

H12120

NOAA FORM 76-35A
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE

DESCRIPTIVE REPORT

Type of Survey: Hydrographic Multibeam & 200% Sidescan

Project No. : OPR-K354-KR-09

Registry No. : H12120

LOCALITY

State: Louisiana

General Locality: Gulf of Mexico

Sublocality: 23 NM S of Entrance to Lake Pelto

2010

CHIEFS OF PARTY
Scott Croft, John Baker

LIBRARY & ARCHIVES

DATE: _____

NOAA FORM 77-28 (11-72)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION HYDROGRAPHIC TITLE SHEET	REGISTRY No: H12120
		FIELD NUMBER: Sheet I
State: <u>Louisiana</u>		
General Locality: <u>Gulf of Mexico</u>		
Locality: <u>23 NM S of Entrance to Lake Pelto</u>		
Scale: <u>1:10,000</u> Date of Survey: <u>September 2009 to October 2009</u>		
Instructions Dated: <u>June 2009</u> Project Number: <u>OPR-K354-KR-09</u>		
Vessels: <u>M/V Andrew Charles</u>		
Chiefs of Party: <u>Scott Croft, John Baker</u>		
Surveyed by: <u>C&C Technologies Personnel</u>		
Soundings taken by echosounder, hand lead line, or pole: <u>Simrad EM3002 Multibeam Echo sounder</u>		
Verification by: <u>C&C Technologies Personnel</u> <i>Atlantic Hydrographic Branch Personnel</i>		
Soundings in: Feet: <u>X</u> Fathoms: <u> </u> Meters: <u> </u> at MLW: <u> </u> MLLW: <u>X</u> <i>H-Cell Compilation units in feet at MLLW</i>		
Remarks: Multibeam Hydrographic Survey of Sheet I <u>Data collection in meters, referenced to MLLW, later converted into feet</u> <u>200% side scan sonar coverage</u> <u>UTC time was used exclusively</u> <u>Grab samples were taken</u> <u>Tidal Zones: CGM366, 717, 718, 731, 732, 733, 734, 735, 749, 750, 364, WGM416</u> <u>Tidal Station: 8762075 (Port Fourchon, LA)</u> <i>Red, bold, italic, remarks made during office processing.</i>		

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APPENDICES

Data attached to this report.

Appendix I	Danger to Navigation Reports
Appendix II	Survey Feature Report
Appendix III	Final Progress Sketch and Survey Outline
Appendix IV	Tides and Water Levels
Appendix V	Supplemental Survey Records and Correspondence

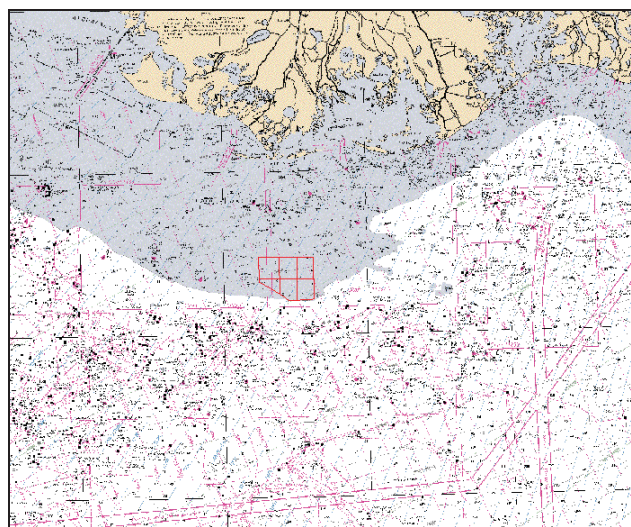
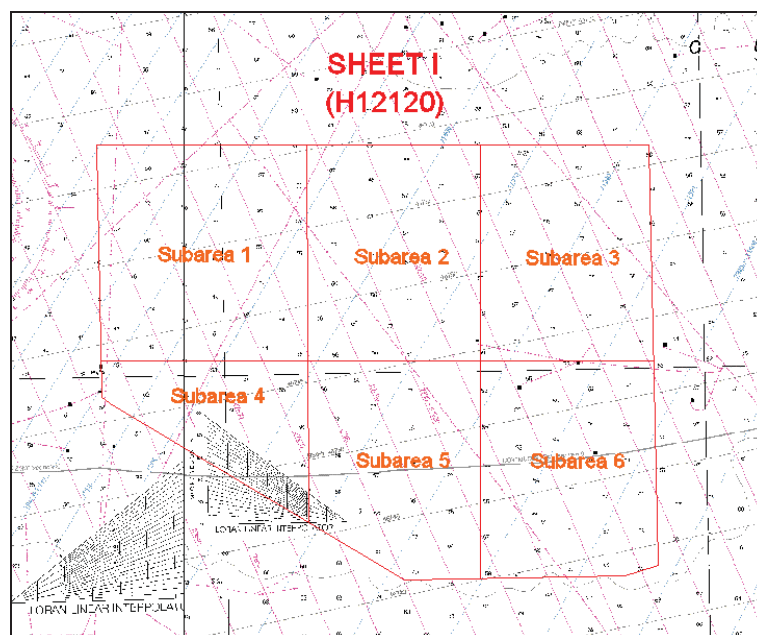
SEPARATES

Data filed with original field records.

Separates I	Acquisition and Processing Logs
Separates II	Sonar Contact Table Side Scan Data Reproductions Correlator Sheets
Separates III	Sound Velocity Profile Data
Separates IV	Statement of Work
Separates V	Crossline Comparisons

A. AREA SURVEYED

The survey area is located 23 NM S of the Entrance to Lake Peltó in the Gulf of Mexico. The following sketch shows the layout of Sheet I (H12021) of Project (OPR-K354-KR-09). Water depths in the survey area range from 48 feet to 63 feet Mean Lower Low Water (MLLW). *Concur*



Descriptive Report to Accompany Hydrographic Survey H12120



	Andrew Charles	Total
LNМ Side Scan + Multibeam	1720.80	1720.80
LNМ Crosslines	92.10	92.10
LNМ Investigations	1.46	1.46

Number of bottom samples collected	68
Number of items investigated	2
Total square nautical miles	75.66

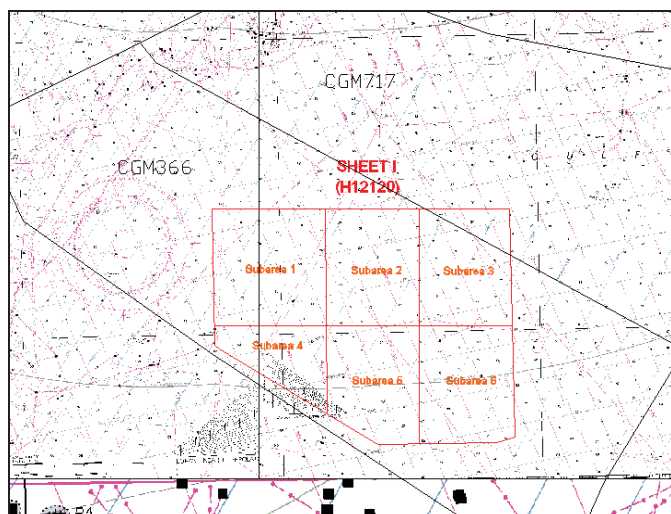
A.1 ACQUISITION DATES

September 7-10, 19-29 2009

*October 1-3, 6-8 11-12 **13** 2009*

A.2 SURVEY SUBAREAS

The survey area was broken down into six sub areas to allow for more efficient data processing and management. The sub areas were based on the predicted data set sizes prior to survey commencement. Tidal data from Port Fourchon, LA (8762075) was used as the source for corrections. All of the subareas fall entirely within tide zone CGM366 except subarea 3, which is split by zones CGM717 and CGM366. Below is an image showing the layout of the tide zoning for this project.





B. DATA ACQUISITION AND PROCESSING *See also the H-Cell Report.*

B.1 EQUIPMENT

System	Manufacturer	Model
Multibeam Echo Sounder	Simrad	EM3002
Side Scan Sonar	Edgetech	4200
Single Beam Echo Sounder	ODOM	Echotrac MK III
Motion Sensor	CODA	F180
Primary Positioning System	CNAV	2050
Secondary Positioning System	CNAV	2050
Tertiary Positioning System	CODA	F180
Sound Speed at Transducer	Endeco	YSI
Sound Velocity Profiler	Seabird	SBE19 Plus

See Data Acquisition and Processing Report* for a detailed description of the equipment used for hydrographic operations.

The *M/V Andrew Charles*, a 41.1-meter vessel, conducted survey operations for this project. The vessel is 10.3 meters wide with an approximate draft of 3.02 meters. A central reference point was established prior to the survey from which all relevant offsets were measured. Relevant offsets are presented in the following table.

METERS FROM CRP	Y(FORWARD)	X(STARBOARD)	Z(VERTICAL)
Primary CNAV	3.070	-0.376	-10.770
Secondary CNAV	3.070	0.275	-10.661
F180 Primary	3.070	-0.947	-10.752
F180 Secondary	3.070	1.053	-10.746
IMU	-0.248	1.038	-0.817
EM3002	1.326	1.835	4.008
Single Beam (Dual)	0.783	1.835	4.008
SSS Sheave	-26.022	-0.053	3.773

**Data included with H-Cell deliverables.*



A detailed vessel description, vessel diagram, and patch test results are presented in the Data Acquisition and Processing Report.*

B.2 QUALITY CONTROL

In order to most efficiently carry out this survey, the survey lines were oriented roughly east west throughout the survey area. The side scan was operated with a range of 100 meters per channel, and line spacing was set to 90 meters. These parameters allowed us to effectively meet the criteria of 200 percent side scan coverage, using Technique 2, as set forth in Section 6.1 of the “Specifications and Deliverables”** document. The angular sector on the multibeam was set so that the criterion of two times water depth, as well as all accuracy, resolution, and detection criteria as set forth in Sections 5.2 and 5.3 of the “Specifications and Deliverables”** document, were met.

The internal consistency of the multibeam depth values is quantified in the cross line statistics that were performed at the end of each main line. Cross lines were run prior to the collection of main line data so that quality control statistics could be performed on the data after each line. Based on pre-plot calculations, the total cross line miles was 92 nm, while the total main line miles was 1629 nm. The cross lines comprised about 6% of the total data set as compared to the main scheme lines. Rerun line miles are not included in these totals. As can be seen in the sample statistics found in Separates V**, the main lines and cross lines depth values showed very good agreement. Each main line was compared to all cross lines for which there was overlapping data. The graphs shown in Separates V** are a random sample of the graphs that were produced. The graphs show the mean difference, RMS difference, and confidence interval for each beam. The results show that the multibeam data was repeatable with 90% of the soundings

**Data included with H-Cell deliverables.*

***Data field with original field records.*



Multibeam quality control procedures are outlined in Section B.1 of the accompanying Data Acquisition and Processing Report.*

No deviations from the Correction to Echo Soundings section in the Data Acquisition and Processing Report* occurred.

C. VERTICAL AND HORIZONTAL CONTROL *See also the H-Cell Report.*

Tide Zone	Reference Station	Primary/Secondary	Time Corrector	Range Ratio
CGM366	8762075	PRIM	-12	1.05
CGM366	8761724	SEC	-48	1.23
CGM717	8762075	PRIM	-12	1.05
CGM717	8761724	SEC	-48	1.23
CGM718	8762075	PRIM	-12	1.05
CGM718	8761724	SEC	-42	1.23
CGM731	8762075	PRIM	-12	1.05

Descriptive Report to Accompany Hydrographic Survey H12120

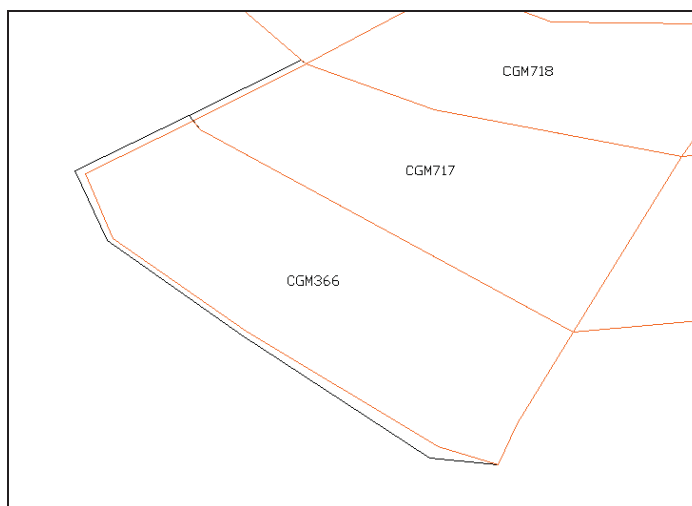


CGM731	8761724	SEC	-42	1.23
CGM732	8762075	PRIM	-6	1.09
CGM732	8761724	SEC	-42	1.27
CGM733	8762075	PRIM	-6	1.17
CGM733	8761724	SEC	-36	1.37
CGM734	8762075	PRIM	-6	1.09
CGM734	8761724	SEC	-36	1.27
CGM735	8762075	PRIM	-6	1.05
CGM735	8761724	SEC	-42	1.23
CGM749	8762075	PRIM	0	1.13
CGM749	8761724	SEC	-36	1.32
CGM750	8762075	PRIM	0	1.09
CGM750	8761724	SEC	-36	1.27
WGM416	8762075	PRIM	-6	1.21
WGM416	8761724	SEC	-36	1.42
CGM364	8762075	PRIM	-6	1.09
CGM364	8761724	SEC	-36	1.27

Verified zoning and tides were applied during field operations.

The horizontal datum for the survey is the North American Datum of 1983 (NAD 83). The projection is Universal Transverse Mercator (UTM) Zone 15 North. The vertical datum for the soundings is Mean Lower Low Water (MLLW). *Concur*

To ensure complete coverage, C&C created line files that extended beyond the survey boundary by approximately 150 to 300 meters. The zone definition file provided by CO-OPS had to be altered by C&C in order to cover this area. The result was zones CGM366 and CGM717 being extended approximately 600 meters where the data was out of range. This file was named K354KR2009CORP_C&C_Edit.zdf. The image below shows the new .zdf file (black) compared to the old file (orange).



D. RESULTS AND RECOMMENDATIONS *See also Appendix II and the H-Cell Report.*

D.1 CHART COMPARISON

D.1.1 CHARTS AND NOTICES TO MARINERS

The following charts were used for comparison purposes.

Chart Number	Scale	Edition	Edition Date
11357	1:80,000	40	Jun 09
11356	1:80,000	38	Jun 08
11340	1:458,596	74	Aug 09

The following table shows the last updated NM and LNM for each digital chart.

Chart Number	Corrected Through	
	NM	LNM
11357	Jun. 06/09	Jun. 02/09
11356	Jun 14/08	Jun 03/08
11340	Aug 08/09	Jul 28/09

D.1.2 CHARTED FEATURES

There are no charted hazards found within the survey area. Charted infrastructure is discussed in section D.2.3 of this report. *Do not concur – See Appendix II attached to this report.*

D.1.3 NOTICES TO MARINERS

The Notices to Mariners were reviewed from the last updated notice for each digital chart, to August 13, 2009. During that time, there were no notices to mariners issued for the charted area within the survey bounds. *Concur*

D.1.4 CHARTED SOUNDINGS

Chart 11340

In general, surveyed soundings are 3-6 feet deeper than charted. There is an 8 fathom charted sounding in the north part of subarea 3 that is about 11 feet shoaler than the surrounding surveyed soundings. This can be seen in the image below. *Concur – Eight (8) fathom depth was disproved by present survey and H12069 (2009-2010). Chart present survey depths.*



Descriptive Report to Accompany Hydrographic Survey H12120

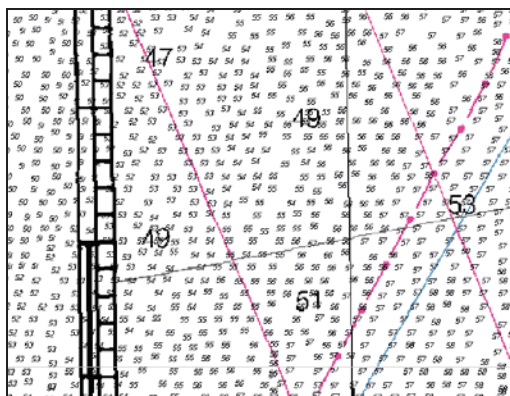


Chart 11356

This chart covers a small portion of the survey area. Soundings overlap in parts of subarea 1 and 4 only. In this area, surveyed soundings are 2 to 6 feet deeper than charted. *Concur - Chart present survey depths.*

Chart 11357

Throughout most of the survey area, surveyed, and charted depths agree to within 3 feet. There are some areas in subarea 1 where the surveyed soundings are up to 6 feet deeper. This is shown in the image below. *Concur - Chart present survey depths.*



D.1.5 SHOALS AND HAZARDOUS FEATURES

There are no charted shoals within the survey bounds, and none were found during survey operations. No hazards are charted within the survey area, and one new hazardous feature was found during survey operations. This feature has been discussed in section D.1.7 of this report. *Concur*

D.1.6 AWOIS ITEMS



No AWOIS items were assigned for full investigation within the H12120 survey area. *Concur*

D.1.7 INVESTIGATION ITEMS

Additional investigation work was performed for two significant sonar contacts. Two to Six additional multibeam and side scan lines were run over each of these targets. The following target was found to be significant.

Item 2I *See Appendix II-Uncharted (1.1) for final charting recommendation.*

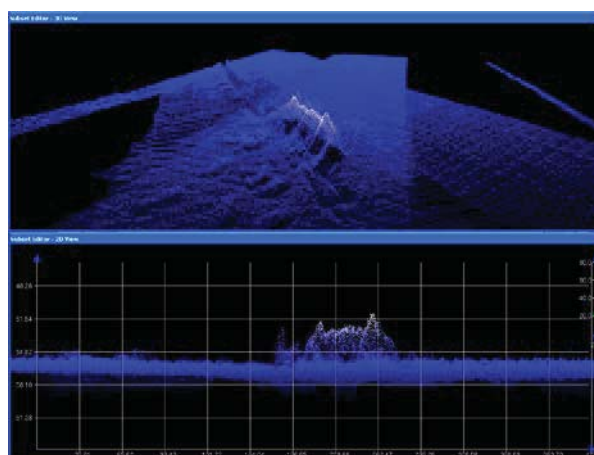
Least Depth: 50.876 ft

Multibeam Line: 9132-1

Position: 28°42'43.668"N, 90°52'16.898"W(NAD83)

Time Stamp: 2009-09-23 13:56:38.653

Hydrographer's recommendations: This contact has been marked as a designated sounding within the H12120 Caris project submitted in conjunction with this report. This feature is an exposed pipeline that has been covered with mats. It is recommended that it be charted as a 51-foot submerged obstruction at 28°42'43.668"N, 90°52'16.898"W(NAD83).





D.1.8 DANGER TO NAVIGATION REPORTS

No dangers to navigation reports were issued. *Concur*

D.2 ADDITIONAL RESULTS

D.2.1 PRIOR SURVEYS

Comparison with prior surveys was not required under this Task Order. See Section D.1 for comparison to nautical charts. *Concur*

D.2.2 AIDS TO NAVIGATION

No aids to navigation area charted, and none were found within the survey bounds at the time of survey. *Concur*

D.2.3 EXISTING INFRASTRUCTURE *See Appendix II for final charting recommendations of all items discussed below.*

The following charted structures were found as charted.

Charted Position			
Latitude	Longitude	Structure	Structure Name

Descriptive Report to Accompany Hydrographic Survey H12120



		Type	
28°39'42.303"N	90°43'52.949"W	Platform	ST-112 #2
28°40'07.486"N	90°42'38.740"W	Platform	ST-112 A

Structures found in the following locations are currently uncharted.

Surveyed Position			
Latitude	Longitude	Structure Type	Structure Name
28°40'29.274"N	90°44'43.532"W	Platform	ST-99
28°40'29.411"N	90°42'19.298"W	Platform	ST 99-2

The following is a list of structures that are currently charted, but were no longer present at the time of the survey.

Charted Position	
Latitude	Longitude
28°40'33.039"N	90°44'43.566"W
28°38'27.641"N	90°42'18.104"W
28°40'12.043"N	90°52'34.499"W

D.2.4 OTHER PERTINENT INFORMATION

Draft corrections are verified on a daily basis, and entered into the multibeam collection software to be applied in real-time. Draft was entered directly into the single beam.

Six separate BASE surfaces were created for this project, one for each subarea. All six BASE surfaces were created at 2-meter resolution. *Concur*

All of the side scan data collected for this project has been layback corrected. Data should be imported into Caris using fish position and zero layback correction. *Concur*

Descriptive Report to Accompany Hydrographic Survey H12120



S57 feature files for oil and gas infrastructure, bottom samples, and obstructions have been submitted in a Caris Notebook project.

All TPE values were calculated using the following settings.

A screenshot of a software dialog box titled 'Compute TPE'. The dialog box has a blue title bar with a close button (X) in the top right corner. The main area is light beige and contains the following settings:

- Survey specific parameters** (header):
 - Tide values: Measured ft Zoning ft
 - Sound Speed values: Measured m/s Surface m/s
- ☐ Sweep specific parameters (checkbox):
 - Peak to Peak Heave: ft
 - Max Roll: deg
 - Max Pitch: deg

At the bottom of the dialog box are three buttons: 'Compute', 'Cancel', and 'Help'.



LETTER OF APPROVAL

REGISTRY NUMBER H12120

This report and the accompanying smooth sheet are respectfully submitted.

Field operations contributing to the accomplishment of the survey H12120 were conducted under my direct supervision with frequent personal checks of progress and adequacy. This report and CARIS project have been closely reviewed and are considered complete and adequate as per the Statement of Work.

This report is accompanied by the Data Acquisition and Processing Report for project OPR-K354-KR-09.

A handwritten signature in black ink, appearing to read 'JB' or 'John Baker', written in a cursive style.

John Baker
Chief of Party
C&C Technologies
April 2010



APPENDIX I

DANGER TO NAVIGATION REPORTS



No Danger to Navigation Reports were issued.



APPENDIX II

SURVEY FEATURE REPORT



No AWOIS Items were assigned for investigation within the H12120 survey area.

H12120 Appendix II Charted

Registry Number: H12120
State: Louisiana
Locality: GULF OF MEXICO
Sub-locality: 32 NM S OF ENTRANCNE TO LAKE PELTO
Project Number: OPR-K354-KR-09
Survey Dates: 01/01/1981 - 01/01/2006

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11357	41st	05/01/2011	1:80,000 (11357_1)	USCG LNM: 6/7/2011 (6/28/2011) NGA NTM: 10/16/2010 (7/9/2011)
11356	38th	06/01/2008	1:80,000 (11356_1)	USCG LNM: 6/21/2011 (6/21/2011) NGA NTM: 10/16/2010 (6/25/2011)
11340	75th	05/01/2011	1:458,596 (11340_1)	USCG LNM: 8/9/2011 (8/9/2011) NGA NTM: 3/5/2011 (8/13/2011)
1116A	73rd	08/01/2008	1:458,596 (1116A_1)	[L]NTM: ?
411	52nd	09/01/2007	1:2,160,000 (411_1)	[L]NTM: ?

* Correction(s) - source: last correction applied (last correction reviewed--"cleared date")

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	Charted OFSPLF	Platform (oil or gas)	[None]	28° 39' 42.3" N	090° 43' 52.9" W	---
1.2	Charted OFSPLF	Platform (oil or gas)	[None]	28° 40' 07.5" N	090° 42' 38.7" W	---
1.3	Charted OFSPLF	Platform (oil or gas)	[None]	28° 39' 44.4" N	090° 52' 37.7" W	---
1.4	Delete SBDARE	GP	[None]	28° 40' 35.5" N	090° 50' 13.3" W	---
1.5	Delete SBDARE	GP	[None]	28° 42' 56.9" N	090° 50' 09.9" W	---
1.6	Delete SBDARE	GP	[None]	28° 37' 28.7" N	090° 47' 13.4" W	---
1.7	Delete SBDARE	GP	[None]	28° 43' 58.1" N	090° 43' 42.0" W	---
1.8	Delete SBDARE	GP	[None]	28° 37' 13.0" N	090° 43' 25.3" W	---

1 - DR ☐ Charted

111 Charted OFSPLF

Survey Summary

Survey Position: 28° 39' 42.3" N, 090° 43' 52.9" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: AHB_H12120 / SAR / SAR AHB HOB Files / H12120_structures.000
GP No.: 1C1C00000C940001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Verified a charted platform in present survey location.

Feature Correlation

Address	Feature	Range	Azimuth	Status
AHB_H12120/SAR/SAR AHB HOB Files/H12120_structures.000	1C1C00000C940001	0.00	000.0	Primary

Hydrographer Recommendations

Retain charted OFSPLF.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
 OBJNAM - ST-112 #2
 SORDAT - 20091012
 SORIND - US,US,graph,H12120

Office Notes

Concur with clarification - Delete charted OFSPLF. Add OFSPLF at present survey location.

Feature Images

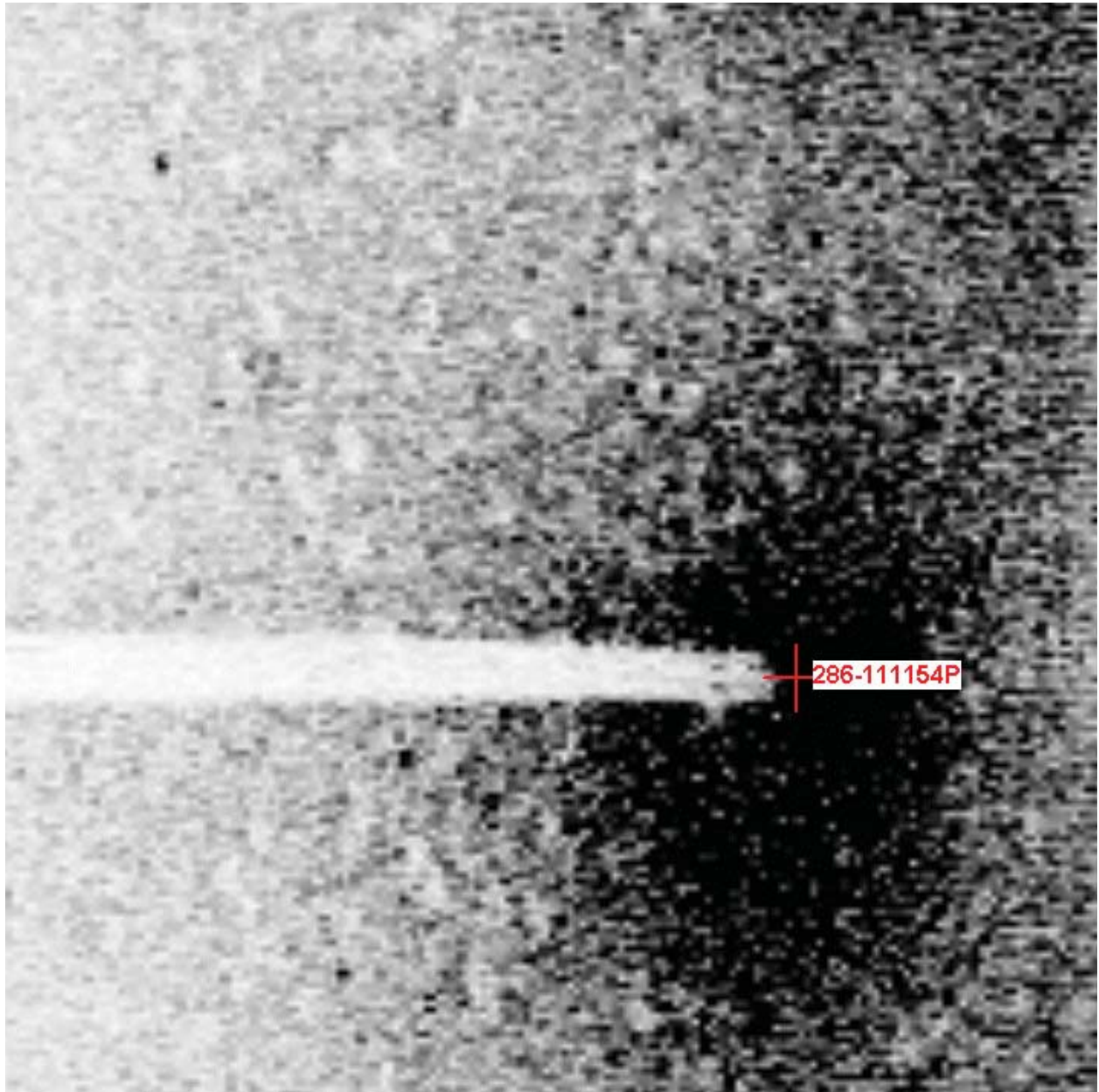


Figure 1.1.1

1.□) Charted OFSPLF

Survey Summary

Survey Position: 28° 40' 07.5" N, 090° 42' 38.7" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: AHB_H12120 / SAR / SAR AHB HOB Files / H12120_structures.000
GP No.: 1C1C00000C950001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Verified a charted platform in present survey location.

Feature Correlation

Address	Feature	Range	Azimuth	Status
AHB_H12120/SAR/SAR AHB HOB Files/H12120_structures.000	1C1C00000C950001	0.00	000.0	Primary

Hydrographer Recommendations

Retain charted OFSPLF.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
 OBJNAM - ST-112 A
 SORDAT - 20091012
 SORIND - US,US,graph,H12120

Office Notes

Concur with clarification - Delete charted OFSPLF. Add OFSPLF at present survey location.

Feature Images

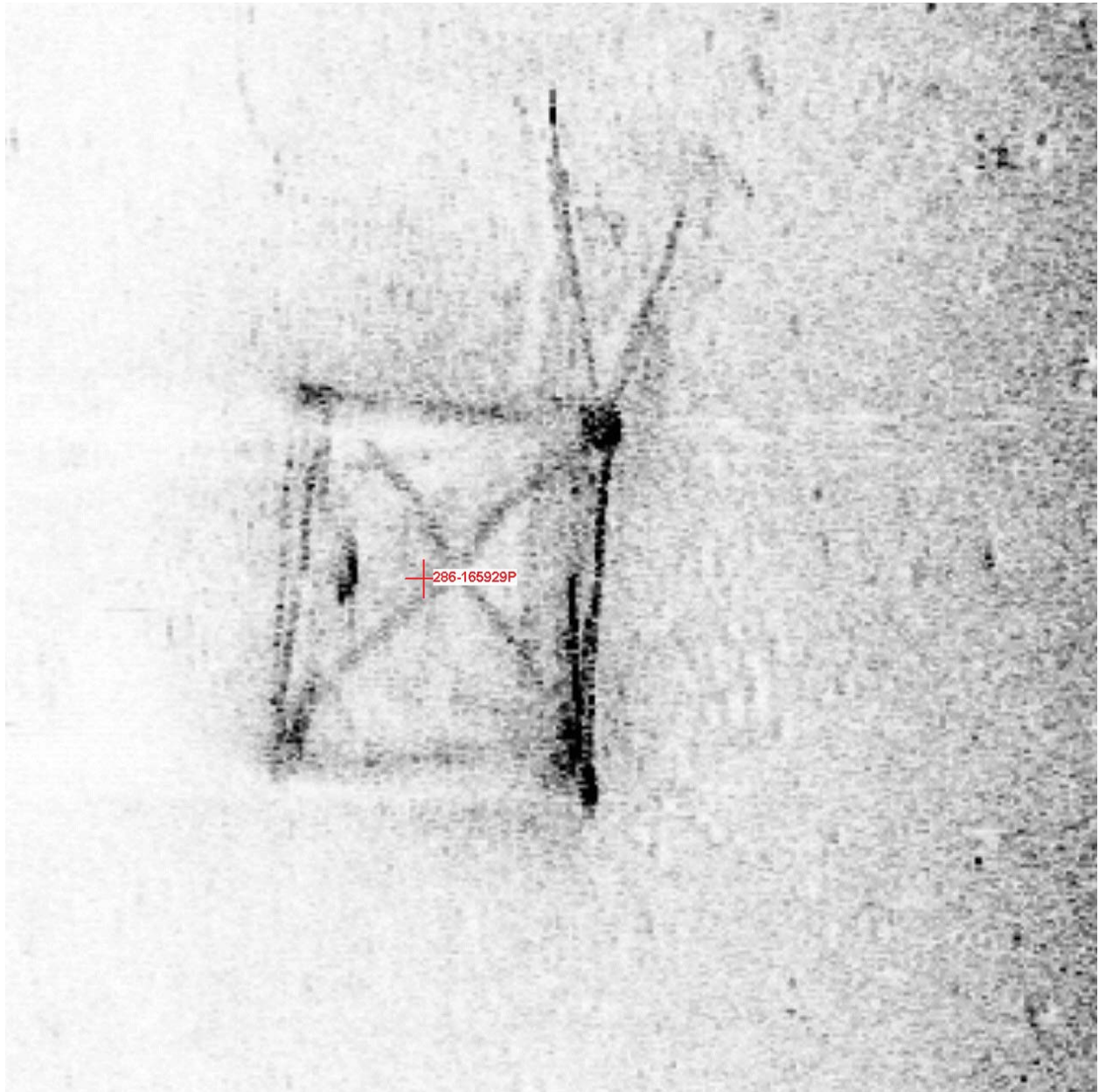


Figure 1. 1

1.□) Charted OFSPLF

Survey Summary

Survey Position: 28° 39' 44.4" N, 090° 52' 37.7" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2006-001.00:00:00.000 (01/01/2006)
GP Dataset: AHB_H12120 / SAR / SAR AHB HOB Files / platform_ENC.000
GP No.: 0226000000670001
Charts Affected: 11356_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
AHB_H12120/SAR/SAR AHB HOB Files/platform_ENC.000	0226000000670001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
 SORDAT - 20060100
 SORIND - US,US,graph,chart 11356

Office Notes

Charted platform verified and addressed with survey H12121 (2009-2010).

1.□) Delete S□DARE

Survey Summary

Survey Position: 28° 40' 35.5" N, 090° 50' 13.3" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: Working / HOB's / OUTDATED / H12120_BOTSAM_CHARTED.000
GP No.: 02260003469C0001
Charts Affected: 11356_1, 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
Working/HOB's/OUTDATED/H12120_BOTSAM_CHARTED.000	02260003469C0001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Office Notes

Delete SBDARE

1.5) Delete S□DARE

Survey Summary

Survey Position: 28° 42' 56.9" N, 090° 50' 09.9" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: Working / HOB's / OUTDATED / H12120_BOTSAM_CHARTED.000
GP No.: 02260003469B0001
Charts Affected: 11356_1, 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
Working/HOB's/OUTDATED/H12120_BOTSAM_CHARTED.000	02260003469B0001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Office Notes

Delete SBDARE

1.6) Delete S□DARE

Survey Summary

Survey Position: 28° 37' 28.7" N, 090° 47' 13.4" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: Working / HOB's / OUTDATED / H12120_BOTSAM_CHARTED.000
GP No.: 0226000346A00001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
Working/HOB's/OUTDATED/H12120_BOTSAM_CHARTED.000	0226000346A00001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Office Notes

Delete SBDARE

1.7) Delete S□DARE

Survey Summary

Survey Position: 28° 43' 58.1" N, 090° 43' 42.0" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: Working / HOB's / OUTDATED / H12120_BOTSAM_CHARTED.000
GP No.: 0226000346A20001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
Working/HOB's/OUTDATED/H12120_BOTSAM_CHARTED.000	0226000346A20001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Office Notes

Delete SBDARE

1.□) Delete S□DARE

Survey Summary

Survey Position: 28° 37' 13.0" N, 090° 43' 25.3" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: Working / HOB's / OUTDATED / H12120_BOTSAM_CHARTED.000
GP No.: 0226000346A10001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
Working/HOB's/OUTDATED/H12120_BOTSAM_CHARTED.000	0226000346A10001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Office Notes

Delete SBDARE

H1 1 Appendi UnCharted

Registry Number:	H12120
State:	Louisiana
Locality:	GULF OF MEXICO
Sub-locality:	32 NM S OF ENTRANCNE TO LAKE PELTO
Project Number:	OPR-K354-KR-09
Survey Date:	01/01/1981

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11357	41st	05/01/2011	1:80,000 (11357_1)	USCG LNM: 6/7/2011 (6/28/2011) NGA NTM: 10/16/2010 (7/9/2011)
11356	38th	06/01/2008	1:80,000 (11356_1)	USCG LNM: 6/21/2011 (6/21/2011) NGA NTM: 10/16/2010 (6/25/2011)
11340	75th	05/01/2011	1:458,596 (11340_1)	USCG LNM: 8/9/2011 (8/9/2011) NGA NTM: 3/5/2011 (8/13/2011)
1116A	73rd	08/01/2008	1:458,596 (1116A_1)	[L]NTM: ?
411	52nd	09/01/2007	1:2,160,000 (411_1)	[L]NTM: ?

* Correction(s) - ur e rre i ie rre i re ie e e re e

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	51 ft Obsdn - Do not chart	Obstruction	15.51 m	28° 42' 43.7" N	090° 52' 16.9" W	---
1.2	Uncharted OFSPLF	Platform (oil or gas)	[None]	28° 40' 29.3" N	090° 44' 43.5" W	---
1.3	Uncharted OFSPLF	Platform (oil or gas)	[None]	28° 40' 29.4" N	090° 42' 19.3" W	---

1 - DR ☐ UnCharted

1.1) 51 ft Obstrn - Do not chart

Survey Summary

Survey Position: 28° 42' 43.7" N, 090° 52' 16.9" W
Least Depth: 15.51 m (= 50.89 ft = 8.481 fm = 8 fm 2.89 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: AHB_H12120 / SAR / SAR AHB HOB Files / H12120_obstructions.000
GP No.: 1C1C00000DC40001
Charts Affected: 11356_1, 1116A_1, 11340_1, 411_1

Remarks:

Item was located by multibeam and side scan sonar investigation.

Feature Correlation

Address	Feature	Range	Azimuth	Status
AHB_H12120/SAR/SAR AHB HOB Files/H12120_obstructions.000	1C1C00000DC40001	0.00	000.0	Primary

Hydrographer Recommendations

Chart an obstruction with a depth of 51 feet in present survey location.

Cartographically-Rounded Depth (Affected Charts):

51ft (11356_1)

8 ½fm (1116A_1, 11340_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: VALSOU - 15.510 m

Office Notes

Do not concur. Final Feature disposition is deferred to MCD. The feature is a 51 ft obstruction or shoal sounding positioned on a charted pipeline. Based on the proposed elevated pipeline policy provided by CAPT Baird, Chief of NOAA's Marine Chart Division, sent on April 19, 2010 (see DR Appendix V) the following is recommended. Feature can be represented by nearby 51 ft shoal sounding of same value,

therefore it is not necessary to chart as a shoal sounding at the survey position. Chart supporting soundings as provided in the CS HCell.

1.□) Uncharted OFSPLF

Survey Summary

Survey Position: 28° 40' 29.3" N, 090° 44' 43.5" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: AHB_H12120 / SAR / SAR AHB HOB Files / H12120_structures.000
GP No.: 1C1C00000C930001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure found is uncharted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
AHB_H12120/SAR/SAR AHB HOB Files/H12120_structures.000	1C1C00000C930001	0.00	000.0	Primary

Hydrographer Recommendations

Hydrographer recommends to add this uncharted feature.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
 OBJNAM - ST-99
 SORDAT - 20091012
 SORIND - US,US,graph,H12120

Office Notes

Concur - Add OFSPLF at present survey location.

Feature Images

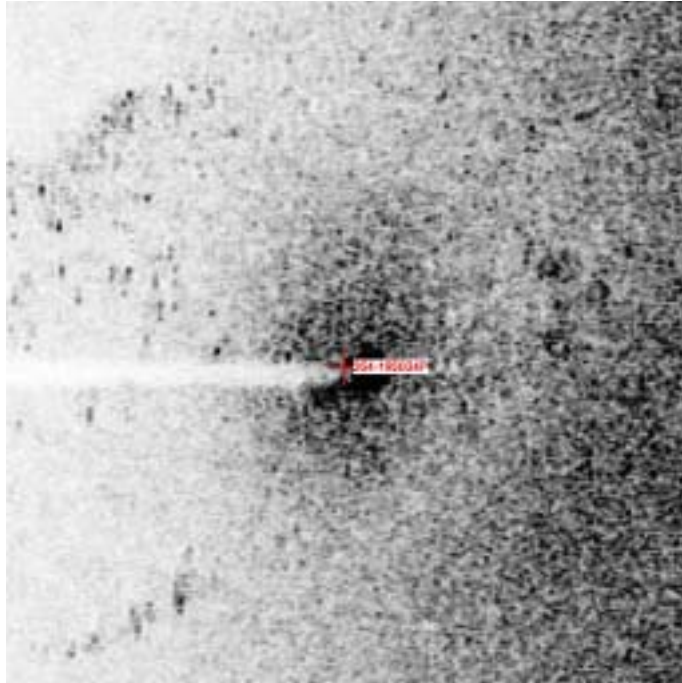


Figure 1.□1

1.□) Uncharted OFSPLF

Survey Summary

Survey Position: 28° 40' 29.4" N, 090° 42' 19.3" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: AHB_H12120 / SAR / SAR AHB HOB Files / H12120_structures.000
GP No.: 1C1C00000C920001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure found is uncharted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
AHB_H12120/SAR/SAR AHB HOB Files/H12120_structures.000	1C1C00000C920001	0.00	000.0	Primary

Hydrographer Recommendations

Hydrographer recommends to add this uncharted feature.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
 OBJNAM - ST 99-2
 SORDAT - 20091012
 SORIND - US,US,graph,H12120

Office Notes

Concur - Add OFSPLF at present survey location.

Feature Images

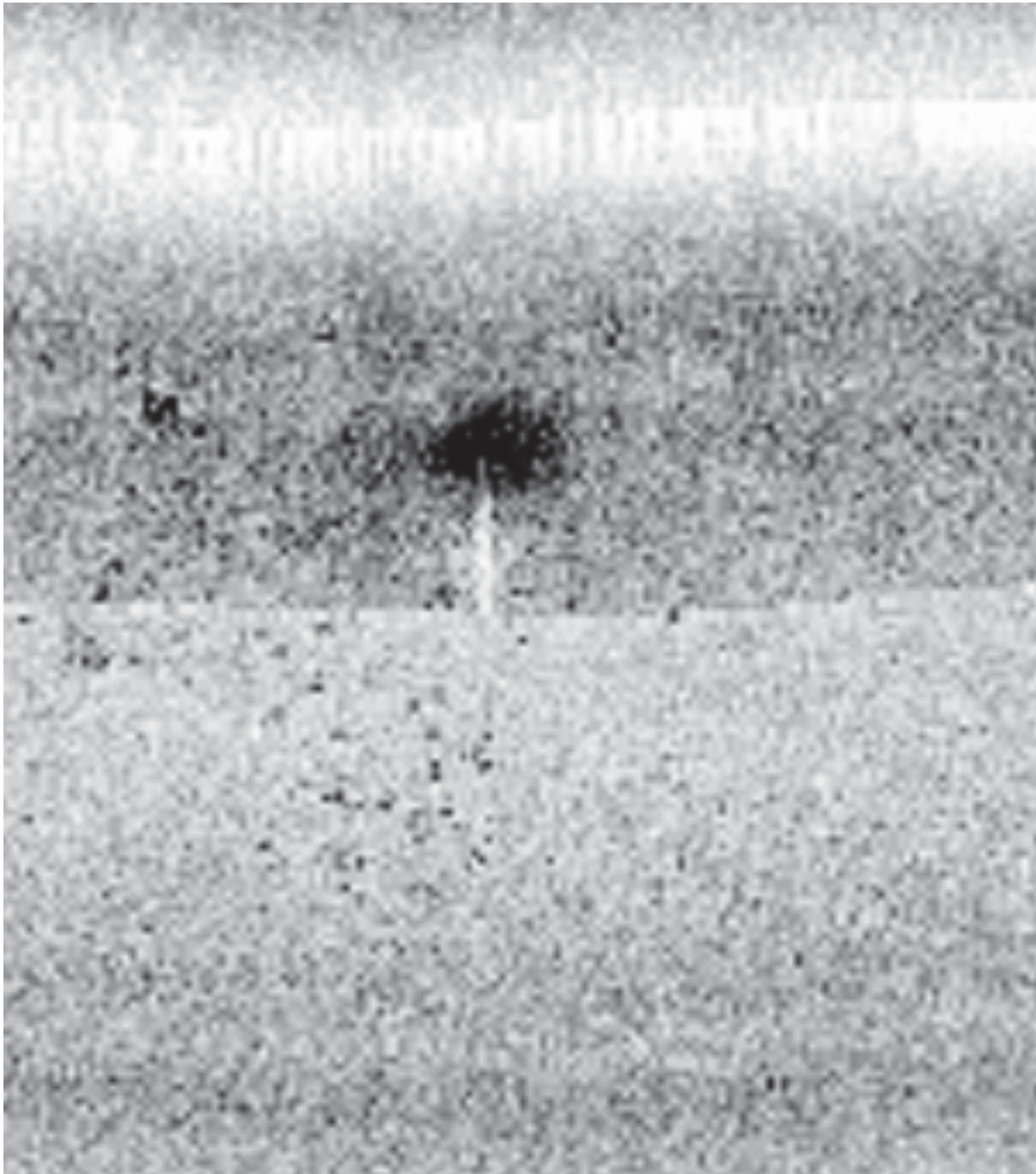


Figure 1.1

H11 Appendixottom Samples

Registry Number: H12120
State: Louisiana
Locality: GULF OF MEXICO
Sub-locality: 32 NM S OF ENTRANCNE TO LAKE PELTO
Project Number: OPR-K354-KR-09
Survey Date: 10/13/2009

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11357	41st	05/01/2011	1:80,000 (11357_1)	USCG LNM: 6/7/2011 (6/28/2011) NGA NTM: 10/16/2010 (7/9/2011)
11356	38th	06/01/2008	1:80,000 (11356_1)	USCG LNM: 6/21/2011 (6/21/2011) NGA NTM: 10/16/2010 (6/25/2011)
11340	75th	05/01/2011	1:458,596 (11340_1)	USCG LNM: 8/9/2011 (8/9/2011) NGA NTM: 3/5/2011 (8/13/2011)
1116A	73rd	08/01/2008	1:458,596 (1116A_1)	[L]NTM: ?
411	52nd	09/01/2007	1:2,160,000 (411_1)	[L]NTM: ?

* Correction(s) - *unreliable* *reliable* *reliable* *reliable* *reliable* *reliable* *reliable*

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	Add SBDARE - silt shells	GP	[None]	28° 40' 44.9" N	090° 50' 56.2" W	---
1.2	Add SBDARE clay	GP	[None]	28° 42' 55.8" N	090° 50' 53.0" W	---
1.3	Add SBDARE - silt sand	GP	[None]	28° 38' 34.5" N	090° 48' 29.6" W	---
1.4	Add SBDARE - silt mud	GP	[None]	28° 40' 42.6" N	090° 47' 17.0" W	---
1.5	Add SBDARE - silt sand	GP	[None]	28° 42' 52.2" N	090° 47' 12.9" W	---
1.6	Add SBDARE - silt	GP	[None]	28° 37' 26.1" N	090° 46' 06.3" W	---
1.7	Add SBDARE - sand	GP	[None]	28° 36' 21.8" N	090° 43' 43.6" W	---
1.8	Add SBDARE - silt sand	GP	[None]	28° 38' 27.2" N	090° 43' 39.1" W	---
1.9	Add SBDARE - silt sand	GP	[None]	28° 40' 39.8" N	090° 43' 34.6" W	---
1.10	Add SBDARE - silt sand	GP	[None]	28° 42' 48.8" N	090° 43' 32.1" W	---

1 - Bottom Samples

1.1) Add SBDARE - silt shells

Survey Summary

Survey Position: 28° 40' 44.9" N, 090° 50' 56.2" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2009-286.00:00:00.000 (10/13/2009)
GP Dataset: COMPILE / Working / HOB's / h12120_botsam.000
GP No.: 0226000346FA0001
Charts Affected: 11356_1, 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/h12120_botsam.000	0226000346FA0001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)
Attributes: NATSUR - 3,17:silt,shells
 NINFOM - Add SBDARE
 SORDAT - 20091013
 SORIND - US,US,graph,H12120

Office Notes

Add SBDARE - silt shells

1.□) Add S□DARE clay

Survey Summary

Survey Position: 28° 42' 55.8" N, 090° 50' 53.0" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2009-286.00:00:00.000 (10/13/2009)
GP Dataset: COMPILE / Working / HOB's / h12120_botsam.000
GP No.: 0226000346FD0001
Charts Affected: 11356_1, 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/h12120_botsam.000	0226000346FD0001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)
Attributes: NATQUA - 6:soft
 NATSUR - 2:clay
 NINFOM - Add SBDARE
 SORDAT - 20091013
 SORIND - US,US,graph,H12120

Office Notes

Add SBDARE clay

1.□) Add S□DARE - silt sand

Survey Summary

Survey Position: 28° 38' 34.5" N, 090° 48' 29.6" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2009-286.00:00:00.000 (10/13/2009)
GP Dataset: COMPILE / Working / HOB's / h12120_botsam.000
GP No.: 0226000346EB0001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/h12120_botsam.000	0226000346EB0001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)
Attributes: NATSUR - 3,4:silt,sand
 NINFOM - Add SBDARE
 SORDAT - 20091013
 SORIND - US,US,graph,H12120

Office Notes

Add SBDARE - silt sand

1.□) Add S□DARE - silt mud

Survey Summary

Survey Position: 28° 40' 42.6" N, 090° 47' 17.0" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2009-286.00:00:00.000 (10/13/2009)
GP Dataset: COMPILE / Working / HOB's / h12120_botsam.000
GP No.: 0226000346B50001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/h12120_botsam.000	0226000346B50001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)
Attributes: NATSUR - 1,3:mud,silt
 NINFOM - Add SBDARE
 SORDAT - 20091013
 SORIND - US,US,graph,H12120

Office Notes

Add SBDARE - mud silt

1.5) Add SBDARE - silt sand

Survey Summary

Survey Position: 28° 42' 52.2" N, 090° 47' 12.9" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2009-286.00:00:00.000 (10/13/2009)
GP Dataset: COMPILE / Working / HOB's / h12120_botsam.000
GP No.: 0226000346FC0001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/h12120_botsam.000	0226000346FC0001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)
Attributes: NATSUR - 4,3:sand,silt
 NINFOM - Add SBDARE
 SORDAT - 20091013
 SORIND - US,US,graph,H12120

Office Notes

Add SBDARE - silt sand

1.6) Add SBDARE - silt

Survey Summary

Survey Position: 28° 37' 26.1" N, 090° 46' 06.3" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2009-286.00:00:00.000 (10/13/2009)
GP Dataset: COMPILE / Working / HOB's / h12120_botsam.000
GP No.: 0226000346EE0001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/h12120_botsam.000	0226000346EE0001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)
Attributes: NATSUR - 3:silt
 NINFOM - Add SBDARE
 SORDAT - 20091013
 SORIND - US,US,graph,H12120

Office Notes

Add SBDARE - silt

1.7) Add SBDARE - sand

Survey Summary

Survey Position: 28° 36' 21.8" N, 090° 43' 43.6" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2009-286.00:00:00.000 (10/13/2009)
GP Dataset: COMPILE / Working / HOB's / h12120_botsam.000
GP No.: 0226000346B60001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/h12120_botsam.000	0226000346B60001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)
Attributes: NATQUA - 3:coarse
 NATSUR - 4:sand
 NINFOM - Add SBDARE
 SORDAT - 20091013
 SORIND - US,US,graph,H12120

Office Notes

Add SBDARE - sand

1.□) Add S□DARE - silt sand

Survey Summary

Survey Position: 28° 38' 27.2" N, 090° 43' 39.1" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2009-286.00:00:00.000 (10/13/2009)
GP Dataset: COMPILE / Working / HOB's / h12120_botsam.000
GP No.: 0226000346B40001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/h12120_botsam.000	0226000346B40001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)
Attributes: NATSUR - 3,4:silt,sand
 NINFOM - Add SBDARE
 SORDAT - 20091013
 SORIND - US,US,graph,H12120

Office Notes

Add SBDARE - silt sand

1.9) Add SBDARE - silt sand

Survey Summary

Survey Position: 28° 40' 39.8" N, 090° 43' 34.6" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2009-286.00:00:00.000 (10/13/2009)
GP Dataset: COMPILE / Working / HOB's / h12120_botsam.000
GP No.: 0226000346F40001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/h12120_botsam.000	0226000346F40001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)
Attributes: NATSUR - 3,4:silt,sand
 NINFOM - Add SBDARE
 SORDAT - 20091013
 SORIND - US,US,graph,H12120

Office Notes

Add SBDARE - silt sand

1.1 ☐ Add SBDARE - silt sand

Survey Summary

Survey Position: 28° 42' 48.8" N, 090° 43' 32.1" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2009-286.00:00:00.000 (10/13/2009)
GP Dataset: COMPILE / Working / HOB's / h12120_botsam.000
GP No.: 0226000346FB0001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/h12120_botsam.000	0226000346FB0001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)
Attributes: NATSUR - 3,4:silt,sand
 NINFOM - Add SBDARE
 SORDAT - 20091013
 SORIND - US,US,graph,H12120

Office Notes

Add SBDARE - silt sand

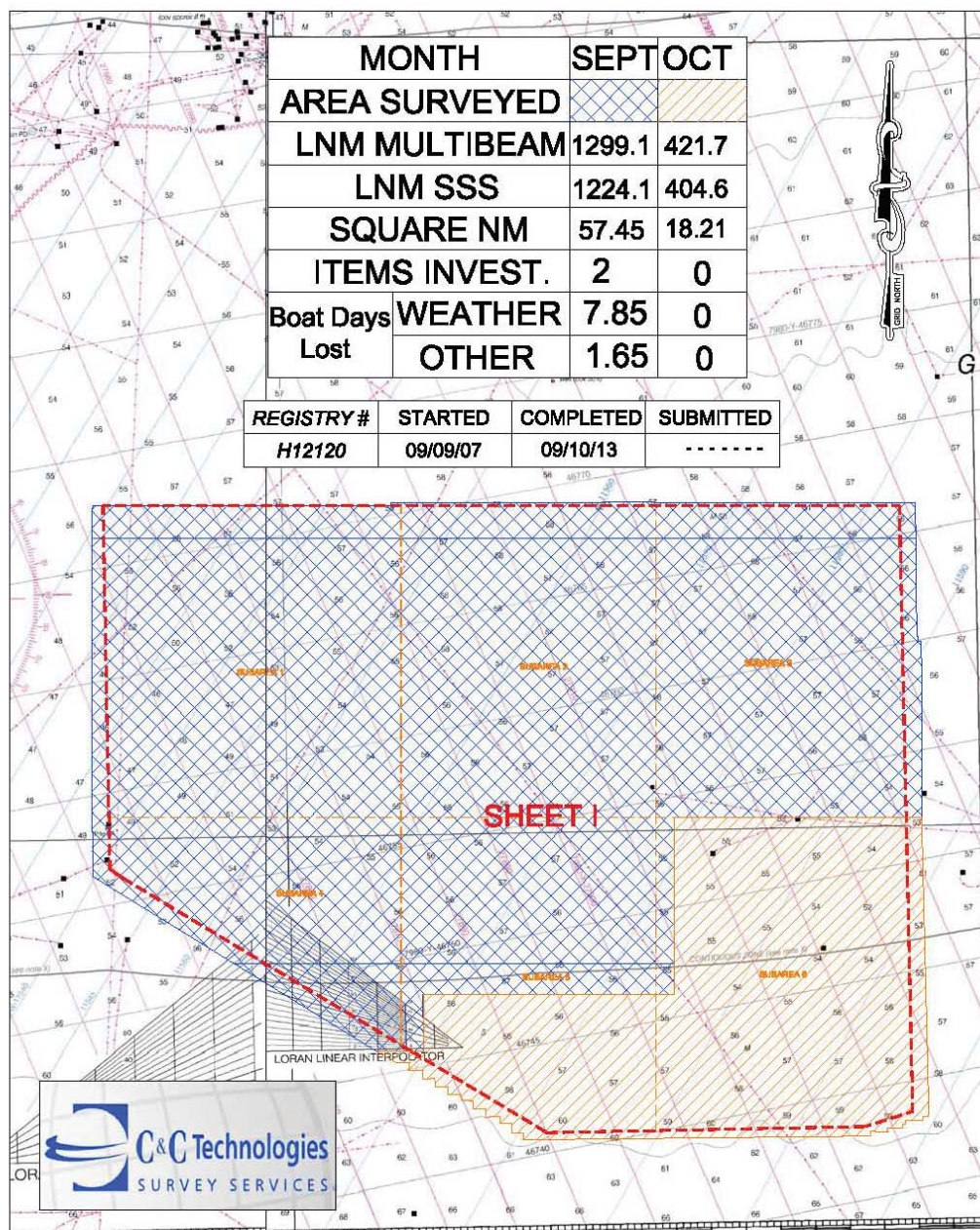


APPENDIX III

FINAL PROGRESS SKETCH AND SURVEY OUTLINE

A shapefile of the final survey outline for Sheet I (H12120) has been included in the DR folder inside the H12120_Report_Deliverables directory

OPR-K354-KR-09 H12120 Progress Sketch (Sheet I)



APPENDIX IV

TIDES AND WATER LEVELS



The tidal data applied to all multibeam echo sounder data was downloaded from the following website:

http://tidesandcurrents.noaa.gov/station_retrieve.shtml?type=Historic%20Tide%20Data&state=Louisiana&id1=876

ABSTRACT OF TIMES OF HYDROGRAPHY

Project: OPR-K354-KR-09

Contractor Name: C & C Technologies, Inc.

Inclusive Dates: **September 7th, 2009 - October 13th, 2009**

Registry No.: H12120 (Sheet I)

Date: April 2010

Sheet Letter: I

Field Work is Complete

Time (UTC)

Date	Julian Day	Start	End	Year
9/7/2009	250	2245	2400	2009
9/8/2009	251	0000	2400	2009
9/9/2009	252	0000	0857	2009
9/9/2009	252	2033	2400	2009
9/10/2009	253	0000	1757	2009
9/19/2009	262	0205	2400	2009
9/20/2009	263	0000	2400	2009
9/21/2009	264	0000	2400	2009
9/22/2009	265	0000	2400	2009
9/23/2009	266	0000	2400	2009
9/24/2009	267	0000	1354	2009
9/25/2009	268	0811	2400	2009
9/26/2009	269	0000	2400	2009
9/27/2009	270	0000	2400	2009
9/28/2009	271	0000	2400	2009
9/29/2009	272	0000	1146	2009
10/1/2009	274	2112	2400	2009
10/2/2009	275	0000	0346	2009
10/3/2009	276	0336	1536	2009
10/6/2009	279	0539	2400	2009
10/7/2009	280	0000	2400	2009
10/8/2009	281	0000	1523	2009
10/8/2009	281	2243	1523	2009
10/11/2009	284	2243	2400	2009
10/12/2009	285	0000	2400	2009
10/13/2009	286	0000	1851	2009



APPENDIX V

SUPPLEMENTAL SURVEY RECORDS AND CORRESPONDANCE

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I / Sub 1
Grab No.: GSI-1 Date: 10/15/2009 Time: 21:37
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.0m
Y = 3180366.79 Lat. = 28°44.03243
X = 708335.86 Long. = -90°52.00413

NOTES

Gray Brown Sandy Clay

.....

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I / Sub 1
Grab No.: GSI-2 Date: 10/15/2009 Time: 21:50
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.0m
X = 710170.76 Lat. = 28 44.00441
Y = 3180348.01 Long. = -90 50.87767

NOTES

Brown Muddy Clay

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I / Sub 1
Grab No.: GS#3 Date: 10/15/09 Time: 2203
Logged By: Ryan Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.4m
Y = 3180347.92 Lat. = 28° 43.98459
X = 712183.16 Long.= -90° 49.64205

NOTES Shelly Sandy Clay

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GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I / Sub 1
Grab No.: GS#4 Date: 10/15/2009 Time: 2216
Logged By: Ryan Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.6m
Y = 3180390.45 Lat. = 28° 43.98761
X = 714199.67 Long.= -90° 40.40344

NOTES shelly sandy clay

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 07270 Area/Block: Sheet I / Su
Grab No.: GSI 5 Date: 08/15/2009 Time: 2227
Logged By: Ryan Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.7
Y = 380362.67 Long = -90° 47.18250
X = 716188.72 Lat = 28° 43.9526

NOTES Gray silty Clay

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GRAB INFORMATION

Client: NOAA Job No.: 07270 Area/Block: Sheet I / Sub 1
Grab No.: GSI 6 Date: 08/15/2009 Time: 2243
Logged By: Ryan Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.7
Y = 3180373.22 Lat. = 28° 43.93873
X = 718137.26 Long. = -90° 45.98602

NOTES Brown Silty Sand

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I/Sub 1
Grab No.: GSI-7 Date: 10/15/2009 Time: 2318
Logged By: Ryan Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.5 m
Y = 3180358.35 Lat. = 28° 43.90972
X = 720189.21 Long. = -90° 44.72637

NOTES Brown Sandy Shelly Silt

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GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I/Sub 1
Grab No.: GSI-8 Date: 10/15/2009 Time: 2330
Logged By: Ryan Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.4 m
Y = 3180378.72 Lat. = 28° 43.90046
X = 722161.50 Long. = -90° 43.51524

NOTES Gray Shelly Silt

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I/Sub 1
Grab No.: GSI 9 Date: 10/15/2009 Time: 2342
Logged By: Ryan Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.3
Y = 3180361.97 Lat. = 28° 43.87080
X = 724145.61 Long. = -90° 42.29729

NOTES Gray Shelly Clay

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GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I/Sub 1
Grab No.: GSI 10 Date: 10/15/2009 Time: 0014
Logged By: Ryan Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.08 m
Y = 3183422.02 Lat. = 28° 42.10408
X = 726223.32 Long. = -90° 41.00661

NOTES Gray Shelly Clay

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I/Sub3
Grab No.: GSI-11 Date: 09/10/26 Time: 0059
Logged By: C. Taylor Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.41 m
Y = 3178384.49 Lat. = 28° 42.80117
X = 724100.51 Long. = -90° 42.34836

NOTES Fine Silty Sand

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GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I/Sub3
Grab No.: GSI-12 Date: 09/10/26 Time: 0122
Logged By: C. Taylor Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.5 m
Y = 3178371.37 Lat. = 28° 42.81410
X = 722168.66 Long. = -90° 43.53436

NOTES Brown Sandy Silt

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I/Sub 2
Grab No.: GSI 13 Date: 08/10/26 Time: 0124
Logged By: C. Taylor Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.62m
Y = 3178379.92 Lat. = 28° 42.84019
X = 1720088.86 Long. = -90° 44.81586

NOTES Brown Silty Sandy Shelly Clay

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GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I/Sub 2
Grab No.: GSI 14 Date: 09/10/26 Time: 0138
Logged By: C. Taylor Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.65m
Y = 3178410.75 Lat. = 28° 42.87636
X = 718167.73 Long. = -90.45.98990

NOTES Brown Shelly Silt

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I/Sub 2
Grab No.: GSI 15 Date: 09/10/26 Time: 0154
Logged By: C. Taylor Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.66
Y = 3178362.98 Lat. = 28° 42.87065
X = 716172.02 Long. = -90° 47.21556

NOTES

Brown silty sand

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GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I/Sub 2
Grab No.: GSI 16 Date: 09/10/26 Time: 0205
Logged By: C. Taylor Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.53m
Y = 3178376.85 Lat. = 28° 42.89360
X = 714629.64 Long. = -90° 48.16224

NOTES

Brown Shelly Silt

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I/sub 1
Grab No.: GSI-17 Date: 09/10/26 Time: 0224
Logged By: Kirstin Re Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.17m
Y = 3178408.50 Lat. = 28° 42.93571
X = 712110.22 Long. = -90° 49.70854

NOTES

Brown silty sand

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GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I/sub 1
Grab No.: GSI-18 Date: 09/10/26 Time: 0243
Logged By: T. Forman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.07m
Y = 3178363.53 Lat. = 28° 42.93016
X = 710196.87 Long. = -90° 50.88365

NOTES

Brown muddy clay.

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I
Grab No.: GSI 19 Date: 09/11/29 Time: 2111
Logged By: B Davis Vessel: Andrew charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 17.87
Y = 3178500.01 Lat. = 28°43.02441
X = 708099.58 Long. = -90°52.16970

NOTES

Brown silt + clay

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GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I
Grab No.: GSI 20 Date: 09/11/29 Time: 2124
Logged By: B Davis Vessel: Andrew charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 15.31
Y = 3176338.99 Lat. = 28°41.8547
X = 708129.23 Long. = -90°52.16970

NOTES

Brown silt clay

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I-Sub 1
Grab No.: GSI-23 Date: 09/10/26 Time: 0333
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.43m
Y = 3176354.85 Lat. = 28°41.80358
X = 714202.13 Long. = -90°48.44751

NOTES

Brown Silty Clay

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I-Sub 1
Grab No.: GSI-24 Date: 09/10/26 Time: 0347
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.43
Y = 3176356.02 Lat. = 28°41.78403 18.56m
X = 714221.61 Long. = -90°47.20799

NOTES

Brown Silty Clay

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet 7-Sub 1
Grab No.: GSI-25 Date: 09/10/26 Time: 0359
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.63m
Y = 3176363.64 Lat. = 28°41.76850
X = 718170.30 Long. = -90°46.01186

NOTES

Brown Silty Clay

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet 7-Sub 1
Grab No.: GSI-26 Date: 09/10/26 Time: 0421
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.67m
Y = 3176348.48 Lat. = 28°41.73927
X = 720235.37 Long. = -90°44.74459

NOTES

Brown Silty Clay with Shells.

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No. 097270 Area/Block: Stet I-Sub A 3
Grab No.: GSI-27 Date: 09/10/26 Time: 0736
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.47m
Y = 3176358.20 Lat. = 28°41.72419
X = 722215.37 Long. = -90°43.52926

NOTES

grey silty sand

GRAB INFORMATION

Client: NOAA Job No. 097270 Area/Block: Stet I-Sub A 3
Grab No.: GSI-28 Date: 09/10/26 Time: 0547
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.42
Y = 3176376.61 Lat. = 28°41.713082
X = 724161.29 Long. = -90°42.33477

NOTES

grey brown silty sand

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I-Sub 3
Grab No.: GS7-29 Date: 09/10/26 Time: 0615
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.34
Y = 3176385.70 Lat. = 28°41.701515
X = 725825.44 Long. = -90°41.31333

NOTES

grey brown silty sand ~~with shells~~

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I-Sub 3
Grab No.: GS7-30 Date: 09/10/26 Time: 0633
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 17.89
Y = 3174419.77 Lat. = 28°40.634987
X = 726081.32 Long. = -90°41.17469

NOTES

- grey brown silty sand with shells
- Fix out of boundry due to platform

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I-Sub 3
Grab No.: 65E-31 Date: 09/10/26 Time: 0650
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.22
Y = 317 4366.92 Lat. = 28° 40.627365
X = 724072.61 Long. = -90° 42.41290

NOTES

- grey brown silty sand with shells
- fix out of boundary due to platform

GRAB INFORMATION

Client: NOAA Job No.: 09 Area/Block: Sheet I-Sub 3
Grab No.: 65E-32 Date: 09/10/26 Time: 0717
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.41
Y = 317 4396.14 Lat. = 28° 40.662815
X = 722176.22 Long. = -90° 43.57624

NOTES

- grey brown silty sand

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I - Sub 2
Grab No.: 69I-33 Date: 09/10/26 Time: 0735
Logged By: D Gorman Vessel: Andrew Craig

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.61
Y = 3174404.75 Lat. = 28°40.689107
X = 720068.47 Long. = -90°44.86954

NOTES

- grey silty sand

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GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I - Sub 2
Grab No.: 69I-34 Date: 09/10/26 Time: 0751
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.73
Y = 3174288.38 Lat. = 28°40.699413
X = 718184.47 Long. = -90°46.02586

NOTES

- grey silty sand

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I-Sub 2
Grab No.: 65I-35 Date: 09/10/16 Time: 0808
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.67
Y = 4174369.57 Lat. = 28°40.709877
X = 716135.81 Long. = -90°47.28326

NOTES

Grey silty mud.

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I-Sub 2
Grab No.: 65I 36 Date: 09/10/26 Time: 1458
Logged By: BDavis Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.3
Y = ~~3174369.57~~ 3174369.82 Lat. = 28°40.72947
X = 714186.88 Long. = -90°48.47925

NOTES

Gray silt mud

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I-Sub
Grab No.: GSI-37 Date: 09/10/26 Time: 1513
Logged By: B DAVIS Vessel: Andrew Chaney

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 17.94
Y = 3174348.33 Lat. = 28°40.73652
X = 712299.48 Long. = -90°49.63716

NOTES

Gray silt shells

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GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I
Grab No.: GSI-38 Date: 09/10/26 Time: 1530
Logged By: B DAVIS Vessel: Andrew Chaney

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 16.97
Y = 3174330.80 Lat. = 28°40.74779
X = 710182.52 Long. = -90°50.93711

NOTES

Brown, Gray silt sand

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 09720 Area/Block: Sheet I
Grab No.: ASI 39 Date: 09/10/26 Time: 1543
Logged By: BDAVIS Vessel: Andrew Chaney

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 15.89
Y = 3174370.21 Lat. = 28°40.78880
X = 708154.32 Long. = -90°52.18138

NOTES

Gray, Brown, sand, silt, shells

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GRAB INFORMATION

Client: NOAA Job No.: 09720 Area/Block: Sheet I Sub4
Grab No.: ASI 40 Date: 09/10/26 Time: 1556
Logged By: BDAVIS Vessel: Andrew Chaney

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 16.88
Y = 3172349.94 Lat. = 28°39.69534
X = 708159.84 Long. = -90°52.20011

NOTES

Brown silt sand shell

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 07770 Area/Block: Sheet I sub 4
Grab No.: GSI-41 Date: 09/10/20 Time: 1610
Logged By: BDAV'S Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 17.89
Y = 3172350.22 Lat. = 28° 39.67576
X = 710196.38 Long. = -90° 50.95050

NOTES

Gray Brown clay

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GRAB INFORMATION

Client: NOAA Job No.: 07770 Area/Block: Sheet I
Grab No.: GSI-42 Date: 09/10/20 Time: 1639
Logged By: BDAV'S Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.03
Y = 3172367.51 Lat. = 28° 39.66558
X = 712191.05 Long. = -90° 49.72641

NOTES

Gray Brown silt sand

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Slat I-Sub 1
Grab No.: GSI-43 Date: 09/10/2006 Time: 1700
Logged By: D German Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.30 m
Y = 3172391.62 Lat. = 28°39.65877
X = 714199.71 Long. = -90°48.49367

NOTES

Brown Silty Clay

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GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Slat 7-Sub 8
Grab No.: GSI-44 Date: 09/10/2006 Time: 1719
Logged By: D German Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.24 m
Y = 3172368.99 Lat. = 28°39.62683
X = 716172.79 Long. = -90°47.28331

NOTES

Brown Silty Clay

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet F-565
Grab No.: GS7-45 Date: 09/10/26 Time: 1736
Logged By: D Gormm Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.17m
Y = 3172379.82 Lat. = 28°39.61259
X = 718168.30 Long. = -90°46.05883

NOTES Brown Silty Silty Sand

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GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet F-565
Grab No.: GS7-46 Date: 09/10/26 Time: 1752
Logged By: D Gormm Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.00m
Y = 3172405.28 Lat. = 28°39.60602
X = 720170.61 Long. = -90°44.83002

NOTES Brown sandy silty silt

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Stet 7-Sub 6
Grab No.: GS7-47 Date: 09/10/26 Time: 1810
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 17.69m
Y = 3172378.21 Lat. = 28°39.57050
X = 722204.76 Long. = -90°43.58231

NOTES

Brown Silty Sand

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Stet 7-Sub 6
Grab No.: GS7-48 Date: 09/10/26 Time: 1825
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 17.29m
Y = 3172378.65 Lat. = 28°39.55054
X = 724157.15 Long. = -90°42.38447

NOTES

Brown Silty Silty Sand

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I-Sub 6
Grab No.: GSI-49 Date: 09/10/26 Time: 1840
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 16.83m
Y = 3172407.60 Lat. = 28°39.54506
X = 726181.21 Long. = -90°41.14233

NOTES

Brown Silty Silty Sand

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I-Sub 6
Grab No.: GSI-50 Date: 09/10/26 Time: 1900
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 17.34m
Y = 3170408.69 Lat. = 28°38.46400
X = 726120.51 Long. = -90°41.20333

NOTES

Brown Silty Sandy Silt

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Slack I-Sub 6
Grab No.: 657-51 Date: 09/10/26 Time: 1938
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 17.41
Y = 3170364.69 Lat. = 28°38.46087
X = 724137.94 Long. = -90°42.41998

NOTES

Brown Stelly Silty Sand

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Slack I-Sub 6
Grab No.: 657-52 Date: 09/10/26 Time: 2001
Logged By: _____ Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 17.52
Y = 3170312.47 Lat. = 28°38.45336
X = 722132.14 Long. = -90°43.65098

NOTES

Brown Sandy Stelly Silt

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Stet I-Sub 5
Grab No.: GSI-53 Date: 09/10/26 Time: 2014
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 17.71m
Y = 3170394.08 Lat. = 28°38.51957
X = 719980.21 Long. = -90°44.97009

NOTES

Brown Sandy Silty Silt.

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Stet I-Sub 5
Grab No.: GSI-54 Date: 09/10/26 Time: 2026
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 17.94m
Y = 3170395.86 Lat. = 28°38.53838
X = 718222.69 Long. = -90°46.04821

NOTES

Brown Silty Mud.

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I-Sub 5
Grab No.: GSI-55 Date: 09/10/26 Time: 2040
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.17m
Y = 3170337.12 Lat. = 28°38.52676
X = 716218.34 Long. = ~~3170337.12~~
-90°47.27845

NOTES

..... Brown gritty, silty sand

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I-Sub 4
Grab No.: GSI-56 Date: 09/10/26 Time: 2112
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.31m
Y = 3170388.53 Lat. = 28°38.57436
X = 714236.33 Long. = -90°48.49376

NOTES

Brown silty Sandy Silt.

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet 7-Sub 4
Grab No.: 657-57 Date: 09/10/26 Time: 2127
Logged By: D Gormm Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.29m
Y = 3170389.41 Lat. = 28°38.59468
X = 712227.02 Long. = -90°49.72641

NOTES

Brown Sandy Silt

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet 7-Sub 4
Grab No.: 657-58 Date: 09/10/ Time: 2149
Logged By: D Gormm Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.61m
Y = 3168381.27 Lat. = 28°37.48867
X = 714173.86 Long. = -90°48.55466

NOTES

Brown Silty Sand

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I-Sub 5
Grab No.: GSI-59 Date: 09/10/26 Time: 2210
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.41
Y = 3168377.68 Lat. = 28°37.46614
X = 716238.66 Long. = -90°47.28823

NOTES

Brown Gritty Silt

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I-Sub 5
Grab No.: GSI-60 Date: 09/10/26 Time: 2227
Logged By: D Gorman Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.31
Y = 3168417.09 Lat. = 28°37.46769
X = 718205.43 Long. = -90°46.08147

NOTES

Multiple Misties → Heading to docks

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 01270 Area/Block: Sheet I
Grab No.: GSI 60 Date: 09/11/29 Time: 2214
Logged By: B Davis Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.24
Y = 3168557.14 Lat. = 28° 37.43562
X = 718168.01 Long. = -90° 46.10511

NOTES

Brown sand silt

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GRAB INFORMATION

Client: NOAA Job No.: 017270 Area/Block: Sheet I
Grab No.: GSI 61 Date: 09/11/29 Time: 2225
Logged By: B Davis Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.4
Y = 3168347.54 Lat. = 28° 37.40989
X = 720191.80 Long. = -90° 44.86414

NOTES

Brown silt

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 017270 Area/Block: Sheet I
Grab No.: GSI-62 Date: 09/11/29 Time: 2238
Logged By: B Davis Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.06
Y = 3168356.27 Lat. = 28037.39428
X = 722176.72 Long. = 90° 43.64646

NOTES

Brown silt sand

.....

GRAB INFORMATION

Client: NOAA Job No.: 017270 Area/Block: Sheet I
Grab No.: GSI-63 Date: 09/11 Time: ~~2238~~ 2251
Logged By: B Davis Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.13
Y = 3168340.81 Lat. = 28037.36536
X = 724165.54 Long. = -90° 42.42686

NOTES

Brown sandy silt

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 091210 Area/Block: Sheet I
Grab No.: GSI-64 Date: 09/11/29 Time: 2306
Logged By: B. Davis Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 18.46
Y = 3168400.92 Lat. = 28°37.37614
X = 726251.29 Long. = -90°41.14696

NOTES

Brown sand

.....

GRAB INFORMATION

Client: NOAA Job No.: 091220 Area/Block: Sheet I
Grab No.: GSI-65 Date: 09/11/29 Time: 2323
Logged By: B. Davis Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 19.88
Y = 3166419.43 Lat. = 28°36.32514
X = 724209.27 Long. = -90°42.42222

NOTES

Brown sand

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 091270 Area/Block: Sheet I
Grab No.: GSI-66 Date: 09/11/29 Time: 2343
Logged By: ~~GSI-66~~ B. Davis Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 19.01
Y = 3166448.34 Lat. = 28°36.36275
X = 722082.27 Long. = -90°43.72661

NOTES

Brown sand

.....

GRAB INFORMATION

Client: NOAA Job No.: 091270 Area/Block: Sheet I
Grab No.: GSI 67 Date: 09/14/30 Time: 0000
Logged By: B Davis Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 19.09
Y = 3166318.63 Lat. = 28°36.31208
X = 720177.11 Long. = -90°44.89640

NOTES

Brown sand

Grab Sample Location Log

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet I
Grab No.: GSI-68 Date: 09/11/30 Time: 0009
Logged By: B Davis Vessel: Andrew Charles

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 19.16
Y = 3160367.07 Lat. = -90°46.13144 ↗
X = 718162.21 Long. = 28°36.35870 ↘

NOTES

Brown sand.

GRAB INFORMATION

Client: NOAA Job No.: 097270 Area/Block: Sheet H
Grab No.: GSH-1 Date: 02-21-10 Time: 0656
Logged By: D Gorman Vessel: AC

LOCATION INFORMATION

Datum: WGS 84 Zone: UTM 15 Water Depth: 12.79
Y = 3194357.65 Lat. = 28°51.56719
X = 712106.06 Long. = -90°49.53206

NOTES

Gray Sand.

Subject: Fwd: Re: Draft policy on elevated pipelines

From: "CDR Rick Brennan, NOAA" <Richard.T.Brennan@noaa.gov>

Date: Thu, 28 Jul 2011 20:29:23 -0400

To: James Miller <James.J.Miller@noaa.gov>, Edward Owens <Edward.Owens@noaa.gov>, 'Gene Parker' <Castle.E.Parker@noaa.gov>

My comments from way-back-when...

----- Original Message -----

Subject:Re: Draft policy on elevated pipelines

Date:Mon, 19 Apr 2010 17:14:46 -0400

From:LCDR Rick Brennan, NOAA <Richard.T.Brennan@noaa.gov>

To:Doug Baird <Doug.Baird@noaa.gov>, Jeffrey Ferguson <Jeffrey.Ferguson@noaa.gov>, Mike Brown <Mike.Brown@noaa.gov>, "John.Nyberg" <John.Nyberg@noaa.gov>, "howard.danley@noaa.gov" <Howard.Danley@noaa.gov>, Ed Martin <Ed.Martin@noaa.gov>

Doug,

Edits are in-line in the attached document.

Rick

Doug Baird wrote:

For your comments. If the linear dimensions of the pipeline cause format problems with the DTON reporting, we may end up using a different mechanism for reporting hazardous pipelines.

In the interest of moving this forward, and yet not being too onerous - please provide your suggestions by Monday, May 3rd.

--



LCDR Rick Brennan, NOAA
Chief, Atlantic Hydrographic Branch
439 West York Street
Norfolk, VA 23510
Office: 757-441-6746
Cell: 443-994-3301

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www.nauticalcharts.noaa.gov

Elevated pipelines_draft_RTb_edits.docx

Content-Type: application/vnd.openxmlformats-officedocument.wordprocessingml.document
Content-Encoding: base64

Policy text for Elevated pipelines deemed to be hazards to surface navigation

This policy does not address exposed pipelines that are close to the sediment. This policy will address pipelines that are significantly elevated from the bottom sediment and could pose a hazard to surface navigation. The definition of significant is the same as hydrographic survey object detection standards – i.e., greater than 2-1 meters (6-3 feet) off the bottom ~~between the to~~ depths of 0 and 20 meters (65 feet), then 10% off the ~~bottom-water depth to the deeper range for~~ depths deeper than 20 m.

In water depths between 4 meters (13 feet) and 40 meters (130 feet), pipelines that are elevated a significant height off the bottom and therefore pose a hazard to surface navigation, the in-house field unit (or processing branch if contracted field unit) that discovers the pipeline is to contact the relevant Coast Survey Navigation Manager with the appropriate information regarding the elevated pipeline. The Nav Manager is to then contact the relevant regulatory authority for that region (e.g., USACE or MMS) and inform them of the hazardous situation regarding the noted pipeline. Coast Survey expects the regulatory authority to alert the permitted owner of the noted pipeline and require the owner to bury the pipeline as dictated by the terms of the permit.

After a period of ~~30-15~~ calendar days, and no longer than ~~45-30~~ calendar days, from initial contact with the Nav Manager, the Nav Manager is to inform the processing branch of the status of the reburial effort. If positive effect of reburial has occurred or is anticipated within a reasonably short time frame, then the processing branch should ensure that the pipeline is adequately charted. If positive effect of reburial has not occurred or is not expected, the processing branch should then forward a Danger to Navigation message to the following e-mail address ocs.ndb@noaa.gov. The DTON message should include the least depth of the pipeline, the geographic coordinates for the length of the elevated pipeline section(s), and any relevant information regarding ownership, permit issued, etc. that was learned from the Nav Managers interaction with the regulatory authority and/or pipeline owner.

MCD will then chart the DTON as an obstruction (least depth known), linear obstruction with caution area, or other symbol as appropriate to the size of the elevated pipeline section and scale of the chart and requirements of the chart product. After MCD has charted the DTON obstruction, the navigation manager shall continue to contact the USACE, MMS, or the pipeline owner periodically until it has been established that the pipeline has been reburied or that reburial will not take place.

Comment [r1]: The entire time we have to review a survey is (technically) 21 days. I don't want to make this time longer than the time the survey should be in our system.

Comment [r2]: I believe we currently tell the ACOE that if they will be removing the DTON within 2 weeks we will hold off on submitting the DTON. If longer than this, we will move forward with publishing the DTON.

It also seems that there should be some burden of proof provided by the owner that the pipeline has been serviced as expected. I don't think we should just take them at their word.

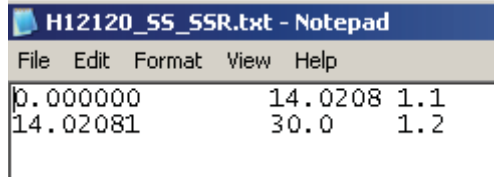
AHB COMPILATION LOG

General Survey Information	
REGISTRY No.	<i>H12120</i>
PROJECT No.	<i>OPR-354-KR-09</i>
FIELD UNIT	<i>C&C</i>
DATE OF SURVEY	<i>20090907 - 20091012</i>
LARGEST SCALE CHART	<i>11356, edition 38, 20080601, 1:80,000</i>
ADDITIONAL CHARTS	<i>11357, edition 41, 20110501, 1:80,000</i>
SOUNDING UNITS	<i>FEET</i>
COMPILER	<i>NORRIS A. WIKE</i>

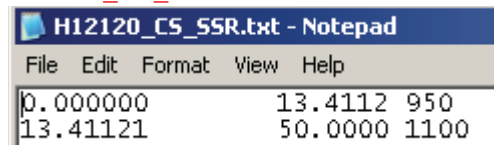
Source Grids	File Name
	<i>H12120_Sub1_2m_Final.csar</i> <i>H12120_Sub5_2m_Final.csar</i> <i>H12120_Sub2_2m_Final.csar</i> <i>H12120_Sub6_2m_Final.csar</i> <i>H12120_Sub3_2m_Final.csar</i> <i>H12120_AHB_SAR_50cm_Final.csar</i> <i>H12120_Sub4_2m_Final.csar</i>
Surfaces	File Name
<i>Combined</i>	<i>H12120_4m_Combined.csar</i>
<i>Interpolated TIN</i>	<i>\Interpolated TIN\H12120_12m_InterpTIN.csar</i>
<i>Shifted Interpolated TIN</i>	<i>\Interpolated TIN\Shifted Surface\H12120_12m_InterpTIN_Shifted.csar</i>
Final HOBs	File Name
<i>Survey State Soundings</i>	<i>H12120_SS_Soundings.hob</i>
<i>Chart State Soundings</i>	<i>H12120_CS_Soundings.hob</i>
<i>Contour Layer</i>	<i>H12120_Contours.hob</i>
<i>Feature Layer</i>	<i>H12120_Features.hob</i>
<i>MetaObjects Layer</i>	<i>H12120_MetaObjects.hob</i>
<i>Blue Note</i>	<i>H12120_BlueNotes.hob</i>
<i>Bottom Sample</i>	<i>H12120_BottomSamples.hob</i>
Meta-Objects Attribution	
Acronym	Value
M_COVR	
CATCOV	<i>1 – coverage available</i>
SORDAT	<i>20091012</i>
SORIND	<i>US,US,graph,H12120</i>
M_QUAL	
CATZOC	<i>6 – zone of confidence U (data not assessed)</i>
INFORM	<i>M/V Andrew Charles</i>
POSACC	<i>10.0 m</i>
SORDAT	<i>20091012</i>
SORIND	<i>US,US,graph,H12120</i>
SUREND	<i>20091012</i>
SURSTA	<i>20090907</i>
DEPARE	
DRVALV 1	<i>47.000 ft</i>
DRVALV2	<i>64.000 ft</i>
SORDAT	<i>20091012</i>
SORIND	<i>US,US,graph,H12120</i>

SPECIFICATIONS:

- I. COMBINED SURFACE:
 - a. Number of SAR Final Grids: **7**
 - b. Resolution of Combined (m): **4 m**
- II. SURVEY SCALE SOUNDINGS (SS):
 - a. Attribute Name: Depth
 - b. Selection criteria: Radius, Shoal bias
 - c. Radius value is: mm at map scale (80k)
 - i. Use single-defined radius: N/A
 - ii. And/Or use radius table file: **H12120_SS_SSR.txt** [80k = chart scale]
 - d. Queried Depth of All Soundings
 - i. Minimum: **14.6361 m**
 - ii. Maximum: **19.3460 m**
- III. INTERPOLATED TIN SURFACE:
 - a. Resolution (m): **12 m**
 - b. Interpolation method: Natural Neighbor
 - c. Shift value: -0.75ft [only include applicable shift values]
[-0.75 feet (And/Or) -0.75 fathoms]
- IV. CONTOURS:
 - a. Attribute Name: Depth
 - b. Use a Depth List: **H12120_depth_contours.txt**
 - c. Output Options: Create contour lines
 - i. Line Object: DEPCNT
 - ii. Value Attribute: VALDCO
- V. FEATURES:
 - a. Number of Chart Features: **4** [all features included in H-Cell]
 - b. Number of Non-Chart Features: **0** [all features submitted by field & not included in H-Cell]
- VI. CHART SURVEY SOUNDINGS (CS):
 - a. Number of ENC CS Soundings: **151**
 - b. Attribute Name: Depth
 - c. Selection criteria: Radius, Shoal bias
 - d. Radius value is: Distance on the ground (m)
 - i. Use single-defined radius: N/A
 - ii. And/Or use radius table file: **H12120_CS_SSR.txt** [80k = chart scale]
 - e. Number Survey CS Soundings: **160**
- VII. NOTES:



H12120_SS_SSR.txt - Notepad		
File	Edit	Format View Help
0.000000	14.0208	1.1
14.02081	30.0	1.2



H12120_CS_SSR.txt - Notepad		
File	Edit	Format View Help
0.000000	13.4112	950
13.41121	50.0000	1100

**ATLANTIC HYDROGRAPHIC BRANCH
H-CELL REPORT to ACCOMPANY
SURVEY H12120 (2009)**

This H-Cell Report has been written to supplement and/or clarify the original Descriptive Report (DR) and pass critical compilation information to the cartographers in the Marine Chart Division. Sections in this report refer to the corresponding sections of the Descriptive Report.

B. DATA ACQUISITION AND PROCESSING

B.2 QUALITY CONTROL

The AHB source depth grids for the survey's nautical chart update were six 2m mainscheme grids and one 0.5m resolution development grid BASE surfaces (*.CSAR), which were combined at 4m resolution. The survey scale soundings were created from the combined surface using a sounding spacing range (SSR) file (reference the AHB Compilation Log section of this Descriptive Report). The survey scale soundings were imported into a "point cloud" grid. The chart scale soundings were derived directly from the survey scale soundings point cloud grid to preserve absolute continuity between the charted depths, the survey scale soundings, and the original source grid. The chart scale soundings were selected using a sounding spacing range (SSR) file. The chart scale soundings are a subset of the survey scale soundings. The surface model was referenced when selecting the chart scale soundings, to ensure that the selected soundings portray the bathymetry within the common area.

A UTM projected TIN surface was created from the survey scale soundings point cloud grid, from which an interpolated surface of 12m resolution was generated. The interpolated TIN surface of X12m resolution was shifted by the NOAA sounding rounding value of -0.75 feet. The shifted interpolated TIN was used to generate depth contours in feet. The depth contours are forwarded to MCD for reference only. The contours were utilized during chart scale sounding selection and quality assurance efforts at AHB. The depth contours are incorporated into the SS H-Cell product as per 2009 H-Cell Specifications.

The compilation products (Final *.HOB files) for this survey are detailed in the H12120 AHB Compilation Log contained within this document. The Final HOB files include depth areas (DEPARE), depth contours (DEPCNT), soundings (SOUNDG), meta-objects (M_COVR, M_QUAL), cartographic Blue Notes (\$CSYMB), and features (OFSPLF, SBDARE).

As dictated by Hydrographic Technical Directive 2008-8, the Final HOB files were combined into two separate H-Cell files in S-57 format. Both S-57 files were exported from CARIS S-57 Composer in feet. Quality assurance and topology checks were conducted using CARIS S-57 Composer and DKART Inspector validation tests.

The final H-Cell products are two S-57 files, in Lat/Long NAD-83. The contents of these two H-Cell deliverables are listed in the table below:

TABLE 1 - Contents of H-Cell Files			
H12120_CS.000		Scale 1:80,000	
Object Class Types	Geographic	Cartographic	Meta
S-57 Object Acronyms	DEPARE	\$CSYMB	M_COVR
	SBDARE		M_QUAL
	OFSPLF		
	SOUNDG		
H12120_SS.000			
H12120_SS.000		Scale 1:10,000	
Object Class Types	Geographic		
S-57 Object Acronyms	DEPCNT		
	SOUNDG		

B.2.4 Junctions and Prior Surveys

Survey H12120 (2009) junctions with survey H12121 (2009-2010) to the west, H12069 (2009-2010) to the north and H12056 (2009) to the east. Most present survey depths compare within 1 foot of junction survey depths to the west, within 1 foot of junction survey depths to the north and within 1-2 feet of junction survey depths to the east. \

Survey H12120 (2009) junctions with survey H12056 (2009) to the east. Shoaler soundings from present survey supersede the junction soundings for basically the entirety of the junction. H12120 was not available for comparison when H12056 compiled.

Most present survey depths compare within 2 feet of the charted hydrography to the south.

B.4 DATA PROCESSING

The following software was used to process data at the Atlantic Hydrographic Branch:

CARIS Bathy DataBase version 3.2/HF1, 2, 4

CARIS HIPS/SIPS version 7.1/HF1-2

CARIS S-57 Composer version 2.2/SP1/HF1-4

DKART Inspector version 5.1

HSTP Pydro version 11.9(r3603)

C. HORIZONTAL AND VERTICAL CONTROL

The hydrographer makes adequate mention of horizontal and vertical control used for this survey in section C of the DR. The sounding datum for this survey is Mean Lower Low Water (MLLW), and the vertical datum is Mean High Water (MHW). Horizontal control used for this survey during data acquisition is based upon the North American Datum of 1983 (NAD83), UTM projection zone 15 North.

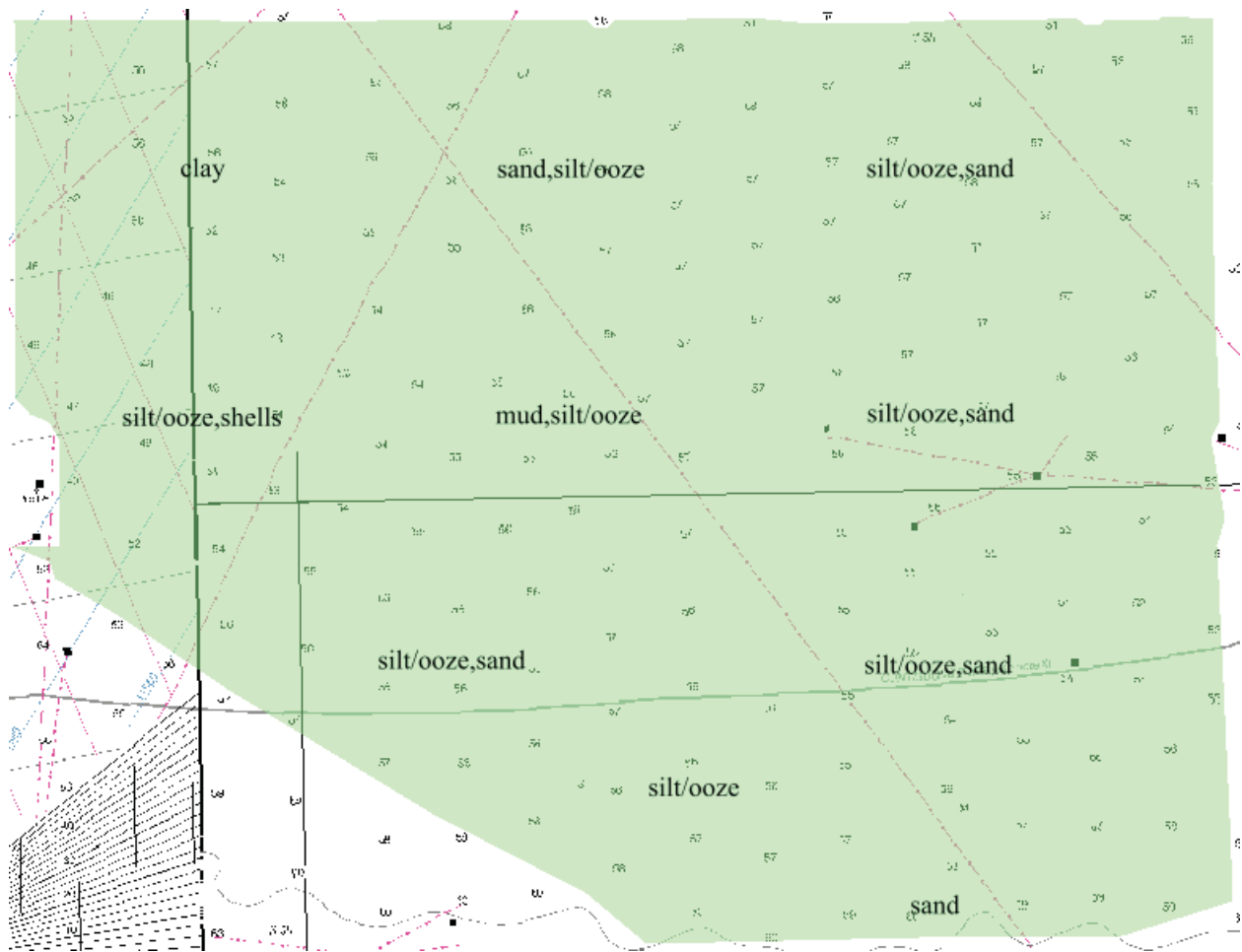
D. RESULTS AND RECOMMENDATIONS

<u>D.1 CHART COMPARISON</u>	<u>11356 (38th. Edition, JUN/08)</u> Isles Dernieres to Point Au Fer Corrected through NM 08/13/2011 Corrected through LNM 08/12/2011 Scale 1:80,000
	<u>11357 (41st. Edition, MAY/2011)</u> Timbalier and Terrebonne Bays Corrected through NM 08/13/2011 Corrected through LNM 08/05/2011 Scale 1:80,000
<u>ENC COMPARISON</u>	<u>US4LA25M</u> Isles Dernieres to Point Au Fer Edition 15 Application Date 2011/05/26 Issue Date 2011/08/11 Chart 11356
	<u>US4LA31M</u> Timbalier and Terrebonne Bays Edition 23 Application Date 2010/11/09 Issue Date 2011/07/13 Chart 11356

D.2 ADDITIONAL RESULTS

The charted hydrography originates with prior surveys and requires no further consideration. The hydrographer makes adequate chart comparisons in section D and Appendix I and II of the DR. The hydrographer recommends that any charted features not specifically addressed either in the H-Cell files or the Blue Notes should be retained as charted. The following exceptions are noted:

- 1) The field unit collected a total of 67 bottom samples. All charted seabed characteristics were superseded by the survey findings. Ten seabed characteristics were used for charting and the remaining 57 seabed characteristics are filed with this report.



D.6 MISCELLANEOUS

Chart compilation was completed by Atlantic Hydrographic Branch personnel in Norfolk, Virginia. Compilation data will be forwarded to the Marine Chart Division in Silver Spring, Maryland. See section D.1 of this report for a list of the Raster Charts and Electronic Navigation Charts (ENC) used for compiling the present survey.

D.7 ADEQUACY OF SURVEY

The present survey is adequate to supersede the charted bathymetry within the common area. Any features not specifically addressed either in the H-Cell files or the Blue Notes should be retained as charted. Refer to section D and Appendix I and II of the DR for further recommendations by the hydrographer.

**APPROVAL SHEET
H12120**

Initial Approvals:

The completed survey has been inspected with regard to survey coverage, delineation of depth contours, disposition of critical depths, cartographic symbolization, and verification or disproval of charted data. All revisions and additions made to the H-Cell files during survey processing have been entered in the digital data for this survey. The survey records and digital data comply with National Ocean Service and Office of Coast Survey requirements except where noted in the Descriptive Report and the H-Cell Report.

All final products have undergone a comprehensive review per the Hydrographic Surveys Division Office Processing Manual and are verified to be accurate and complete except where noted.

Norris Wike

Digitally signed by Norris Wike
DN: cn=Norris Wike, o=NOAA,
ou=AHB,
email=norris.a.wike@noaa.gov, c=US
Date: 2011.09.28 16:34:35 -04'00'

Norris A. Wike
Cartographer
Atlantic Hydrographic Branch

I have reviewed the H-Cell files, accompanying data, and reports. This survey and accompanying Marine Chart Division deliverables meet National Ocean Service requirements and standards for products in support of nautical charting except where noted.

Approved for: _____
CDR Richard T. Brennan, NOAA
Chief, Atlantic Hydrographic Branch