Daily Report: Tracking the Plume of Dispersed Oil using Particle Size Distribution Measurements and Fluorescence Intensity Ratios

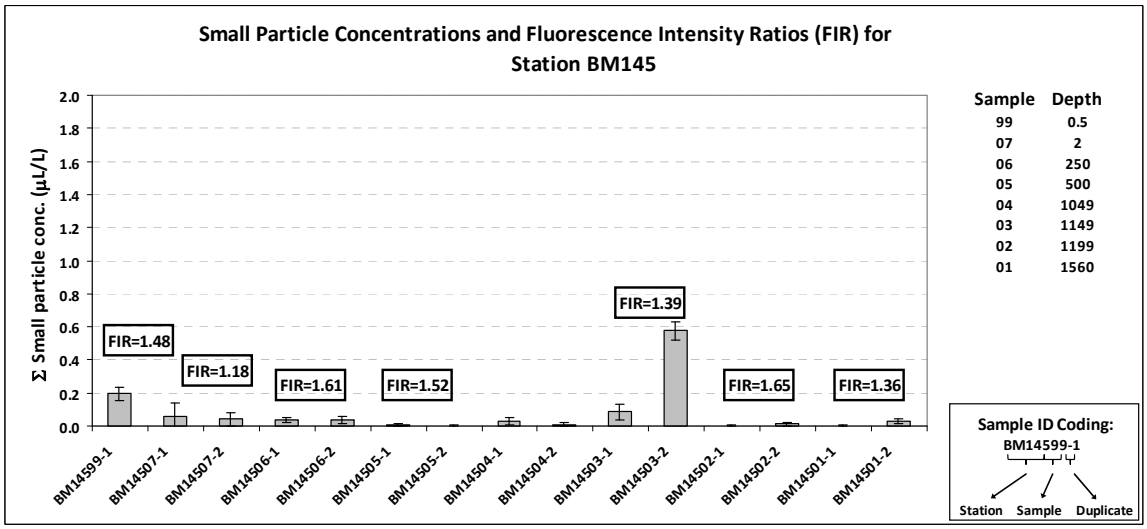
July 30, 2010

Water samples were collected at four stations for particle size distribution measurements using the LISST-100X particle counter. A total of 60 LISST samples were analyzed, including duplicates. Samples at depths of elevated fluorescence or other significance were selected from the CTD trace for fluorescence intensity ratio measurements and analyzed using a Quantech Life Sciences fixed wavelength fluorometer.

Station	Latitude	Longitude
BM145	28.706552	-88.402401
BM146	28.706377	-88.330257
BM147	28.77045	-88.40275
BM148	28.770422	-88.330277

All 4 stations sampled showed low small particle concentrations at all depths with the exception of one sample from Station 145 (BM14503-2). CTD *in-situ* fluorometry profiles from all stations did not show elevated fluorescence throughout the water column.

Fluorescence intensity ratios were measured at all depths where samples were collected for dissolved oxygen (Winkler titrations). All 4 stations showed low fluorescence intensity ratios at all depths.



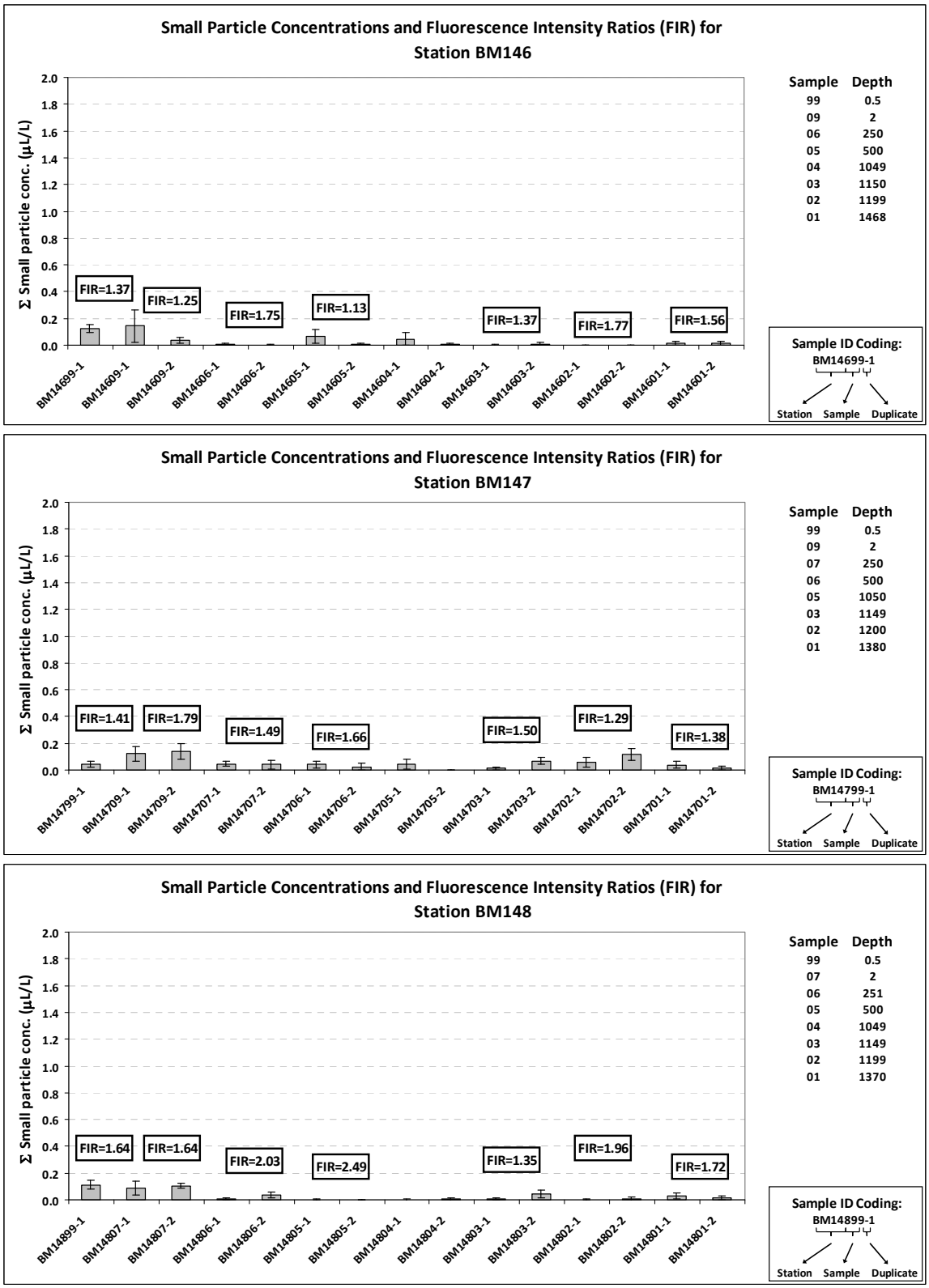


Figure 1: Average small particle concentrations and fluorescence intensity ratios as a function of depth for stations BM145 to BM148.