#### **C.1 Vertical Control**

The vertical datum for this project is Mean Lower Low Water.

### **ERS Datum Transformation**

The following ellipsoid-to-chart vertical datum transformation was used:

Method	Ellipsoid to Chart Datum Separation File
ERS via ERTDM	OPR-K306-TJ-20_ERTDM_NAD83_MLLW_09262020

## Table 10: ERS method and SEP file

All soundings submitted for H13228 are reduced to MLLW using separation model techniques as outlined in the DAPR.

# **C.2 Horizontal Control**

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 16.

# <u>PPP</u>

Trimble-RTX service was used with an Applanix POS MVv5 GNSS\_INS system to obtain highly accurate ellipsoidally referenced position data to meet ERS specifications for H13228 MBES data from vessel S222.

## **WAAS**

The Wide Area Augmentation System (WAAS) was used for real-time horizontal control during data acquisition on vessel S222.