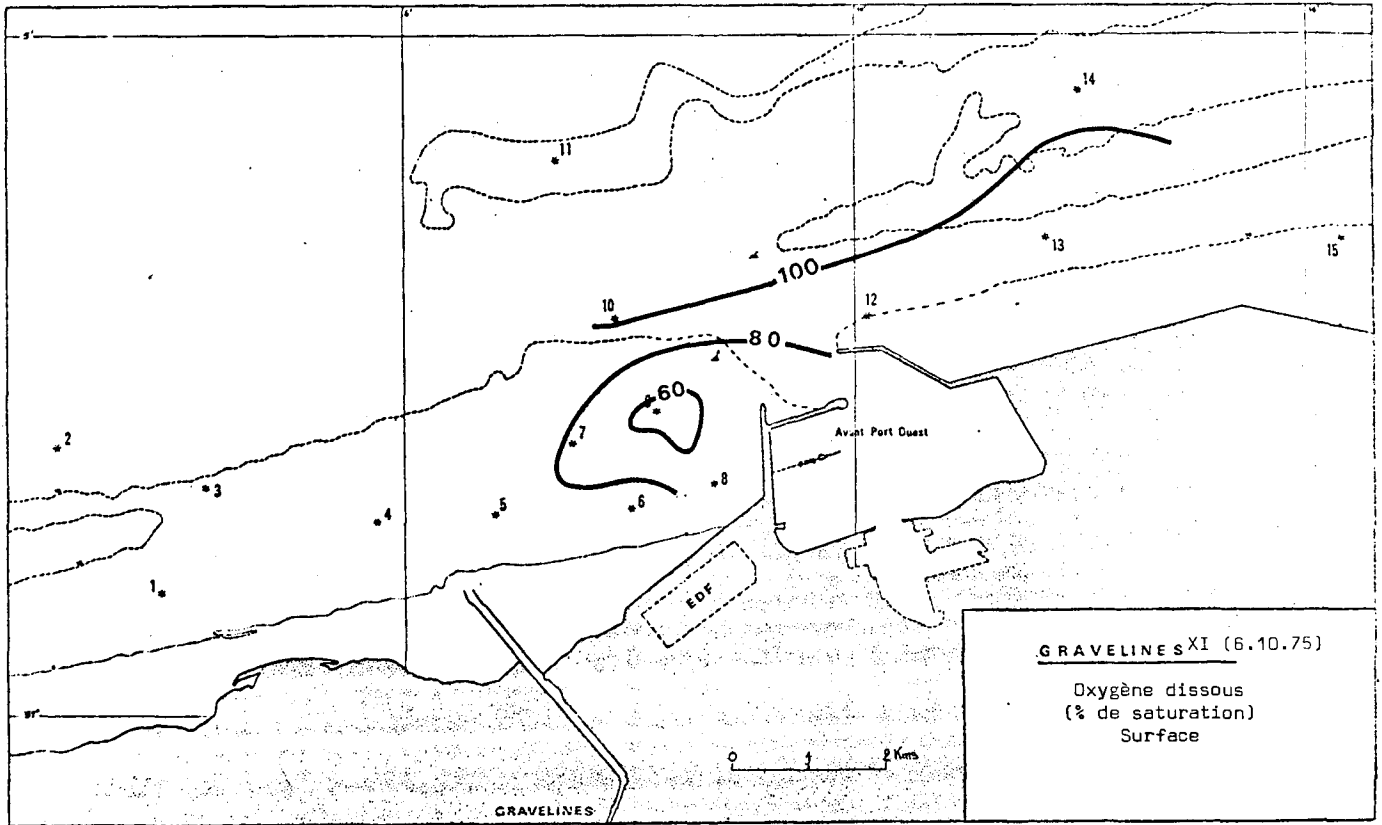


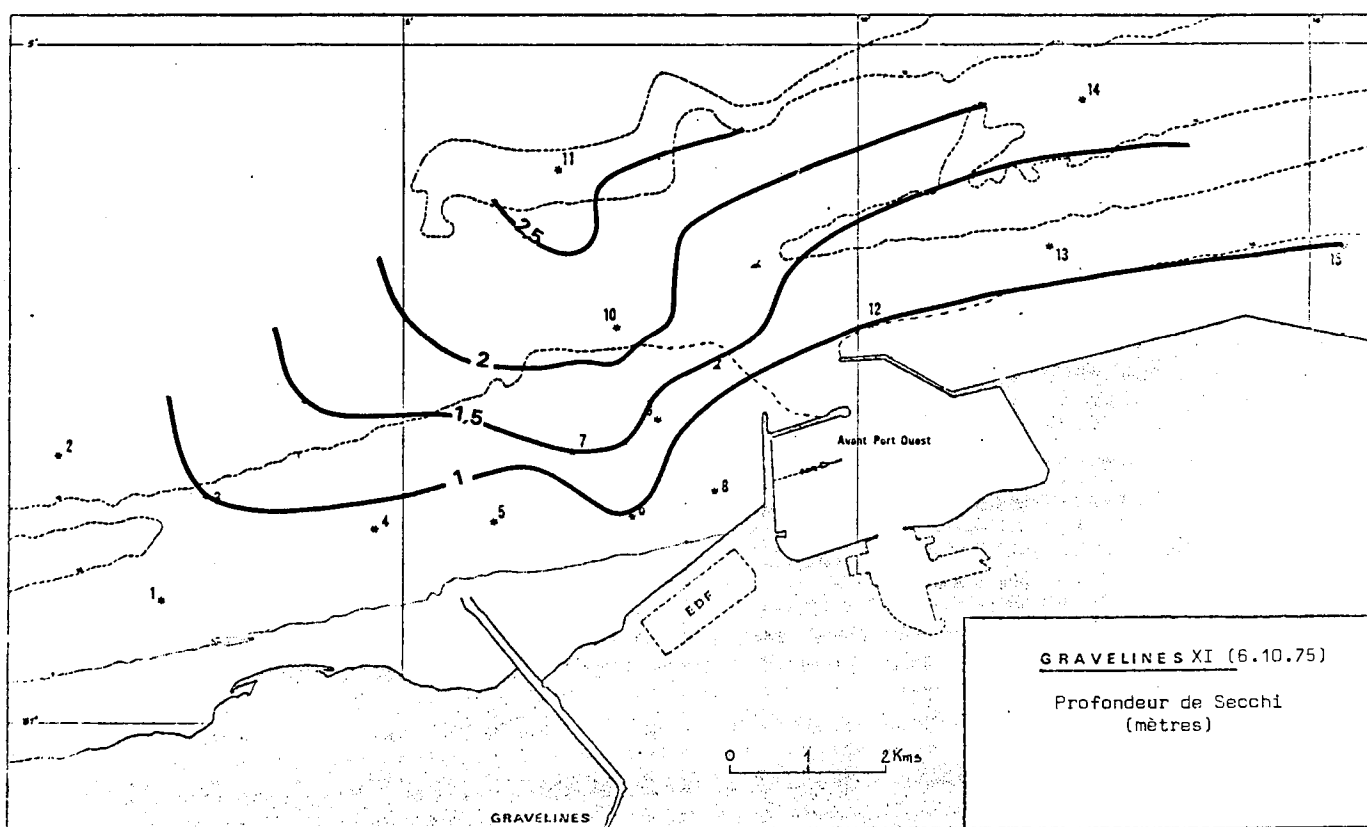
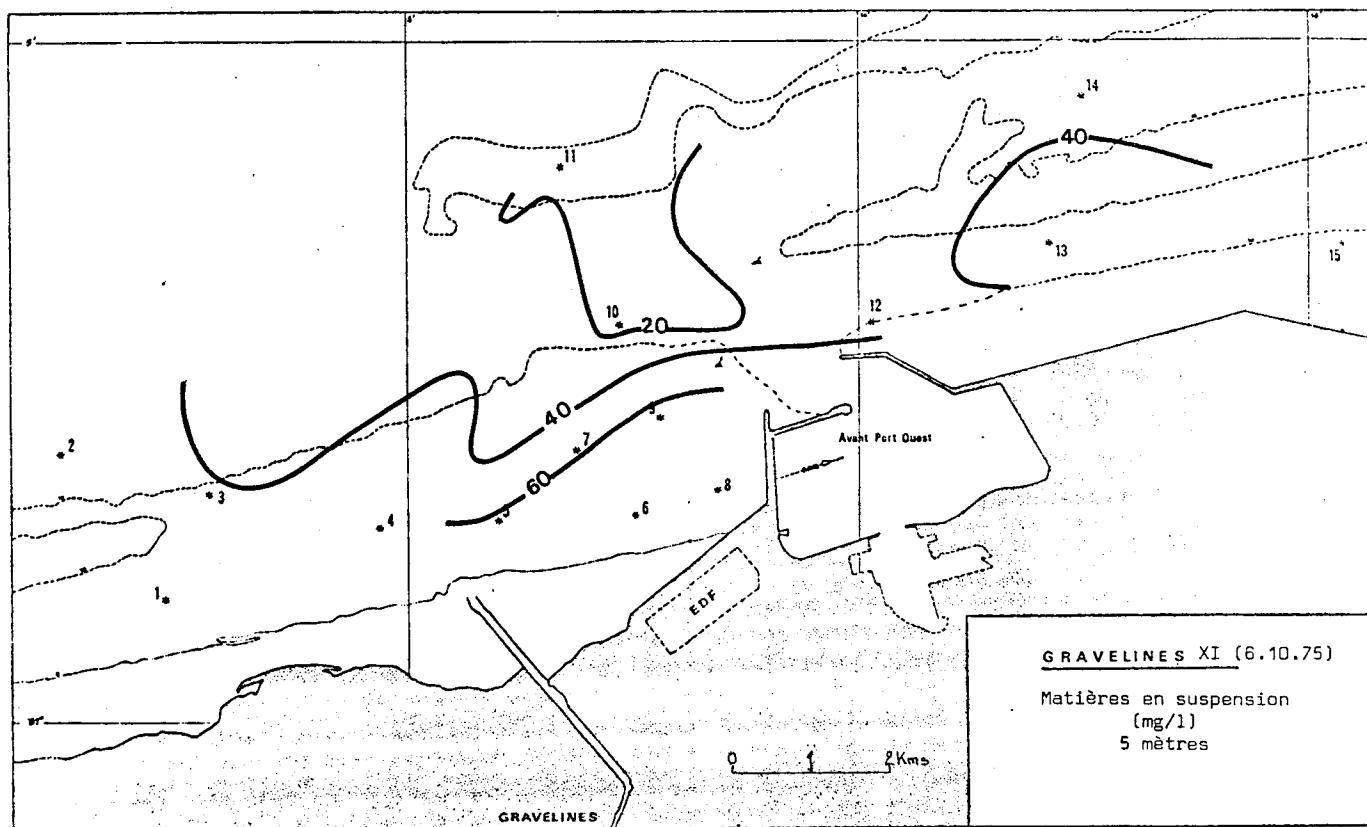


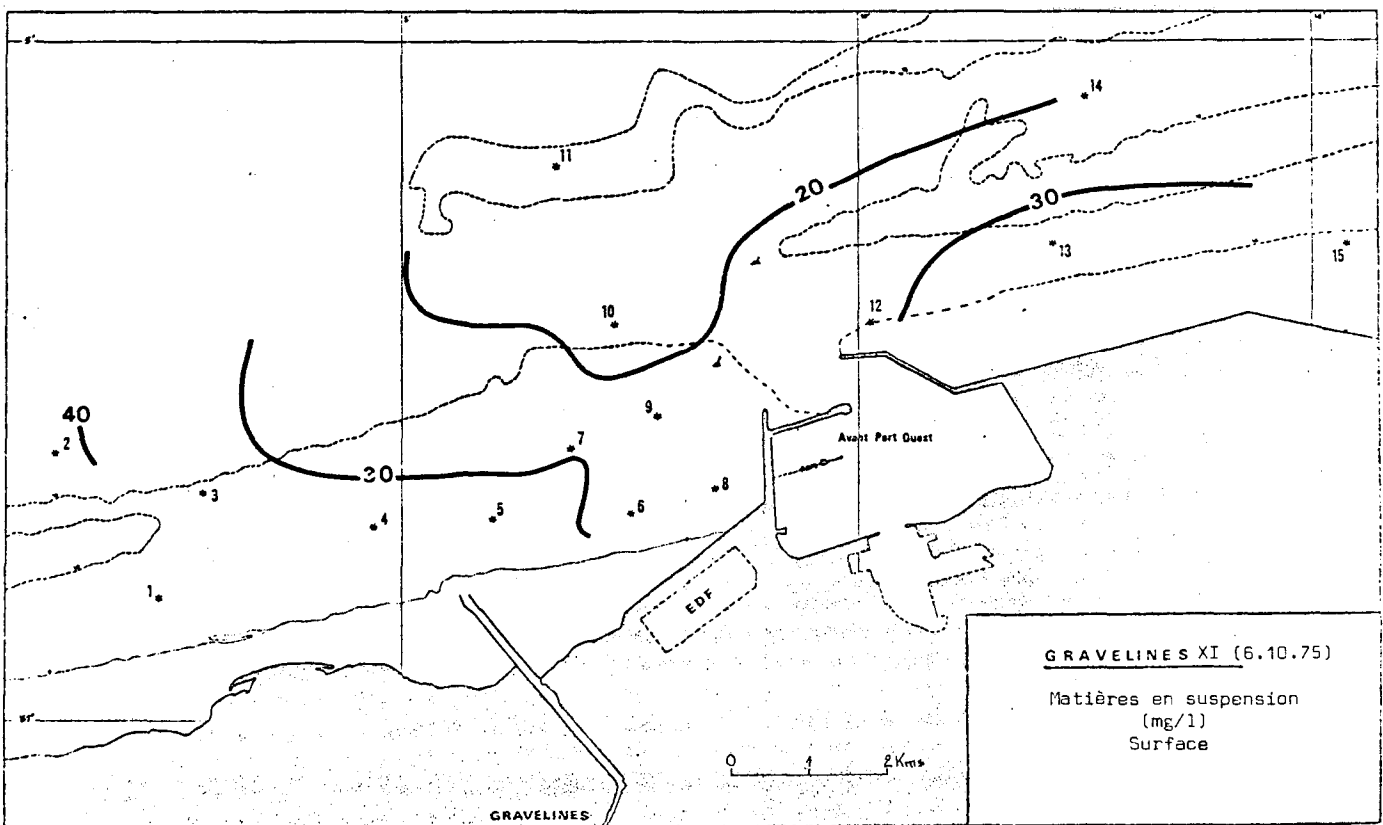
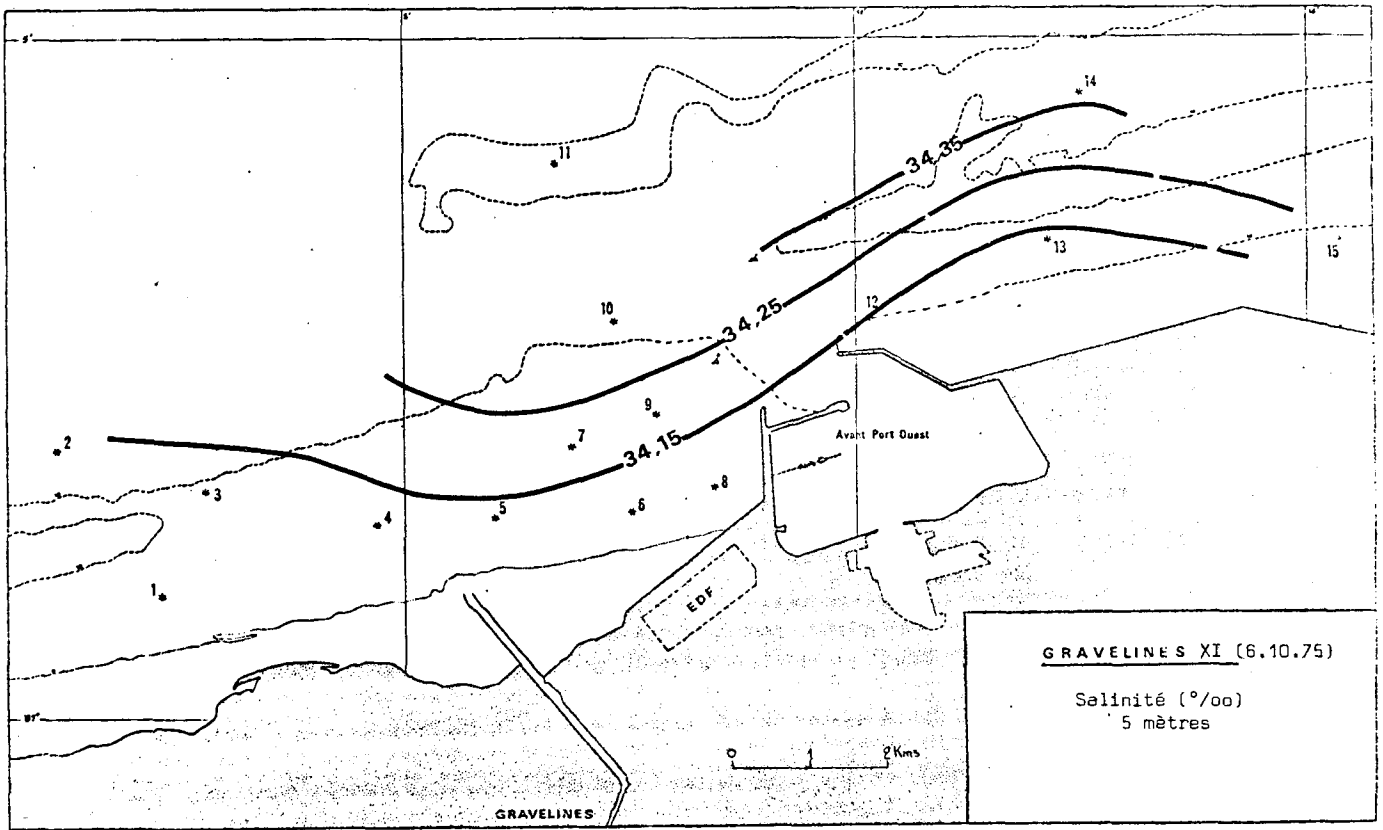


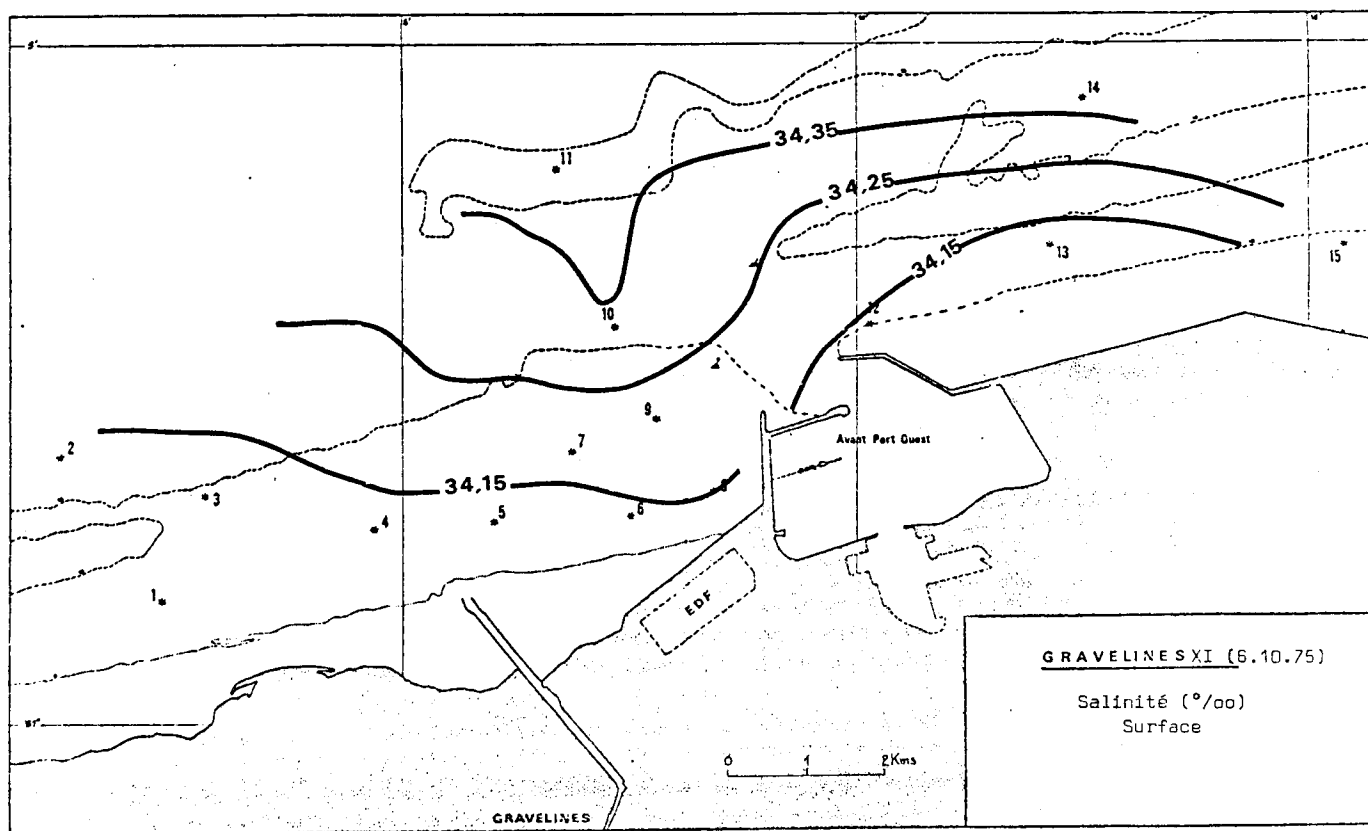
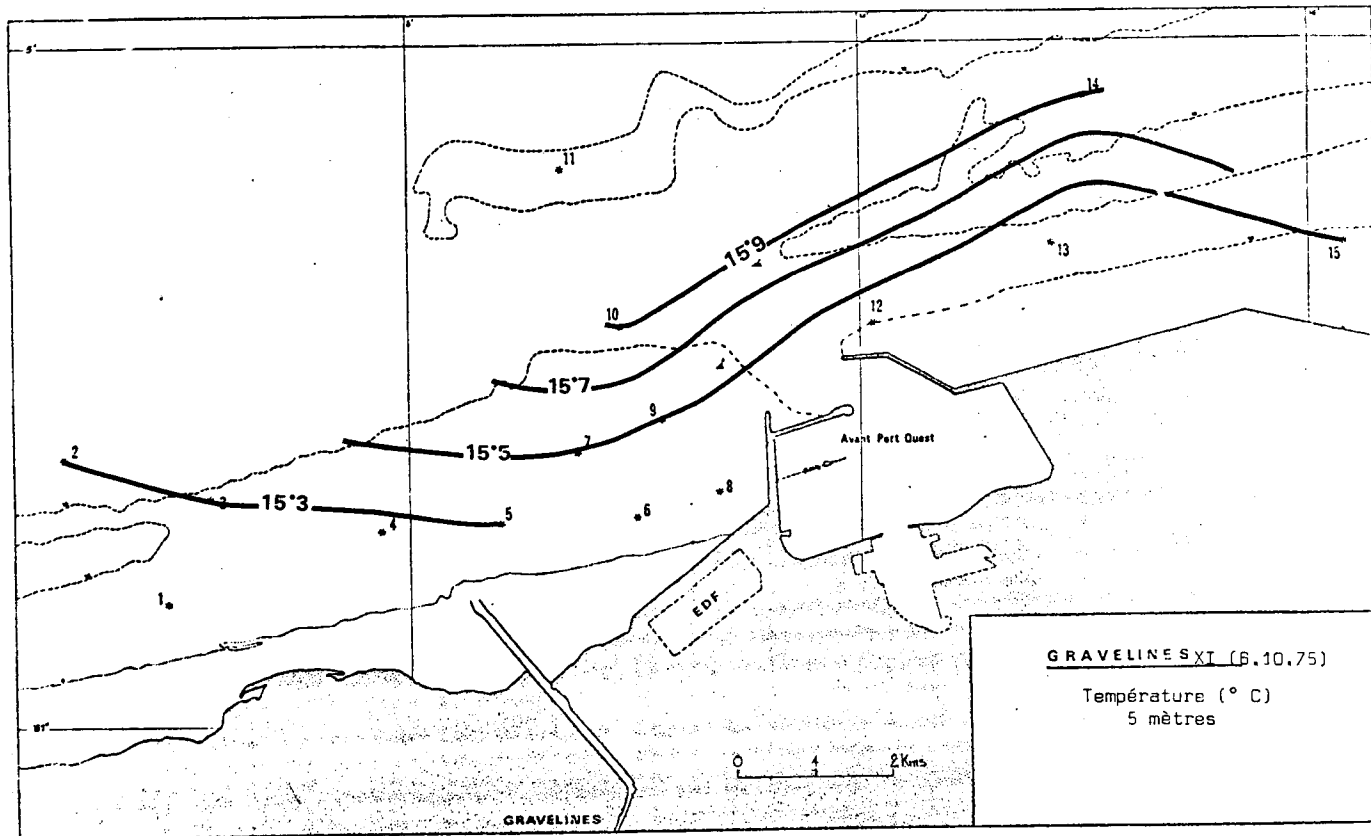


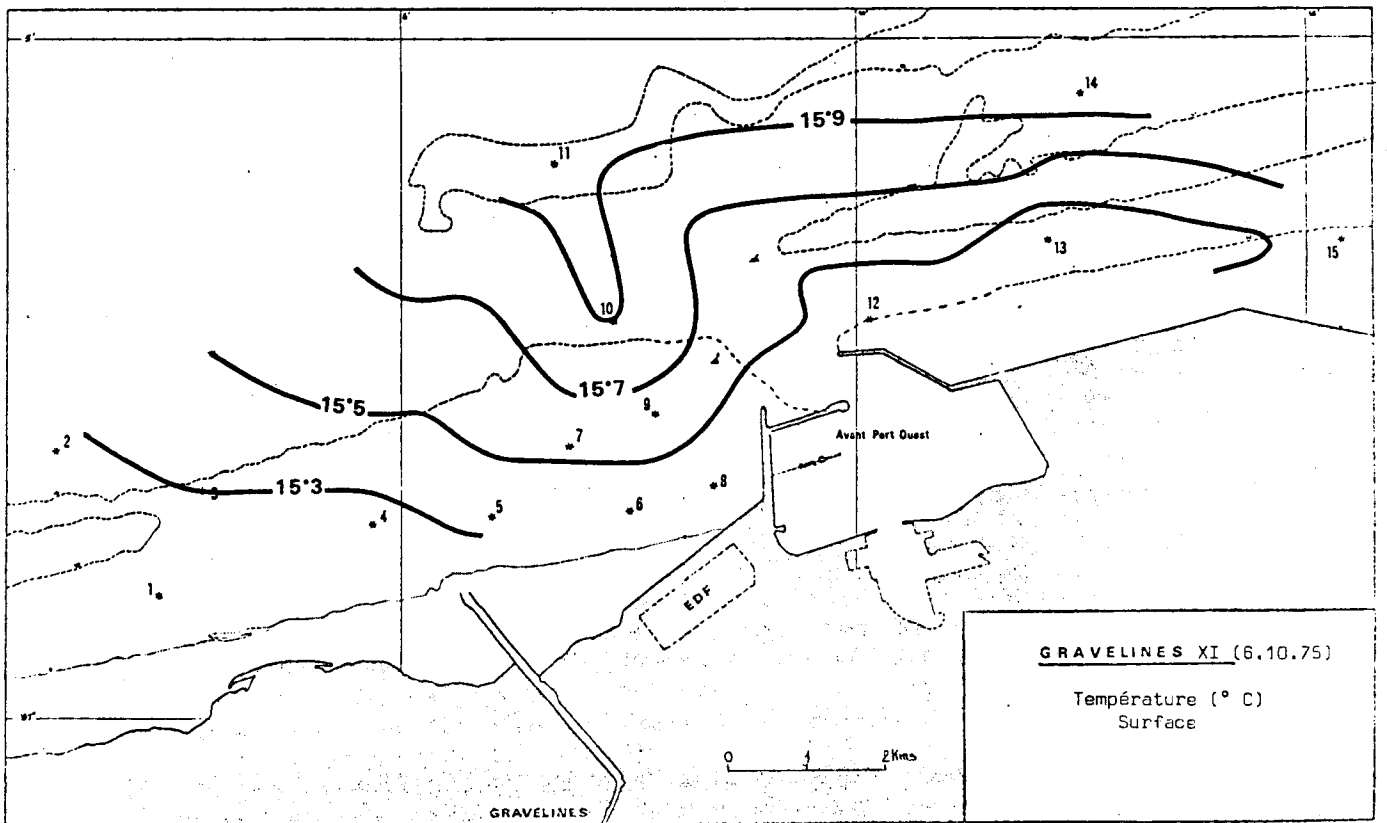
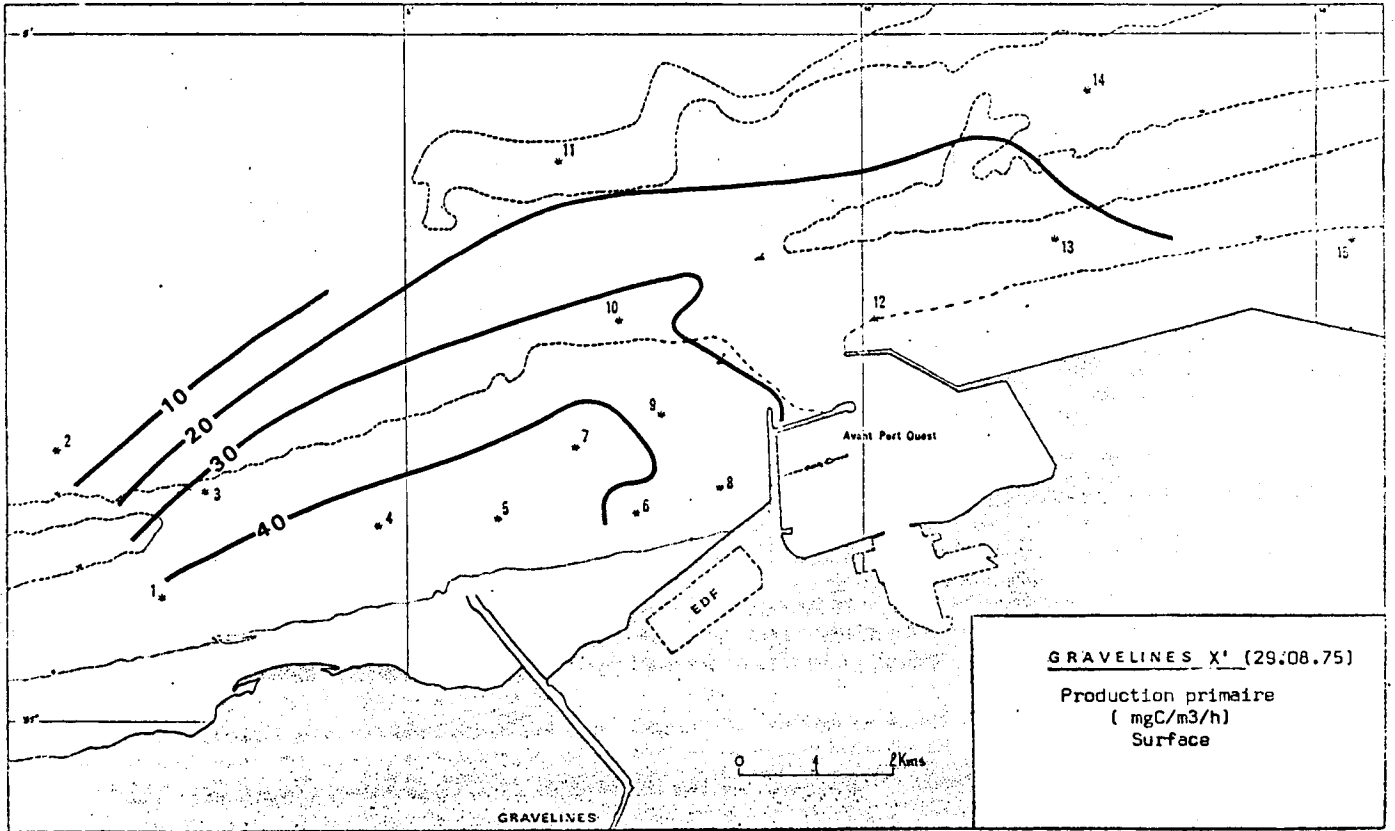


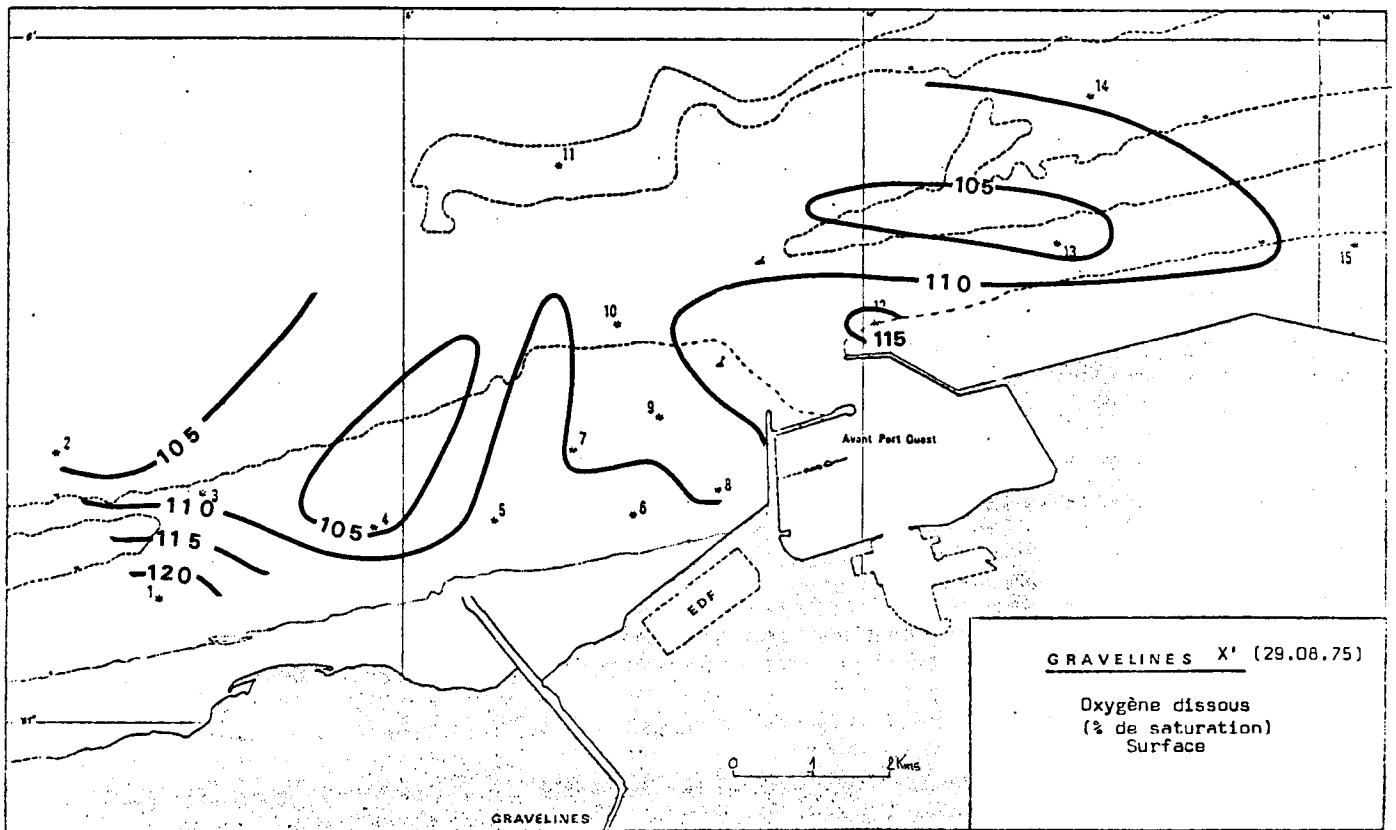
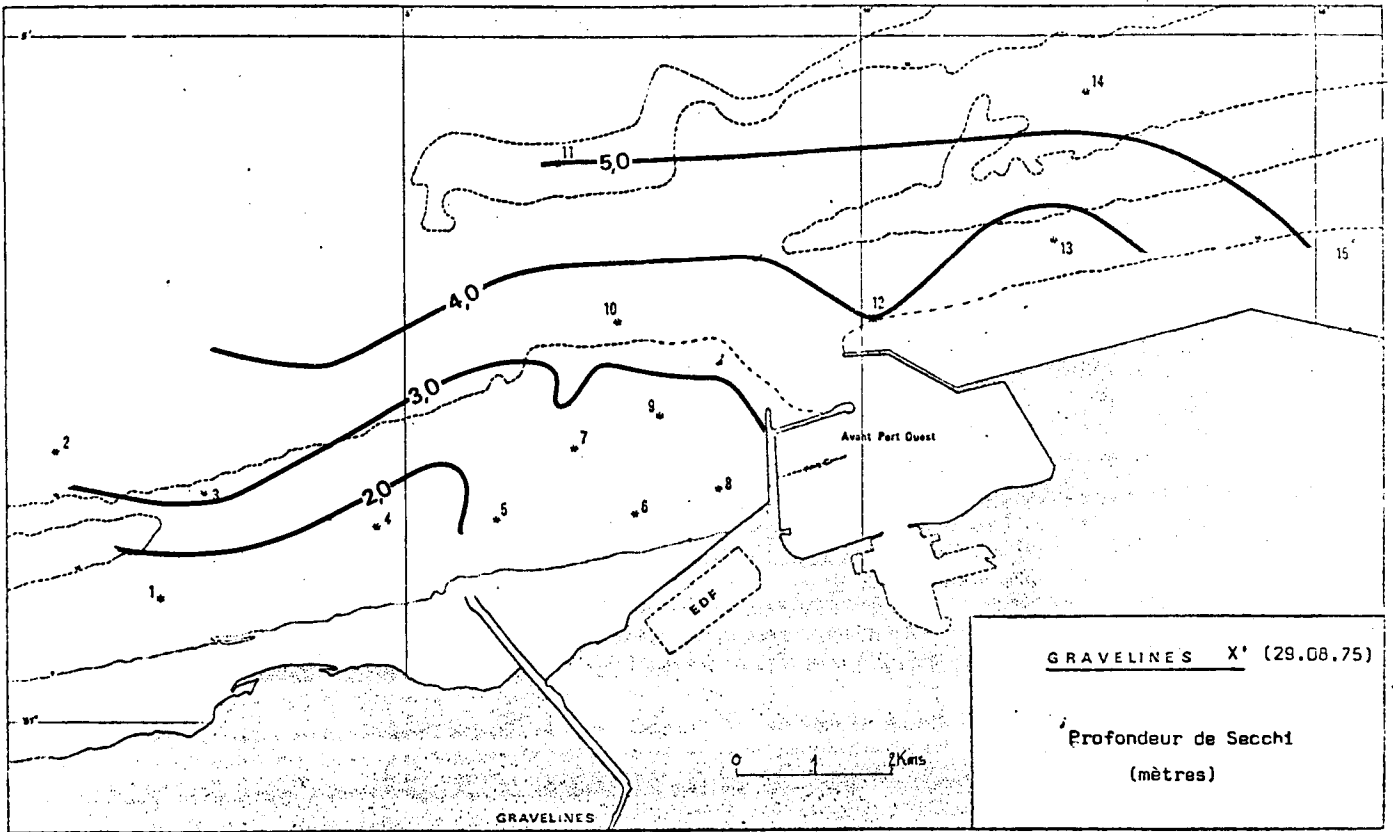


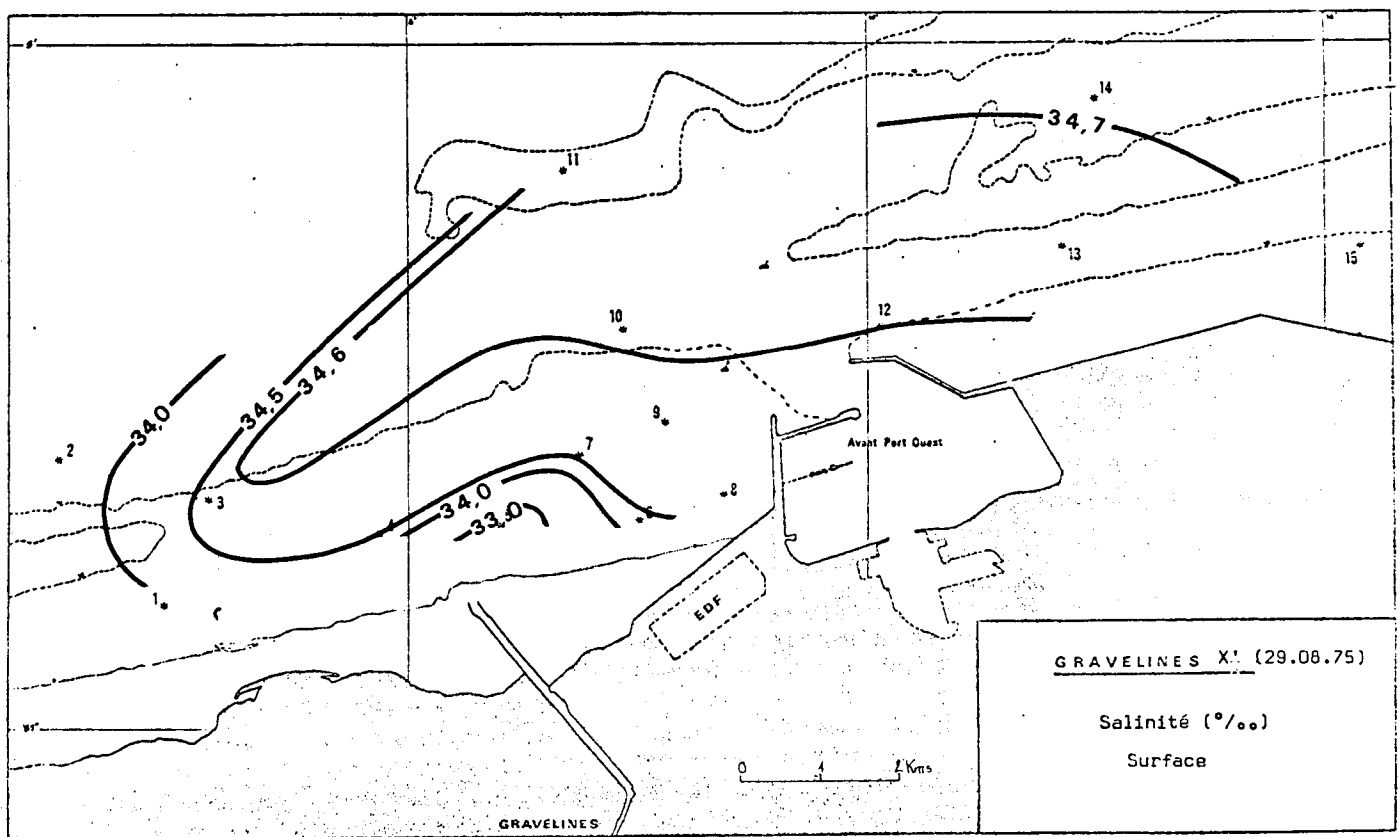
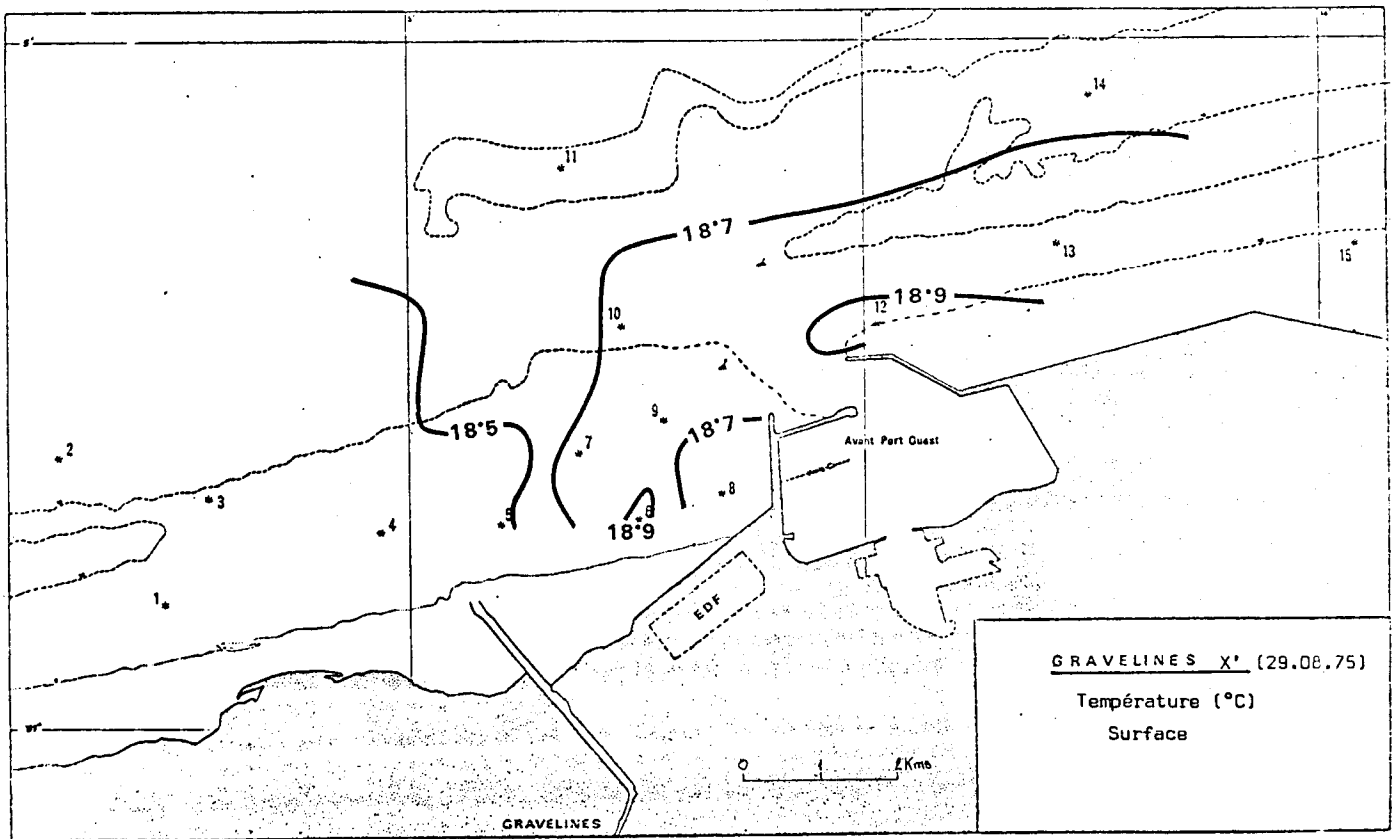


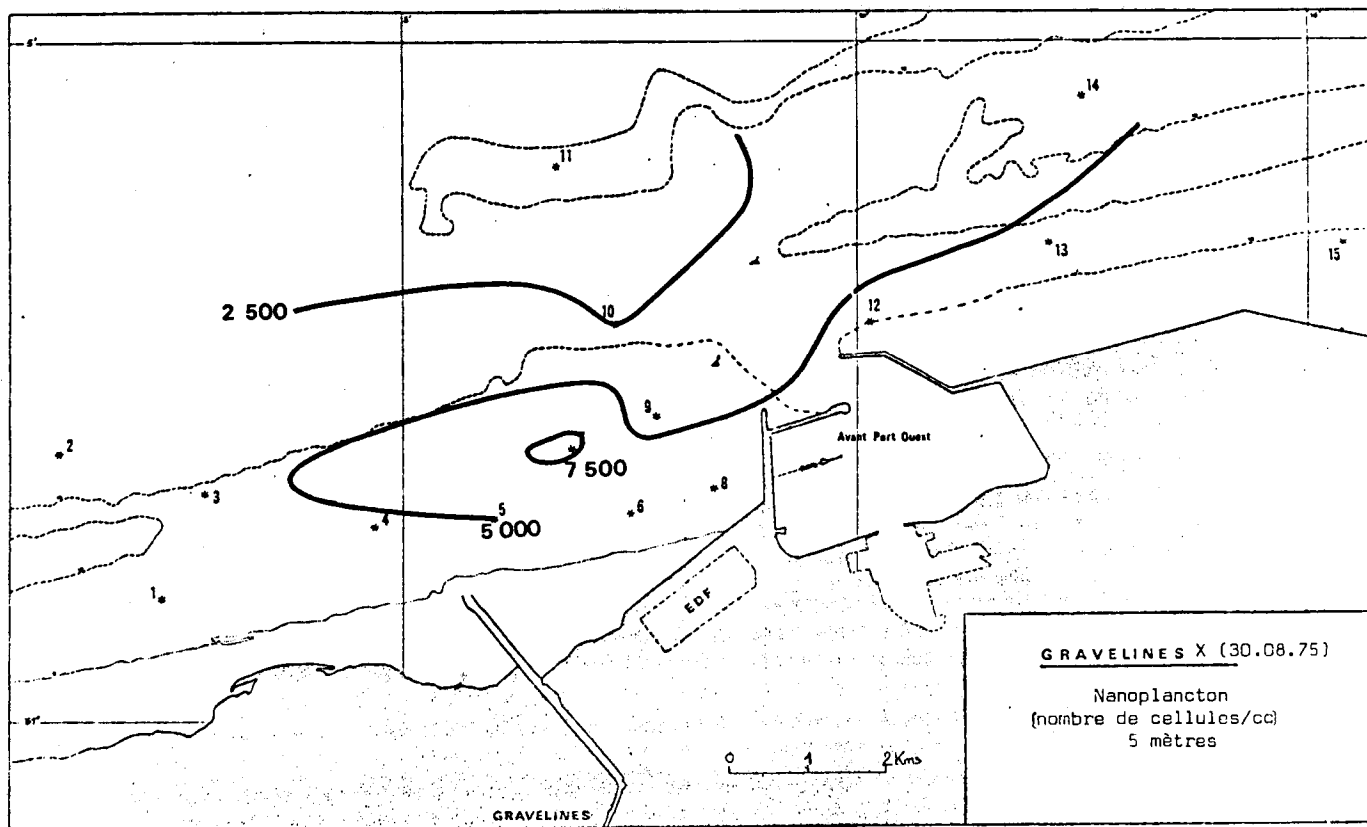
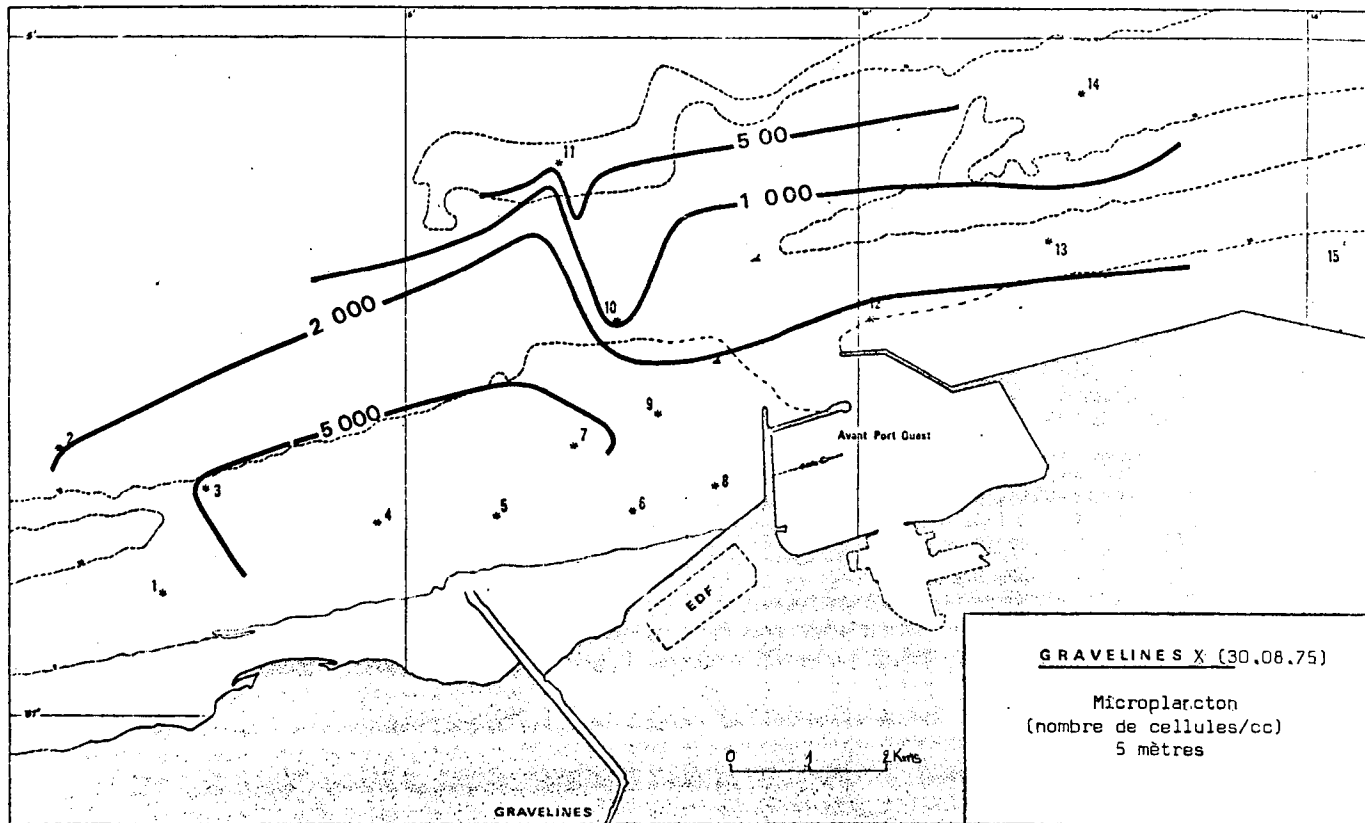


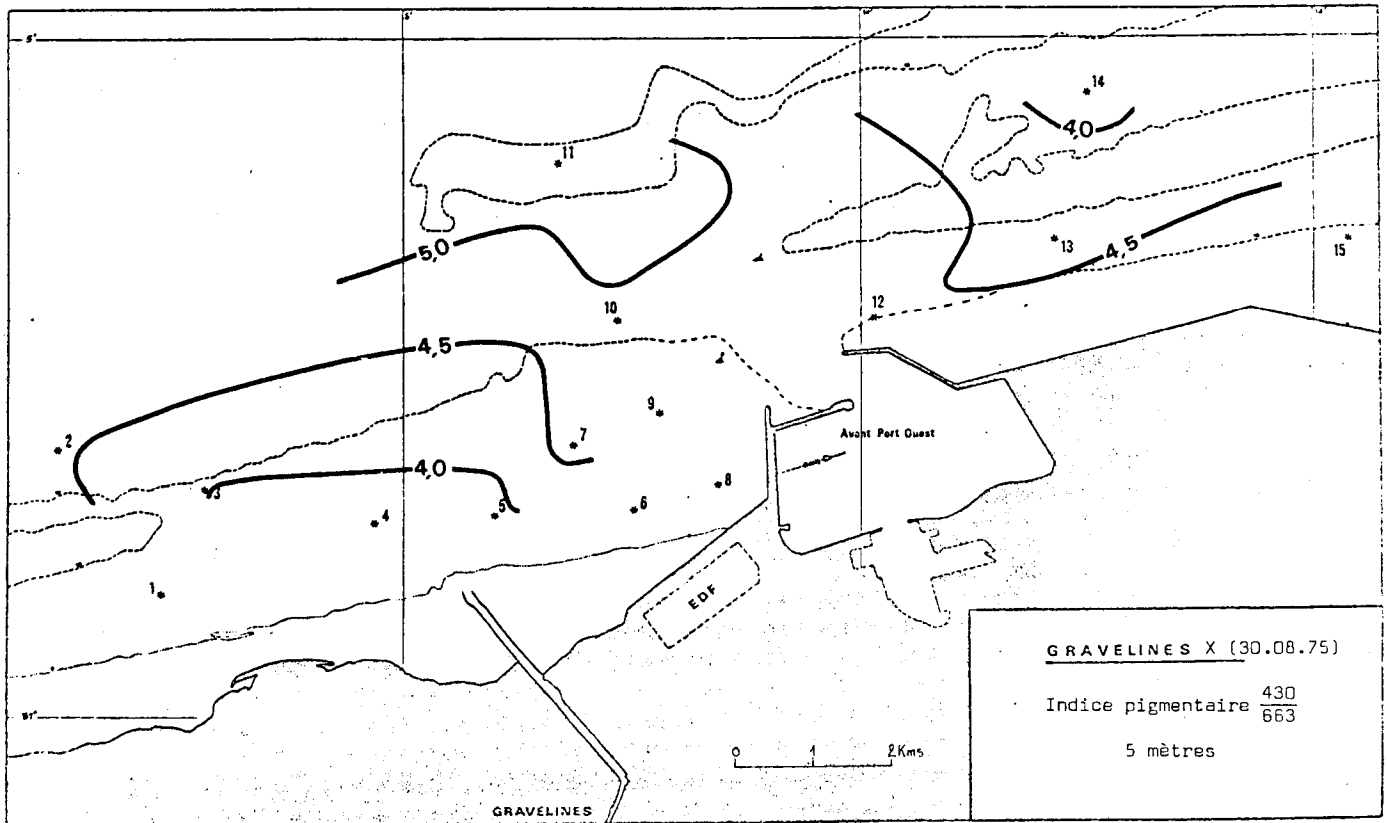
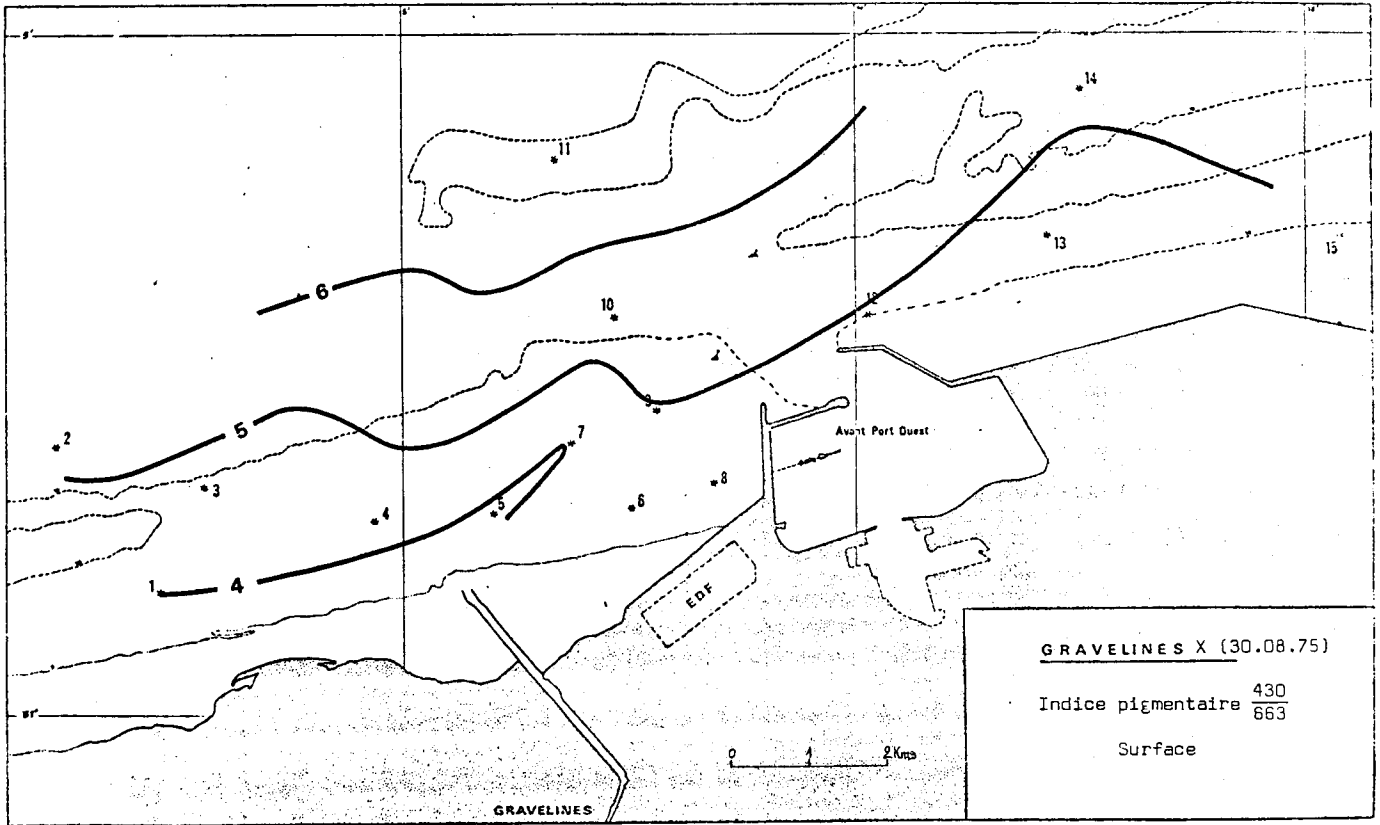


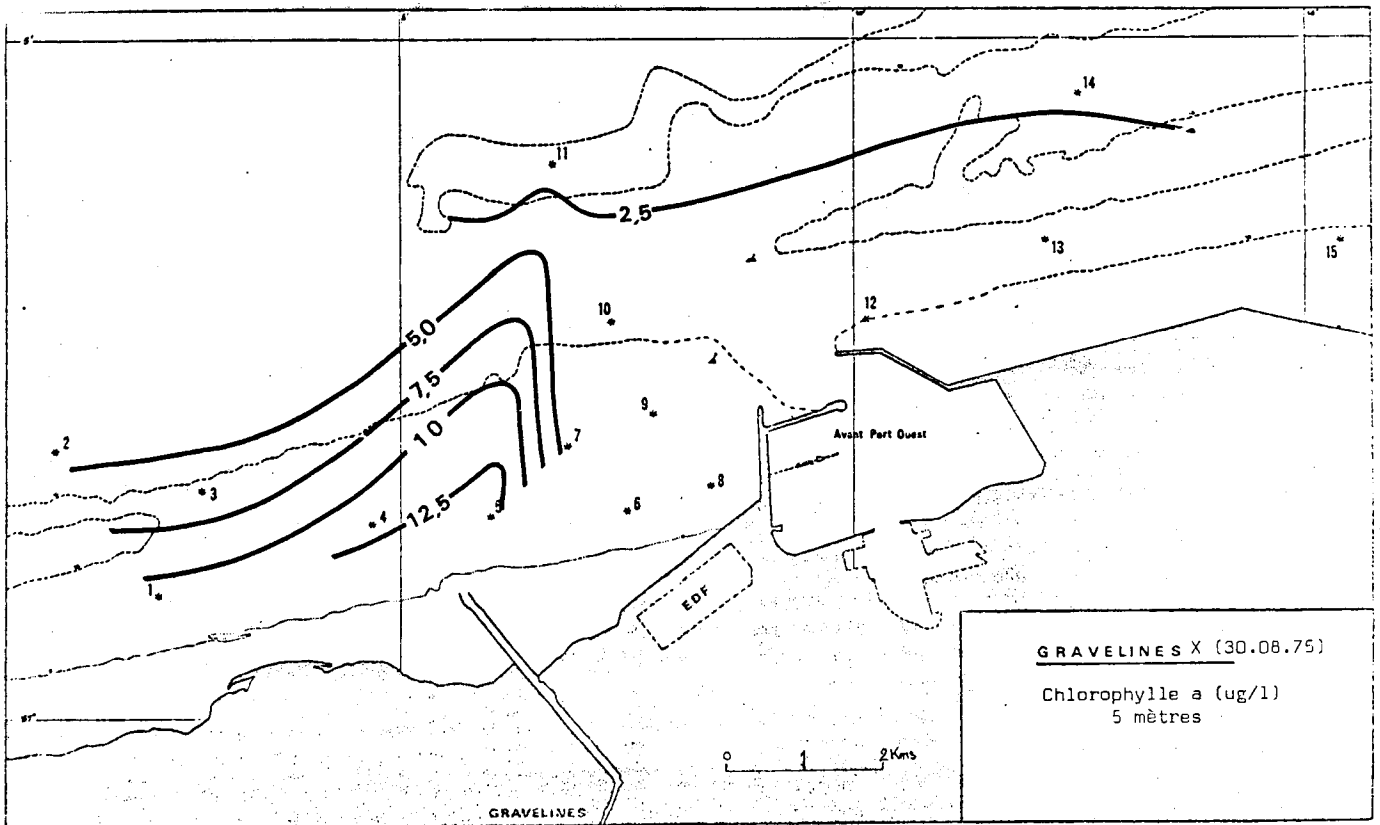
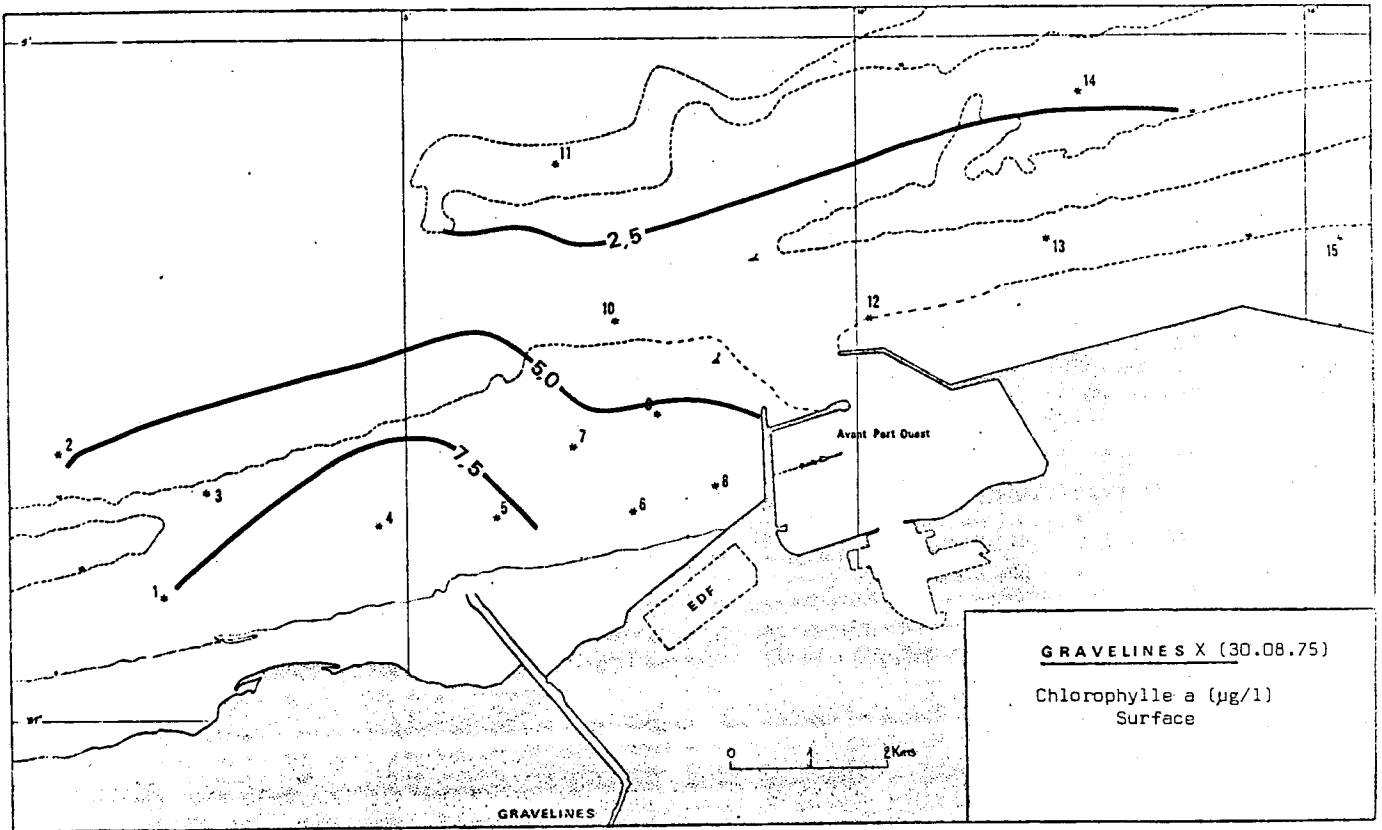












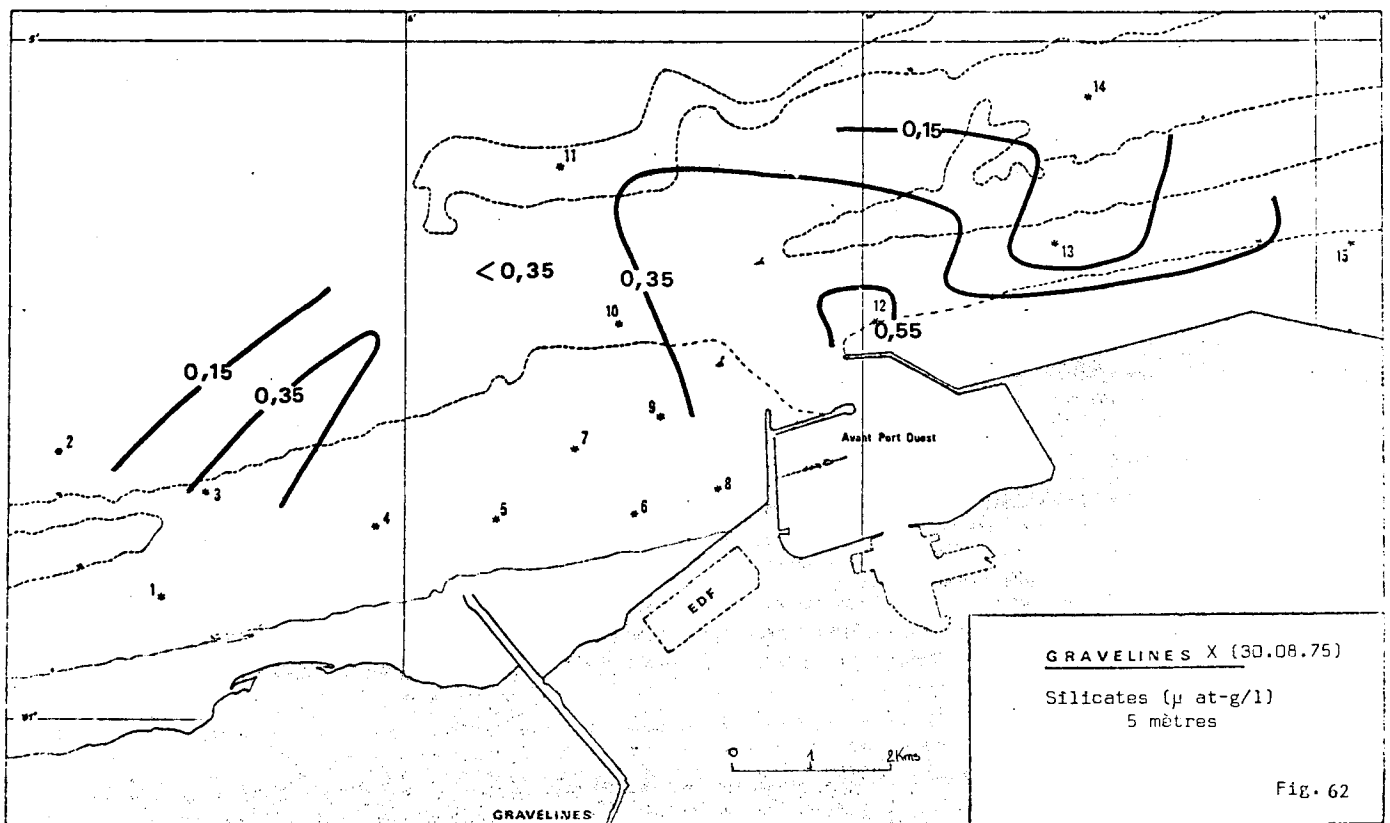
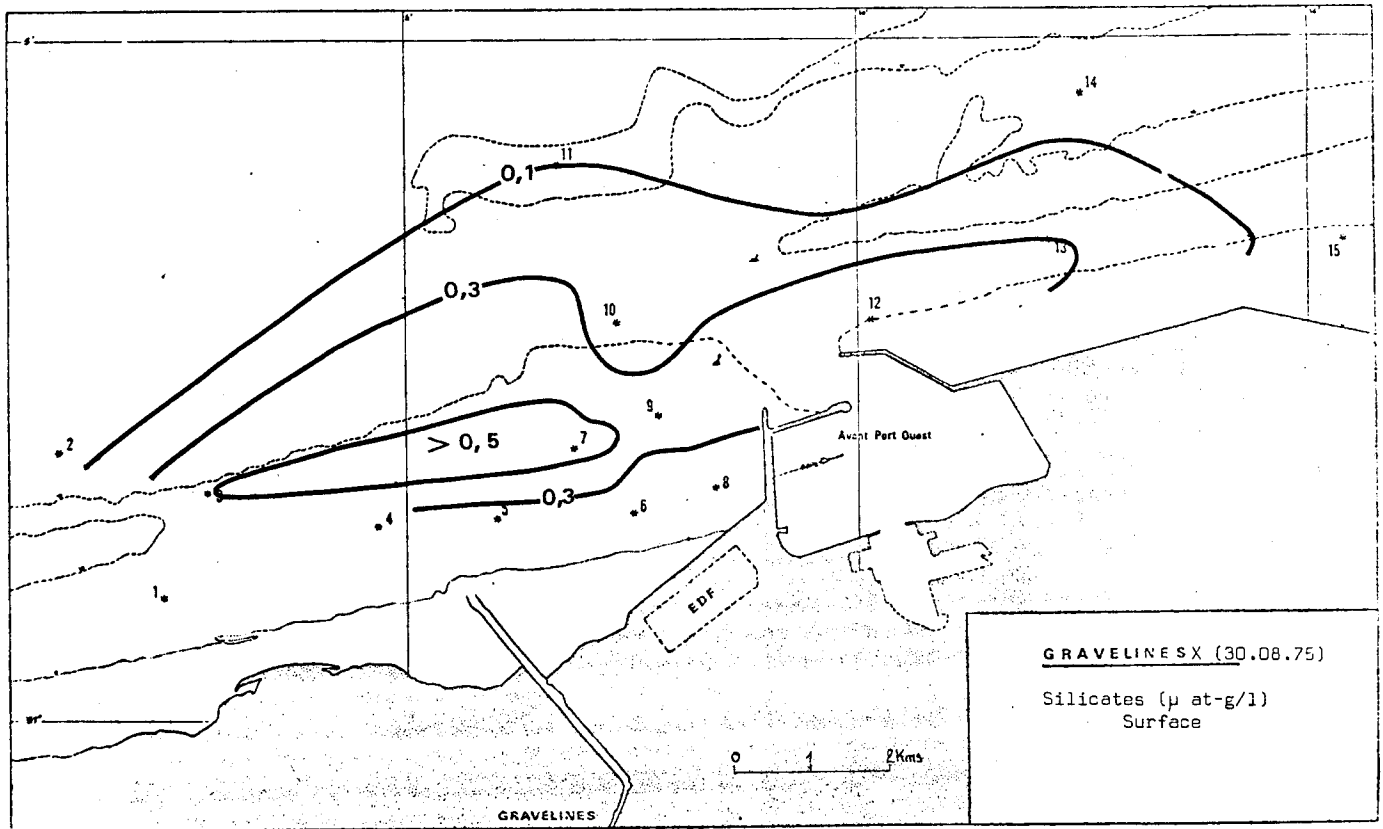
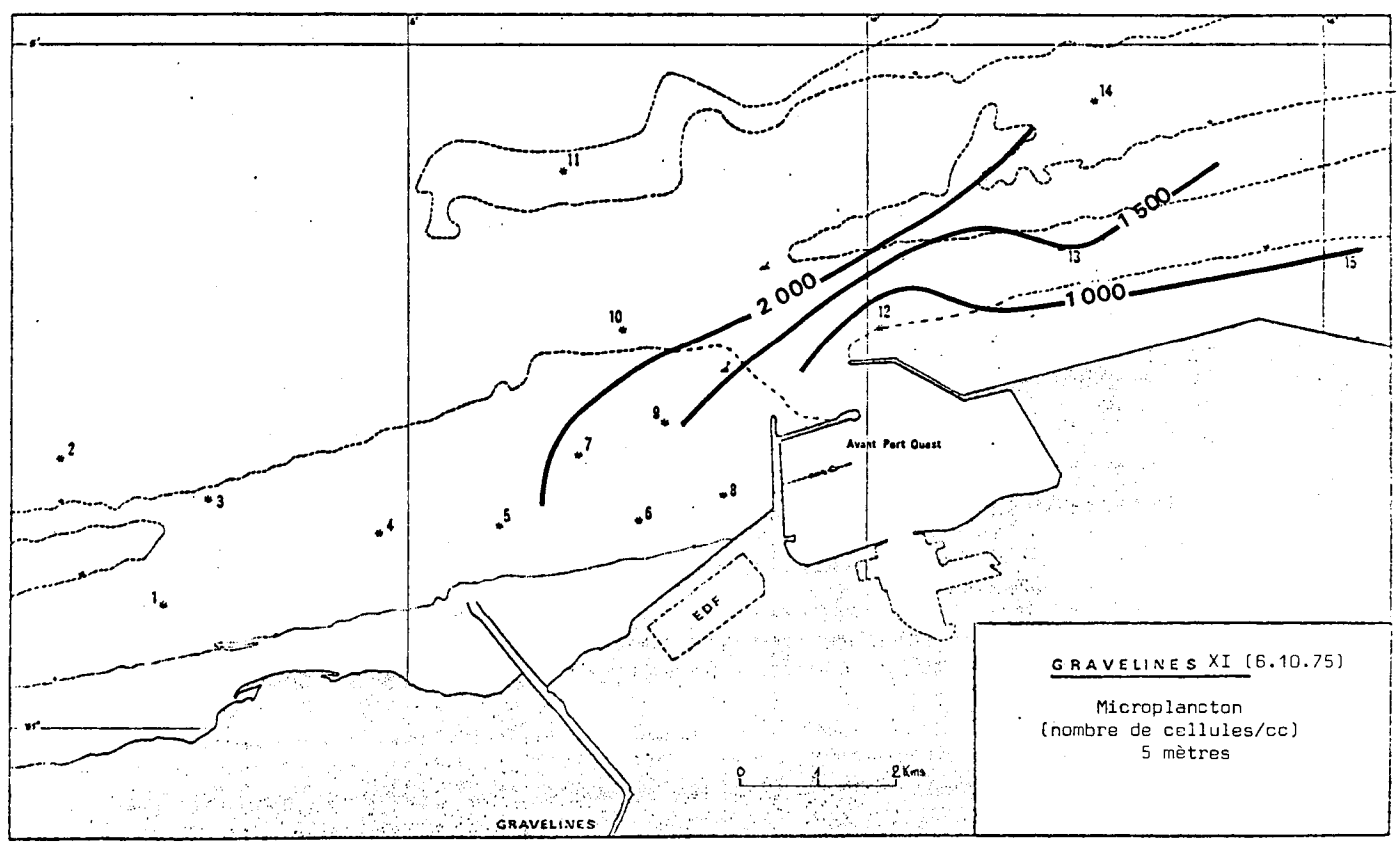
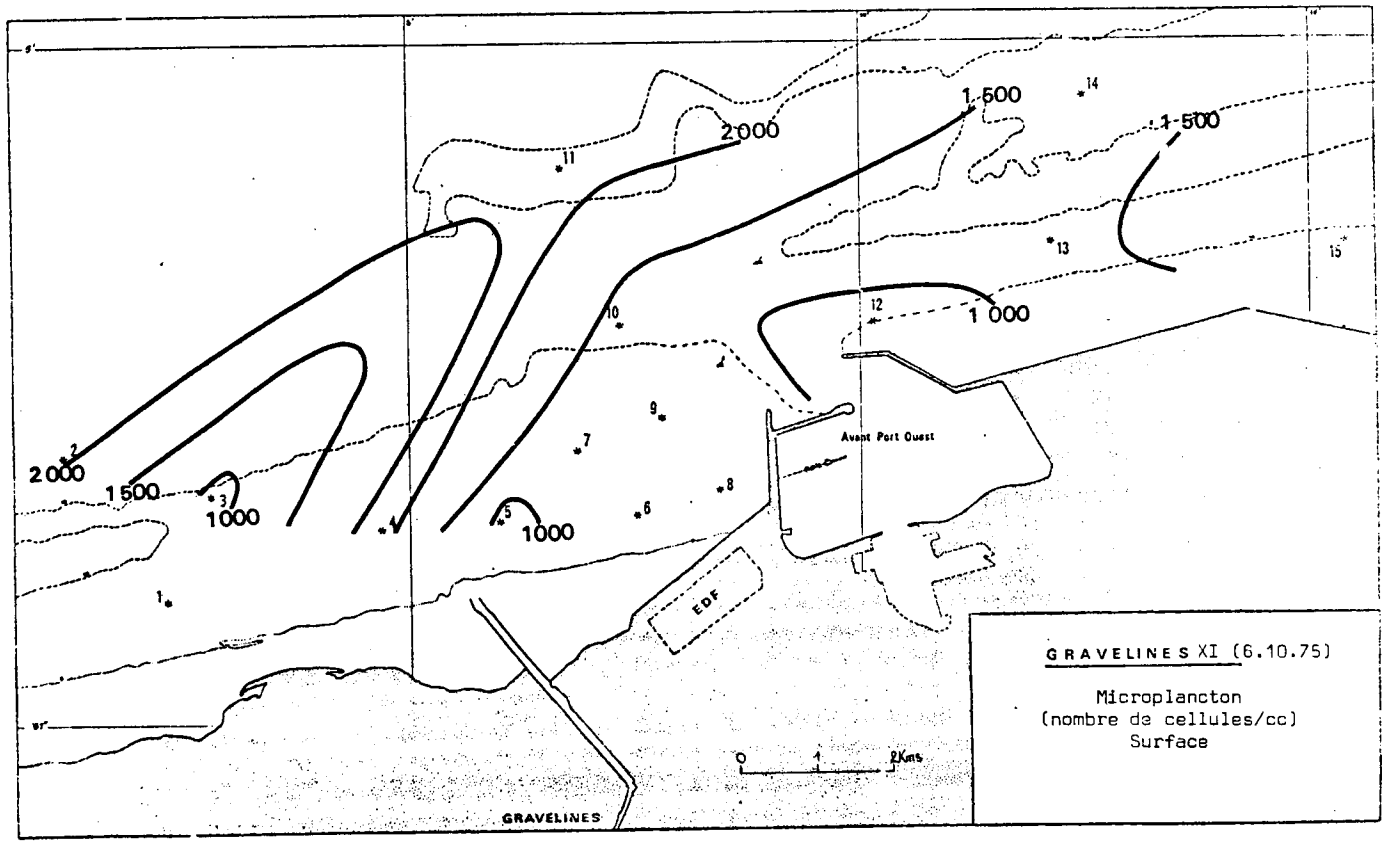
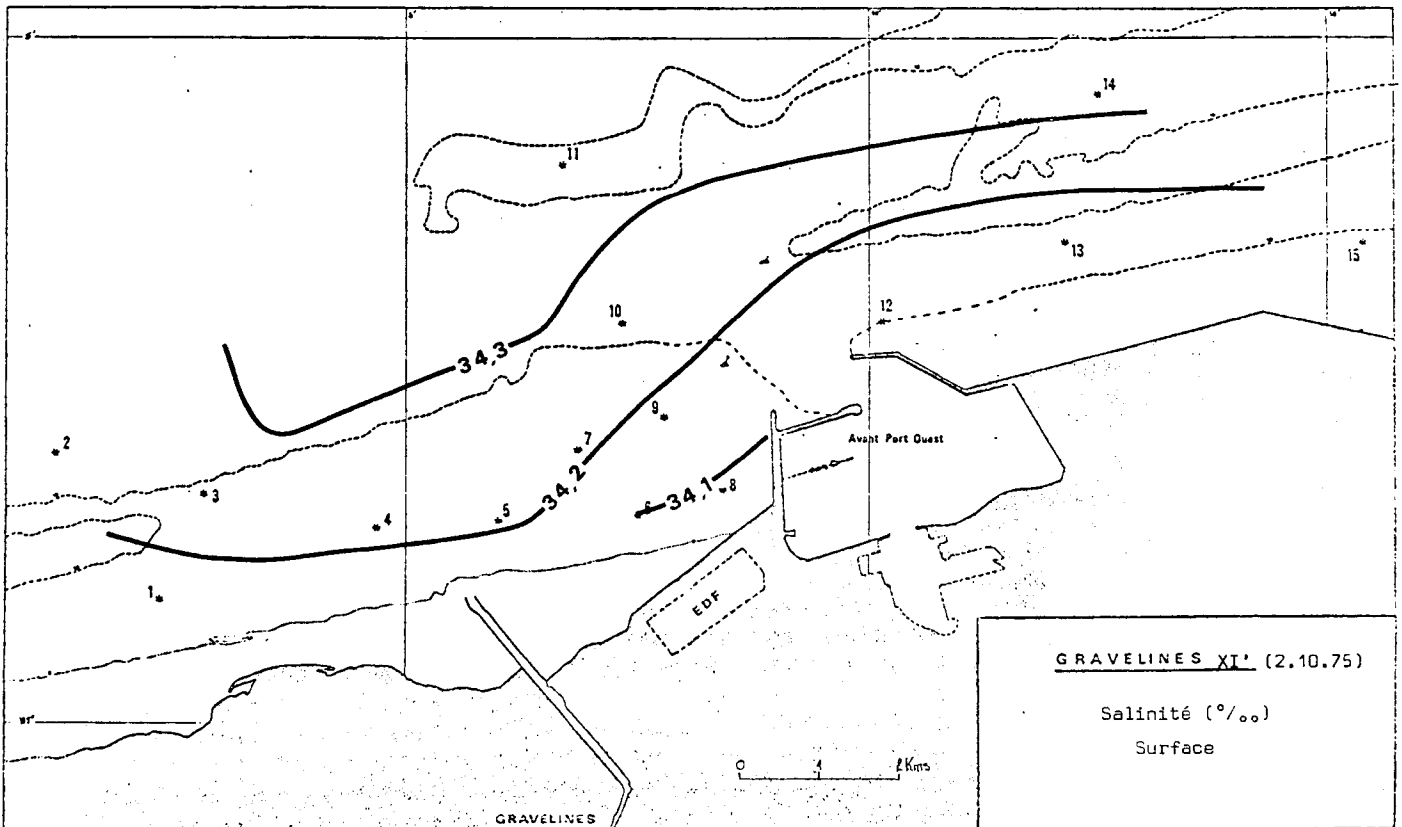
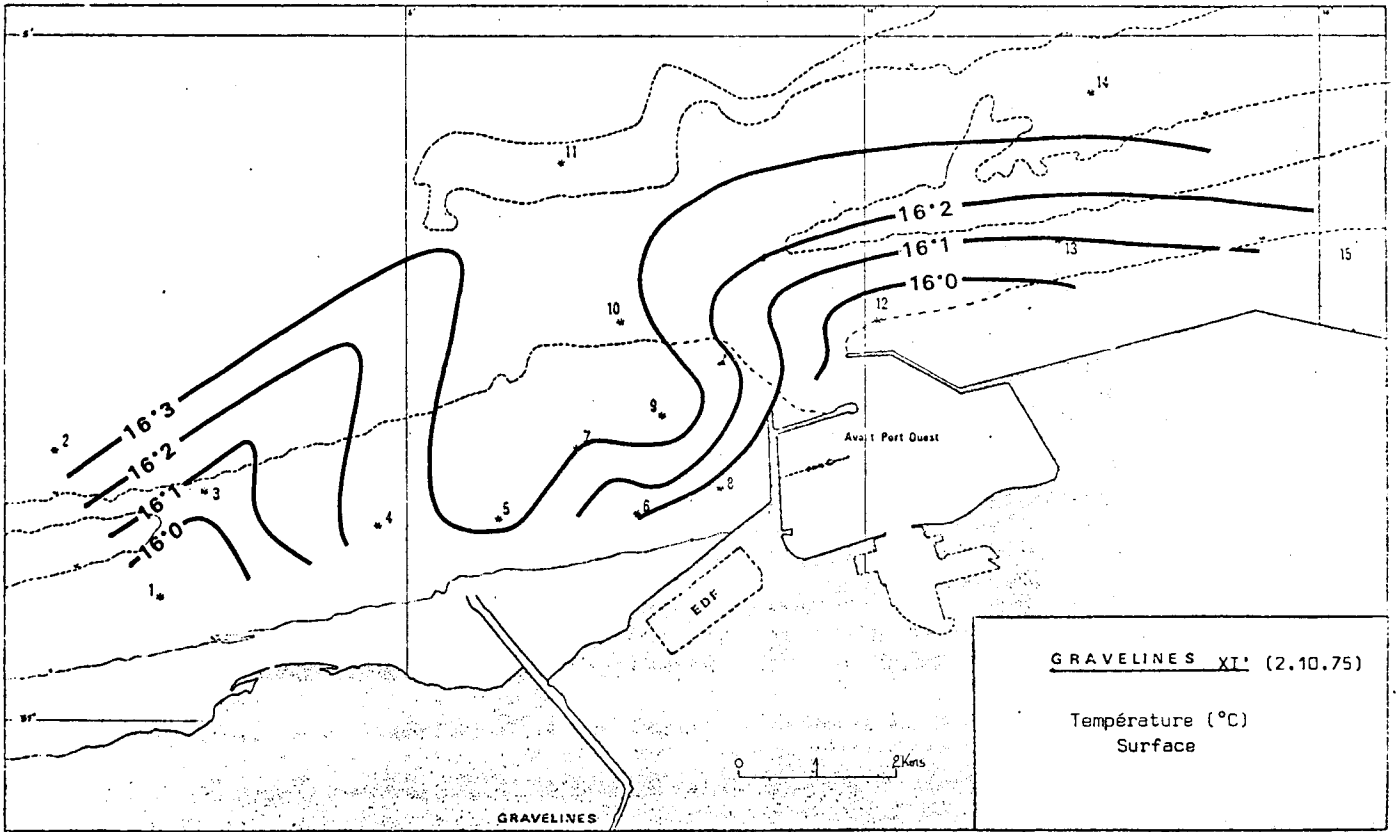
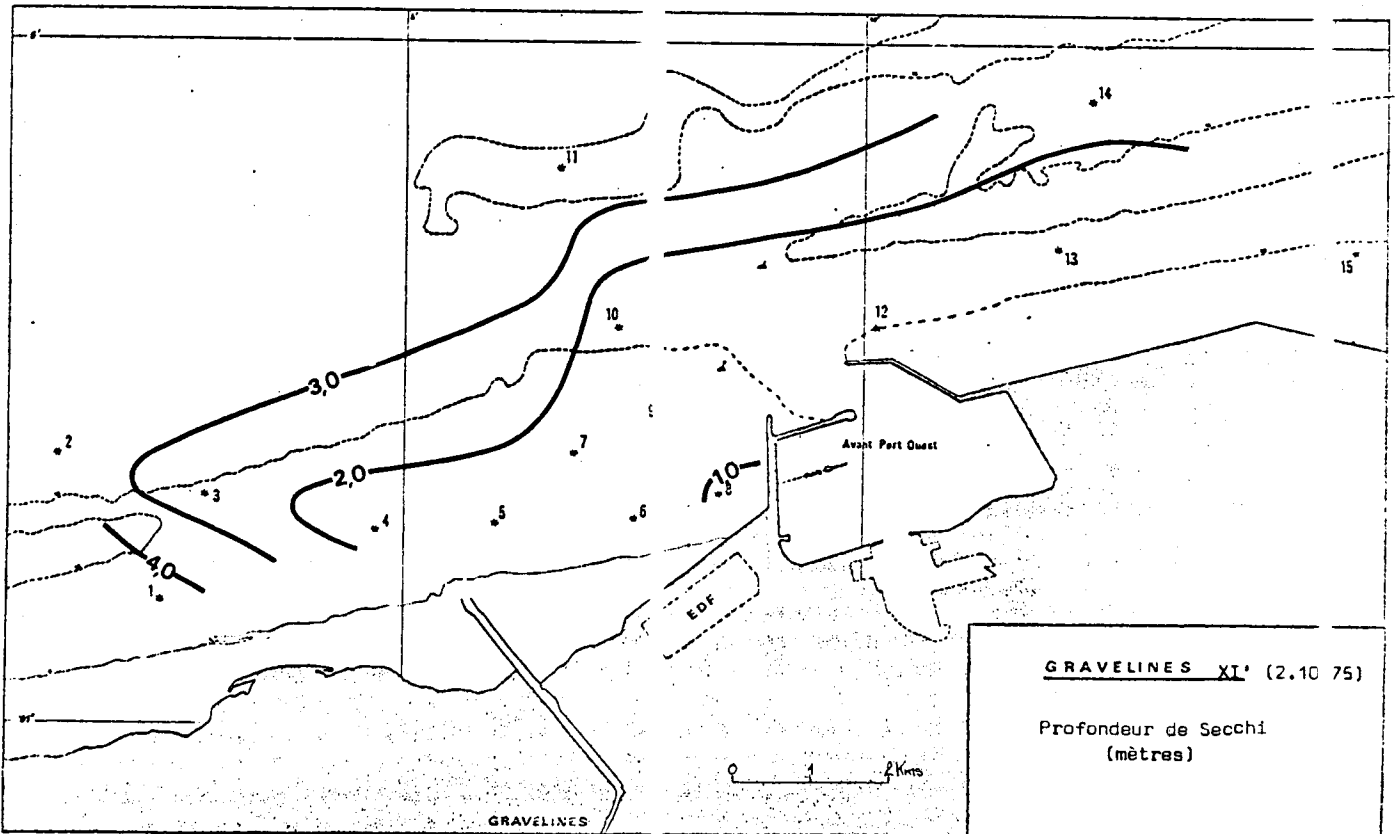
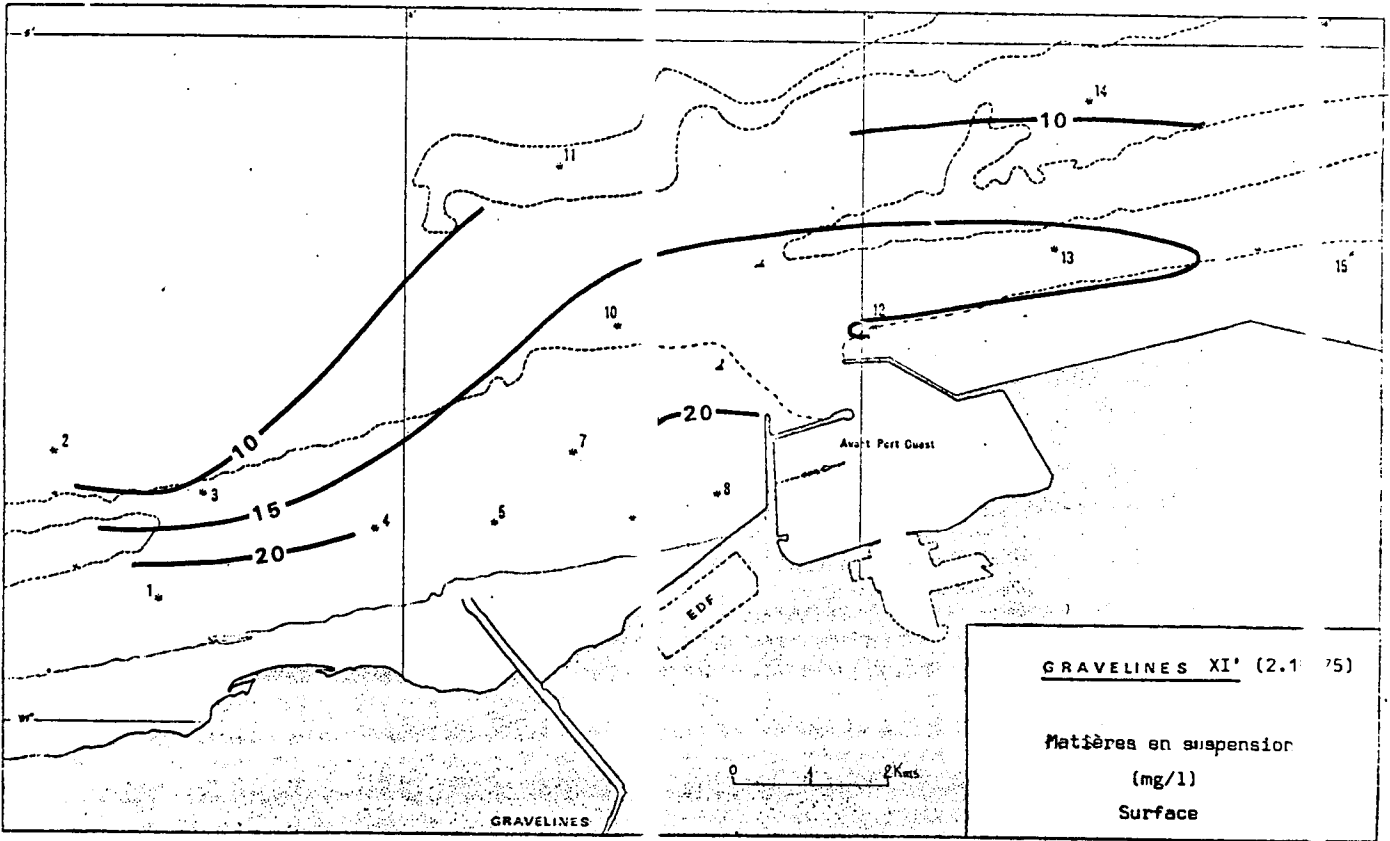
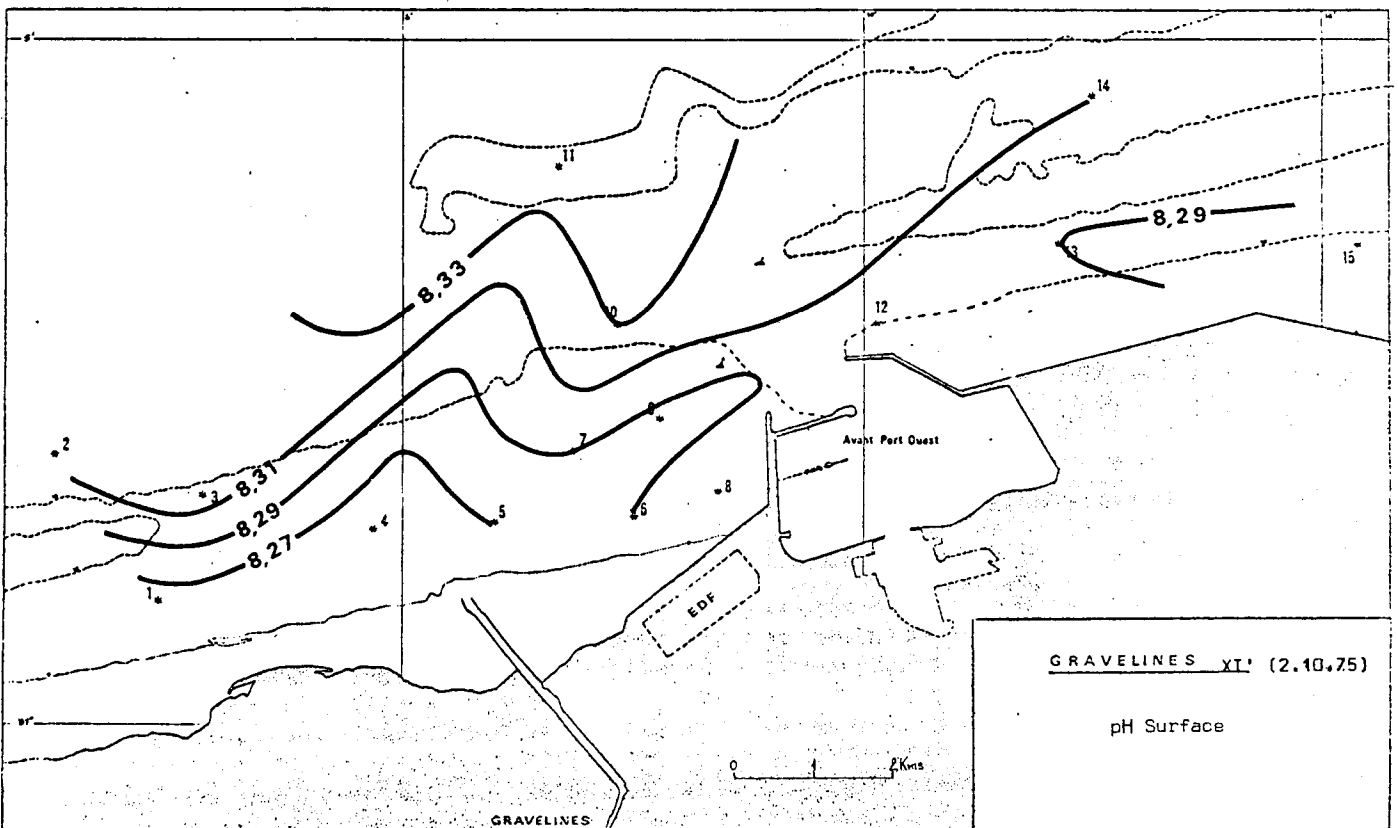
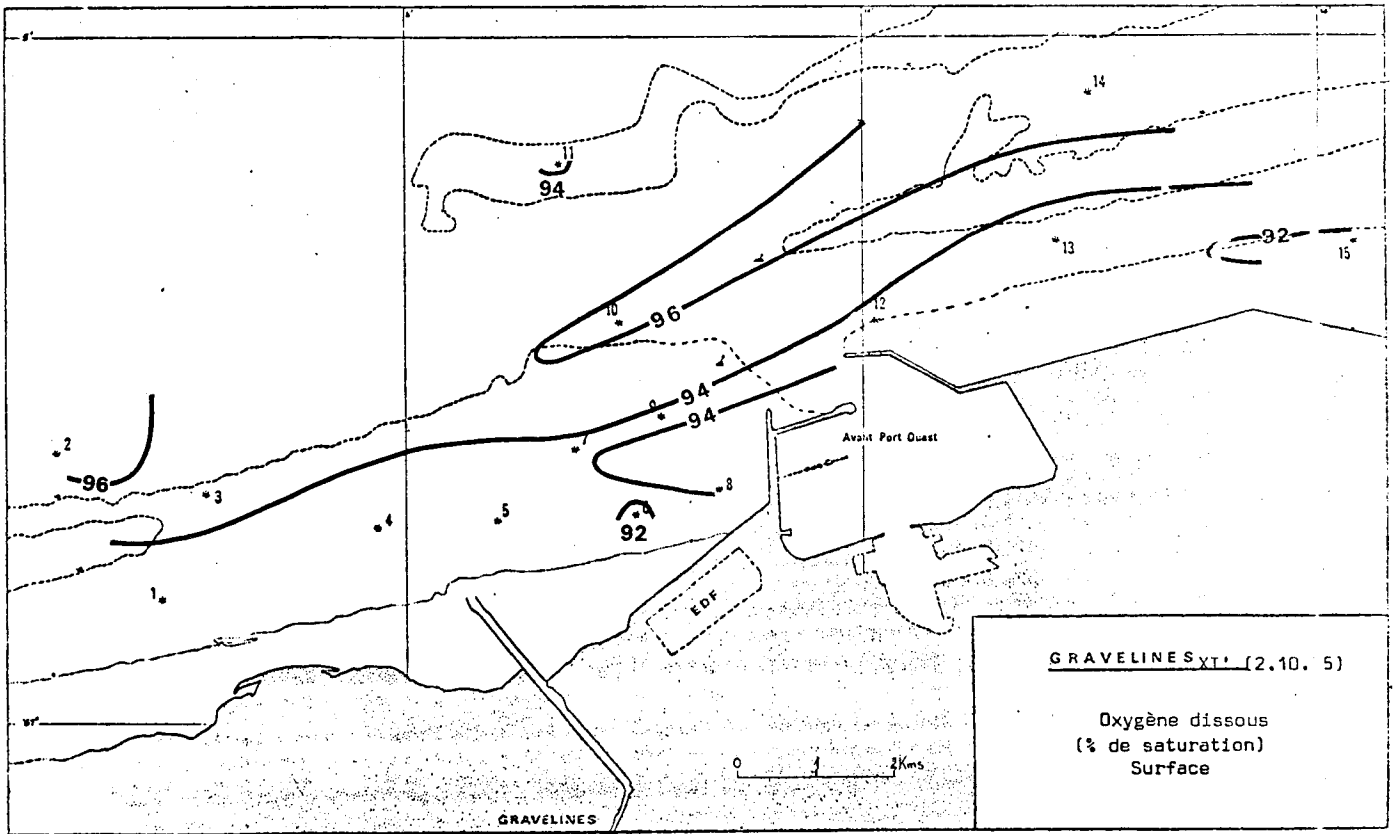


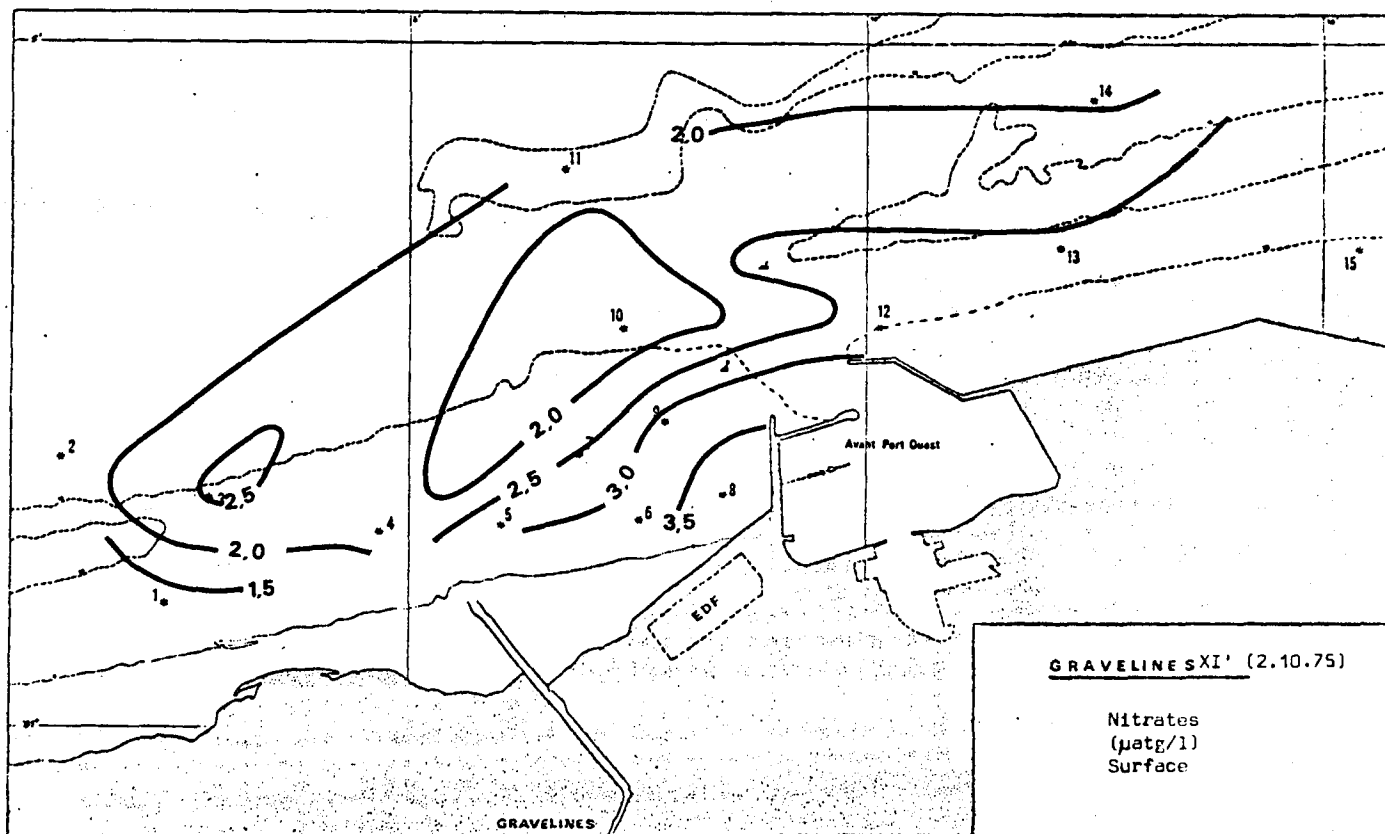
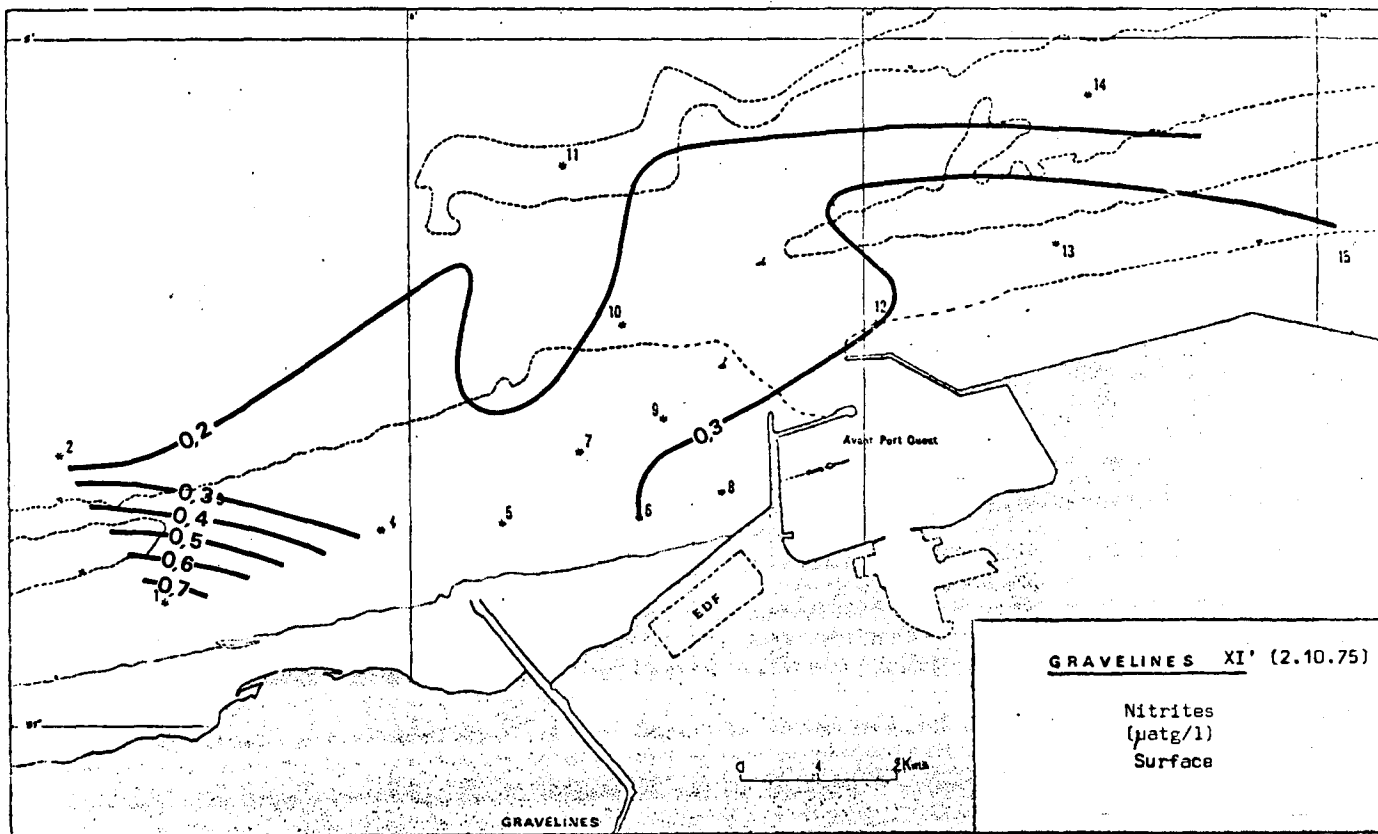
Fig. 62

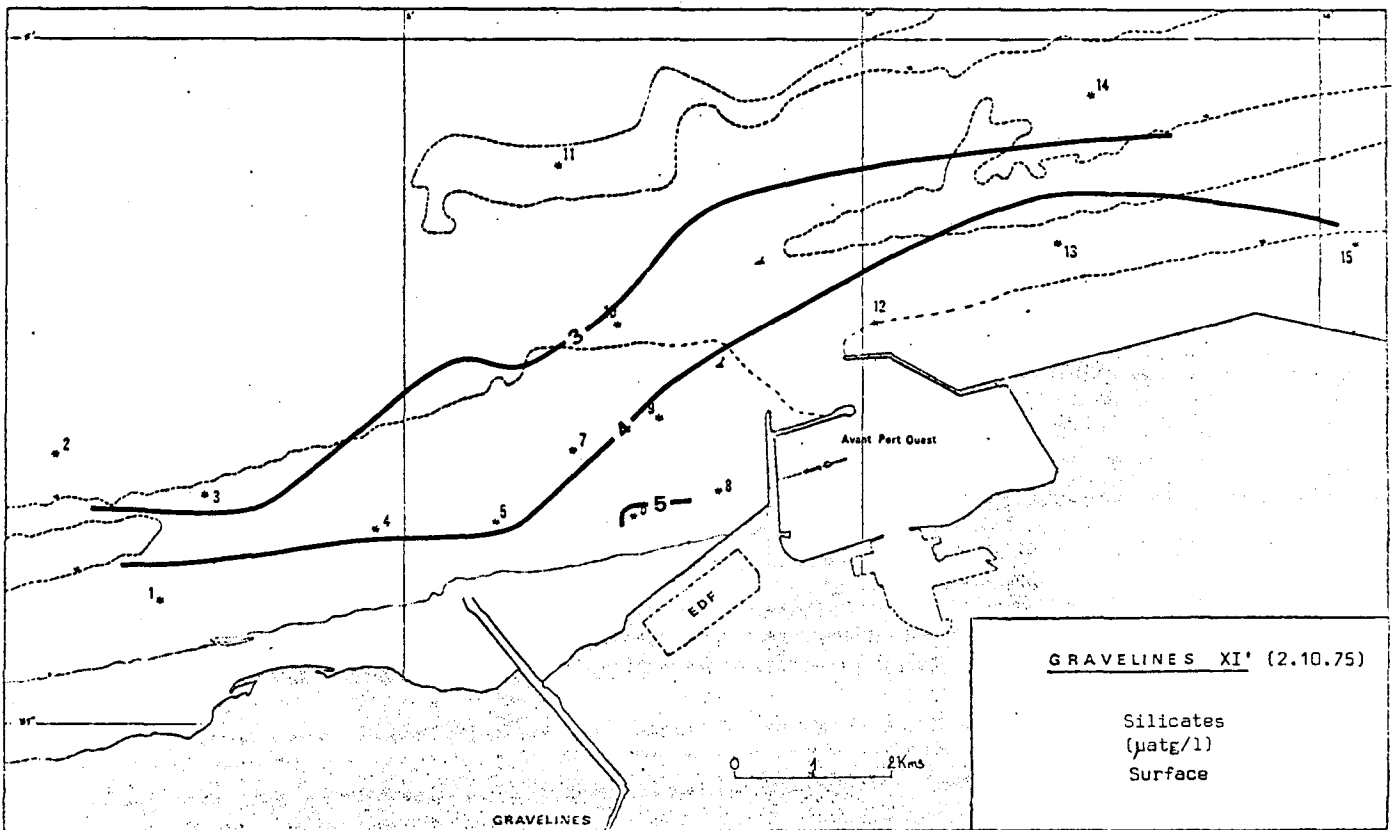
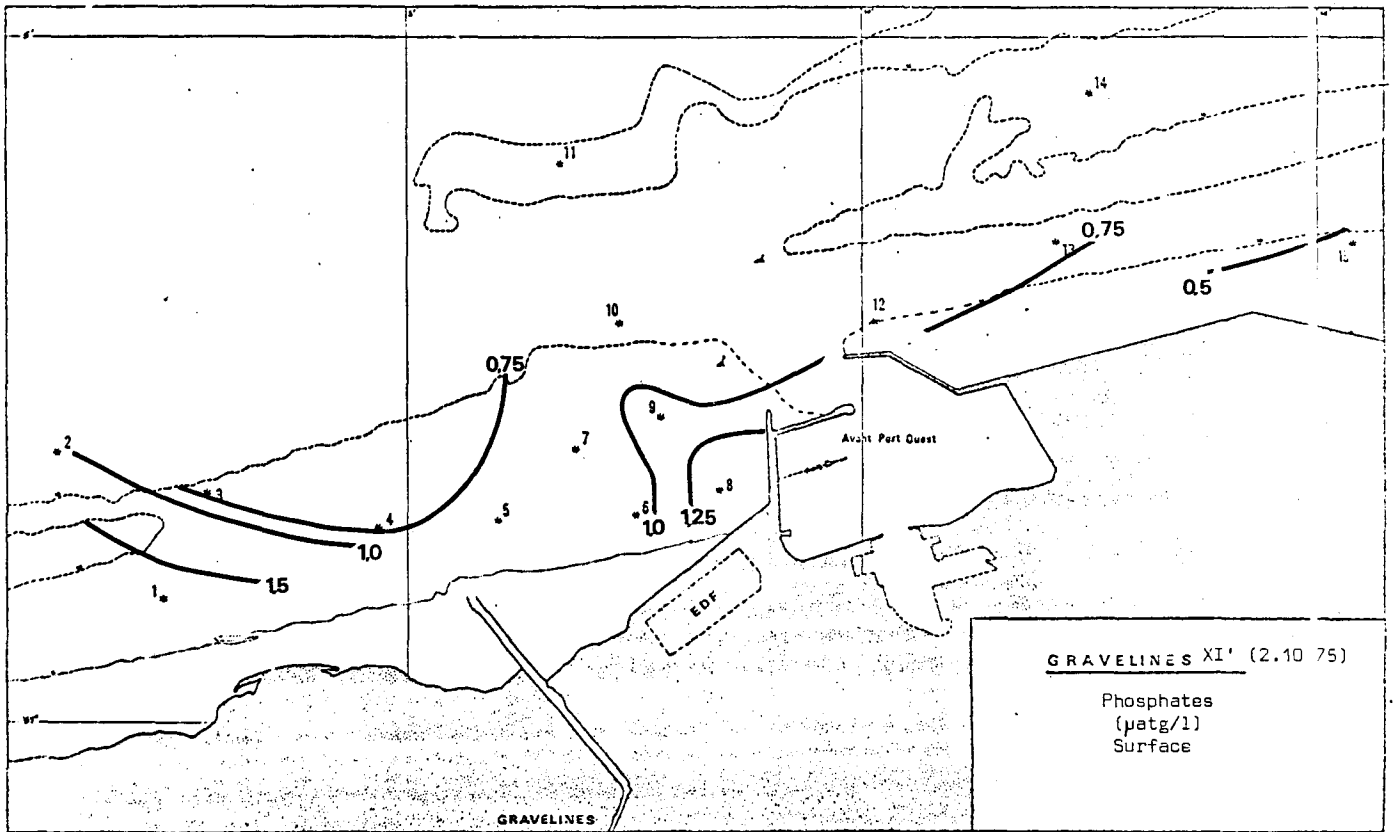


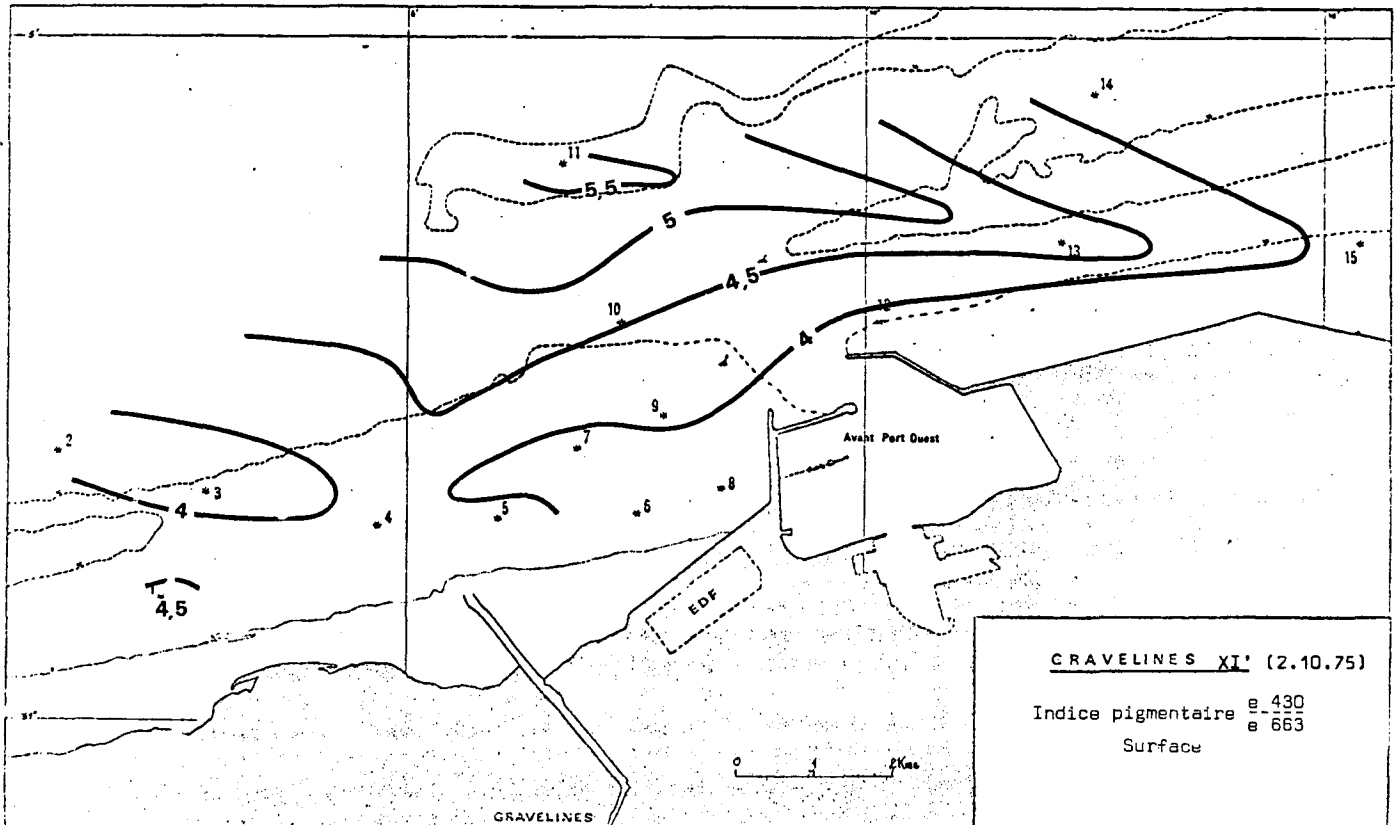
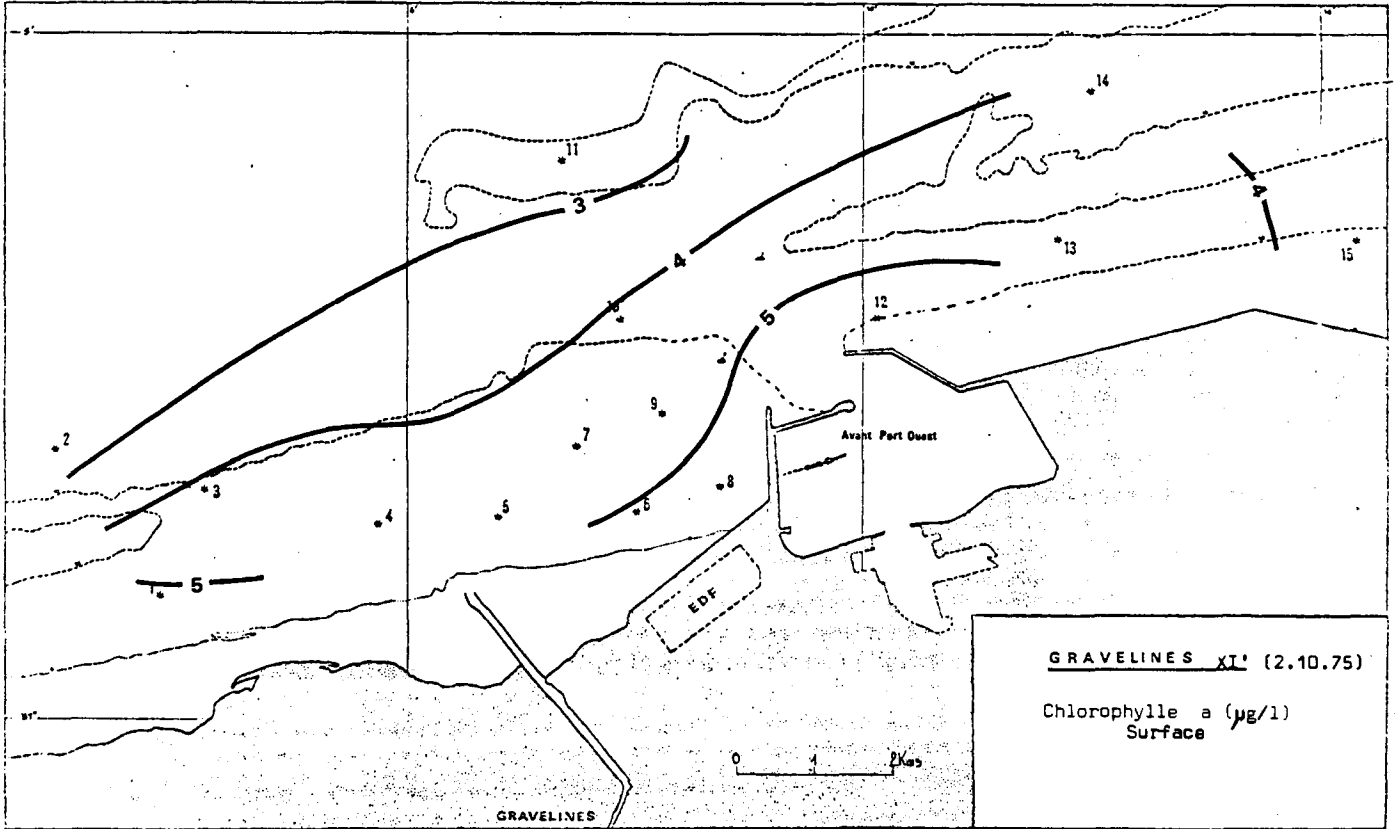


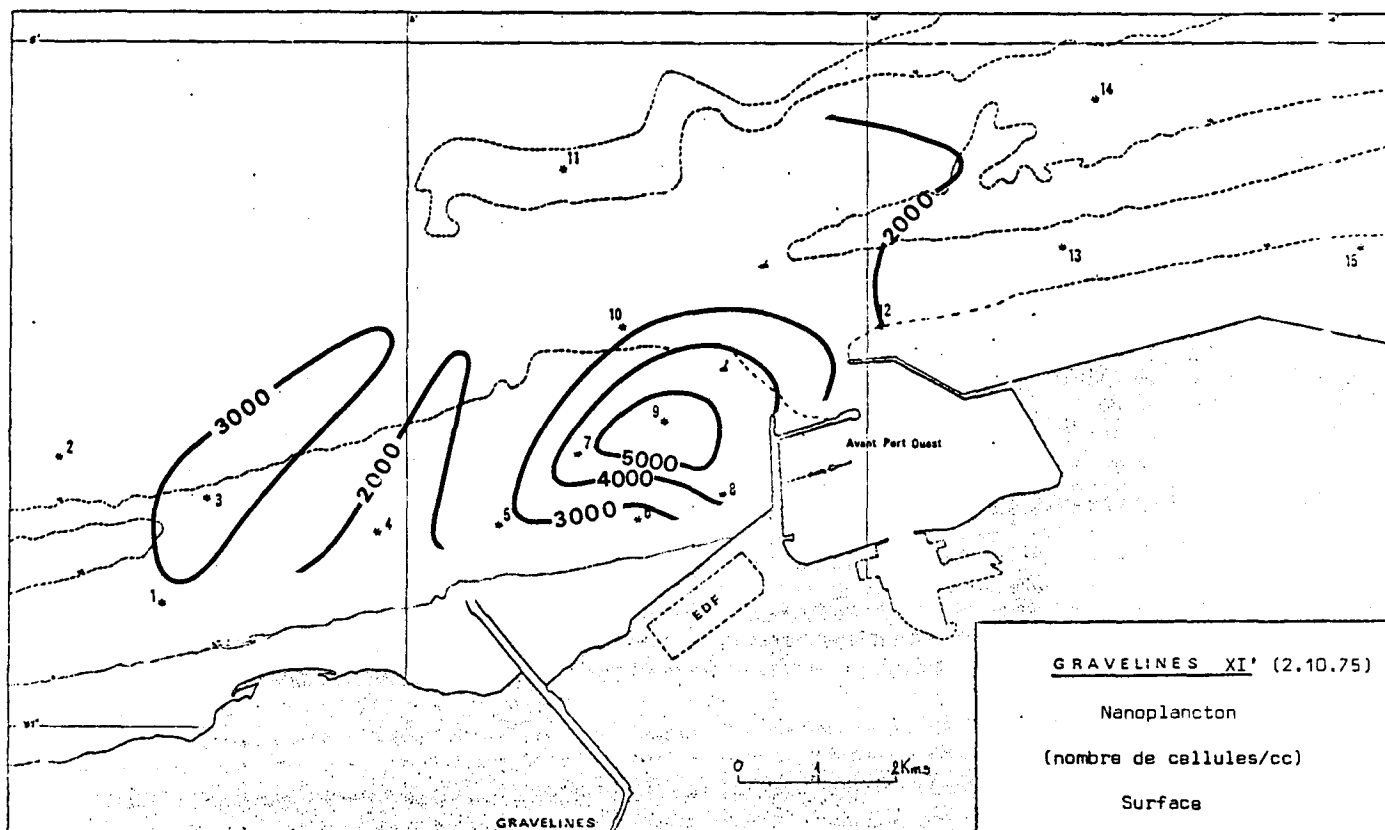
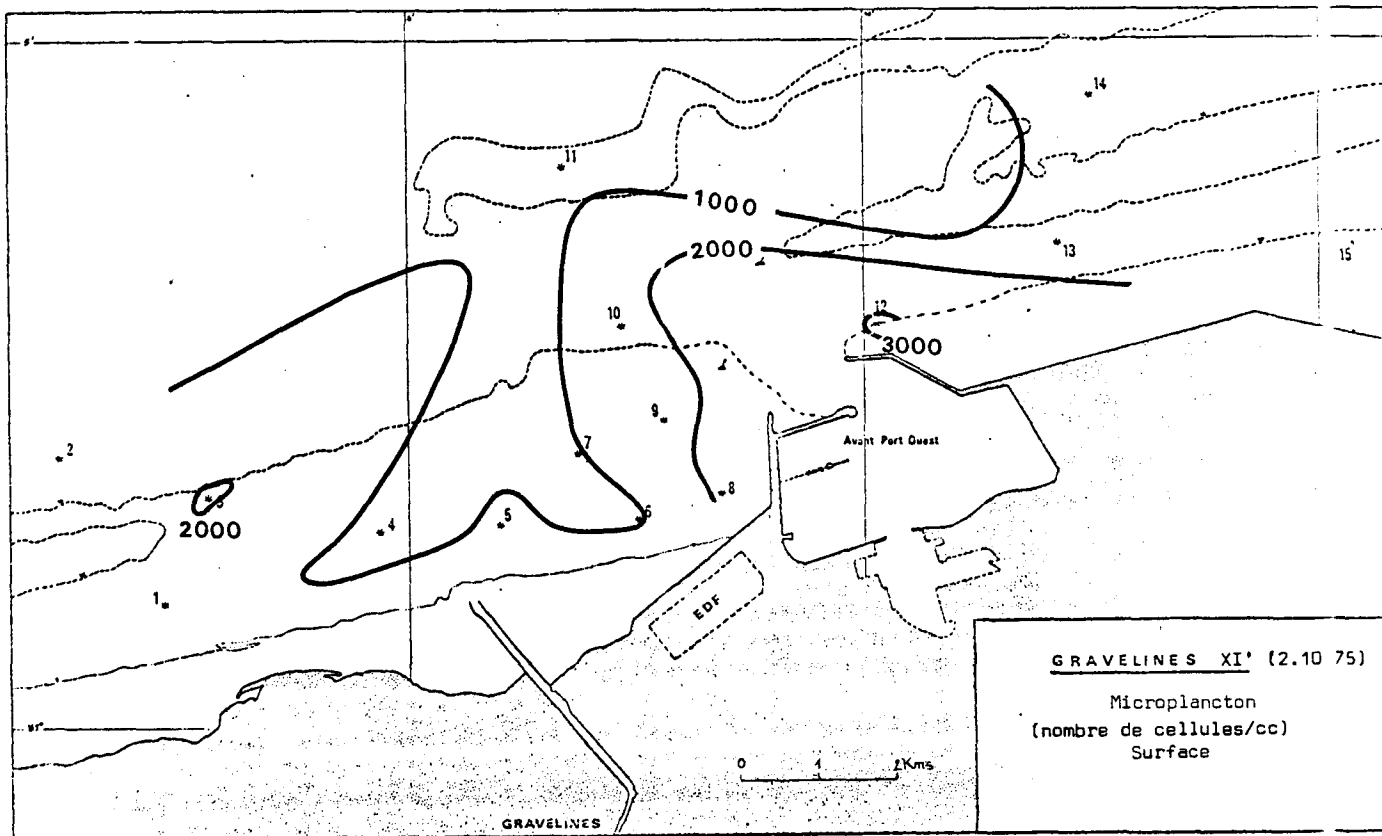


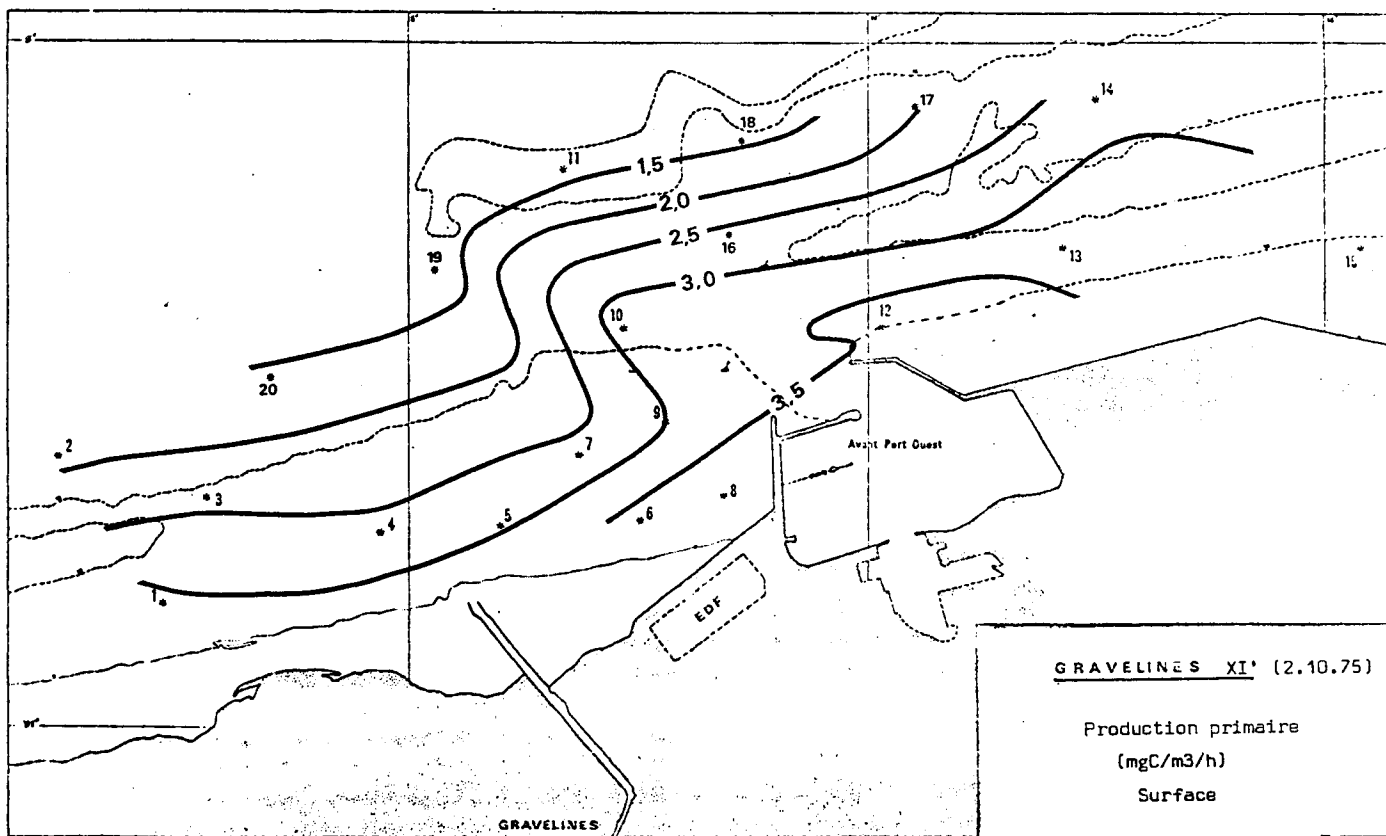




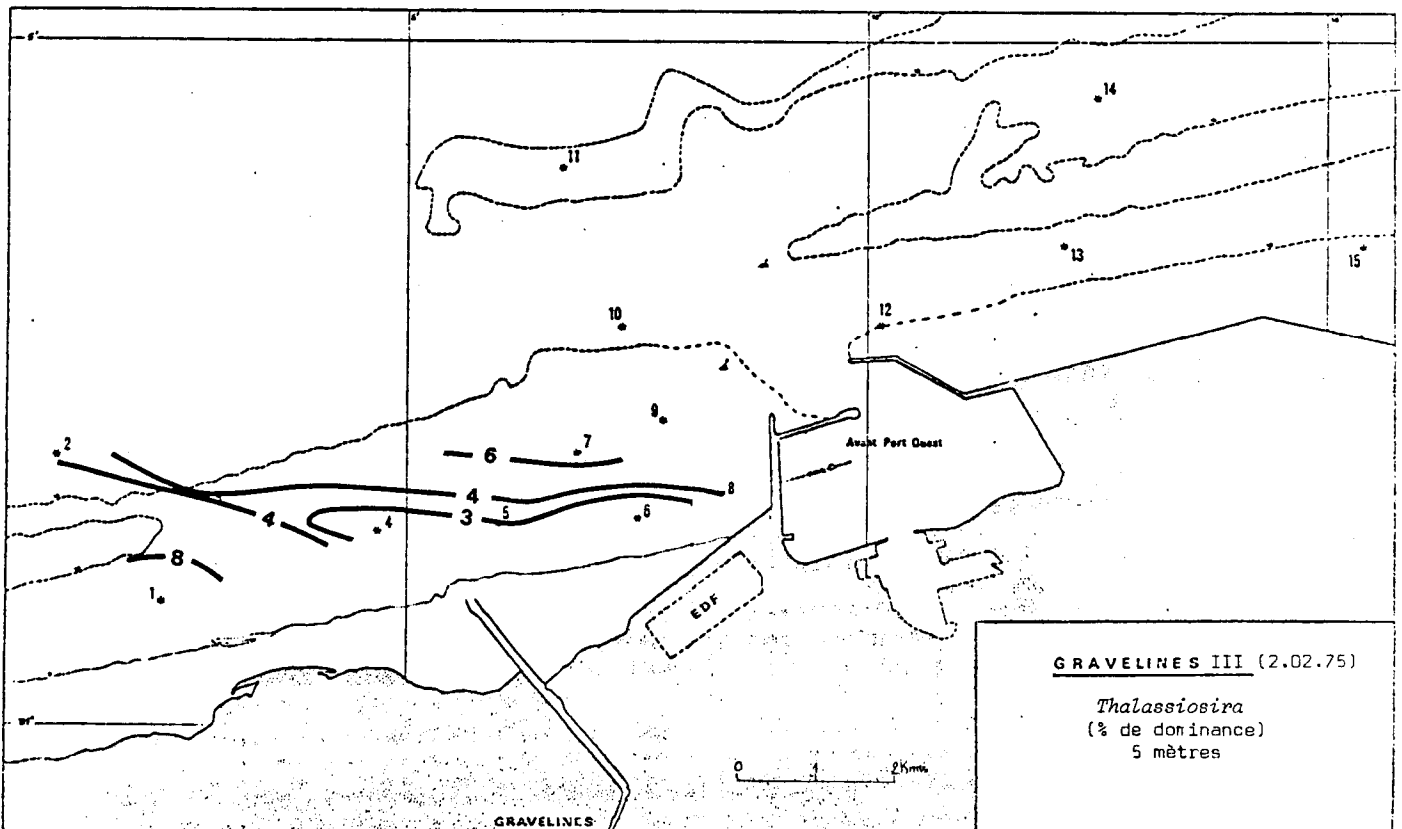
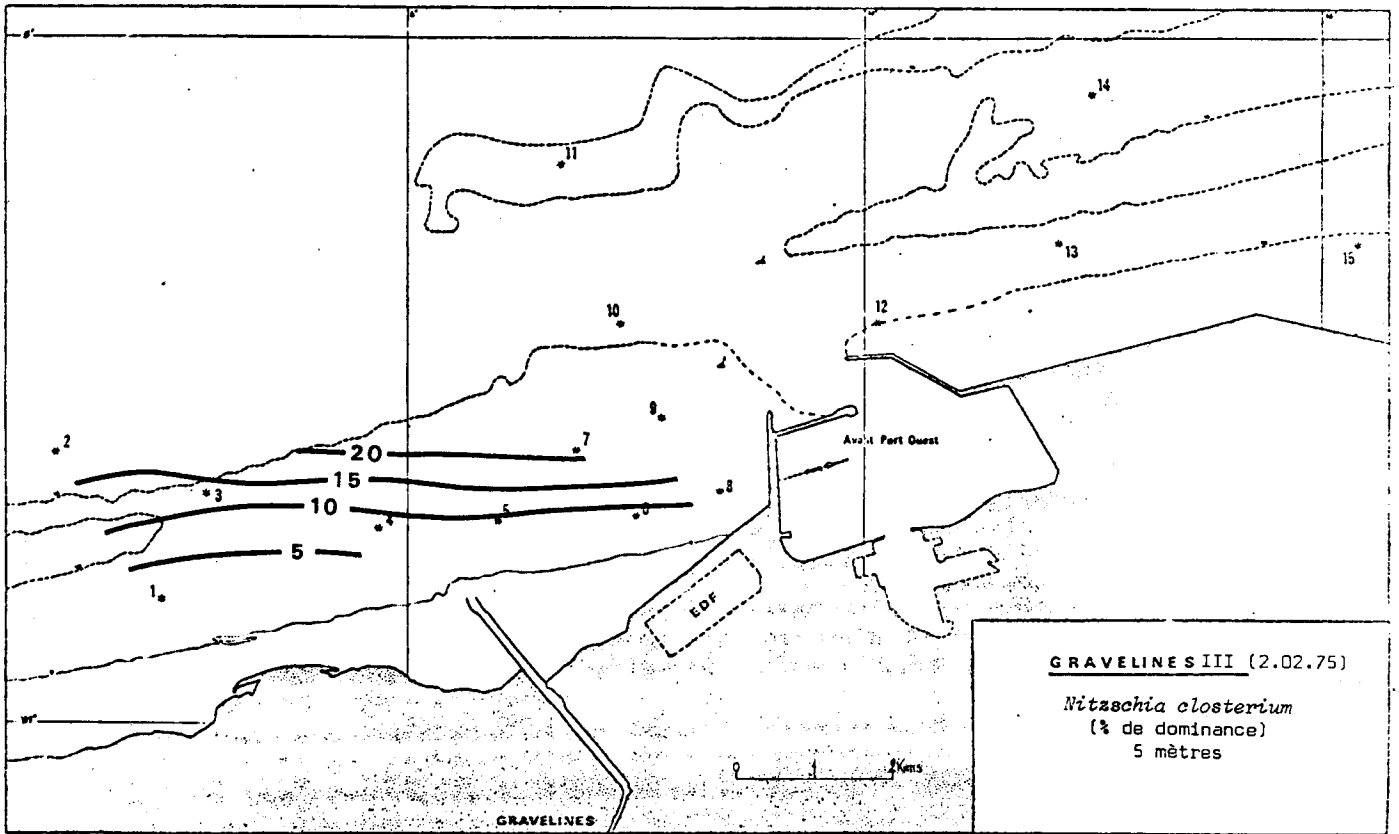


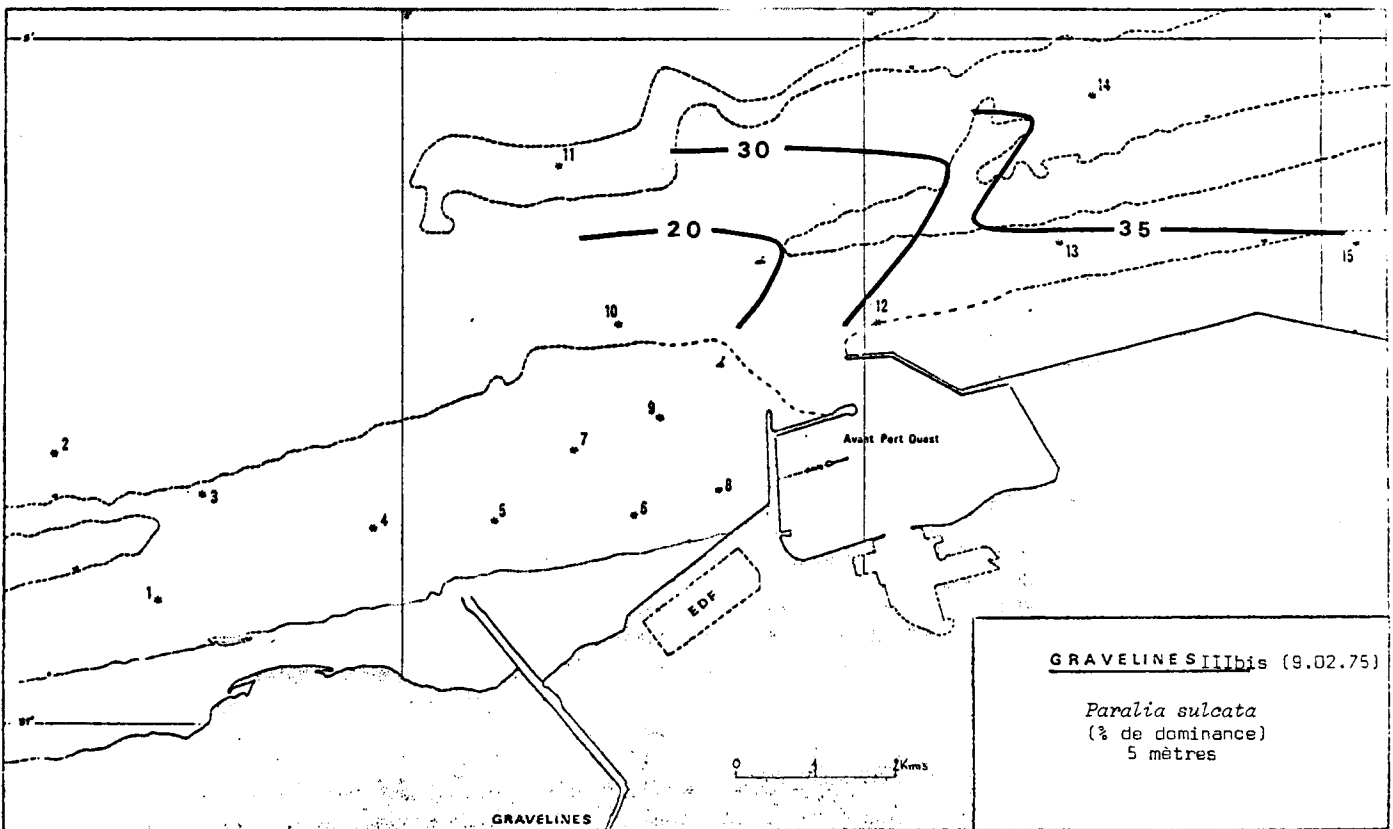
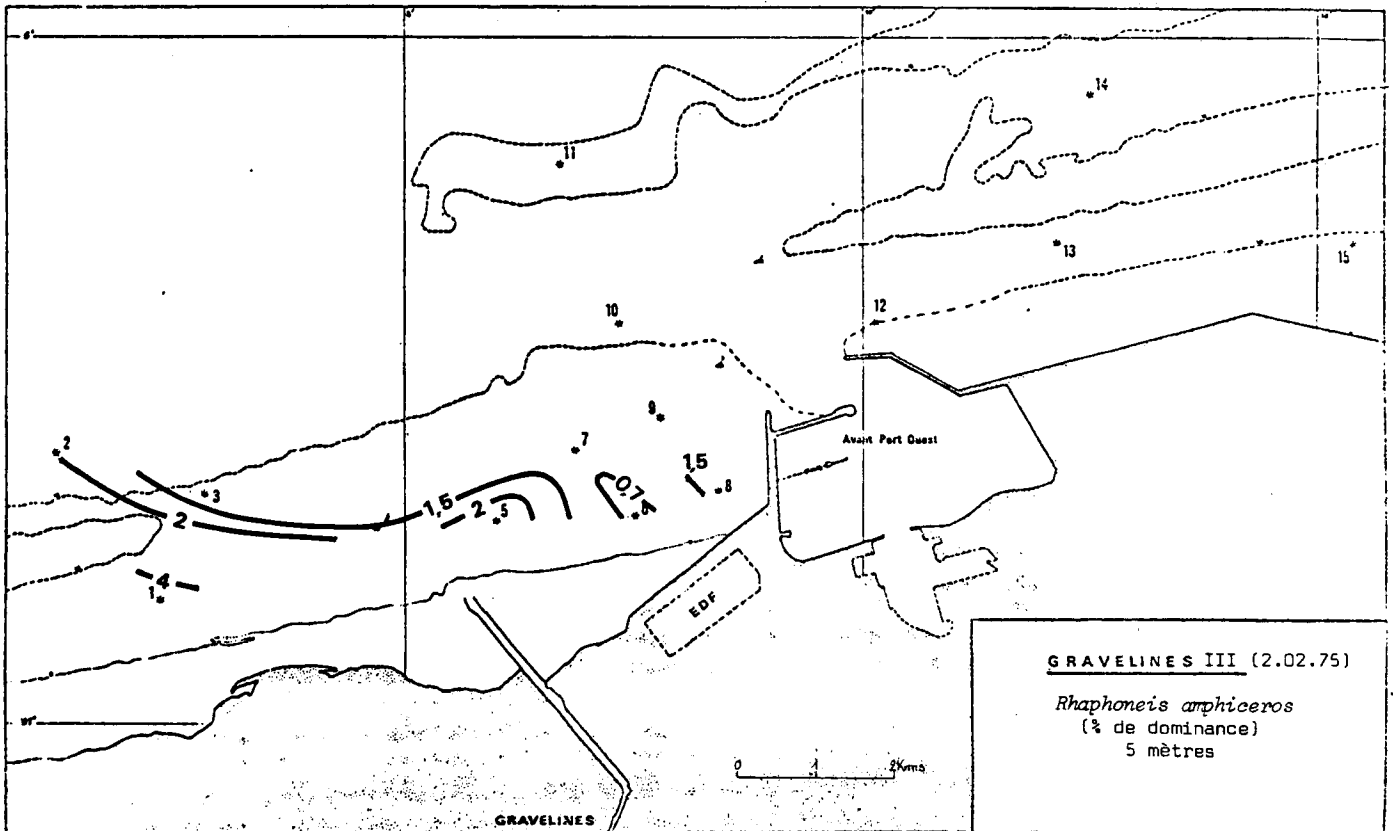


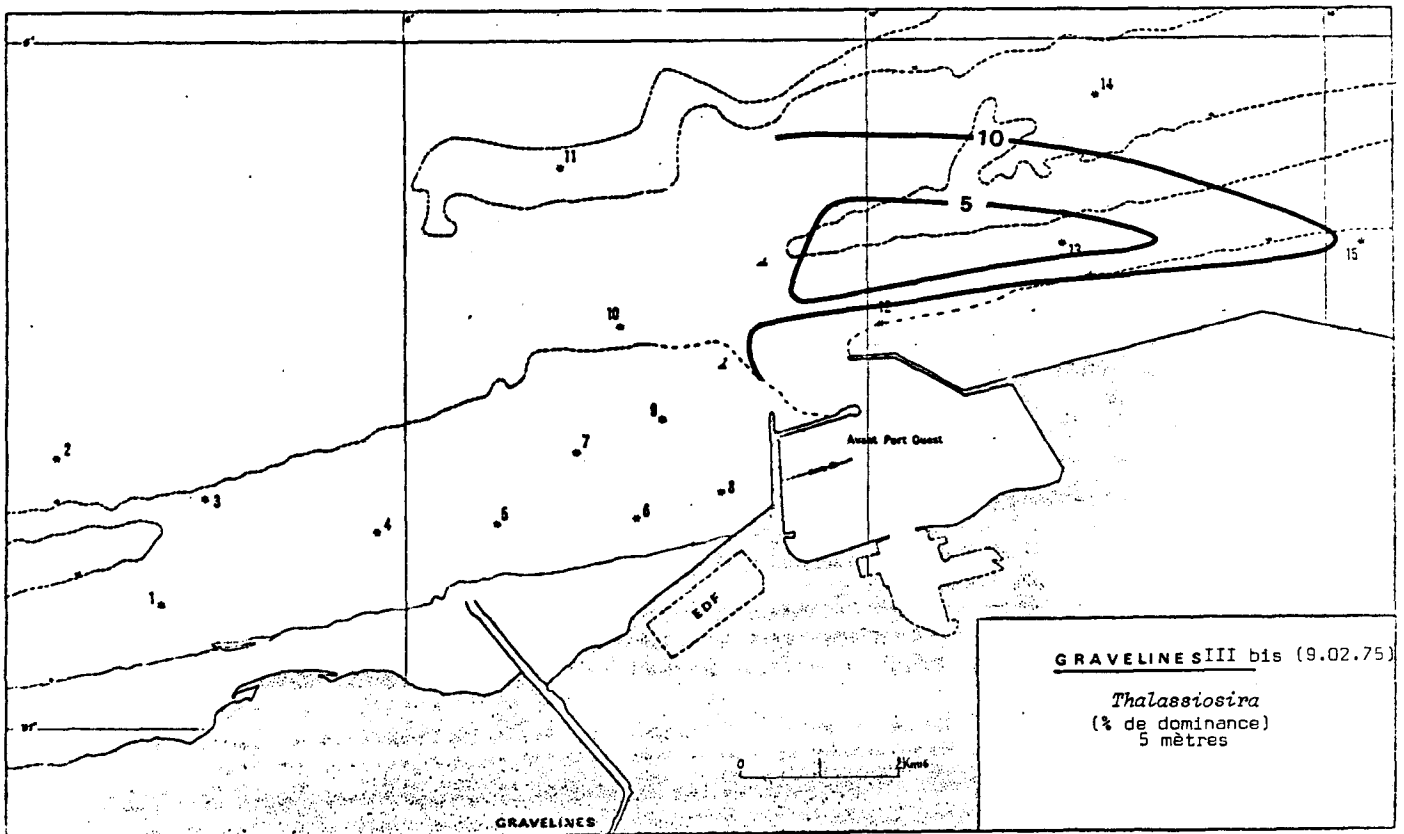
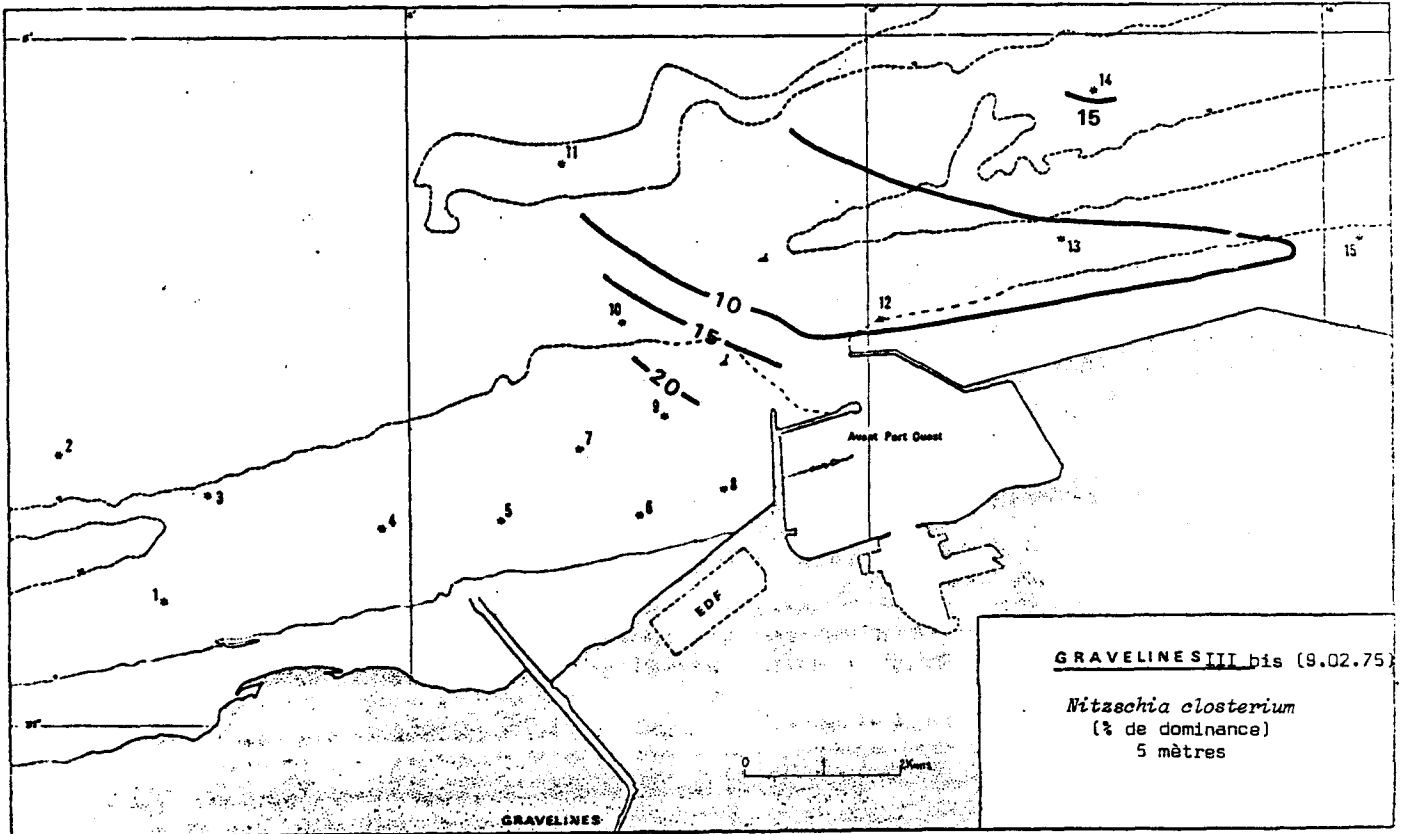


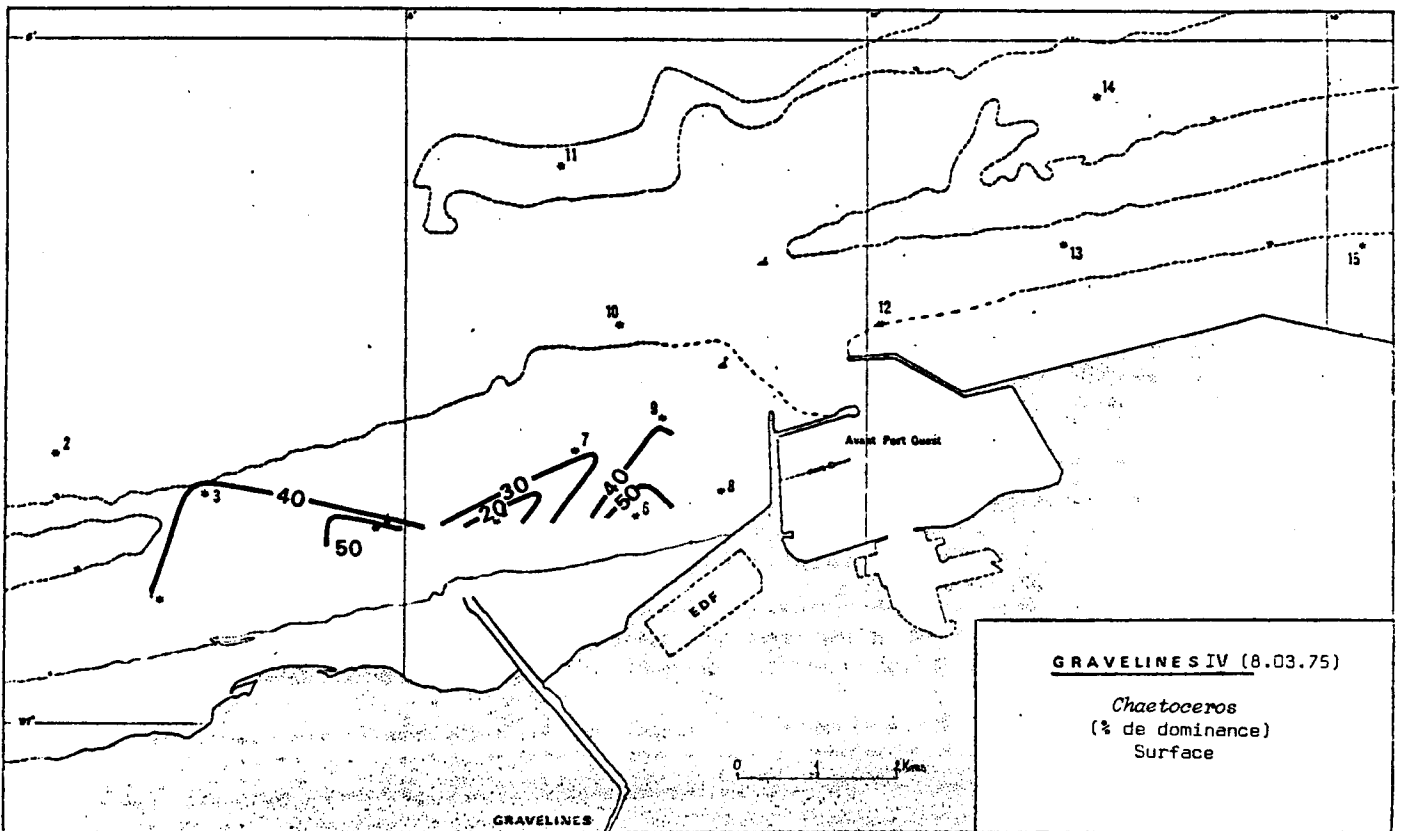
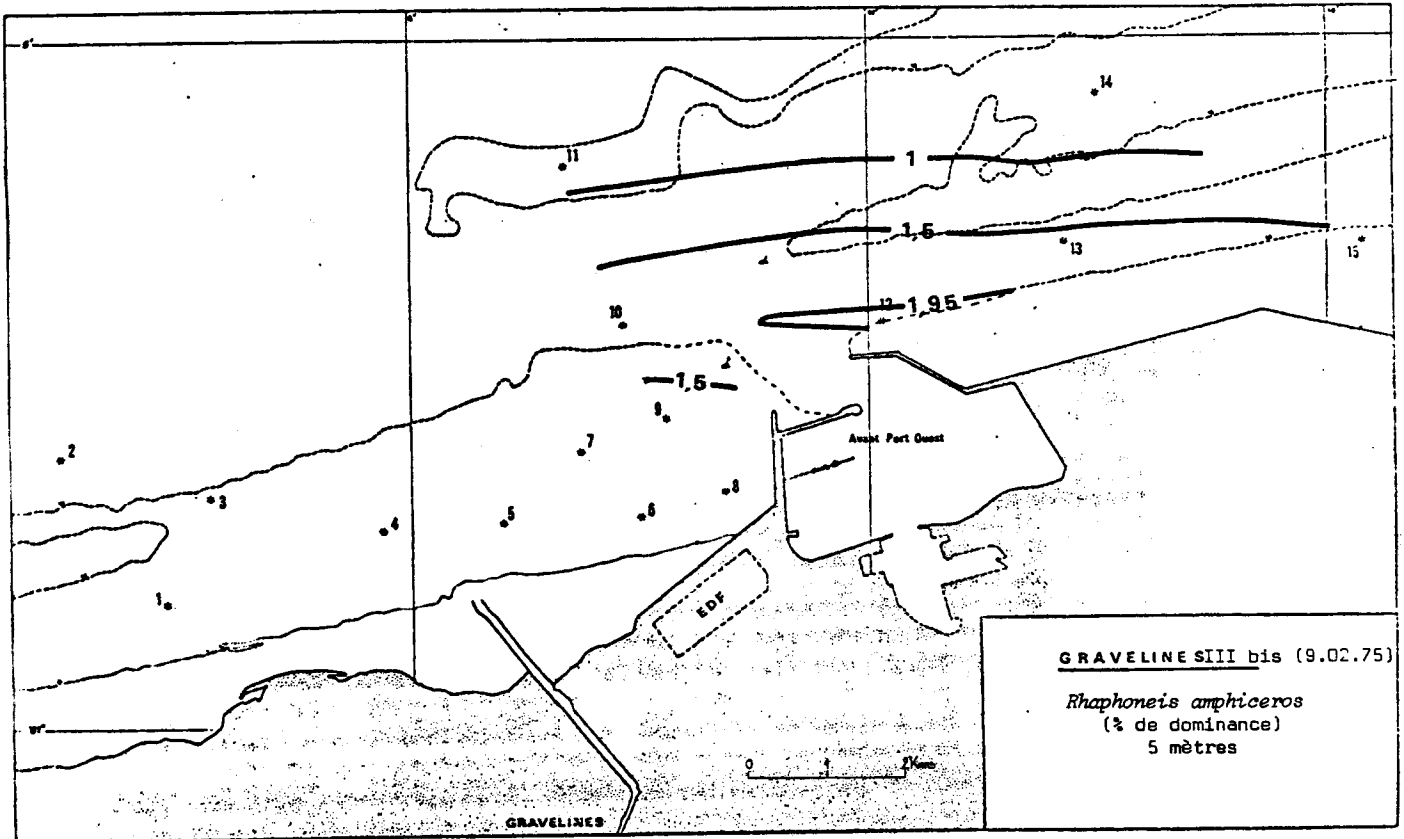


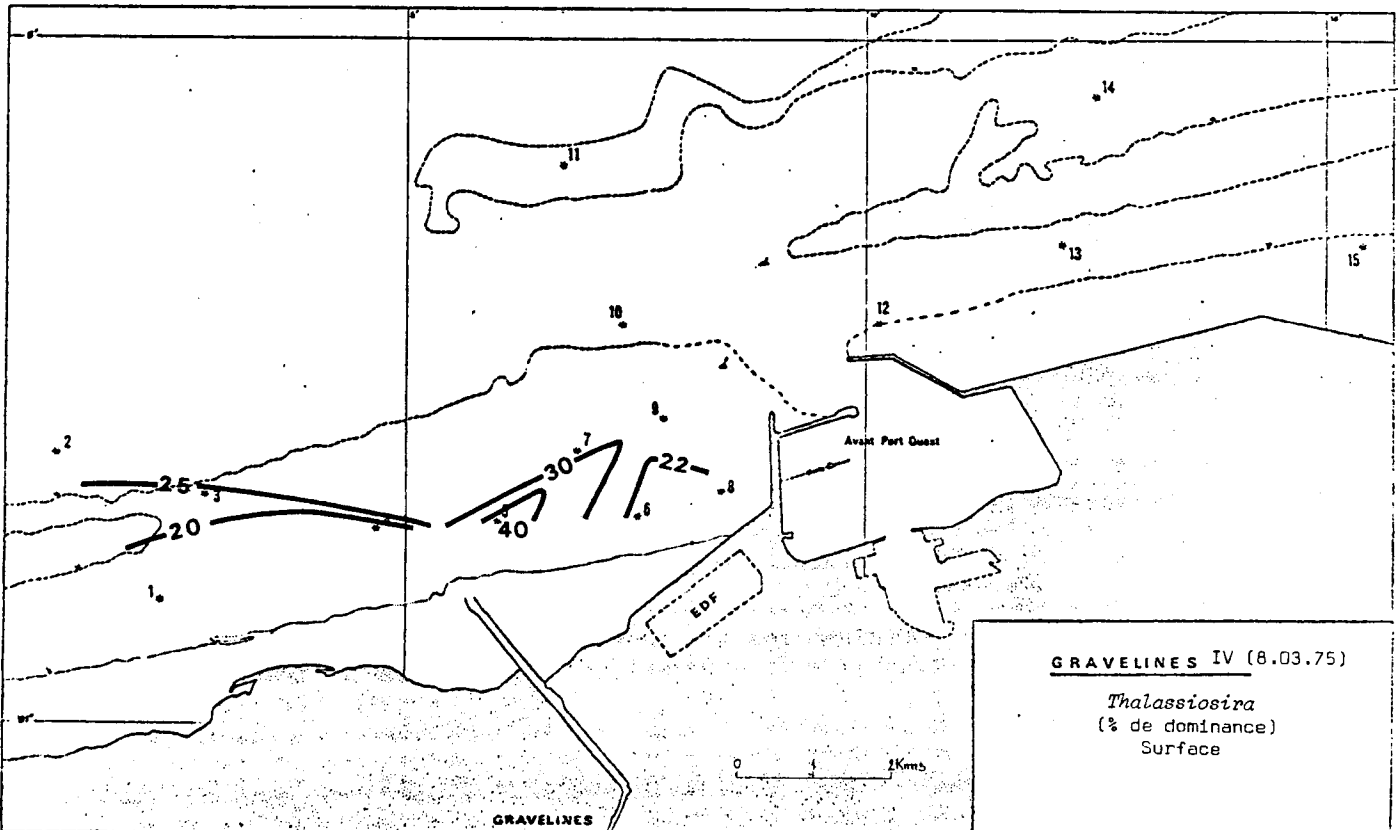
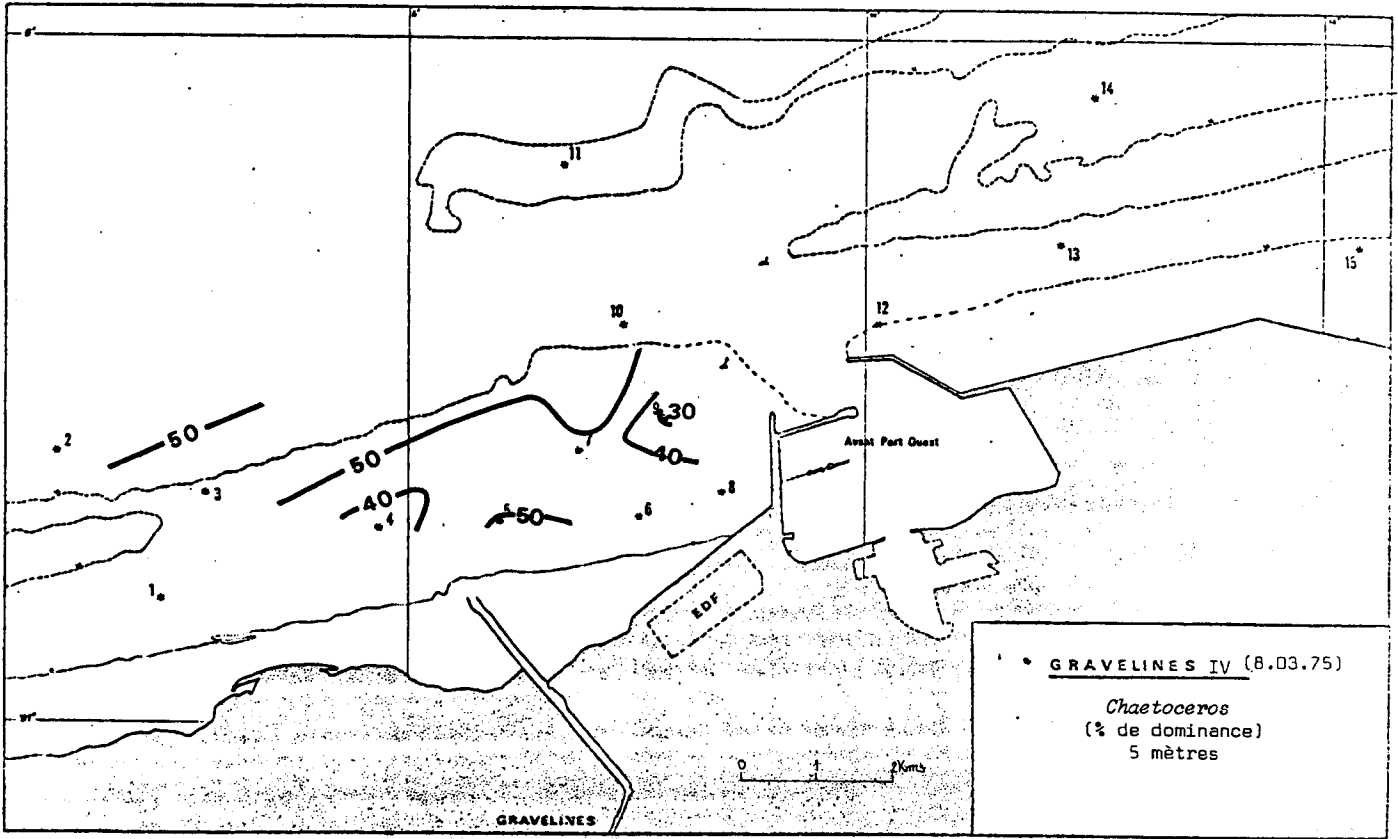
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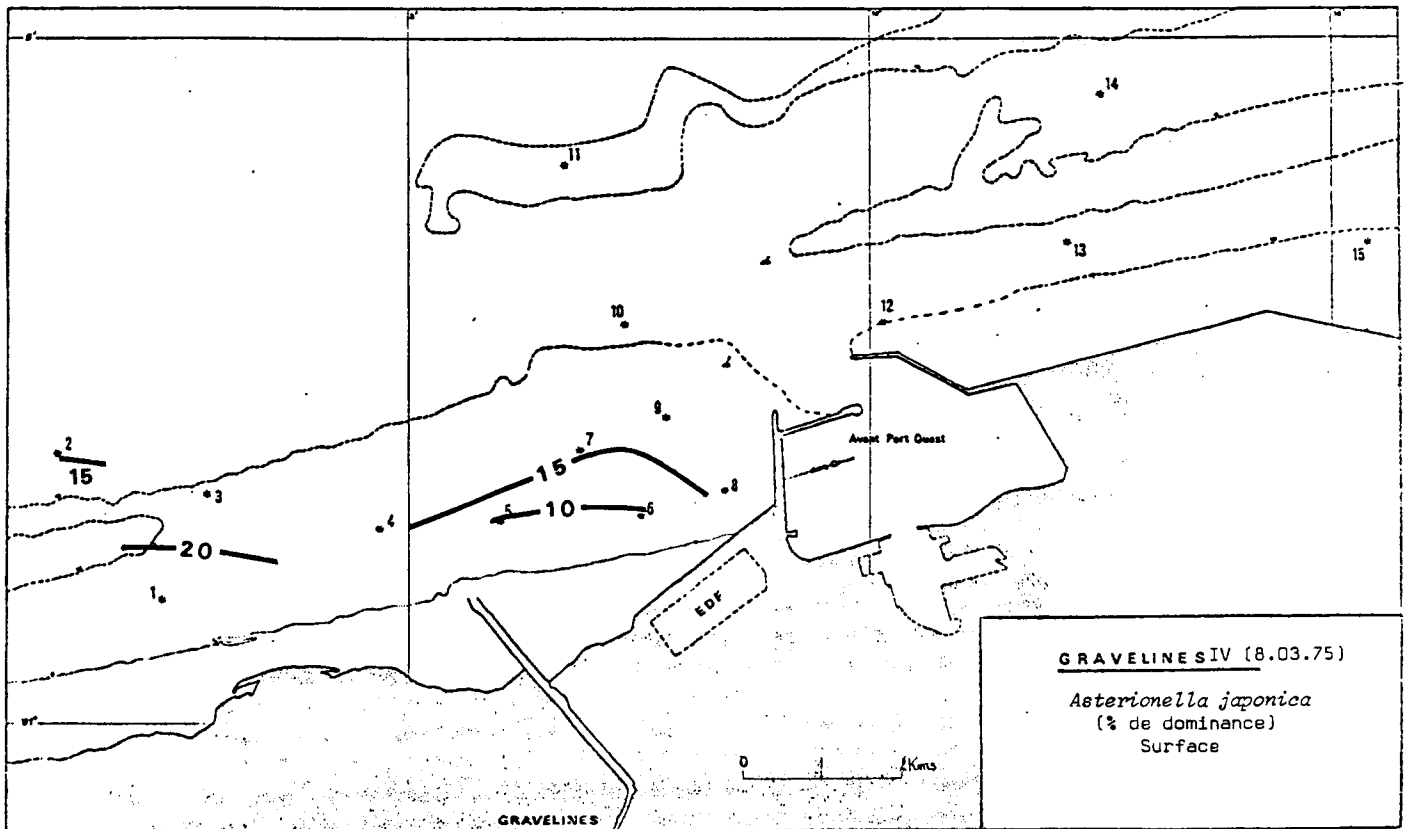
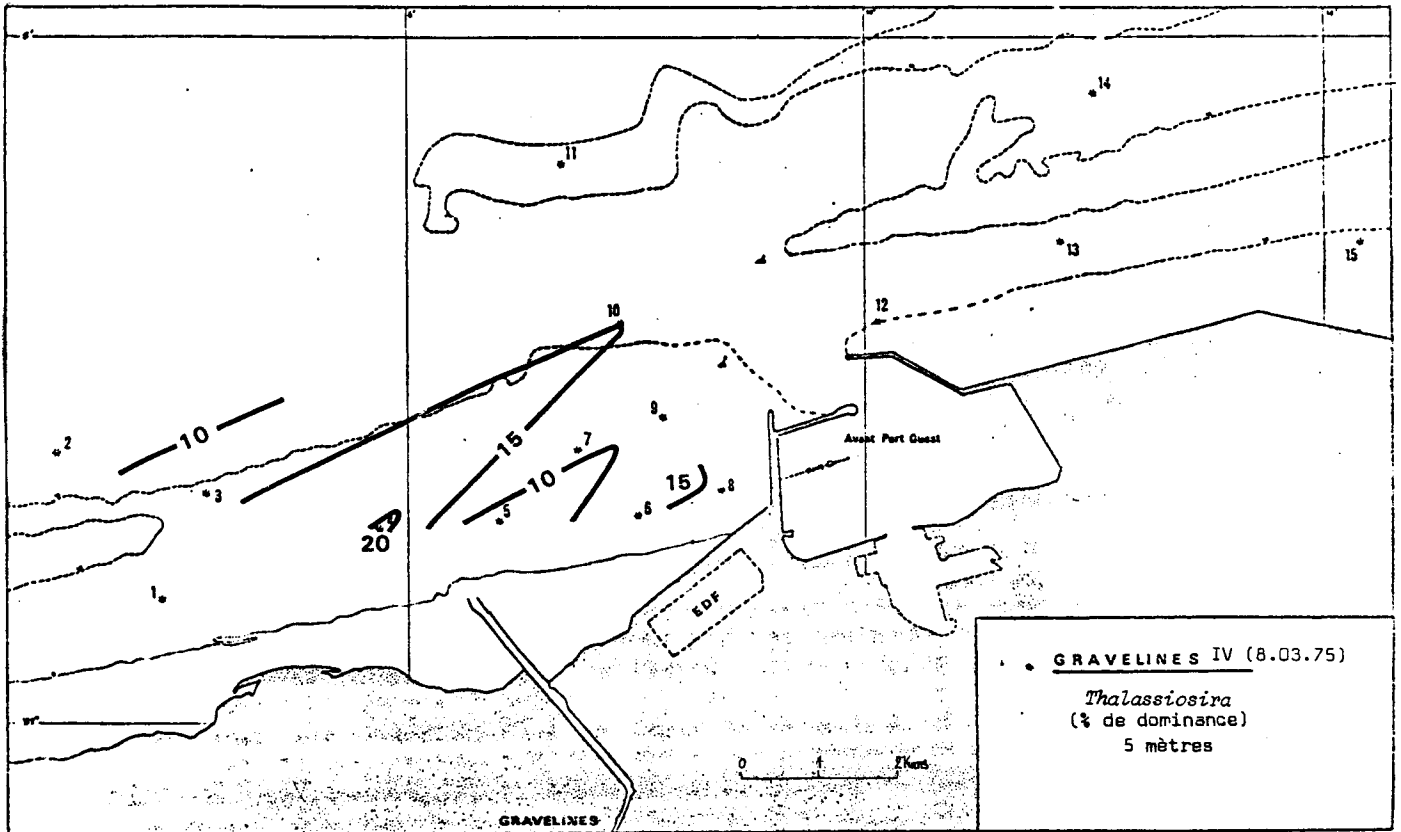


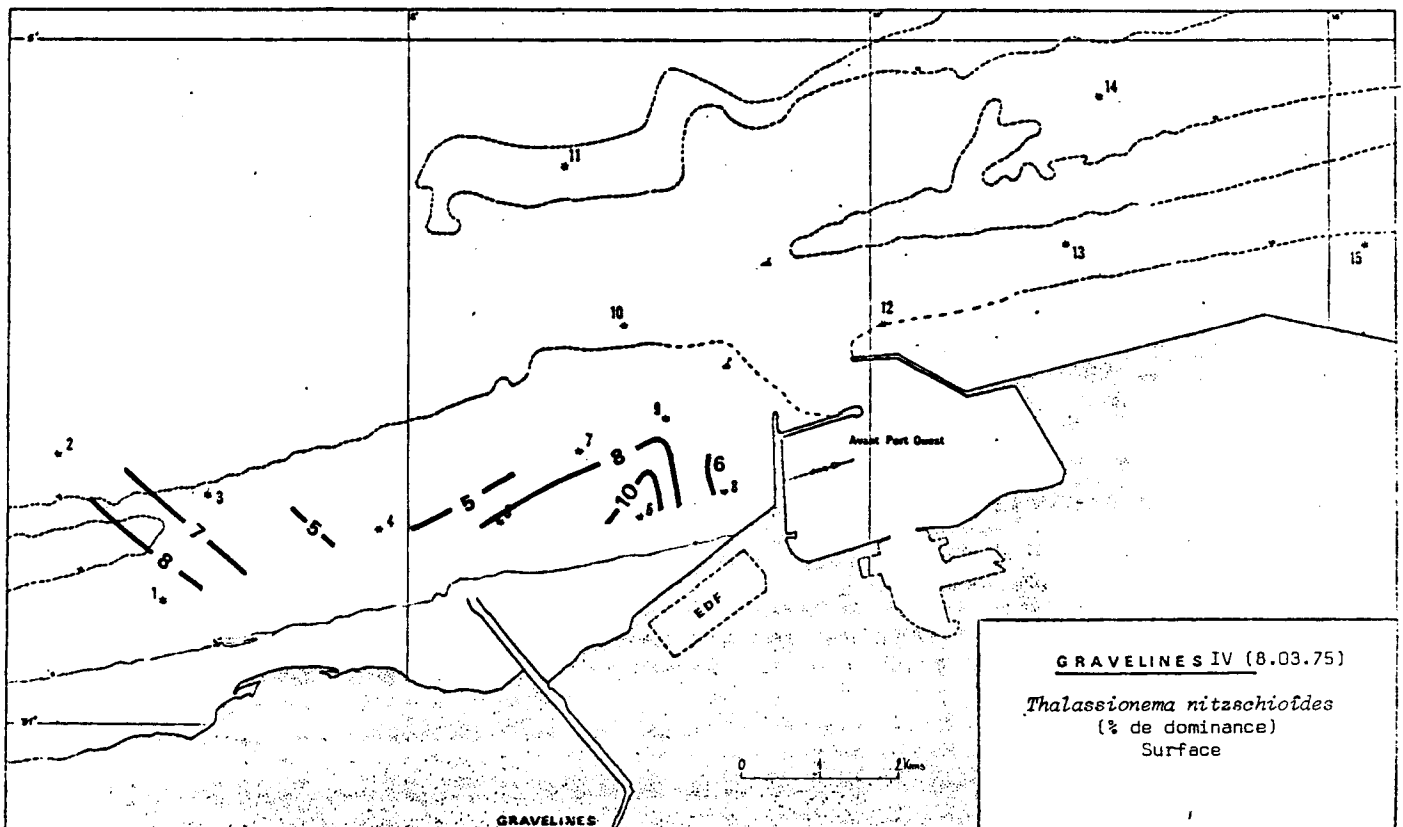
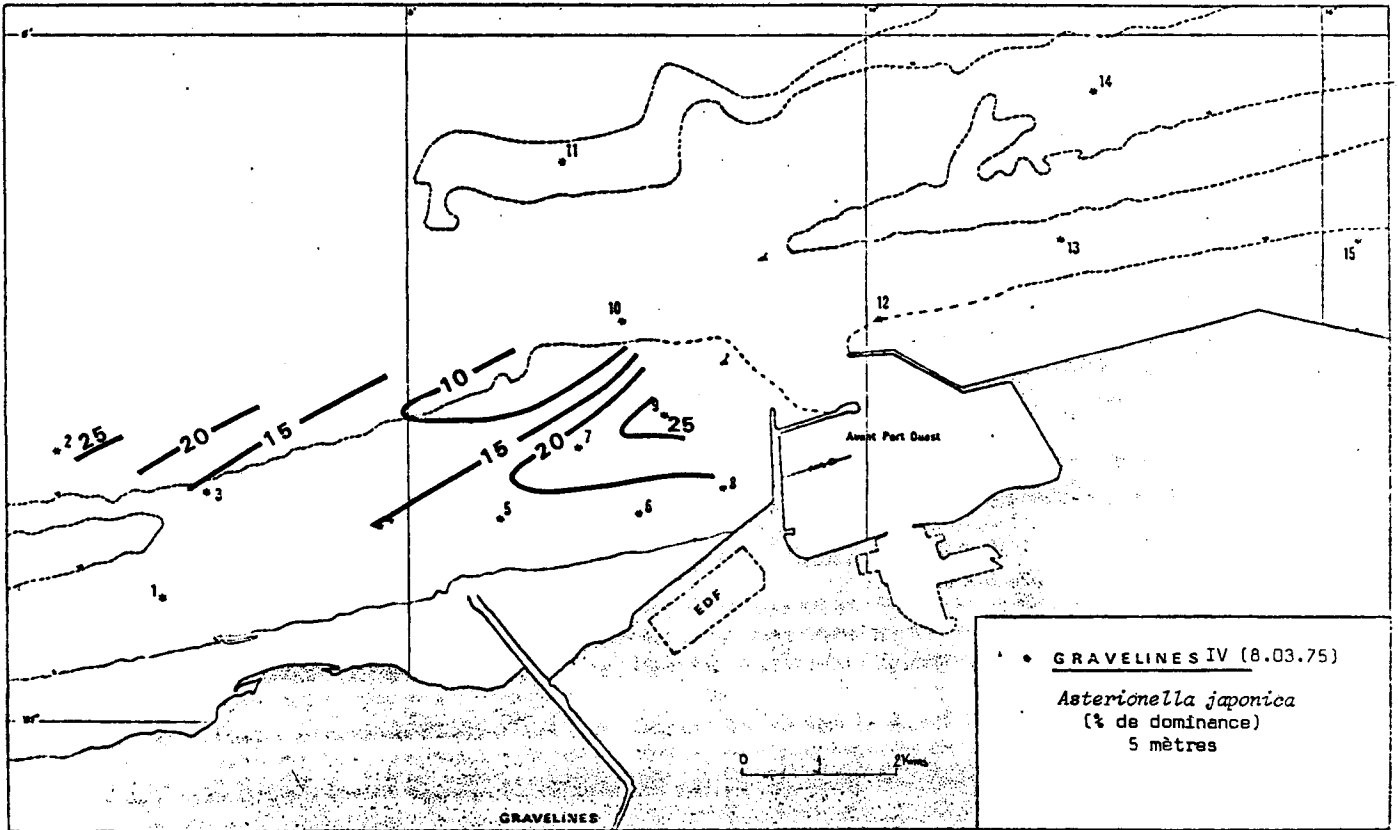


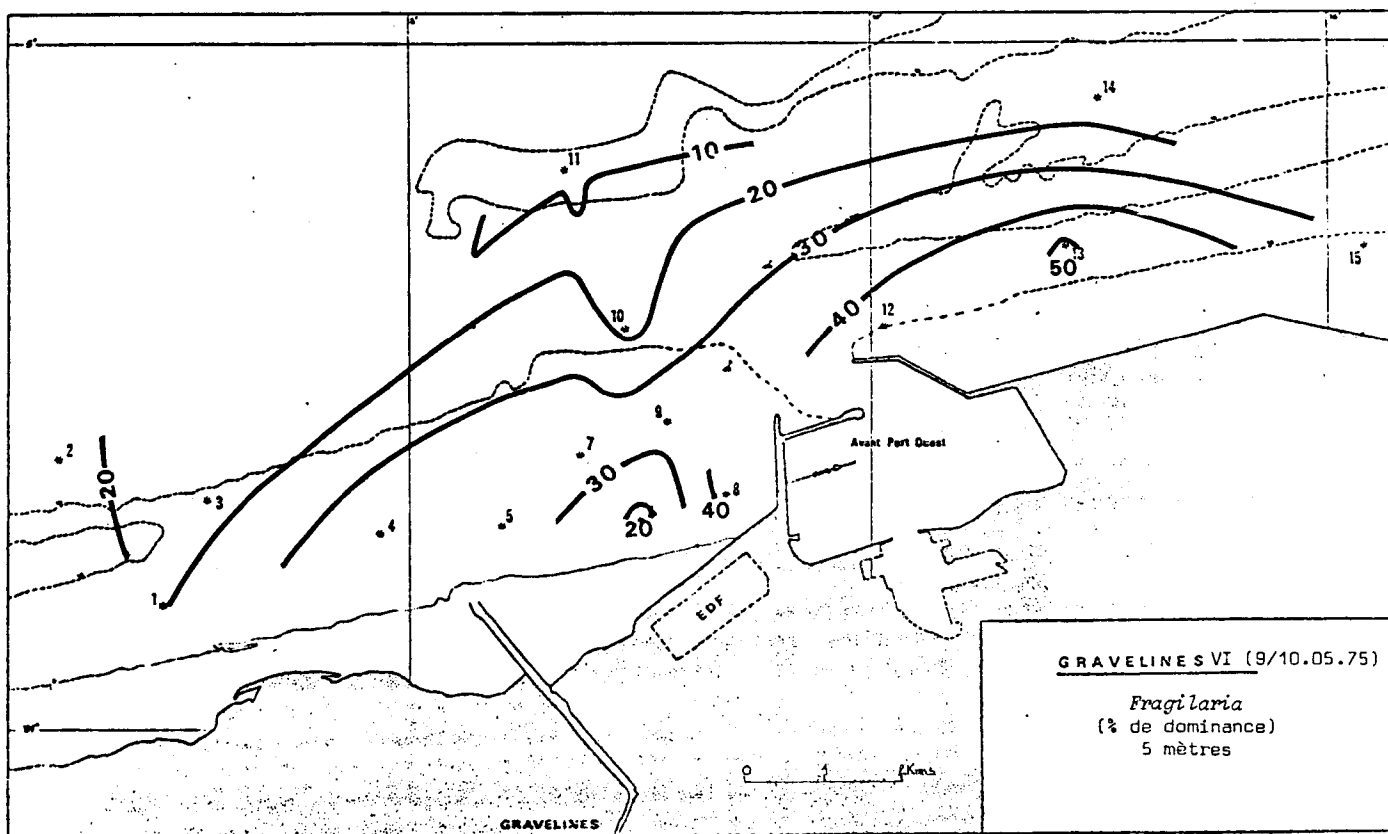
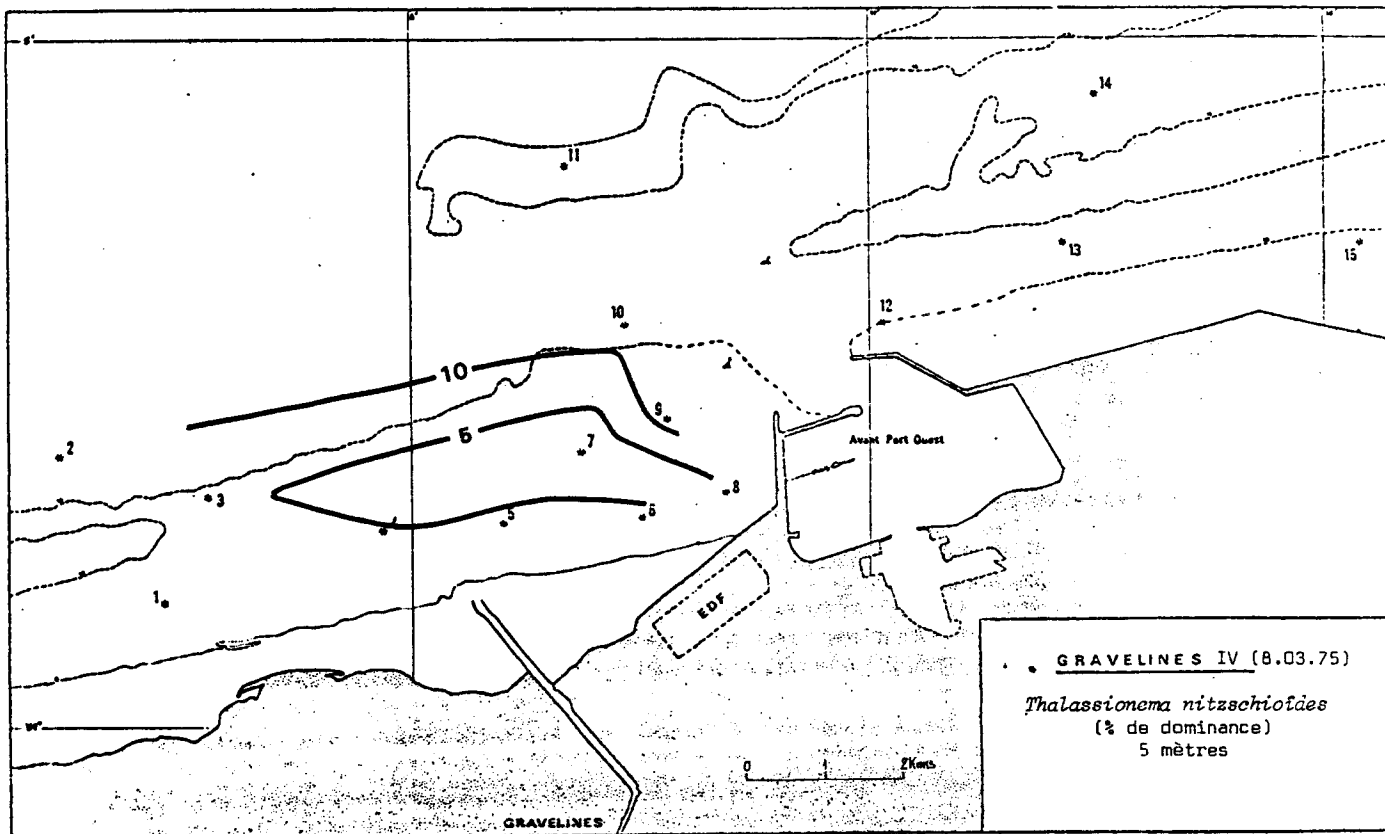












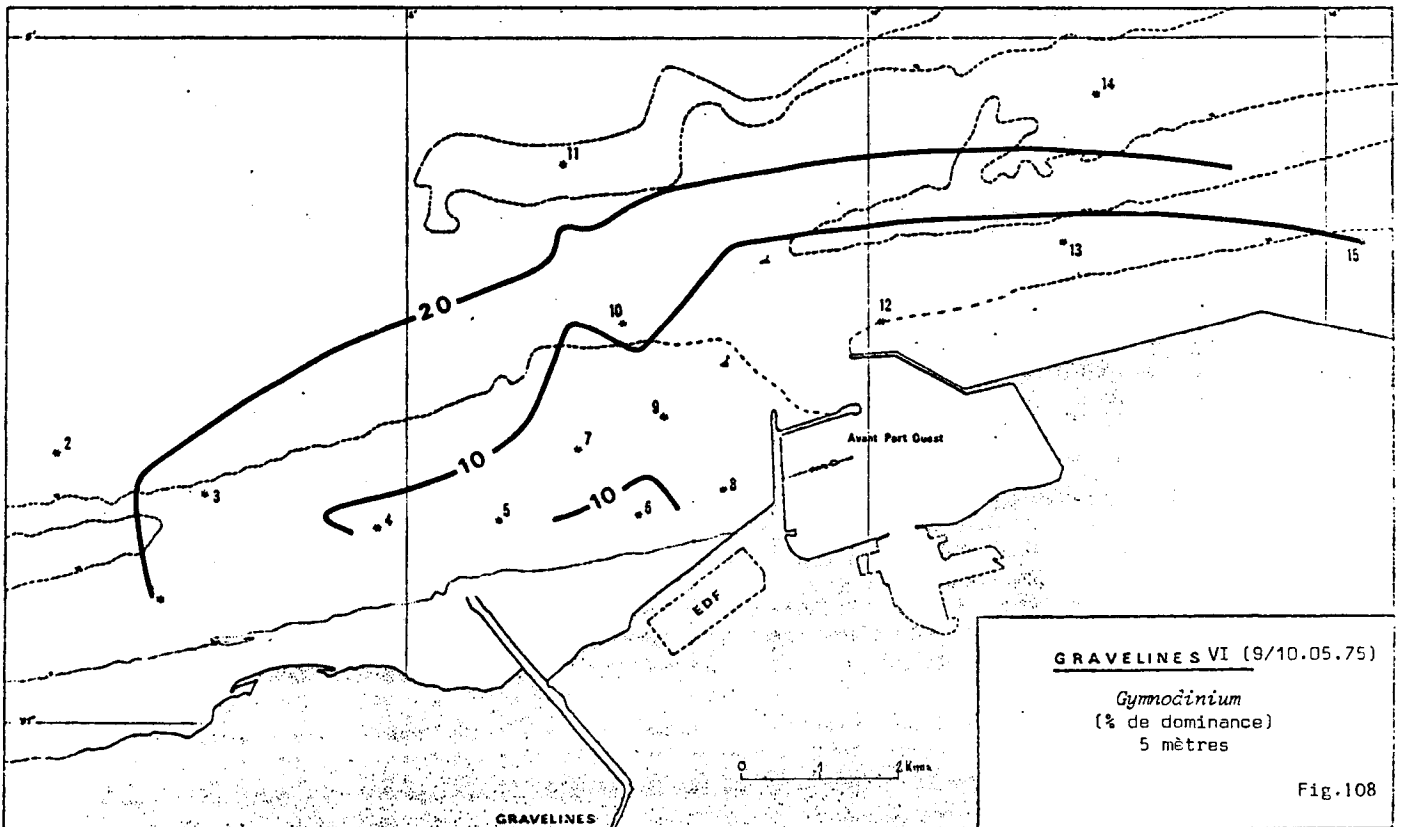
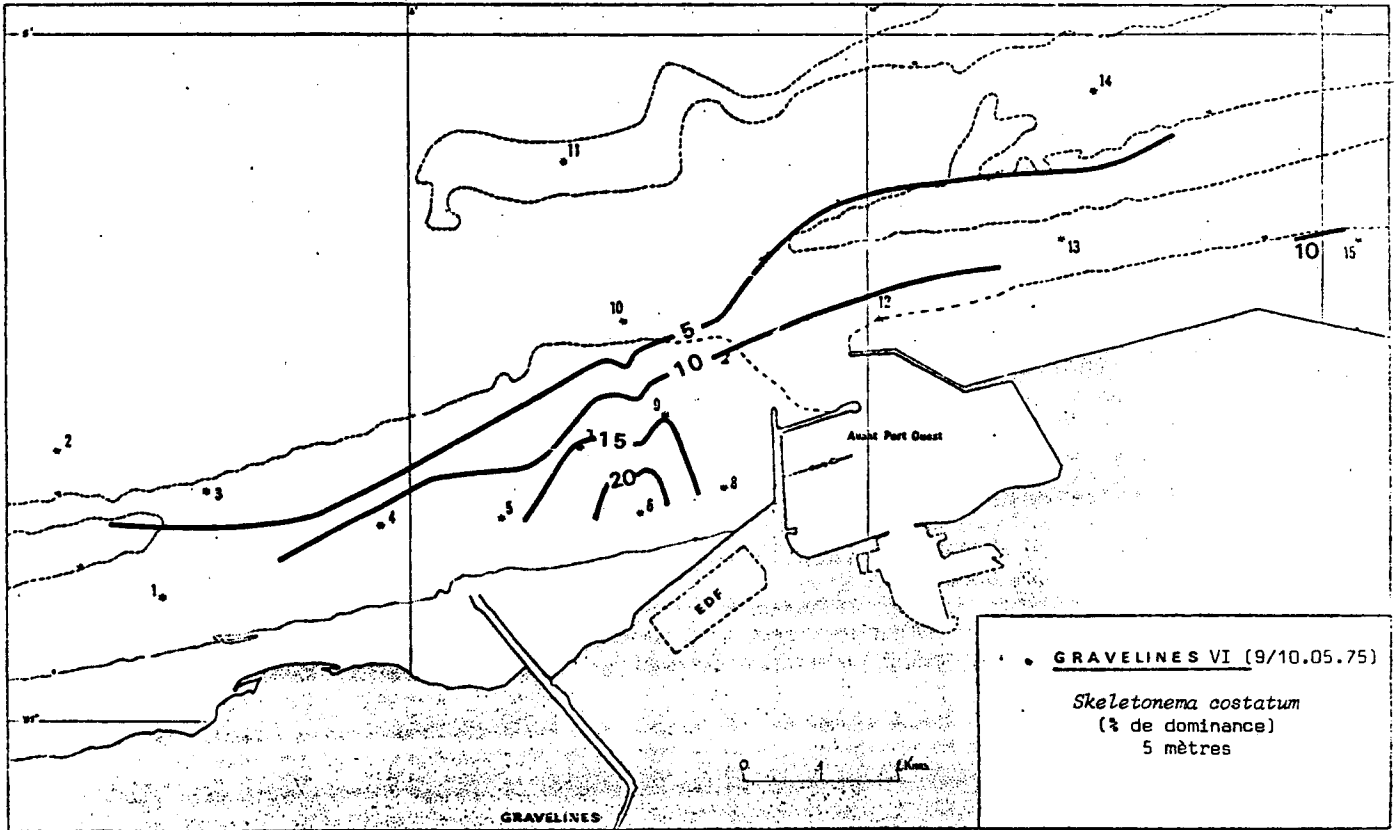
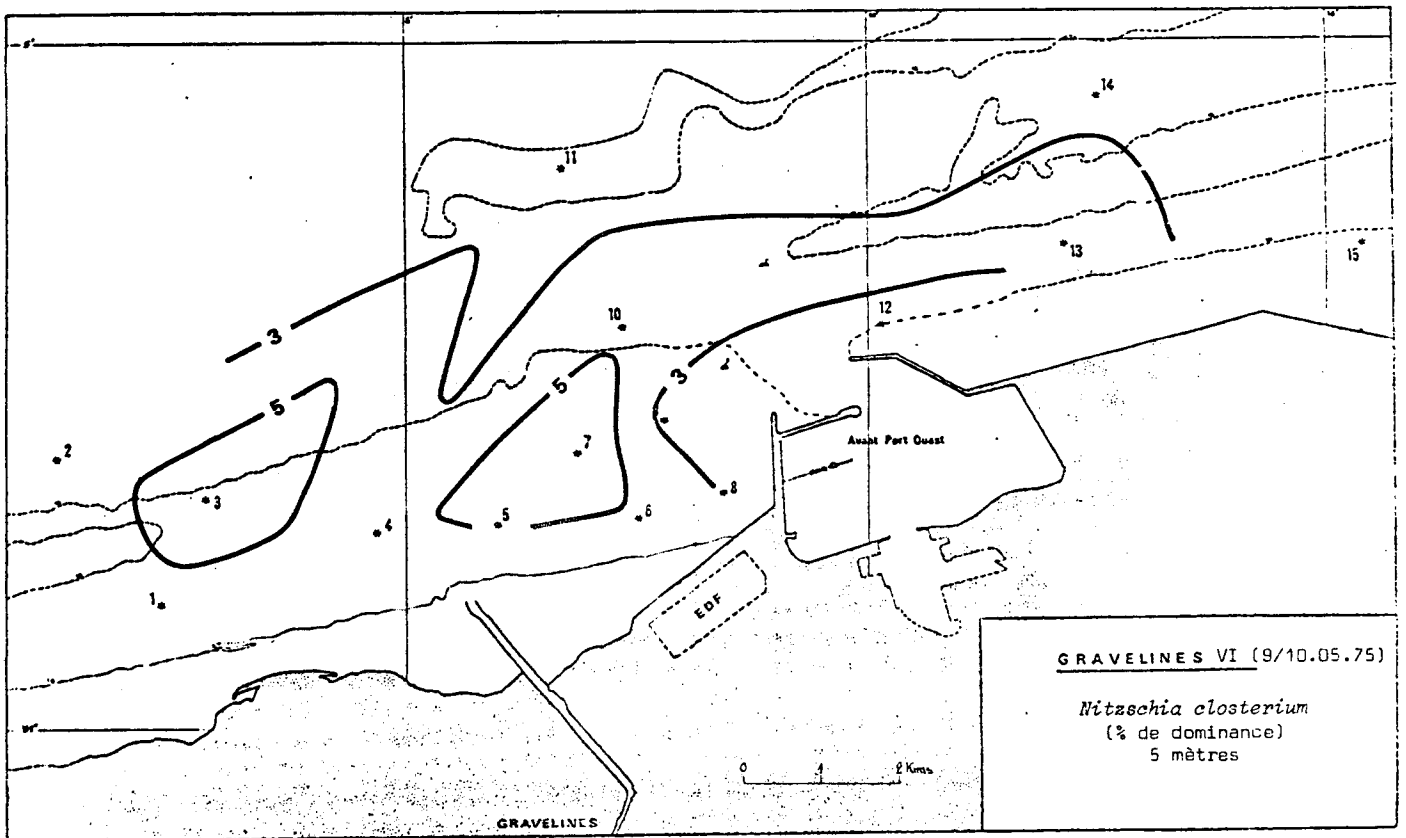
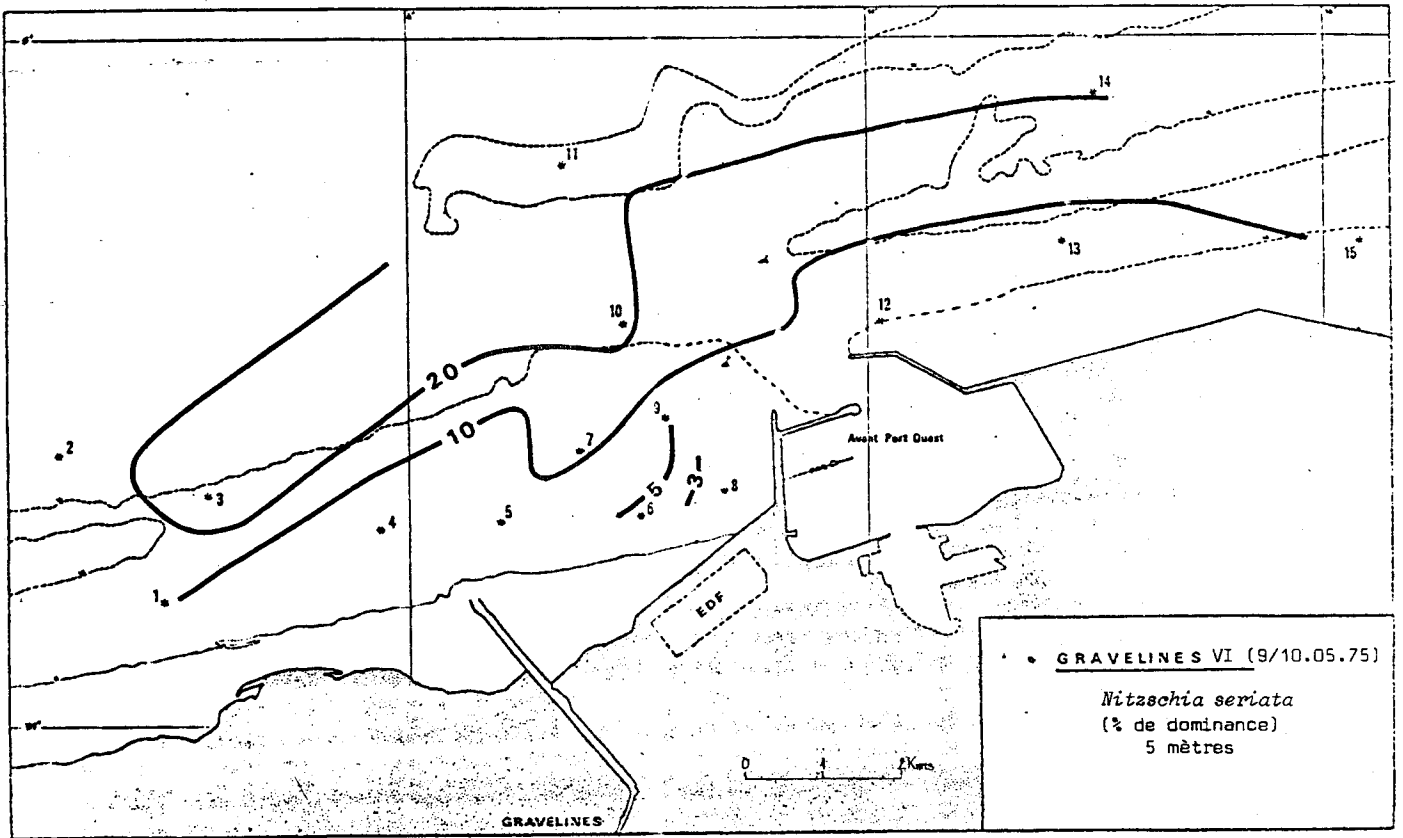
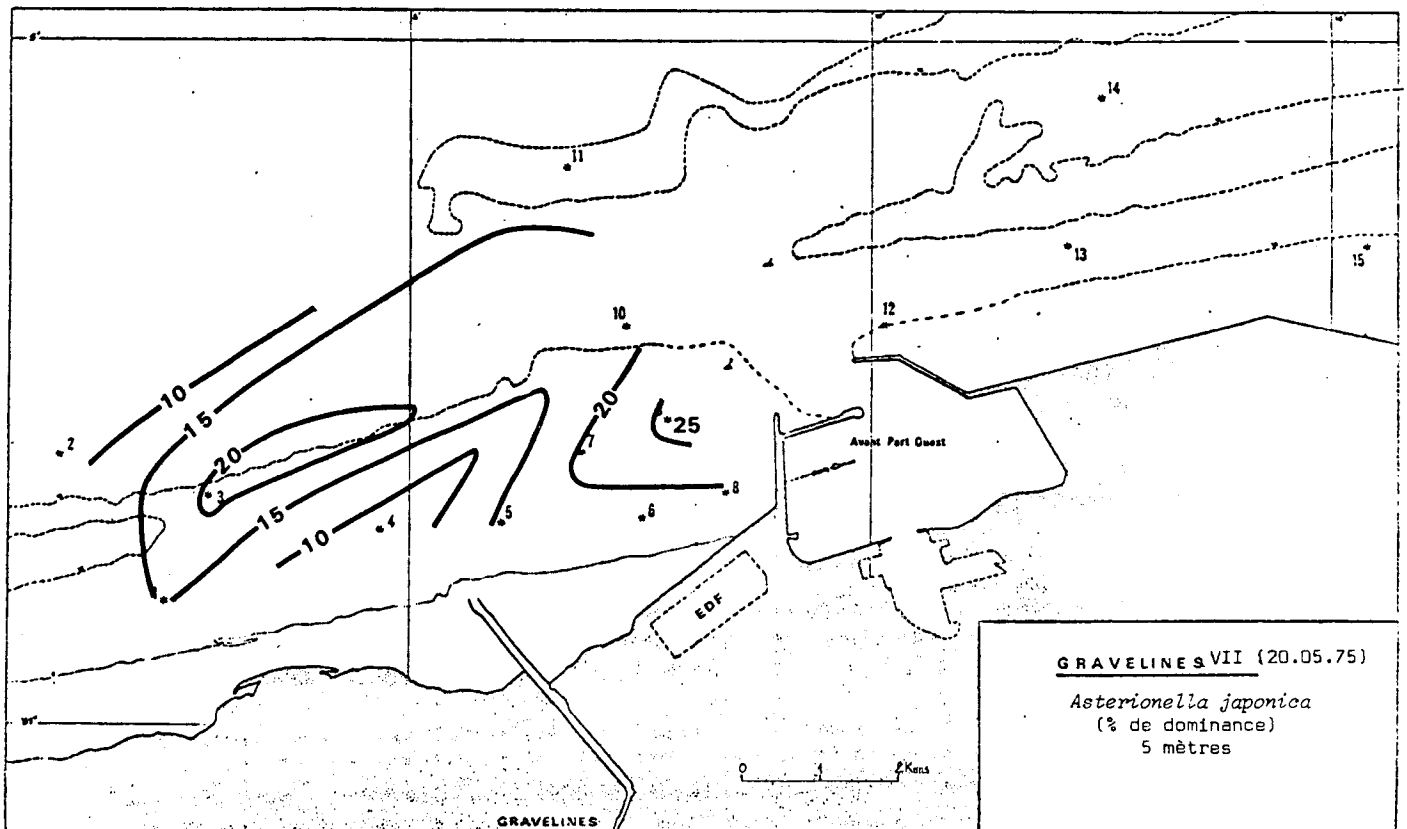
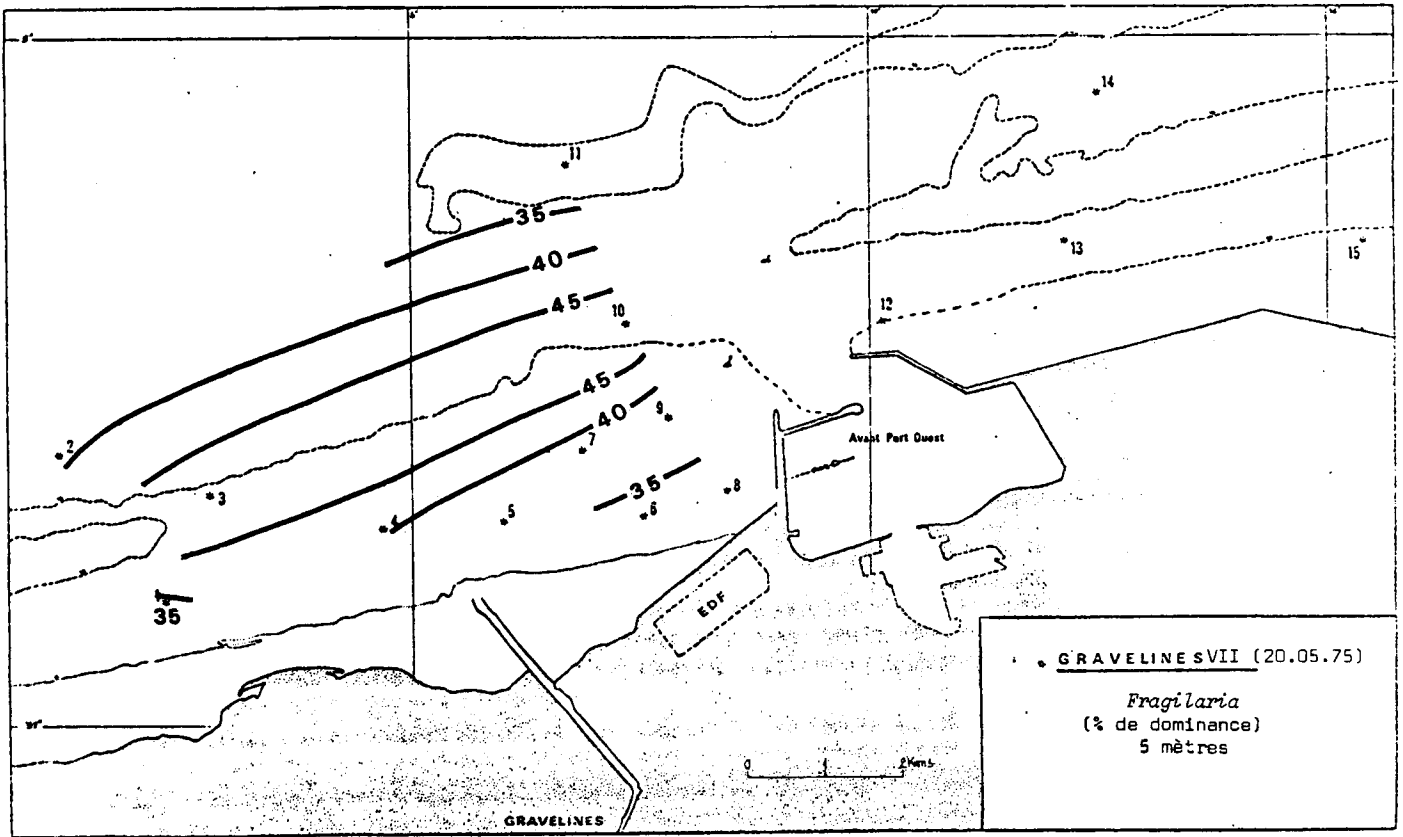
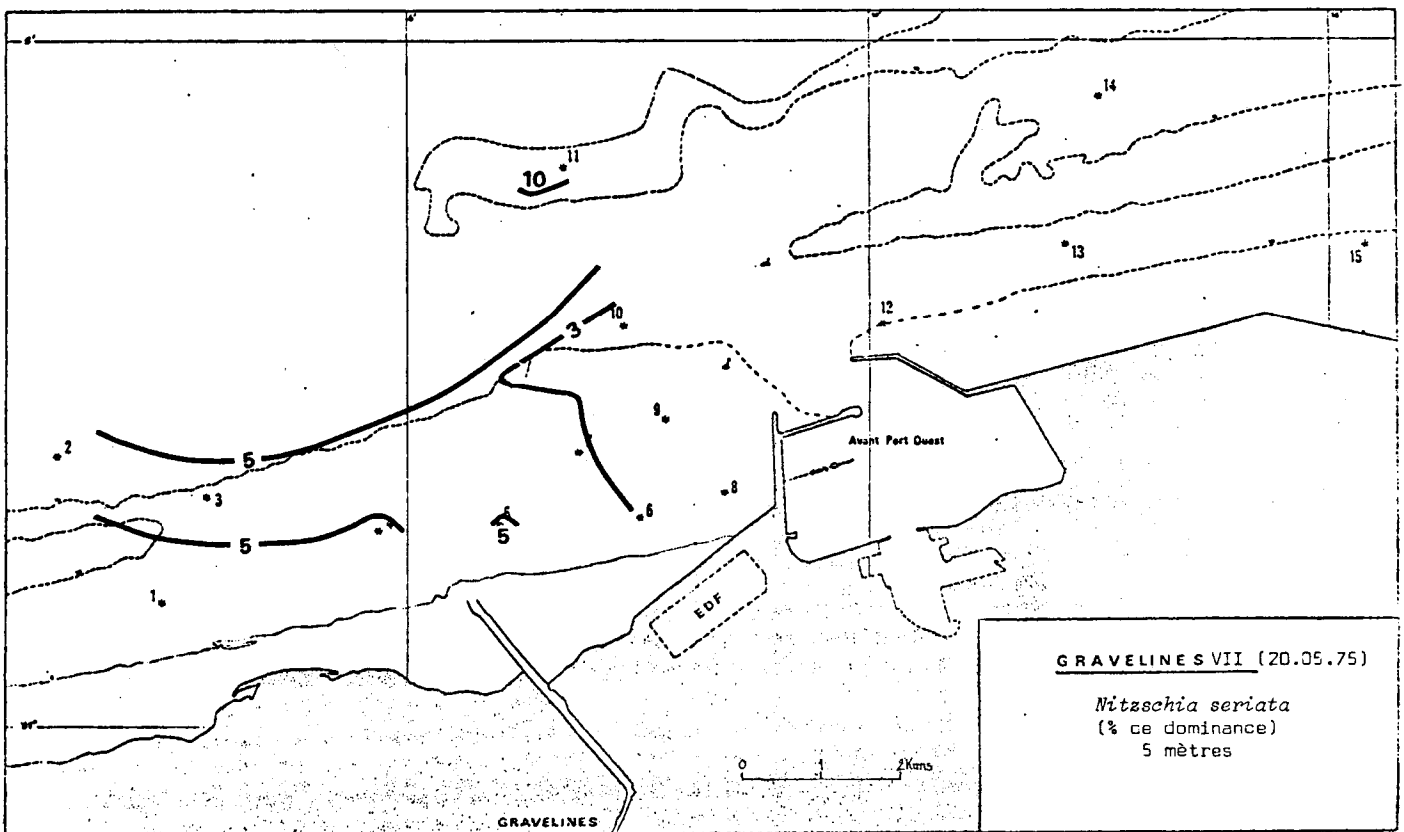
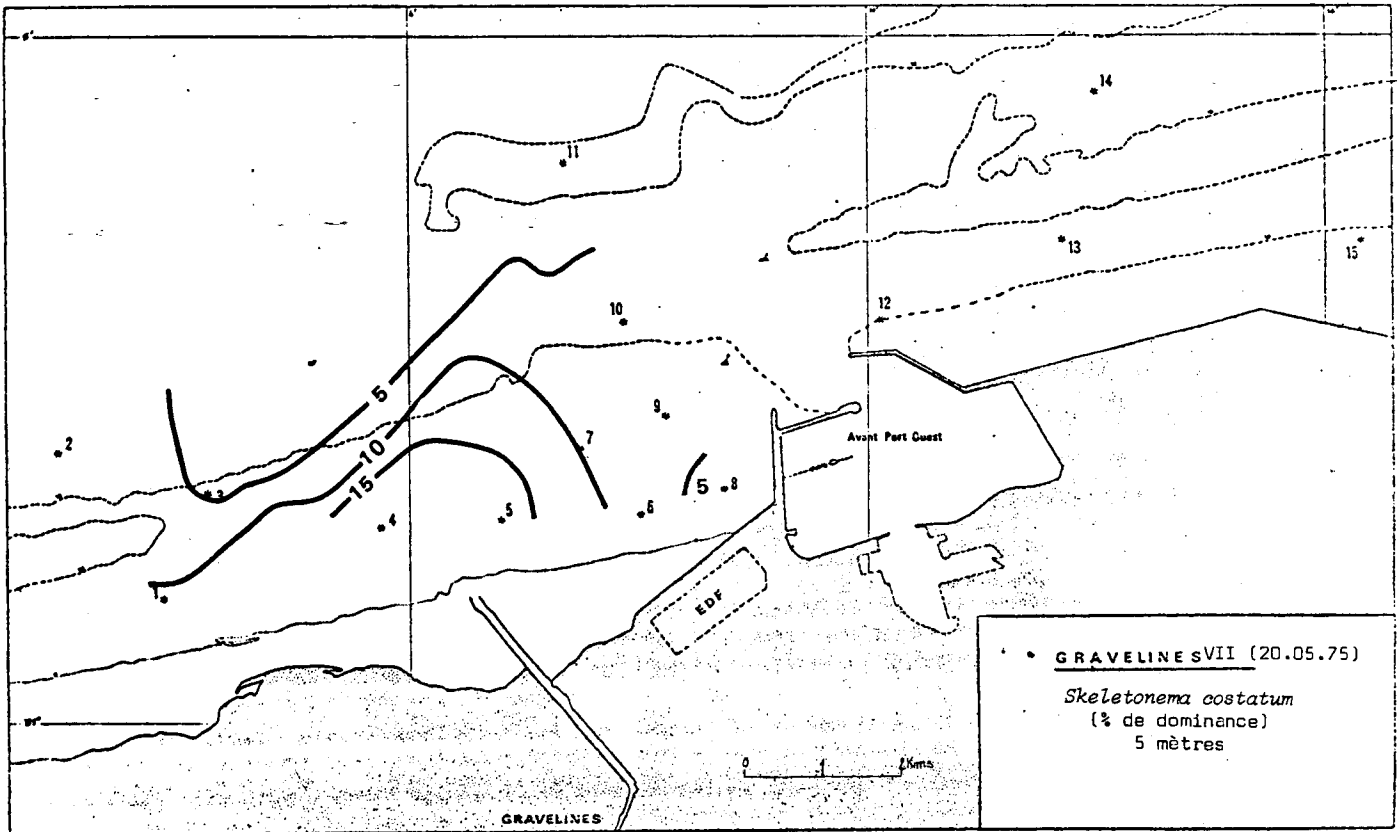
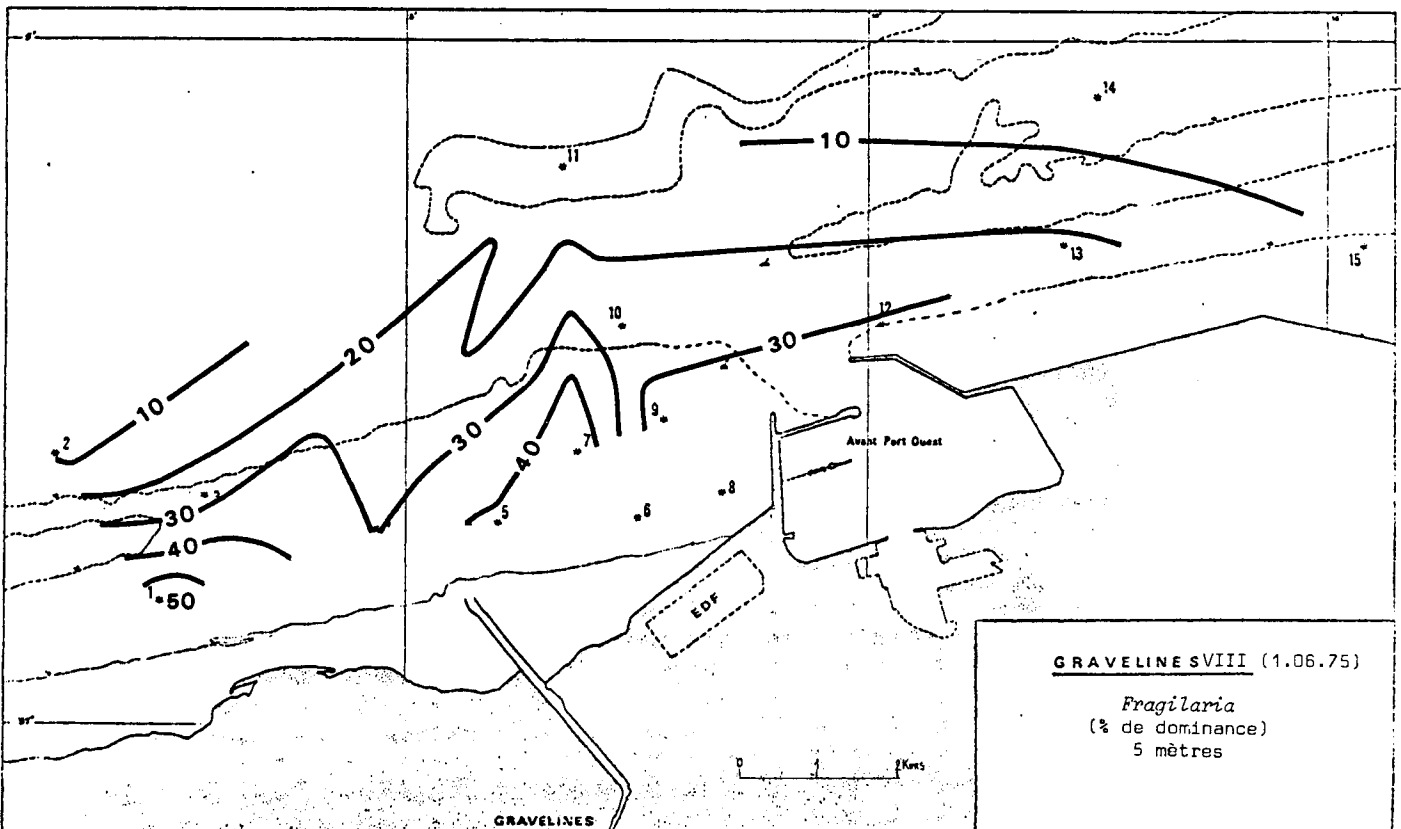
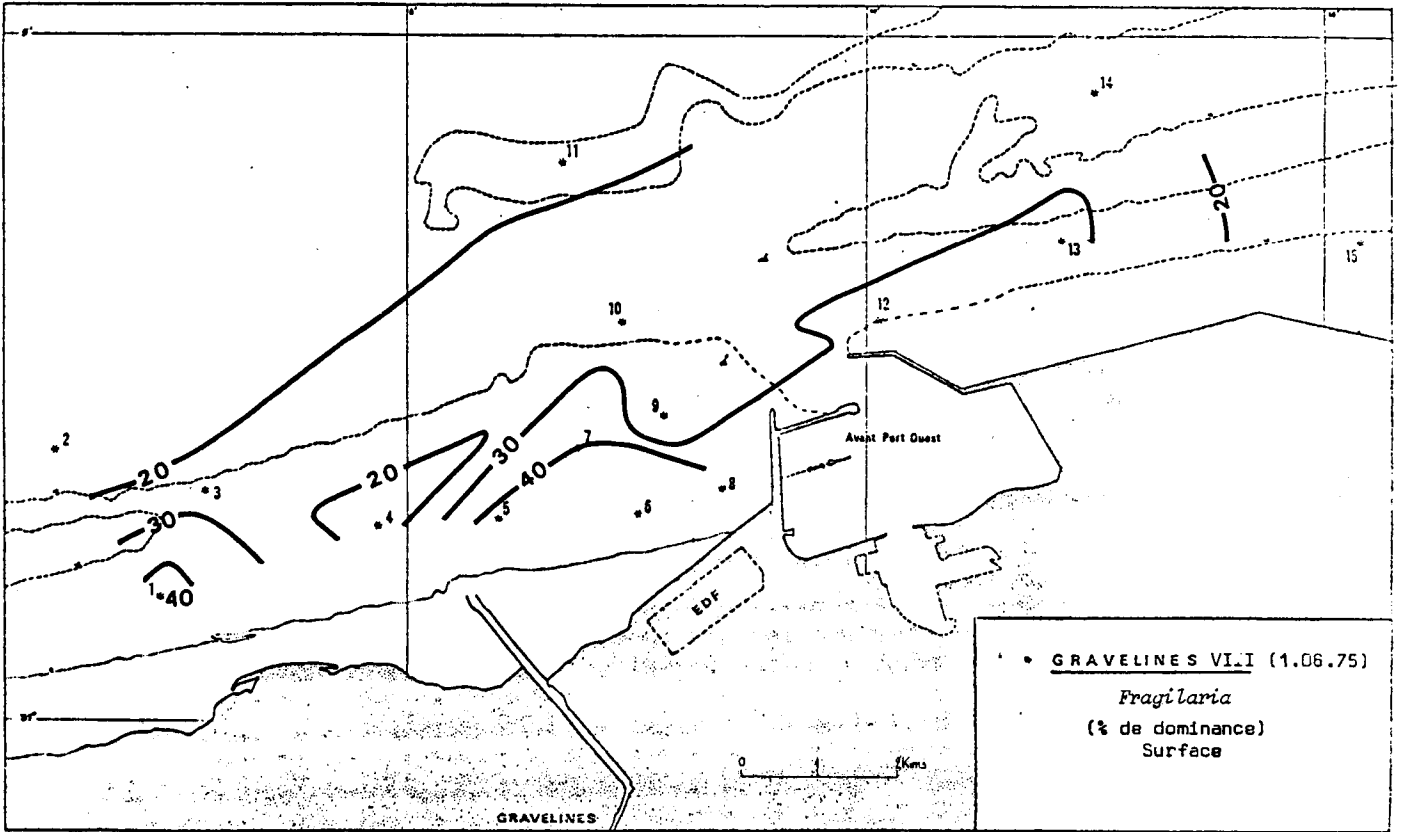


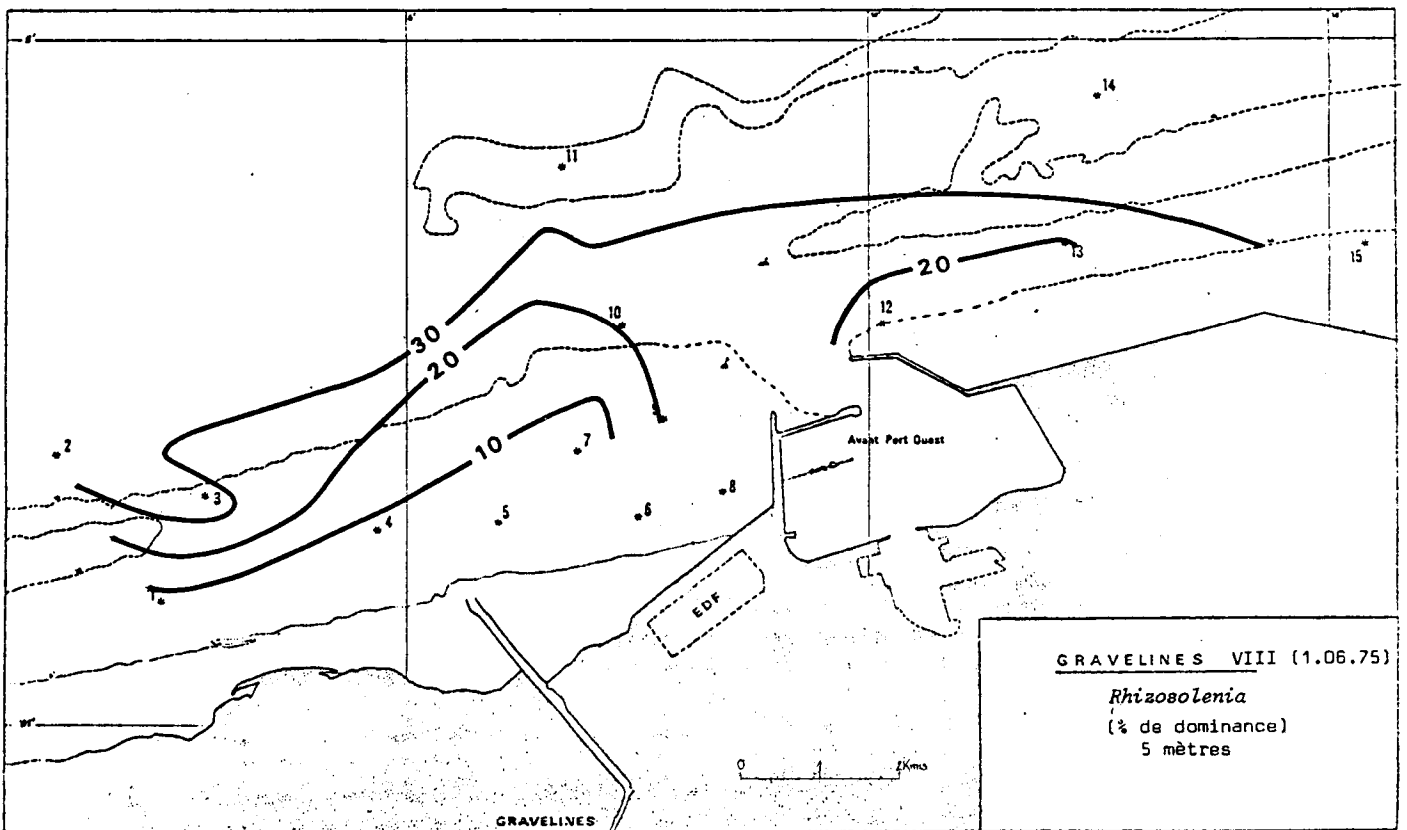
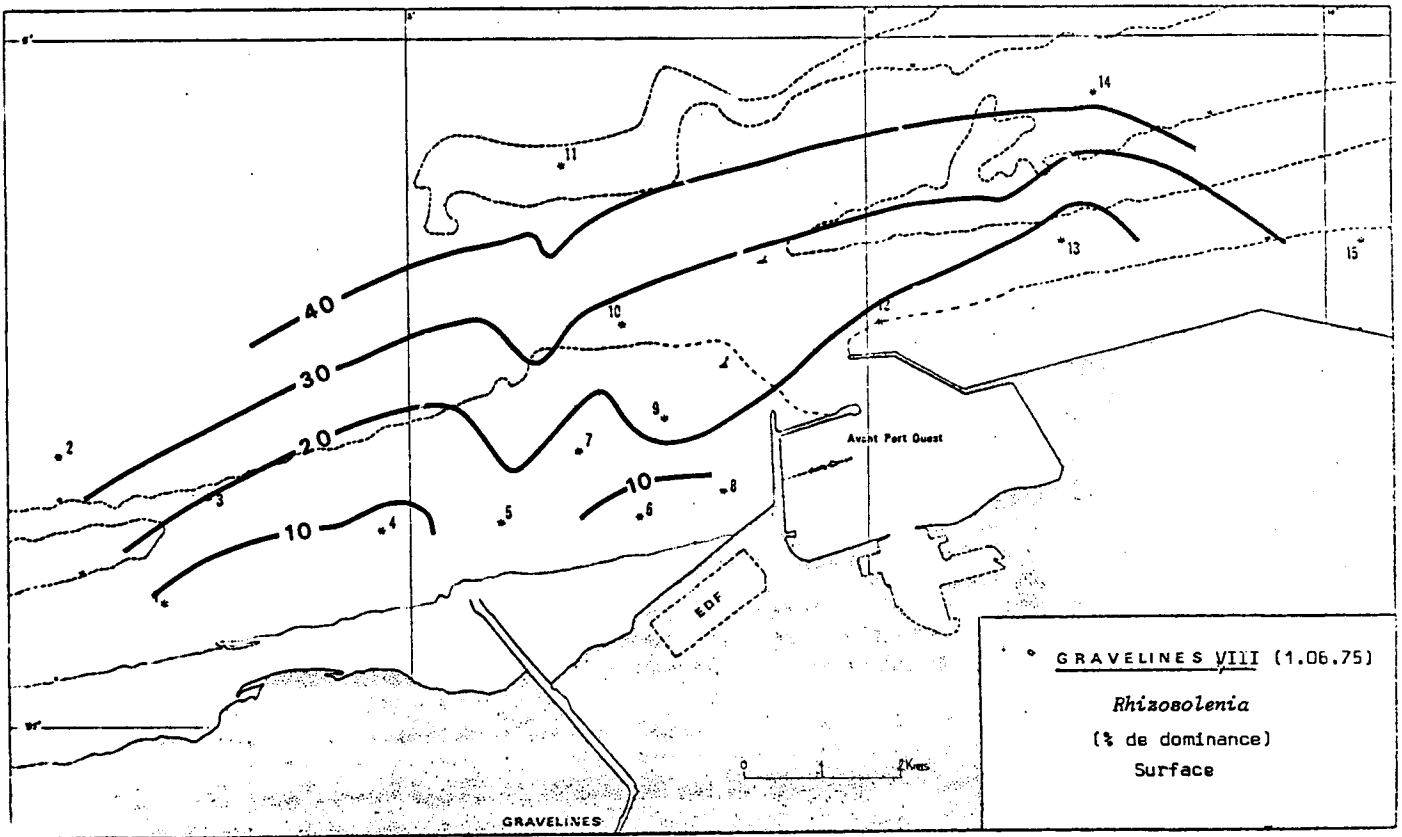
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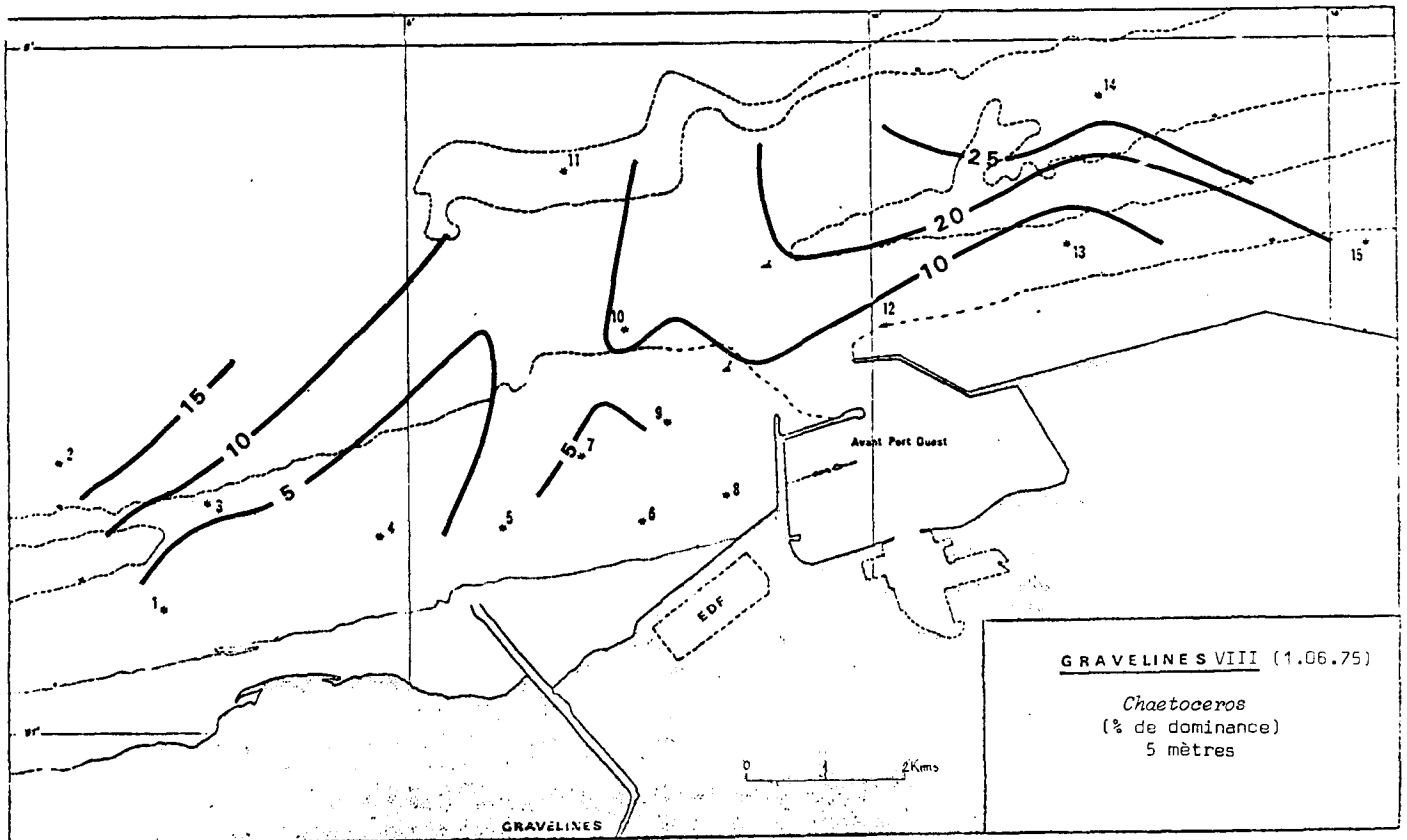
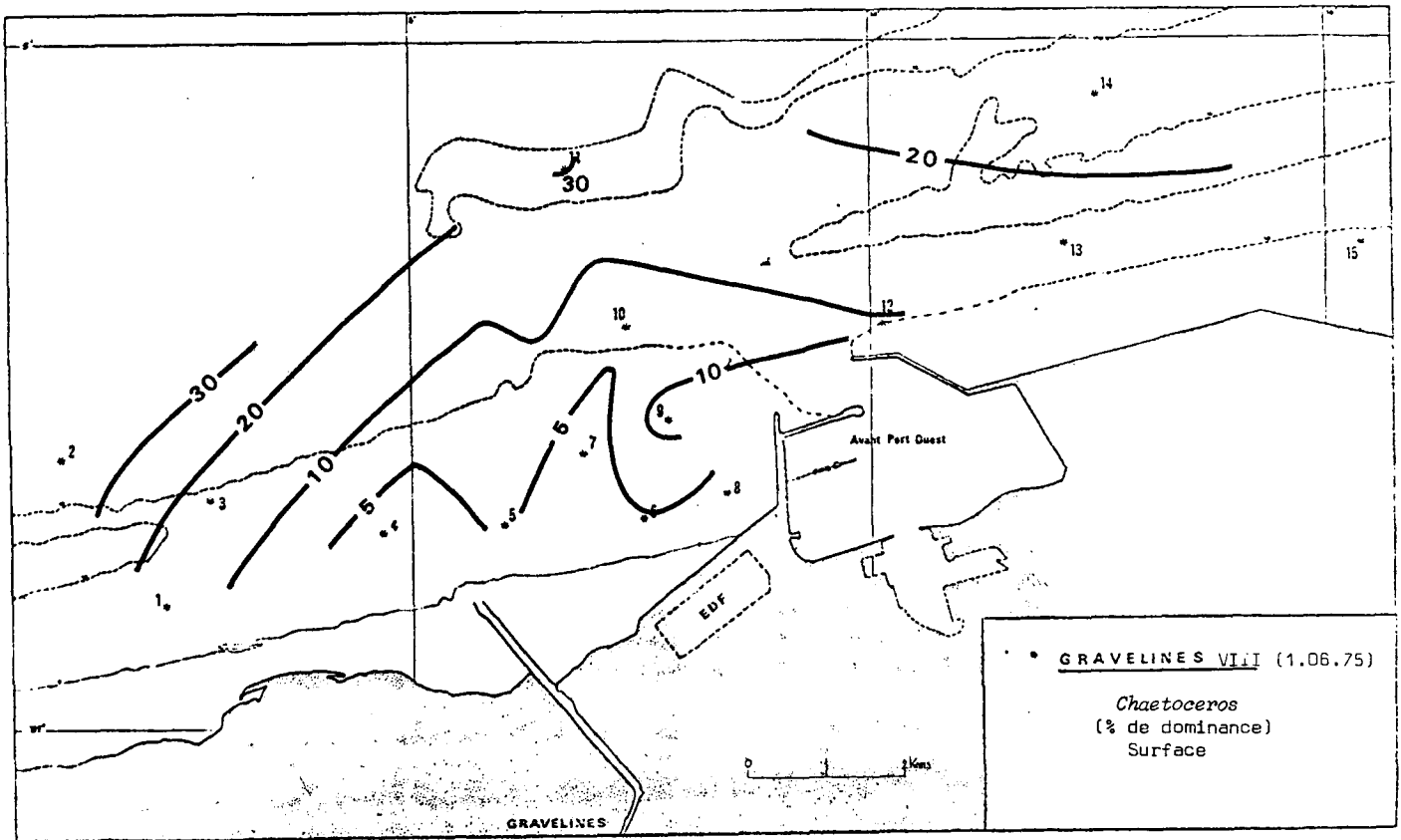


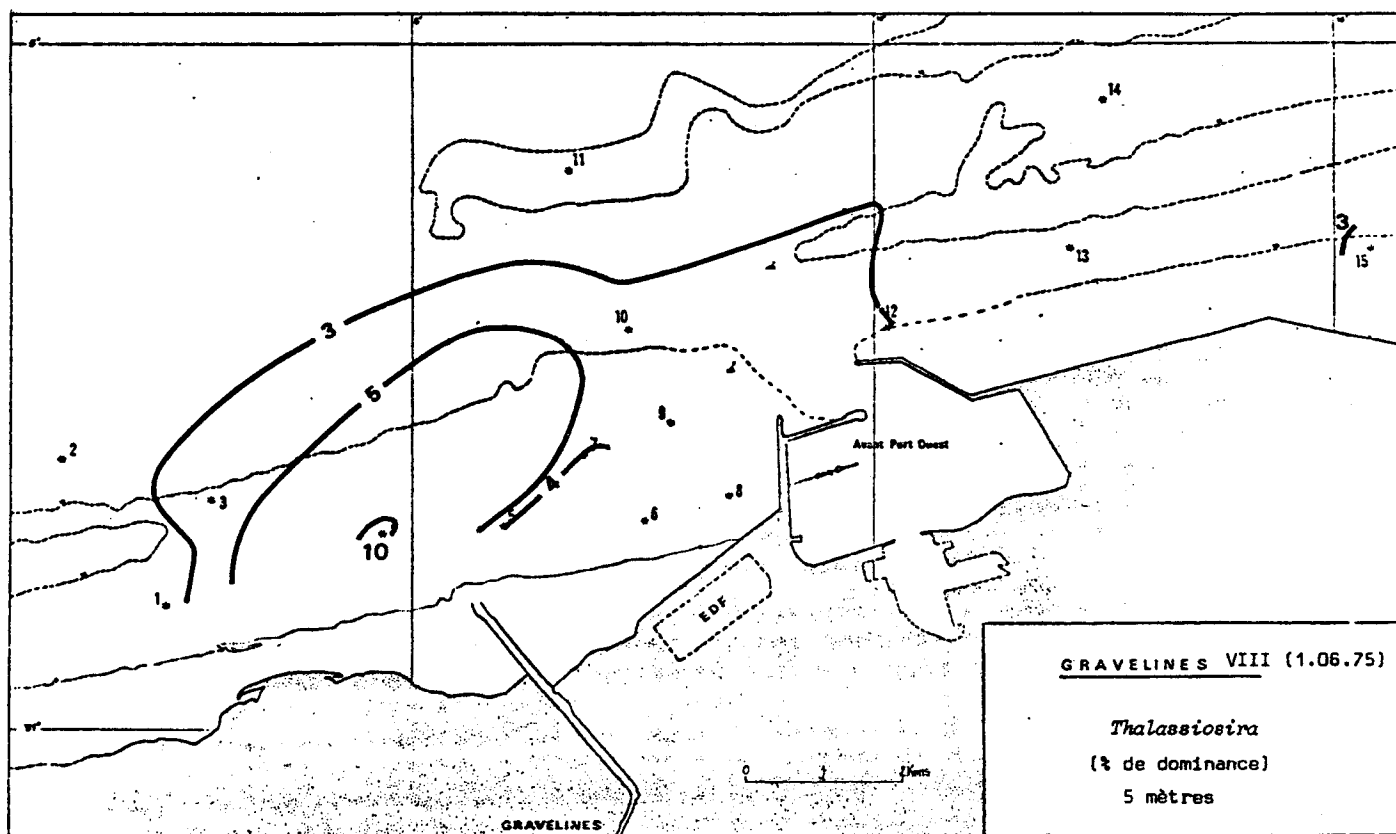
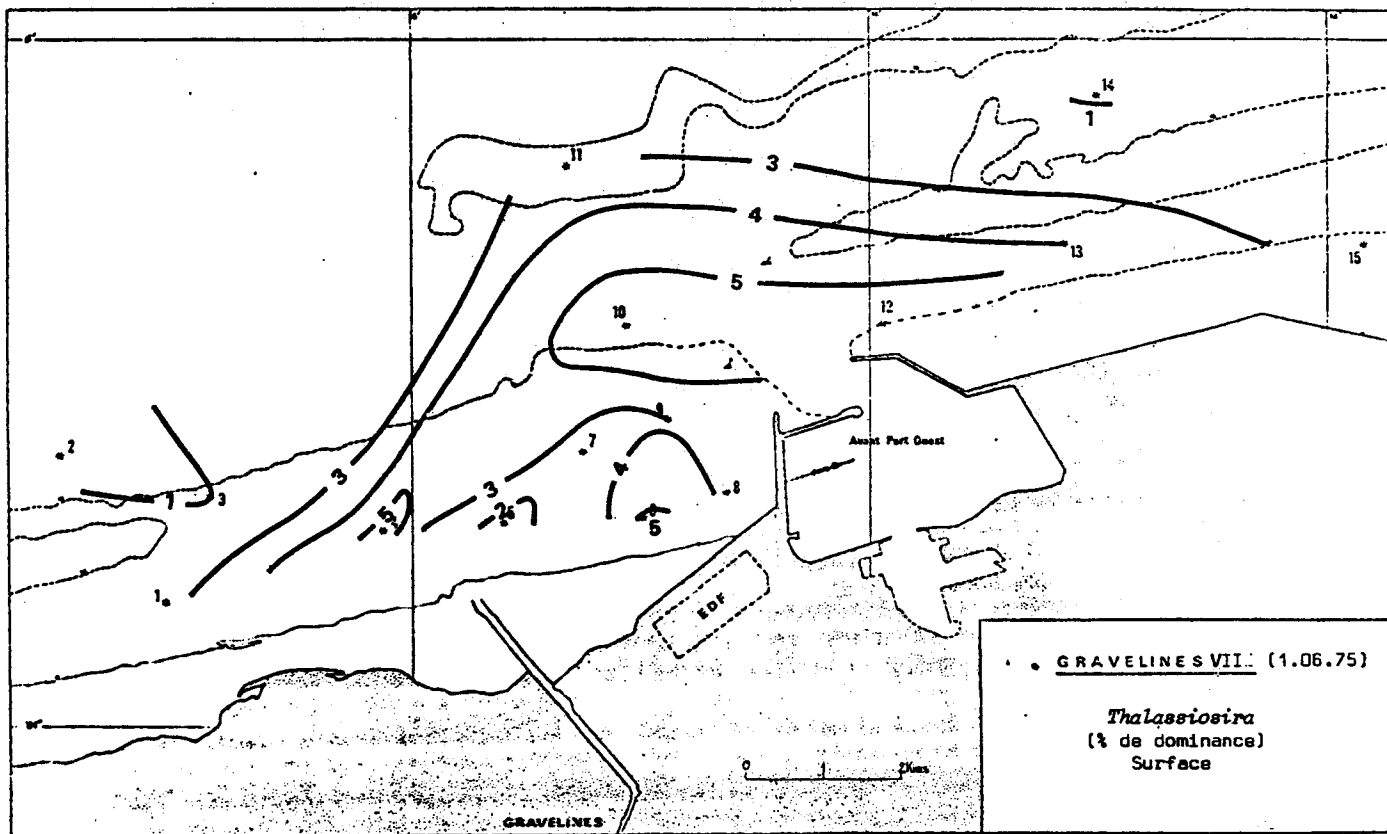


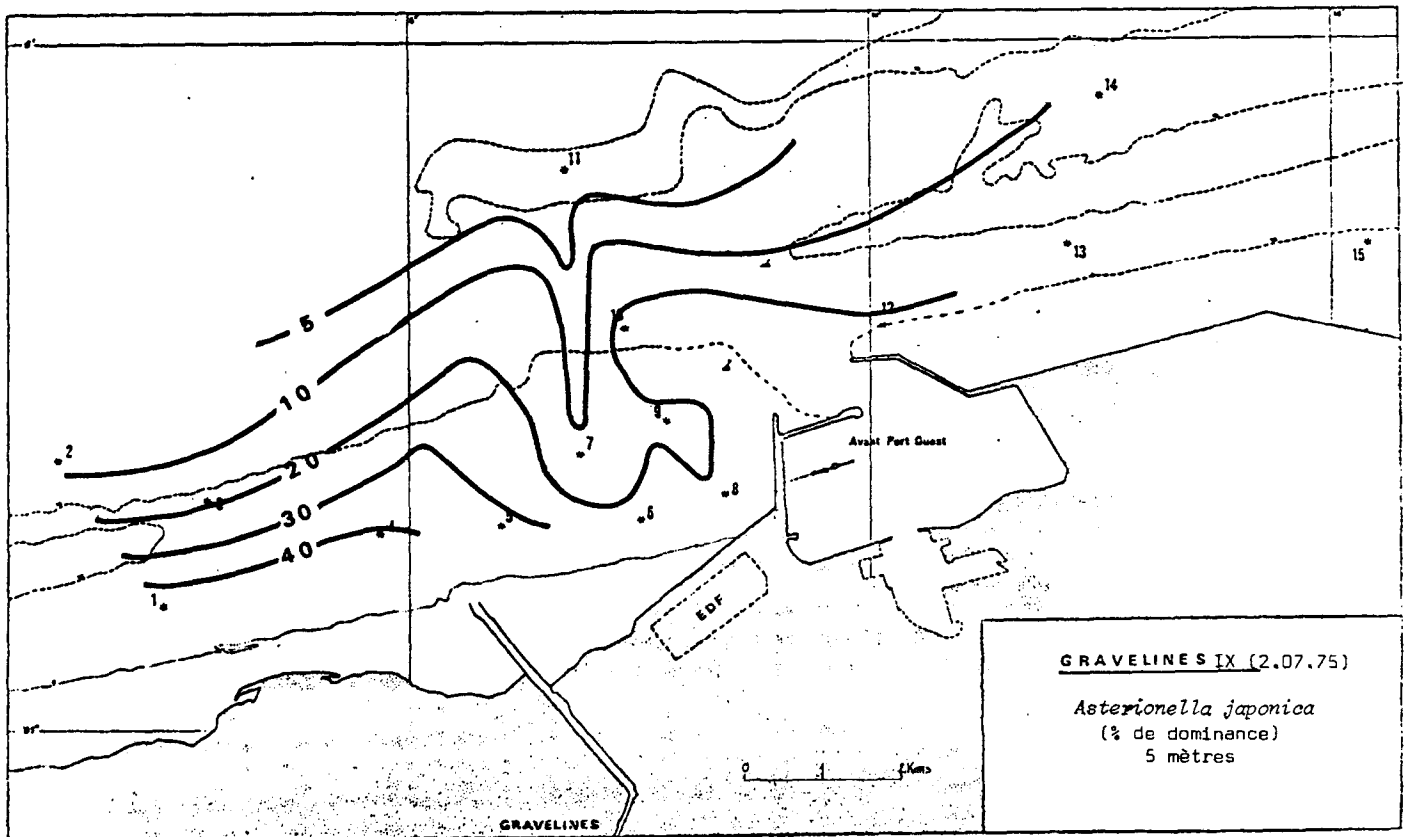
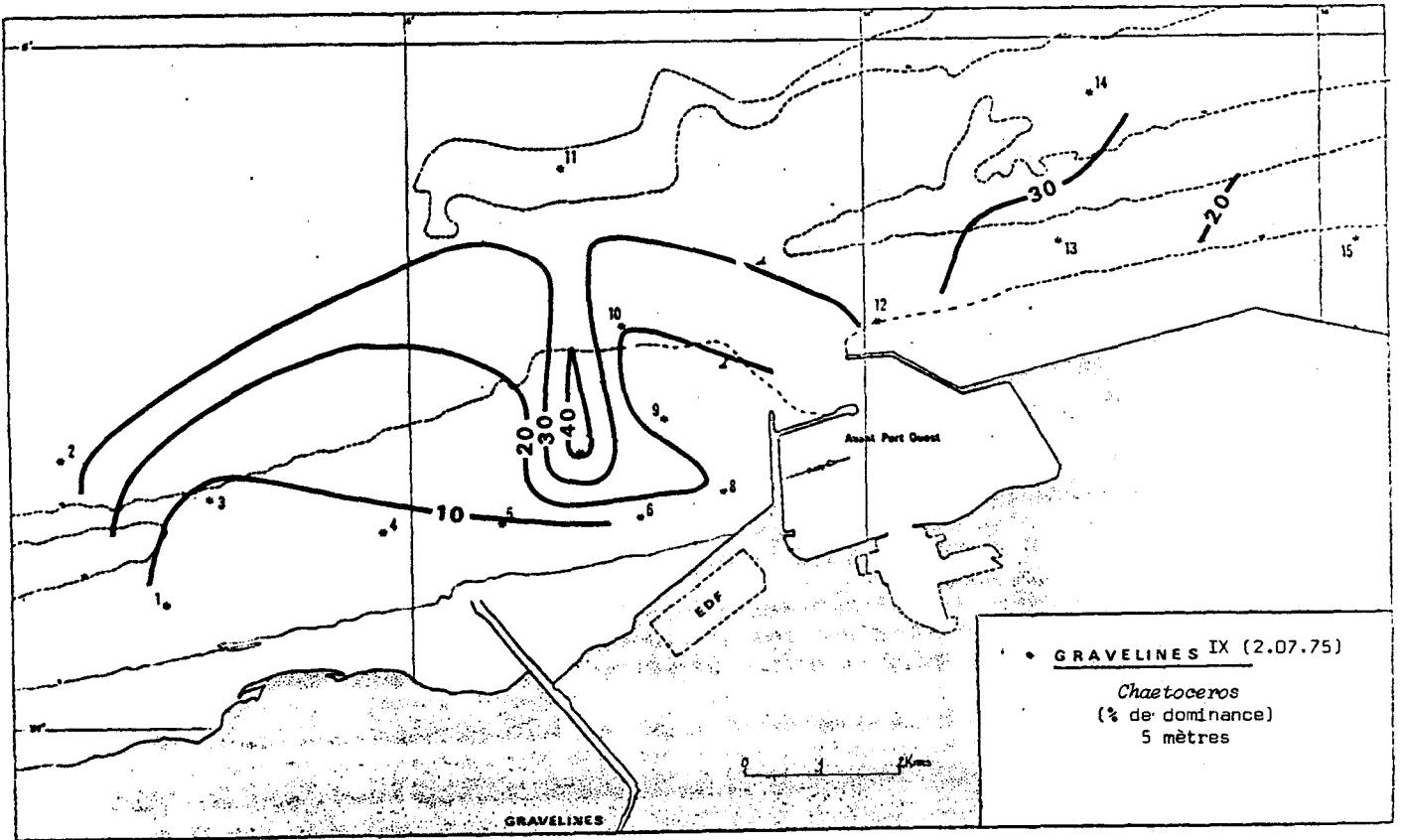


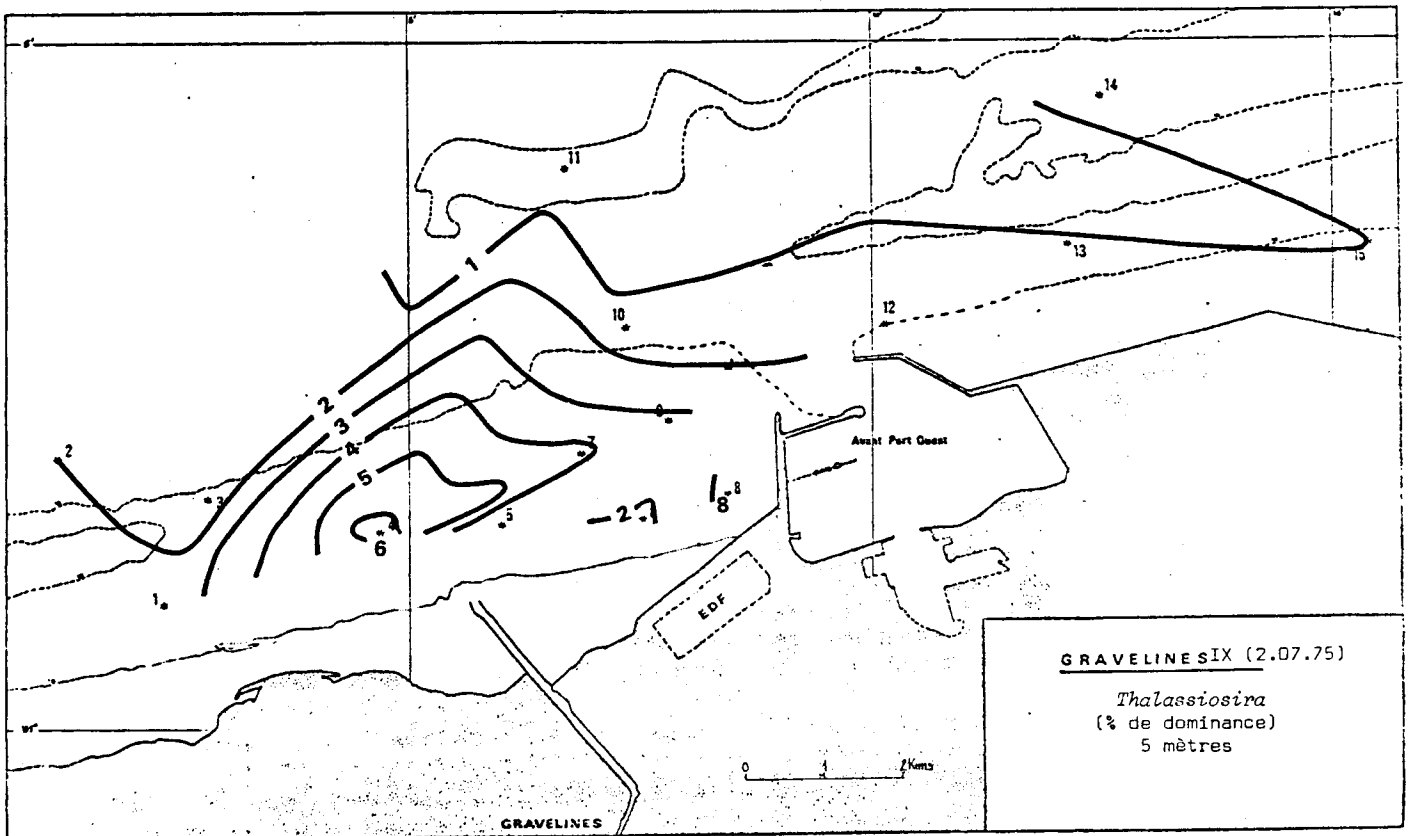
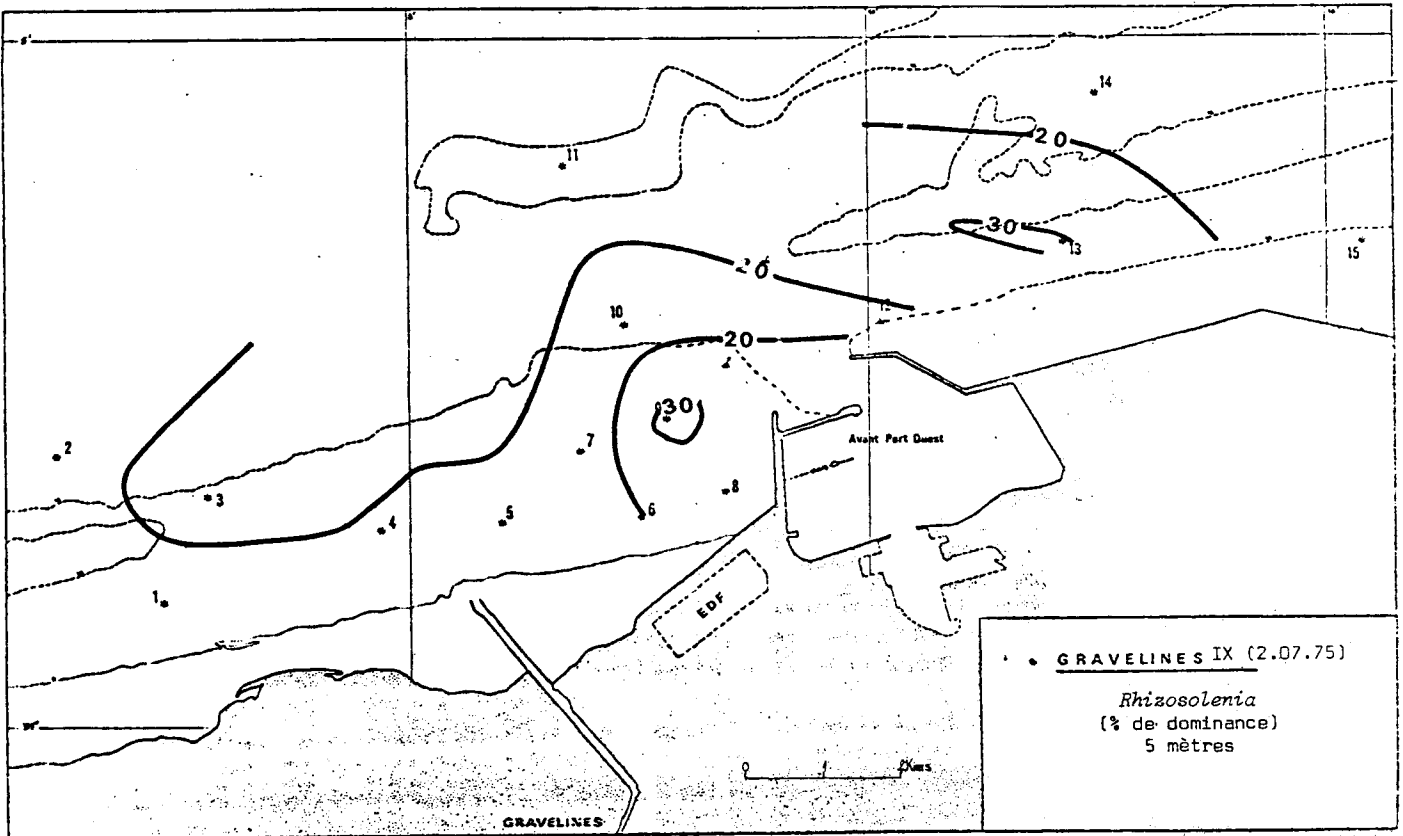


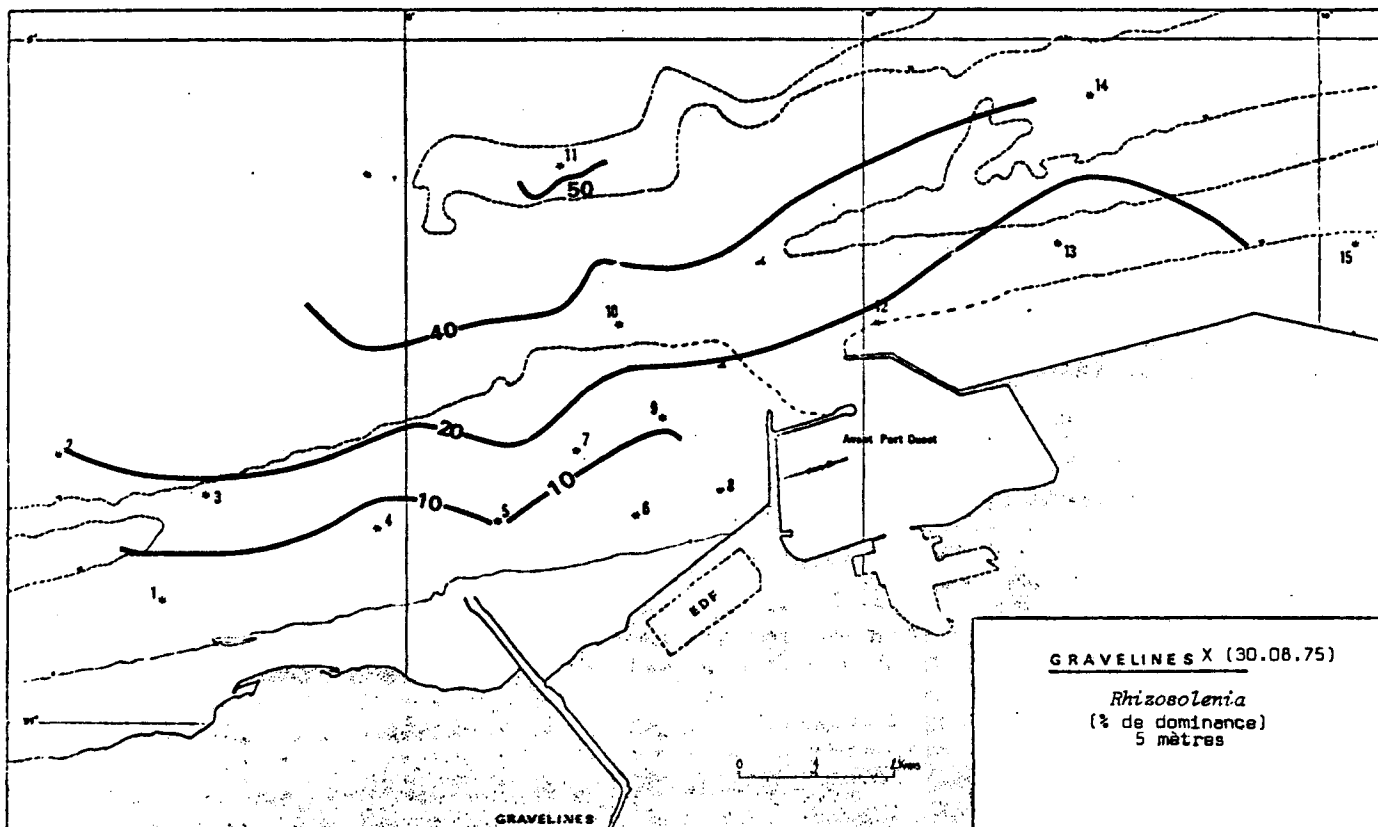
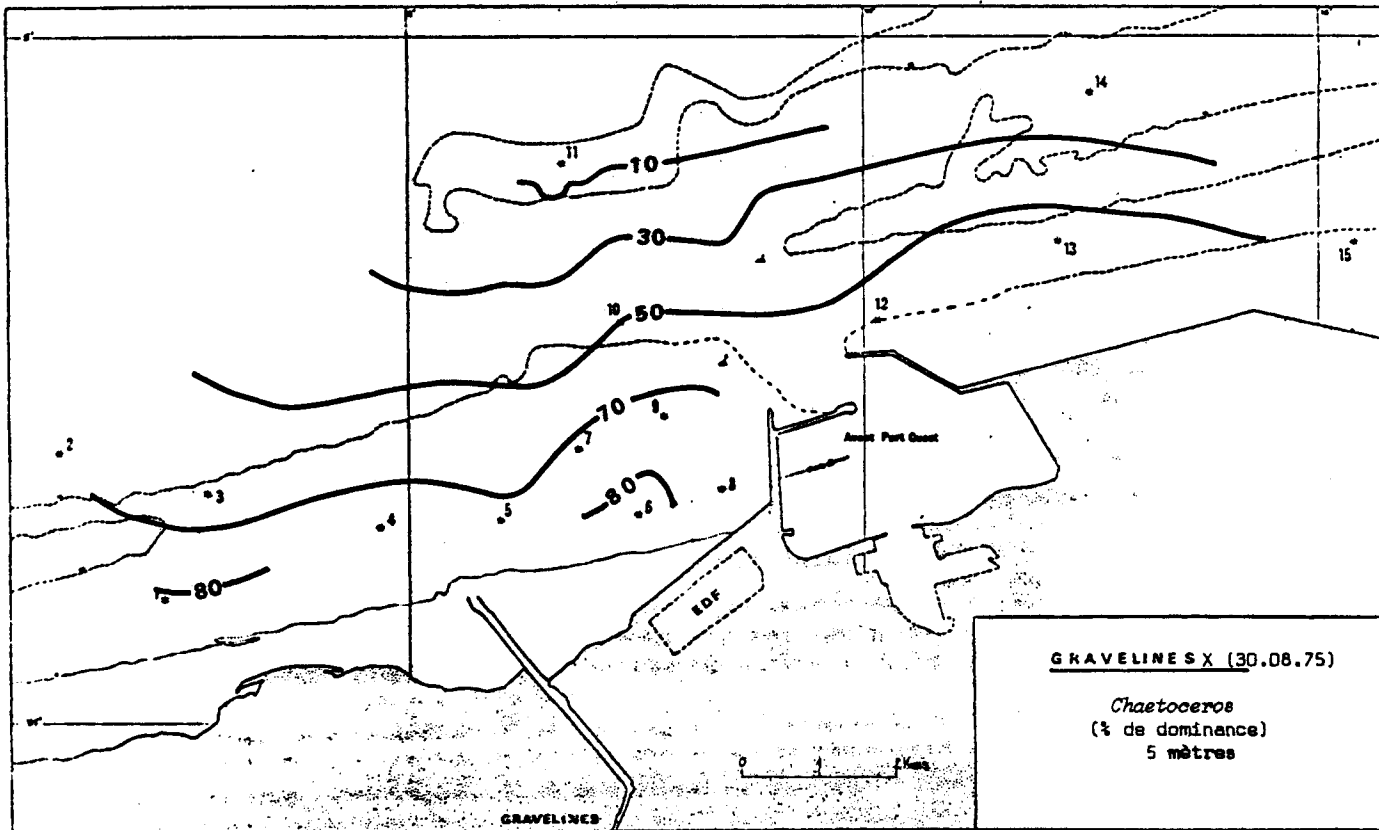


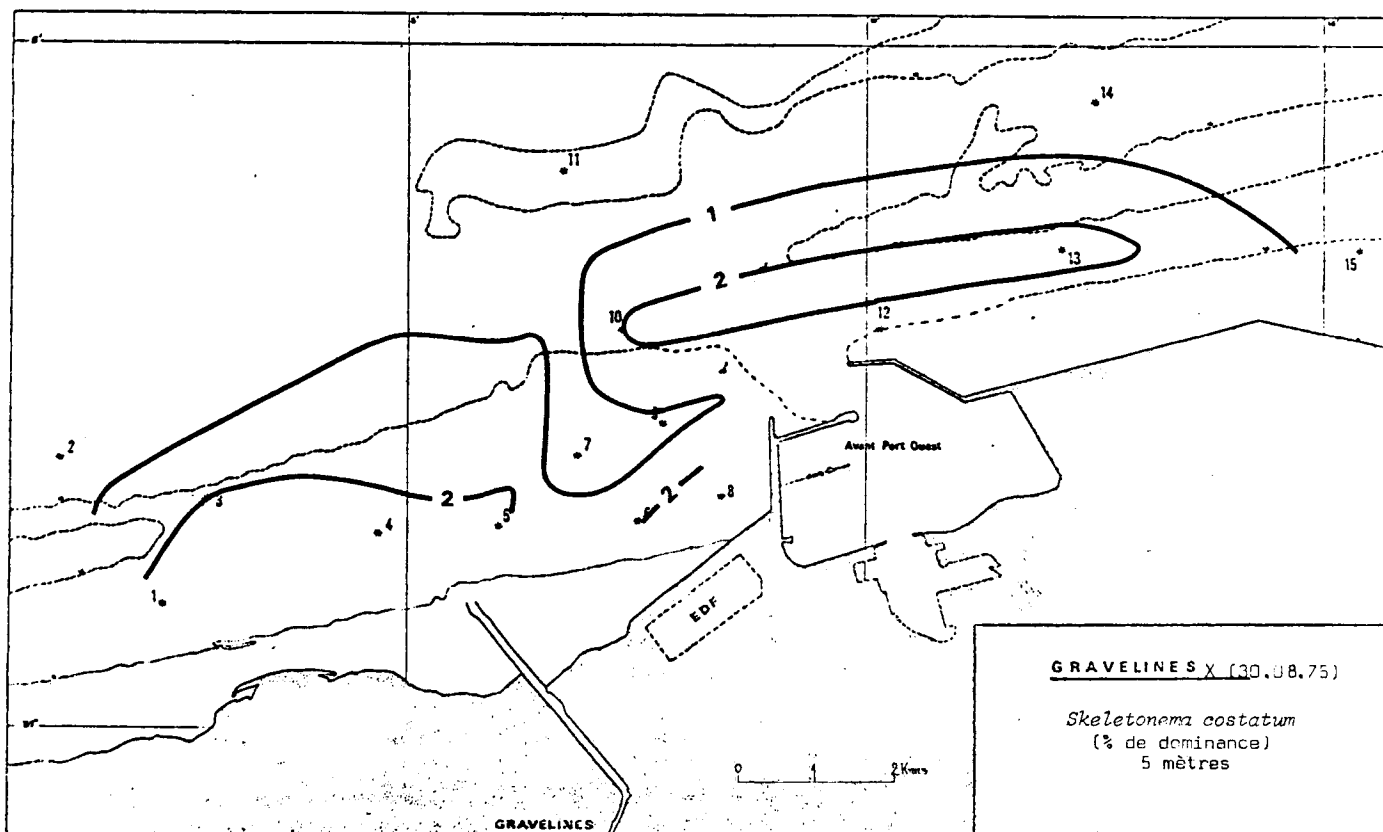
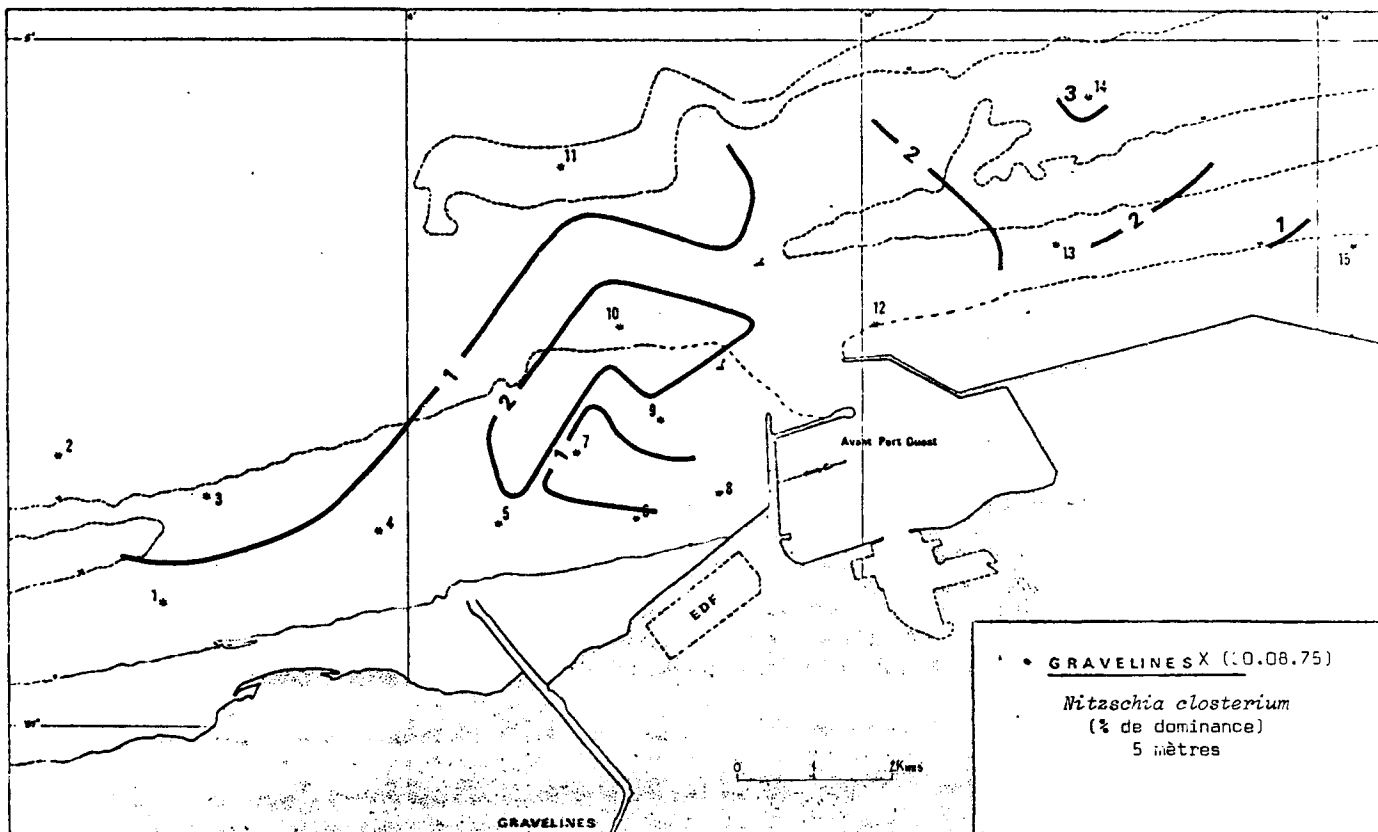


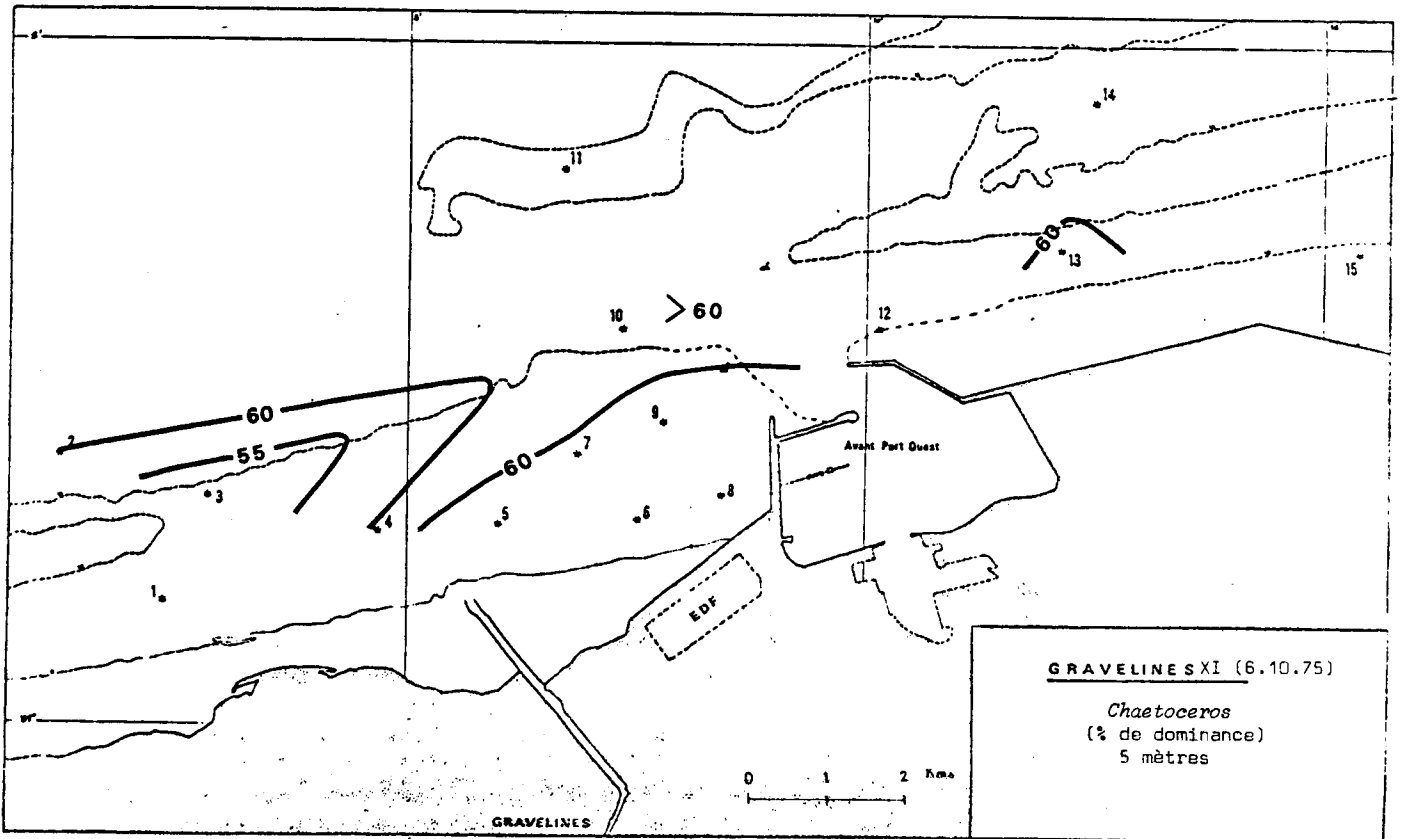
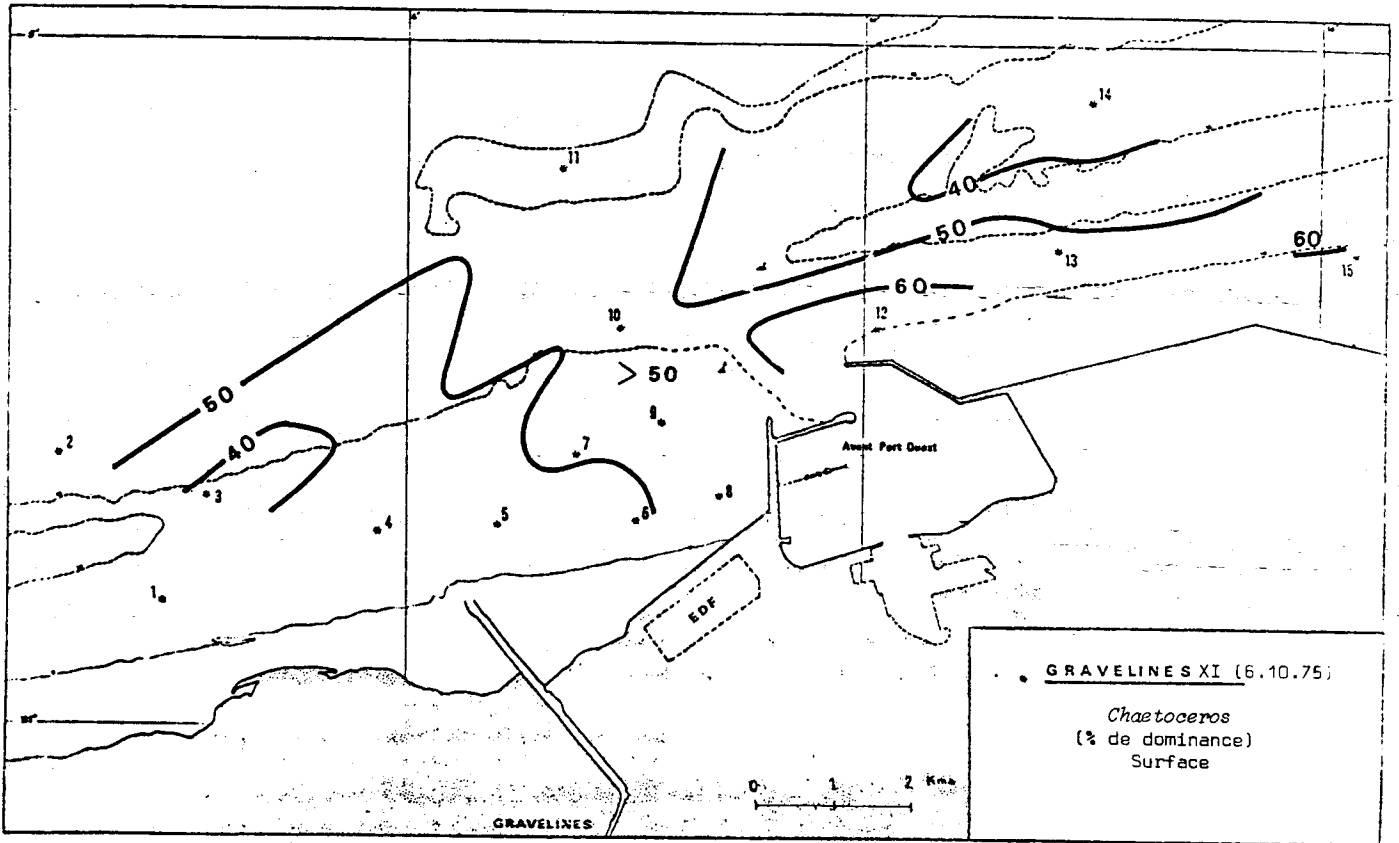


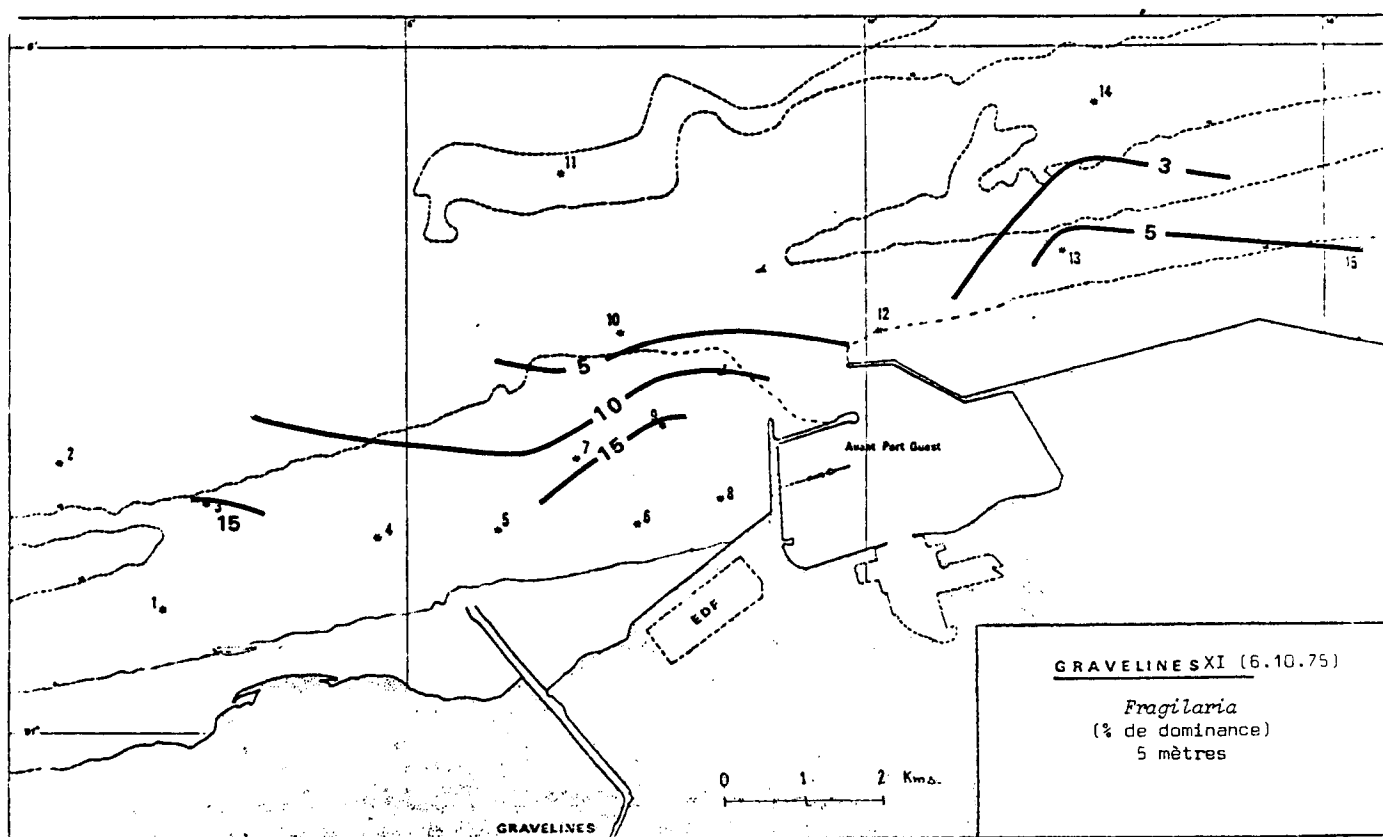
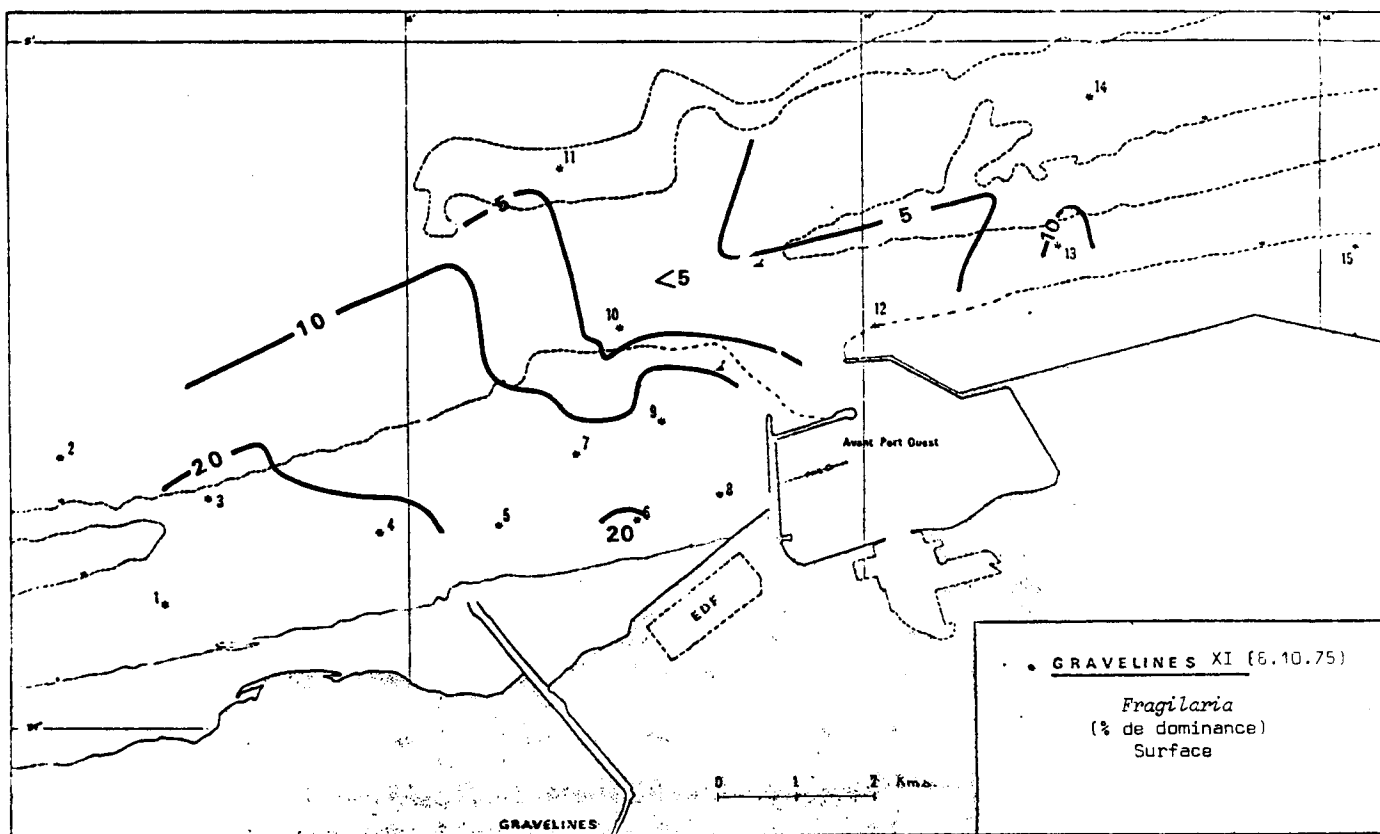


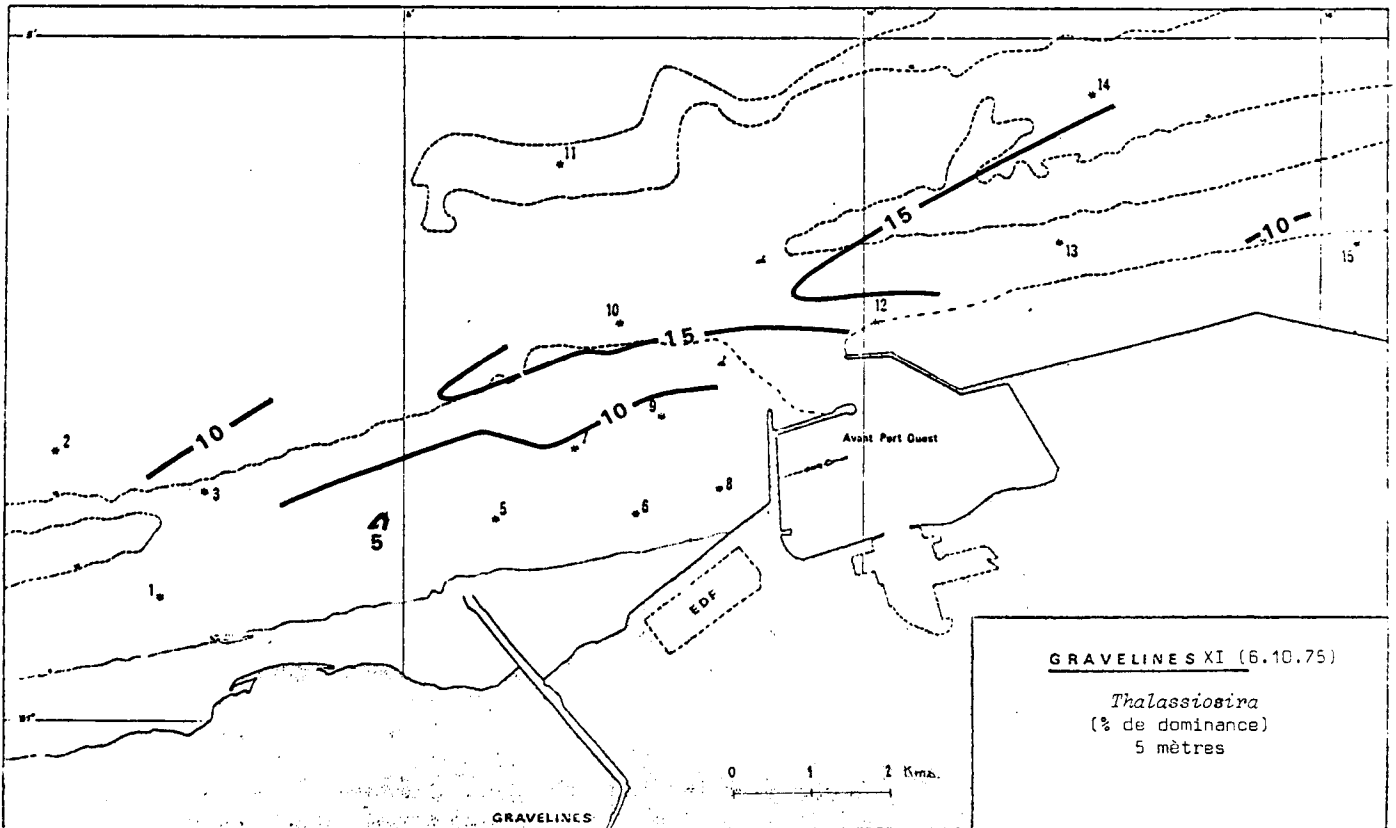
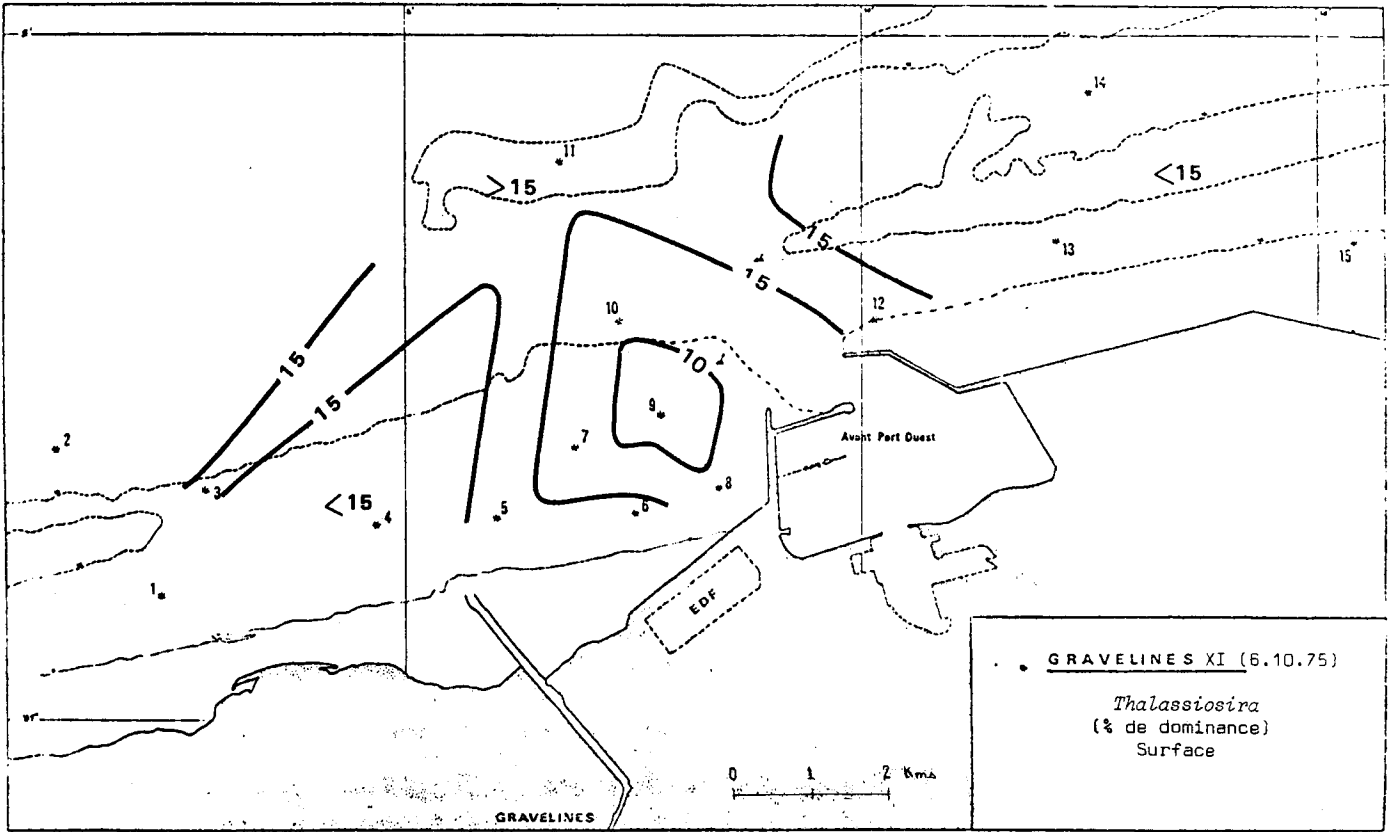


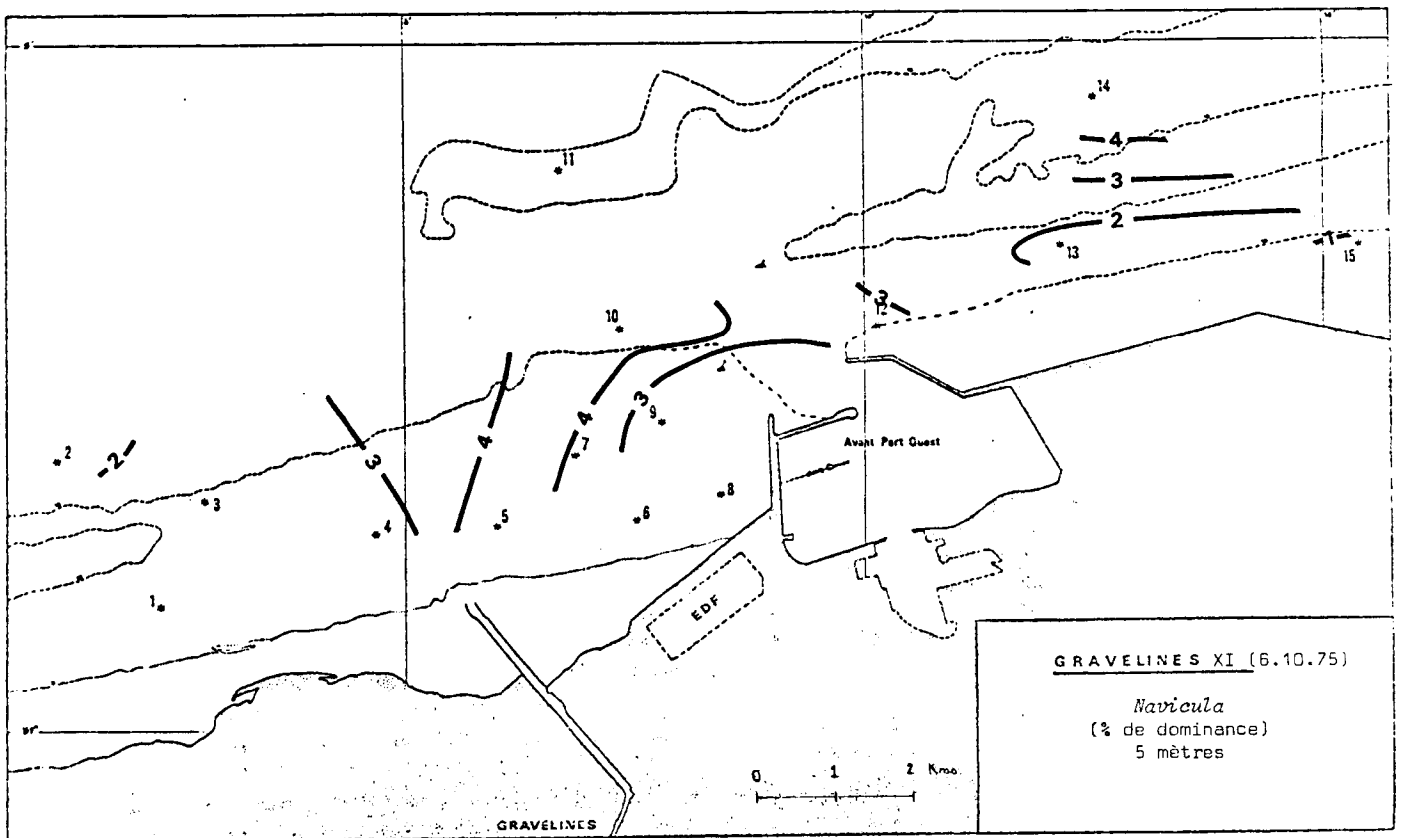
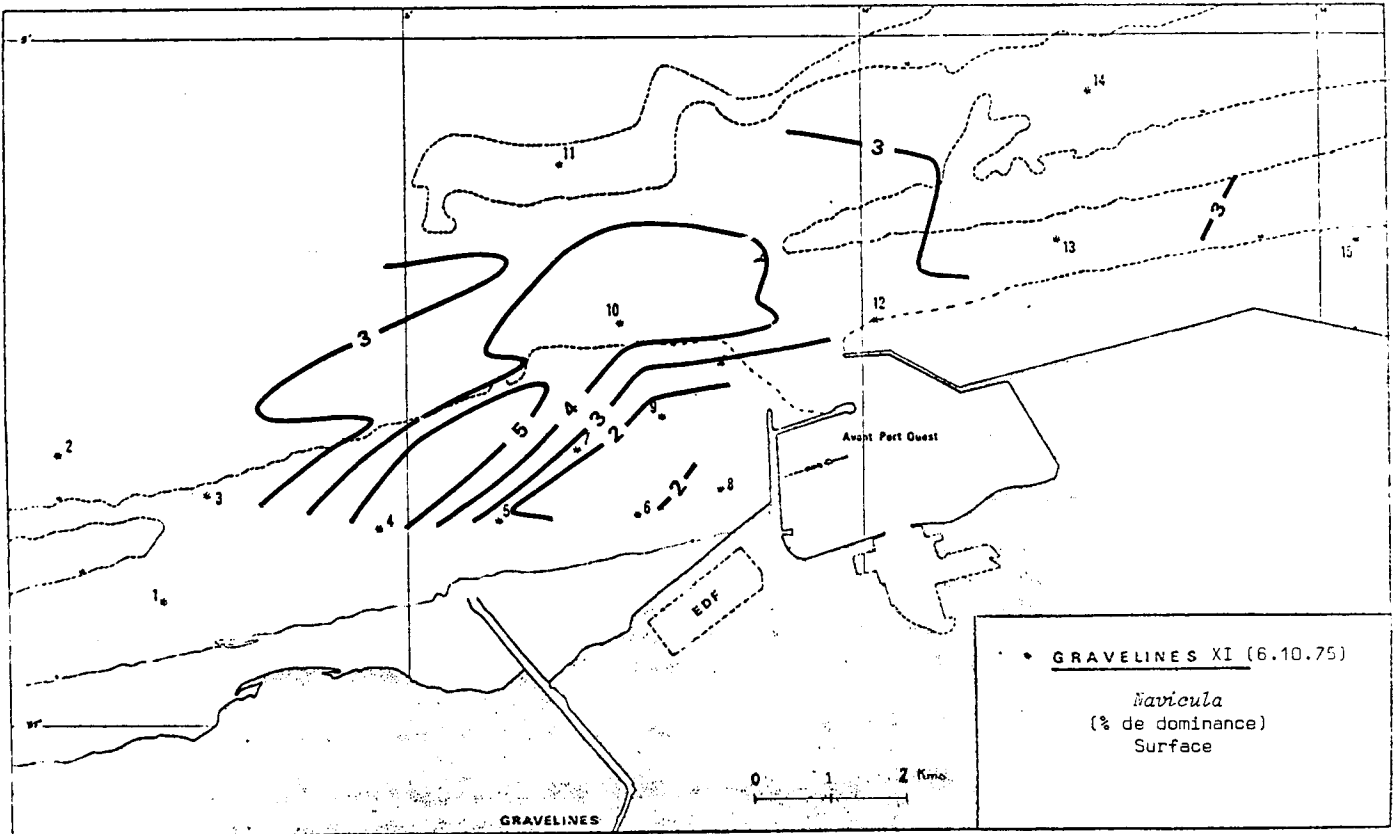


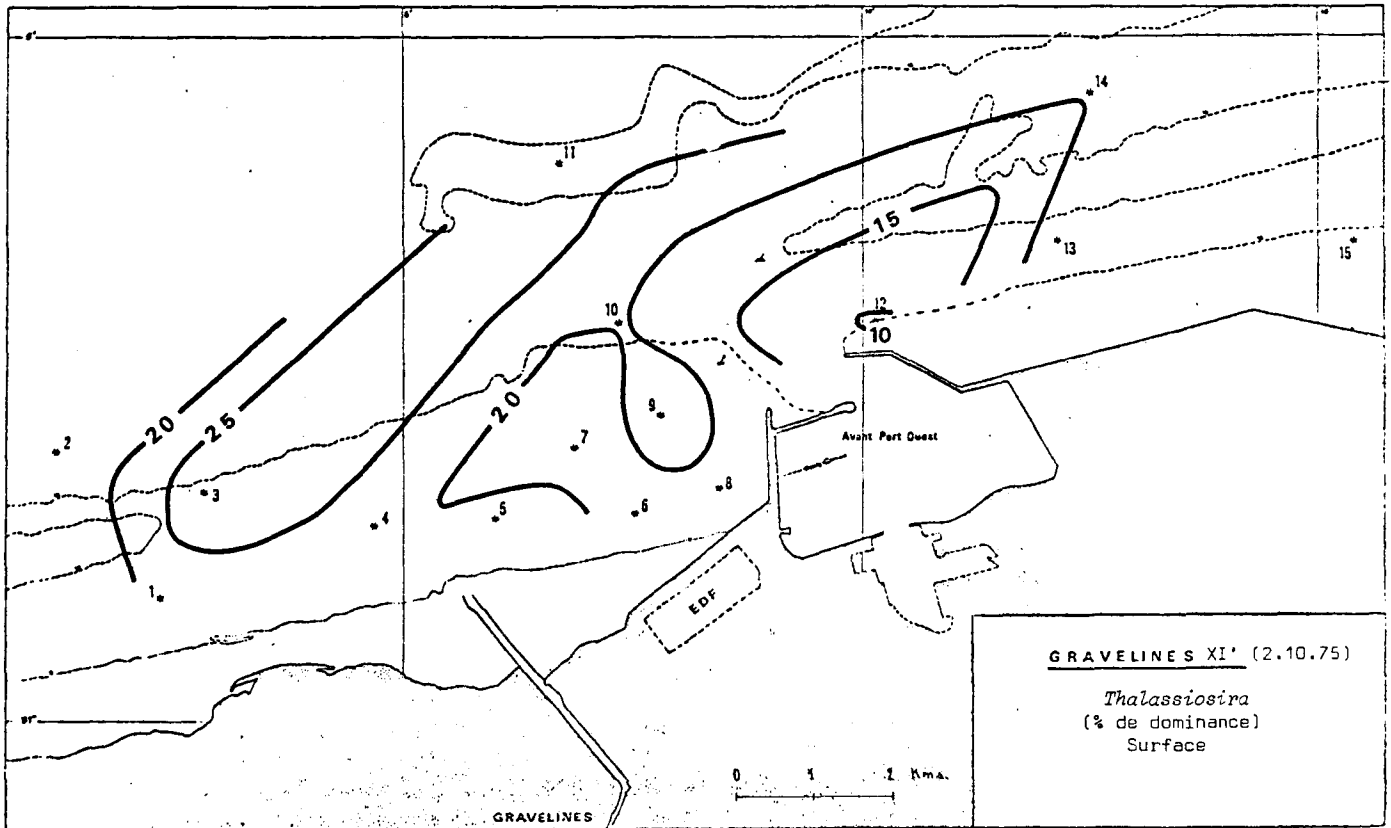
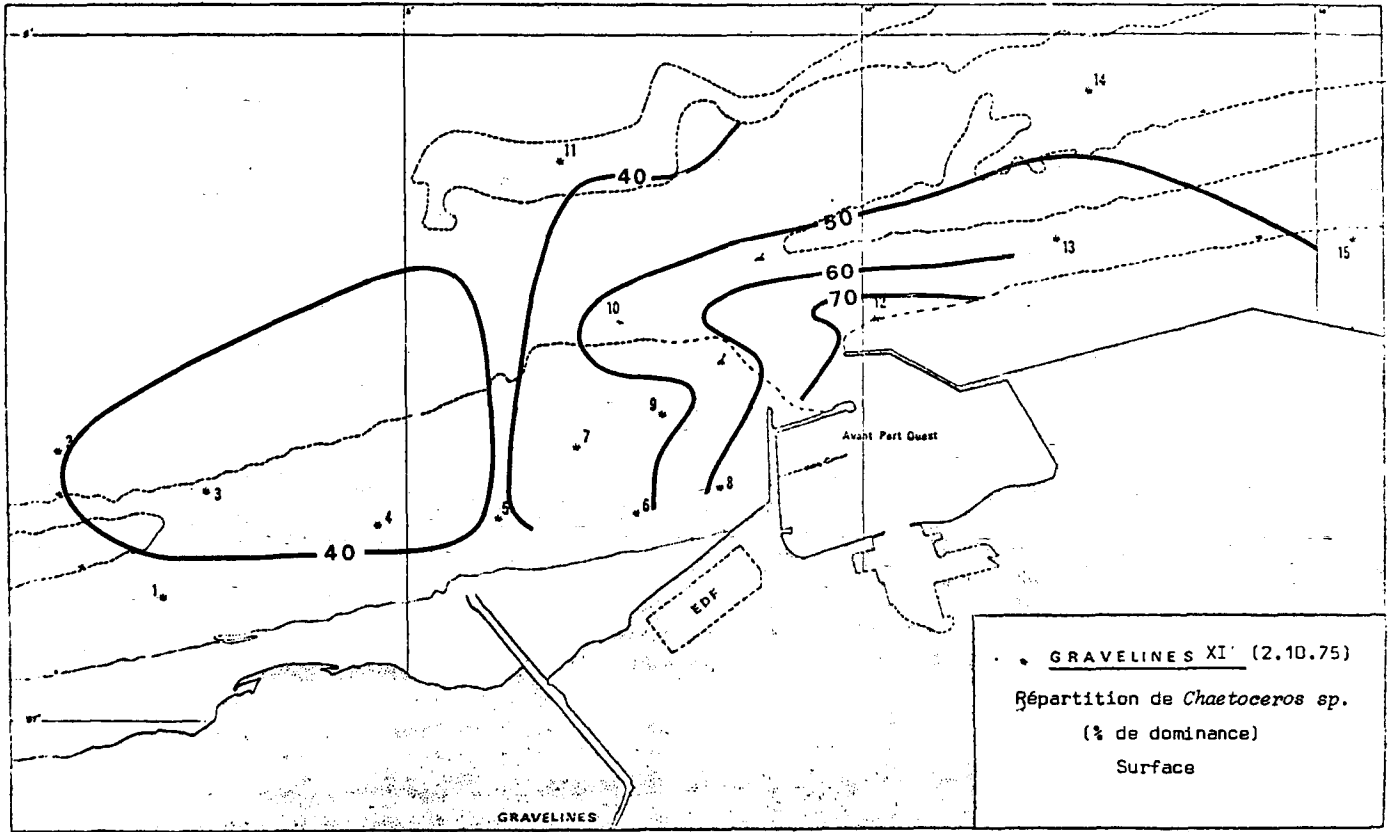


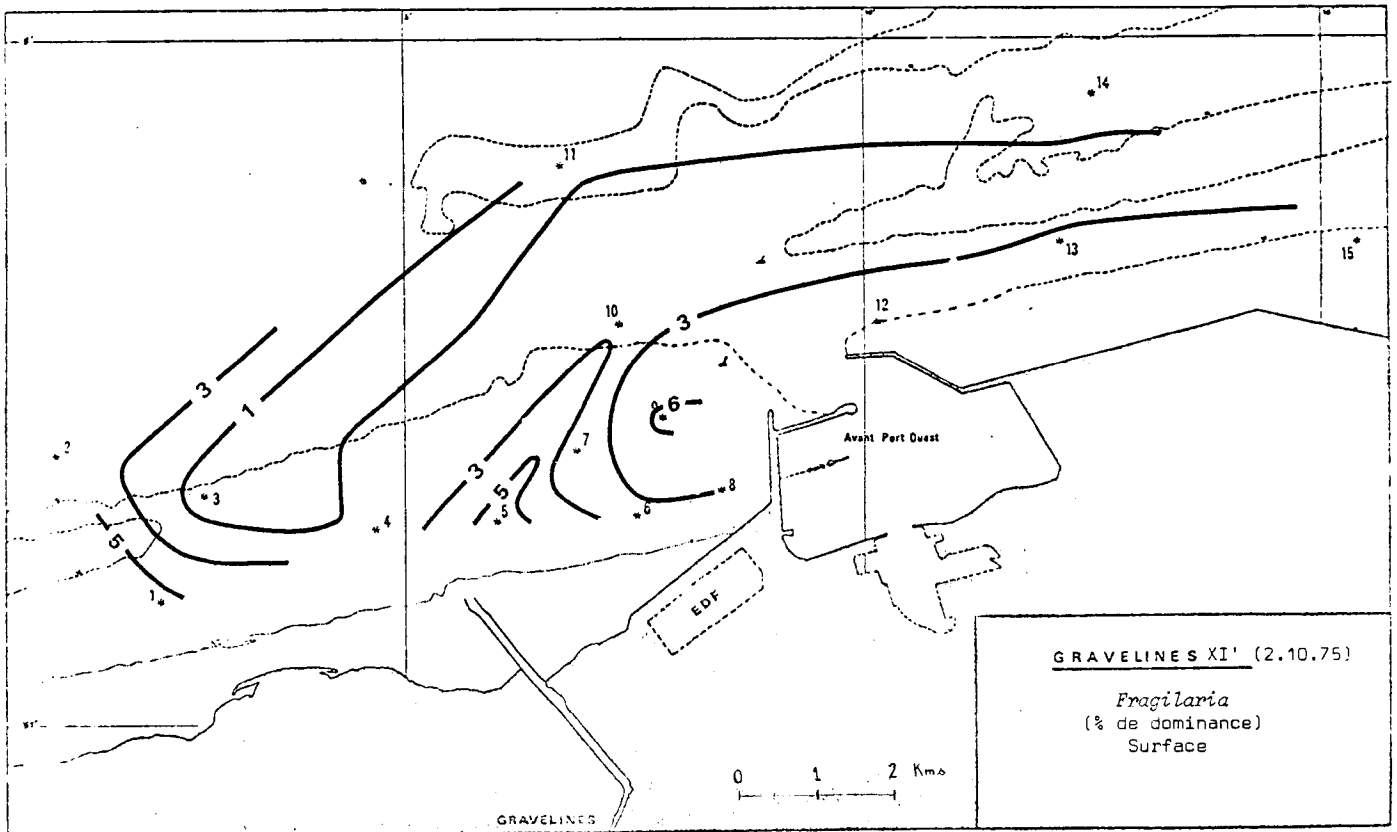
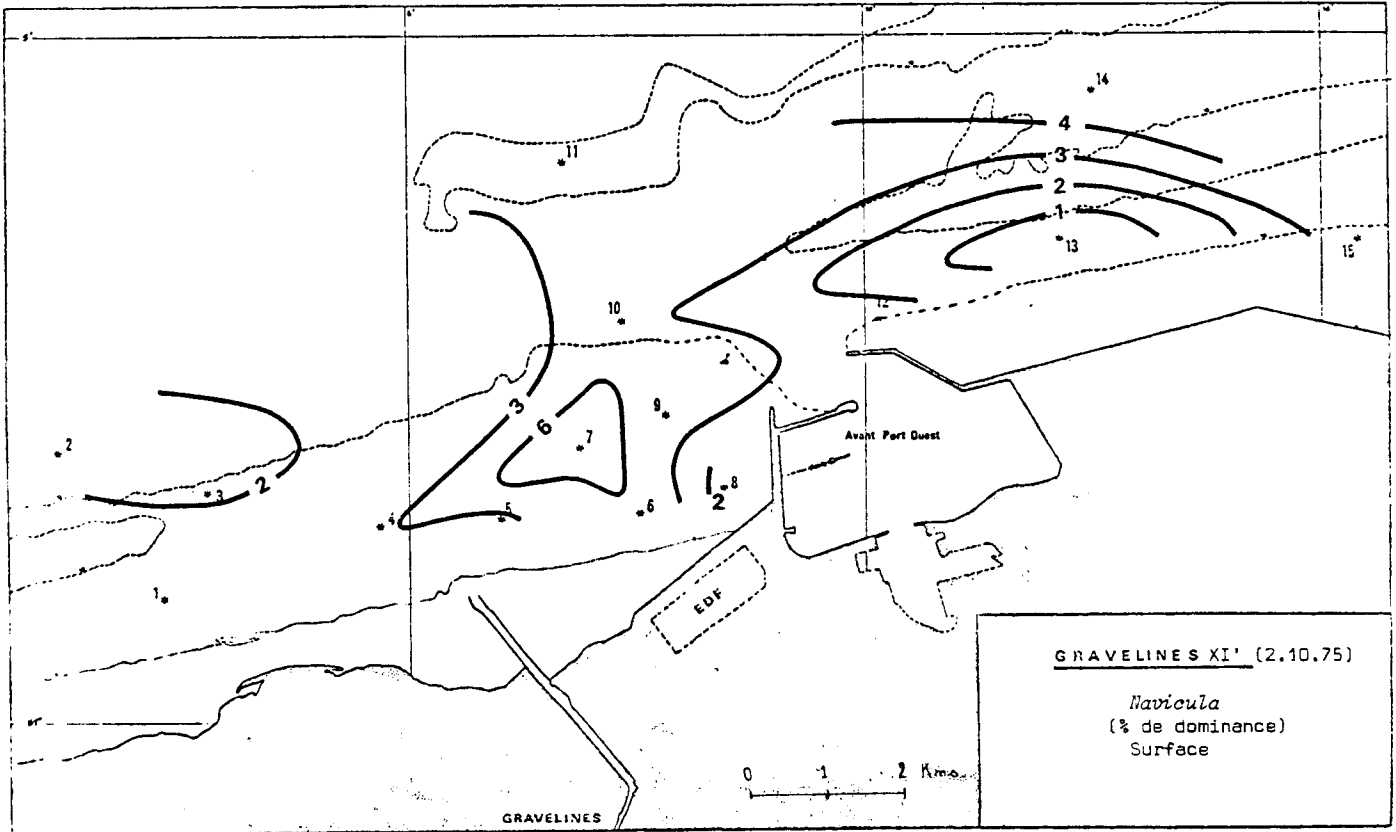












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