**08 September 2010 – Ocean Veritas Status Report – Cruise 19 – Day 1**

**Compiled by: Richard Bowen, Metoc, (BP Rep)**

**Table 1 – Science Team Roster for 04 September 2010**

|  |  |  |
| --- | --- | --- |
| **Name** | **Affiliation** | **Role** |
| Richard Bowen | Metoc (BP Rep) | Chief Scientist |
| Dan Pisegna | Fugro GEOS | Chief Scientist / Party Chief |
| Jed Campbell | EPA | Observer |
| Bill Greenwood | Entrix | Sampling Technician |
| Jeremy Burns | Entrix | Sampling Technician |
| Connor Kobeski | Entrix | Sampling Technician |
| Kristina Lauenstein | NOAA | Data Management |
| Mark Bushnell | Fugro GEOS | Party Chief |
| Ward Bekins | Fugro GEOS | Oceanography Team |
| Hannuman Bull | Fugro GEOS | Oceanography Team |
| Brian Moore | Fugro Chance | Navigation |
| Ed Morren | Shaw | DO Winkler Method |

Today’s sampling plan, as directed by the NOAA Subsurface Monitoring Unit for 08 September 2010, was to begin at T16S9, 269 kilometers SW of the wellhead and conduct casts along the transect in a southerly direction.

Today’s weather conditions are summarized in Table 2, below.

**Table 2 – Summary of the Weather for 04 September 2010**

|  |  |  |  |
| --- | --- | --- | --- |
| **Time** | **Wind** | **Sea** | **Weather** |
| 09:00 | ESE 5-10 knots | 2-3 feet | Partly Cloudy |
| 13:00 | ESE 3-5 knots | 1-3 feet | Partly Cloudy |
| 17:00 | SE 5 knots | 2 feet | Partly Cloudy |

The cast for station OV239 was conducted 269 kilometers SW of the wellhead to a depth of 1283 meters. There was no fluorescence signal but a depression in dissolved oxygen was observed at 1081 meters (~0.3 mg/l), ranging from 1013 meters to 1221 meters.   
  
We continued south along the transect and conducted the cast for station OV240, 272 kilometers SW to a depth of 1150 meters. There was no fluorescence signal but a depression in dissolved oxygen was observed at 953 meters (~0.15 mg/l), ranging from 918 meters to 1151 meters.

We continued south along the transect and conducted the cast for station OV241, 277 kilometers SW to a depth of 1229 meters. There was no fluorescence signal but a depression in dissolved oxygen was observed at 1178 meters (~0.9 mg/l), ranging from 1027 meters to 1229 meters.

We continued south along the transect and conducted the cast for station OV242, 277 kilometers SW to a depth of 1515 meters. There was no fluorescence signal but a depression in dissolved oxygen was observed at 1157 meters (~0.7 mg/l), ranging from 1012 meters to 1227 meters.

We continued south along the transect and conducted the cast for station OV243, 285 kilometers away from the wellhead to a depth of 1653 meters. There was no fluorescence signal, but a depression in dissolved oxygen was observed at 1161 meters (~ 0.55 mg/l), ranging from 1096 metres to 1334 metres.

Our last cast of the day was conducted 288 kilometers away from the wellhead at station OV244 to a depth of 1439 meters. There was a fluorescence anomaly of 0.6 mg/m3 and depression in dissolved oxygen was observed at 1108 meters (~ 0.5 mg/l), ranging from 1098 metres to 1441 metres.

The locations and results of the CTD casts conducted today are summarized in Table 3 and Figure 1, below.

**Table 3 – Station Summary for 08 September 2010**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Station** | **Sampling Location and Position at Deployment** | **Fluorescence Signal** | **Signal Depth** | **Dissolved Oxygen Depression** | **Depression Depth** |
| OV239 | T16S9  Lat: 27.443744  Long: -90.658074 | No Signal | - | ~0.3 mg/l | 1081 m (1013 m – 1221 m) |
| OV240 | T16S10  Lat: 27.355522  Long: -90.635238 | No Signal | - | ~0.15 mg/l | 953 m (918 m – 1151 m) |
| OV241 | T16S11  Lat: 27.267336  Long: -90.613682 | No Signal | - | ~0.9 mg/l | 1178 m (1027 m – 1229 m) |
| OV242 | TS16S12  Lat: 27.179492  Long: -90.592504 | No Signal | - | ~0.7 mg/l | 1157 m (1012 m – 1227 m) |
| OV243 | TS16S13  Lat: 27.091702  Long: -90.570507 | No Signal | - | ~0.55 mg/l | 1161 m (1096 m – 1334 m) |
| OV244 | TS16S14  Lat: 27.003078  Long: -90.547769 | ~0.6 mg/m3 | 89 m | ~0.5 mg/l | 1108 m (1098 – 1441 m) |



**Figure 1 – Sampling Effort for 04 September 2010**

No surface oil sheen was observed in any of the samples collected today. Comparisons of DO concentrations (CTD’s SBE 43 oxygen sensor versus the hand-held YSI ProODO optic probe) are included in today’s deliverables. The correlation between the two remains excellent apart from one outlier at station OV241 due to bottle 6 being misfired and releasing at a much shallower depth (Bottle 6 was supposed to fire at 425m). Bottle 5 did not fire at 551m as intended. The results from the Hach Winkler titration method also show excellent correlation with the DO results obtained by CTD and YSI optical probe (correlation of 0.99 and 1.00 respectively).