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MINISTRY OF AGRICULTURE, FISHERIES AND FOOD
FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND

1984 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE: CRUISE 5a

(PROVISIONAL: Not to be quoted without prior reference to the author)

STAFF:

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DURATION:

Left Lowestoft 0705 h 11 April 1984

Arrived Lowestoft 0505 h 24 April 1984

(All times are Greenwich Mean Time)

LOCALITY:

East coast of England, central and southern North Sea

AIMS:

1. To carry out a baseline hydrocarbon survey in areas of the North Sea licensed for oil exploration, and adjacent areas proposed for licensing in the future.
2. To collect samples of water and sediment from the vicinity of the Humber, Tees and Tyne estuaries for hydrocarbon and exploratory GC-MS analysis.
3. To collect samples of sea water for trace metals analysis from both estuarine and offshore areas.
4. To attempt recovery of a TTN rig lost during CLIONE 4/84 off the island of Texel.
5. To collect sediment samples from 10 stations in the southern part of the working area. These were requested by Dr Moore of Heriot-Watt University who is investigating the distribution of meiofauna.

(Aims 4 and 5 are additional aims not included in the original cruise programme.)

NARRATIVE:

CLIONE left Lowestoft in good weather and proceeded to the position at which the TTN was lost previously. Trawling began at 1816 h on 11 April, and continued until 0002 h 12 April. Three trawls were performed in this time around the last known and projected positions of the TTN, but without success. CLIONE then steamed to the Humber estuary,

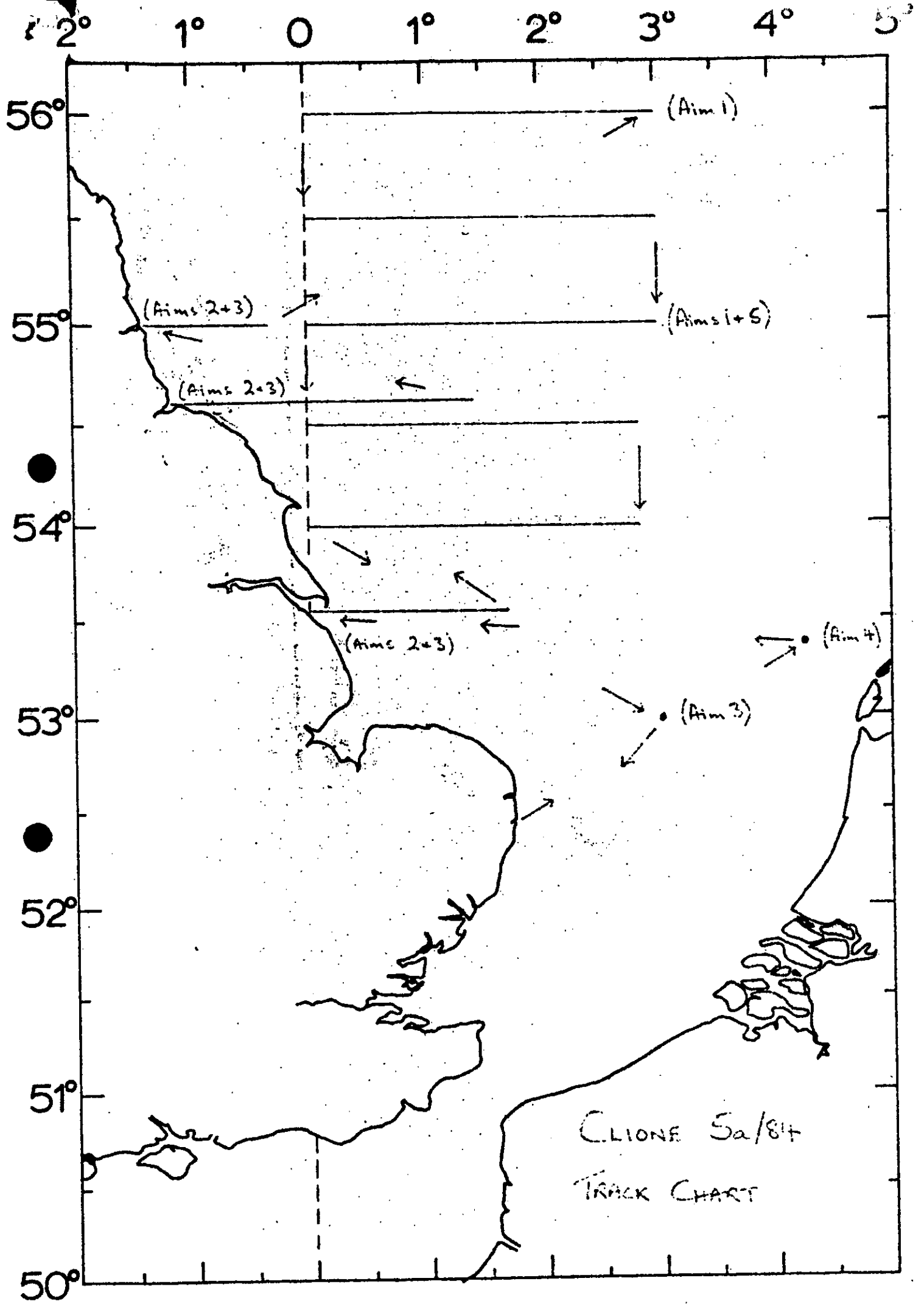
anchoring off Grimsby where a 13½ hour station was worked on 13 April collecting samples of filtered sea water and particulate matter for metals analysis. CLIONE raised anchor the next morning, and sampling for both metals and organics analysis began off Grimsby at 0750 h 14 April. Sampling continued along an easterly transect, which was completed by 1512 h, 7 stations having been completed. Similar sampling transects were worked from the Tees and Tyne estuaries on 15 and 16 April respectively. Because of a forecast deterioration in the weather by 18 April, CLIONE then steamed to the north-eastern corner of the hydrocarbon baseline sampling grid, close to the median line at 56°N, so as to be inshore by the evening of 17 April. Sampling of water and sediment commenced at 0610 h on 17 April, and the first line of 11 stations was completed by 1828 h. In the event the weather remained fair and the remaining four lines of the grid, comprising 41 stations, were sampled during the next four days, the last station being completed at 1812 h 21 April in Bridlington Bay. CLIONE then proceeded in a south-easterly direction overnight to a point off the Indefatigable Banks. On 22 April a large sample of filtered sea water was collected at that point for use in method development work in the laboratory. CLIONE then proceeded to the north end of the Wallet where she remained at anchor overnight, continuing into the Thames estuary on 23 April. Sampling of water and sediment for organics analysis began at 1130 h off Canvey Island, finishing at 1522 h in the Barrow Deep, 5 stations having been worked. Sampling completed CLIONE steamed to Lowestoft, docking at 0505 h 24 April.

RESULTS:

- Aim 1 Samples were collected from 52 stations, and the planned grid completed. Water samples were analysed at sea by fluorescence spectroscopy, and sediment samples frozen for later analysis in the laboratory.
- Aim 2 Samples were collected from the Humber (7 samples), Tees (7) and Tyne (5) estuaries. Five further samples were taken from the Thames estuary, completing the initial sampling of the major east coast estuaries. Sediments and water extracts were frozen for laboratory analysis.
- Aim 3 Samples were taken from the Humber, Tees and Tyne estuaries, and from various coastal and offshore sites. Samples were collected by means of both azlon surface samplers operated with a hand line, and teflon-coated Go-Flo bottles deployed via the hydrographic winch. There is some doubt as to the integrity of these latter samples, however, because of the condition of the hydro-wire. It is likely that this will need to be replaced before profiling of metals in sea water can be performed successfully.
- Aim 4 This was unsuccessful.
- Aim 5 Ten samples of sediment were collected from stations between 55°N and the Barrow Deep.

R J Law

26 April 1984



INITIALED: HWH

SEEN IN DRAFT: JF, PM

DISTRIBUTION

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