

**LOIS RACS(C) Core Programme
Sea Vigil SV 15
Cruise Report
21st-25th November 1994**

Personnel:

Duncan Plummer (PML/LOIS Hull)	Senior Scientist
Alison Easton (PML)	
Steve Widdicombe (PML)	
Jack Hardisty (U of Hull)	24/11/94
Helen Rouse (U of Hull)	24/11/94
Nick Hughes (U of Hull)	24/11/94
Kevin Black (U of St Andrews)	25/11/94

Monday 21st: LOIS personnel to traveled from Plymouth. From 1700-1945 PML equipment was loaded on board *Sea Vigil* and commissioned.

Tuesday 22nd: The party was on board at 0900 and the vessel departed Hull Marina at 1015. The survey commenced at station 17 at 1031 and continued eastwards to station 26 (1249). Between 1300 and 1400 the survey was stopped due to a problem with the nutrient analyser. During this time a set of standards and blanks were run. The survey commenced to station 30 (1500). A further set of standards and blanks were run. The westwards survey passed through all stations to Hull and finished at 1735 (station 17). *Sea Vigil* locked into Hull Marina at 1800 and was along side at 1815.

The profile measured nutrients (nitrate, nitrite, phosphate and silicate) conductivity, temperature, turbidity, pH and dissolved oxygen. Discrete samples were be collected for gravimetric, C/N and chlorophyll analysis.

Wednesday 23rd: From 0550 and 0625, when the *Sea Vigil* left the Marina, the analyzer were started up and standards recorded. The survey was from Hull at 0645 (station 16) to Selby (station 40) at 1015 passing stations 16-1 and 38-40. The survey was repeated downstream starting at station 40 at 1015 and completed at station 16 at 1400.

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The *Sea Vigil* anchored until locking into the marina at 1800. Unloading of equipment commenced at 1815 and was completed at 1830.

The *Sea Vigil* made passage from Hull Marina to Grimsby Fish Dock between 1930 and 2200.

Thursday 24th: The scientific party mustered on board at 0700 and *Sea Vigil* departed Grimsby at 0725 and arrived on station at the Bull Lightfloat at 0830. Sampling for vertical profiles of conductivity, temperature and depth with concomitant recordings of current velocities, over a tidal cycle commenced at 0845. The surface waters were monitored using the NRAs system.. The sampling was completed at 2100 and passage was made back to port. The *Sea Vigil* entered Grimsby Fish Dock at 2145. The equipment of the U of Hull was unloaded by 2200. Between 2200 and 2300 discussions about the next days programme occurred.

Friday 25th: The scientific party mustered on board at 0600 and *Sea Vigil* departed Grimsby at 0615 and arrived on station at the anchor station (0 03 46 E 53 36 96 N) at 0715. Sampling for vertical profiles of conductivity, temperature, turbidity and depth with concomitant recordings of current velocities commenced at 0730. Reading were made every 15 minutes at three depths. A survey along a transect normal to the coast at Skeffling over the intertidal mudflat using the inflatable commenced at 0900 and was complete at 1040. The transect included soundings for depth and a series of sediment samples collected using a hand grab. The depth profiling at the anchor station ended at 1150 when the *Sea Vigil* made passage for Grimsby. During the first part of the passage the depth profile was continued. The *Sea Vigil* entered Grimsby Fish Dock at 1300 and was along side at 1315. The party departed at 1345.