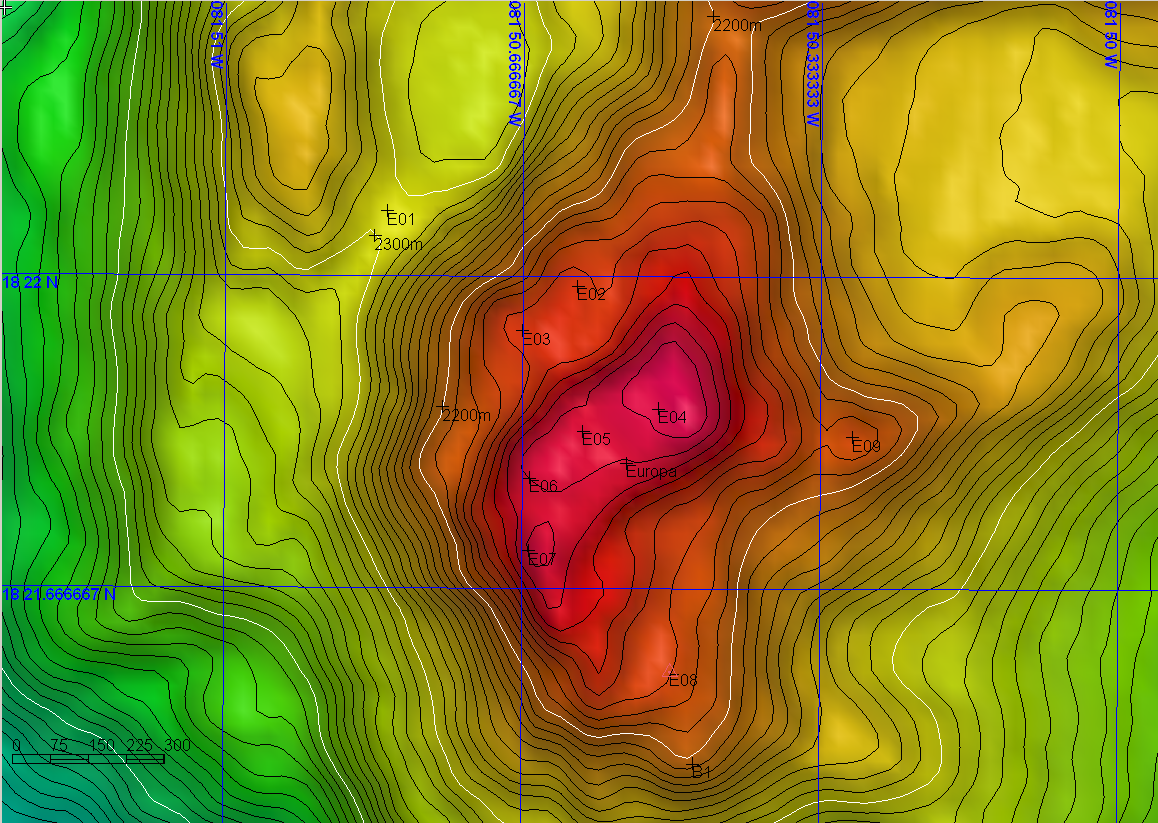
*Science Team develops draft dive track two days before a planned dive. Expedition Leader responds overnight based on ship capabilities, programmatic considerations, and constraints. Plan is finalized the day before a dive*

**Site Name:** Europa

**Approximate Location:** 18°21.80’N, 81°50.55’W

**Dive Date (local):** 08/12/2011



**Brief Explanation of Exploration Objectives and Rational for the Desired Dive Track:**

Science Rationale:

The purpose of this dive is to attempt to find the source of pervasive CH4 and Eh anomalies that have been detected in the water column at this site, toward the SW limit of Mt Dent’s summit and which has also been prioritized as an area of note from independent analysis of multibeam bathymetry and backscatter data collected during EX1104.

We wish approach uphill from the west to explore targets E01 through E09.

Operations Response/Rationale:

The ship plans to launch the ROV at approximately 0800. The time from the start of launch to the start of the dive on the seafloor at waypoint E01 (2300m) is approximately 2 hours. The approximate time to go from waypoint E01 to E07 (1300m) at an average of 0.11kts is approximately 6.5 hours. Waypoints E08 and E09 will be explored if time permits. Time from the bottom at 2200m to 50m is 1.5 hours, and the time for ROV recovery is 30 minutes, with the ROV secured on deck at 1630 ship time.

**ROV Track Waypoints Table:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| *DESIRED WAYPOINTS TO EXPLORE -*  *(COMPLETED BY SHORE-SIDE LEAD SCIENTIST)*  *(not including launch)* | | | | *ACTUAL WAYPOINTS TO EXPLORE-*  *(COMPLETED BY SHIPBOARD EXPEDITION LEADER)* | | | |
| **WAYPOINT NAME** | **LATITUDE** | **LONGITUDE** | **APPROX DEPTH** | **WAYPOINT NAME/SEQUENCE** | **LATITUDE** | **LONGITUDE** | **APPROX**  **DEPTH** |
| Launch |  |  |  | Launch |  |  |  |
| E01 | 18 22.069' | 81 50.818' | 2300m |  |  |  |  |
|  |  |  |  |  |  |  |  |
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**ANCILLARY INFORMATION:**

*COMPLETED BY SHORE-SIDE LEAD SCIENTIST*

**Are there additions operations recommended in the target area prior to the ROV dive?**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **LATITUDE** | **LONGITUDE** | **APPROX DEPTH** |
| **CTD CASTS** | | | |
| 1 | None | None |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |
| **MULTIBEAM BOUNDING COORDINATES** | | | |
| 1 | None | None |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |