

## **G. Vertical and Horizontal Control**

The vertical datum for this project is Mean Lower Low Water. The vertical control method used was VDatum.

ERS methods were used as the final means of reducing F00691 to MLLW for submission. Data were reduced using the VDATUM model S-E904-BH2-18\_ProjectLimits\_xyNAD83-MLLW\_geoid12b.csar provided by the project manager.

The horizontal datum for this project is North American Datum of 1983 (NAD 83). The projection used for this project is Universal Transverse Mercator (UTM) Zone 18.

Vessel kinematic data were post-processed using Applanix POSPac processing software and Single Base Positioning methods described in the DAPR. Smoothed Best Estimate of Trajectory (SBET) and associated error (RMS) data were applied to all MBES data in CARIS HIPS and SIPS. For further details regarding

the processing and quality control checks performed, see the F00691 POSPAC Processing Logs spreadsheet located in the Separates folder.

During real-time acquisition, ASV007 received correctors from the Wide Area Augmentation System (WAAS) for increased accuracies similar to USCG DGPS stations. WAAS and SBETs were the sole methods of positioning for F00691.