September 14th | 2010

Ryan Chouest daily data transmission and report

Period covered: 1535 *hrs* 09/12/2010 – 1756 *hrs* 09/13/2010

87.961 - Nautical miles covered

Vessel science party:

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Contact details:

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Cruise notes:

The Ryan Chouest continued along the revised Cruise 15 route transiting Northeast to Site 13 where Cast #8 was performed then Southeast to Site 14 (Weatherbird site PCB-06) where the vessel remained overnight before performing Cast #9. The Ryan Chouest then transited Southwest to Site 15 where Cast #10 was performed then West to Site 16 (Weatherbird site DSH-10) where Cast #11 was performed before embarking on the return journey to Port Theodore. The echosounder was continually monitored to identify the presence of possible natural seeps. Collection of underway fluorometer data was discontinued at Site 14.

Science results and preliminary interpretation:

Fluorometry results

The Chelsea and Trios sensors generally indicate low levels of inferred hydrocarbons concentrations through the reporting period (Figures 2 and 3).

Surface Observations

No surface observations were made.

EK-60 Echosounder results

No echosounder contacts were observed at any of the sites.

CTD Casts

Four CTD casts were performed during this reporting period Cast #8 at Site 13 (N29 22.564 W087 34.932), Cast #9 at Site 14 (Weatherbird site PCB-06, N29 07.700 W087 16.000), Cast#10 at Site 15 (Weatherbird site PCB-07, N29 02.006 W087 24.399) and Cast #11 at Site 16 (Weatherbird site DSH-07, N28 58.570 W087 52.101).

The vertical profiles for Cast #10 and Cast 11 share the same feature with a dissolved oxygen minimum and a step increase in the PAH fluoromters. The location of Cast #11 was suggested by chemical oceanographer David Hollande where sediment samples collected were found to be fluorescent. Water samples were collected close to the sea bed for further GCMS and fluorescence analysis.

During CTD cast 10 at 1380m depth the niskin bottle was not fired successfully with the top cover still open when the CTD was brought up to the surface.

Wave Glider operations

Wave Glider's #1 and #2 have deviated from their planned circular courses 10NM and 20NM from the Macondo well site respectively. Further information along with Instrument data and operational notes is provided in a separate daily report.

It is intended to inspect the Wave Glider systems in approximately four weeks. This will be scheduled for a future sailing of the Ryan Chouest.

Planned route for cruise 15:

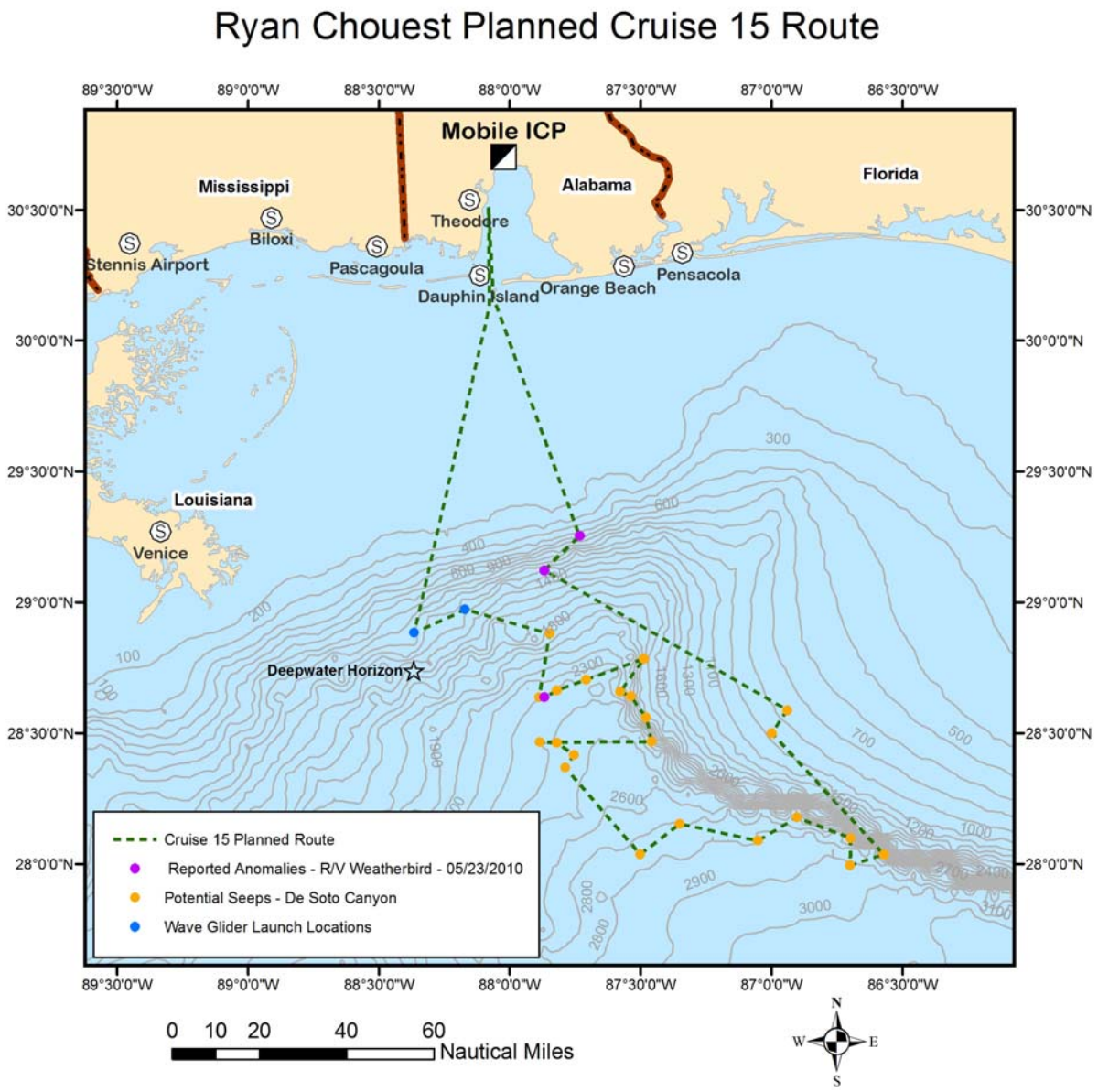

Figure 1: Planned route for cruise 15 from 09/09/2010 – 09/015/2010.

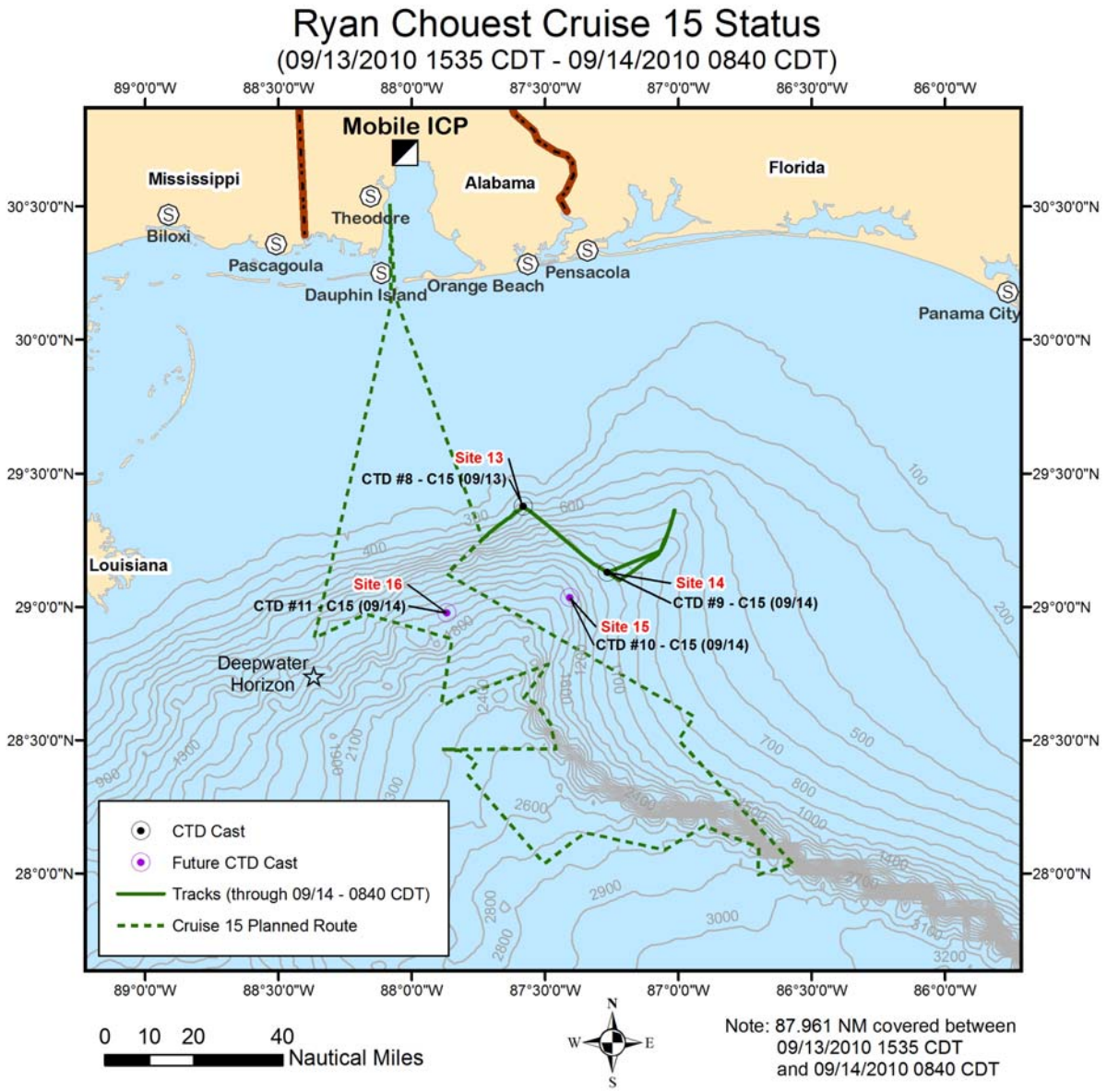

Figure 2: Actual route for cruise 15 from 09/12/2010 – 09/13/2010.

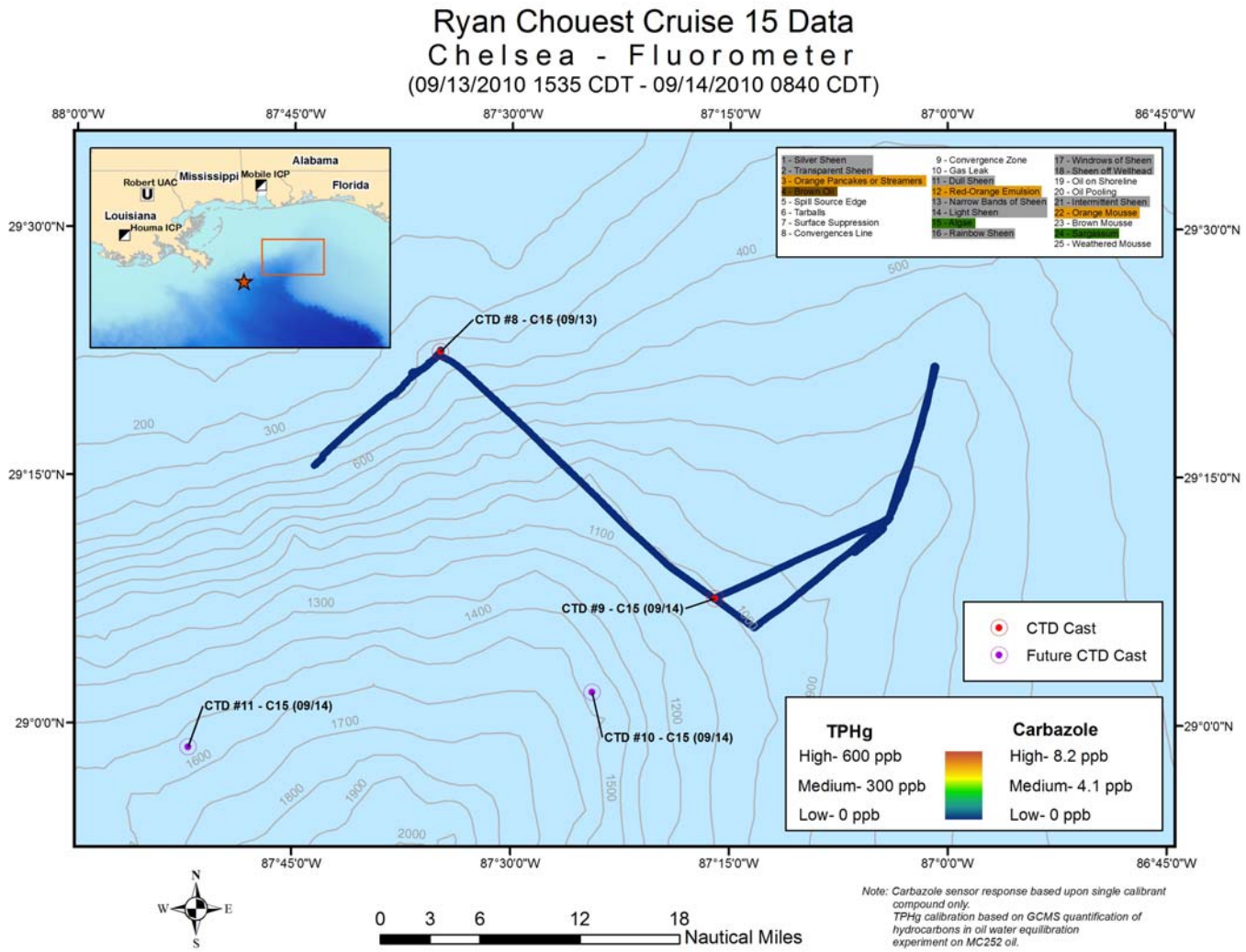

Figure 3. Chelsea fluorometer results plotted with location on cruise track 15. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems. Purple lines represent depth contours of 100 m intervals.

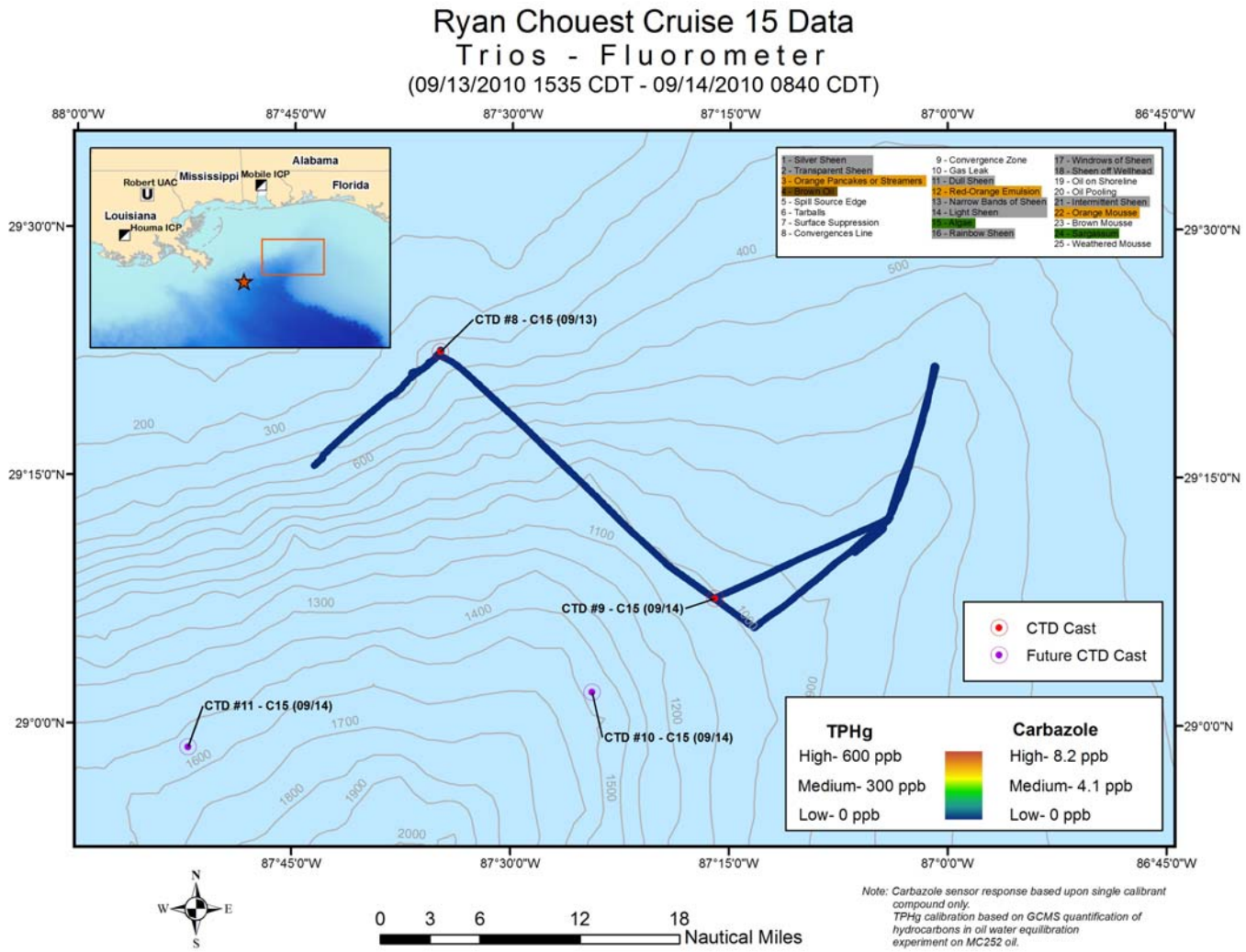

Figure 4. Trios fluorometer results plotted with location on cruise track 15. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems. Purple lines represent depth contours of 100 m intervals.

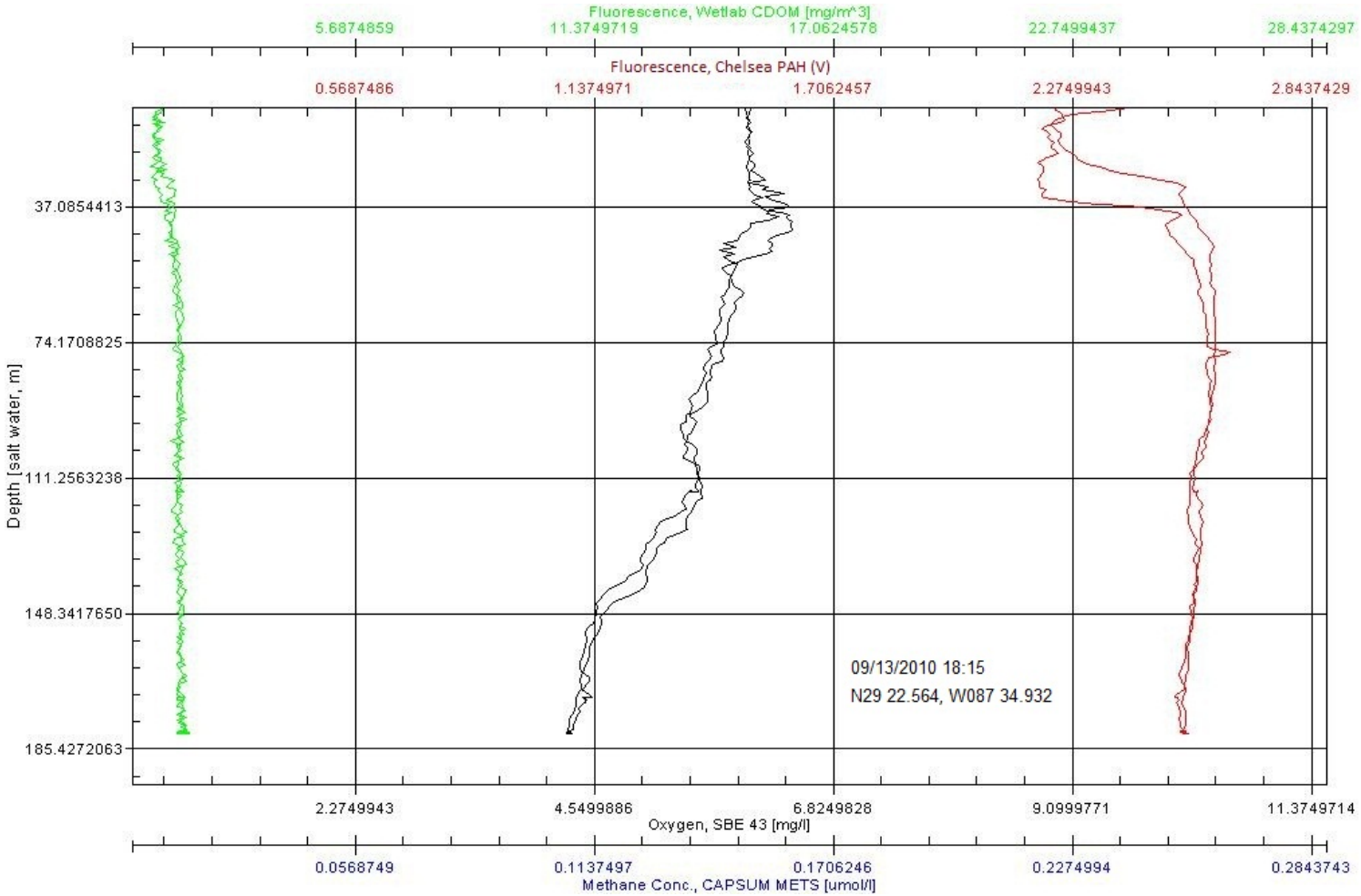

Figure 5. CDOM fluorescence, PAH fluorescence, dissolved oxygen, and methane concentration profiles. The results were obtained for Cruise 15 CTD cast 8 down to 180 m. Water samples were collected at 180m and 115m. Temperature, conductivity and water depth measurements were also recorded from a SBE 19+ system.

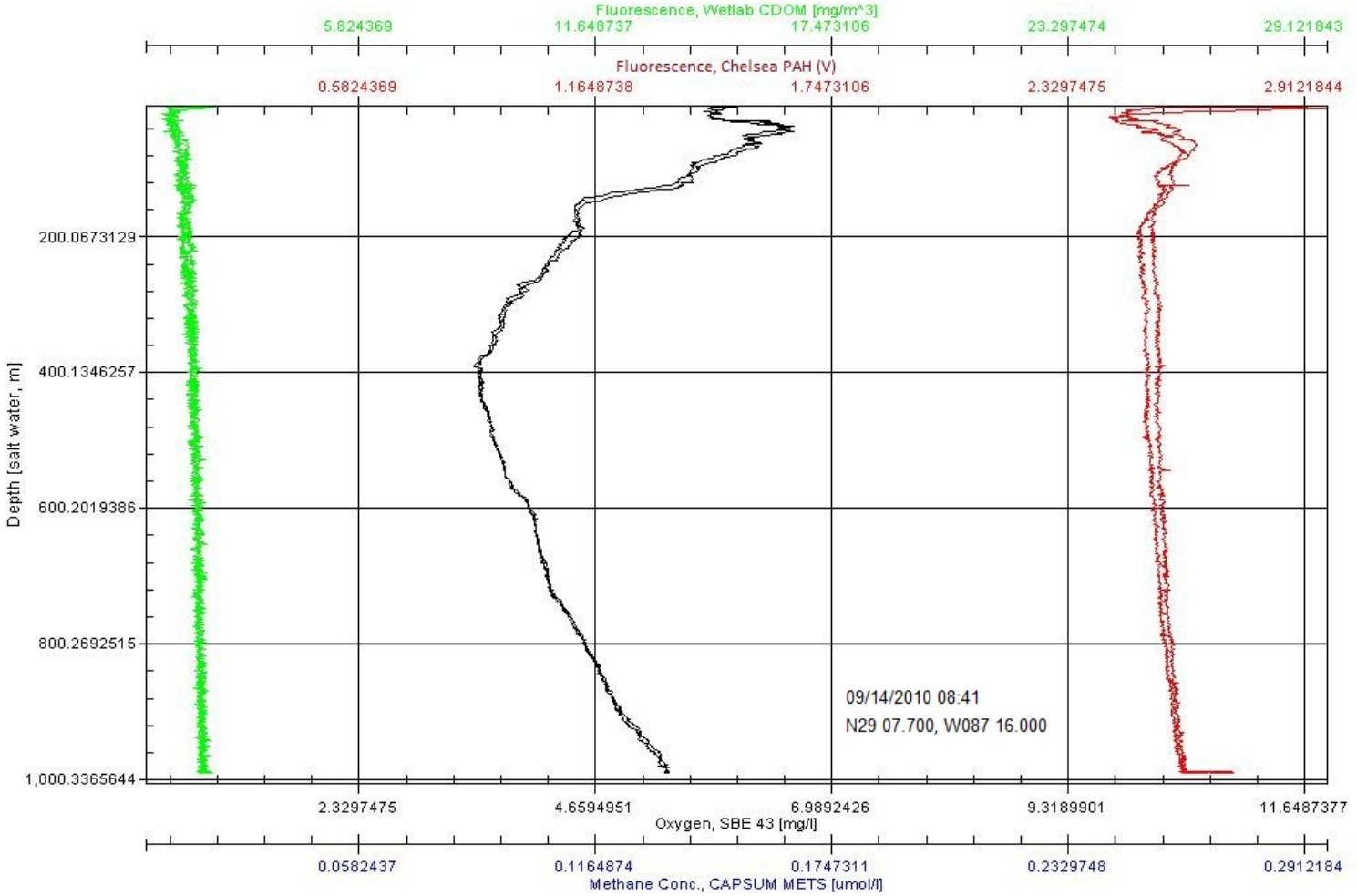

Figure 6. CDOM fluorescence, PAH fluorescence, dissolved oxygen, and methane concentration profiles. The results were obtained for Cruise 15 CTD cast 9 down to 1000 m. Water samples were collected at 989m and 720m. Temperature, conductivity and water depth measurements were also recorded from a SBE 19+ system.

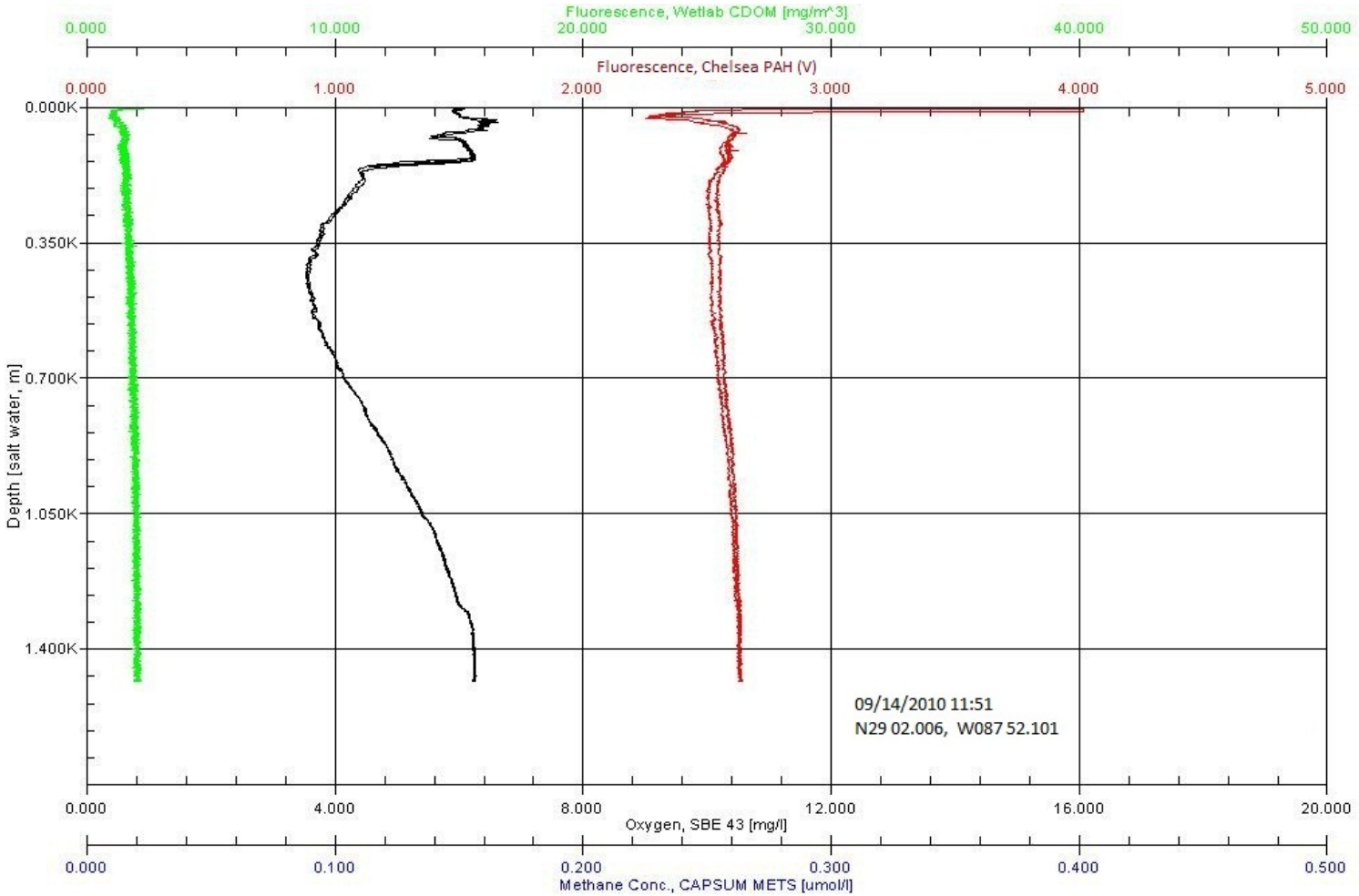

Figure 7. CDOM fluorescence, PAH fluorescence, dissolved oxygen, and methane concentration profiles. The results were obtained for Cruise 15 CTD cast 10 down to 1500 m. Water samples were collected at 1481m, 1380m and 1285m. Temperature, conductivity and water depth measurements were also recorded from a SBE 19+ system.

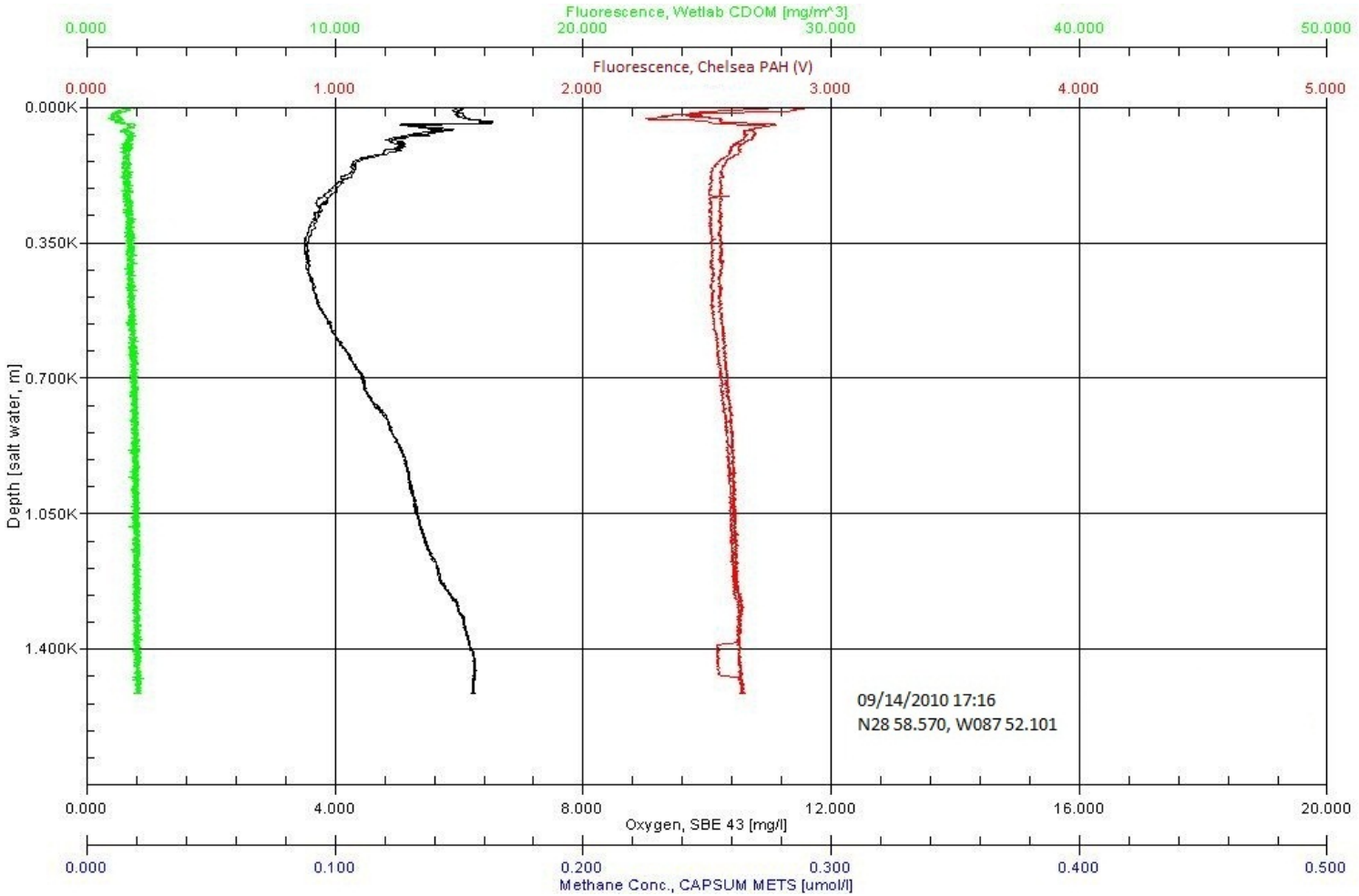

Figure 8. CDOM fluorescence, PAH fluorescence, dissolved oxygen, and methane concentration profiles. The results were obtained for Cruise 15 CTD cast 11 down to 1500 m. Water samples were collected at 1514m, 1440m, 1275m and 1228m. Temperature, conductivity and water depth measurements were also recorded from a SBE 19+ system.

Science Operations:

Observations of sea-surface conditions were made throughout. Four CTD casts were completed. The EK-60 echo sounder continuously collects data to evaluate the seabed and water column for possible seeps and to relocate seeps for further investigation and potential additional casting sites. We continue to analyze water samples using the GCMS.

Problems/operational issues:

No problems or operational issues are reported.

Selected Photographs:

No photographs were taken during the reporting period.

Planned activities for next 24 hours:

The Ryan Chouest will return to Port in Theodore ETA 0600 Hours on the 15 September 2010.

Full Crew List:

Eric Houston	BP	William Smith	MASTER
Brett Bundick	C&C	Brian Corley	Mate
Mathew Baham	C&C	Mark Harmon	A/B
Quinn Guidry	C&C	Ricky Matherne	A/B/Cook
Tim MacEwen	C&C	Lance Broussard	ENG
Craig Smith	C&C	Patric Cousin	A/B
Jen Carlsen	C&C	Trever Dorics	A/B
Xiubin Qi	CSIRO	Patric Anderson	Qmed
Charlotte Staivies	CSIRO	Jason Bednarski	A/B/Cook
Andy Revill	CSIRO	Eiljah Benjamin	O/S
Stephane Armand	CSIRO	Larry Luke	Crane Op
Gui de Almeida	Entrix		
Carlelton Edmunds	Shaw		
Brad Woolhiser	LR		
Dustin Boettcher	LR		