

US EPA ARCHIVE DOCUMENT

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

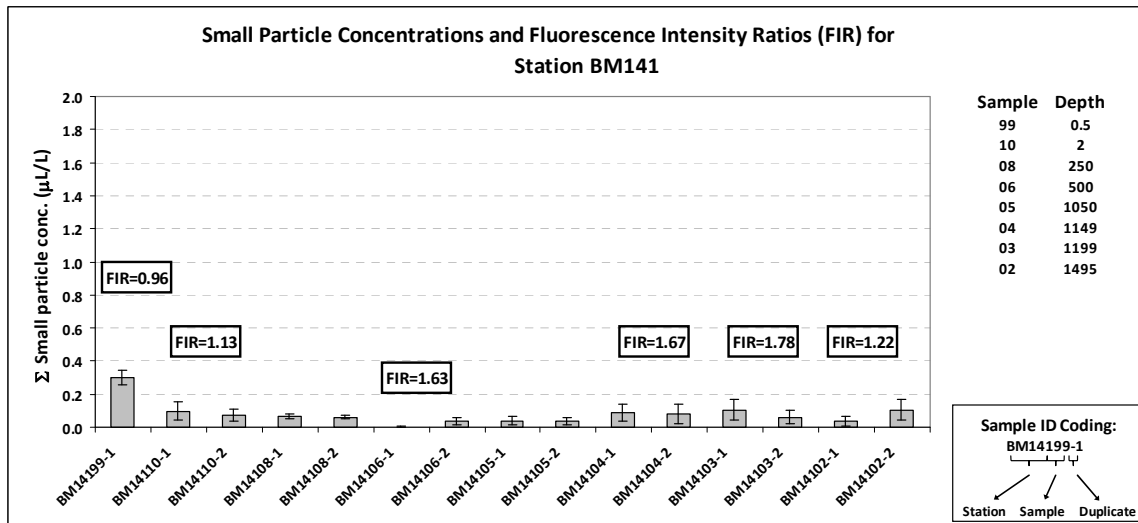
**July 29, 2010**

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
BM141	28.736623	-88.387026
BM142	28.720557	-88.366455
BM143	28.738660	-88.346057
BM144	28.756607	-88.366488

All 4 stations sampled showed low small particle concentrations at all depths. This correlates with the CTD *in-situ* fluorometry profile which did not show any 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.



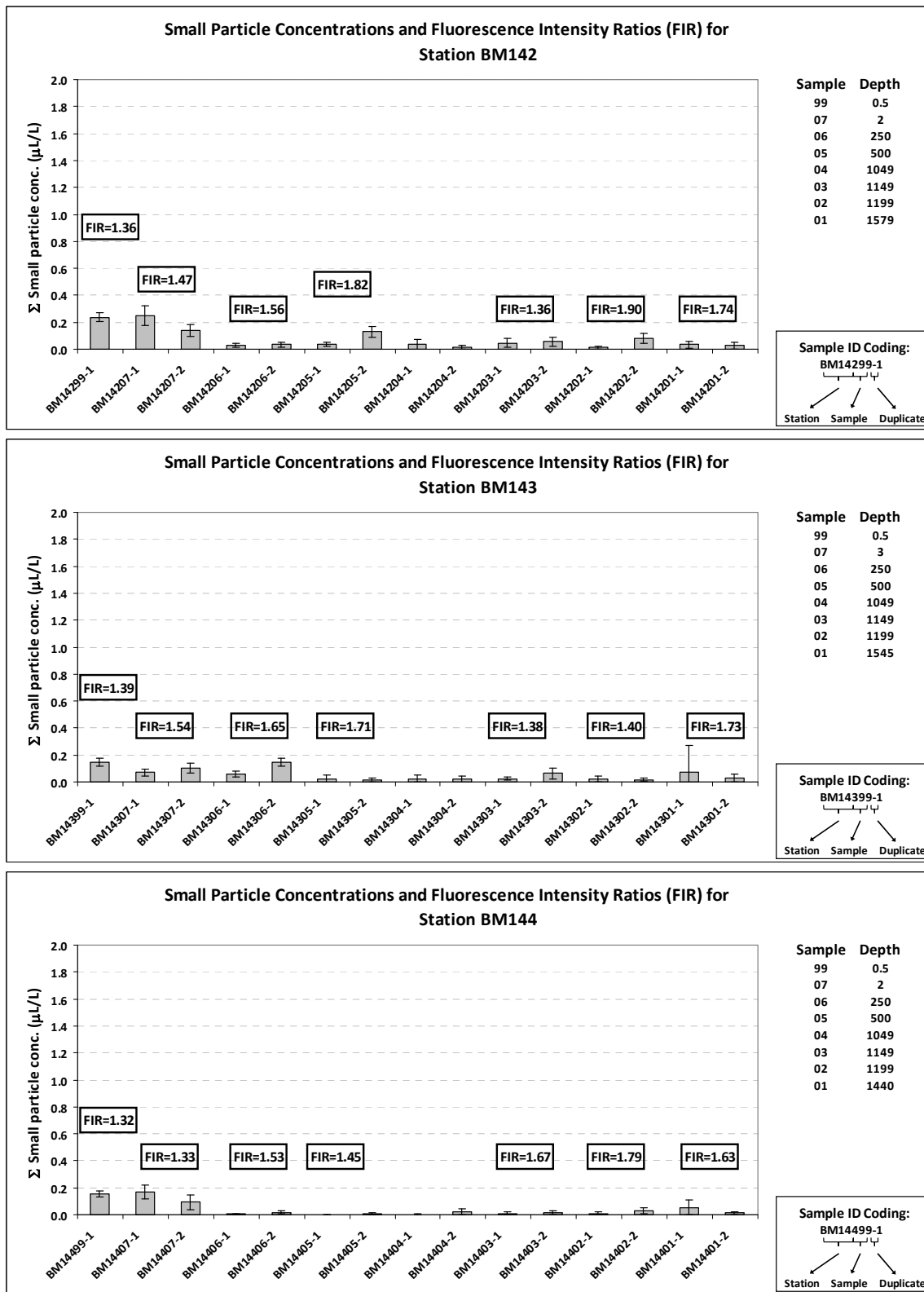


Figure 1: Average small particle concentrations and fluorescence intensity ratios as a function of depth for stations BM141 to BM144.