

20 August 2010 R/V Ferrel Status Report, Cruise 7 – Day 2

Compiled by Zach Weber, Chief Scientist

1.) Site Conditions, Daily Activities and Sampling Locations

The Ferrel spent the day approximately 110 miles South South West of the wellhead conducting casts along transect 9 continuing from the previous day. The Ferrel arrived to its first sample location at 0640 106 miles South South West of the wellhead and sampled four locations: Transect 9 Station 3, Transect 9 Station 4, Transect 9 Station 5, and Transect 9 Station 6. Weather conditions: Air Temperature 89 degrees Fahrenheit, seas 1ft, current 1.5kt out of the East, winds 5kts out of the South East, cloud coverage remained around 30% throughout the day. Four CTD casts were undertaken to try to locate and sample remnants of the dispersed oil plume that may be around the 1150m depth as indicated by a dip in dissolved oxygen levels and a rise in fluorescence in the water column. The cast (T9 S3) was conducted with a reading of 1469m of depth to the seabed, showed no visible peak in fluorescence, but did show slight depressions in dissolved oxygen at two separate depths. The cast (T9 S4) was conducted in water exceeding the total recommended CTD cast depth, showed no visible peak in fluorescence, but did show a slight depression in dissolved oxygen. The cast (T9 S5) was conducted in water exceeding the total recommended CTD cast depth, showed no visible peak in fluorescence or dissolved oxygen. The cast (T9 S6) was conducted in water exceeding the total recommended CTD cast depth, showed no visible peak in fluorescence, but did show slight depressions in dissolved oxygen. Field analyses included dissolved oxygen, fluorescence, temperature, pH and salinity. Water samples were also collected for further chemical and microbiological analyses at three depths on each the casts (at 950m, 1070m, and 1200m on cast 1, 950m, 1060m, and 1200m on cast 2, 1000m, 1150m, and 1300m on cast 3, and 1000m, 1060m, and 1200m on cast 4). In addition, surface water samples were collected for microbiological analyses at all four locations.

The results of the CTD casts were:

Station	Position from wellhead	Fluorescence signal	Signal depth	Comment
BP-TN13-SS03 (T9 S3)	106 miles SSW	None	N/A	DO decline with narrow depression of 0.4 mg/l at 1070m and 0.1 mg/l at 1120m. Seabed at 1469m.
BP-TN13-SS04 (T9 S4)	107 miles SSW	None	N/A	DO decline with narrow depression of <0.1 mg/l at 1060m. Total CTD cast depth 1300m.
BP-TN13-SS05 (T9 S5)	110 miles SSW	None	N/A	No DO anomaly. Total CTD cast depth 1300m.
BP-TN13-SS06 (T9 S6)	113 miles SSW	None	N/A	DO decline with narrow depression of 0.1 mg/l at 1060m and <0.1 mg/l at 1075m. Total CTD cast depth 1300m.

2.) Air Quality

Not required.

3.) Science Crew

Name	First Name	Affiliation	Role
Weber	Zach	CTEH	Chief Scientist
Weiland	Corey	Entrix	Water Sampler
Pelling	Ray	Entrix	Water Sampler
Smith	Craig	C&C	Party Chief Team
Burke	Emily	C&C	Oceanography Team
McLeod	Alex	C&C	Oceanography Team
Tidwell	Hearn	SHAW	Microbiologist
Chastain	Roger	LBNL	Microbiologist
Summers	Kaitlyn	NOAA	Data Manager

