U.S. Department of Commerce National Oceanic and Atmospheric Administration National Ocean Service		
1	DESCRIPTIVE REPORT	
Type of Survey:	Navigable Area	
Registry Number:	H13281	
	LOCALITY	
State(s):	Florida	
General Locality:	Northwest Gulf of Mexico	
Sub-locality:	17 miles South of Indian Pass	
	2019	
CHIEF OF PARTY Dean R Moyles		
	LIBRARY & ARCHIVES	
Date:		

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H13281

NATIONA	U.S. DEPARTMENT OF COMMERCE L OCEANIC AND ATMOSPHERIC ADMINISTRATION	REGISTRY NUMBER:
HYDROGRAPHIC TITLE SHEETH13281		
INSTRUCTIONS: The Hyd	lrographic Sheet should be accompanied by this form, filled in as completely as possib	le, when the sheet is forwarded to the Office.
State(s):	Florida	
General Locality:	Northwest Gulf of Mexico	
Sub-Locality:	17 miles South of Indian Pass	
Scale:	20000	
Dates of Survey:	07/17/2019 to 10/21/2019	
Instructions Dated:	06/20/2019	
Project Number:	OPR-J359-KR-19	
Field Unit:	Fugro Pelagos	
Chief of Party:	Dean R Moyles	
Soundings by:	Multibeam Echo Sounder	
Imagery by:	Multibeam Echo Sounder Backscatter	
Verification by:	Atlantic Hydrographic Branch	
Soundings Acquired in:	meters at Mean Lower Low Water	

Remarks:

Any revisions to the Descriptive Report (DR) applied during office processing are shown in red italic text. The DR is maintained as a field unit product, therefore all information and recommendations within this report are considered preliminary unless otherwise noted. The final disposition of survey data is represented in the NOAA nautical chart products. All pertinent records for this survey are archived at the National Centers for Environmental Information (NCEI) and can be retrieved via https://www.ncei.noaa.gov/. Products created during office processing were generated in NAD83 UTM 16N, MLLW. All references to other horizontal or vertical datums in this report are applicable to the processed hydrographic data provided by the field unit.

Table of Contents

A. Area Surveyed	<u>1</u>
A.1 Survey Limits	<u>1</u>
A.2 Survey Purpose	<u>3</u>
A.3 Survey Quality	<u>4</u>
A.4 Survey Coverage	<u>4</u>
A.6 Survey Statistics	<u>6</u>
B. Data Acquisition and Processing	<u>8</u>
B.1 Equipment and Vessels	<u>8</u>
B.1.1 Vessels	<u>9</u>
B.1.2 Equipment	. <u>10</u>
B.2 Quality Control	<u>10</u>
B.2.1 Crosslines	. <u>10</u>
B.2.2 Uncertainty	. <u>12</u>
B.2.3 Junctions	. <u>13</u>
B.2.4 Sonar QC Checks	<u>17</u>
B.2.5 Equipment Effectiveness	<u>17</u>
B.2.6 Factors Affecting Soundings	. <u>17</u>
B.2.7 Sound Speed Methods	. <u>18</u>
B.2.8 Coverage Equipment and Methods	. <u>18</u>
B.3 Echo Sounding Corrections	. <u>19</u>
B.3.1 Corrections to Echo Soundings	. <u>19</u>
B.3.2 Calibrations	. <u>19</u>
B.4 Backscatter	. <u>19</u>
B.5 Data Processing	. <u>19</u>
B.5.1 Primary Data Processing Software	<u>19</u>
B.5.2 Surfaces	<u>20</u>
C. Vertical and Horizontal Control	<u>20</u>
C.1 Vertical Control	<u>20</u>
C.2 Horizontal Control	. <u>21</u>
D. Results and Recommendations	. <u>21</u>
D.1 Chart Comparison	<u>21</u>
D.1.1 Electronic Navigational Charts	<u>24</u>
D.1.2 Maritime Boundary Points	<u>25</u>
D.1.3 Charted Features	. <u>25</u>
D.1.4 Uncharted Features	. <u>25</u>
D.1.5 Shoal and Hazardous Features	. <u>25</u>
D.1.6 Channels	. <u>25</u>
D.1.7 Bottom Samples	<u>25</u>
D.2 Additional Results	. <u>25</u>
D.2.1 Shoreline	. <u>25</u>
D.2.2 Aids to Navigation	<u>26</u>
D.2.3 Overhead Features	. <u>26</u>
D.2.4 Submarine Features	<u>26</u>

D.2.5 Platforms	26
D.2.6 Ferry Routes and Terminals.	26
D.2.7 Abnormal Seafloor and/or Environmental Conditions	
D.2.8 Construction and Dredging	26
D.2.9 New Survey Recommendation.	
D.2.10 Inset Recommendation	
E. Approval Sheet	
F. Table of Acronyms	

List of Tables

Table 1: Survey Limits	1
Table 2: Survey Coverage	
Table 3: Hydrographic Survey Statistics.	
Table 4: Dates of Hydrography	
Table 5: Vessels Used	
Table 6: Major Systems Used	10
Table 7: Survey Specific Tide TPU Values	
Table 8: Survey Specific Sound Speed TPU Values	
Table 9: Junctioning Surveys	
Table 10: Submitted Surfaces.	
Table 11: ERS method and SEP file	
Table 12: Largest Scale ENCs.	

List of Figures

Figure 1: Survey H13281 relative to overall sheet limits of OPR-J359-KR-19.	<u>2</u>
Figure 2: Additional coverage acquired for feature assigned for investigation	<u>3</u>
Figure 3: Survey H13281 complete coverage MBES.	<u>5</u>
Figure 4: Survey H13281 2m complete coverage MBES density QC	<u>6</u>
Figure 5: M/V Go Liberty.	<u>9</u>
Figure 6: H13281 MBES mainscheme and MBES crossline distribution	<u>11</u>
Figure 7: H13281 MBES mainscheme differenced from MBES crosslines statistical output	<u>12</u>
Figure 8: H13281 2m finalized grid TPU QC	. <u>13</u>
Figure 9: Survey H13281 junction with Survey H13159.	<u>14</u>
Figure 10: Survey H13281 junction with Survey H13155	<u>15</u>
Figure 11: Survey H13281 junction with Survey H13282	<u>16</u>
Figure 12: Survey H13281 junction with Survey H13185	. <u>17</u>
Figure 13: Temporal and geographic distribution of SVP casts within survey H13281	. <u>18</u>
Figure 14: Survey H13281 backscatter coverage	<u>19</u>
Figure 15: Pydro QC Tools chart review output of surveyed sounding shoal to charted soundings	<u>22</u>
Figure 16: Pydro QC Tools output of areas of shoaling greater than 1ft	<u>23</u>
Figure 17: Highlighted area in the vicinity of 29-22-13.57N 085-21-18.74W of greatest difference between	<u>1</u>
surveyed and charted soundings	<u>24</u>

Descriptive Report to Accompany Survey H13281

Project: OPR-J359-KR-19 Locality: Northwest Gulf of Mexico Sublocality: 17 miles South of Indian Pass Scale: 1:20000 July 2019 - October 2019 **Fugro Pelagos** Chief of Party: Dean R Moyles

A. Area Surveyed

Survey H13281 (Table 1) is located 17 miles South of Indian Pass (Figure 1). The M/V Go Liberty acquired complete coverage multibeam echosounder (MBES) and multibeam echosounder acoustic backscatter (MBAB) within the assigned survey limits from 17 July 2019 to 21 October 2019 (Tables 3 and 4).

A.1 Survey Limits

Data were acquired within the following survey limits:

Northwest Limit	Southeast Limit
29° 30' 39.17" N	29° 20' 24.57" N
85° 30' 2.74" W	85° 12' 28.79" W

Table 1: Survey Limits

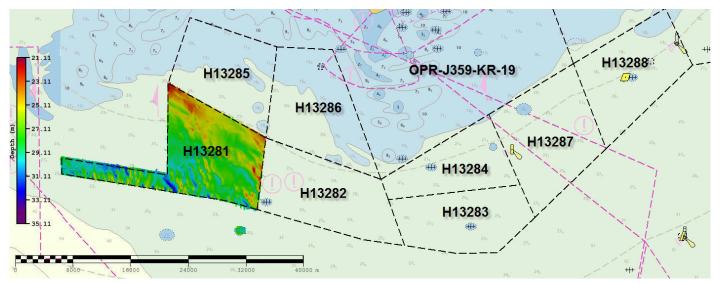


Figure 1: Survey H13281 relative to overall sheet limits of OPR-J359-KR-19

An additional area of 0.5 square linear nautical miles of data were acquired as a feature investigation for the charted check in the vicinity of 29-19-00.534N 085-12-47.724W (Figure 2). The charted feature was not located in this survey. Reference the Final Feature File associated with this survey for further details.

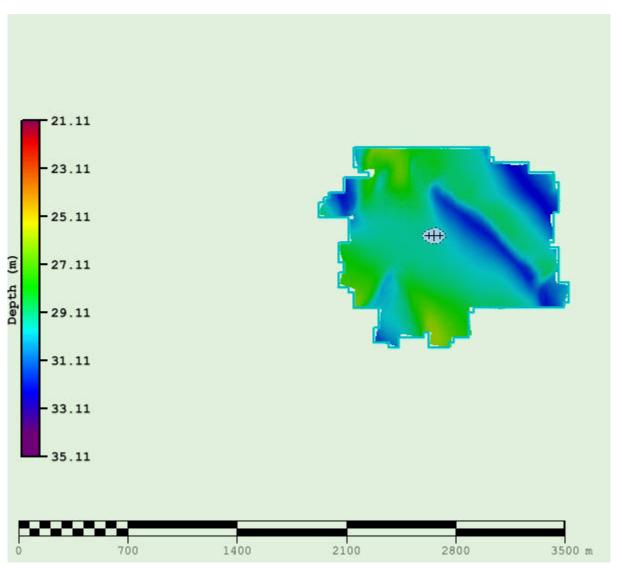


Figure 2: Additional coverage acquired for feature assigned for investigation

A.2 Survey Purpose

The Vicinity of Apalachicola project will provide contemporary surveys to update National Ocean Service (NOS) nautical charting products. The survey areas are offshore of Apalachicola Bay and Joseph Bay, FL. The survey will provide updated bathymetry and feature data to address concerns of migrating shoals, thus reducing the risk to navigation within the project area.

The Apalachicola Surveys delineate the western extent to the Big Bend Mapping project, a Florida Coastal Mapping Program (FCMaP) priority. This multi-year, multi-agency mapping project will fill in an area in which only 2% of the seafloor is mapped to modern standards. Improving the understanding of the bathymetry, geomorphology, bio-diversity and distribution of habitats in this region will support Floridian fisheries, coastal modeling, and resource management.

The project will cover approximately 323 square nautical miles of high priority survey area identified in the latest iteration of NOAA HSD's risk based prioritization model. Data from this project will supersede all prior survey data providing modern hydrographic survey data for this area and updating the local charting products.

A.3 Survey Quality

The entire survey is adequate to supersede previous data.

Full coverage MBES and MBAB (Table 2, Figures 3 and 4) were achieved within the survey limits of H13281.

A.4 Survey Coverage

The following table lists the coverage requirements for this survey as assigned in the project instructions:

Water Depth	Coverage Required
All waters in survey area	Complete coverage (HSSD 2019 5.2.2.3)

Table 2: Survey Coverage

Survey coverage was in accordance with the requirements listed above and in the HSSD.

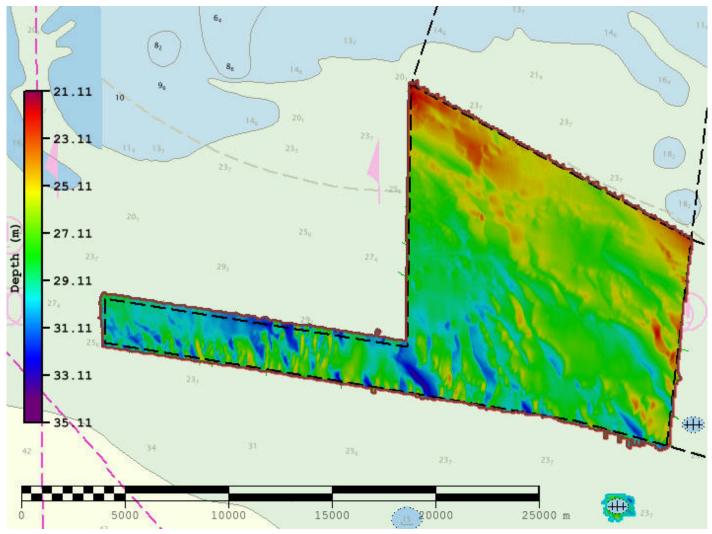


Figure 3: Survey H13281 complete coverage MBES

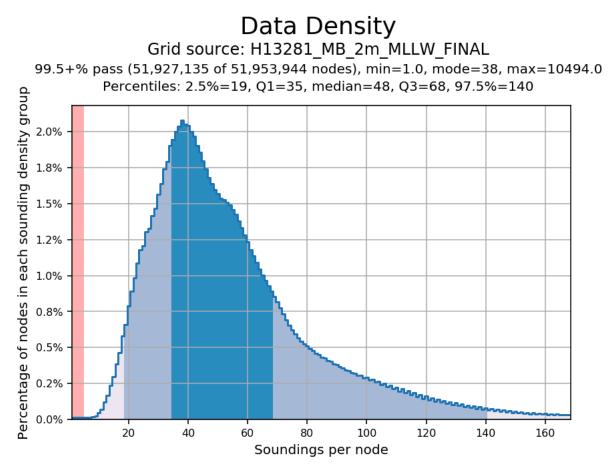


Figure 4: Survey H13281 2m complete coverage MBES density QC

A.6 Survey Statistics

The following table lists the mainscheme and crossline acquisition mileage for this survey:

	HULL ID	M/V Go Liberty	Total
	SBES Mainscheme	0	0
	MBES Mainscheme	1489.45	1489.45
	Lidar Mainscheme	0	0
LNM	SSS Mainscheme	0	0
LINIVI	SBES/SSS Mainscheme	0	0
	MBES/SSS Mainscheme	0	0
	SBES/MBES Crosslines	67.57	67.57
	Lidar Crosslines	0	0
Numb Bottor	er of n Samples		12
Number Maritime Boundary Points Investigated			0
Number of DPs			0
Number of Items Investigated by Dive Ops			0
Total S	SNM		60.59

Table 3: Hydrographic Survey Statistics

The following table lists the specific dates of data acquisition for this survey:

Survey Dates	Day of the Year
07/17/2019	198

Survey Dates	Day of the Year
07/18/2019	199
07/19/2019	200
07/20/2019	201
07/21/2019	202
07/22/2019	203
07/23/2019	204
07/24/2019	205
07/25/2019	206
07/26/2019	207
07/27/2019	208
08/14/2019	226
08/31/2019	243
09/01/2019	244
09/02/2019	245
09/03/2019	246
10/02/2019	275
10/20/2019	293
10/21/2019	294

Table 4: Dates of Hydrography

B. Data Acquisition and Processing

B.1 Equipment and Vessels

Refer to the Data Acquisition and Processing Report (DAPR) for a complete description of data acquisition and processing systems, survey vessels, quality control procedures and data processing methods. Additional information to supplement sounding and survey data, and any deviations from the DAPR are discussed in the following sections.

B.1.1 Vessels

The following vessels were used for data acquisition during this survey:

Hull ID	M/V Go Liberty
LOA	150 feet
Draft	10 feet

Table 5: Vessels Used



Figure 5: M/V Go Liberty

M/V Go Liberty (Table 5 and Figure 5) acquired MBES, MBAB, surface sound velocity, sound velocity profiles, attitude and positioning data within the survey limits of H13281 (Table 6). For a detailed listing of equipment used to acquire survey data, refer to the DAPR submitted with this report under Project Reports.

B.1.2 Equipment

The following major systems were used for data acquisition during this survey:

Manufacturer	Model	Туре
Teledyne RESON	SeaBat 7125 SV2	MBES
Teledyne RESON	SVP 70	Sound Speed System
AML Oceanographic	Smart SVP	Conductivity, Temperature, and Depth Sensor
Teledyne Oceanscience	CastAway-CTD	Conductivity, Temperature, and Depth Sensor
Applanix	POS MV 320 v5	Positioning and Attitude System

Table 6: Major Systems Used

For a detailed listing of equipment, refer to the DAPR submitted with this report.

B.2 Quality Control

B.2.1 Crosslines

Multibeam/single beam echo sounder/side scan sonar crosslines acquired for this survey totaled 4.54% of mainscheme acquisition.

Crosslines for survey H13281 were acquired in accordance with section 5.2.4.2 of the HSSD 2019 (Figure 6). Of the 5,092,296 nodes compared between H13281 mainscheme MBES and MBES crosslines, 100% were within 1m difference . The mean difference is 0.02m, with a standard deviation of 0.07m (Figure 7).

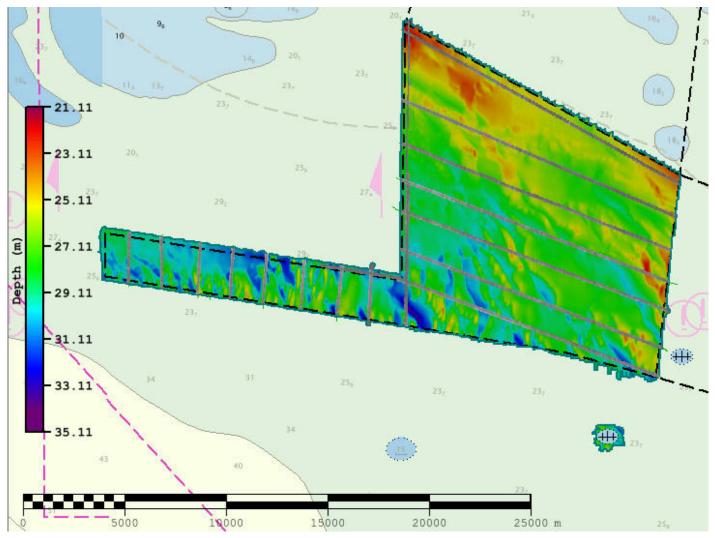


Figure 6: H13281 MBES mainscheme and MBES crossline distribution

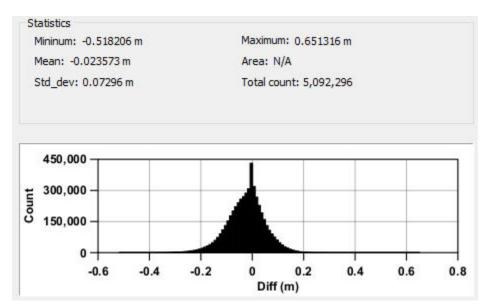


Figure 7: H13281 MBES mainscheme differenced from MBES crosslines statistical output

B.2.2 Uncertainty

The following survey specific parameters were used for this survey:

Method	Measured	Zoning
ERS via VDATUM	0.1 meters	0.101 meters

Table 7: Survey Specific Tide TPU Values.

Hull ID	Measured - CTD	Measured - MVP	Measured - XBT	Surface
M/V Go Liberty	0.989 meters/second	N/A meters/second	N/A meters/second	0.25 meters/second

Table 8: Survey Specific Sound Speed TPU Values.

Survey H13281 uncertainty values (Tables 7 and 8) were evaluated both in CARIS HIPS 9.1 and via Pydro QC Tools v3.0.19. The finalized 2m bathymetric grid meets uncertainty standards with 100% of nodes passing (Figure 8).

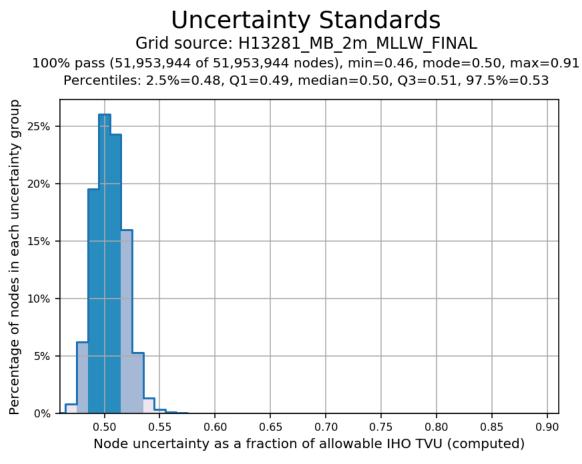


Figure 8: H13281 2m finalized grid TPU QC

B.2.3 Junctions

A total of 4 contemporary surveys are available to compare to H13281: H13159, H13155, H13282 and H13285 (Table 9).

The following junctions were made with this survey:

Registry Number	Scale	Year	Field Unit	Relative Location
H13159	1:40000	2019	Fugro Pelagos, Inc.	W
H13155	1:40000	2019	Fugro Pelagos, Inc.	W
H13282	1:20000	2019	Fugro Pelagos, Inc.	Е
H13285	1:20000	2019	Fugro Pelagos, Inc.	N

Table 9: Junctioning Surveys

<u>H13159</u>

Survey H13159 was the final priority area acquired by Fugro Pelagos in 2019 as a part of OPR-J359-KR-18. Of the 1,817,888 grid nodes compared between H13281 and H13159, 100% agree within 50cm (Figure 9).

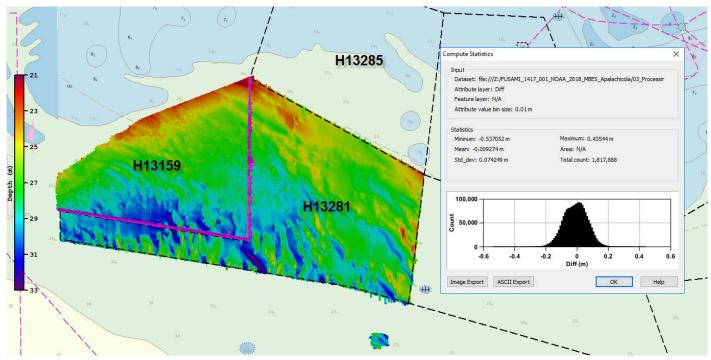


Figure 9: Survey H13281 junction with Survey H13159

<u>H13155</u>

Survey H13155 was the third priority area acquired by Fugro Pelagos in 2019 as a part of OPR-J359-KR-18. Of the 223,720 grid nodes compared between H13281 and H13155, 99.6% agree within 50cm (Figure 10).

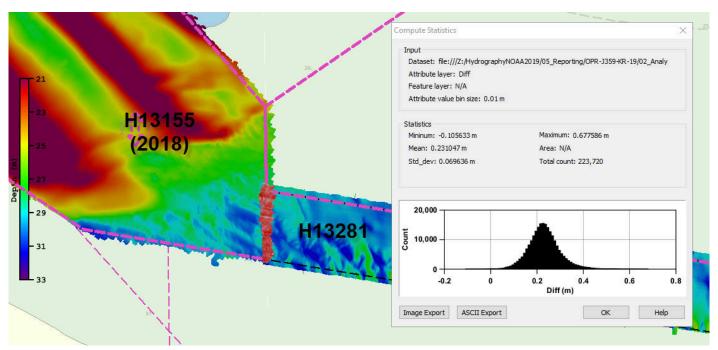


Figure 10: Survey H13281 junction with Survey H13155

<u>H13282</u>

Survey H13282 was acquired by Fugro Pelagos in 2019 as a part of OPR-J359-KR-19. Of the 352,875 grid nodes compared between H13281 and H13282, 100% agree within 50cm (Figure 11).

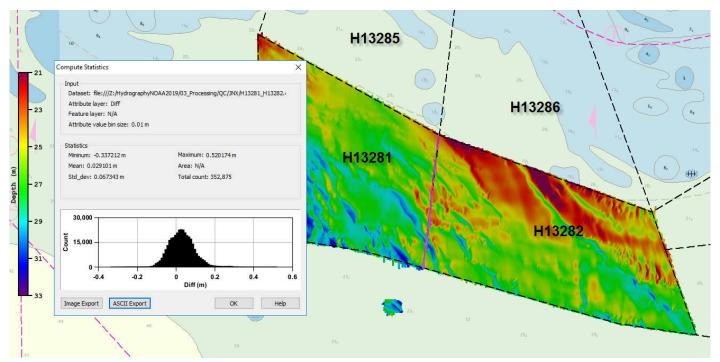


Figure 11: Survey H13281 junction with Survey H13282

<u>H13285</u>

Survey H13285 was acquired by Fugro Pelagos in 2019 as a part of OPR-J359-KR-19. Of the 1,017,305 grid nodes compared between H13281 and H13285, 100% agree within 50cm (Figure 12).

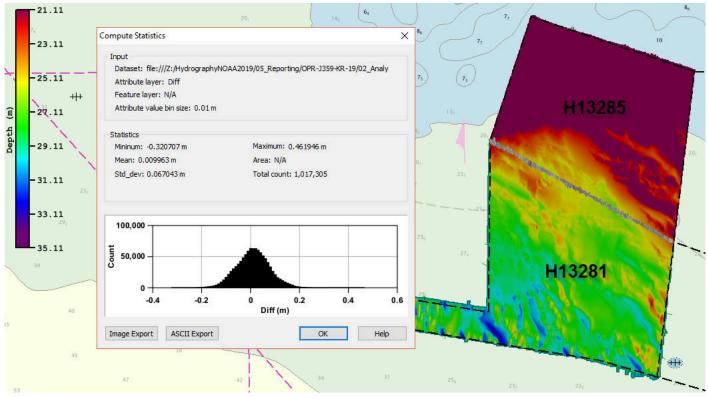


Figure 12: Survey H13281 junction with Survey H13185

B.2.4 Sonar QC Checks

Sonar system quality control checks were conducted as detailed in the quality control section of the DAPR.

B.2.5 Equipment Effectiveness

There were no conditions or deficiencies that affected equipment operational effectiveness.

B.2.6 Factors Affecting Soundings

There were no other factors that affected corrections to soundings.

B.2.7 Sound Speed Methods

Sound Speed Cast Frequency: Sound velocity profiles were acquired every two hours from the M/V Go Liberty using either an AML SV&P or a Teledyne Oceanscience UCTD SV&P (Figure 13).

Refer to the DAPR for additional information.

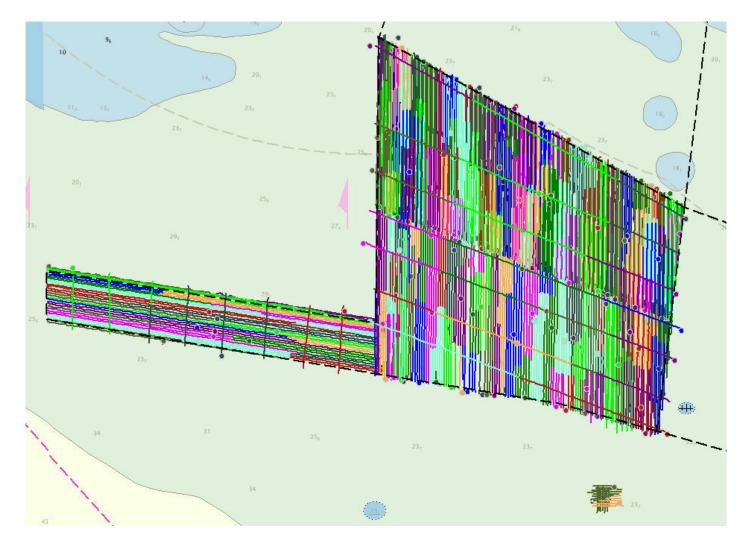


Figure 13: Temporal and geographic distribution of SVP casts within survey H13281

B.2.8 Coverage Equipment and Methods

All equipment and survey methods were used as detailed in the DAPR.

B.3 Echo Sounding Corrections

B.3.1 Corrections to Echo Soundings

All data reduction procedures conform to those detailed in the DAPR.

B.3.2 Calibrations

All sounding systems were calibrated as detailed in the DAPR.

B.4 Backscatter

All equipment and survey methods utilized in the acquisition and processing of Survey H13281 backscatter (Figure 14) are detailed in the DAPR.

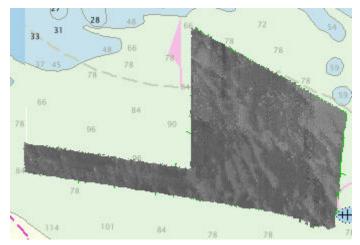


Figure 14: Survey H13281 backscatter coverage

B.5 Data Processing

B.5.1 Primary Data Processing Software

The following Feature Object Catalog was used: NOAA Profile Version 2019.

B.5.2 Surfaces

The following surfaces and/or BAGs were submitted to the Processing Branch:

Surface Name	Surface Type	Resolution	Depth Range	Surface Parameter	Purpose
H13281_MB_2m_MLLW	CARIS Raster Surface (CUBE)	2 meters	21.11 meters - 34.18 meters	CMC_2m	Complete MBES
H13281_MB_2m_MLLW_Final	CARIS Raster Surface (CUBE)	2 meters	21.11 meters - 34.18 meters	CMC_2m	Complete MBES
H13281_MBAB_2m_GoLiberty_400kHz	MB Backscatter Mosaic	2 meters	-	N/A	Complete MBES

Table 10: Submitted Surfaces

C. Vertical and Horizontal Control

Additional information discussing the vertical or horizontal control for this survey can be found in the accompanying HVCR.

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 VDATUM	EC_Apalachicola_xyNAD83-MLLW_geoid12b.csar GeneralArea_Apalachicola_100m_NAD83-MLLW_geoid12b

Table 11: ERS method and SEP file

All data within OPR-J359-KR-19 were reduced to MLLW using "EC_Apalachicola_xyNAD83-MLLW_geoid12b.csar" with the exception of the additional feature investigation assigned

outside the sheet limits of H13281. In order to reduce those data to MLLW, the VDATUM file "GeneralArea_Apalachicola_100m_NAD83-MLLW_geoid12b" was utilized.

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>

All positioning and attitude data associated with OPR-J359-KR-19 was post-processed in POSPac MMS using PP-RTX methods. For further discussion, reference the HVCR and or DAPR submitted with this report.

D. Results and Recommendations

D.1 Chart Comparison

A chart comparison was conducted using the Triangle Rule script within the Chart Review Tool of Pydro QC Tools. A combined s57 file of charted soundings extracted from ENCs listed in the project instructions and an s57 file of surveyed soundings were compared with the following results (Figure 15):

Survey H13281 surveyed soundings show variance to charted soundings due to shifting areas of shoaling (Figure 16). Of the 1909 soundings flagged by the triangle rule in QC Tools, 74 survey soundings exceed 3ft in difference. The maximum difference found between surveyed soundings and charted soundings is 8ft in the vicinity of 29-22-13.57N 085-21-18.74W due to sand wave migration (Figure 17).

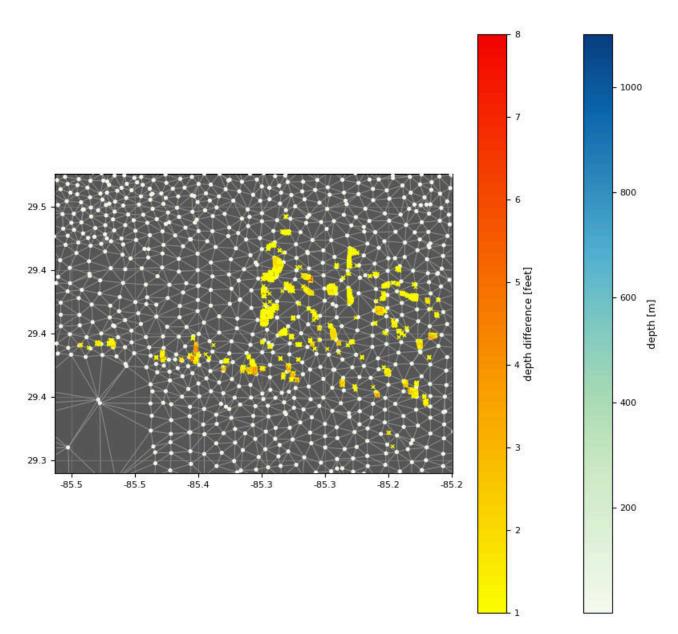


Figure 15: Pydro QC Tools chart review output of surveyed sounding shoal to charted soundings

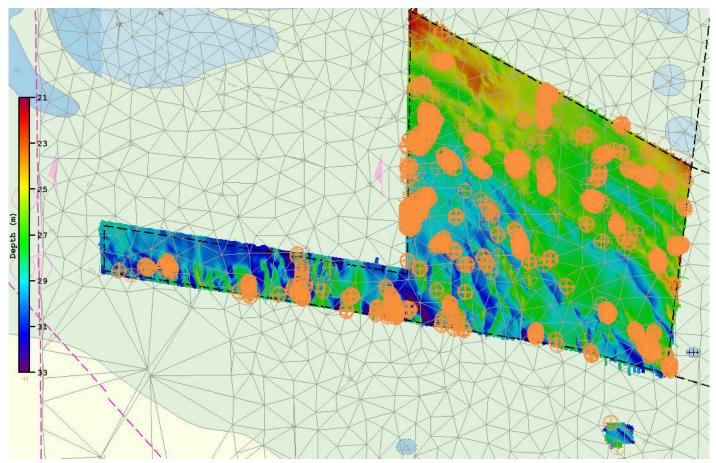


Figure 16: Pydro QC Tools output of areas of shoaling greater than 1ft

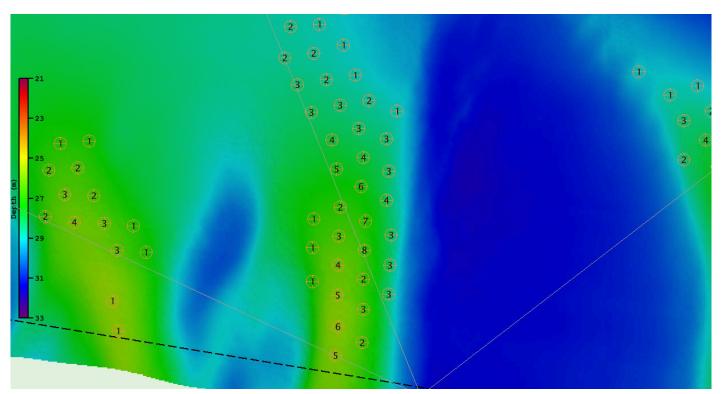


Figure 17: Highlighted area in the vicinity of 29-22-13.57N 085-21-18.74W of greatest difference between surveyed and charted soundings

D.1.1 Electronic Navigational Charts

The following are the largest scale ENCs, which cover the survey area:

ENC	Scale	Edition	Update Application Date	Issue Date	Preliminary?
US4FL68M	1:80000	15	02/15/2019	02/15/2019	NO
US3GC06M	1:456394	26	09/27/2019	10/21/2019	NO

Table 12: Largest Scale ENCs

US4FL68M

US3GC06M

D.1.2 Maritime Boundary Points

No Maritime Boundary Points were assigned for this survey.

D.1.3 Charted Features

A charted wreck was assigned for investigation outside the survey limits of H13281 in the vicinity of 29-19-00.5397N 085-14-47.7284 was investigated but not located. Reference the Final Feature File associated with this survey for further details.

D.1.4 Uncharted Features

No uncharted features exist for this survey.

D.1.5 Shoal and Hazardous Features

No shoals or potentially hazardous features exist for this survey.

D.1.6 Channels

No channels exist for this survey. There are no designated anchorages, precautionary areas, safety fairways, traffic separation schemes, pilot boarding areas, or channel and range lines within the survey limits.

D.1.7 Bottom Samples

A total of 12 bottom samples were acquired in a association with survey H13281. 7 samples were acquired within the assigned sheet limits of H13281, with an additional 5 samples collected within the sheet limits of H13159 OPR-J359-KR-2018. Reference the Final Feature File associated with this survey for further details.

D.2 Additional Results

D.2.1 Shoreline

Shoreline was not assigned in the Hydrographic Survey Project Instructions or Statement of Work.

D.2.2 Aids to Navigation

No Aids to Navigation (ATONs) exist for this survey.

D.2.3 Overhead Features

No overhead features exist for this survey.

D.2.4 Submarine Features

No submarine features exist for this survey.

D.2.5 Platforms

No platforms exist for this survey.

D.2.6 Ferry Routes and Terminals

No ferry routes or terminals exist for this survey.

D.2.7 Abnormal Seafloor and/or Environmental Conditions

No abnormal seafloor and/or environmental conditions exist for this survey.

D.2.8 Construction and Dredging

No present or planned construction or dredging exist within the survey limits.

D.2.9 New Survey Recommendation

No new surveys or further investigations are recommended for this area.

D.2.10 Inset Recommendation

No new insets are recommended for this area.

E. Approval Sheet

As Chief of Party, field operations for this hydrographic survey were conducted under my direct supervision, with frequent personal checks of progress and adequacy. I have reviewed the attached survey data and reports.

All field sheets, this Descriptive Report, and all accompanying records and data are approved. All records are forwarded for final review and processing to the Processing Branch.

The survey data meets or exceeds requirements as set forth in the NOS Hydrographic Surveys Specifications and Deliverables, Field Procedures Manual, Letter Instructions, and all HSD Technical Directives. These data are adequate to supersede charted data in their common areas. This survey is complete and no additional work is required with the exception of deficiencies noted in the Descriptive Report.

Approver Name	Approver Title	Approval Date	Signature
Dean R Moyles	Chief of Party	01/17/2020	Dean Moyles Date: 2020.01.20 13:11:33 -03'30'

F. Table of Acronyms

Acronym	Definition
AHB	Atlantic Hydrographic Branch
AST	Assistant Survey Technician
ATON	Aid to Navigation
AWOIS	Automated Wreck and Obstruction Information System
BAG	Bathymetric Attributed Grid
BASE	Bathymetry Associated with Statistical Error
СО	Commanding Officer
CO-OPS	Center for Operational Products and Services
CORS	Continuously Operating Reference Station
CTD	Conductivity Temperature Depth
CEF	Chart Evaluation File
CSF	Composite Source File
CST	Chief Survey Technician
CUBE	Combined Uncertainty and Bathymetry Estimator
DAPR	Data Acquisition and Processing Report
DGPS	Differential Global Positioning System
DP	Detached Position
DR	Descriptive Report
DTON	Danger to Navigation
ENC	Electronic Navigational Chart
ERS	Ellipsoidal Referenced Survey
ERTDM	Ellipsoidally Referenced Tidal Datum Model
ERZT	Ellipsoidally Referenced Zoned Tides
FFF	Final Feature File
FOO	Field Operations Officer
FPM	Field Procedures Manual
GAMS	GPS Azimuth Measurement Subsystem
GC	Geographic Cell
GPS	Global Positioning System
HIPS	Hydrographic Information Processing System
HSD	Hydrographic Surveys Division

Acronym	Definition
HSSD	Hydrographic Survey Specifications and Deliverables
HSTB	Hydrographic Systems Technology Branch
HSX	Hypack Hysweep File Format
HTD	Hydrographic Surveys Technical Directive
HVCR	Horizontal and Vertical Control Report
HVF	HIPS Vessel File
ІНО	International Hydrographic Organization
IMU	Inertial Motion Unit
ITRF	International Terrestrial Reference Frame
LNM	Linear Nautical Miles
MBAB	Multibeam Echosounder Acoustic Backscatter
MCD	Marine Chart Division
MHW	Mean High Water
MLLW	Mean Lower Low Water
NAD 83	North American Datum of 1983
NALL	Navigable Area Limit Line
NTM	Notice to Mariners
NMEA	National Marine Electronics Association
NOAA	National Oceanic and Atmospheric Administration
NOS	National Ocean Service
NRT	Navigation Response Team
NSD	Navigation Services Division
OCS	Office of Coast Survey
OMAO	Office of Marine and Aviation Operations (NOAA)
OPS	Operations Branch
MBES	Multibeam Echosounder
NWLON	National Water Level Observation Network
PDBS	Phase Differencing Bathymetric Sonar
РНВ	Pacific Hydrographic Branch
POS/MV	Position and Orientation System for Marine Vessels
РРК	Post Processed Kinematic
PPP	Precise Point Positioning
PPS	Pulse per second

Acronym	Definition
PRF	Project Reference File
PS	Physical Scientist
RNC	Raster Navigational Chart
RTK	Real Time Kinematic
RTX	Real Time Extended
SBES	Singlebeam Echosounder
SBET	Smooth Best Estimate and Trajectory
SNM	Square Nautical Miles
SSS	Side Scan Sonar
SSSAB	Side Scan Sonar Acoustic Backscatter
ST	Survey Technician
SVP	Sound Velocity Profiler
TCARI	Tidal Constituent And Residual Interpolation
TPU	Total Propagated Uncertainty
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
UTM	Universal Transverse Mercator
XO	Executive Officer
ZDF	Zone Definition File

From:	Moyles, Dean
To:	NODC.submissions@noaa.gov
Cc:	Starla Robinson - NOAA Federal
Subject:	NCEI Sound Speed Data
Date:	Wednesday, March 25, 2020 2:03:00 PM
Attachments:	OPR-J359-KR-19_20200325.zip

Please find the attached Sound Speed Data for OPR-J359-KR-19 in the NetCDF template format. I apologize this was omitted from the final deliverables, please let me know if you have any questions.

Dean Moyles

*Marine Hydrographic Manager (*NSPS/THSOA *cert. No. 226*) Fugro

T +1709726-4252x263 | C +1858945-6378 | E dmoyles@fugro.com | W https://www.fugro.com/ A 25 Pippy Place, St. John's, NL Canada A1B 3X2

From:	Stone, Allison	
То:	survey.outlines@noaa.gov	
Cc:	Starla Robinson - NOAA Federal; Moyles, Dean	
Subject:	OPR-J359-KR-19 Survey Outlines	
Date:	Wednesday, November 27, 2019 5:22:16 PM	
Attachments:	H13281 SurveyOutline.000	
	H13282 SurveyOutline.000	
	H13284 SurveyOutline.000	
	H13285 SurveyOutline.000	
	H13286 SurveyOutline.000	
	H13287 SurveyOutline.000	
	H13288 SurveyOutline.000	

Good Afternoon,

Please find attached survey outlines associated with OPR-J359-KR-19:

H13281 H13282 (H13283-submitted 10/4/19, not submitted herein) H13284 H13285 H13286 H13287 H13288

A copy of this correspondence will be saved and submitted with the reporting package for this project. Please confirm receipt.

Kind regards,

Allison Stone

Hydrographer Fugro

T +1 713 346 4084 | C +1 843 607 9980 | E al.stone@fugro.com | W <u>https://www.fugro.com/</u> A 6100 Hillcroft St Houston, TX 77081

From:	Stone, Allison
To:	<u>OCS.NDB@noaa.gov;</u>
Cc:	<u> Starla Robinson - NOAA Federal; Moyles, Dean</u>
Subject:	OPR-J359-KR-2019 Coast Pilot Report Review Report
Date:	Monday, December 2, 2019 1:38:33 PM
Attachments:	OPR J359 KR 19 CoastPilotReviewReport.pdf
	OPR-J359-KR-19CoastPilotReport.pdf

Good afternoon,

Please find attached CP Review Report for project OPR-J359-KR-19. This review was conducted on the most recent Ch 6 of CP5 (24 Nov 2019).

CP5 Ch6 provided by HSD with Project Instructions was dated 20 May 2018.

In reference to the highlighted update requests, the wreck PA at the outer entrance to Government Cut was not included for investigation in the Project Instructions for investigation.

An additional comment was added relating to the prominence of the Highway 98 Bridge over the Gulf County Canal as a visual reference for approach.

If you have any additional comments or considerations, please do not hesitate to reach out.

Allison Stone

Hydrographer Fugro

T +1 713 346 4084 | C +1 843 607 9980 | E al.stone@fugro.com | W <u>https://www.fugro.com/</u> A 6100 Hillcroft St Houston, TX 77081

From:	Laura Jeffery - NOAA Federal
To:	Stone, Allison
Cc:	OCS.NDB@noaa.gov; Coast.Pilot@noaa.gov; Starla Robinson - NOAA Federal; Moyles, Dean
Subject:	Re: OPR-J359-KR-2019 Coast Pilot Report Review Report
Date:	Monday, December 2, 2019 3:50:29 PM

Thank you very much Allison! We will have this made into a source doc and process it for CP5 soon.

-Nautical Publications Branch/NOS

On Mon, Dec 2, 2019 at 12:11 PM 'Stone, Allison' via _NOS OCS NSD Coast Pilot <<u>coast.pilot@noaa.gov</u>> wrote:

Good afternoon,

Please find attached CP Review Report for project OPR-J359-KR-19. This review was conducted on the most recent Ch 6 of CP5 (24 Nov 2019).

CP5 Ch6 provided by HSD with Project Instructions was dated 20 May 2018.

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Allison Stone

Hydrographer

Fugro

T +1 713 346 4084 | C +1 843 607 9980 | E <u>al.stone@fugro.com</u> | W <u>https://www.fugro.com/</u>

A 6100 Hillcroft St Houston, TX 77081

Together we create a safe and liveable world.

--Laura B. Jeffery Nautical Publications Branch/NOS Cartographer/Reviewer 240-533-0073

NOAA-NOS-OCS-NSD-NPB 1315 E. West Hwy SSMC3, Station 6315 Silver Spring, MD 20910

From:	Moyles, Dean
To:	ocs.ecc@noaa.gov
Cc:	Starla Robinson - NOAA Federal
Subject:	RE: OPR-J359-KR-19 Marine Mammal Sighting Logs
Date:	Wednesday, March 25, 2020 2:13:00 PM
Attachments:	<u>Marine Mammal Training Video Log 2019.xlsx</u>

Please find the attached Marine Mammal Training Log for OPR-J359-KR-19. I apologize this was omitted from the earlier submission.

Dean Moyles

Marine Hydrographic Manager (NSPS/THSOA *cert. No. 226*) Fugro

T +1 709 726-4252x263 | C +1 858 945-6378 | E <u>dmoyles@fugro.com</u> | W <u>https://www.fugro.com/</u> A 25 Pippy Place, St. John's, NL Canada A1B 3X2

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From: Nancy Young - NOAA Federal <nancy.young@noaa.gov>
Sent: Tuesday, December 3, 2019 4:36 PM
To: Moyles, Dean <dmoyles@fugro.com>
Subject: Re: OPR-J359-KR-19 Marine Mammal Sighting Logs

Thanks very much, Dean.

On Mon, Dec 2, 2019 at 11:10 AM 'Moyles, Dean' via _NMFS AFSC NMML POP INFORMATION <<u>pop.information@noaa.gov</u>> wrote:

Please find the attached marine mammal sighting logs for OPR-J359-KR-19. Please let me know if you have any questions.

Dean Moyles

Marine Hydrographic Manager (NSPS/THSOA *cert. No. 226*) Fugro

T +1 709 726-4252x263 | C +1 858 945-6378 | E <u>dmoyles@fugro.com</u> | W <u>https://www.fugro.com/</u> A 25 Pippy Place, St. John's, NL Canada A1B 3X2

Together we create a safe and liveable world.

Nancy Young NOAA Fisheries Alaska Fisheries Science Center Marine Mammal Laboratory (206) 526-4297

Name	Date of Completion
Allison Stone	7/2/2019
Honza Rokyta	7/2/2019
Dean Moyles	7/2/2019
Mike Minton	7/2/2019
Clay Walker	7/2/2019
Patrick Keilen	7/2/2019
Nicholas Burch	7/17/2019
Emanual Byas	7/17/2019
Reed Nelle	7/17/2019
Tiziana Munene	7/17/2019
Dylan Coe	7/17/2019
Matt Green	7/17/2019
Gary Baxter	7/18/2019
Bobby Touchstone	7/19/2019
Honza Rokyta	7/31/2019
Scott Ferguson	7/31/2019
Caroline Bradley	9/23/2019

From:	<u>Moyles, Dean</u>
To:	<pre>"pop.information@noaa.gov"; "ocs.ecc@noaa.gov"</pre>
Cc:	"Starla Robinson - NOAA Federal"
Subject:	OPR-J359-KR-19 Marine Mammal Sighting Logs
Date:	Monday, December 2, 2019 3:35:00 PM
Attachments:	OPR-J359-KR-19 Marine Mammal Sightings.zip

Please find the attached marine mammal sighting logs for OPR-J359-KR-19. Please let me know if you have any questions.

Dean Moyles

Marine Hydrographic Manager (NSPS/THSOA *cert. No. 226*) Fugro

T +1 709 726-4252x263 | C +1 858 945-6378 | E dmoyles@fugro.com | W https://www.fugro.com/ A 25 Pippy Place, St. John's, NL Canada A1B 3X2

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Dean Moyles

Marine Hydrographic Manager (NSPS/THSOA cert. No. 226)

Fugro

T +1709726-4252x263 | C +1858945-6378 | E dmoyles@fugro.com | W https://www.fugro.com/

A 25 Pippy Place, St. John's, NL Canada A1B 3X2

Together we create a safe and liveable world.

Nancy Young NOAA Fisheries Alaska Fisheries Science Center Marine Mammal Laboratory (206) 526-4297

APPROVAL PAGE

H13281

The survey data meet or exceed the current requirements of the Office of Coast Survey hydrographic data review process and may be used to update NOAA products. The following survey products will be archived at the National Centers for Environmental Information:

- Descriptive Report
- Collection of Bathymetric Attributed Grids (BAGs)
- Collection of acoustic backscatter mosaics
- Bottom samples
- Geospatial PDF of survey products

Approved:

Commander Meghan McGovern, NOAA Chief, Atlantic Hydrographic Branch