H11785

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT

Type of Survey **Hydrographic Survey**
Field No. **H11785**
Registry No. **OPR-K977-SA-08**

LOCALITY

State **Louisiana**

General Locality **Gulf of Mexico**

Sub-locality **Timbalier Island to Belle Pass**

2009

CHIEF OF PARTY

Paul L.Donaldson

LIBRARY & ARCHIVES

DATE **November 06, 2009**

NOAA FORM 77-28 (11-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

REGISTRY NO.

H11785

HYDROGRAPHIC TITLE SHEET

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

FIELD NO.
C

State Louisiana

General locality Gulf of Mexico

Sub-Locality *Timbalier Island to Belle Pass*

Scale 1:20,000 Date of survey 16 March 2009 – 04 July 2009

Instructions Dated March 17, 2008 Project No. OPR-K977-SA-08

Vessel *M/V Sea Beneath MI7826BK , F/V Lacey Marie LA6708FC*

Chief of Party *Paul L Donaldson*

Surveyed by: *Brian Biggert, Alex Bernier, Gary Davis, Paul Donaldson, Chuck Holloway, Jason Infantino, Colette LeBeau, Rick Nadeau, Evan Robertson, Jeremy Shambaugh, Deb Smith, Bridget Williams, Jennifer Stone, Daniel Burgo and Gary Parker.*

Soundings taken by echo **sounder**, hand lead, pole Odom CVM Singlebeam Depth Sounder and Reson 8101 Multibeam Depth Sounder

Verification by ***Atlantic Hydrographic Branch Personnel , NOAA***

Soundings in fathoms, meters, feet at MLW, **MLLW**

Soundings converted to feet during office processing.

REMARKS: **Contract:** DG-133C-05-CQ-1088

Contractor: Science Applications International Corp., 221 Third Street; Newport, RI 02840 USA

Subcontractors: Rotator Staffing Services, PO Box 366, 557 Cranbury Rd, E. Brunswick NJ 08816: Lowe Engineers 2000 RiverEdge Parkway, Suite 400, Atlanta, GA 30328; EMC, Inc., PO Box 8143, Greenwood, MS 38935; John Oswald and Associates, LLC, 2000 E. Dowling Rd., Anchorage, AK 99507

Times: All times are recorded in UTC

UTM Zone: Zone 15

Bold italic red notes in the Descriptive Report were made during office processing.

Purpose: To provide NOAA with modern, accurate hydrographic survey data suitable for item detection and debris mapping and to update the nautical charts of the assigned area: Sheet C (H11785) in the Gulf of Mexico, Coast of Louisiana.

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Science Applications International Corporation (SAIC) warrants only that the survey data acquired by SAIC and delivered to NOAA under Contract DG-133C-05-CQ-1088 reflects the state of the sea floor in existence on the day and at the time the survey was conducted.

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Descriptive Report to Accompany
Hydrographic Survey H11785
Scale 1:20,000, Surveyed 2009
M/V Sea Beneath, F/V Lacey Marie
Science Applications International Corporation (SAIC)
Paul L. Donaldson, Hydrographer

PROJECT
Project Number: OPR-K977-SA-08
Dates of Instructions: March 17, 2008 **Task Order#:** T0006

Dates of Supplemental Instructions: 18 April 2008, 28 March 2008, 28 August 2008, 21 October 2008, 09 December 2008 and 05 January 2009.
Sheet Letter: C
Registry Number: H11785
Purpose: To provide NOAA with modern, accurate hydrographic survey data suitable for item detection and debris mapping and to update the nautical charts of the assigned area.

A. AREA SURVEYED

The area surveyed was a section of the Gulf of Mexico off Louisiana, Timbalier Island to Belle Pass (Figure A-1). The line kilometers, bottom samples, item investigations and other survey parameters are located in Table A-1 entitled "Hydrographic Survey Statistics". The area was surveyed at set line spacing with singlebeam sonar and bow mounted sidescan sonar from 16 March 2009 to 26 June 2009. Item investigation surveys were conducted with multibeam sonar only from 29 June 2009 to 04 July 2009. Table A-2 provides the dates for all data acquisition on H11785. The depth range encountered in this area was from 0.72 meters (2.36 feet, 0.30 meters uncertainty) to 14.11 meters (46.29 feet, 0.30 meters uncertainty). ***Concur.***

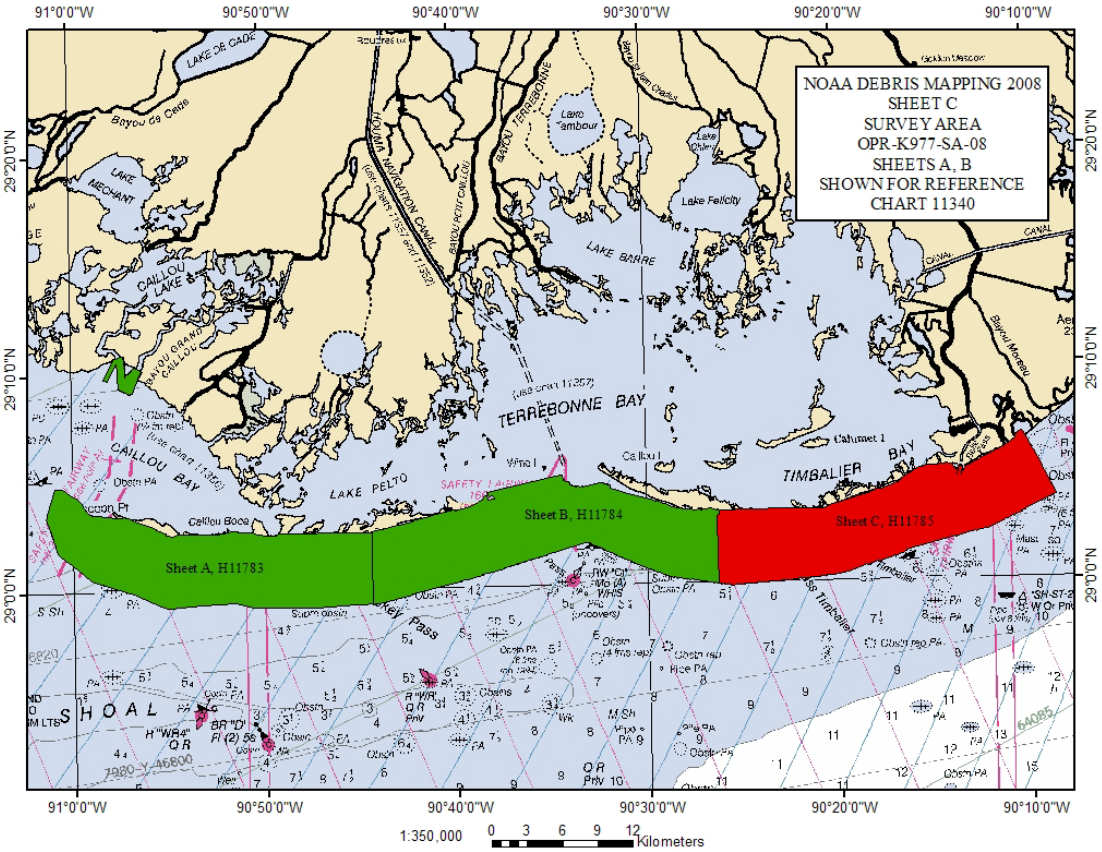

Figure A-1. H11785 Survey and Sheet Bounds

Table A-1. Hydrographic Survey Statistics

M/V Sea Beneath, F/V Lacey Marie	**Sheet C H11785**
LNM Singlebeam mainscheme only	N/A
LNM Multibeam mainscheme only	N/A
LNM Lidar mainscheme only	N/A
LNM Sidescan Sonar mainscheme only	28.6
Lineal nautical miles of any combination of the above techniques (sidescan and singlebeam)	2990.64
LNM Crosslines singlebeam and multibeam combined	222.16
LNM Lidar Crosslines	N/A
LNM development lines non mainscheme	37.09
LNM shoreline/nearshore investigations	0
Number of Bottom Samples	179
Number of items investigated that required additional time/effort in the field beyond the above survey operations	195
Total number of square nautical miles	63.11

Table A-2. Dates of Data Acquisition in Calendar and Julian Days

Calendar Date	Julian Day	Calendar Date	Julian Day	Calendar Date	Julian Day
16-March-09	75	10-May-09	130	10-June-09	161
17-March-09	76	11-May-09	131	11-June-09	162
18-March-09	77	12-May-09	132	12-June-09	163
19-March-09	78	13-May-09	133	13-June-09	164
20-March-09	79	14-May-09	134	14-June-09	165
21-March-09	80	15-May-09	135	15-June-09	166
30-March-09	89	16-May-09	136	16-June-09	167
02-April-09	92	17-May-09	137	17-June-09	168
03-April-09	93	23-May-09	143	18-June-09	169
04-April-09	94	24-May-09	144	19-June-09	170
08-April-09	98	25-May-09	145	20-June-09	171
14-April-09	104	26-May-09	146	21-June-09	172
15-April-09	105	27-May-09	147	22-June-09	173
20-April-09	110	28-May-09	148	23-June-09	174
21-April-09	111	29-May-09	149	25-June-09	176
22-April-09	112	30-May-09	150	26-June-09	177
23-April-09	113	31-May-09	151	30-June-09	181
29-April-09	119	05-June-09	156	01-July-09	182
30-April-09	120	06-June-09	157	02-July-09	183
01-May-09	121	07-June-09	158	03-July-09	184
02-May-09	122	08-June-09	159	04-July-09	185
05-May-09	125	09-June-09	160		

B. DATA ACQUISITION AND PROCESSING *SEE ALSO H-CELL REPORT.*

B.1 EQUIPMENT

A detailed description of the systems used to acquire and process these data has been included in the separate Data Acquisition and Processing Report for OPR-K977-SA-08 delivered with Sheet H11785 (Sheet C) on 06 November 2009 (SAIC document number 09-TR-014). There were no variations from the equipment configuration described. The information in Table B-1 below summarizes the information in the report.
See also H-Cell Report.

Table B-1. Major Systems by Manufacturer and Model Number

	Manufacturer / Model Number
Singlebeam Sonar	Odom CVM
Sidescan Sonar	Klein 3000 Towfish
Multibeam Sonar	RESON SeaBat 8101 ER
Vessel Attitude System	TSS POS/MV 320 Inertial Navigation System
Positioning Systems	TSS POS/MV 320 version 4
	Trimble 4000 GPS Receiver
	Trimble Probeacon Differential Beacon Receiver
Data Acquisition	SAIC ISS-2000
Sound Speed Systems	Sea-Bird Electronics, Inc. SBE 19-01 CTD Profiler

Survey Vessel

The *M/V Sea Beneath* and the *F/V Lacey Marie* were the platforms for singlebeam depth sounder, sidescan sonar and sound speed profile data collection. The *M/V Sea Beneath* was the platform for multibeam sonar for item investigations. A data processing office was maintained on site at the Louisiana Universities Marine Consortium in Cocodrie, Louisiana. All data were shipped to the Data Processing Center in the SAIC Newport, RI office for final data processing. The Position Orientation System/Marine Vessels (POS/MV) Inertial Measurement Unit (IMU) was mounted on deck 0.98 meters aft and in line of the singlebeam sonar transducer on the *M/V Sea Beneath*. When the multibeam system was installed on the *M/V Sea Beneath* the IMU remained in the same location and was 0.83 meters aft of the multibeam sonar transducer. Both echosounder systems transducers were mounted within a moon pool on a retractable ram located along the center line within the aft deck.

Onboard the *F/V Lacey Marie* the IMU was located in the main cabin 1.1 meter aft and 1.3 meters inboard of the singlebeam sonar transducer. The singlebeam transducer was mounted on an over the side pole mount located just aft of amid ships on the port side. The pole could be rotated clear of the water to facilitate faster transit speeds to and from the survey area.

Sound velocity profiles were made using a Sea Bird SBE-19 CTD which was hand deployed from both vessels. Table B-2 lists vessel characteristics for the *M/V Sea Beneath* and *F/V Lacey Marie.*

Table B-2. Survey Vessels Characteristics

Vessel Name	LOA	Beam	Draft	Max Speed	Max Survey Speed	Registration Number
M/V Sea Beneath	32’	7’	2.5’	30 kts	9 kts	*MI7826BK*
F/V Lacey Marie	41’	12’	2.5’	14 kts	9 kts	*LA6708FC*

Major Systems

SAIC used their Integrated Survey System (**ISS-2000**) software on a Windows XP platform to acquire these survey data. Survey planning and data analysis were conducted using SAIC’s **SABER** software on Red Hat Enterprise 4 Linux platforms. Klein 3000 sidescan data were collected on a Windows XP platform using Klein’s **SonarPro version 9.6** software. The Klein 3000 sidescan sonar data were collected in eXtended Triton Format (XTF) and maintained at full resolution, with no conversion or down sampling techniques applied. All sidescan data were reviewed using Triton **Isis** software, while coverage mosaics were produced using **SABER** on a Linux platform. An Odom Echotrac CVM singlebeam sonar was used with only the high frequency channel being recorded. A Reson 8101 multibeam system was incorporated on the *M/V Sea Beneath* for item investigation survey work only. A description of the software and versions used to

acquire and process these data has been included in the separate Data Acquisition and Processing Report for OPR-K977-SA-08 delivered with this document (SAIC document number 09-TR-013).

B.2 QUALITY CONTROL

There were approximately 222 linear nautical miles of crosslines surveyed and approximately 2991 linear nautical miles of mainscheme lines surveyed. The cross lines were spaced 400 meters apart which resulted approximately 7.4 percent of the mainscheme coverage. The crosslines were oriented at 178°/358°, while the main scheme lines orientation varied between 68°/248° and 88°/268° with spacing based upon the sidescan sonar range. The sidescan sonar range scale was set to either 25 or 50 meters and was determined based upon the water depth and data quality. The 50-meter sidescan sonar range scale setting was used in areas where the water depth was generally deeper than four meters while 25 meter range scale was used in water depths less than four meters. As required for object detection, the vessel speed was controlled so that there were always at least three sidescan sonar pings per meter along track. Mainscheme survey line spacing varied between 40 meters and 20 meters. Line spacing of 40 meters was used for areas where the sidescan was operated at 50 meter range scale and 20 meter spacing was used in areas where the sidescan was operated at 25 meter range scale. This combination of range scale and line spacing yielded the required 200% sidescan sonar coverage.

Bathymetry for the main survey effort was collected using an Odom Echotrac CVM singlebeam echo sounder. Data were collected in Generic Sensor Format (GSF) using SAIC's **ISS-2000** software. Significant items identified within the sidescan data gram were covered with a RESON 8101 SeaBat multibeam echo sounder. Multibeam data were collected in GSF format and a 64° beam angle used as the cutoff for acceptable multibeam data. A 64° beam angle yielded an effective swath width of approximately three times the water depth.

A Seabird Electronics SBE-19 CTD was used on both the *F/V Lacey Marie* and on the *M/V Sea Beneath* to collect sound speed profile (SSP) data. SSP data were obtained prior to and after data collection when the singlebeam echo sounder was in use. When the multibeam echo sounder was in use the frequency of casts was based on observed sound speed changes from previously collected profiles, time elapsed since the last cast and monitoring of the multibeam data in real time. Confidence checks of the sound speed profile casts were conducted approximately every seven to ten days by comparing two consecutive casts taken with different Seabird SBE-19 CTD.

Static draft measurements were taken both before departure from, and after return to the dock on each survey day. These observed static draft measurements were used to compute and apply a prorated daily static draft during each survey day to account for small changes in draft due to fuel consumption. On the *F/V Lacey Marie* the draft was measured on the port side by the singlebeam over the side pole mount. On the *M/V Sea Beneath* the static draft measured within the moon pool. A dynamic draft value was also

applied to the data based on recorded input based on shaft RPM. The *F/V Lacey Marie* RPM data were updated continuously via a shaft RPM counters while the *M/V Sea Beneath* RPM data were updated manually via entries within **ISS-2000**. The RPM data value was related to a dynamic draft look-up table that which was used to determine the dynamic draft. The dynamic draft look up table was constructed from settlement and squat measurements taken during the pre-survey Sea Acceptance Trials.

Horizontal positioning of the echo sounder's transducers by the POS/MV was verified by daily confidence checks against an independent Trimble DGPS system. During survey data acquisition, the **ISS-2000** real-time system provided a continuous view of the positioning comparison between the POS/MV and the Trimble DGPS. An alarm was triggered within **ISS-2000** if the comparisons were not within an acceptable range.

Confidence checks of the singlebeam depth data were conducted approximately every seven to ten days of data collection using a bar check method. The multibeam data were also confirmed using bar checks both before and after the item investigation survey effort which spanned five days. Table B-3 through Table B-5 presents a summary of these comparisons. In the summaries for the singlebeam comparisons the average difference is less than 0.036 meters and was less than an average of 0.012 meters for the multibeam comparisons.

Table B-3. Bar Check Comparison for *M/V Sea Beneath* and Odom CVM Singlebeam

Julian Day	Calendar Date	Bar Depth	Depth in Odom Controller	Depth in SB File	Difference
119	04/29/2009	1	1.02	1.01	0.01
		2	2.02	2.02	0.02
		3	3.01	3.01	0.01
135	05/15/2009	1	1.01	1.01	0.01
		2	2.02	2.02	0.02
		3	3.02	3.02	0.02
146	05/26/2009	1	1.03	1.01	0.01
		2	2.02	2.03	0.03
		3	3.02	3.02	0.02
156	06/05/2009	1	1.00	1.06	0.06
		2	2.02	2.04	0.04
		3	3.00	2.97	0.03
167	06/16/2009	1	1.05		1.00
		2	2.02		2.00
		3	2.96		3.00
177	06/26/2009	1	1.03	1.04	0.04
		2	2.00	2.03	0.03
		3	3.00	3.04	0.04

Table B-4. Bar Check Comparison for *M/V Sea Beneath* and Reson 8101 Multibeam

Julian Day	Calendar Date	Bar Depth	Depth in SB File	Difference
180	06/28/2009	1	1.01	0.01
		2	2.02	0.02
		3	3.00	0
185	07/04/2009	1	0.98	0.02
		2	1.99	0.01
		3	3.01	0.01

Table B-5. Bar Check Comparison for *F/V Lacey Marie* and Odom CVM Singlebeam

Julian Day	Calendar Date	Bar Depth	Depth in Odom Controller	Depth in SB File	Difference
72	03/13/2009	1	1.01	1.02	0.01
		2	2.03	2.04	0.03
		3	2.99	3.02	0.01
79	03/20/2008	1	1.02	1.01	0.02
		2	2.02	2.03	0.02
		3	3.03	3.04	0.03
98	04/08/2009	1	1.07	1.08	0.07
		2	2.09	2.11	0.09
		3	3.08	3.09	0.08
111	04/21/2009	1	1.02	0.99	0.02
		2	2.08	2.06	0.08
		3	2.95	2.95	0.05
132	05/12/2009	1	0.96	0.96	0.04
		2	1.99	1.98	0.01
		3	3.00	2.99	0.00
144	05/24/2009	1	1.05	1.06	0.05
		2	2.07	2.10	0.07
153	06/02/2009	1	0.97	0.98	0.02
		2	1.98	1.98	0.02
158	06/07/2009	1	0.97	0.98	0.02
		2	1.98	1.98	0.02

Survey Systems Uncertainty Model

The Total Propagated Uncertainty (TPU) model that SAIC has adopted has its genesis at the Naval Oceanographic Office (NAVOCEANO), and is based on the work by Rob Hare and others ("Error Budget Analysis for NAVOCEANO Hydrographic Survey Systems, Task 2 FY 01", 2001, *HSRC FY01 Task 2 Final Report*). Until recently, this concept had been referred to as the Total Propagated Error (TPE) model; however, because true error can not be measured, the term "uncertainty" has now replaced "error" throughout this discussion. This terminology has been adopted by the International Hydrographic Organization in Special Publication No. 44, *"IHO Standards for Hydrographic Surveys, 5th Edition, February 2008"*. The fidelity of any uncertainty model is coupled to the applicability of the equations that are used to estimate each of the components that contribute to the overall uncertainty that is inherent in each sounding. SAIC's approach

to quantifying the TPU is to decompose the cumulative uncertainty for each sounding into its individual components and then further decompose those into the horizontal and vertical components. The model then combines the horizontal and vertical uncertainty components to yield an estimate of the system uncertainty as a whole. This cumulative system uncertainty is the Total Propagated Uncertainty. By using this approach, SAIC can more easily incorporate future uncertainty information provided by sensor manufacturers into the model. This also allows SAIC to continuously improve the fidelity of the model as our understanding of the sensors increases or as more sophisticated sensors are added to a system.

The data needed to drive the uncertainty model were captured as parameters taken from the Error Parameter File (EPF), which is an ASCII text file created during survey system installation and integration. The DAPR provides a more detailed discussion on development of the EPF and application of the TPU. Some of the required parameters are also obtained from values recorded in the GSF files during data acquisition and processing. While the input units vary, all uncertainty values that contribute to the cumulative TPU estimate are eventually converted to meters by **SABER's Errors** program. The cumulative TPU estimates are recorded as the Horizontal Uncertainty and Vertical Uncertainty at the 95% confidence level in the GSF file. These uncertainty estimates are then used to estimate the accuracy of each individual sounding's position and depth.

CUBE Uncertainty Analysis

The vertical and horizontal uncertainty values that were estimated by the TPU model for individual bathymetry soundings varied little across the dataset. TPE values for the multibeam data tended to be most affected by beam angle with a slightly higher horizontal TPE value (approximately 0.01 to 0.02 meters greater) noted for the outer swath beams when compared to the near nadir beams. All individual soundings used in development of the final CUBE depth surfaces had modeled vertical and horizontal uncertainty values at or below the allowable IHO S-44, Order 1 uncertainty. Depending on the depth, the allowable Order 1 uncertainty varied from approximately 0.50 to 0.54 meters.

During the creation of the CUBE surfaces, two separate uncertainty surfaces are also calculated by the **SABER** software – CUBE Standard Deviation and Average Total Propagated Uncertainty (Average TPU). The CUBE standard deviation is a measure of the general agreement between all of the soundings that contributed to the best hypothesis for the node. The Average TPU is the average of the vertical uncertainty component for each sounding that contributed to the best hypothesis for the node. A third uncertainty surface is generated from the larger of these two uncertainties at each node and is referred to as the Final Uncertainty.

The H11785 sheet was broken into two PFM grids with CUBE surfaces due to PFM generation constraints. After creation of the initial one-meter PFM CUBE surfaces, the **SABER Check PFM Uncertainty** function was used to highlight all of the cases where computed final node uncertainties exceeded IHO Order 1. Appendix V references two

attached text files that provide a listing all of the nodes from both of the one-meter PFM grids where the final uncertainties exceeded IHO Order 1. An initial review of the areas with final uncertainties exceeding IHO Order 1 revealed many of the nodes were related to features. Singlebeam data crossing a small target such as a pipeline many times resulted in a node which will exhibit an increased uncertainty value because of the limited number of pings associated with the feature. Item investigations were conducted using a multibeam echosounder. Because many passes were made over features there were fewer cases of nodes exceeding uncertainties for the IHO order 1 allowable values however some nodes on the outer edges of the swath exceeded the IHO order 1 allowable values as a result of reduced number of soundings in the outer swath.

In addition, there were discrete areas in which slight penetration by the echosounder was observed. The sediments within the Gulf of Mexico can be soft which can result in penetration by the echosounder. In these areas there were also nodes which exceeded allowable uncertainties values for the IHO order 1.

A **SABER** process called "**Check PFM Uncertainty**" flags nodes which exceed specified uncertainty limits. The output of this process produces text files which list node positions, depth and uncertainty values for nodes which failed the specified uncertainty. These text files are included in Appendix V of each sheet's Descriptive Report.

Junction and Crossing Analysis

Comparisons of mainscheme to crossline data were performed daily during the survey operations to ensure that no systematic errors were introduced and to identify potential problems with the survey system. After application of all correctors and completion of final processing, separate one-meter shoal biased grids were made from the mainscheme data and from the crossline data. Comparisons of all crossing data in H11785 showed that 95.99% of comparisons were within 20 centimeters and 99.98% of comparisons were within 40 centimeters. The 17 comparisons greater than 50 centimeters are accounted for by normal small DGPS position variability across features. Table B-6 shows the comparisons using all crossings in H11785. ***Concur***

Table B-6. Junction Analysis All Main Scheme vs. Crosslines, H11785

Depth Difference Range (cm)	All		Positive		Negative		Zero	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
0-5	7831	42.69	3510	39.05	3415	40.41	906	100
5-10	5833	74.48	2992	72.34	2841	74.03		
10-15	3120	91.49	1770	92.03	1350	90		
15-20	826	95.99	412	96.62	414	94.9		
20-25	472	98.57	211	98.97	261	97.99		
25-30	161	99.44	64	99.68	97	99.14		
30-35	51	99.72	20	99.9	31	99.5		
35-40	19	99.83	4	99.94	15	99.68		
40-45	9	99.87	3	99.98	6	99.75		

Depth Difference Range (cm)	All		Positive		Negative		Zero	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
45-50	6	99.91	2	100	4	99.8		
50-60	3	99.92	0	100	3	99.83		
60-70	2	99.93	0	100	2	99.86		
70-80	6	99.97	0	100	6	99.93		
80-90	0	99.97	0	100	0	99.93		
90-100	2	99.98	0	100	2	99.95		
100-150	4	100	0	100	4	100		
Total	18345	100.00%	8988	48.99%	8451	46.07%	906	4.94%

Coverage

This survey was conducted utilizing sidescan sonar and singlebeam sonar for the main survey effort and multibeam sonar for item investigations. The coverage requirement for the survey area was to achieve 200% sidescan coverage and resulting singlebeam bathymetry data. Line spacing was set at a consistent 20-meter or 40-meter line spacing optimized to achieve 200% sidescan sonar coverage at either the 25-meter or 50-meter range scale setting. Additional bathymetry coverage was obtained utilizing multibeam sonar on significant items identified within the sidescan data gram. A minimum of 100% multibeam data coverage was collected over each item but generally between 200% and 400% multibeam coverage was obtained. Multibeam data were collected using a cutoff angle of 64° to ensure quality data covering the item. The 64° cutoff beam angle yielded an effective swath width for the multibeam coverage of approximately three times the water depth. Due to heavy vessel traffic there are two very small areas which only have 100% sidescan coverage. This first is an area approximately six meters by seven meters in 29° 04’ 32.21”N 090° 13’ 41.23”W and the second is an adjacent area approximately seven meters by twenty meters located in 29° 04’ 31.92”N 090° 13’ 43.54”W. There is one hundred percent sidescan and resulting singlebeam data covering these areas. ***Concur***

B.3 Corrections to Echo Soundings

Please refer to the Data Acquisition and Processing Report SAIC Doc 09-TR-014 for a description of all corrections applied to echo soundings. There were no deviations from the corrections described therein.

B.4 Data Processing

Please refer to the Data Acquisition and Processing Report SAIC Doc 09-TR-014 for a description of all data processing steps. There were no deviations from the processes described therein. ***See also H-Cell Report.***

Although the maximum depth covered by bathymetry was 14.11 meters, all Bathymetric Attributed Grids (BAGs) were generated at one-meter grid resolution based on correspondence with the NOAA COTR. Due to the majority of bathymetry data being collected with a singlebeam echo sounder, NOAA instructed SAIC to generate all BAG’s

at the one-meter resolution (See Supplemental Correspondence). There were a total of nine BAG's generated at the one-meter grid resolution. Table B-7 summarizes the nine BAG files and node spacing which were delivered.

Table B-7. Summary of H11785 BAG Files

BAG File Name	Node Spacing (Meters)	Comments
H11785_1_of_9.bag	1.0	Northern most 1.0-meter BAG
H11785_2_of _9.bag	1.0	
H11785_3_of_9.bag	1.0	
H11785_4_of_9.bag	1.0	
H11785_5_of_9.bag	1.0	
H11785_6_of_9.bag	1.0	
H11785_7_of_9.bag	1.0	
H11785_8_of_9.bag	1.0	
H11785_9_of_9.bag	1.0	Southern most 1.0-meter BAG

Designated Soundings

There were 1,103 designated soundings set across the sheet to help better preserve the shallowest sounding relative to the computed depth surface. In some cases designated soundings were used to preserve the least depth of small objects that were not significant enough to warrant a feature designation. Designated soundings were also used to better define larger features and help preserve important least depths of the feature. The GSF data record retains the designated soundings flag as a unique flag and will override the CUBE best estimate of the depth in the final BAG files the same manner as a feature flag. All beams flagged as designated soundings are presented in a table located in Appendix II.

C. HORIZONTAL AND VERTICAL CONTROL *SEE ALSO H-CELL REPORT.*

The NOAA station in Port Fourchon, LA (8762075) was the source for verified water level heights for H11785 (Sheet C) Terrebonne Bay, Louisiana Debris Mapping survey. Final water level files for each tide zone were created from verified tide data using the **SABER Create Water Level Files** tool. Water level files contained water level heights that were algebraically subtracted from depths to correct the sounding for tides and water levels. These water level files were applied to the bathymetry data using the **SABER Apply Tides** program within the **SABER** software. ***Concur***

When it was necessary to apply updated tide correctors to the GSF files, the program removed the previous tide corrector and applied the new corrector. Each time a routine was run on the GSF data file, a history record was appended to the end of the GSF file. For quality assurance, the **SABER Check Tides** program was run on all GSF files to confirm that the appropriate water level corrector had been applied to the GSF file.

After confirmation that verified water levels were applied to all bathymetry data, grids were created and analyzed using various color change intervals. The color intervals provided a means to check for significant, unnatural changes in depth across zone boundaries due to water level correction errors, unusual currents, storm surges, etc.

The primary means for analyzing the adequacy of zoning was observing zone boundary crossings in the navigated swath editor, SAIC's **MVE**. In addition, crossline analysis using SAIC's **Junction Analysis** software was used to identify possible depth discrepancies resulting from the applied water level corrector. Discrepancies were further analyzed to determine if they were the result of incorrect zoning parameters or weather (wind) conditions between the tide station and the survey area. Please refer to the Data Acquisition and Processing Report for details on analyses performed. The final tidal zoning applied to H11785 is found in Table C-1.

Table C-1. Water Level Zoning Parameters Applied on Sheet H11785

Zone	Time Corrector (hours:minutes)	Range Ratio	Reference Station
FPtFn364	+00:06	1.09	8762075
FPtFn394	00:00	1.09	8762075
FPtFn749	+00:06	1.14	8762075
FPtFn750	00:00	1.08	8762075

The survey data for sheet H11785 were collected in horizontal datum NAD-83, using geodetic coordinates, while data display and products used the UTM Zone 15 projection. The following equipment was used for positioning on the *M/V Sea Beneath*:

- TSS POS/MV, Serial Number 2048 with a Trimble Probeacon Differential Receiver (primary sensor)
- Trimble DSM132 (secondary sensor for comparison with Primary)

The following equipment was used for positioning on the *F/V Lacey Marie*:

- TSS POS/MV, Serial Number 2575
- Trimble 4000 DSi GPS Receiver, Serial Number 3504A09516

Differential correctors used for online data were from the U.S. Coast Guard Stations at English Turn, LA and Mobile Point, AL. The differential receiver was set to only receive data from these two corrector stations.

Daily position confidence checks were conducted using the independent Trimble DGPS. A real-time **ISS-2000** survey monitor also raised an alarm to alert the survey watch if the position differences exceeded the maximum allowable distance. All positioning confidence checks were within an inverse distance of five meters.

Please refer to the Horizontal and Vertical Control Report for detailed descriptions of the procedures and systems used to attain hydrographic positioning. This report will be delivered with the Descriptive Report for the last sheet of this task order.

D. RESULTS AND RECOMMENDATIONS *SEE ALSO H-CELL REPORT.*

D.1 CHART COMPARISON

H11785 was compared to the following charts covering the area as follows:

- **Chart 11340,** 1/458,596 scale, 74th Edition 08/01/2009 corrected by NTM through 10/03/2009
- **Chart 11357,** 1/80,000 scale, 40th Edition 06/01/2009 corrected by NTM through 10/03/2009
- **Chart 11358,** 1/80,000 scale, 55th Edition 06/01/2009 corrected by NTM through 10/03/2009
- **Chart 11346_1,** 1/20,000 scale, 2nd Edition 04/01/2009 corrected by NTM through 10/03/2009
- **Chart 11346_2,** 1/40,000 scale, 2nd Edition 04/01/2009 corrected by NTM through 10/03/2009
- **ENC US4LA29M,** 1/80,000 compilation scale**,** 10th Edition Issued 08/14/2008 Update 08/24/2009
- **ENC US5LA26M,** 1/40,000 compilation scale**,** 12th Edition Issued 08/17/2009 Update 08/24/2009

The chart comparisons were conducted using SAIC's **SABER** software to view the BSB raster charts with overlain layers of H11785 data such as the CUBE gridded surface, sidescan mosaic, selected soundings, contacts and features. For ENC comparisons a combination of HydroService's **dKart Inspector** and 7C's **SeeMyDENC** were used in conjunction with **SABER**. Because the resolution of the Sounding Accuracy attribute (SOUACC) in S-57 is to a decimeter, all sounding uncertainties of 0.29 or 0.30 meters are stored in the S-57 file as 0.3. Therefore the uncertainties of the features discussed in the following chart comparisons are not provide for the two ENCs. To find the uncertainties for each feature see the H11785_Echosounder_Features_List.xls in Appendix II. Results from the comparisons are described below.

Recommend reconstruction of the common areas of all charts using data from this survey. All referenced positions throughout the chart comparison section are referenced to NAD83.

Due to the nature of this report, charted features were addressed multiple times for each RNC and ENC on which they fell. For clarity's sake, these redundant sections have been lined-out and only the descriptions associated with the largest scale chart have been retained. These retained paragraphs also carry all Atlantic Hydrographic Branch charting recommendations.

Chart 11358, 1/80,000 scale, 55th Edition 06/01/2009 corrected by NTM through 10/03/2009

The eastern four to six kilometers of the survey bounds for H11785 fall within the limits of Chart 11358. The depths and features from this survey should supersede the presently charted information over their common areas. Listed below are details of the comparison between this survey and Chart 11358.

The depths observed during this survey ranged from one to fourteen feet deeper than the charted depths, with the greatest variation being seen in the east side of the survey area inshore of the charted 30-foot depth curve.

The charted 17-foot sounding in 29° 05’ 15.98”N 090° 10’ 38.49”W was found to have depths ranging from 29 to 30 feet. ***Concur***

The charted 14-foot sounding in 29° 05’ 30.17”N 090° 10’ 22.93”W was found to have depths ranging from 27 to 28 feet. ***Concur***

The charted 29-foot sounding in 29° 04’ 44.14”N 090° 11’ 16.46”W was found to have depths ranging from 30 to 31 feet. ***Concur***

The charted 37-foot sounding in 29° 03’ 26.42”N 090° 11’ 19.10”W was found to have depths ranging from 37 to 38 feet. ***Concur***

The charted 39-foot sounding in 29° 04’ 09.39”N 090° 08’ 52.44”W was found to have depths ranging from 39 to 40 feet. ***Concur***

The charted 6-foot depth curve extending across the survey area from 29° 06’ 08.94”N 090° 09’ 57.55”W to 29° 05’ 40.14”N 090° 10’ 42.42”W was found to have cubed depths of 23 to 25 feet. The 6-foot depth curve identified during this survey was approximately 1000 to 1200 meters inshore of the charted 6-foot depth curve. Recommend updating the 6-foot depth curve based on the data collected during this survey. ***Concur***

The charted 12-foot depth curve extending across the survey area from 29° 05’ 57.31”N 090° 09’ 50.89”W to 29° 05’ 28.46”N 090° 10’ 42.52”W was found to have cubed depths of 25 to 27 feet. The 12-foot depth curve identified during this survey was approximately 1200 to 1500 meters inshore of the charted 12-foot depth curve. Recommend updating the 12-foot depth curve based on the data collected during this survey. ***Concur***

The charted 18-foot depth curve extending across the survey area from 29° 05’ 45.47”N 090° 09’ 41.68”W to 29° 05’ 11.27”N 090° 10’ 42.48”W was found to have cubed depths of 28 to 31 feet. The 18-foot depth curve identified during this survey was approximately 1000 to 1500 meters inshore of the charted 18-foot depth curve. Recommend updating the 18-foot depth curve based on the data collected during this survey. ***Concur***
The 30-foot depth curve charted from 29° 04’ 33.84”N 090° 09’ 00.33”W to 29° 04’

02.00”N 090° 11’ 59.43”W was found to have depths ranging from 32 to 38 feet. The 30-foot depth curve identified during this survey ranged from 150 meters to 1900 meters inshore of the charted depth curve. Recommend updating the 30-foot depth curve based on the data from this survey. ***Concur***

~~The two charted 5-foot soundings with a danger circle in 29° 06’ 39.75”N 090° 10’ 23.54”W and 29° 06’ 34.28”N 090° 10’ 33.71”W and labeled Obstns (Rep 2009) were reported in Dangers to Navigation Report #3. After the final data processing the minimum depths of 5 feet were confirmed for both obstructions. An additional obstruction was found 50 meters east in 29° 06’ 40.73”N 090° 10’ 21.93”W (feature 377) with a least depth of 9 feet (2.74 meters, 0.30 meters uncertainty). Recommend leaving the charted 5-foot soundings and danger circles in 29° 06’ 39.75”N 090° 10’ 23.54”W (1.65 meters, 0.290 meters uncertainty, feature 378) and 29° 06’ 34.28”N 090° 10’ 33.71”W (1.58 meters, 0.290 meters uncertainty, feature 376) and changing the label Obstns (Rep 2009) to Obstns.~~

~~The three charted wells in 29° 06’ 17.07”N 090° 10’ 09.34”W, 29° 06’ 10.42”N 090° 10’ 26.32”W and 29° 06’ 03.79”N 090° 10’ 17.49”W labeled Well and Wells were not found during this survey. Additional multibeam data were collected near 29° 06’ 17.07”N 090° 10’ 09.34”W and 29° 06’ 10.42”N 090° 10’ 26.32”W. Data and surface observations indicated the presence of bubbles being emitted from the bottom in 29° 06’ 17.81”N 090° 10’ 09.84”W (contacts 143|181142 and 143|190333) and 29° 06’ 11.42”N 090° 10’ 29.50”W (contacts 144|163427, 144|145025 and 171|165904). Recommend removing the charted well symbols and label Wells in 29° 06’ 17.07”N 090° 10’ 09.34”W, 29° 06’ 10.42”N 090° 10’ 26.32”W and 29° 06’ 03.79”N 090° 10’ 17.49”W.~~

~~The charted platform in 29° 06’ 13.33”N 090° 10’ 34.23”W (feature 463) was found to be present in its charted location. Numerous obstructions were also identified within a 50-60 meter radius of the charted platform (features 369, 370, 371, 372, 373, 374, and 375). No changes to the chart are recommended as a result of this survey.~~

~~The charted pipe in 29° 06’ 18.61”N 090° 10’ 41.27”W labeled Pipe PA was not found during this survey. Recommend removing the charted pipe symbol and label Pipe PA in 29° 06’ 18.61”N 090° 10’ 41.27”W.~~

~~The charted breakwater extending from 29° 06’ 24.07”N 090° 10’ 41.86”W to 29° 05’ 52.32”N 090° 11’ 38.15”W and labeled Breakwater was found in its charted position. No changes for the charted breakwater are recommended.~~

~~The label Unsurveyed in 29° 05’ 46.02”N 090° 11’ 08.59”W should be removed from the chart and data from this survey used to update chart 11358.~~

The charted pipeline extending across the survey area from 29° 06’ 02.38”N 090° 11’ 11.15”W to 29° 05’ 10.86”N 090° 09’ 22.39”W was seen as a sediment change within the side scan record from 29° 05’ 10.86”N 090° 09’ 22.39”W to 29° 05’ 49.29”N 090°

10’ 34.42”W. No changes to the charted pipeline in 29° 06’ 02.38”N 090° 11’ 11.15”W to 29° 05’ 10.86”N 090° 09’ 22.39”W are recommended. ***Concur***

~~The charted platform in 29° 05’ 44.63”N 090° 09’ 51.34”W was found in its charted position feature 477. No changes to the charted platform in 29° 05’ 44.63”N 090° 09’ 51.34”W are recommended.~~

~~The charted platform in 29° 05’ 19.69”N 090° 10’ 28.48”W labeled Platform was found in its charted position feature 440. No changes to the charted platform in 29° 05’ 19.69”N 090° 10’ 28.48”W are recommended.~~

~~A pair of charted platforms in 29° 05’ 08.13”N 090° 10’ 35.29”W and 29° 05’ 05.67”N 090° 10’ 32.60”W were found in their charted positions (features 441, 444, and 493). No changes to the charted platforms in 29° 05’ 08.13”N 090° 10’ 35.29”W and 29° 05’ 05.67”N 090° 10’ 32.60”W are recommended.~~

~~The charted platform in 29° 05’ 20.69”N 090° 09’ 27.15”W labeled Platform was found within the platform symbol in 29° 05’ 20.33”N 090° 09’ 27.96”W (feature 442). Recommend charting the platform symbol centered in 29° 05’ 20.33”N 090° 09’ 27.96”W.~~

One of the two charted platforms in 29° 05’ 41.64”N 090° 09’ 42.10”W labeled Subm platforms was covered by this survey. There was no submerged platform found in 29° 05’ 41.64”N 090° 09’ 42.10”W during this survey. Recommend removing the platform symbol centered in 29° 05’ 41.64”N 090° 09’ 42.10”W. ***Concur***

~~The charted platform in 29° 05’ 07.94”N 090° 09’ 51.45 was found within the platform symbol in 29° 05’ 08.99”N 090° 09’ 52.15”W (feature 445). Recommend charting the platform symbol centered in 29° 05’ 08.99”N 090° 09’ 52.15”W~~.

~~The charted platform in 29° 04’ 57.43”N 090° 10’ 08.35”W was found within the platform symbol in 29° 04’ 57.40”N 090° 10’ 09.67”W (feature 443). Recommend charting the platform symbol centered in 29° 04’ 57.40”N 090° 10’ 09.67”W.~~

~~The charted platform in 29° 04’ 40.67”N 090° 10’ 22.34”W labeled Platform was found in its charted position (feature 451). A mound was also identified closely related to the platform in 29° 04’ 41.06”N 090° 10’ 23.02”W with a least depth from singlebeam of 29 feet (9.01 meters, 0.30 meters uncertainty, feature 58) in 35 feet of water. This mound is considered non significant and will be covered by the platform symbol. No changes to the charted platform in 29° 04’ 40.67”N 090° 10’ 22.34”W are recommended.~~

~~The charted platform in 29° 04’ 27.15”N 090° 10’ 13.04”W labeled Platform was not found during this survey. Two platforms were found approximately 200 meters west southwest in 29° 04’ 25.36”N 090° 10’ 20.39”W (feature 447) and 29° 04’ 22.82”N 090°~~

~~10’ 17.68”W (feature 503). Recommend removing the charted platform symbol in 29° 04’ 27.15”N 090° 10’ 13.04”W and charting platform symbols in 29° 04’ 25.36”N 090° 10’ 20.39”W and 29° 04’ 22.82”N 090° 10’ 17.68”W.~~

~~The charted platform in 29° 04’ 20.36”N 090° 10’ 04.22”W was found within the platform symbol in 29° 04’ 20.15”N 090° 10’ 04.59”W (feature 460). Recommend charting the platform symbol centered in 29° 04’ 20.15”N 090° 10’ 04.59”W~~.

~~The charted platform in 29° 04’ 23.67”N 090° 09’ 59.84”W was found within the platform symbol in 29° 04’ 22.78”N 090° 10’ 00.23”W (feature 461). Recommend charting the platform symbol centered in 29° 04’ 22.78”N 090° 10’ 00.23”W.~~

~~The charted platform in 29° 04’ 13.97”N 090° 10’ 05.91”W labeled Platform was found in its charted position (feature 482). No changes to the charted platform in 29° 04’ 13.97”N 090° 10’ 05.91”W are recommended.~~

~~The charted platform in 29° 04’ 15.64”N 090° 10’ 23.70”W was found 100 meters to the northwest in 29° 04’ 18.65”N 090° 10’ 25.34”W (feature 456). Recommend removing the charted platform in 29° 04’ 15.64”N 090° 10’ 23.70” and charting a platform symbol centered in 29° 04’ 18.65”N 090° 10’ 25.34”W.~~

~~The charted platform in 29° 04’ 09.35”N 090° 10’ 19.22”W was found within the platform symbol in 29° 04’ 08.10”N 090° 10’ 19.87”W (feature 492). Recommend charting the platform symbol centered in 29° 04’ 08.10”N 090° 10’ 19.87”W~~.

~~The charted platform in 29° 04’ 18.32”N 090° 09’ 38.99”W was found in its charted position (feature 486). No changes to the charted platform in 29° 04’ 18.32”N 090° 09’ 38.99”W are recommended.~~

~~The charted obstruction in 29° 04’ 19.94”N 090° 09’ 41.95”W labeled Obstn PA has a section of suspended pipe located within the danger circle in 29° 04’ 18.59”N 090° 09’ 42.79”W. The suspended pipe has no significant height. An additional obstruction was found 300 meters northwest of the danger circle in 29° 04’ 24.77”N 090° 09’ 51.99”W with a least depth of 34 feet (10.57 meters, 0.30 meters uncertainty, feature 365) in 37 feet of water. Recommend removing the charted danger circle, blue tint, and label Obstn PA in 29° 04’ 19.94”N 090° 09’ 41.95”W and charting a 34-foot sounding, danger circle with blue tint, and label Obstn in 29° 04’ 24.77”N 090° 09’ 51.99”W (feature 365).~~

~~The charted platform in 29° 04’ 21.70”N 090° 09’ 24.56”W labeled Platform was found in its charted position (feature 491). No changes to the charted platform in 29° 04’ 21.70”N 090° 09’ 24.56”W are recommended~~.

~~The charted platform in 29° 04’ 12.93”N 090° 09’ 34.69”W was found within the platform symbol in 29° 04’ 12.98”N 090° 09’ 35.27”W (feature 490). Recommend charting the platform symbol centered in 29° 04’ 12.98”N 090° 09’ 35.27”W~~.

~~The charted platform in 29° 04’ 09.67”N 090° 09’ 28.02”W was found within the platform symbol in 29° 04’ 08.99”N 090° 09’ 28.35”W (feature 485). Recommend charting the platform symbol centered in 29° 04’ 08.99”N 090° 09’ 28.35”W.~~
~~The charted platform in 29° 03’ 56.86”N 090° 10’ 18.24”W was found within the platform symbol in 29° 03’ 56.27”N 090° 10’ 18.25”W (feature 488). Recommend charting the platform symbol centered in 29° 03’ 56.27”N 090° 10’ 18.25”W.~~

~~The charted platform in 29° 04’ 00.27”N 090° 09’ 24.92”W was found within the platform symbol in 29° 03’ 59.68”N 090° 09’ 24.15”W (feature 487). Obstructions were also identified closely related to the platform in 29° 03’ 58.82”N 090° 09’ 23.30”W with a least depth of 37 feet (11.22 meters, 0.30 meters uncertainty, feature 366) in 40 feet of water. The obstructions are considered non significant and will be covered by the platform symbol. Recommend charting the platform symbol centered in 29° 03’ 59.68”N 090° 09’ 24.15”W.~~

~~The charted platform in 29° 03’ 56.64”N 090° 09’ 05.89”W was not found during this survey. A large obstruction was found in 29° 03’ 56.21”N 090° 09’ 07.00”W with a least depth of 18 feet (5.62 meters, 0.30 meters uncertainty, feature 367) in 40 feet of water. There were several warning buoys around this location warning boats to stay clear as well as a large amount of bubble activity on the surface. The identified obstruction appears to be a collapsed platform. Recommend removing the charted platform symbol in 29° 03’ 56.64”N 090° 09’ 05.89”W and charting an 18-foot sounding, danger circle with blue tint (K-41), and label Obstn in 29° 03’ 56.21”N 090° 09’ 07.00”W.~~

~~The charted platform in 29° 03’ 52.98”N 090° 09’ 53.53”W was found within the platform symbol in 29° 03’ 53.25”N 090° 09’ 54.11”W (feature 476). Recommend charting the platform symbol centered in 29° 03’ 53.25”N 090° 09’ 54.11”W.~~

~~The charted platform in 29° 03’ 51.96”N 090° 09’ 37.36”W labeled Platform was found in its charted position (feature 484). No changes to the charted platform in 29° 03’ 51.96”N 090° 09’ 37.36”W are recommended.~~

~~The charted platform in 29° 03’ 44.97”N 090° 09’ 36.25”W was found within the platform symbol in 29° 03’ 43.49”N 090° 09’ 37.13”W (feature 457). Recommend charting the platform symbol centered in 29° 03’ 43.49”N 090° 09’ 37.13”W.~~

~~The charted platform in 29° 03’ 38.34”N 090° 09’ 36.95”W was found within the platform symbol in 29° 03’ 40.03”N 090° 09’ 38.45”W (feature 466). Recommend charting the platform symbol centered in 29° 03’ 40.03”N 090° 09’ 38.45”W.~~

~~The charted platform in 29° 03’ 27.97”N 090° 09’ 30.87”W was found within the platform symbol in 29° 03’ 26.18”N 090° 09’ 30.50”W (feature 481). Recommend charting the platform symbol centered in 29° 03’ 26.18”N 090° 09’ 30.50”W.~~

The charted pipeline ranging from 29° 04’ 38.76”N 090° 10’ 23.11”W to 29° 03’ 37.10”N 090° 09’ 02.74”W was not clearly identified during this survey. No changes to the chart are recommended as a result of this survey. ***Concur***

Multiple pipelines charted from approximately 29° 03’ 15.20”N 090° 09’ 57.71”W to 29° 04’ 38.64”N 090° 10’ 23.02”W could only be identified in sections and not for every instance. No changes to the chart are recommended as a result of this survey. ***Concur***

~~The charted platform in 29° 03’ 09.36”N 090° 10’ 12.63”W was found within the platform symbol in 29° 03’ 10.68”N 090° 10’ 12.58”W (feature 478). A mound to the northwest was also identified closely related to the platform in 29° 03’ 11.72”N 090° 10’ 14.06”W with a least depth from singlebeam of 39 feet (11.95 meters, 0.30 meters uncertainty, feature 193) in 42 feet of water. This mound is considered non significant and will be covered by the platform symbol. Recommend charting the platform symbol centered in 29° 03’ 10.68”N 090° 10’ 12.58”W~~.

~~The charted platforms in 29° 03’ 07.05”N 090° 10’ 22.77”W and 29° 03’ 06.07”N 090° 10’ 21.30”W were found in their charted positions as features 479 and 480. No changes to the charted platforms in 29° 03’ 07.05”N 090° 10’ 22.77”W and 29° 03’ 06.07”N 090° 10’ 21.30”W are recommended.~~

~~The charted platform in 29° 03’ 15.99”N 090° 10’ 28.24”W was found within the platform symbol in 29° 03’ 14.89”N 090° 10’ 27.54”W (feature 474). Recommend charting the platform symbol centered in 29° 03’ 14.89”N 090° 10’ 27.54”W.~~

~~The charted platform in 29° 03’ 17.29”N 090° 10’ 13.85”W was found within the platform symbol in 29° 03’ 17.46”N 090° 10’ 14.12”W (feature 494). Recommend charting the platform symbol centered in 29° 03’ 17.46”N 090° 10’ 14.12”W.~~

~~The charted platform in 29° 04’ 27.83”N 090° 10’ 49.26”W was found in its charted position (feature 450). A mound to the northwest was also identified closely related to the platform in 29° 04’ 28.39”N 090° 10’ 49.63”W with a least depth from singlebeam of 30 feet (9.15 meters, 0.30 meters uncertainty, feature 55) in 34 feet of water. This mound is considered non significant and will be covered by the platform symbol. No changes to the charted platform in 29° 04’ 27.83”N 090° 10’ 49.26”W are recommended.~~

~~The charted platform in 29° 03’ 28.22”N 090° 11’ 41.42”W was not found in its charted position during this survey. Recommend removing the charted platform in 29° 03’ 28.22”N 090° 11’ 41.42”W.~~

~~The charted platform in 29° 04’ 01.10”N 090° 11’ 40.33”W was not found in its charted position during this survey. Recommend removing the charted platform in 29° 04’ 01.10”N 090° 11’ 40.33”W.~~

~~The charted platform in 29° 04’ 20.19”N 090° 11’ 20.82”W and labeled Platforms was found within the platform symbol in 29° 04’ 19.55”N 090° 11’ 21.64”W (feature 448). Recommend charting the platform symbol centered in 29° 04’ 19.55”N 090° 11’ 21.64”W and changing the label from Platforms to Platform.~~

~~The charted platform in 29° 04’ 22.11”N 090° 11’ 39.70”W and labeled Platforms was not found in its charted position during this survey. Recommend removing the charted platform in 29° 04’ 22.11”N 090° 11’ 39.70”W.~~

~~The charted platform in 29° 04’ 43.90”N 090° 11’ 08.90”W and labeled Platforms was not found in its charted position during this survey. Recommend removing the charted platform in 29° 04’ 43.90”N 090° 11’ 08.90”W.~~

~~The charted platforms in 29° 05’ 13.52”N 090° 11’ 47.16”W and 29° 05’ 09.63”N 090° 11’ 46.62”W and labeled Platforms were not found in their charted positions during this survey. Two obstructions were found covered by these platform symbols in 29° 05’ 12.20”N 090° 11’ 45.56”W with a least depth from multibeam of 20 feet (6.32 meters, 0.30 meters uncertainty, feature 325) in 24 feet of water. Recommend removing the charted platform symbols and label Platforms in 29° 05’ 13.52”N 090° 11’ 47.16”W and 29° 05’ 09.63”N 090° 11’ 46.62”W and charting a 21-foot sounding, danger circle with blue tint, and label Obstn in 29° 05’ 12.20”N 090° 11’ 45.56”W.~~

The multiple charted pipelines in 29° 02’ 38.21”N 090° 11’ 24.55”W extended north across the survey area in 29° 05’ 52.60”N 090° 11’ 43.68”W were found to be present during this survey. Numerous pipelines and burial scars were seen during this survey along the charted pipelines. No changes to the chart for the charted pipelines in 29° 02’ 38.21”N 090° 11’ 24.55”W to 29° 05’ 52.60”N 090° 11’ 43.68”W are recommended based on this survey. ***Concur***

The short section of pipeline charted in 29° 02’ 33.70”N 090° 11’ 35.49”W to 29° 02’ 46.28”N 090° 11’ 59.10”W was found to be present within 10-20 meters of the charted position. No changes to the charted pipeline in 29° 02’ 33.70”N 090° 11’ 35.49”W to 29° 02’ 46.28”N 090° 11’ 59.10”W are recommended based on the results of this survey. ***Concur***

Table D-1 lists additional objects found in this survey that are recommended for addition to Chart 11358.

Table D-1. Additional Features from H11785 for Inclusion on Chart 11358

Feature Number	Feature Position (NAD83)		Depth (Feet)	Depth (Meters)	Description
	Latitude (N)	Longitude (W)			
~~101~~	~~29° 05' 53.31"~~	~~090° 11' 16.36"~~	~~14.86~~	~~4.53~~	~~OBSTN~~
~~231~~	~~29° 04' 08.63"~~	~~090° 10' 19.77"~~	~~31.56~~	~~9.62~~	~~MOUND~~
~~295~~	~~29° 04' 18.56"~~	~~090° 11' 08.62"~~	~~27.89~~	~~8.50~~	~~OBSTN~~

Feature Number	Feature Position (NAD83)		Depth (Feet)	Depth (Meters)	Description
	Latitude (N)	Longitude (W)			
~~298~~	~~29° 05' 9.84"~~	~~090° 09' 55.01"~~	~~30.22~~	~~9.21~~	~~OBSTN~~
~~320~~	~~29° 04' 22.63"~~	~~090° 11' 24.32"~~	~~30.64~~	~~9.34~~	~~OBSTN~~
~~321~~	~~29° 04' 25.57"~~	~~090° 11' 23.40"~~	~~31.86~~	~~9.71~~	~~OBSTN~~
~~322~~	~~29° 04' 25.62"~~	~~090° 11' 18.90"~~	~~29.53~~	~~9.00~~	~~OBSTN~~
~~323~~	~~29° 04' 26.33"~~	~~090° 11' 16.47"~~	~~30.28~~	~~9.23~~	~~OBSTN~~
~~324~~	~~29° 04' 24.12"~~	~~090° 11' 05.83"~~	~~29.00~~	~~8.84~~	~~OBSTN~~
~~363~~	~~29° 04' 04.89"~~	~~090° 10' 22.68"~~	~~34.51~~	~~10.52~~	~~OBSTN~~
~~364~~	~~29° 04' 10.14"~~	~~090° 10' 08.93"~~	~~33.56~~	~~10.23~~	~~OBSTN~~
~~368~~	~~29° 05' 41.71"~~	~~090° 09' 49.71"~~	~~26.51~~	~~8.08~~	~~OBSTN~~
~~379~~	~~29° 06' 02.28"~~	~~090° 10' 59.29"~~	~~14.27~~	~~4.35~~	~~OBSTN~~
~~380~~	~~29° 05' 28.27"~~	~~090° 11' 10.94"~~	~~21.88~~	~~6.67~~	~~OBSTN~~
468	29° 03' 26.48"	090° 10' 06.13"	N/A	N/A	PLATFORM*
~~473~~	~~29° 03' 25.88"~~	~~090° 10' 00.83"~~	~~N/A~~	~~N/A~~	~~PLATFORM~~
489	29° 04' 06.35"	090° 09' 46.90"	N/A	N/A	PLATFORM*

#468 – Add platform.
#489 – Add platform.

Chart 11346_1, 1/20,000 scale, 2nd Edition 04/01/2009 corrected by NTM through 10/03/2009

The depths observed during this survey ranged from one foot to four feet deeper than the charted depths. ***Concur***

The charted 23-foot sounding in 29° 04’ 17.14”N 090° 14’ 13.64”W was found to have depth of 25 feet. ***Concur***

The charted 27-foot sounding in 29° 04’ 13.63”N 090° 13’ 49.28”W was found to have depth of 29 feet. ***Concur***

The charted 16-foot sounding in 29° 04’ 37.76”N 090° 14’ 07.03”W was found to have depth of 20 feet. ***Concur***

The charted 26-foot sounding in 29° 04’ 54.48”N 090° 11’ 30.83”W was found to have depth of 28 feet. ***Concur***

The charted 33-foot sounding in 29° 04’ 15.15”N 090° 11’ 07.67”W was found to have depth of 34 feet. ***Concur***

The charted 25-foot sounding in 29° 05’ 19.48”N 090° 11’ 01.30”W was found to have depth of 27 feet. ***Concur***

The charted 12-foot depth curve west of Belle Pass Reach extending from 29° 04’ 53.39”N 090° 13’ 45.66”W to 29° 04’ 51.79”N 090° 14’ 08.25”W was found to have depths of approximately 13 feet. The 12-foot depth curve based on this survey ranged from approximately 15 meters to 40 meters inshore of the charted 12-foot depth curve. Recommend updating the 12-foot depth curve based on the data collected during this survey. ***Concur***

The charted 18-foot depth curve east of Belle Pass Reach extending from 29° 04’ 44.58”N 090° 13’ 32.24”W to 29° 05’ 29.45”N 090° 10’ 39.14”W was found to have depths ranging from 23 to 27 feet. The 18-foot depth curve based on this survey ranged from approximately 250 meters to 800 meters inshore of the charted 18-foot depth curve. Recommend updating the 18-foot depth curve based on the data collected during this survey. ***Concur***

The charted 18-foot depth curve west of Belle Pass Reach extending from 29° 04’ 47.15”N 090° 13’ 43.87”W to 29° 04’ 17.07”N 090° 14’ 39.88”W was found to have depths ranging from 21 to 24 feet. The 18-foot depth curve based on this survey ranged from approximately 75 meters to 600 meters inshore of the charted 18-foot depth curve. Recommend updating the 18-foot depth curve based on the data collected during this survey. ***Concur***

The charted 30-foot depth curve extending from 29° 04’ 11.19”N 090° 11’ 49.65”W to 29° 04’ 42.37”N 090° 10’ 58.63”W was found to have depths ranging from 31 to 32 feet. The 30-foot depth curve based on this survey ranged from approximately 150 meters to 350 meters inshore of the charted 30-foot depth curve. Recommend updating the 30-foot depth curve based on the data collected during this survey. ***Concur***

The charted breakwater extending from 29° 06’ 24.07”N 090° 10’ 41.86”W to 29° 05’ 53.36”N 090° 11’ 36.75”W and labeled Breakwater was found in its charted position. No changes for the charted breakwater are recommended. ***Concur***

The charted pipe in 29° 06’ 19.11”N 090° 10’ 42.70”W labeled Pipe PA was not found during this survey. Recommend removing the charted pipe symbol and label Pipe PA in 29° 06’ 19.11”N 090° 10’ 42.70”W. ***Concur – Delete charted pipe, PA.***

The charted pipeline extending across the survey area from 29° 05’ 51.04”N 090° 10’ 39.12”W to 29° 06’ 01.73”N 090° 11’ 08.94”W was not seen within these data, however a pipeline was identified which lines up with the charted pipeline covered by chart 11358. No changes to the charted pipeline from 29° 05’ 51.04”N 090° 10’ 39.12”W to 29° 06’ 01.73”N 090° 11’ 08.94”W are recommended. ***Concur***

The charted "Unsurveyed" labels located in 29° 05' 02.91"N 090° 12' 46.43"W, 29° 04' 41.13"N 090° 10' 48.88"W and 29° 05' 41.03"N 090° 12' 42.85"W have now been covered with singlebeam bathymetry. Recommend removing the Unsurveyed labels in 29° 05' 02.91"N 090° 12' 46.43"W, 29° 04' 41.13"N 090° 10' 48.88"W and 29° 05' 41.03"N 090° 12' 42.85"W and update chart with bathymetry from this survey. ***Concur***

The charted "Unsurveyed" label located in 29° 04' 48.12"N 090° 14' 24.87"W has now been covered with singlebeam bathymetry. Recommend removing the Unsurveyed label in 29° 04' 48.12"N 090° 14' 24.87"W and update chart with bathymetry from this survey. ***Concur***

The charted platform in 29° 04' 28.05"N 090° 10' 48.98"W and labeled Platform was found within the platform symbol in 29° 04' 27.82"N 090° 10' 49.41"W (feature 450). A mound next to the platform with a least depth of 30 feet (9.15 meters, 0.30 meters uncertainty, feature 55) in 35 feet was found next to the charted platform. This feature is considered non significant. ***Concur*** Recommend charting the platform symbol centered in 29° 04' 27.82"N 090° 10' 49.41"W and relocating the label Platform as appropriate. ***Concur with clarification – Delete charted platform. Add platform.***

The charted platform in 29° 04' 20.22"N 090° 11' 20.98"W and labeled Platform was found 27 meters southwest of the platform symbol in 29° 04' 19.55"N 090° 11' 21.64"W (feature 448). Recommend charting the platform symbol centered in 29° 04' 19.55"N 090° 11' 21.64"W. ***Concur with clarification – Delete charted Obstn (submerged platform). Add platform.***

The charted platform in 29° 04' 44.36"N 090° 11' 09.05"W and labeled Platform was not found during this survey. Recommend removing the charted platform symbol and label Platform in 29° 04' 44.36"N 090° 11' 09.05"W. ***Concur with clarification – Delete charted Obstn (submerged platform).***

The charted platforms in 29° 05' 13.82"N 090° 11' 47.51"W and 29° 05' 10.52"N 090° 11' 47.03"W and labeled Platforms were not found in their charted positions during this survey. Two obstructions were found near these platforms in 29° 05' 12.20"N 090° 11' 45.56"W with a least depth from multibeam of 20 feet (6.32 meters, 0.30 meters uncertainty, feature 325) in 24 feet of water. Recommend removing the charted platform symbols and label Platforms in 29° 05' 13.52"N 090° 11' 47.16"W and 29° 05' 09.63"N 090° 11' 46.62"W and charting a 2~~1~~***0***-foot sounding, danger circle with blue tint, and label Obstn in 29° 05' 12.20"N 090° 11' 45.56"W. ***Concur with clarification – Delete charted Obstns (submerged platforms). Add 20 ft Obstn and danger curve.***

No breakers were observed during this survey in the area of the charted label Breakers in 29° 05' 07.00"N 090° 12' 16.33"W. Recommend removing the label Breakers in 29° 05' 07.00"N 090° 12' 16.33"W. ***Concur***

The charted platform in 29° 04’ 22.53”N 090° 11’ 39.95”W and labeled Platform was not found during this survey. Recommend removing the charted platform symbol and label Platform in 29° 04’ 22.53”N 090° 11’ 39.95”W. ***Concur with clarification – Delete charted Obstn (submerged platform).***

The charted well in 29° 04’ 44.05”N 090° 12’ 35.27”W and labeled Well was not found during this survey. Recommend removing the charted well symbol and label Well in 29° 04’ ~~22.53~~***44.05***”N 090° ~~11’ 39.95~~***12’35.27***”W. ***Concur with clarification – Delete charted Well.***

The charted dangerous wreck labeled PA in 29° 04’ 55.04”N 090° 12’ 36.26”W was not found during this survey. Recommend removing the charted dangerous wreck symbol, danger circle and label PA in 29° 04’ 55.04”N 090° 12’ 36.26”W. ***Concur – Delete charted wreck, PA.***

The charted dangerous obstruction in 29° 05’ 01.07”N 090° 13’ 00.23”W and labeled Obstn PA was not found during this survey. Recommend removing the danger circle and label Obstn PA in 29° 05’ 01.07”N 090° 13’ 00.23”W. ***Concur – Delete charted Obstn, PA.***

The charted dangerous wreck in 29° 05’ 01.00”N 090° 13’ 18.17”W and labeled PD was not found during this survey. Recommend removing the charted dangerous wreck symbol, danger circle and label PD in 29° 05’ 01.00”N 090° 13’ 18.17”W. ***Concur – Delete charted wreck, PD.***

The charted jetties on either side of Belle Pass Reach entering Port Fourchon in 29° 04’ 45.87”N 090° 13’ 32.03”W and 29° 04’ 47.78”N 090° 13’ 45.27”W were found to be as charted. No changes to the chart for the jetties are recommended as a result of this survey. ***Concur***

The charted dangerous wreck in 29° 04’ 24.19”N 090° 13’ 29.94”W and labeled PA was not found during this survey. Recommend removing the charted dangerous wreck symbol, danger circle and label PA in 29° 04’ 24.19”N 090° 13’ 29.94”W. ***Concur – Delete charted wreck, PA.***

The charted dangerous wreck in 29° 04’ 17.19”N 090° 13’ 46.96”W and labeled PA was not found during this survey in its charted position. A wreck was found approximately 320 meters north northwest of the charted dangerous wreck in 29° 04’ 27.62”N 090° 13’ 47.79”W with a least depth of 24 feet (7.50 meters, 0.30 meters uncertainty, feature 392). Recommend removing the charted dangerous wreck symbol, danger circle and label PA in 29° 04’ 24.19”N 090° 13’ 29.94”W and charting a 24-foot sounding with danger circle (K-26) and label Wk in 29° 04’ 27.62”N 090° 13’ 47.79”W. ***Concur with clarification – Item determined to be an obstruction during office processing. Delete charted wreck, PA. Add 24 ft Obstn and danger curve.***

The charted navigational aid in 29° 04’ 15.98”N 090° 13’ 40.31”W and labeled R”2” QR BELL was found in its charted position (feature 434). This agrees with the 2009 United States Coast Guard Volume 4 Light List. No changes to the chart are recommended as a result of this survey. ***Concur***

The charted navigational aid in 29° 04’ 18.05”N 090° 13’ 53.03”W and labeled G”1” QG was not found in its charted position. The navigational aid was found approximately 90 meters southwest of its charted position in 29° 04’ 16.13”N 090° 13’ 55.27”W (feature 435). Recommend removing the charted navigational aid in 29° 04’ 18.05”N 090° 13’ 53.03”W and charting the navigational aid in 29° 04’ 16.13”N 090° 13’ 55.27”W. ***Concur with clarification – Defer to MCD Update Services Branch for charting recommendation.***

The charted navigational aid in 29° 04’ 44.03”N 090° 13’ 32.09”W and labeled Fl R 2.5s 17ft 5M “4” Ra Ref was found near in its charted position (feature 437) however only the pile was present with no navigational aid features remaining. A submerged pile was also located (feature 502) approximately 10 meters south of the charted navigational aid symbol. This submerged pile was not covered with bathymetry due to safety concerns. A red buoy was present during this survey in 29° 04’ 42.30”N 090° 13’ 33.23”W (feature 436). Recommend removing the charted navigational aid in 29° 04’ 44.03”N 090° 13’ 32.09”W and label Fl R 2.5s 17ft 5M “4” Ra Ref and charting a pile symbol and label Pile in 29° 04’ 44.03”N 090° 13’ 32.09”W (feature 437). Recommend charting a pile symbol and label Subm Pile in 29° 04’ 43.34”N 090° 13’ 32.72”W (feature 502). Recommend charting a red buoy symbol in 29° 04’ 42.30”N 090° 13’ 33.23”W and labeling R”4”. ***Concur with clarification – Defer to MCD Update Services Branch for charting recommendation of navigational aids. Add Obstn (Subm pile).***

The charted navigational aid in 29° 04’ 45.72”N 090° 13’ 46.04”W and labeled Fl G 2.5s 17ft 5M “3” Ra Ref was found in its charted position (feature 438) however only the pile was present with no navigational aid features remaining. A green buoy was present during this survey in 29° 04’ 45.03”N 090° 13’ 45.94”W (feature 439). Recommend removing the charted navigational aid in 29° 04’ 45.72”N 090° 13’ 46.04”W and label Fl G 2.5s 17ft 5M “3” Ra Ref and charting an pile symbol and label Pile in 29° 04’ 45.72”N 090° 13’ 46.04”W (feature 438). Recommend charting a green buoy symbol in 29° 04’ 45.03”N 090° 13’ 45.94”W and labeling G”3”. ***Concur with clarification - Defer to MCD Update Services Branch for charting recommendation of navigational aids.***

The charted dangerous obstruction in 29° 04’ 48.11”N 090° 13’ 34.93”W labeled Obstn PA was not found in its charted position. There were several obstructions found during this survey just south of the charted dangerous obstruction (features 282, 283 and 284). Feature 282 is the only obstruction shoaler than the charted 22-foot sounding in 29° 04’ 46.66”N 090° 13’ 35.42”W with a least depth of 20 feet (6.32 meters, 0.30 meters uncertainty) in 29° 04’ 47.25”N 090° 13’ 35.32”W. Recommend removing the charted dangerous obstruction in 29° 04’ 48.11”N 090° 13’ 34.93”W and label Obstn PA and 22-foot sounding in 29° 04’ 46.66”N 090° 13’ 35.42”W, charting a 20-foot sounding with

danger circle (K-41) and label Obstns in 29° 04’ 47.25”N 090° 13’ 35.32”W, and chart a 23-foot sounding and danger circle (K-41) in 29° 04’ 45.96”N 090° 13’ 35.89”W (7.13 meters, 0.30 meters uncertainty, feature 283). ***Concur with clarification – All obstructions were determined to be insignificant during office processing. Do not chart. Delete charted Obstn, PA. Chart present survey depths.***

The charted dangerous obstructions in 29° 04’ 54.22”N 090° 13’ 34.15”W, 29° 04’ 56.79”N 090° 13’ 30.32”W and 29° 04’ 58.18”N 090° 13’ 33.55”W and labeled Obstns PA had multiple rocks in the general area (features 285, 286, 287, 288, 289, 290, 291, 292, and 293). Recommend removing the charted dangerous obstructions in 29° 04’ 54.22”N 090° 13’ 34.15”W, 29° 04’ 56.79”N 090° 13’ 30.32”W and 29° 04’ 58.18”N 090° 13’ 33.55”W and label Obstns PA and charting a 14-foot sounding (4.37 meters, 0.30 meters uncertainty, feature 290) and danger circle with blue tint (K-41) in 29° 04’ 56.79”N 090° 13’ 33.61”W, a 13-foot sounding (3.90 meters, 0.30 meters uncertainty, feature 291), and danger circle with blue tint (K-41) in 29° 04’ 59.84”N 090° 13’ 32.91”W and a 13-foot sounding (4.16 meters, 0.29 meters uncertainty, feature 292) and danger circle with blue tint (K-41) in 29° 04’ 51.93”N 090° 13’ 32.48”W and label Rks. ***Concur with clarification – Delete all three Obstns, PA. Do not chart rocks. Chart shoaler survey soundings in common area.***

The charted private aid in 29° 05’ 00.13”N 090° 13’ 30.98”W with label W Or Priv PA was not found during this survey. Recommend removing the private aid in 29° 05’ 00.13”N 090° 13’ 30.98”W and label W Or Priv PA. ***Concur with clarification – Private aid not shown on chart 11346, Ed. #2, Apr./09. No charting action required.***

The charted navigational aid in 29° 05’ 04.03”N 090° 13’ 31.21”W and labeled Fl R 4s 17ft 3M “6” Ra Ref was not found in its charted position. Recommend removing the charted navigational aid in 29° 05’ 04.03”N 090° 13’ 31.21”W and label Fl R 4s 17ft 3M “6” Ra Ref. ***Concur with clarification - Defer to MCD Update Services Branch for charting recommendation of navigational aid.***

The charted label Disposal Area Depths from Survey of 2003 in 29° 04’ 28.67”N 090° 14’ 02.69”W should be updated to state Disposal Area Depths from Survey of 2009. ***Concur***

The charted 11-foot sounding with a danger circle and label Obstn (rep 2009) in 29° 04’ 44.70”N 090° 14’ 02.37”W was reported in Danger to Navigation Report #3. After final processing of data, a minimum depth of 11 feet (3.46 meters, 0.29 meters uncertainty, feature 391) was confirmed. Recommend leaving the charted 11-foot sounding and danger circle in 29° 04’ 44.70”N 090° 14’ 02.37”W and changing label from Obstn (rep 2009) to Obstn. ***Concur – See Appendix I for final charting recommendation.***

The charted dangerous wreck in 29° 05’ 06.12”N 090° 14’ 35.94”W with the label PA was not found during this survey in its charted position. A wreck with a least depth of 5 feet (1.69 meters, 0.29 meters uncertainty, feature 279) was found approximately 135 meters northwest of the charted dangerous wreck in 29° 05’ 10.25”N 090° 14’ 37.89”W.

Recommend removing the wreck symbol, danger circle and label PA in 29° 05’ 06.12”N 090° 14’ 35.94”W and charting a 5-foot sounding, danger circle (K-26) in 29° 05’ 10.25”N 090° 14’ 37.89”W and label Wk. ***Concur with clarification – Delete charted dangerous wreck, PA. Add 5 ft Wk and danger curve.***

The charted platform in 29° 04’ 57.03”N 090° 14’ 37.20”W and labeled Platform was not found during this survey. Recommend removing the charted platform in 29° 04’ 57.03”N 090° 14’ 37.20”W and label Platform. ***Concur with clarification – Delete charted Obstn (submerged platform).***

The charted platform in 29° 04’ 53.70”N 090° 14’ 24.08”W was found within the charted platform symbol in 29° 04’ 53.46”N 090° 14’ 24.09”W (feature 475). Recommend charting the platform symbol centered in 29° 04’ 53.46”N 090° 14’ 24.09”W. ***Concur with clarification – Delete charted platform. Add platform.***

The charted dangerous obstruction in 29° 04’ 55.04”N 090° 14’ 12.22”W and labeled Obstn PA was not found during this survey. Recommend removing the danger circle in 29° 04’ 55.04”N 090° 14’ 12.22”W and label Obstn PA. ***Concur – Delete charted Obstn, PA.***

The charted platforms in 29° 04’ 42.96”N 090° 14’ 16.24”W and ***Obstn (submerged platform) in*** 29° 04’ 41.16”N 090° 14’ 15.88”W and labeled Platforms were not found during this survey. The charted platform in 29° 04’ 42.66”N 090° 14’ 17.49”W was found within the charted platform symbol in 29° 04’ 42.42”N 090° 14’ 17.53”W (feature 483). Recommend removing the charted platforms in 29° 04’ 42.96”N 090° 14’ 16.24”W and ***Obstn (submerged platform) in*** 29° 04’ 41.16”N 090° 14’ 15.88”W, centering the charted platform in 29° 04’ 42.42”N 090° 14’ 17.53”W and changing the label from Platforms to Platform. ***Concur with clarification – Delete charted platforms and Obstn (submerged platform). Add platform.***

The charted platform in 29° 04’ 33.05”N 090° 14’ 21.23”W was found in 29° 04’ 32.78”N 090° 14’ 21.85”W (feature 462). Recommend removing the charted platform symbol in 29° 04’ 33.05”N 090° 14’ 21.23”W and charting a platform symbol in 29° 04’ 32.78”N 090° 14’ 21.85”W. ***Concur with clarification – Delete charted Obstn (submerged platform). Add platform.***

The charted pipelines extending from 29° 04’ 43.97”N 090° 14’ 39.94”W to 29° 05’ 31.64”N 090° 14’ 22.47”W and 29° 05’ 22.80”N 090° 13’ 58.68”W to 29° 04’ 43.49”N 090° 14’ 16.53”W were not found during this survey. No changes to the chart are recommended as a result of this survey. ***Concur***

The charted pipe line extending from 29° 04’ 11.10”N 090° 14’ 33.45”W to 29° 05’ 14.68”N 090° 13’ 46.92”W was found across a portion of its charted location from 29° 04’ 11.18”N 090° 14’ 32.75”W to 29° 04’ 36.09”N 090° 14’ 14.89”W. No changes to the chart are recommended as a result of this survey. ***Concur***

The multiple charted pipelines in 29° 04’ 11.77”N 090° 11’ 34.88”W extended north across the survey area in 29° 05’ 52.60”N 090° 11’ 43.68”W were found to be present during this survey. Numerous pipelines and burial scars were seen during this survey along the charted pipelines. No changes to the chart for the charted pipelines in 29° 04’ 11.77”N 090° 11’ 34.88”W to 29° 05’ 52.60”N 090° 11’ 43.68”W are recommended based on this survey. ***Concur***

Table D-2 lists additional objects found in this survey that are recommended for addition to Chart 11346_1.

#295 – Add 28 ft Obstn and danger curve.
#324 – Add 29 ft Obstn and danger curve.
#326 – Add 19 ft Obstn and danger curve.
#329 – Add 5 ft Obstn and danger curve.

***** Items determined insignificant during office processing. Chart present survey depths if adequate spacing at chart scale.***

Table D-2. Additional Features from H11785 for Inclusion on Chart 11346_1

Feature Number	Feature Position (NAD83)		Depth (Feet)	Depth (Meters)	Description
	Latitude (N)	Longitude (W)			
101**	29° 05' 53.31"	090° 11' 16.36"	14.86	4.53	Obstruction
134**	29° 04' 57.69"	090° 13' 40.92"	20.57	6.27	Rock
135**	29° 05' 00.08"	090° 13' 41.05"	17.81	5.43	Rock
136**	29° 04' 46.81"	090° 13' 33.21"	22.80	6.95	Rock
278**	29° 05' 09.69"	090° 14' 36.96"	6.50	1.98	Obstructions
280**	29° 05' 16.57"	090° 14' 09.94"	4.49	1.37	Obstruction
281**	29° 04' 32.52"	090° 14' 00.79"	20.51	6.25	Obstruction
294**	29° 04' 55.39"	090° 13' 38.77"	25.03	7.63	Obstruction
295	29° 04' 18.56"	090° 11' 08.62"	27.89	8.50	Obstruction*
320**	29° 04' 22.63"	090° 11' 24.32"	30.64	9.34	Obstruction
321**	29° 04' 25.57"	090° 11' 23.40"	31.86	9.71	Obstruction
322**	29° 04' 25.62"	090° 11' 18.90"	29.53	9.00	Obstruction
323**	29° 04' 26.33"	090° 11' 16.47"	30.28	9.23	Obstruction
324	29° 04' 24.12"	090° 11' 05.83"	29.00	8.84	Obstruction*
326	29° 04' 53.11"	090° 12' 16.15"	19.62	5.98	Obstruction*
327**	29° 04' 32.35"	090° 14' 15.23"	21.00	6.40	Obstruction
329	29° 05' 14.33"	090° 14' 30.22"	4.86	1.48	Obstruction*
330**	29° 05' 13.84"	090° 14' 39.70"	5.09	1.55	Obstruction

Feature Number	Feature Position (NAD83)		Depth (Feet)	Depth (Meters)	Description
	Latitude (N)	Longitude (W)			
379**	29° 06' 02.28"	090° 10' 59.29"	14.27	4.35	Obstruction
380**	29° 05' 28.27"	090° 11' 10.94"	21.88	6.67	Obstruction
383**	29° 04' 46.33"	090° 13' 33.32"	21.95	6.69	Obstruction
384**	29° 04' 42.71"	090° 13' 35.56"	24.31	7.41	Obstruction
385**	29° 04' 47.18"	090° 13' 44.49"	21.56	6.57	Rock
386**	29° 04’ 41.25’’	090° 13’ 44.74’’	21.88	6.67	Rock
387**	29° 05' 5.85"	090° 13' 39.84"	10.83	3.30	Rock
388**	29° 05' 11.00"	090° 13' 38.45"	9.78	2.98	Rock
389**	29° 05' 11.71"	090° 13' 38.31"	9.45	2.88	Obstruction
390**	29° 05' 09.64"	090° 13' 31.33"	15.85	4.83	Obstruction
499	29° 05' 03.96"	090° 13' 31.22"	N/A	N/A	Buoy***

***** Items determined insignificant during office processing. Chart present survey depths if adequate spacing at chart scale.***
******Concur with clarification - Defer to MCD Update Services Branch for charting recommendation of navigational aid.***

Chart 11346_2, 1/40,000 scale, 2nd Edition 04/01/2009 corrected by NTM through 10/03/2009

The depths observed during this survey ranged from one foot to 16 feet deeper than the charted depths. The difference between charted depths and surveyed trended toward increasing as these data approached the shore with an emphasis on areas inshore of the charted 18-foot depth curve.

The charted 37-foot sounding in 29° 01’ 29.40”N 090° 17’ 21.19”W was found to have depth of 38 feet. ***Concur***

The charted 20-foot sounding in 29° 02’ 53.04”N 090° 17’ 04.97”W was found to have depth of 30 feet. ***Concur***

The charted 29-foot sounding in 29° 03’ 15.34”N 090° 15’ 32.15”W was found to have depth of 31 feet. ***Concur***

The charted 36-foot sounding in 29° 02’ 22.09”N 090° 14’ 14.19”W was found to have depth of 38 feet. ***Concur***

The charted 38-foot sounding in 29° 03’ 14.86”N 090° 10’ 57.42”W was found to have depth of 39 feet. ***Concur***

The charted 14-foot sounding in 29° 05’ 32.93”N 090° 10’ 24.38”W was found to have depth of 27 feet. ***Concur***

The charted 9-foot sounding in 29° 05’ 43.43”N 090° 10’ 29.76”W was found to have depth of 25 feet. ***Concur***

The charted 24-foot sounding in 29° 04’ 56.12”N 090° 12’ 01.98”W was found to have depth of 25 feet. ***Concur***

The charted 26-foot sounding in 29° 04’ 21.12”N 090° 13’ 19.91”W was found to have depth of 27 feet. ***Concur***

The charted 11-foot sounding in 29° 04’ 55.17”N 090° 14’ 05.56”W was found to have depth of 12 feet. ***Concur***

The charted 5-foot sounding in 29° 04’ 22.62”N 090° 16’ 13.66”W was found to have depth of 18 feet. ***Concur***

The charted 4-foot sounding in 29° 04’ 06.24”N 090° 17’ 16.56”W was found to have depth of 19 feet. ***Concur***

The charted 10-foot sounding in 29° 03’ 39.87”N 090° 17’ 04.02”W was found to have depth of 24 feet. ***Concur***

The charted 6-foot depth curve extending from 29° 03’ 45.41”N 090° 17’ 59.72”W to 29° 04’ 31.30”N 090° 15’ 42.60”W was found to have depths ranging from of approximately 15 feet to 21 feet. The charted 6-foot depth curve extending from 29° 05’ 38.54”N 090° 10’ 47.47”W to 29° 06’ 09.49”N 090° 09’ 57.87”W was found to have depths ranging from of approximately 23 feet to 26 feet. Except for a few discrete areas the 6-foot depth curve was not identified during this survey. Recommend removing the 6-foot depth curve within the current survey area. Recommend updating the 6-foot depth curve in areas where survey data covers 6 feet. ***Concur***

The charted 12-foot depth curve extending from 29° 03’ 14.44”N 090° 17’ 59.70”W to 29° 03’ 55.90”N 090° 15’ 42.69”W was found to have depths ranging from approximately 24 feet to 27 feet. The charted 12-foot depth curve extending from 29° 05’ 28.75”N 090° 10’ 47.53”W to 29° 05’ 56.82”N 090° 09’ 50.41”W was found to have depths ranging from approximately 25 feet to 27 feet. The 12-foot depth curve based on this surveys data were approximately 1200 meters to 1800 meters inshore of the charted 12-foot depth curve. Along the shoreline of East Timbalier Island the 12-foot depth curve was not fully covered due to the rock breakwater along the shoreline. Recommend updating the 12-foot depth curve in areas where survey data covers 12 feet. ***Concur***

The charted 18-foot depth curve extending from 29° 02’ 45.14”N 090° 17’ 59.68”W to 29° 03’ 35.21”N 090° 15’ 42.75”W was found to have depths ranging from 28 to 31 feet. The charted 18-foot depth curve extending from 29° 05’ 08.22”N 090° 10’ 47.74”W to

29° 05’ 43.89”N 090° 09’ 41.50”W was also found to have depths ranging from 28 to 31 feet. The 18-foot depth curve based on this surveys data were approximately 1500 to 2000 meters inshore of the charted 18-foot depth curve. The charted 18-foot depth curve from 29° 04’ 02.62”N 090° 15’ 42.67”W to 29° 05’ 28.13”N 090° 10’ 47.67”W is charted as a color change only without a depth curve line charted except at the entrance of Bell Pass. Recommend updating the 18-foot depth curve based on the data collected during this survey. ***Concur***

The charted 30-foot depth curve extending from 29° 01’ 30.94”N 090° 17’ 58.98”W to 29° 04’ 33.68”N 090° 09’ 00.52”W was found to have depths ranging from 31 to 38 feet. The 30-foot depth curve based on this survey’s data ranged from approximately 300 meters to 2300 meters inshore of the charted 30-foot depth curve. Recommend updating the 30-foot depth curve based on the data collected during this survey. ***Concur***

The two charted 5-foot soundings with a danger circle in 29° 06’ 39.75”N 090° 10’ 23.54”W and 29° 06’ 34.28”N 090° 10’ 33.71”W and labeled Obstns (Rep 2009) were reported in Dangers to Navigation Report #3. After the final data processing the minimum depths of 5 feet were confirmed for both obstructions. An additional obstruction was found 50 meters east in 29° 06’ 40.73”N 090° 10’ 21.93”W (feature 377) with a least depth of 9 feet (2.74 meters, 0.30 meters uncertainty). Recommend leaving the charted 5-foot soundings and danger circles in 29° 06’ 39.75”N 090° 10’ 23.54”W (1.65 meters, 0.290 meters uncertainty, feature 378) and 29° 06’ 34.28”N 090° 10’ 33.71”W (1.58 meters, 0.290 meters uncertainty, feature 376) and changing the label Obstns (Rep 2009) to Obstns. ***Concur with clarification – See Appendix I for final charting recommendations.***

The charted platform in 29° 05’ 21.29”N 090° 09’ 27.15”W labeled Platform was found next to the charted platform symbol in 29° 05’ 20.33”N 090° 09’ 27.96”W (feature 442). Recommend charting the platform symbol centered in 29° 05’ 20.33”N 090° 09’ 27.96”W. ***Concur with clarification – Delete charted platform. Add platform.***

The three charted wells in 29° 06’ 17.40”N 090° 10’ 09.13”W, 29° 06’ 11.34”N 090° 10’ 27.00”W, and 29° 06’ 04.31”N 090° 10’ 18.09”W labeled Well and Wells were not found during this survey. Additional multibeam data were collected near 29° 06’ 17.40”N 090° 10’ 09.13”W and 29° 06’ 10.42”N 090° 10’ 26.32”W. Data and surface observations indicated the presence of bubbles being emitted from the bottom in 29° 06’ 17.81”N 090° 10’ 09.84”W (contacts 143|181142 and 143|190333) and 29° 06’ 11.42”N 090° 10’ 29.50”W (contacts 144|163427, 144|145025 and 171|165904). Recommend removing the charted well symbols and label Wells in 29° 06’ 17.40”N 090° 10’ 09.13”W, 29° 06’ 11.34”N 090° 10’ 27.00”W and 29° 06’ 04.31”N 090° 10’ 18.09”W. ***Concur – Delete charted wells.***

The charted platform in 29° 06’ 14.36”N 090° 10’ 33.95”W (feature 463) was found to be present in its charted location. Numerous obstructions were also identified within a 50-60 meter radius of the charted platform (features 369*, 370*, 371*, 372*, 373*, 374*, and 375*). No changes to the chart are recommended as a result of this survey.
Concur with clarification – Delete charted platform. Add platform.
**** #370 – The obstruction fall within the limits of the platform. Do not chart.***

~~The charted pipe in 29° 06’ 19.28”N 090° 10’ 42.67”W labeled Pipe PA was not found during this survey. Recommend removing the charted pipe symbol and label Pipe PA in 29° 06’ 19.28”N 090° 10’ 42.67”W.~~

~~The charted breakwater extending from 29° 06’ 24.07”N 090° 10’ 41.86”W to 29° 05’ 53.48”N 090° 11’ 36.93”W and labeled Breakwater was found in its charted position. No changes for the charted breakwater are recommended.~~

The charted Unsurveyed labels located in 29° 05’ 37.24”N 090° 11’ 13.18”W and 29° 04’ 37.63”N 090° 14’ 39.88”W have now been covered with singlebeam bathymetry. Recommend removed the Unsurveyed labels in 29° 05’ 37.24”N 090° 11’ 13.18”W and 29° 04’ 37.63”N 090° 14’ 39.88”W and update chart with bathymetry from this survey.
Concur

No breakers were observed during this survey in the area of the charted label Breakers in ~~29° 05’ 08.77”N 090° 12’ 16.99”W and in~~ 29° 04’ 39.93”N 090° 15’ 15.20”W. Recommend removing the label Breakers in 29° 05’ 08.77”N 090° 12’ 16.99”W and in 29° 04’ 39.93”N 090° 15’ 15.20”W. ***Concur – Delete charted notations Breakers.***

~~The charted platform in 29° 04’ 44.04”N 090° 11’ 08.69”W and labeled Platform was not found during this survey. Recommend removing the charted platform symbol and label Platform in 29° 04’ 44.04”N 090° 11’ 08.69”W.~~

The charted platform in 29° 05’ 45.14”N 090° 09’ 51.05”W was found near its charted position in 29° 05’ 44.44”N 090° 09’ 51.05”W (feature 477). Recommend charting the platform symbol centered in 29° 05’ 44.44”N 090° 09’ 51.05”W.
Concur with clarification – Delete charted platform. Add platform.

The charted platform in 29° 05’ 09.26”N 090° 09’ 51.38”W was found within the platform symbol in 29° 05’ 08.99”N 090° 09’ 52.15”W (feature 445). Recommend charting the platform symbol centered in 29° 05’ 08.99”N 090° 09’ 52.15”W.
Concur with clarification – Delete charted platform. Add platform.

The charted platform in 29° 04’ 56.22”N 090° 10’ 08.86”W was found near the platform symbol in 29° 04’ 57.40”N 090° 10’ 09.67”W (feature 443). Recommend charting the platform symbol centered in 29° 04’ 57.40”N 090° 10’ 09.67”W.
Concur with clarification – Delete charted platform. Add platform.

A pair of charted platforms in 29° 05’ 08.50”N 090° 10’ 35.00”W and 29° 05’ 06.00”N 090° 10’ 33.17”W had platforms found within the charted symbols in 29° 05’ 07.82”N 090° 10’ 35.34”W (feature 441) and 29° 05’ 05.49”N 090° 10’ 33.00”W (feature 444) as well as a third platform (feature 493) in 29° 05’ 06.72”N 090° 10’ 36.16”W. Recommend charting the platform symbols centered in 29° 05’ 07.82”N 090° 10’ 35.34”W, 29° 05’ 05.49”N 090° 10’ 33.00”W ***and 29° 05’ 06.72”N 090° 10’ 36.16”W. Concur with clarification – Delete charted platforms. Add platforms.***

The charted platform in 29° 05’ 20.15”N 090° 10’ 28.09”W labeled Platform was found within the symbol of its charted position in 29° 05’ 19.68”N 090° 10’ 28.48”W (feature 440). Recommend charting the platform symbol centered in 29° 05’ 19.68”N 090° 10’ 28.48”W. ***Concur with clarification – Delete charted Obstn (subm platform). Add platform.***

The charted platform in 29° 04’ 41.23”N 090° 10’ 22.04”W labeled Platform was found within the symbol of its charted position in 29° 04’ 40.69”N 090° 10’ 22.32”W (feature 451). A mound was also identified closely related to the platform in 29° 04’ 41.06”N 090° 10’ 23.02”W with a least depth from singlebeam of 29 feet (9.01 meters, 0.30 meters uncertainty, feature 58) in 35 feet of water. This mound is considered non significant and will be covered by the platform symbol. ***Concur*** Recommend charting the platform symbol centered in 29° 04’ 40.69”N 090° 10’ 22.32”W.
Concur with clarification – Delete charted platform. Add platform.

The charted platform in 29° 04’ 18.71”N 090° 09’ 38.84”W was found within the symbol of its charted position in 29° 04’ 18.33”N 090° 09’ 38.99”W (feature 486). Recommend charting the platform symbol centered in 29° 04’ 18.33”N 090° 09’ 38.99”W.
Concur with clarification – Delete charted platform. Add platform.

The charted platform in 29° 04’ 22.21”N 090° 09’ 24.43”W was found within the symbol of its charted position in 29° 04’ 21.76”N 090° 09’ 24.81”W (feature 491). Recommend charting the platform symbol centered in 29° 04’ 21.76”N 090° 09’ 24.81”W.
Concur with clarification – Delete charted platform. Add platform.

The charted 28-foot dangerous wreck labeled Wk in 29° 03’ 13.67”N 090° 15’ 21.76”W was found to contain two obstructions (features 267 and 268). Neither obstruction could clearly be identified as a wreck. The least depth surveyed over the charted dangerous wreck was 28 feet (8.56 meters, 0.30 meters uncertainty, feature 267) in 29° 03’ 13.67”N 090° 15’ 21.77”W. No changes to the chart are recommended as a result of this survey.
Do not concur – During office processing the items were determined to be obstructions with depths of 28 feet. Due to chart scale 1:20,000 both items could not be charted. Delete charted 28 Wk and danger curve. Add 28 ft Obstns and danger curve.

The charted platform in 29° 04’ 22.88”N 090° 10’ 00.11”W was found at its charted position (feature 461). No changes to the charted platform in 29° 04’ 22.88”N 090° 10’ 00.11”W are recommended.
Concur with clarification – Delete charted platform. Add platform.

The charted platform in 29° 04’ 19.95”N 090° 10’ 04.15”W was found within the symbol of its charted position in 29° 04’ 20.15”N 090° 10’ 04.59”W (feature 460). Recommend charting the platform symbol centered in 29° 04’ 20.15”N 090° 10’ 04.59”W.
Concur with clarification – Delete charted platform. Add platform.

The charted platform in 29° 04’ 13.43”N 090° 09’ 34.66”W was found within the symbol of its charted position in 29° 04’ 12.98”N 090° 09’ 35.27”W (feature 490). Recommend charting the platform symbol centered in 29° 04’ 12.98”N 090° 09’ 35.27”W.
Concur with clarification – Delete charted platform. Add platform.

The charted platform in 29° 04’ 10.16”N 090° 09’ 28.16”W was found near the platform symbol in 29° 04’ 08.99”N 090° 09’ 28.35”W (feature 485). Recommend charting the platform symbol centered in 29° 04’ 08.99”N 090° 09’ 28.35”W.
Concur with clarification – Delete charted platform. Add platform.

The charted platform in 29° 03’ 51.96”N 090° 09’ 37.16”W labeled Platform was found in its charted position (feature 484). No changes to the charted platform in 29° 03’ 51.96”N 090° 09’ 37.16”W are recommended.
Concur with clarification – Delete charted platform. Add platform.

The charted platform in 29° 03’ 53.54”N 090° 09’ 53.67”W was found within the platform symbol in 29° 03’ 53.25”N 090° 09’ 54.11”W (feature 476). Recommend charting the platform symbol centered in 29° 03’ 53.25”N 090° 09’ 54.11”W.
Concur with clarification – Delete charted platform. Add platform.

The charted platform in 29° 03’ 45.69”N 090° 09’ 36.42”W was found within 40m of the platform symbol in 29° 03’ 43.49”N 090° 09’ 37.13”W (feature 457). Recommend charting the platform symbol centered in 29° 03’ 43.49”N 090° 09’ 37.13”W.
Concur with clarification – Delete charted platform. Add platform.

The charted platform in 29° 03’ 39.08”N 090° 09’ 36.92”W was found within 15 meters of the platform symbol in 29° 03’ 40.03”N 090° 09’ 38.45”W (feature 466). Recommend charting the platform symbol centered in 29° 03’ 40.03”N 090° 09’ 38.45”W.
Concur with clarification – Delete charted platform. Add platform.

The charted platform in 29° 03’ 28.67”N 090° 09’ 30.82”W was found near the platform symbol in 29° 03’ 26.18”N 090° 09’ 30.50”W (feature 481). Recommend charting the platform symbol centered in 29° 03’ 26.18”N 090° 09’ 30.50”W.
Concur with clarification – Delete charted platform. Add platform.

The charted platform in 29° 03’ 57.57”N 090° 09’ 05.81”W and the charted dangerous obstruction labeled Obstn PA in 29° 03’ 55.30”N 090° 09’ 04.74”W was not found in their charted position. A large obstruction (feature 367) was found within 10-20 meters of the charted platform and obstruction symbols in 29° 03’ 56.21”N 090° 09’ 07.00”W with a least depth of 18 feet (5.62 meters, 0.30 meters uncertainty). There were several

warning buoys (feature 500) around this location warning boats to stay clear as well as a large amount of bubble activity on the surface. The identified obstruction appears to be a collapsed platform. Recommend removing the charted platform symbol in 29° 03' 57.57"N 090° 09' 05.81"W, removing dangerous obstruction symbol and label Obstn PA in 29° 03' 55.30"N 090° 09' 04.74"W and charting a 18-foot sounding, danger circle with blue tint (K-41), and label Obstn in 29° 03' 56.21"N 090° 09' 07.00"W.
Concur with clarification – Delete charted platform and Obstn, PA. Add 18 ft Obstn (submerged platform).

The charted platform in 29° 04' 00.27"N 090° 09' 24.22"W was found within the platform symbol in 29° 03' 59.68"N 090° 09' 24.15"W (feature 487). Obstructions were also identified closely related to the platform in 29° 03' 58.82"N 090° 09' 23.30"W with a least depth of 36 feet (11.22 meters, 0.30 meters uncertainty, feature 366) in 40 feet of water. The obstructions are considered non significant and will be covered by the platform symbol. ***Concur*** Recommend charting the platform symbol centered in 29° 03' 59.68"N 090° 09' 24.15"W.
Concur with clarification – Delete charted platform. Add platform.

The charted obstruction in 29° 04' 20.24"N 090° 09' 41.87"W labeled Obstn PA has a section of suspended pipe located within the danger circle in 29° 04' 18.59"N 090° 09' 42.79"W. The suspended pipe has no significant height. An additional obstruction was found 300 meters northwest of the danger circle in 29° 04' 24.77"N 090° 09' 51.99"W with a least depth of 34 feet (10.57 meters, 0.30 meters uncertainty, feature 365) in 37 feet of water. Recommend removing the charted danger circle, blue tint, and label Obstn PA in 29° 04' 20.24"N 090° 09' 41.87"W and charting a 34-foot sounding, danger circle with blue tint, and label Obstn in 29° 04' 24.77"N 090° 09' 51.99"W.
Concur – Delete charted Obstn, PA. Add 34 ft Obstn and danger curve.

The charted platform in 29° 04' 14.51"N 090° 10' 05.89"W was found within the platform symbol in 29° 04' 13.98"N 090° 10' 05.91"W (feature 482). Recommend charting the platform symbol centered in 29° 04' 13.98"N 090° 10' 05.91"W. ***Concur with clarification – Delete charted platform. Add platform.***

The charted platform in 29° 04' 09.96"N 090° 10' 19.50"W was found 60 meters south of the platform symbol in 29° 04' 08.10"N 090° 10' 19.87"W (feature 492). A mound was also identified closely related to the platform in 29° 04' 08.63"N 090° 10' 19.77"W with a least depth from singlebeam of 31 feet (9.62 meters, 0.30 meters uncertainty, feature 231) in 38 feet of water. This mound is considered non significant and will be covered by the platform symbol. ***Concur*** Recommend charting the platform symbol centered in 29° 04' 08.10"N 090° 10' 19.87"W.
Concur with clarification – Delete charted platform. Add platform.

The charted platform in 29° 03' 57.35"N 090° 10' 18.13"W was found near the platform symbol in 29° 03' 56.27"N 090° 10' 18.25"W (feature 488). Recommend charting the platform symbol centered in 29° 03' 56.27"N 090° 10' 18.25"W.

Concur with clarification – Delete charted platform. Add platform.

The charted platform in 29° 04’ 18.38”N 090° 10’ 24.86”W was found within the platform symbol in 29° 04’ 18.65”N 090° 10’ 25.34”W (feature 456). Recommend charting the platform symbol centered in 29° 04’ 18.65”N 090° 10’ 25.34”W.
Concur with clarification – Delete charted platform. Add platform.

The charted platform in 29° 03’ 18.01”N 090° 10’ 13.91”W was found within the platform symbol in 29° 03’ 17.46”N 090° 10’ 14.12”W (feature 494). Recommend charting the platform symbol centered in 29° 03’ 17.46”N 090° 10’ 14.12”W.
Concur with clarification – Delete charted platform. Add platform.

The charted platform in 29° 03’ 09.87”N 090° 10’ 12.86”W was found within the platform symbol in 29° 03’ 10.68”N 090° 10’ 12.58”W (feature 478). A mound to the northwest was also identified (feature 193) closely related to the platform in 29° 03’ 11.72”N 090° 10’ 14.06”W with a least depth from singlebeam of 39 feet (11.95 meters, 0.30 meters uncertainty) in 42 feet of water. This mound is considered non significant and will be covered by the platform symbol. Recommend charting the platform symbol centered in 29° 03’ 10.67”N 090° 10’ 12.58”W.
Concur with clarification – Delete charted platform. Add platform.

The charted platform in 29° 03’ 07.55”N 090° 10’ 23.02”W was found within the platform symbol in 29° 03’ 07.04”N 090° 10’ 22.75”W (feature 479). Recommend charting the platform symbol centered in 29° 03’ 07.04”N 090° 10’ 22.75”W.
Concur with clarification – Delete charted platform. Add platform.

The charted platform in 29° 03’ 06.48”N 090° 10’ 21.35”W was found within the platform symbol in 29° 03’ 06.08”N 090° 10’ 21.50”W (feature 480). Recommend charting the platform symbol centered in 29° 03’ 06.08”N 090° 10’ 21.50”W.
Concur with clarification – Delete charted platform. Add platform.

The charted platform in 29° 03’ 15.02”N 090° 10’ 27.19”W was found within the platform symbol in 29° 03’ 14.89”N 090° 10’ 27.54”W (feature 474). Recommend charting the platform symbol centered in 29° 03’ 14.89”N 090° 10’ 27.54”W.
Concur with clarification – Delete charted platform. Add platform.

~~The charted platform in 29° 04’ 28.14”N 090° 10’ 49.06”W was found within the platform symbol in 29° 04’ 27.82”N 090° 10’ 49.41”W (feature 450). A mound to the northwest was also identified (feature 55) closely related to the platform in 29° 04’ 28.39”N 090° 10’ 49.63”W with a least depth from singlebeam of 30 feet (9.15 meters, 0.30 meters uncertainty) in 34 feet of water. This mound is considered non significant and will be covered by the platform symbol. Recommend charting the platform symbol centered in 29° 04’ 27.82”N 090° 10’ 49.41”W.~~

~~The charted platforms in 29° 05’ 13.47”N 090° 11’ 47.32”W and 29° 05’ 09.89”N 090° 11’ 46.71”W and labeled Platforms were not found in their charted positions during this survey. Two obstructions (feature 325) were found less than 70 meters east of the charted platforms in 29° 05’ 12.20”N 090° 11’ 45.56”W with a least depth from multibeam of 20 feet (6.32 meters, 0.30 meters uncertainty) in 24 feet of water. Recommend removing the charted platform symbols and label Platforms in 29° 05’ 13.47”N 090° 11’ 47.32”W and 29° 05’ 09.89”N 090° 11’ 46.71”W and charting a 20-foot sounding, danger circle with blue tint (K-41), and label Obstn in 29° 05’ 12.20”N 090° 11’ 45.56”W.~~

~~The charted platform in 29° 04’ 22.50”N 090° 11’ 39.80”W was not found during this survey. Recommend removing the charted platform symbol in 29° 04’ 22.50”N 090° 11’ 39.80”W.~~

~~The charted platform in 29° 04’ 20.32”N 090° 11’ 20.80”W and labeled Platforms was found within the charted platform symbol in 29° 04’ 19.55”N 090° 11’ 21.64”W (feature 448). Recommend charting the platform symbol centered in 29° 04’ 19.55”N 090° 11’ 21.64”W and changing the label from Platforms to Platform.~~

~~The charted well in 29° 04’ 44.07”N 090° 12’ 35.25”W and labeled Well was not found during this survey. Recommend removing the charted well symbol and label Well in 29° 04’ 44.07”N 090° 12’ 35.25”W.~~

~~The charted dangerous wreck labeled PA in 29° 04’ 55.11”N 090° 12’ 36.19”W was not found during this survey. Recommend removing the charted dangerous wreck symbol, danger circle and label PA in 29° 04’ 55.11”N 090° 12’ 36.19”W.~~

~~The charted dangerous obstruction in 29° 05’ 01.18”N 090° 13’ 00.15”W and labeled Obstn PA was not found during this survey. Recommend removing the danger circle and label Obstn PA in 29° 05’ 01.18”N 090° 13’ 00.15”W.~~

~~The charted dangerous wreck in 29° 05’ 01.09”N 090° 13’ 18.28”W and labeled PD was not found during this survey. Recommend removing the charted dangerous wreck symbol, danger circle and label PD in 29° 05’ 01.09”N 090° 13’ 18.28”W.~~

The charted jetties on either side of Belle Pass Reach entering Port Fourchon in 29° 04’ 45.38”N 090° 13’ 32.24”W and 29° 04’ 47.59”N 090° 13’ 45.40”W were found to be as charted. No changes to the chart for the jetties are recommended as a result of this survey. ***Concur***

~~The charted dangerous wreck in 29° 04’ 24.32”N 090° 13’ 29.86”W and labeled PA was not found during this survey. Recommend removing the charted dangerous wreck symbol, danger circle and label PA in 29° 04’ 24.32”N 090° 13’ 29.86”W.~~

~~The charted dangerous wreck in 29° 04’ 17.32”N 090° 13’ 46.94”W with label PA was not found during this survey. However a wreck was found approximately 300 meters~~

~~north northwest (feature 392) of the charted dangerous wreck in 29° 04’ 27.62”N 090° 13’ 47.79”W with a least depth of 24 feet (7.50 meters, 0.30 meters uncertainty). Recommend removing the charted dangerous wreck and label PA in 29° 04’ 17.32”N 090° 13’ 46.94”W and charting a 24-foot sounding, danger circle with blue tint (K-26) and label WK in 29° 04’ 27.62”N 090° 13’ 47.79”W.~~

The charted navigational aid in 29° 04’ 15.98”N 090° 13’ 40.31”W and labeled R”2” QR BELL was found in its charted position (feature 434). This agrees with the 2009 United States Coast Guard Volume 4 Light List. No changes to the chart are recommended as a result of this survey. ***Concur***

~~The charted navigational aid in 29° 04’ 18.05”N 090° 13’ 53.03”W and labeled G”1” QG was not found in its charted position. The navigational aid was found approximately 90 meters southwest of its charted position in 29° 04’ 16.13”N 090° 13’ 55.27”W (feature 435). Recommend removing the charted aid in 29° 04’ 18.05”N 090° 13’ 53.03”W and charting the navigational aid in 29° 04’ 16.13”N 090° 13’ 55.27”W.~~

~~The charted navigational aid in 29° 04’ 44.03”N 090° 13’ 32.09”W and labeled Fl R 2.5s 17ft 5M “4” Ra Ref was found in its charted position (feature 437) however only the pile was present with no navigational aid features remaining. A submerged pile was also located (feature 502) approximately 10 meters south of the charted navigational aid symbol. This submerged pile was not covered with bathymetry due to safety concerns. A red buoy was present during this survey in 29° 04’ 42.30”N 090° 13’ 33.23”W (feature 436). Recommend removing the charted navigational aid in 29° 04’ 44.03”N 090° 13’ 32.09”W and label Fl R 2.5s 17ft 5M “4” Ra Ref and charting pile symbol and label Pile in 29° 04’ 44.03”N 090° 13’ 32.09”W (feature 437). Recommend charting a pile symbol and label Subm Pile in 29° 04’ 43.34”N 090° 13’ 32.72”W (feature 502). Recommend charting a red buoy symbol in 29° 04’ 42.30”N 090° 13’ 33.23”W and labeling R”4”.~~

~~The charted navigational aid in 29° 04’ 45.72”N 090° 13’ 46.04”W and labeled Fl G 2.5s 17ft 5M “3” Ra Ref was found in its charted position (feature 438) however only the pile was present with no navigational aid features remaining. A green buoy was present during this survey in 29° 04’ 45.03”N 090° 13’ 45.94”W (feature 439). Recommend removing the charted navigational aid in 29° 04’ 45.72”N 090° 13’ 46.04”W and label Fl G 2.5s 17ft 5M “3” Ra Ref and charting a pile symbol and label Pile in 29° 04’ 45.03”N 090° 13’ 46.04”W (feature 438). Recommend charting a green buoy symbol in 29° 04’ 45.03” *45.72”*N 090° 13’ 45.94*46.04*”W and labeling G”3”.~~

The charted navigational aid in 29° 05’ 04.23”N 090° 13’ 31.18”W and labeled Fl R 4s 17ft 3M “6” Ra Ref was not found in its charted position. A red buoy was not present as of Julian Day 149; however one was present during the items survey on Julian Day 184 (feature 499) in 29° 05’ 03.96”N 090° 13’ 31.22”W. Recommend removing the charted navigational aid in 29° 05’ 04.23”N 090° 13’ 31.18”W and label Fl R 4s 17ft 3M “6” Ra Ref. Recommend charting a red buoy symbol in 29° 05’ 03.96”N 090° 13’ 31.22” W and labeling R”6”. ***Concur with clarification - Defer to MCD Update Services Branch for charting recommendation of navigational aid.***

The charted private aid in 29° 05’ 00.22”N 090° 13’ 30.88”W with label W Or Priv PA was not found during this survey. Recommend removing the private aid in 29° 05’ 00.22”N 090° 13’ 30.88”W and label W Or Priv PA. ***Concur with clarification - Private aid not shown on chart 11346, Ed. #2, Apr./09. No charting required.***

~~The charted dangerous obstructions in 29° 04’ 56.97”N 090° 13’ 30.09”W, 29° 04’ 54.46”N 090° 13’ 34.04”W and 29° 04’ 58.33”N 090° 13’ 33.41”W and labeled Obstns PA had multiple rocks in the general area (features 285, 286, 287, 288, 289, 290, 291, 292, and 293). Recommend removing the charted dangerous obstructions in 29° 04’ 56.97”N 090° 13’ 30.09”W, 29° 04’ 54.46”N 090° 13’ 34.04”W and 29° 04’ 58.33”N 090° 13’ 33.41”W and label Obstns PA and charting a 14-foot sounding (4.37 meters, 0.30 meters uncertainty, feature 290) and danger circle with blue tint (K-41) in 29° 04’ 56.79”N 090° 13’ 33.61”W, a 13-foot sounding (3.90 meters, 0.30 meters uncertainty, feature 291), and danger circle with blue tint (K-41) in 29° 04’ 59.84”N 090° 13’ 32.91”W and a 13-foot sounding (4.16 meters, 0.29 meters uncertainty, feature 292) and danger circle with blue tint (K-41) in 29° 04’ 51.93”N 090° 13’ 32.48”W and label Rks.~~

The charted dangerous obstruction in 29° 04’ 48.35”N 090° 13’ 34.87”W was found to be numerous obstructions south of the charted location as features 282, 283, and 284. Feature 282 in 29° 04’ 47.25”N 090° 13’ 35.32”W is the shoalest of the three features (20 feet, 6.32 meters, 0.30 meters uncertainty). Recommend removing the charted dangerous obstruction in 29° 04’ 48.35”N 090° 13’ 34.87”W and charting a 20-foot sounding with danger circle (K-41) in 29° 04’ 47.25”N 090° 13’ 35.32”W (feature 282) and label Obstns. ***Concur with clarification – All obstructions were determined to be insignificant during office processing. Do not chart. Delete Obstn, PA Chart 20 ft sounding.***

~~The charted label Disposal Area Depths from Survey of 2003 in 29° 04’ 32.50”N 090° 14’ 26.00”W should be updated to state Disposal Area Depths from Survey of 2009.~~

The charted 11-foot sounding with a danger circle and label Obstn (rep 2009) in 29° 04’ 44.70”N 090° 14’ 02.38”W was reported in danger to navigation report number 3. After final processing of data, a minimum depth of 11 feet (3.46 meters, 0.29 meters uncertainty, feature 391) was confirmed. Recommend leaving the charted 11-foot sounding and danger circle in 29° 04’ 44.70”N 090° 14’ 02.37”W and changing label from Obstn (rep 2009) to Obstn.
Concur – See Appendix I for final charting recommendation.

~~The charted dangerous wreck in 29° 05’ 06.16”N 090° 14’ 36.00”W with the label PA was not found during this survey in its charted position. A wreck with a least depth of 5 feet (1.69 meters, 0.29 meters uncertainty, feature 279) was found approximately 150 meters northwest of the charted dangerous wreck in 29° 05’ 10.25”N 090° 14’ 37.89”W. Recommend removing the wreck symbol, danger circle and label PA in 29° 05’ 06.16”N 090° 14’ 36.00”W and charting a 5-foot sounding, danger circle (K-26) in 29° 05’ 10.25”N 090° 14’ 37.89”W and label Wk.~~

~~The charted platform in 29° 04’ 57.14”N 090° 14’ 37.11”W and labeled Platform was not found during this survey. Recommend removing the charted platform in 29° 04’ 57.14”N 090° 14’ 37.11”W and label Platform.~~

~~The charted platform in 29° 04’ 53.91”N 090° 14’ 23.89”W was found within the charted platform symbol in 29° 04’ 53.46”N 090° 14’ 24.09”W (feature 475). Recommend charting the platform symbol centered in 29° 04’ 53.46”N 090° 14’ 24.09”W.~~

~~The charted platform in 29° 04’ 43.37”N 090° 14’ 16.44”W and labeled Platforms was found within the charted platform symbol in 29° 04’ 42.42”N 090° 14’ 17.53”W (feature 483). Recommend centering the charted platform symbol in 29° 04’ 42.42”N 090° 14’ 17.53”W and changing the label from Platforms to Platform.~~

~~The charted platform in 29° 04’ 41.10”N 090° 14’ 15.56”W was not found during this survey. Recommend removing the charted platform in 29° 04’ 41.10”N 090° 14’ 15.56”W.~~

~~The charted platform in 29° 04’ 33.01”N 090° 14’ 21.18”W was found within the charted platform symbol in 29° 04’ 32.78”N 090° 14’ 21.85”W (feature 462). Recommend centering the charted platform symbol in 29° 04’ 32.78”N 090° 14’ 21.85”W.~~

~~The charted dangerous obstruction in 29° 04’ 55.23”N 090° 14’ 12.07”W and labeled Obstn PA was not found during this survey. Recommend removing the danger circle in 29° 04’ 55.23”N 090° 14’ 12.07”W and label Obstn PA.~~

The charted dangerous wreck in 29° 04’ 45.08”N 090° 15’ 25.23”W with the label PD was not found during this survey in its charted position. Recommend removing the wreck symbol, danger circle and label PD in 29° 04’ 45.08”N 090° 15’ 25.23”W.
Concur – Delete charted wreck, PD.

The charted platform and label Platform in 29° 04’ 36.43”N 090° 15’ 16.52”W was not found during this survey. Recommend removing the charted platform symbol and label Platform in 29° 04’ 36.43”N 090° 15’ 16.52”W.
Concur – Delete charted Obstn (submerged platform).

The charted platform in 29° 04’ 58.11”N 090° 15’ 22.07”W was not found during this survey. An obstruction in 29° 04’ 58.23”N 090° 15’ 21.62”W with a least depth of 8 feet (2.46 meters, 0.30 meters uncertainty, feature 334) was found covered by the charted platform symbol. Recommend removing the charted platform symbol in 29° 04’ 58.11”N 090° 15’ 22.07”W and charting an 8-foot sounding, danger circle (K-41) and label Obstn in 29° 04’ 58.23”N 090° 15’ 21.62”W. ***Concur with clarification – The 8 foot obstruction was determined insignificant during office processing. Delete charted Obstn (submerged platform). Chart 8 ft sounding.***

The charted dangerous obstruction in 29° 05’ 06.24”N 090° 15’ 23.92”W and labeled Obstn PA was not found during this survey. Recommend removing the danger circle in 29° 05’ 06.24”N 090° 15’ 23.92”W and label Obstn PA.
Concur – Delete charted Obstn, PA.

The charted dangerous obstruction 29° 04’ 55.00”N 090° 16’ 00.27”W labeled Obstn PA was not found during this survey. An obstruction was found approximately 170 meters east of the danger circle charted in 29° 04’ 55.25”N 090° 15’ 53.87”W (feature 335) with a least depth of 9 feet (2.69 meters, 0.29 meters uncertainty). Two additional obstructions were found approximately 20 meters south southeast (features 336 and 337). Feature 337 is the shoaler obstruction with a least depth of 7 feet (2.14 meters, 0.29 meters uncertainty) in 29° 04’ 50.25”N 090° 15’ 52.06”W. Recommend removing the danger circle and label Obstn PA in 29° 04’ 55.00”N 090° 16’ 00.27”W and charting a 9-foot sounding, danger circle (K-41) in 29° 04’ 55.25”N 090° 15’ 53.87”W, as well as a 7-foot sounding, danger circle (K-41) in 29° 04’ 50.25”N 090° 15’ 52.06”W and label Obstns. ***Concur with clarification –The obstruction with a depth of 9 feet falls within the danger circle of the obstruction with a depth of 7 feet. It is recommended that the 9 ft Obstn be combined with the 7 ft Obstn. Delete Obstn, PA. Add 7 ft Obstns and danger curve.***

The charted platform in 29° 03’ 57.06”N 090° 15’ 10.21”W was not found during this survey. Recommend removing the charted platform symbol in 29° 03’ 57.06”N 090° 15’ 10.21”W. ***Concur – Delete charted platform.***

The charted platform in 29° 03’ 46.06”N 090° 14’ 34.16”W and labeled Platform was not found during this survey. Recommend removing the charted platform symbol in 29° 03’ 46.06”N 090° 14’ 34.16”W and label Platform.
Concur – Delete charted Obstn (submerged platform).

The charted platforms in 29° 03’ 54.08”N 090° 13’ 15.33”W and 29° 03’ 58.71”N 090° 12’ 57.19”W labeled Platforms were not found during this survey. Recommend removing the charted platform symbols in 29° 03’ 54.08”N 090° 13’ 15.33”W and 29° 03’ 58.71”N 090° 12’ 57.19”W. ***Concur – Delete charted Obstn (submerged platforms).***

The charted platform in 29° 04’ 02.16”N 090° 13’ 04.08”W and labeled Platforms was found in its charted position (feature 446). Recommend changing the charted label from Platforms to Platform. ***Concur with clarification – Delete charted platform. Add platform.***

The charted platform in 29° 01’ 19.96”N 090° 17’ 06.44”W was found within the charted platform symbol in 29° 01’ 19.57”N 090° 17’ 06.36”W (feature 459). Recommend charting the platform symbol centered in 29° 01’ 19.57”N 090° 17’ 06.36”W.
Concur with clarification – Delete charted platform. Add platform.

The charted platform in 29° 01’ 27.69”N 090° 16’ 14.98”W was found within the charted platform symbol in 29° 01’ 27.27”N 090° 16’ 14.51”W (feature 471). Recommend charting the platform symbol centered in 29° 01’ 27.27”N 090° 16’ 14.51”W.
Concur with clarification – Delete charted platform. Add platform.

The charted platform in 29° 01’ 30.89”N 090° 16’ 08.59”W was found within the charted platform symbol in 29° 01’ 31.13”N 090° 16’ 08.84”W (feature 464). Recommend charting the platform symbol centered in 29° 01’ 31.13”N 090° 16’ 08.84”W.
Concur with clarification – Delete charted platform. Add platform.

The two charted platforms in 29° 01’ 38.14”N 090° 16’ 05.53”W and 29° 01’ 37.01”N 090° 16’ 05.08”W was found to have one platform within the charted platform symbols in 29° 01’ 37.54”N 090° 16’ 05.31”W (feature 458). Recommend removing the charted platforms in 29° 01’ 38.14”N 090° 16’ 05.53”W and 29° 01’ 37.01”N 090° 16’ 05.08”W and charting a platform symbol centered in 29° 01’ 37.54”N 090° 16’ 05.31”W.
Concur with clarification – Delete charted platforms. Add platform.

The charted platforms in 29° 01’ 34.88”N 090° 16’ 00.56”W and 29° 01’ 33.57”N 090° 15’ 58.24”W were found to have platforms within the charted platform symbols in 29° 01’ 34.58”N 090° 16’ 00.88”W (feature 465) and 29° 01’ 33.18”N 090° 15’ 59.09”W

(feature 470). Recommend charting the platform symbols centered in 229° 01’ 34.58”N 090° 16’ 00.88”W and 29° 01’ 33.18”N 090° 15’ 59.09”W.
Concur with clarification – Delete charted platforms. Add platforms.

The charted platform in 29° 01’ 35.89”N 090° 15’ 50.70”W was found within the charted platform symbol in 29° 01’ 35.82”N 090° 15’ 50.90”W (feature 469). A small obstruction (feature 114) which appears to be a mound next to the platform was also found within the charted platform symbol. Recommend centering the charted platform symbol in 29° 01’ 35.82”N 090° 15’ 50.90”W. ***Concur with clarification – Do not chart - mound within the limit of the platform. Delete charted platform. Add platform.***

The charted platform in 29° 01’ 37.29”N 090° 15’ 33.74”W was found within the charted platform symbol in 29° 01’ 36.44”N 090° 15’ 32.67”W (feature 472). Recommend centering the charted platform symbol in 29° 01’ 36.44”N 090° 15’ 32.67”W.
Concur with clarification – Delete charted platforms. Add platform.

The charted 30-foot dangerous obstruction labeled Obstn (Rep 2009) in 29° 03’ 17.79”N 090° 12’ 00.48”W was reported in Danger to Navigation Report #3 (feature 362). After final processing of the data, the shoal depth for the obstruction was determined to be 29 feet (9.00 meters, 0.30 meters uncertainty). Recommend removing the 30-foot sounding, danger circle with blue tint and label Obstn (Rep 2009) in 29° 03’ 17.79”N 090° 12’ 00.48”W and charting a 29-foot sounding, danger circle with blue tint (K-41) and label Obstn in 29° 03’ 18.13”N 090° 12’ 01.04”W. ***Concur with clarification – See Appendix I for final charting recommendation.***

The charted platform in 29° 03’ 33.21”N 090° 13’ 34.12”W was found within the charted platform symbol in 29° 03’ 32.63”N 090° 13’ 34.25”W (feature 454). Recommend centering the charted platform symbol in 29° 03’ 32.63”N 090° 13’ 34.25”W.
Concur with clarification – Delete charted platform. Add platform.

The three charted platforms in 29° 03’ 31.80”N 090° 13’ 30.51”W, ***Obstn (submerged platform)*** 29° 03’ 31.30”N 090° 13’ 28.30”W, and ***platform*** 29° 03’ 30.19”N 090° 13’ 29.94”W and labeled Platforms was found to contain one platform within the charted platform symbols in 29° 03’ 31.30”N 090° 13’ 30.59”W (feature 453). Recommend removing charted platforms in 29° 03’ 31.80”N 090° 13’ 30.51”W, ***submerged platform*** 29° 03’ 31.30”N 090° 13’ 28.30”W, and ***platform*** 29° 03’ 30.19”N 090° 13’ 29.94”W and charting a platform symbol in 29° 03’ 31.30”N 090° 13’ 30.59”W. Recommend retaining label Platforms due to proximity with feature 454. ***Concur with clarification – Delete charted platforms and Obstn (submerged platform). Add platform.***

The charted platform in 29° 03’ 22.72”N 090° 13’ 18.62”W was found within the charted platform symbol in 29° 03’ 22.16”N 090° 13’ 18.61”W (feature 455). Recommend centering the charted platform symbol in 29° 03’ 22.16”N 090° 13’ 18.61”W.
Concur with clarification – Delete charted platform. Add platform.

The charted platforms in 29° 03’ 41.20”N 090° 13’ 19.93”W and 29° 03’ 39.52”N 090° 13’ 18.22”W was found to have only one platform (feature 449) present in 29° 03’ 39.30”N 090° 13’ 18.38”W. Recommend removing the charted platform symbol in 29° 03’ 41.20”N 090° 13’ 19.93”W and centering the remaining symbol in 29° 03’ 39.30”N 090° 13’ 18.38”W.
Concur with clarification – Delete charted platforms. Add platform.

The charted platform labeled Platforms in 29° 03’ 29.41”N 090° 13’ 24.36”W was not found during this survey. Recommend removing the charted platform symbol and label Platforms in 29° 03’ 29.41”N 090° 13’ 24.36”W.
Concur with clarification – Delete charted Obstn (submerged platform).

The charted breakwater labeled Bkw in 29° 04’ 45.37”N 090° 16’ 31.22”W was found to be in its charted location along the length of the charted shoreline as mostly submerged with rocks awash as reported in Danger to Navigation Report #2. Recommend removing charted breakwater and label Bkw and charting a foul area (K-42) with vertices from Table 1 in Danger to Navigation Report #2 and label Foul with Rocks. ***Concur with clarification – See Appendix I and H-Cell report for final charting recommendation.***

The charted piles in 29° 04’ 13.42”N 090° 17’ 36.51”W and labeled Piles (rep 2009) were reported in Danger to Navigation Report #2 as six exposed piles (feature 496). The piles were found to be on the shoreward side of an extension of submerged rocks forming part of the breakwater and the position of feature 496 is the most seaward of the six piles. No changes to the chart are recommended.
Concur with clarification – See Appendix I for final charting recommendation.

The charted piles in 29° 04’ 11.46”N 090° 17’ 43.94”W and labeled Piles (rep 2009) were reported in Danger to Navigation Report #2 as two exposed piles (feature 497). The piles were found to be on the shoreward side of an extension of submerged rocks forming part of the breakwater. Recommend charting the pile symbol in 29° 04’ 11.58”N 090° 17’ 43.15”W changing charted label Piles (rep 2009) to Piles.
Concur with clarification – See Appendix I for final charting recommendation.

~~The three charted wells in 29° 06’ 17.41”N 090° 10’ 09.17”W, 29° 06’ 11.39”N 090° 10’ 26.92”W and 29° 06’ 04.29”N 090° 10’ 18.05”W labeled Well and Wells were not found during this survey. Multibeam data were collected near 29° 06’ 17.41”N 090° 10’ 09.17”W and 29° 06’ 11.39”N 090° 10’ 26.92”W. Data and surface observations indicated the presence of bubbles being emitted from the bottom in 29° 06’ 17.81”N 090° 10’ 09.84”W (contacts 143|181142 and 143|190333) and 29° 06’ 11.42”N 090° 10’ 29.50”W (contacts 144|163427, 144|145025 and 171|165904). Recommend removing the charted well symbols and label Well and Wells in 29° 06’ 17.41”N 090° 10’ 09.17”W, 29° 06’ 11.39”N 090° 10’ 26.92”W and 29° 06’ 04.29”N 090° 10’ 18.05”W.~~

The charted platform in 29° 04’ 27.15”N 090° 10’ 13.04”W was not found during this survey. Two platforms were found approximately 200 meters west southwest in 29° 04’ 25.36”N 090° 10’ 20.39”W (feature 447) and 29° 04’ 22.82”N 090° 10’ 17.68”W (feature 503). Recommend removing the charted platform symbol in 29° 04’ 27.15”N 090° 10’ 13.04”W and charting platform symbols in 29° 04’ 25.36”N 090° 10’ 20.39”W and 29° 04’ 22.82”N 090° 10’ 17.68”W. ***Concur with clarification – Delete charted platform. Add two platforms.***

The charted platform in 29° 04’ 02.11”N 090° 11’ 40.48”W was not found during this survey. Recommend removing the charted platform symbol in 29° 04’ 02.11”N 090° 11’ 40.48”W. ***Concur – Delete charted platform.***

The charted platform in 29° 03’ 29.21”N 090° 11’ 41.85”W was not found in its charted position during this survey. Recommend removing the charted platform in 29° 03’ 29.21”N 090° 11’ 41.85”W. ***Concur – Delete charted platform.***

The charted exposed wreck labeled PA in 29° 04’ 13.29”N 090° 17’ 12.93”W was not found during this survey. Recommend removing the charted exposed wreck symbol and label PA in 29° 04’ 13.29”N 090° 17’ 12.93”W.
Concur – Delete charted visible wreck, PA.

The charted platform in 29° 03’ 37.97”N 090° 17’ 27.05”W labeled Platform was not found during this survey. Recommend removing the charted platform symbol and label Platform in 29° 03’ 37.97”N 090° 17’ 27.05”W. ***Concur – Delete charted platform.***

The charted submerged pipe labeled Subm pipe PA in 29° 02’ 16.42”N 090° 17’ 26.89”W was not found during this survey. Recommend removing the charted submerged pipe symbol and label Subm pipe PA in 29° 02’ 16.42”N 090° 17’ 26.89”W.
Concur – Delete charted Subm pipe, PA.

The charted dangerous wreck in 29° 03’ 02.75”N 090° 16’ 04.87”W labeled PA was not found during this survey. Recommend removing the dangerous wreck symbol and label PA charted in 29° 03’ 02.75”N 090° 16’ 04.87”W.
Concur - Delete charted dangerous wreck, PA.

The charted dangerous wreck in 29° 02’ 36.24”N 090° 16’ 35.95”W labeled PA was not found during this survey. Recommend removing the dangerous wreck symbol and label PA charted in 29° 02’ 36.24”N 090° 16’ 35.95”W.
Concur - Delete charted dangerous wreck, PA.

The charted platform labeled Platforms in 29° 03’ 23.39”N 090° 15’ 07.94”W was found in its charted position (feature 452). Recommend replacing the charted label Platforms with Platform. ***Concur with clarification – Delete charted platform. Add platform.***

The charted platform in 29° 03’ 24.21”N 090° 14’ 47.30”W was not found during this survey. Recommend removing the charted platform symbol in 29° 03’ 24.21”N 090° 14’ 47.30”W. ***Concur – Delete charted platform.***

The charted platform in 29° 03’ 13.06”N 090° 14’ 58.29”W was not found during this survey. Recommend removing the charted platform symbol in 29° 03’ 13.06”N 090° 14’ 58.29”W. ***Concur – Delete charted platform.***

The charted platforms in 29° 03’ 04.91”N 090° 13’ 40.75”W and 29° 03’ 12.23”N 090° 13’ 34.64”W labeled Platforms were not found during this survey. Recommend removing the charted platform symbols and label Platforms in 29° 03’ 04.91”N 090° 13’ 40.75”W and 29° 03’ 12.23”N 090° 13’ 34.64”W.
Concur – Delete charted Obstn (submerged platforms).

The charted platform in 29° 03’ 09.94”N 090° 13’ 14.30”W was not found during this survey. Recommend removing the charted platform symbol in 29° 03’ 09.94”N 090° 13’ 14.30”W. ***Concur – Delete charted platform.***

The charted platform in 29° 02’ 33.23”N 090° 12’ 56.85”W was not found during this survey. Recommend removing the charted platform symbol in 29° 02’ 33.23”N 090° 12’ 56.85”W. ***Concur – Delete charted platform.***

The numerous charted pipelines within chart 11346_2 were found to have pipelines as charted as well as having no indication of pipelines. Examples of these findings are as follows:

The pipeline found during survey that extending from 29° 04’ 50.18”N 090° 10’ 14.29”W to 29° 04’ 21.76”N 090° 09’ 24.82”W is not currently charted. No changes to the chart are recommended as a result of this survey.
Do not concur - Defer to MCD Update Services Branch for charting of pipelines.

The charted pipeline extending from 29° 04’ 35.40”N 090° 15’ 18.14”W to 29° 03’ 25.28”N 090° 14’ 47.65”W was not found as charted. No changes to the chart are recommended as a result of this survey. ***Concur with clarification - Defer to MCD Update Services Branch for updates on charted pipelines.***

The charted pipeline extending from 29° 01’ 35.68”N 090° 15’ 37.80”W to 29° 04’ 28.72”N 090° 17’ 15.54”W was not found as charted. No changes to the chart are recommended as a result of this survey. ***Concur***

The charted pipeline extending from 29° 01’ 06.83”N 090° 17’ 02.10”W to 29° 02’ 23.24”N 090° 17’ 59.76”W had a pipelines associated with it in 29° 01’ 06.83”N 090° 17’ 02.10”W to 29° 01’ 55.15”N 090° 17’ 38.03”W. No changes to the chart are recommended as a result of this survey. ***Concur***

The charted pipeline extending from 29° 01’ 14.99”N 090° 16’ 37.55”W to 29° 01’ 59.30”N 090° 17’ 24.10”W had a pipeline found closely associated with it in 29° 02’ 40.83”N 090° 17’ 59.07”W to 29° 01’ 16.00”N 090° 16’ 39.16”W. No changes to the chart are recommended as a result of this survey. ***Concur***

Recommend updating chart with pipelines that were identified during this survey in areas that currently do not depict pipelines based on the pipeline track line positions document found in Appendix II (titled H11785 Pipeline Coordinates List). No recommendation is made for removing pipelines where no pipeline was found. ***Concur with clarification - Defer to MCD Update Services Branch for updates a charting of pipelines.***

Table D-3 lists additional objects found in this survey that are recommended for addition to Chart 11346_2.

*****/*** See end of table for final charting recommendations.***

Table D-3. Additional Features from H11785 for Inclusion on Chart 11346_2

Feature Number	**Feature Position (NAD83)**		**Depth (Feet)**	**Depth (Meters)**	**Description**
	Latitude (N)	**Longitude (W)**			
~~101~~	~~29° 05' 53.31"~~	~~090° 11' 16.36"~~	~~14.86~~	~~4.53~~	~~Obstruction~~
~~134~~	~~29° 04' 57.69"~~	~~090° 13' 40.92"~~	~~20.57~~	~~6.27~~	~~Rock~~
~~135~~	~~29° 05' 00.08"~~	~~090° 13' 41.05"~~	~~17.81~~	~~5.43~~	~~Rock~~
~~136~~	~~29° 04' 46.81"~~	~~090° 13' 33.21"~~	~~22.80~~	~~6.95~~	~~Rock~~
220**	29° 1' 56.82"	090° 16' 24.51"	34.51	10.52	Obstruction
256**	29° 01' 05.05"	090° 17' 50.76"	36.78	11.21	Obstruction
258**	29° 01' 15.71"	090° 16' 39.51"	36.91	11.25	Obstruction
261**	29° 01' 53.13"	090° 17' 43.32"	34.58	10.54	Obstruction
264	29° 04' 07.94"	090° 16' 48.24"	15.52	4.73	Pile***

Feature Number	Feature Position (NAD83)		Depth (Feet)	Depth (Meters)	Description
	Latitude (N)	Longitude (W)			
266**	29° 03' 51.77"	090° 16' 21.24"	22.70	6.92	Obstruction
269**	29° 03' 21.91"	090° 15' 05.65"	28.02	8.54	Obstruction
270**	29° 03' 32.70"	090° 15' 14.88"	25.36	7.73	Obstruction
273	29° 04' 33.55"	090° 15' 21.46"	13.68	4.17	Obstruction*
277	29° 04' 58.39"	090° 15' 29.80"	5.41	1.65	Wreck*
~~280~~	~~29° 05' 16.57"~~	~~090° 14' 09.94"~~	~~4.49~~	~~1.37~~	~~Obstruction~~
~~281~~	~~29° 04' 32.52"~~	~~090° 14' 00.79"~~	~~20.51~~	~~6.25~~	~~Obstruction~~
~~294~~	~~29° 04' 55.39"~~	~~090° 13' 38.77"~~	~~25.03~~	~~7.63~~	~~Obstruction~~
~~295~~	~~29° 04' 18.56"~~	~~090° 11' 08.62"~~	~~27.89~~	~~8.50~~	~~Obstruction~~
298**	29° 05' 09.84"	090° 09' 55.01"	30.22	9.21	Obstruction
311**	29° 03' 09.77"	090° 17' 31.58"	24.57	7.49	Obstruction
312	29° 03' 14.60"	090° 15' 15.26"	28.22	8.60	Obstruction*
314	29° 02' 06.12"	090° 15' 08.26"	32.94	10.04	Obstructions*
315**	29° 02' 17.03"	090° 14' 21.19"	35.07	10.69	Obstruction
316**	29° 03' 29.72"	090° 13' 22.91"	32.94	10.04	Obstruction
317**	29° 03' 27.55"	090° 13' 21.67"	32.02	9.76	Obstruction
318**	29° 03' 27.72"	090° 13' 20.87"	32.02	9.76	Obstruction
319**	29° 04' 00.09"	090° 13' 08.86"	28.22	8.60	Obstruction
~~320~~	~~29° 04' 22.63"~~	~~090° 11' 24.32"~~	~~30.64~~	~~9.34~~	~~Obstruction~~
~~321~~	~~29° 04' 25.57"~~	~~090° 11' 23.40"~~	~~31.86~~	~~9.71~~	~~Obstruction~~
~~322~~	~~29° 04' 25.62"~~	~~090° 11' 18.90"~~	~~29.53~~	~~9.00~~	~~Obstruction~~
~~323~~	~~29° 04' 26.33"~~	~~090° 11' 16.47"~~	~~30.28~~	~~9.23~~	~~Obstruction~~
~~324~~	~~29° 04' 24.12"~~	~~090° 11' 05.83"~~	~~29.00~~	~~8.84~~	~~Obstruction~~
~~326~~	~~29° 04' 53.11"~~	~~090° 12' 16.15"~~	~~19.62~~	~~5.98~~	~~Obstruction~~
~~327~~	~~29° 04' 32.35"~~	~~090° 14' 15.23"~~	~~21.00~~	~~6.40~~	~~Obstruction~~
328**	29° 04' 15.21"	090° 14' 43.85"	22.47	6.85	Obstruction
~~329~~	~~29° 05' 14.33"~~	~~090° 14' 30.22"~~	~~4.86~~	~~1.48~~	~~Obstruction~~
~~330~~	~~29° 05' 13.84"~~	~~090° 14' 39.70"~~	~~5.09~~	~~1.55~~	~~Obstruction~~
331**	29° 05' 12.13"	090° 14' 43.59"	5.48	1.67	Obstruction
333	29° 05' 09.98"	090° 14' 51.91"	5.05	1.54	Pile*
347**	29° 01' 12.94"	090° 17' 33.51"	37.43	11.41	Obstruction
/** See end of table for final charting recommendations.					

Feature Number	Feature Position (NAD83)		Depth (Feet)	Depth (Meters)	Description
	Latitude (N)	Longitude (W)			
349**	29° 01' 08.84"	090° 16' 59.04"	38.35	11.69	Obstruction
350***	29° 01' 11.76"	090° 16' 50.25"	37.11	11.31	Wreck
351**	29° 01' 16.25"	090° 16' 54.21"	37.73	11.50	Obstruction
352**	29° 01' 17.45"	090° 16' 45.63"	37.17	11.33	Obstruction
354	29° 01' 26.60"	090° 16' 55.07"	33.76	10.29	Obstruction*
355**	29° 01' 43.51"	090° 17' 08.60"	36.12	11.01	Obstruction
356**	29° 02' 06.29"	090° 17' 49.54"	32.35	9.86	Obstruction
357**	29° 03' 16.40"	090° 17' 24.89"	24.34	7.42	Obstruction
358**	29° 03' 06.77"	090° 13' 44.90"	33.23	10.13	Obstruction
361**	29° 03' 17.54"	090° 13' 02.30"	32.51	9.91	Obstruction
363**	29° 04' 04.89"	090° 10' 22.68"	34.51	10.52	Obstruction
364	29° 04' 10.14"	090° 10'08.93"	33.56	10.23	Obstruction*
368**	29° 05' 41.71"	090° 09' 49.71"	26.51	8.08	Obstruction
~~379~~	~~29° 06' 02.28"~~	~~090° 10' 59.29"~~	~~14.27~~	~~4.35~~	~~Obstruction~~
~~380~~	~~29° 05' 28.27"~~	~~090° 11' 10.94"~~	~~21.88~~	~~6.67~~	~~Obstruction~~
~~384~~	~~29° 04' 42.71"~~	~~090° 13' 35.56"~~	~~24.31~~	~~7.41~~	~~Obstruction~~
~~386~~	~~29° 04' 41.25"~~	~~090° 13' 44.74"~~	~~21.88~~	~~6.67~~	~~Rock~~
~~389~~	~~29° 05' 11.71"~~	~~090° 13' 38.31"~~	~~9.45~~	~~2.88~~	~~Obstruction~~
~~390~~	~~29° 05' 09.64"~~	~~090° 13' 31.33"~~	~~15.85~~	~~4.83~~	~~Obstruction~~
393**	29° 04' 12.73"	090° 16' 03.40"	20.90	6.37	Obstruction
415**	29° 04' 34.13"	090° 16' 45.48"	15.42	4.70	Rock
467	29° 03' 37.60"	090° 09' 27.42"	N/A	N/A	Platform*
473	29° 03' 25.88"	090° 10' 00.83"	N/A	N/A	Platform*
498****	29° 04' 33.60"	090° 16' 13.49"	N/A	N/A	Buoy

#273 – Add 13 ft Obstns and danger curve.
#277 – Add 5 ft Wk and danger curve.
#312 – Add 28 ft Obstn and danger curve.
#314 – Add 33 ft Obstn and danger curve.
#333 – See Appendix I for final charting recommendation.
#354 – Add 34 ft Obstn and danger curve.
#364 – Add 33 ft Obstn and danger curve.
#467 – Add platform.
#473 – Add platform.
****/***/**** See next page for final charting recommendations.***

***** Items determined insignificant during office processing. Chart present survey depths if adequate spacing at chart scale.***
****** See Appendix I for final charting recommendation.***
******#350 – No evidence of the wreck was determined during office processing. Item falls in area with cluster of pipelines. Do not chart wreck.***
*******Concur with clarification - Defer to MCD Update Services Branch for charting recommendation of navigational aid.***

Chart 11357, 1/80,000 scale, 40th Edition 06/01/2009 corrected by NTM through 10/03/2009

The depths observed during this survey ranged from one foot to 19 feet deeper than the charted depths.***Concur***

The charted 29-foot sounding in 29° 04’ 44.69”N 090° 11’ 17.67”W was found to have depth of 30 feet. ***Concur***
The charted 37-foot sounding in 29° 03’ 26.13”N 090° 11’ 19.12”W was found to have depth of 38 feet. ***Concur***

The charted 29-foot sounding in 29° 03’ 43.34”N 090° 13’ 45.77”W was found to have depth of 31 feet. ***Concur***

The charted 5-foot sounding in 29° 04’ 28.96”N 090° 15’ 52.33”W was found to have depth of 16 feet. ***Concur***

The charted 7-foot sounding in 29° 03’ 44.32”N 090° 17’ 43.15”W was found to have depth of 23 feet. ***Concur***

The charted 2-foot sounding in 29° 03’ 41.23”N 090° 18’ 37.51”W was found to have depth of 21 feet. ***Concur***

The charted 38-foot sounding in 29° 02’ 39.70”N 090° 12’ 31.29”W was found to have depth of 39 feet. ***Concur***

The charted 36-foot sounding in 29° 02’ 20.81”N 090° 14’ 13.95”W was found to have depth of 38 feet. ***Concur***

The charted 11-foot sounding in 29° 02’ 42.16”N 090° 19’ 30.34”W was found to have depth of 28 feet. ***Concur***

The charted 2-foot sounding in 29° 03’ 02.63”N 090° 21’ 54.45”W was found to have depth of 16 feet. ***Concur***

The charted 1-foot sounding in 29° 03’ 01.52”N 090° 24’ 31.76”W was found to have depth of 10 feet. ***Concur***

The charted 9-foot sounding in 29° 02’ 43.38”N 090° 26’ 17.13”W was found to have depth of 10 feet. ***Concur***

The charted 31-foot sounding in 29° 00’ 04.54”N 090° 25’ 29.28”W was found to have depth of 35 feet. ***Concur***

The charted 31-foot sounding in 29° 00’ 41.17”N 090° 19’ 01.91”W was found to have depth of 39 feet. ***Concur***

The charted 6-foot depth curve extending from 29° 02’ 50.21”N 090° 26’ 19.99”W to 29° 04’ 26.59”N 090° 15’ 48.72”W was found to have depths ranging from approximately nine feet to 28 feet. Except for a few discrete areas the 6-foot depth curve was not identified during this survey. Recommend removing the 6-foot depth curve within the current survey area. Recommend updating the 6-foot depth curve in areas where survey data covers 6 feet. ***Concur***

The charted 12-foot depth curve extending from 29° 02’ 29.06”N 090° 26’ 34.48”W to 29° 03’ 54.44”N 090° 15’ 48.68”W was found to have depths ranging from approximately 12 feet to 30 feet. The 12-foot depth curve based on this survey’s data ranged from being very close to the charted 12-foot depth curve on the western most edge of survey to approximately 2500 meters inshore of the charted 12-foot depth curve. Along the shoreline of East Timbalier Island the 12-foot depth curve was fully covered due to the rock breakwater along the shoreline. Recommend updating the 12-foot depth curve in areas where survey data covers 12 feet. ***Concur***

The charted 18-foot depth curve extending from 29° 01’ 48.74”N 090° 26’ 19.56”W to 29° 03’ 32.68”N 090° 15’ 48.72”W was found to have depths ranging from 18 to 31 feet. The 18-foot depth curve based on this surveys data ranged from being very close to the charted 18-foot depth curve on the western most edge of survey to approximately 2800 meters inshore of the charted 18-foot depth curve. The charted 18-foot depth curve from 29° 03’ 32.68”N 090° 15’ 48.72”W to 29° 05’ 26.97”N 090° 10’ 59.97”W is charted as a color change only without a depth curve line charted except at the entrance of Belle Pass. Recommend updating the 18-foot depth curve based on the data collected during this survey. ***Concur***

The charted 30-foot depth curve extending from 29° 00’ 13.48”N 090° 26’ 18.36”W to 29° 04’ 41.07”N 090° 11’ 00.23”W was found to have depths ranging from 33 to 40 feet. The 30-foot depth curve based on this survey’s data ranged from approximately 200 meters to 2800 meters inshore of the charted 30-foot depth curve. Recommend updating the 30-foot depth curve based on the data collected during this survey. ***Concur***

~~The charted breakwater extending from 29° 06’ 11.99”N 090° 11’ 00.21”W to 29° 05’ 52.92”N 090° 11’ 37.41”W and labeled Breakwater was found in its charted position. No changes for the charted breakwater are recommended.~~

~~The charted Unsurveyed labels located in 29° 05’ 09.37”N 090° 12’ 37.07”W and 29° 04’ 31.40”N 090° 14’ 45.82”W have now been covered with singlebeam bathymetry. Recommend removing the Unsurveyed labels in 29° 05’ 09.37”N 090° 12’ 37.07”W and 29° 04’ 31.40”N 090° 14’ 45.82”W and update chart with bathymetry from this survey.~~

~~The charted platform in 29° 04’ 44.04”N 090° 11’ 08.69”W was not found during this survey. Recommend removing the charted platform symbol in 29° 04’ 44.04”N 090° 11’ 08.69”W.~~

~~The charted platform in 29° 04’ 20.19”N 090° 11’ 20.82”W and labeled Platforms was found within the platform symbol in 29° 04’ 19.55”N 090° 11’ 21.64”W (feature 448). Recommend removing the charted label Platforms and charting the platform symbol centered in 29° 04’ 19.55”N 090° 11’ 21.64”W with label Platform.~~

~~The charted platform in 29° 04’ 01.24”N 090° 11’ 40.40”W was not found during this survey. Recommend removing the charted platform symbol in 29° 04’ 01.24”N 090° 11’ 40.40”W.~~

~~The charted platform in 29° 03’ 28.32”N 090° 11’ 42.02”W was not found during this survey. Recommend removing the charted platform symbol in 29° 03’ 28.32”N 090° 11’ 42.02”W.~~

~~The charted platforms in 29° 05’ 13.47”N 090° 11’ 47.32”W and 29° 05’ 09.89”N 090° 11’ 46.71”W and labeled Platforms were not found in their charted positions during this survey. Two obstructions were found covered by these platforms in 29° 05’ 12.20”N 090° 11’ 45.56”W with a least depth from multibeam of 20 feet (6.32 meters, 0.30 meters uncertainty, feature 325) in 24 feet of water. Recommend removing the charted platform symbols and label Platforms in 29° 05’ 13.47”N 090° 11’ 47.32”W and 29° 05’ 09.89”N 090° 11’ 46.71”W and charting a 20-foot sounding, danger circle with blue tint, and label Obstn in 29° 05’ 12.20”N 090° 11’ 45.56”W.~~

~~No breakers were observed during this survey in the area of the charted label Breakers in 29° 05’ 11.89”N 090° 12’ 06.71”W and in 29° 04’ 39.93”N 090° 15’ 09.36”W. Recommend removing the label Breakers in 29° 05’ 11.89”N 090° 12’ 06.71”W and in 29° 04’ 39.93”N 090° 15’ 09.36”W.~~

~~The charted platform in 29° 04’ 22.05”N 090° 11’ 39.50”W was not found during this survey. Recommend removing the charted platform symbol in 29° 04’ 22.05”N 090° 11’ 39.50”W.~~

~~The charted well in 29° 04’ 43.33”N 090° 12’ 34.45”W and labeled Well was not found during this survey. Recommend removing the charted well symbol and label Well in 29° 04’ 43.33”N 090° 12’ 34.45”W.~~

~~The charted dangerous wreck labeled PA in 29° 04’ 54.49”N 090° 12’ 35.30”W was not found during this survey. Recommend removing the charted dangerous wreck symbol, danger circle and label PA in 29° 04’ 54.49”N 090° 12’ 35.30”W.~~

~~The charted dangerous obstruction in 29° 05’ 00.73”N 090° 12’ 59.77”W and labeled Obstn PA was not found during this survey. Recommend removing the danger circle and label Obstn PA in 29° 05’ 00.73”N 090° 12’ 59.77”W.~~

~~The charted dangerous wreck in 29° 04’ 59.90”N 090° 13’ 17.25”W and labeled PD was not found during this survey. Recommend removing the charted dangerous wreck symbol, danger circle and label PD in 29° 04’ 59.90”N 090° 13’ 17.25”W.~~

The charted jetties on either side of Belle Pass Reach entering Port Fourchon in 29° 04’ 45.10”N 090° 13’ 32.06”W and 29° 04’ 47.33”N 090° 13’ 45.02”W were found to be as charted. No changes to the chart for the jetties are recommended as a result of this survey. ***Concur***

~~The charted dangerous wreck in 29° 04’ 23.57”N 090° 13’ 29.69”W and labeled PA was not found during this survey. Recommend removing the charted dangerous wreck symbol, danger circle and label PA in 29° 04’ 23.57”N 090° 13’ 29.69”W.~~

~~The charted navigational aid in 29° 04’ 15.98”N 090° 13’ 40.31”W and labeled R”2” QR BELL 26 was found in its charted position (feature 434). This agrees with the 2009 United States Coast Guard Volume 4 Light List. No changes to the chart are recommended as a result of this survey.~~

~~The charted navigational aid in 29° 04’ 18.05”N 090° 13’ 53.03”W and labeled G”1” QG was not found in its charted position. The navigational aid was found approximately 90 meters southwest of its charted position in 29° 04’ 16.13”N 090° 13’ 55.27”W (feature 435). Recommend removing the charted in 29° 04’ 18.05”N 090° 13’ 53.03”W and charting the navigational aid in 29° 04’ 16.13”N 090° 13’ 55.27”W.~~

~~The charted navigational aid in 29° 04’ 43.53”N 090° 13’ 32.44”W and labeled Fl R 2.5s 17ft 5M “4” Ra Ref was found near its charted position in 29° 04’ 44.03”N 090° 13’ 32.09”W (feature 437) however only the exposed pile was present with no navigational aid features remaining. A red buoy was present during this survey in 29° 04’ 42.30”N 090° 13’ 33.23”W (feature 436). A submerged pile (feature 502) was found in sidescan between the buoy and the exposed pile in 29° 04’ 43.34”N 090° 13’ 32.72”W. A least depth from multibeam on the submerged pile was not achieved due to vessel safety concern. Recommend removing the charted navigational aid in 29° 04’ 43.53”N 090° 13’ 32.44”W and label Fl R 2.5s 17ft 5M “4” Ra Ref and charting a pile symbol and label Pile in 29° 04’ 44.03”N 090° 13’ 32.09”W (feature 437). Recommend charting a red buoy symbol in 29° 04’ 42.30”N 090° 13’ 33.23”W and labeling R”4”. Recommend charting a pile symbol and label Subm Pile in 29° 04’ 43.34”N 090° 13’ 32.72”W (feature 502).~~

~~The charted navigational aid in 29° 04’ 45.72”N 090° 13’ 46.04”W and labeled Fl G 2.5s 17ft 5M “3” Ra Ref was found in its charted position (feature 438) however only the pile was present with no navigational aid features remaining. A green buoy was present during this survey in 29° 04’ 45.03”N 090° 13’ 45.94”W (feature 439). Recommend removing the charted navigational aid in 29° 04’ 45.72”N 090° 13’ 46.04”W and label Fl G 2.5s 17ft 5M “3” Ra Ref and charting a pile symbol and label Pile in 29° 04’ 45.72”N 090° 13’ 46.04”W (feature 438). Recommend charting a green buoy symbol in 29° 04’ 45.03” N 090° 13’ 45.94”W and labeling G”3”.~~.

~~The charted navigational aid in 29° 05’ 03.73”N 090° 13’ 31.01”W and labeled Fl R 4s 17ft 3M “6” Ra Ref was not found in its charted position. An uncharted red buoy number 6 was found (Feature 499) just south of the charted Fl R 4s 17ft 3M “6” Ra Ref day marker in 29° 05’ 03.96”N 090° 13’ 31.22”W. Recommend removing the charted navigational aid in 29° 05’ 03.73”N 090° 13’ 31.01” and label Fl R 4s 17ft 3M “6” Ra Ref. and charting a red buoy symbol in 29° 05’ 03.96”N 090° 13’ 31.22”W and labeling R”6”.~~

~~The charted dangerous obstruction in 29° 04’ 56.97”N 090° 13’ 30.09”W, 29° 04’ 54.46”N 090° 13’ 34.04”W and 29° 04’ 58.33”N 090° 13’ 33.41”W and labeled Obstns PA had multiple rocks in the general area (features 285, 286, 287, 288, 289, 290, 291, 292, and 293). Recommend removing the charted dangerous obstructions in 29° 04’ 56.97”N 090° 13’ 30.09”W, 29° 04’ 54.46”N 090° 13’ 34.04”W and 29° 04’ 58.33”N 090° 13’ 33.41”W and label Obstns PA and charting a 14-foot sounding (4.37 meters, 0.30 meters uncertainty, feature 290) and danger circle with blue tint (K-41) in 29° 04’~~

~~56.79”N 090° 13’ 33.61”W, a 13-foot sounding (3.90 meters, 0.30 meters uncertainty, feature 291), and danger circle with blue tint (K-41) in 29° 04’ 59.84”N 090° 13’ 32.91”W and a 13-foot sounding (4.16 meters, 0.29 meters uncertainty, feature 292) and danger circle with blue tint (K-41) in 29° 04’ 51.93”N 090° 13’ 32.48”W and label Rks.~~

~~The charted label Disposal Area Depths from Survey of 2003 in 29° 04’ 08.50”N 090° 14’ 38.82”W should be updated to state Disposal Area Depths from Survey of 2009.~~

~~The charted 11-foot sounding with a danger circle and label Obstn in 29° 04’ 44.70”N 090° 14’ 02.38”W was reported in danger to navigation report number 3. After final processing of data, a minimum depth of 11 feet (3.46 meters, 0.29 meters uncertainty, feature 391) was confirmed. Recommend leaving the charted 11-foot sounding and danger circle and label Obstn in 29° 04’ 44.70”N 090° 14’ 02.37”W.~~

~~The charted dangerous wreck in 29° 05’ 05.54”N 090° 14’ 35.71”W with the label PA was not found during this survey in its charted position. A wreck with a least depth of 5 feet (1.69 meters, 0.29 meters uncertainty, feature 279) was found approximately 150 meters northwest of the charted dangerous wreck in 29° 05’ 10.25”N 090° 14’ 37.89”W. Recommend removing the wreck symbol, danger circle and label PA in 29° 05’ 05.54”N 090° 14’ 35.71”W and charting a 5-foot sounding, danger circle (K-26) and label Wk in 29° 05’ 10.25”N 090° 14’ 37.89”W.~~

~~The charted platform in 29° 04’ 55.95”N 090° 14’ 36.20”W and labeled Platforms was not found during this survey. Recommend removing the charted platform in 29° 04’ 55.95”N 090° 14’ 36.20”W and label Platforms.~~

~~The charted platform in 29° 04’ 52.90”N 090° 14’ 23.61”W was found within the charted platform symbol in 29° 04’ 53.46”N 090° 14’ 24.09”W (feature 475). Recommend charting the platform symbol centered in 29° 04’ 53.46”N 090° 14’ 24.09”W.~~

~~The charted platforms labeled Platforms in 29° 04’ 40.68”N 090° 14’ 15.61”W and 29° 04’ 32.28”N 090° 14’ 21.02”W were found within the charted platform symbol in 29° 04’ 42.42”N 090° 14’ 17.53”W (feature 483) and 29° 04’ 32.78”N 090° 14’ 21.85”W (feature 462). Recommend retaining the charted label Platforms and centering the charted platform symbols in 29° 04’ 42.42”N 090° 14’ 17.53”W and 29° 04’ 32.78”N 090° 14’ 21.85”W.~~

~~The charted dangerous obstruction in 29° 04’ 54.45”N 090° 14’ 12.09”W and labeled Obstn PA was not found during this survey. Recommend removing the danger circle in 29° 04’ 54.45”N 090° 14’ 12.09”W and label Obstn PA.~~

~~The charted dangerous wreck in 29° 04’ 46.66”N 090° 15’ 24.06”W with the label PD was not found during this survey in its charted position. An uncharted wreck was found approximately 400 meters northwest of the charted wreck (feature 277) in 29° 04’ 58.39”N 090° 15’ 29.80”W with a least depth of 5 feet (1.65 meters, 0.30 meters uncertainty). Recommend removing the wreck symbol, danger circle and label PD in 29° 04’ 46.66”N 090° 15’ 24.06”W and charting a 5-foot danger circle with blue tint (K-26) and label WK in 29° 04’ 58.39”N 090° 15’ 29.80”W.~~

~~The charted platform in 29° 04’ 35.05”N 090° 15’ 14.16”W was not found during this survey. Recommend removing the charted platform symbol in 29° 04’ 35.05”N 090° 15’ 14.16”W.~~

~~The charted platform in 29° 04’ 57.46”N 090° 15’ 18.52”W was not found during this survey. An obstruction was found just west of the charted platform (feature 334) in 29° 04’ 58.23”N 090° 15’ 21.62”W with a least depth of 8 feet (2.46 meters, 0.30 meters uncertainty). Recommend removing the charted platform symbol in 29° 04’ 57.46”N 090° 15’ 18.52”W and charting a 8-foot sounding, danger circle with blue tint (K-46) and label Obstn in 29° 04’ 58.23”N 090° 15’ 21.62”W.~~

~~The charted dangerous obstructions in 29° 05’ 05.79”N 090° 15’ 23.48”W and 29° 04’ 54.65”N 090° 15’ 59.43”W labeled Obstns PA were not found during this survey. An obstruction was found approximately 150 meters east of the danger circle charted in 29° 04’ 55.25”N 090° 15’ 53.87”W with a least depth of 9 feet (2.69 meters, 0.29 meters uncertainty, feature 335). Two additional obstructions were found approximately 200 meters south southeast of the danger circle charted in 29° 04’ 54.65”N 090° 15’ 59.43”W (features 336 and 337). Feature 337 is the shoaler obstruction with a least depth of 7 feet~~

~~(2.14 meters, 0.29 meters uncertainty) in 29° 04’ 50.25”N 090° 15’ 52.06”W. Recommend removing the danger circles in 29° 05’ 05.79”N 090° 15’ 23.48”W and 29° 04’ 54.65”N 090° 15’ 59.43”W and label Obstns PA and charting a 9-foot sounding, danger circle (K-41), in 29° 04’ 55.25”N 090° 15’ 53.87”W as well as a 7-foot sounding, danger circle (K-41) in 29° 04’ 50.25”N 090° 15’ 52.06”W and label Obstns.~~

~~The charted platform in 29° 03’ 55.07”N 090° 15’ 07.51”W was not found during this survey. Recommend removing the charted platform symbol in 29° 03’ 55.07”N 090° 15’ 07.51”W.~~

~~The charted platform in 29° 03’ 45.25”N 090° 14’ 33.82”W and labeled Platform was not found during this survey. Recommend removing the charted platform symbol in 29° 03’ 45.25”N 090° 14’ 33.82”W and label Platform.~~

~~The charted platforms in 29° 03’ 53.57”N 090° 13’ 15.08”W and 29° 03’ 58.17”N 090° 12’ 57.19”W were not found during this survey. Recommend removing the charted platform symbols in 29° 03’ 53.57”N 090° 13’ 15.08”W and 29° 03’ 58.17”N 090° 12’ 57.19”W.~~

~~The charted platform in 29° 04’ 02.16”N 090° 13’ 04.08”W and labeled Platforms was found in its charted position (feature 446). Recommend changing the charted label from Platforms to Platform.~~

~~The charted platforms in 29° 03’ 40.74”N 090° 13’ 19.39”W and 29° 03’ 38.75”N 090° 13’ 18.08”W was found to have only one platform (feature 449) present in 29° 03’ 39.30”N 090° 13’ 18.38”W. Recommend removing the charted platform symbol in 29°03’40.74”N, 090°13’19.39”W and centering the remaining symbol in 29° 03’ 39.30”N 090° 13’ 18.38”W.~~

~~The charted platform in 29° 03’ 32.58”N 090° 13’ 33.63”W was found within the charted platform symbol in 29° 03’ 32.63”N 090° 13’ 34.25”W (feature 454). Recommend centering the charted platform symbol in 29° 03’ 32.63”N 090° 13’ 34.25”W.~~

~~The charted platform in 29° 03’ 30.80”N 090° 13’ 28.15”W was found next to the charted platform symbol in 29° 03’ 31.30”N 090° 13’ 30.59”W (feature 453). Recommend centering the charted platform symbol in 29° 03’ 31.30”N 090° 13’ 30.59”W.~~

~~The charted platform in 29° 03’ 28.90”N 090° 13’ 24.17”W was not found during this survey. Recommend removing the charted platform symbol in 29° 03’ 28.90”N 090° 13’ 24.17”W.~~

~~The charted breakwater labeled Bkw in 29° 04’ 44.30”N 090° 16’ 31.30”W was found to be in its charted location along the length of the charted shoreline as mostly submerged with rocks awash as reported in Danger to Navigation Report #2. Recommend removing~~

~~charted breakwater and label Bkw and charting a foul area (K-42) with vertices from Table 1 in Danger to Navigation Report #2 and label Foul with Rocks.~~

~~The charted exposed wreck labeled PA in 29° 04' 11.76"N 090° 17' 11.21"W was not found during this survey. Recommend removing the charted exposed wreck symbol and label PA in 29° 04' 11.76"N 090° 17' 11.21"W.~~

~~The charted platform in 29° 03' 38.09"N 090° 17' 27.17"W was not found during this survey. Recommend removing the charted platform symbol in 29° 03' 38.09"N 090° 17' 27.17"W.~~

~~The charted piles in 29° 04' 11.46"N 090° 17' 42.94"W and labeled Piles (rep 2009) were reported in Danger to Navigation Report #2 as two exposed piles (feature 497). The piles were found to be on the shoreward side of an extension of submerged rocks forming part of the breakwater. Recommend charting the pile symbol in 29° 04' 11.58"N 090° 17' 43.15"W changing charted label Piles (rep 2009) to Piles.~~

~~The charted piles in 29° 04' 13.42"N 090° 17' 36.51"W and labeled Piles (rep 2009) were reported in Danger to Navigation Report #2 as six exposed piles (feature 496). The piles were found to be on the shoreward side of an extension of submerged rocks forming part of the breakwater and the position of feature 496 is the most seaward of the six piles. Recommend charting the pile symbol in 29° 04' 13.82"N 090° 17' 36.87" and removing charted label Piles (rep 2009) and charting label Piles.~~

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The charted rocks awash in 29° 04' 05.70"N 090° 18' 08.98"W and labeled (rep 2009) were reported in Danger to Navigation Report #2. The rocks are part of the breakwater along the shoreline of East Timbalier Island. Recommend removing charted label (rep 2009). ***Concur with clarification – See Appendix I for final charting recommendation.***

~~The charted 30 foot dangerous obstruction labeled Obstn (Rep 2009) in 29° 03' 17.79"N 090° 12' 00.48"W was reported in Danger to Navigation Report #3 (feature 362). After final processing of the data, the shoal depth for the obstruction was determined to be 29 feet (9.00 meters, 0.30 meters uncertainty) in 29° 03' 18.13"N 090° 12' 01.04"W. Recommend removing the 30-foot sounding, danger circle with blue tint and label Obstn (Rep 2009) in 29° 03' 17.79"N 090° 12' 00.48"W and charting a 29-foot sounding, danger circle with blue tint (K-41) and label Obstn in 29° 03' 18.13"N 090° 12' 01.04"W.~~

~~The charted platform in 29° 02' 32.46"N 090° 12' 56.91"W was not found during this survey. Recommend removing the charted platform symbol in 29° 02' 32.46"N 090° 12' 56.91" W.~~

~~The charted platform labeled Platforms in 29° 03' 22.16"N 090° 13' 18.61"W was found in its charted location (feature 455). No changes to the chart are recommended for the charted platform labeled Platforms in 29° 03' 22.16"N 090° 13' 18.61"W.~~

~~The charted platform in 29° 03’ 09.40”N 090° 13’ 13.19”W was not found during this survey. Recommend removing the charted platform symbol in 29° 03’ 09.40”N 090° 13’ 13.19”W.~~

~~The charted platform in 29° 03’ 11.69”N 090° 13’ 34.37”W was not found during this survey. Recommend removing the charted platform symbol in 29° 03’ 11.69”N 090° 13’ 34.37”W.~~
~~The charted platform in 29° 03’ 04.37”N 090° 13’ 40.64”W was not found during this survey. Recommend removing the charted platform symbol in 29° 03’ 04.37”N 090° 13’ 40.64”W.~~

~~The charted platform in 29° 03’ 23.63”N 090° 14’ 47.35”W was not found during this survey. Recommend removing the charted platform symbol in 29° 03’ 23.63”N 090° 14’ 47.35”W.~~

~~The charted platform in 29° 03’ 11.78”N 090° 14’ 56.14”W was not found during this survey. Recommend removing the charted platform symbol in 29° 03’ 11.78”N 090° 14’ 56.14”W.~~

~~The charted platform labeled Platforms in 29° 03’ 21.09”N 090° 15’ 07.62”W was found just north of the charted platform symbol (feature 452) in 29° 03’ 23.39”N 090° 15’ 07.94”W. Recommend removing the charted platform and label Platforms in 29° 03’ 21.09”N 090° 15’ 07.62”W and charting a platform symbol centered on 29° 03’ 23.39”N 090° 15’ 07.94”W and label Platform.~~

~~The charted 28-foot dangerous wreck labeled Wk in 29° 03’ 13.67”N 090° 15’ 21.76”W was found to contain two obstructions (features 267 and 268). Neither obstruction could clearly be identified as a wreck. The least depth surveyed over the charted dangerous wreck was 28 feet (8.56 meters, 0.30 meters uncertainty, feature 267) in 29° 03’ 13.67”N 090° 15’ 21.77”W. No changes recommended for the chart.~~

~~The charted dangerous wreck in 29° 02’ 59.44”N 090° 15’ 59.81”W labeled PA was not found during this survey. Recommend removing the dangerous wreck symbol and label PA charted in 29° 02’ 59.44”N 090° 15’ 59.81”W.~~

~~The charted dangerous wreck in 29° 02’ 35.92”N 090° 16’ 35.90”W labeled PA was not found during this survey. Recommend removing the dangerous wreck symbol and label PA charted in 29° 02’ 35.92”N 090° 16’ 35.90”W.~~

~~The charted submerged pipe labeled Subm pipe PA in 29° 02’ 15.79”N 090° 17’ 26.63”W was not found during this survey. Recommend removing the charted submerged pipe symbol and label Subm pipe PA in 29° 02’ 15.79”N 090° 17’ 26.63”W.~~

~~The charted platform in 29° 01’ 36.67”N 090° 15’ 32.19”W was found within the charted platform symbol in 29° 01’ 36.44”N 090° 15’ 32.67”W (feature 472). Recommend centering the charted platform symbol in 29° 01’ 36.44”N 090° 15’ 32.67”W.~~

~~The charted platform in 29° 01’ 35.04”N 090° 15’ 50.47”W was found within the charted platform symbol in 29° 01’ 35.82”N 090° 15’ 50.90”W (feature 469). A small obstruction (feature 114) which appears to be a mound next to the platform was also found within the charted platform symbol. Recommend centering the charted platform symbol in 29° 01’ 35.82”N 090° 15’ 50.90”W.~~

~~The three charted platforms in 29° 01’ 37.50”N 090° 16’ 03.78”W, 29° 01’ 34.20”N 090° 16’ 00.07”W, and 29° 01’ 32.83”N 090° 15’ 58.02”W labeled Platforms were all found within their charted platform symbols (features 458, 465 and 470 respectively). Recommend centering the charted platform symbols in 29° 01’ 37.54”N 090° 16’ 05.31”W, 29° 01’ 34.58”N 090° 16’ 00.88”W, and 29° 01’ 33.18”N 090° 15’ 59.09”W.~~

~~The charted platform in 29° 01’ 30.18”N 090° 16’ 08.43”W was found within the charted platform symbol in 29° 01’ 31.13”N 090° 16’ 08.84”W (feature 464). Recommend centering the charted platform symbol in 29° 01’ 31.13”N 090° 16’ 08.84”W.~~

~~The charted platform in 29° 01’ 27.56”N 090° 16’ 13.37”W was found within the charted platform symbol in 29° 01’ 27.27”N 090° 16’ 14.51”W (feature 471). Recommend centering the charted platform symbol in 29° 01’ 27.27”N 090° 16’ 14.51”W.~~

~~The charted platform in 29° 01’ 19.45”N 090° 17’ 06.23”W was found near its charted location in 29° 01’ 19.57”N 090° 17’ 06.36”W (feature 459). Recommend centering the charted platform symbol in 29° 01’ 19.57”N 090° 17’ 06.36”W.~~

The charted dangerous wreck in 29° 01’ 12.42”N 090° 17’ 59.26”W labeled PD was not found during this survey. Two obstructions (features 257 and 256) were identified 280 meters and 320 meters southeast of the charted dangerous wreck. Feature 256 had a least depth of 37 feet (11.21 meters, 0.30 meters uncertainty). Feature 257 also had a least depth of 37 feet (11.47 meters, 0.30 meters uncertainty). Neither of the identified obstructions could be positively identified as a wreck. Recommend removing the dangerous wreck symbol and label PD charted in 29° 01’ 12.42”N 090° 17’ 59.26”W and charting a 37-foot sounding, danger circle with blue tint (K-41) and label Obstns in 29° 01’ 05.05”N 090° 17’ 50.76”W (feature 256). ***Concur with clarification –Two obstructions determined insignificant during office processing. Do not chart obstructions. Chart present survey depths. Delete charted wreck, PD.***

The charted platform in 29° 02’ 31.29”N 090° 18’ 32.72W labeled Platform was not found during this survey. Recommend removing the charted platform symbol and label Platform in 29° 02’ 31.29”N 090° 18’ 32.72W.
Concur with clarification – Delete charted platform.

The charted 35-foot dangerous wreck in 29° 00’ 21.26”N 090° 20’ 18.44”W labeled Wk (Rep 2009) was submitted in Danger to Navigation Report #1 with a depth estimated from side scan data. Additional multibeam bathymetry data were collected over the wreck and was found to have a least depth of 38 feet (11.70 meters, 0.30 meters

uncertainty, feature 255) in 29° 00’ 21.61”N 090° 20’ 18.63”W. Recommend removing the charted 35-foot dangerous wreck and label WK (Rep 2009) in 29° 00’ 21.26”N 090° 20’ 18.44”W and charting a 38-foot sounding, danger circle with blue tint (K-26) and label Wk in 29° 00’ 21.61”N 090° 20’ 18.63”W. ***Concur with clarification – See Appendix I for final charting recommendations.***

The charted dangerous wreck in 29° 02’ 24.63”N 090° 20’ 28.90”W labeled PA was not found during this survey. Recommend removing the dangerous wreck symbol and label PA charted in 29° 02’ 24.63”N 090° 20’ 28.90”W. ***Concur – Delete charted wreck, PA .***

No breakers were observed during this survey in the area of the charted label Breakers in 29° 03’ 25.22”N 090° 19’ 02.72”W, 29° 02’ 58.68”N 090° 20’ 25.65”W, 29° 02’ 42.10”N 090° 21’ 14.74”W, 29° 02’ 36.12”N 090° 22’ 30.96”W, 29° 03’ 01.49”N 090° 22’ 57.95”W and 29° 02’ 15.47”N 090° 23’ 41.61”W. Recommend removing the label Breakers in 29° 03’ 25.22”N 090° 19’ 02.72”W, 29° 02’ 58.68”N 090° 20’ 25.65”W, 29° 02’ 42.10”N 090° 21’ 14.74”W, 29° 02’ 36.12”N 090° 22’ 30.96”W, 29° 03’ 01.49”N 090° 22’ 57.95”W and 29° 02’ 15.47”N 090° 23’ 41.61”W.
Concur with clarification – Delete charted notation Breakers.

The charted exposed wreck labeled PA in 29° 03’ 23.34”N 090° 19’ 59.87”W was not found during this survey. Recommend removing the charted exposed wreck symbol and label PA in 29° 03’ 23.34”N 090° 19’ 59.87”W.
Concur – Delete charted visible wreck, PA.

The charted 14-foot dangerous obstruction labeled Obstns (Rep 2009) in 29° 03’ 12.49”N 090° 20’ 18.74”W was reported in Danger to Navigation Report #3 (feature 304). Several obstructions were found within 150 meters of feature 304 (features 301, 302, 303, 305, 306, 307, and 308). After final processing of the data, the shoal depth for the obstruction was determined from multibeam to be 13 feet (4.18 meters, 0.30 meters uncertainty). Recommend removing the 14-foot sounding, danger circle with blue tint and label Obstns (Rep 2009) in 29° 03’ 12.49”N 090° 20’ 18.74”W and charting a 13-foot sounding, danger circle with blue tint (K-41) and label Obstns in 29° 03’ 12.49”N 090° 20’ 18.74”W. ***Concur with clarification – See Appendix I for final charting recommendations.***

The charted 9-foot dangerous obstruction in 29° 03’ 26.29”N 090° 20’ 22.26”W was reported in Danger to Navigation Report #3 (feature 248) along with 4 submerged piles (features 244, 245, 246 and 247) in the same general area. After final processing of the data, the shoal depth for the obstructions was determined to be 9 feet (2.82 meters, 0.30 meters uncertainty, feature 248). No corrections to the chart are recommended.
Concur with clarification – See Appendix I for final charting recommendations.

The charted dangerous ruins labeled Ruins (10) in 29° 03’ 02.08”N 090° 20’ 56.92”W was found to be a collapsed platform (feature 339). The least depth obtained with multibeam sonar was 11 feet (3.49 meters, 0.30 meters uncertainty) in 29° 03’ 02.19”N 090° 20’ 58.28”W. Recommend removing the charted dangerous ruins symbol and label

Ruins (10) and charting an 11-foot sounding, danger circle (K-41) and label Obstn in 29° 03’ 02.19”N 090° 20’ 58.28”W. ***Concur with clarification – Delete charted obstruction Ruins (10). Add 11ft Obstn (Subm platform) and danger curve.***

The charted pile in 29° 02’ 56.24”N 090° 21’ 20.08”W and labeled Pile was found to be a pile of debris in 29° 02’ 57.25”N 090° 21’ 21.08”W (feature 340). The debris pile appears to be composed of piles laying on the bottom and a mound of sediment with a least depth of 9 feet (2.96 meters, 0.30 meters uncertainty). Recommend removing the pile symbol and label pile in 29° 02’ 56.24”N 090° 21’ 20.08”W and charting a 9-foot sounding danger circle (K-41) and label Obstn in 29° 02’ 57.25”N 090° 21’ 21.08”W. ***Concur with clarification – Delete charted Pile. Add 9 ft Obstn (Subm pile) and danger curve.***

The charted 29-foot dangerous obstruction labeled Obstn (rep 2009) in 29° 00’ 19.57”N 090° 22’ 27.55”W was reported in Danger to Navigation Report #1 (feature 254). The initial reported depth was based on sidescan sonar and singlebeam data. Multibeam bathymetry data were subsequently collected over the obstruction and the least depth was found to be 22 feet (6.81 meters, 0.30 meters uncertainty) in 29° 00’ 19.96”N 090° 22’

28.20”W. Recommend removing the 29-foot sounding, danger circle with blue tint and label Obstn (Rep 2009) in 29° 00’ 19.57”N 090° 22’ 27.55”W and charting a 22-foot sounding, danger circle with blue tint (K-41) and label Obstn in 29° 00’ 19.96”N 090° 22’ 28.20”W. ***Concur with clarification – See Appendix I for final charting recommendation.***

The charted dangerous wreck labeled PA in 29° 00’ 24.94”N 090° 24’ 32.03”W was not found during this survey. Two obstructions were found approximately 320 meters northeast of the charted wreck in 29° 00’ 35.41”N 090° 24’ 10.55”W (feature 249) and in 29° 00’ 34.90”N 090° 24’ 08.94”W (feature 250). Feature 249 in 29° 00’ 35.41”N 090° 24’ 10.55”W had a least depth of 31 feet (9.65 meters, 0.30 meters uncertainty) while feature 250 had a least depth of 32 feet (9.96 meters, 0.30 meters uncertainty). Recommend removing the charted dangerous wreck symbol and label PA in 29° 00’ 24.94”N 090° 24’ 32.03”W and charting a 31-foot sounding, danger circle with blue tint (K-41) and label Obstns in 29° 00’ 35.41”N 090° 24’ 10.55”W.
Concur with clarification – Items determined insignificant during office processing. Chart present survey depths. Delete charted wreck, PA.

The charted submerged pipe in 29° 00’ 11.22”N 090° 25’ 36.64”W labeled Subm Pipe PA was not found during this survey. Recommend removing the submerged pipe and label Subm Pipe PA in 29° 00’ 11.22”N 090° 25’ 36.64”W.
Concur – Delete charted Subm Pipe, PA.

The charted dangerous wreck labeled PA in 29° 02’ 56.71”N 090° 23’ 35.86”W was not found during this survey. A wreck was approximately 2400 meters west southwest of the charted wreck in 29° 02’ 47.05”N 090° 25’ 05.32”W (feature 344) with a least depth of 11 feet (3.41 meters, 0.29 meters uncertainty). Recommend removing the charted

dangerous wreck symbol and label PA in 29° 02’ 56.71”N 090° 23’ 35.86”W and charting a 11-foot sounding, danger circle with blue tint (K-26) and label Wk in 29° 02’ 47.05”N 090° 25’ 05.32”W. ***Concur with clarification - Item determined insignificant during office processing. Chart present survey depths. Delete charted wreck, PA. Add 11 ft Wk and danger curve.***

The charted ~~rocks awash~~ ***dangerous submerged obstructions*** in 29° 03’ 07.33”N 090° 23’ 44.24”W, 29° 03’ 11.14”N 090° 24’ 08.35”W and 29° 03’ 17.90”N 090° 24’ 21.89”W were found to have depths ranging from 9 to 11 feet with no rocks identified in area. Recommend removing the charted ~~rocks awash~~ ***dangerous submerged obstructions*** in 29° 03’ 07.33”N 090° 23’ 44.24”W, 29° 03’ 11.14”N 090° 24’ 08.35”W and 29° 03’ 17.90”N 090° 24’ 21.89”W. ***Concur with clarification – Delete all three obstructions.***

The eastern side of Timbalier Island labeled as Marsh was no longer present. Depths across the charted island were found to range from 7 to 11 feet. Recommend removing the charted shoreline in areas covered by this survey.
Concur with clarification – See H-Cell report for charting recommendation.

The numerous charted pipelines within chart 11357_1 were found to have pipelines as charted as well as having no indication of pipelines. Examples of these findings are as follows:

The charted pipelines extending from 29° 02’ 32.77”N 090° 21’ 13.61”W to 29° 03’ 22.27”N 090° 22’ 55.52”W and 29° 03’ 08.40”N 090° 21’ 55.03”W to 29° 00’ 10.75”N 090° 21’ 39.38”W were not found during this survey. No changes to the chart are recommended as a result of this survey. ***Concur***

The charted pipeline extending from 29° 00’ 07.36”N 090° 22’ 33.27”W to 29° 03’ 14.39”N 090° 20’ 00.23”W had several pipelines identified in the same area from 29° 02’ 39.85”N 090° 20’ 29.07”W to 29° 00’ 08.44”N 090° 22’ 35.81”W. No changes to the chart are recommended as a result of this survey. ***Concur***

The charted pipeline extending from 29° 03’ 24.39”N 090° 19’ 51.35”W to 29° 00’ 28.31”N 090° 20’ 21.18”W was found as charted. No changes to the chart are recommended as a result of this survey. ***Concur***

The charted pipelines extending from 29° 03’ 30.73”N 090° 19’ 22.46”W to 29° 01’ 04.87”N 090° 17’ 10.91”W and 29° 03’ 30.08”N 090° 18’ 49.93”W to 29° 01’ 07.15”N 090° 17’ 02.37”W had several pipelines identified in the general area during this survey. No changes to the chart are recommended as a result of this survey. ***Concur***

The charted pipeline extending from 29° 01’ 16.57”N 090° 16’ 37.57”W to 29° 01’ 58.41”N 090° 17’ 17.34”W had a pipeline found approximately 50 to 60 meters west extending from 29° 02’ 40.83”N 090° 17’ 59.07”W to 29° 01’ 16.00”N 090° 16’ 39.16”W. No changes to the chart are recommended as a result of this survey. ***Concur***

Recommend updating chart with pipelines that were identified during this survey in areas that currently do not depict pipelines based on the pipeline track line positions document found in Appendix II (titled H11785 Pipeline Coordinates List). No recommendation is made for removing pipelines where no pipeline was found. ***Concur***

Table D-4 lists additional objects found in this survey that are recommended for addition to Chart 11357.

/**/See end of table for charting recommendations.***

Table D-4. Additional Features from H11785 for Inclusion on Chart 11357

Feature Number	Feature Position (NAD83)		Depth (Feet)	Depth (Meters)	Description
	Latitude (N)	Longitude (W)			
~~101~~	~~29° 05' 53.31"~~	~~090° 11' 16.36"~~	~~14.86~~	~~4.53~~	~~Obstruction~~
~~134~~	~~29° 04' 57.69"~~	~~090° 13' 40.92"~~	~~20.57~~	~~6.27~~	~~Rock~~
~~135~~	~~29° 05' 00.08"~~	~~090° 13' 41.05"~~	~~17.81~~	~~5.43~~	~~Rock~~
~~220~~	~~29° 01' 56.82"~~	~~090° 16' 24.51"~~	~~34.51~~	~~10.52~~	~~Obstruction~~
241**	29° 02' 16.13"	090° 21' 40.42"	23.59	7.19	Obstruction
242***	29° 03' 35.74"	090° 19' 56.42"	15.91	4.85	Obstruction
243	29° 03' 32.32"	090° 20' 08.35"	11.35	3.46	Obstruction*
251**	29° 01' 24.80"	090° 23' 52.76"	25.72	7.84	Obstruction
252	29° 00' 59.68"	090° 22' 26.97"	29.69	9.05	Obstruction*
~~258~~	~~29° 01' 15.71"~~	~~090° 16' 39.51"~~	~~36.91~~	~~11.25~~	~~Obstruction~~
~~261~~	~~29° 01' 53.13"~~	~~090° 17' 43.32"~~	~~34.58~~	~~10.54~~	~~Obstruction~~
~~264~~	~~29° 04' 07.94"~~	~~090° 16' 48.24"~~	~~15.52~~	~~4.73~~	~~Pile~~
~~266~~	~~29° 03' 51.77"~~	~~090° 16' 21.24"~~	~~22.70~~	~~6.92~~	~~Obstruction~~
~~269~~	~~29° 03' 21.91"~~	~~090° 15' 05.65"~~	~~28.02~~	~~8.54~~	~~Obstruction~~
~~270~~	~~29° 03' 32.70"~~	~~090° 15' 14.88"~~	~~25.36~~	~~7.73~~	~~Obstruction~~
~~273~~	~~29° 04' 33.55"~~	~~090° 15' 21.46"~~	~~13.68~~	~~4.17~~	~~Obstruction~~
~~280~~	~~29° 05' 16.57"~~	~~090° 14' 09.94"~~	~~4.49~~	~~1.37~~	~~Obstruction~~
~~281~~	~~29° 04' 32.52"~~	~~090° 14' 00.79"~~	~~20.51~~	~~6.25~~	~~Obstruction~~
~~294~~	~~29° 04' 55.39"~~	~~090° 13' 38.77"~~	~~25.03~~	~~7.63~~	~~Obstruction~~
~~295~~	~~29° 04' 18.56"~~	~~090° 11' 08.62"~~	~~27.89~~	~~8.50~~	~~Obstruction~~
299**	29° 01' 54.89"	090° 19' 17.29"	30.09	9.17	Obstruction
300	29° 02' 22.58"	090° 19' 51.50"	21.42	6.53	Obstruction*
309	29° 03' 32.01"	090° 19' 33.49"	15.94	4.86	Obstruction*
310**	29° 03' 27.58"	090° 19' 27.63"	20.87	6.36	Obstruction

Feature Number	Feature Position (NAD83)		Depth (Feet)	Depth (Meters)	Description
	Latitude (N)	Longitude (W)			
~~311~~	~~29° 03' 09.77"~~	~~090° 17' 31.58"~~	~~24.57~~	~~7.49~~	~~Obstruction~~
~~312~~	~~29° 03' 14.60"~~	~~090° 15' 15.26"~~	~~28.22~~	~~8.60~~	~~Obstruction~~
~~314~~	~~29° 02' 06.12"~~	~~090° 15' 08.26"~~	~~32.94~~	~~10.04~~	~~Obstructions~~
~~315~~	~~29° 02' 17.03"~~	~~090° 14' 21.19"~~	~~35.07~~	~~10.69~~	~~Obstruction~~
~~316~~	~~29° 03' 29.72"~~	~~090° 13' 22.91"~~	~~32.94~~	~~10.04~~	~~Obstruction~~
~~317~~	~~29° 03' 27.55"~~	~~090° 13' 21.67"~~	~~32.02~~	~~9.76~~	~~Obstruction~~
~~318~~	~~29° 03' 27.72"~~	~~090° 13' 20.87"~~	~~32.02~~	~~9.76~~	~~Obstruction~~
~~319~~	~~29° 04' 00.09"~~	~~090° 13' 08.86"~~	~~28.22~~	~~8.60~~	~~Obstruction~~
~~320~~	~~29° 04' 22.63"~~	~~090° 11' 24.32"~~	~~30.64~~	~~9.34~~	~~Obstruction~~
~~321~~	~~29° 04' 25.57"~~	~~090° 11' 23.40"~~	~~31.86~~	~~9.71~~	~~Obstruction~~
~~322~~	~~29° 04' 25.62"~~	~~090° 11' 18.90"~~	~~29.53~~	~~9.00~~	~~Obstruction~~
~~323~~	~~29° 04' 26.33"~~	~~090° 11' 16.47"~~	~~30.28~~	~~9.23~~	~~Obstruction~~
~~324~~	~~29° 04' 24.12"~~	~~090° 11' 05.83"~~	~~29.00~~	~~8.84~~	~~Obstruction~~
~~326~~	~~29° 04' 53.11"~~	~~090° 12' 16.15"~~	~~19.62~~	~~5.98~~	~~Obstruction~~
~~327~~	~~29° 04' 32.35"~~	~~090° 14' 15.23"~~	~~21.00~~	~~6.40~~	~~Obstruction~~
~~328~~	~~29° 04' 15.21"~~	~~090° 14' 43.85"~~	~~22.47~~	~~6.85~~	~~Obstruction~~
~~329~~	~~29° 05' 14.33"~~	~~090° 14' 30.22"~~	~~4.86~~	~~1.48~~	~~Obstruction~~
~~330~~	~~29° 05' 13.84"~~	~~090° 14' 39.70"~~	~~5.09~~	~~1.55~~	~~Obstruction~~
~~331~~	~~29° 05' 12.13"~~	~~090° 14' 43.59"~~	~~5.48~~	~~1.67~~	~~Obstruction~~
~~333~~	~~29° 05' 09.98"~~	~~090° 14' 51.91"~~	~~5.05~~	~~1.54~~	~~Pile~~
341**	29° 03' 12.01"	090° 21' 21.68"	15.35	4.68	Obstruction
342**	29° 02' 48.14"	090° 21' 46.46"	18.54	5.65	Obstruction
343**	29° 03' 17.22"	090° 22' 25.86"	11.19	3.41	Obstruction
345**	29° 00' 28.11"	090° 19' 37.45"	37.24	11.35	Obstruction
346	29° 01' 23.56"	090° 18' 34.73"	28.97	8.83	Obstruction*
~~347~~	~~29° 1' 12.94"~~	~~090° 17' 33.51"~~	~~37.43~~	~~11.41~~	~~Obstruction~~
~~349~~	~~29° 01' 08.84"~~	~~090° 16' 59.04"~~	~~38.35~~	~~11.69~~	~~Obstruction~~
~~350~~	~~29° 01' 11.76"~~	~~090° 16' 50.25"~~	~~37.11~~	~~11.31~~	~~Wreck~~
~~351~~	~~29° 01' 16.25"~~	~~090° 16' 54.21"~~	~~37.73~~	~~11.50~~	~~Obstruction~~
~~352~~	~~29° 01' 17.45"~~	~~090° 16' 45.63"~~	~~37.17~~	~~11.33~~	~~Obstruction~~
~~354~~	~~29° 01' 26.60"~~	~~090° 16' 55.07"~~	~~33.76~~	~~10.29~~	~~Obstruction~~
***/**See end of table for charting recommendations.**					

Feature Number	Feature Position (NAD83)		Depth (Feet)	Depth (Meters)	Description
	Latitude (N)	Longitude (W)			
~~355~~	~~29° 01' 43.51"~~	~~090° 17' 08.60"~~	~~36.12~~	~~11.01~~	~~Obstruction~~
~~356~~	~~29° 02' 06.29"~~	~~090° 17' 49.54"~~	~~32.35~~	~~9.86~~	~~Obstruction~~
~~357~~	~~29° 03' 16.40"~~	~~090° 17' 24.89"~~	~~24.34~~	~~7.42~~	~~Obstruction~~
~~358~~	~~29° 03' 06.77"~~	~~090° 13' 44.90"~~	~~33.23~~	~~10.13~~	~~Obstruction~~
~~361~~	~~29° 03' 17.54"~~	~~090° 13' 02.30"~~	~~32.51~~	~~9.91~~	~~Obstruction~~
~~380~~	~~29° 05' 28.27"~~	~~090° 11' 10.94"~~	~~21.88~~	~~6.67~~	~~Obstruction~~
~~384~~	~~29° 04' 42.71"~~	~~090° 13' 35.56"~~	~~24.31~~	~~7.41~~	~~Obstruction~~
~~386~~	~~29° 04' 41.25"~~	~~090° 13' 44.74"~~	~~21.88~~	~~6.67~~	~~Rock~~
~~389~~	~~29° 05' 11.71"~~	~~090° 13' 38.31"~~	~~9.45~~	~~2.88~~	~~Obstruction~~
~~390~~	~~29° 05' 09.64"~~	~~090° 13' 31.33"~~	~~15.85~~	~~4.83~~	~~Obstruction~~
~~392~~	~~29° 04' 27.62"~~	~~090° 13' 47.79"~~	~~24.61~~	~~7.50~~	~~Wreck~~
~~393~~	~~29° 04' 12.73"~~	~~090° 16' 03.40"~~	~~20.90~~	~~6.37~~	~~Obstruction~~
407	29° 02' 47.14"	090° 19' 21.28"	23.52	7.17	Obstruction*
408**	29° 02' 41.78"	090° 21' 56.24"	20.64	6.29	Obstruction
409**	29° 02' 42.26"	090° 21' 45.19"	21.26	6.48	Obstruction
410**	29° 02' 23.62"	090° 19' 39.36"	27.13	8.27	Obstruction
411**	29° 01' 29.04"	090° 19' 58.47"	33.37	10.17	Obstruction
~~415~~	~~29° 04' 34.13"~~	~~090° 16' 45.48"~~	~~15.42~~	~~4.70~~	~~Rock~~
420**	29° 03' 42.67"	090° 19' 34.82"	13.02	3.97	Obstruction
425**	29° 03' 33.24"	090° 20' 07.75"	13.81	4.21	Pile
495	29° 02' 49.65"	090° 25' 59.28"	N/A	N/A	Platform*
~~498~~	~~29° 04' 33.60"~~	~~090° 16' 13.49"~~	~~N/A~~	~~N/A~~	~~Buoy~~

#243 – Add 11 ft Obstns and danger curve.
#252 – Add 29 ft Obstn danger curve.
#300 – Add 21 ft Obstn and danger curve.
#309 – Add 16 ft Obstn and danger curve.
#346 – Add 29 ft Obstn and danger curve.
#407 – Add 23 ft Obstn and danger curve.
#495 – Add platform.
*** Items determined insignificant during office processing. Chart present survey depths if adequate spacing at chart scale.***
****#242- Item falls within the SLCON area. Do not chart.***

Chart 11340, 1/458,596 scale, 74th Edition 08/01/2009 corrected by NTM through 10/03/2009

The survey bounds for H11785 fall entirely within the limits of Chart 11340. The depths and features from this survey should supersede the presently charted information over their common areas. Listed below are details of the comparison between this survey and Chart 11340.

~~There are numerous platforms located in the vicinity of the two charted danger circles labeled Obstns PA in 29° 04' 24.90"N 090° 09' 40.74"W and 29° 03' 59.24"N 090° 09' 04.19"W. There was one obstruction identified in 29° 04' 24.77"N 090° 09' 51.99"W with a least depth of 5¾ fathoms (10.57 meters, 34 feet, 0.30 meters uncertainty, feature 365) located within the danger circle charted in 29° 04' 24.90"N 090° 09' 40.74"W. There were also obstructions identified adjacent to a platform in 29° 03' 58.82"N 090° 09' 23.30"W with a least depth of 6 fathoms (11.22 meters, 37 feet, 0.30 meters uncertainty, feature 366) located on the outer edge of the charted danger circle in 29° 03' 59.24"N 090° 09' 04.19"W. Recommend charting the two danger circles centered 29° 04' 24.77"N 090° 09' 51.99"W and 29° 03' 58.82"N 090° 09' 23.30"W respectively and label Obstns.~~

The charted 5½-fathom sounding in 29° 03' 35.23"N 090° 12' 09.74"W was found to be 5¾ fathoms. Recommend charting a 5¾-fathom sounding in 29° 03' 35.23"N 090° 12' 09.74"W. ***Concur***

~~The charted navigational aid Fl R 3M "6" in 29° 05' 06.88"N 090° 13' 30.91"W was found to be no longer operational. The pile for the navigational aid was located in 29° 05' 06.88"N 090° 13' 30.91"W. A red buoy numbered 4 is now located in 29° 04' 42.30"N 090° 13' 33.23"W (feature 436).~~

~~The charted navigational aid Fl G 2.5s 5M "3" Ra Ref in 29° 04' 48.46"N 090° 13' 46.06"W was found to be no longer operational. The pile for the navigational aid was located in 29° 04' 45.71"N 090° 13' 46.05"W. A green buoy numbered 3 is now located in 29° 04' 45.03"N 090° 13' 45.94"W (feature 439).~~

~~The charted dangerous wreck with a least depth of 4½ fathoms in 29° 03' 16.38"N 090° 15' 12.73"W had three obstructions identified near this position, but none were identified as a wreck. The first obstruction was in 29° 03' 13.67"N 090° 15' 21.77"W with a least depth of 4¾ fathoms (8.56 meters, 28 feet, 0.30 meters uncertainty, feature 267). A second obstruction with a least depth of 4¾ fathoms (8.61 meters, 28 feet, 0.30 meters uncertainty, feature 268) was located in 29° 03' 15.18"N 090° 15' 22.78"W. The third obstruction with a least depth of 4¾ fathoms (8.60 meters, 28 feet, 0.30 meters uncertainty, feature 312) in 29° 03' 14.60"N 090° 15' 15.26"W appears to be a section of suspended pipe. Recommend removing the charted 4½-fathom sounding, danger circle and label WK in 29° 03' 16.38"N 090° 15' 12.73"W and charting a 4¾-fathom sounding, danger circle and label Obstns in 29° 03' 13.67"N 090° 15' 21.77"W.~~

~~The charted dangerous wreck labeled PA in 29° 03’ 03.03”N 090° 15’ 59.24”W was not found during this survey. Recommend removing the charted dangerous wreck danger circle and label PA in 29° 03’ 03.03”N 090° 15’ 59.24”W.~~

~~The charted dangerous wreck labeled PA in 29° 03’ 02.97”N 090° 15’ 59.31”W was not found during this survey. Recommend removing the charted dangerous wreck danger circle and label PA in 29° 03’ 02.97”N 090° 15’ 59.31”W.~~
~~The charted dangerous wreck with a least depth of 5¼ fathoms in 29° 01’ 11.62”N 090° 16’ 41.73”W was not covered completely during this survey. A wreck was located in 29° 01’ 11.76”N 090° 16’ 50.25”W with a least depth of 6½ fathoms (11.31 meters, 37 feet, 0.30 meters uncertainty, feature 350). No charting corrections are recommended for this item~~.

~~The charted dangerous wreck labeled PD in 29° 01’ 26.55”N 090° 18’ 06.89”W was not found during this survey. An obstruction was found in 29° 01’ 23.56”N 090° 18’ 34.73”W with a least depth of 4¾ fathoms (8.83 meters, 29 feet, 0.30 meters uncertainty, feature 346). Recommend removing the charted dangerous wreck, danger circle and label PD in 29° 01’ 26.55”N 090° 18’ 06.89”W and charting a 4¾-fathom sounding, danger circle and label Obstn in 29° 01’ 23.56”N 090° 18’ 34.73”W.~~

~~The charted pipe labeled Pipe PA in 29° 02’ 19.60”N 090° 17’ 26.13”W was not found during this survey. Recommend removing the charted pipe symbol and label Pipe PA in 29° 02’ 19.60”N 090° 17’ 26.13”W.~~

The charted 1¾-fathom sounding in 29° 03’ 24.43”N 090° 17’ 50.40”W was found to be in depths of 4¼ fathoms. Recommend updating the 1¾-fathom sounding in 29° 03’ 24.43”N 090° 17’ 50.40”W with a 4¼-fathom sounding. ***Concur***

~~The charted dangerous wreck with a least depth of 5¾ fathoms labeled as Wk (rep 2009) in 29° 00’ 21.60” N 090° 20’ 18.84” W was submitted as Danger to Navigation Report #1. Subsequent to the Danger to Navigation Report submittal additional multibeam bathymetry data were collected over the wreck. The wreck was found to have a least depth of 6½ fathoms (11.70 meters, 38 feet, 0.30 meters uncertainty, feature 255) in 29° 00’ 21.61”N 090° 20’ 18.63”W. Recommend updating the charted 5¾-fathom sounding in 29° 00’ 21.60” N 090° 20’ 18.84” W with a 6½-fathom sounding in 29° 00’ 21.61”N 090° 20’ 18.63”W and replacing label Wk (rep 2009) with Wk.~~

The charted ¾-fathom sounding in 29° 02’ 02.92”N 090° 23’ 25.82”W was found have depths of 4 fathoms. Recommend updating the charted ¾-fathom sounding in 29° 02’ 02.92”N 090° 23’ 25.82”W with a 4-fathom sounding. ***Concur***

~~The charted 2¼ fathom dangerous obstruction labeled Obstn (Rep 2009) in 29° 03’ 12.49”N 090° 20’ 18.74”W was reported in Danger to Navigation Report #3 (feature 304). Several obstructions were found within 150 meters of feature 304 (features 301, 302, 303, 305, 306, 307, and 308). After final processing of the data, the shoal depth for the obstruction was determined to be 2¼ fathoms (4.18 meters, 13 feet, 0.30 meters~~

~~uncertainty). Recommend removing the label Obstns (Rep 2009) in 29° 03’ 12.49”N 090° 20’ 18.74”W and charting a label Obstns in 29° 03’ 12.49”N 090° 20’ 18.74”W.~~

~~The charted dangerous obstruction in 29° 00’ 19.92”N 090° 22’ 28.14”W with a least depth of 4¾ and labeled Obstn (rep 2009) was submitted as Danger to Navigation Report #1. Subsequent to the Danger to Navigation Report submittal additional multibeam bathymetry data were collected over the obstruction. The obstruction was found to have a least depth of 3¾ fathoms (6.81 meters, 22 feet, 0.30 meters uncertainty, feature 254) in 29° 00’ 19.96”N 090° 22’ 28.20”W. Recommend updating the charted 4¾-fathom sounding in 29° 00’ 19.92”N 090° 22’ 28.14”W with a 3¾-fathom sounding in 29° 00’ 19.96”N 090° 22’ 28.20”W and replacing label Obstn (rep 2009) with label Obstn.~~

~~The charted dangerous wreck in 29° 00’ 29.49”N 090° 24’ 34.39”W labeled PA was not found during this survey. Two obstructions were located within the charted danger circle. The first obstruction in 29° 00’ 35.41”N 090° 24’ 10.55”W had a least depth of 5¼ fathoms (9.65 meters, 31 feet, 0.30 meters uncertainty, feature 249). The second obstruction in 29° 00’ 34.90”N 090° 24’ 08.94”W had a least depth of 5½ fathoms (9.96 meters, 32 feet, 0.30 meters uncertainty, feature 250). Recommend removing the charted wreck, danger circle and label PA in 29° 00’ 29.49”N 090° 24’ 34.39”W and charting a 5½-fathom sounding, danger circle and label Obstns in 29° 00’ 34.90”N 090° 24’ 08.94”W.~~

~~The charted pipe in 29° 00’ 16.43”N 090° 25’ 37.43”W labeled Pipe PA was not found during this survey. Recommend removing the charted pipe symbol and label Pipe PA in 29° 00’ 16.43”N 090° 25’ 37.43”W.~~

Table D-5 lists additional objects found in this survey that are recommended for addition to Chart 11340.

Table D-5. Additional Features from H11785 for Inclusion on Chart 11340

Feature Number	Feature Position (NAD83)		Depth (Meters)	Depth (Feet)	Description
	Latitude (N)	Longitude (W)			
~~251~~	~~29º 01’ 24.80”~~	~~090º 23’ 52.76”~~	~~7.84~~	~~25.72~~	~~Obstruction~~
~~264~~	~~29º 04’ 07.94”~~	~~090º 16’ 48.24”~~	~~4.73~~	~~15.52~~	~~Pile~~
~~266~~	~~29º 03’ 51.77”~~	~~090º 16’ 21.24”~~	~~6.92~~	~~22.70~~	~~Obstructions~~
~~273~~	~~29º 04’ 33.55”~~	~~090º 15’ 21.46”~~	~~4.17~~	~~13.68~~	~~Obstructions~~
~~279~~	~~29º 05’ 10.25”~~	~~090º 14’ 37.89”~~	~~1.69~~	~~5.54~~	~~Wreck~~
~~281~~	~~29º 04’ 32.52”~~	~~090º 14’ 00.79”~~	~~6.25~~	~~20.51~~	~~Obstruction~~
~~311~~	~~29º 03’ 09.77”~~	~~090º 17’ 31.58”~~	~~7.49~~	~~24.57~~	~~Obstruction~~
~~315~~	~~29º 02’ 17.03”~~	~~090º 14’ 21.19”~~	~~10.69~~	~~35.07~~	~~Obstruction~~
~~325~~	~~29º 05’ 12.20”~~	~~090º 11’ 45.56”~~	~~6.32~~	~~20.73~~	~~Obstruction~~
~~326~~	~~29º 04’ 53.11”~~	~~090º 12’ 16.15”~~	~~5.98~~	~~19.62~~	~~Obstruction~~

Feature Number	Feature Position (NAD83)		Depth (Meters)	Depth (Feet)	Description
	Latitude (N)	Longitude (W)			
~~329~~	~~29º 05' 14.33"~~	~~090º 14' 30.22"~~	~~1.48~~	~~4.86~~	~~Obstruction~~
~~333~~	~~29º 05' 09.98"~~	~~090º 14' 51.91"~~	~~1.54~~	~~5.05~~	~~Obstructions~~
~~339~~	~~29º 03' 02.19"~~	~~090º 20' 58.28"~~	~~3.49~~	~~11.45~~	~~Obstruction~~
~~340~~	~~29º 02' 57.25"~~	~~090º 21' 21.08"~~	~~2.96~~	~~9.71~~	~~Obstruction~~
344**	29º 02' 47.05"	090º 25' 05.32"	3.41	11.19	Wreck
362	29º 03' 18.13"	090º 12' 01.04"	9.00	29.53	Obstruction*
~~370~~	~~29º 06' 13.62"~~	~~090º 10' 34.89"~~	~~3.99~~	~~13.09~~	~~Obstructions~~
~~380~~	~~29º 05' 28.27"~~	~~090º 11' 10.94"~~	~~6.67~~	~~21.88~~	~~Obstruction~~
391	29º 04' 44.70"	090º 14' 02.37"	3.46	11.35	Obstruction***
~~407~~	~~29º 02' 47.14"~~	~~090º 19' 21.28"~~	~~7.17~~	~~23.52~~	~~Obstruction~~
~~502~~	~~29° 04' 43.34"~~	~~090° 13' 32.72"~~	~~N/A~~	~~N/A~~	~~Pile~~

#362 – Add 29 ft Obstn and danger curve.
***** Items determined insignificant during office processing. Chart present survey depths if adequate spacing at chart scale.***
******See Appendix I for final charting recommendation.***

ENC US4LA29M, 10th Edition Issued 08/14/2008 Update 08/24/2009

ENC US4LA29M covers the western half of the H11785 survey area with approximate bounding coordinates extending from the northwest around 29º 03' 23"N 090º 26' 12"W to the northeast around 29º 04' 10"N 090º 18' 00"W then to the southeast around 29º 00' 52"N 090º 18' 00"W, and to the southwest around 29º 00' 01"N 090º 26' 18"W. The remaining area of this survey is covered by ENC US5LA26M and discussed in the next section. The depths and features from this survey should supersede the presently charted information over their common areas. Listed below are details of the comparison between this survey and ENC US4LA29M.

The charted shoreline representing Timbalier Island centered around 29º 03' 08"N 090º 25' 28"W is no longer accurate. There is approximately 2-3 meters of water depth over the charted extends of the portion of Timbalier Island that are coincident with the results of this survey. ***Concur with clarification – See H-Cell report for charting recommendation.***

The charted 1.8-meter depth curve in 29º 02' 50.87"N 090º 26' 20.32"W to 29º 03' 44.00"N 090º 18' 00.00"W does not agree with the results of this survey. No depths were found to be below 1.8 meters in the areas covered by this survey. Recommend removing the 1.8-meter depth curve in areas covered by this survey. ***Concur***

The charted 1.8-meter depth curve located around approximately 29° 02' 28.10"N 090° 23' 03.74"W does not agree with the results of this survey and should be removed as there were no depths found to be below 1.8 meters in the area of this charted depth curve. ***Concur***

The charted 1.8-meter depth curve located around approximately 29° 02' 16.08"N 090° 23' 02.45"W does not agree with the results of this survey and should be removed as there were no depths found to be below 1.8 meters in the area of this charted depth curve. ***Concur***

The charted 3.6-meter depth curve covered by this survey extending west to east from approximately 29° 02' 30.93"N 090° 26' 20.10"W to 29° 03' 14.24"N 090° 18' 00.00"W does not agree with the results of this survey. The 3.6-meter depth curve based on this surveys data ranged from being very close to the charted 3.6-meter depth curve on the western most edge of survey to approximately 2500 meters inshore of the charted 3.6-meter depth curve. Recommend updating the 3.6-meter depth curve based on the data collected during this survey. ***Concur***

The charted 3.6-meter depth curve located around approximately 29° 02' 11.10"N 090° 26' 08.34"W does not agree with the results of this survey should be removed as there were no depths found to be below 3.6 meters in the area of this charted depth curve. ***Concur***

The charted 3.6-meter depth curve located around approximately 29° 01' 57.25"N 090° 25' 37.55"W does not agree with the results of this survey should be removed as there were no depths found to be below 3.6 meters in the area of this charted depth curve. ***Concur***

The charted 5.4-meter depth curve covered by this survey extending west to east from approximately 29° 01' 49.21"N 090° 26' 26.19"W to 29° 02' 45.01"N 090° 18' 00.00"W does not agree with the results of this survey. The 5.4-meter depth curve based on this surveys data ranged from being very close to the charted 5.4-meter depth curve on the western most edge of survey to approximately 2800 meters inshore of the charted 5.4-meter depth curve. Recommend updating the 5.4-meter depth curve based on the data collected during this survey. ***Concur***

The charted 9.1-meter depth curve covered by this survey extending west to east from approximately 29° 00' 14.13"N 090° 26' 18.66"W to 29° 00' 48.77"N 090° 18' 09.98"W does not agree with the results of this survey. The 9.1-meter depth curve based on this surveys data ranged from being approximately 900 meters inshore to the charted 9.1-meter depth curve on the western most edge of survey to approximately 3200 meters inshore of the charted 9.1-meter depth curve near the eastern edge of the survey. Recommend updating the 9.1-meter depth curve based on the data collected during this survey. ***Concur***

The charted sea and land areas (SEAARE/LNDARE) in 29º 03' 18"N 090º 24' 21"W, 29º 03' 11"N 090º 24' 09"W and 29º 03' 07"N 090º 23' 44"W labeled as Bayou Lafourche were not found. Depths were found to be approximately 3 meters in these areas. Recommend removing the charted SEAARE polygons centered in 29º 03' 18"N 090º 24' 21"W, 29º 03' 11"N 090º 24' 09"W and 29º 03' 07"N 090º 23' 44"W. Also recommend removing the charted LNDARE points in 29° 03' 19.36"N 090° 24' 19.62"N; 29° 03' 18.47"N 090° 24' 22.05"W; 29° 03' 11.79"N 090° 24' 08.76"W; 29° 03' 07.93"N 090° 23' 45.92"W; 29° 03' 08.10"N 090° 23' 44.90"W; 29° 03' 07.75"N 090° 23' 43.88"W and 29° 03 '07.42"N 090° 23' 44.99"W. ***Concur***

~~The charted dangerous wreck with attached question mark listed as always underwater in 29° 02' 57.36"N 090° 23' 36.08"W was not found during this survey. However a wreck was found approximately 2400 meters to the west southwest and is located in 29° 02' 47.05"N 090° 25' 05.32"W (feature 344) with a least depth of 3.4 meters. Recommend removing the charted dangerous wreck symbol and attached question mark in 29° 02' 57.36"N 090° 23' 36.08"W and charting a 3.4-meter dangerous wreck in 29° 02' 47.05"N 090° 25' 05.32"W.~~

~~The charted PILPNT (post) object located in 29° 02' 56.68"N 090° 21' 20.57"W reported to be above water level was not found. During this survey an obstruction located about 25 meters to the northwest was found in 29° 02' 57.25"N 090° 21' 21.08"W (feature 340) with a least depth of 3.0 meters. Recommend removing the charted PILPNT (post) object located in 29° 02' 56.68"N 090° 21' 20.57"W charting a 3.0-meter obstruction in 29° 02' 57.25"N 090° 21' 21.08"W.~~

~~The charted coastline area (COALNE), obstruction area (OBSTRN) located around 29º 03' 02.33"N 090º 20' 57.37"W, and the land elevation point (LNDELV) located in 29° 03' 02.34"N 090° 20' 57.30"W (with reported elevation of 3 meters) were not found. An obstruction was found in 29° 03' 02.19"N 090° 20' 58.28"W (feature 339) with a least depth of 3.5 meters. Recommend removing the charted COALNE and OBSTRN polygons centered around 29º 03' 02.33"N 090º 20' 57.37"W and the LNDELV point in 29° 03' 02.34"N 090° 20' 57.30"W. Recommend charting a 3.5-meter obstruction symbol in 29° 03' 02.19"N 090° 20' 58.28"W.~~

~~The charted obstruction point (OBSTRN) located in 29° 03' 12.50"N 090° 20' 18.70"W with a least depth of 4.2 meters was reported in Danger to Navigation Report #3 (feature 304). After final processing of the data, the shoal depth for the obstruction was determined from multibeam to be 4.2 meters located in 29° 03' 12.49"N 090° 20' 18.74"W. Recommend removing the 4.2-meter obstruction symbol, in 29° 03' 12.50"N 090° 20' 18.70"W and charting a 4.2-meter obstruction symbol in 29° 03' 12.49"N 090° 20' 18.74"W. There were also several other obstructions found within 150 meters of feature 304 (features 301, 302, 303, 305, 306, 307, and 308) which are recommended to be added to this ENC.~~

~~The charted 2.7-meter obstruction in 29° 03 '27.60"N 090° 20' 22.90"W was reported in Danger to Navigation Report #3 (feature 248) along with 4 submerged piles (features~~

~~244, 245, 246 and 247) which were found approximately 50 meters to the southeast and are recommended to be added to this ENC. After final processing of the data, the shoal depth for the obstructions was determined to be 2.8 meters. Recommend removing existing OBSTRN symbol in 29° 03 '27.60"N 090° 20' 22.90"W and charting a 2.8-meter obstruction (OBSTRN) in 29° 03 '27.62"N 090° 20' 22.87"W with a depth of 2.8 meters (feature 248).~~

~~The charted exposed dangerous wreck with attached question mark listed as always dry in 29° 03' 23.74"N 090° 20' 00.25"W was not found during this survey. Recommend removing the charted dangerous wreck and attached question mark in 29° 03' 23.74"N 090° 20' 00.25"W.~~

The charted rock awash (UWTROC) in 29° 03' 23.74"N 090° 20' 00.25"W was previously reported during this survey through Danger to Navigation Report #2. A shoreline construction area (SLCONS) labeled as breakwater was created to represent the foul area for East Timbalier breakwater as submitted in Danger to Navigation Report #2. Recommend charting the SLCONS object as submitted in the S-57 feature file (3S211785) provided as part of the H11785 delivery.
Do not concur – See Appendix I for final charting recommendations.

~~The charted dangerous wreck with attached question mark listed as always under water in 29° 02' 25.13"N 090° 20' 29.30"W was not found during this survey. Recommend removing the charted dangerous wreck and attached question mark in 29° 02' 25.13"N 090° 20' 29.30"W~~.

~~The charted production platform (OFSPLF) in 29° 02' 31.83"N 090° 18' 32.90"W was not found during this survey. Recommend removing the charted production platform symbol in 29° 02' 31.83"N 090° 18' 32.90"W.~~

~~The charted obstruction (OBSTRN) with category of snag/stump in 29° 00' 11.93"N 090° 25' 36.95"W was not found during this survey. Recommend removing the charted obstruction symbol in 29° 00' 11.93"N 090° 25' 36.95"W.~~

~~The charted dangerous wreck with attached question mark (position questionable) in 29° 00' 25.49"N 090° 24' 32.13"W was not found during this survey. Recommend removing the charted dangerous wreck symbol and attached question mark in 29° 00' 25.49"N 090° 24' 32.13"W.~~

~~The charted 8.8-meter obstruction (OBSTRN) in 29° 00' 19.90"N 090° 22' 28.10"W was reported in Danger to Navigation Report #1 (feature 254). The initial reported depth was based on side scan sonar and singlebeam data. Multibeam bathymetry data was subsequently collected over the obstruction and the least depth was found to be 6.8 meters in 29° 00' 19.96"N 090° 22 '28.20"W. Recommend removing the 8.8-meter obstruction in 29° 00' 19.90"N 090° 22' 28.10"W and charting a 6.8-meter obstruction in 29° 00' 19.96"N 090° 22 '28.20"W.~~

~~The charted dangerous wreck (WRECKS) with a least depth of 10.6 meters in 29° 00' 21.60"N 090° 20' 18.80"W was submitted as Danger to Navigation Report #1 (feature 255). Multibeam bathymetry data were subsequently collected over the wreck and the least depth was found to be 11.7 meters in 29° 00' 21.61"N 090° 20' 18.63"W. Recommend removing the charted 10.6-meter dangerous wreck in 29° 00' 21.60"N 090° 20' 18.80"W and charting an 11.7-meter dangerous wreck in 29° 00' 21.61"N 090° 20' 18.63"W.~~

~~The charted breakers (WATTUR) in 29°03'28.13"N 090°18'55.57"W, 29°03'02.00"N 090°20'22.17"W, 29°02'43.51"N 090°21'12.39"W, 29°02'37.51"N 090°22'30.64"W, 29°03'02.66"N 090°22'56.50"W and 29°02'15.98"N 090°23'40.50"W were not seen during this survey. Recommend removing the breakers (WATTUR) in 29°03'28.13"N 090°18'55.57"W, 29°03'02.00"N 090°20'22.17"W, 29°02'43.51"N 090°21'12.39"W, 29°02'37.51"N 090°22'30.64"W, 29°03'02.66"N 090°22'56.50"W and 29°02'15.98"N 090°23'40.50"W.~~

There were numerous charted pipelines within ENC US4LA29M. Some of the charted pipelines were found in the data of this survey as charted and some of the charted pipelines were not found in the data collected from this survey. In addition, some pipelines were found that are not represented on the current ENC. Examples of these findings follow.

The charted pipelines (PIPSOL) extending from approximately 29° 03’ 23.65”N 090° 22’ 57.53”W to 29° 02’ 33.42”N 090° 21’ 13.70”W and 29° 03’ 09.31”N 090° 21’ 55.38”W to 29° 00’ 10.79”N 090° 21’ 39.59”W were not found during this survey. No changes to the chart are recommended as a result of this survey. ***Concur***

The charted pipeline (PIPSOL) extending from approximately 29° 00’ 06.66”N 090° 22’ 34.64”W to 29° 03’ 25.39”N 090° 19’ 51.84”W had a pipeline identified in the same area from 29° 02’ 40.06”N 090° 20’ 29.07”W to 29° 00’ 08.44”N 090° 22’ 35.81”W. No changes to the chart are recommended as a result of this survey. ***Concur***

The charted pipeline (PIPSOL) extending from approximately 29° 00’ 18.73”N 090° 20’ 23.30”W to 29° 03’ 40.14”N 090° 19’ 49.26”W was found to have a pipeline closely associated with it. No changes to the chart are recommended as a result of this survey. ***Concur***

The charted pipeline (PIPSOL) extending from approximately 29° 03’ 50.53”N 090° 19’ 05.17”W to 29° 02’ 24.02”N 090° 18’ 00.00”W had portions of pipeline identified in the general area during this survey. No changes to the chart are recommended as a result of this survey. ***Concur***

The charted pipelines (PIPSOL) extending from approximately 29° 03’ 51.27”N 090° 19’ 06.39”W to 29° 03’ 14.22”N 090° 18’ 00.00”W and 29° 03’ 56.48”N 090° 18’ 47.14”W to 29° 03’ 32.48”N 090° 18’ 00.00”W were not found during this survey. No changes to the chart are recommended as a result of this survey. ***Concur***

Recommend charting the provided pipeline objects (PIPSOL) as submitted in the S-57 feature file (3S211785) provided as part of the H11785 delivery. No recommendation is made for removing pipelines where no pipeline was found. ***Concur***

Soundings across the surveyed area within ENC US4LA29M were generally found to range from agreement to six meters deeper than charted. Examples of these findings follow.

The 0.8-meter sounding in 29° 46’ 37.38”N 090° 17’ 40.03”W was found to have depths of 6.4 to 6.8 meters. ***Do not concur - outside of survey area.***

The 5.7-meter sounding in 28° 40’ 48.37”N 090° 11’ 09.18”W was found to have depths of 9.5 to 9.8 meters. ***Do not concur - outside of survey area.***

The 6.4-meter sounding in 28° 44’ 20.79”N 090° 18’ 18.78”W was found to have depths of 6.4 meters. ***Do not concur - outside of survey area.***

The 7.8-meter sounding in 29° 37’ 06.47”N 090° 13’ 24.40”W was found to have depths of 4.1 meters. ***Do not concur - outside of survey area.***

Recommend updating the soundings within ENC US4LA29M with depths found during this survey. ***Concur***

Table D-6 lists additional features not discussed above that are recommended for addition to ENC US4LA29M.

Table D-6. Additional Features from H11785 to be considered for charting on ENC US4LA29M

***** Items determined insignificant during office processing. Chart present survey depths if adequate spacing at chart scale.***

Feature Number	Feature Position (NAD83)		Depth (Feet)	Depth (Meters)	Description
	Latitude (N)	Longitude (W)			
~~241~~	~~29° 02' 16.13"~~	~~090° 21' 40.42"~~	~~23.58~~	~~7.19~~	~~Obstruction~~
~~242~~	~~29° 03' 35.74"~~	~~090° 19' 56.42"~~	~~15.91~~	~~4.85~~	~~Obstruction~~
~~243~~	~~29° 03' 32.32"~~	~~090° 20' 08.35"~~	~~11.35~~	~~3.46~~	~~Obstruction~~
249**	29° 00' 35.41"	090° 24' 10.55"	31.66	9.65	Obstruction
250**	29° 00' 34.90"	090° 24' 08.94"	32.67	9.96	Obstruction
~~251~~	~~29° 01' 24.80"~~	~~090° 23' 52.76"~~	~~25.72~~	~~7.84~~	~~Obstruction~~
~~252~~	~~29° 00' 59.68"~~	~~090° 22' 26.97"~~	~~29.69~~	~~9.05~~	~~Obstruction~~
~~299~~	~~29° 01' 54.89"~~	~~090° 19' 17.29"~~	~~30.08~~	~~9.17~~	~~Obstruction~~
~~300~~	~~29° 02' 22.58"~~	~~090° 19' 51.50"~~	~~21.42~~	~~6.53~~	~~Obstruction~~
~~309~~	~~29° 03' 32.01"~~	~~090° 19' 33.49"~~	~~15.94~~	~~4.86~~	~~Obstruction~~
~~310~~	~~29° 03' 27.58"~~	~~090° 19' 27.63"~~	~~20.86~~	~~6.36~~	~~Obstruction~~

Feature Number	Feature Position (NAD83)		Depth (Feet)	Depth (Meters)	Description
	Latitude (N)	Longitude (W)			
~~341~~	~~29° 03' 12.01"~~	~~090° 21' 21.68"~~	~~15.35~~	~~4.68~~	~~Obstruction~~
~~342~~	~~29° 02' 48.14"~~	~~090° 21' 46.46"~~	~~18.53~~	~~5.65~~	~~Obstruction~~
~~343~~	~~29° 03' 17.22"~~	~~090° 22' 25.86"~~	~~11.18~~	~~3.41~~	~~Obstruction~~
~~345~~	~~29° 00' 28.11"~~	~~090° 19' 37.45"~~	~~37.23~~	~~11.35~~	~~Obstruction~~
~~346~~	~~29° 01' 23.56"~~	~~090° 18' 34.73"~~	~~28.96~~	~~8.83~~	~~Obstruction~~
~~407~~	~~29° 02' 47.14"~~	~~090° 19' 21.28"~~	~~23.52~~	~~7.17~~	~~Obstruction~~
~~408~~	~~29° 02' 41.78"~~	~~090° 21' 56.24"~~	~~20.63~~	~~6.29~~	~~Obstruction~~
~~409~~	~~29° 02' 42.26"~~	~~090° 21' 45.19"~~	~~21.25~~	~~6.48~~	~~Obstruction~~
~~410~~	~~29° 02' 23.62"~~	~~090° 19' 39.36"~~	~~27.13~~	~~8.27~~	~~Obstruction~~
~~411~~	~~29° 01' 29.04"~~	~~090° 19' 58.47"~~	~~33.36~~	~~10.17~~	~~Obstruction~~
~~420~~	~~29° 03' 42.67"~~	~~090° 19' 34.82"~~	~~13.02~~	~~3.97~~	~~Obstruction~~
~~425~~	~~29° 03' 33.24"~~	~~090° 20' 07.75"~~	~~13.81~~	~~4.21~~	~~Pile~~
~~495~~	~~29° 02' 49.65"~~	~~090° 25' 59.28"~~	~~N/A~~	~~N/A~~	~~Platform~~

ENC US5LA26M, 12th Edition Issued 08/17/2009 Update 08/24/2009

ENC US5LA26M covers the eastern half of H11785 survey area with approximate bounding coordinates extending from the northwest around 29º 04' 10"N 090º 18' 00"W to the northeast around 29º 06' 46"N 090º 10' 18"W then to the southeast around 29º 03' 50"N 090º 08' 35"W, and to the southwest around 29º 00' 52"N 090º 18' 00"W. The remaining area of this survey is covered by ENC US4LA29M as discussed previously. The depths and features from this survey should supersede the presently charted information over their common areas. Listed below are details of the comparison between this survey and ENC US5LA26M.

Aids to navigation are not discussed as part of the ENC US5LA26M comparison as they are not part of the S-57 file. Discussions of the aids to navigation as observed at the time of survey can be found within the Descriptive Report Section D2 Additional Results.

~~The charted warning buoy (BOYSPP) named Belle Pass Obstruction Buoy in 29º 05' 00.05"N 090º 13' 30.98"W was not found during this survey. Recommend removing the charted warning buoy (BOYSPP) in 29º 05' 00.05"N 090º 13' 30.98"W.~~

The depth area (DEPARE) along the northern edge of East Timbalier Island extending from approximately 29º 04' 26"N 090º 17' 04"W to 29º 04' 57"N 090º 16' 03"W with charted depths of -0.2 meters to 0.0 meters was partially covered during this survey. Depths across the surveyed area were generally 1 to 5 meters. Recommend updating the depth area (DEPARE) along the northern edge of East Timbalier Island where covered by this survey. ***Concur***

The Breakwater (SLCONS) along the northern tip of East Timbalier Island listed as always dry extending from 29° 04' 41.22"N 090° 16' 38.26"W to 29° 04' 45.10"N 090°

16' 31.62"W and then from 29° 04' 45.56"N 090° 16' 31.99"W to 29° 04' 44.19"N 090° 16' 30.88"W was found to be submerged with areas awash extending along the length of East Timbalier Island as reported in Danger to Navigation Report #2. A shoreline construction area (SLCONS) labeled as breakwater was created to represent the foul area for East Timbalier breakwater as submitted in Danger to Navigation Report #2. Recommend charting the SLCONS object as submitted in the S-57 feature file (3S211785) provided as part of the H11785 delivery. Based on the results of this survey there were two small un-surveyed areas (UNSARE) created. The first is located in the northeastern end of this breakwater centered in approximately 29° 04' 48"N 090° 16' 28"W. The second was another small area just to the north centered approximately around 29° 04' 53"N 090° 16' 19"W. Both of these un-surveyed areas (UNSARE) were near a breakwater and not safely navigable and also fell outside of the H11785 statement of work area. ***Concur – See Appendix I for final charting recommendations.***

The depth area (DEPARE) centered approximately in 29° 05' 24.03"N 090° 15' 06.55"W with depths of -0.2 meters to 0.0 meters was partially covered during this survey. The area was covered from 29° 05' 13.16"N 090° 15' 31.42"W to 29° 05' 16.64"N 090° 14' 35.89"W. Depths found during this survey for the covered area ranged from 2.1 to 2.6 meters. Recommend reconstructing the depth area (DEPARE) centered approximately in 29° 05' 24.03"N 090° 15' 06.55"W based on the data from this survey where covered. ***Concur***

The un-surveyed areas (UNSARE) centered in approximately 29° 04' 42.34"N 090° 14' 57.28"W and 29° 05' 24.71"N 090° 11' 40.01"W have been largely covered based on the results of this survey. Recommend reconstructing the un-surveyed areas (UNSARE) centered in approximately 29° 04' 42.34"N 090° 14' 57.28"W and 29° 05' 24.71"N 090° 11' 40.01"W based on the data from this survey. ***Concur***

The charted breakwater areas (SLCONS and LNDARE) centered in 29° 06' 08.17"N 090° 11' 09.04"W were found to be in their charted positions. A shoreline construction area (SLCONS) labeled as breakwater was created to represent the breakwater as found during this survey. The charted breakwater area ((SLCONS (FE-009916)) noted as partially submerged at high water does not fully cover the charted breakwater/land area around 29° 05' 54"N 090° 11' 35"W ((SLCONS (FE-009887)) noted as always dry. Recommend updating the breakwater area ((SLCONS (FE-009916)) noted as partially submerged at high water to encompass all of the ((SLCONS (FE-009887)) breakwater/land areas. ***Concur***

The charted 1.8-meter depth curve in 29º 03' 45.17"N 090º 18' 00.00"W to 29º 04' 31.11"N 090º 15' 42.72"W does not agree with the results of this survey. Depths of 1.8 meters were only seen in a few places along the northern edges of the areas covered by this survey. Recommend removing the 1.8-meter depth curve in 29º 03' 45.17"N 090º 18' 00.00"W to 29º 04' 31.11"N 090º 15' 42.72"W and reconstructing the 1.8-meter depth curve as supported by this survey data. ***Concur***

The charted 1.8-meter depth curve in 29º 05' 42.53"N 090º 10' 39.00"W to 29º 06' 10.09"N 090º 09' 55.85"W does not agree with the results of this survey. Depths of 1.8 meters were only seen in a few places along the northern edges of the areas covered by this survey. Recommend removing the 1.8-meter depth curve in 29º 05' 42.53"N 090º 10' 39.00"W to 29º 06' 10.09"N 090º 09' 55.85"W and reconstructing the 1.8-meter depth curve as supported by this survey data. ***Concur***

The charted 1.8-meter depth curve within Belle Pass along the eastern jetty in 29º 05' 09.69"N 090º 13' 30.12"W to 29º 05' 10.66"N 090º 13' 30.17"W and from 29º 05' 08.19"N 090º 13' 29.56"W to 29º 05' 04.36"N 090º 13' 28.60"W generally agrees with the results of this survey. Recommend reconstructing the charted 1.8-meter depth curve within Belle Pass along the eastern jetty in 29º 05' 09.69"N 090º 13' 30.12"W to 29º 05' 10.66"N 090º 13' 30.17"W and from 29º 05' 08.19"N 090º 13' 29.56"W to 29º 05' 04.36"N 090º 13' 28.60"W based on data from this survey. ***Concur***

The charted 3.6-meter depth curve in 29º 05' 33.56"N 090º 10' 39.00"W to 29º 05' 57.54"N 090º 09' 48.53"W does not agree with the results of this survey. Depths of 3.6 meters were seen approximately 1500 meters shoreward of the charted 3.6-meter depth curve. Recommend removing the 3.6-meter depth curve in 29º 05' 33.56"N 090º 10' 39.00"W to 29º 05' 57.54"N 090º 09' 48.53"W and reconstructing the 3.6-meter depth curve as supported by this survey data. ***Concur***

The charted 3.6-meter depth curve in 29º 04' 51.68"N 090º 14' 08.27"W to 29º 04' 53.25"N 090º 13' 45.67"W does not agree with the results of this survey. Depths of 3.6 meters were seen approximately 50 to 100 meters shoreward of the charted 3.6-meter depth curve. Recommend removing the 3.6-meter depth curve in 29º 04' 51.68"N 090º 14' 08.27"W to 29º 04' 53.25"N 090º 13' 45.67"W and reconstructing the 3.6-meter depth curve as supported by this survey data. ***Concur***

The charted 3.6-meter depth curve in 29º 03' 13.83"N 090º 18' 00.00"W to 29º 03' 55.73"N 090º 15' 52.80"W does not agree with the results of this survey. Depths of 3.6 meters were seen approximately 1500 meters shoreward of the charted 3.6-meter depth curve. Recommend removing the 3.6-meter depth curve in 29º 03' 13.83"N 090º 18' 00.00"W to 29º 03' 55.73"N 090º 15' 52.80"W and reconstructing the 3.6-meter depth curve as supported by this survey data. ***Concur***

The charted 3.6-meter depth curve within Belle Pass along the eastern jetty in 29º 04' 51.75"N 090º 13' 31.99"W to 29º 05' 10.80"N 090º 13' 30.58"W generally agrees with the results of this survey. Recommend reconstruction of the charted 3.6-meter depth curve within Belle Pass along the eastern jetty in 29º 04' 51.75"N 090º 13' 31.99"W to 29º 05' 10.80"N 090º 13' 30.58"W with data from this survey. ***Concur***

The charted 3.6-meter depth curve within Belle Pass along the western jetty in 29º 05' 09.99"N 090º 13' 37.90"W to 29º 05' 02.99"N 090º 13' 40.38"W generally agrees with the results of this survey. Recommend reconstructing the charted 3.6-meter depth curve

within Belle Pass along the western jetty in 29º 05' 09.99"N 090º 13' 37.90"W to 29º 05' 02.99"N 090º 13' 40.38"W based on data from this survey. ***Concur***

The charted 3.6-meter depth curve in 29º 04' 44.55"N 090º 13' 59.77"W does not agree with the results of this survey. Recommend removing the 3.6-meter depth curve in 29º 04' 44.55"N 090º 13' 59.77"W. ***Concur***

The charted 5.4-meter depth curve in 29º 05' 44.71"N 090º 09' 40.50"W to 29º 05' 08.96"N 090º 10' 39.00"W does not agree with the results of this survey. Depths of 5.4 meters were seen approximately 1500 - 1900 meters shoreward of the charted 5.4-meter depth curve. Recommend removing the 5.4-meter depth curve in 29º 05' 44.71"N 090º 09' 40.50"W to 29º 05' 08.96"N 090º 10' 39.00"W and reconstructing the 5.4-meter depth curve as supported by this survey data. ***Concur***

The charted 5.4-meter depth curve extending around the eastern Belle Pass jetty in 29º 04' 45.52"N 090º 13' 27.05"W to 29º 05' 10.97"N 090º 13' 31.07"W generally agrees with the results of this survey. Recommend reconstructing the charted 5.4-meter depth curve extending around the eastern Belle Pass jetty in 29º 04' 45.52"N 090º 13' 27.05"W to 29º 05' 10.97"N 090º 13' 31.07"W based on data from this survey. ***Concur***

The charted 5.4-meter depth curve extending around the western Belle Pass jetty in 29º 04' 32.67"N 090º 14' 12.13"W to 29º 05' 09.81"N 090º 13' 36.38"W does not agree with the results of this survey for areas outside of Belle Pass but generally agrees inside of Bell Pass. Depths of 5.4 meters were seen approximately 50 - 100 meters shoreward of the charted 5.4-meter depth curve outside of Bell Pass. Recommend removing the 5.4-meter depth curve in 29º 04' 32.67"N 090º 14' 12.13"W to 29º 05' 09.81"N 090º 13' 36.38"W and reconstructing the 5.4-meter depth curve as supported by this survey data. ***Concur***

The charted 5.4-meter depth curve in 29º 03' 35.12"N 090º 15' 42.90"W to 29º 02' 44.85"N 090º 18' 00.00"W does not agree with the results of this survey. Depths of 5.4 meters were seen approximately 2200 meters shoreward of the charted 5.4-meter depth curve. Recommend removing the 5.4-meter depth curve in 29º 03' 35.12"N 090º 15' 42.90"W to 29º 02' 44.85"N 090º 18' 00.00"W and reconstructing the 5.4-meter depth curve as supported by this survey data. ***Concur***

The charted 9.1-meter depth curve in 29º 03' 14.42"N 090º 10' 47.71"W to 29º 04' 34.17"N 090º 08' 59.72"W does not agree with the results of this survey. Depths of 9.1 meters were seen approximately 3000 - 3300 meters shoreward of the charted 5.4-meter depth curve. Recommend removing the 5.4-meter depth curve in 29º 03' 14.42"N 090º 10' 47.71"W to 29º 04' 34.17"N 090º 08' 59.72"W and reconstructing the 5.4-meter depth curve as supported by this survey data. ***Concur***

The charted 9.1-meter depth curve in 29º 00' 52.78"N 090º 18' 00.00"W to 29º 01' 56.30"N 090º 14' 45.71"W does not agree with the results of this survey. Depths of 9.1 meters were seen approximately 3000 - 3500 meters shoreward of the charted 9.1-meter

depth curve. Recommend removing the 9.1-meter depth curve in 29º 00' 52.78"N 090º 18' 00.00"W to 29º 01' 56.30"N 090º 14' 45.71"W and reconstructing the 9.1-meter depth curve as supported by this survey data. ***Concur***

The charted 9.1-meter depth curve in 29º 03' 03.84"N 090º 15' 35.44"W to 29º 04' 42.20"N 090º 10' 58.64"W does not agree with the results of this survey. Depths of 9.1 meters were seen approximately 300 - 800 meters shoreward of the charted 9.1-meter depth curve. Recommend removing the 9.1-meter depth curve in 29º 03' 03.84"N 090º 15' 35.44"W to 29º 04' 42.20"N 090º 10' 58.64"W and reconstructing the 9.1-meter depth curve as supported by this survey data. ***Concur***

The charted breakers (WATTUR) in 29° 04' 39.64"N 090° 15' 16.16"W, and 29° 05' 07.12"N 090° 12' 16.32"W, were not seen during this survey. Recommend removing the breakers (WATTUR) in 29° 04' 39.64"N 090° 15' 16.16"W, and 29° 05' 07.12"N 090° 12' 16.32"W. ***Concur***

~~The charted production platform (OFSPLF) in 29° 03' 37.83"N 090° 17' 27.12"W was not found during this survey. Recommend removing the charted production platform in 29° 03' 37.83"N 090° 17' 27.12"W.~~

~~The charted piles (PILPNT) in 29° 04' 11.80"N 090° 17' 43.30"W and labeled Multiple piles were reported in Danger to Navigation Report #3 as two exposed piles (feature 497). The piles were found to be on the shoreward side of an extension of submerged rocks forming part of the breakwater. Recommend removing the charted piles (PILPNT) in 29° 04' 11.80"N 090° 17' 43.30"W and charting the piles (PILPNT) in 29° 04' 11.58"N 090° 17' 43.15"W.~~

~~The charted piles (PILPNT) in 29° 04' 13.80"N 090° 17' 36.90"W and labeled Multiple piles were reported in Danger to Navigation Report #3 as two exposed piles (feature 496). The piles were found to be on the shoreward side of an extension of submerged rocks forming part of the breakwater. Recommend removing the charted piles (PILPNT) in 29° 04' 13.80"N 090° 17' 36.90"W and charting the piles (PILPNT) in 29° 04' 13.82"N 090° 17' 36.87"W.~~

~~The charted dangerous wreck (WRECKS) with attached question mark listed as always dry in 29° 04' 12.98"N 090° 17' 12.96"W was not found during this survey. Recommend removing the charted dangerous wreck and attached question mark in 29° 04' 12.98"N 090° 17' 12.96"W.~~

~~The charted obstruction (OBSTRN) with attached question mark listed as depth unknown in 29° 04' 54.80"N 090° 16' 00.34"W was not found in its charted position. However an obstruction was found (feature 335) approximately 150 meters to the east in 29° 04' 55.25"N 090° 15' 53.87"W with a least depth of 2.7. Recommend removing the charted obstruction (OBSTRN) with attached question mark in 29° 04' 54.80"N 090° 16' 00.34"W and charting a 2.7-meter obstruction in 29° 04' 55.25"N 090° 15' 53.87"W.~~

~~The charted obstruction (OBSTRN) with attached question mark listed as depth unknown in 29° 05' 05.91"N 090° 15' 23.96"W was not found in its charted position. Recommend removing the charted obstruction (OBSTRN) with attached question mark in 29° 05' 05.91"N 090° 15' 23.96"W.~~

~~The charted dangerous wreck (WRECKS) with attached question mark listed as always under water in 29° 04' 44.81"N 090° 15' 25.32"W was not found during this survey. Recommend removing the charted dangerous wreck and attached question mark in 29° 04' 44.81"N 090° 15' 25.32"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 57.95”N 090° 15' 22.22"W was not found during this survey. An obstruction was found approximately 20 meters northeast in 29° 04' 58.23N 090° 15' 21.62"W with a least depth of 2.5 meters (feature 334). Recommend removing the charted production platform in 29° 04' 57.895”N 090° 15' 22.12"W and charting a 2.5-meter obstruction in 29° 04' 58.23N 090° 15' 21.62"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 36.04”N 090° 15' 16.79"W was not found during this survey. Several obstructions were found approximately 120 meters southwest (features 273, 274, 275 and 276). Recommend removing the charted production platform in 29° 04' 36.04”N 090° 15' 16.79"W and charting a 4.2-meter obstruction in 29° 04' 33.55”N 090° 15' 21.46"W (feature 273), a 4.4meter obstruction in 29° 04' 32.74”N 090° 15' 21.06"W (feature 274), a 4.2-meter obstruction in 29° 04' 33.50”N 090° 15' 20.73"W (feature 275) and a 4.7-meter obstruction in 29° 04' 34.52”N 090° 15' 21.23"W (feature 276).~~

~~The charted dangerous wreck (WRECKS) with attached question mark listed as always under water in 29° 05' 05.99"N 090° 14' 36.00"W was found approximately 150 meters north northeast (feature 279) in 29° 05' 10.25"N 090° 14' 37.89"W with a least depth of 1.7 meters. An obstruction (feature 278) was also found approximately 130 meters north northeast in 29° 05' 09.69"N 090° 14' 36.96"W with a least depth of 2.0 meters. Recommend removing the charted dangerous wreck and attached question mark in 29° 05' 05.99"N 090° 14' 36.00"W and charting a 1.7-meter wreck in 29° 05' 10.25"N 090° 14' 37.89"W as well as charting a 2.0-meter obstruction in 29° 05' 09.69"N 090° 14' 36.96"W.~~

~~The charted obstruction (OBSTRN) with attached question mark listed as depth unknown in 29° 04' 54.90"N 090° 14' 12.26"W was not found in its charted position. Recommend removing the charted obstruction (OBSTRN) with attached question mark in 29° 04' 54.90"N 090° 14' 12.26"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 56.96”N 090° 14' 37.25"W was not found during this survey. Recommend removing the charted production platform in 29° 04' 56.96”N 090° 14' 37.25"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 53.64”N 090° 14' 24.20"W was found near its charted position in 29° 04' 53.46”N 090° 14' 24.09"W(feature 475). No changes are recommended as a result of this survey.~~

~~The charted production platform (OFSPLF) in 29° 04' 42.83”N 090° 14' 16.27"W was not found during this survey. Recommend removing the charted production platform in 29° 04' 42.83”N 090° 14' 16.27"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 42.36”N 090° 14' 17.34"W was found near its charted position in 29° 04' 42.42”N 090° 14' 17.53"W (feature 483). No changes are recommended as a result of this survey.~~

~~The charted production platform (OFSPLF) in 29° 04' 40.98"N 090° 14' 15.97"W was not found during this survey. Recommend removing the charted production platform in 29° 04' 40.98"N 090° 14' 15.97"W.~~

~~The charted obstruction (OBSTRN) listed as depth unknown in 29° 04' 41.05"N 090° 14' 15.93"W was not found in its charted position. Recommend removing the charted obstruction (OBSTRN) in 29° 04' 41.05"N 090° 14' 15.93"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 32.93"N 090° 14' 21.22"W was not found during this survey. Recommend removing the charted production platform in 29° 04' 32.93N 090° 14' 21.22"W. However a platform was found in 29°04'32.78"N 90°14'21.85"W (feature 462). Recommend charting a platform (OFSPLF) in 29°04'32.78"N 90°14'21.85"W.~~

~~The charted obstruction (OBSTRN) listed as depth unknown in 29° 04' 32.90"N 090° 14' 21.26"W was not found in its charted position. Recommend removing the charted obstruction (OBSTRN) in 29° 04' 32.90"N 090° 14' 21.26"W.~~

The charted dangerous wreck (WRECKS) with attached question mark listed as always under water in 29° 05' 15.83"N 090° 14' 01.34"W was not found during this survey. Recommend removing the charted dangerous wreck and attached question mark in 29° 05' 15.83"N 090° 14' 01.34"W. ***Do not concur – Area was not adequately investigated. Retain as charted.***

~~The charted 3.3-meter obstruction (OBSTRN) in 29° 04' 44.70"N 090° 14' 02.40"W was reported in Danger to Navigation Report #3 (feature 391). After final processing of data, a depth of 3.5 meters was confirmed. Recommend removing the charted 3.3-meter obstruction (OBSTRN) in 29° 04' 44.70"N 090° 14' 02.40"W and charting a 3.5-meter obstruction (OBSTRN) in 29° 04' 44.70"N 090° 14' 02.37"W.~~

~~The charted obstruction (OBSTRN) with attached question mark listed as depth unknown in 29° 04' 48.00"N 090° 13' 35.00"W was not found in its charted position. Several obstructions were found approximately 25 to 65 meters south (features 282, 283 and 284) Recommend removing the charted obstruction (OBSTRN) with attached question mark in~~

~~29° 04' 48.00"N 090° 13' 35.00"W and charting a 6.3-meter obstruction (feature 282) in 29° 04' 47.25"N 090° 13' 35.32"W, a 7.1-meter obstruction (feature 283) in 29° 04' 45.96"N 090° 13' 35.89"W and a 7.3-meter obstruction (feature 284) in 29° 04' 46.22"N 090° 13' 36.26"W.~~
~~The charted obstruction (OBSTRN) with attached question mark listed as depth unknown in 29° 04' 54.08"N 090° 13' 34.20"W was not found in its charted position. Recommend removing the charted obstruction (OBSTRN) with attached question mark in 29° 04' 54.08"N 090° 13' 34.20"W.~~

~~The charted obstruction (OBSTRN) with attached question mark listed as depth unknown in 29° 04' 56.62"N 090° 13' 30.33"W was not found in its charted position. Recommend removing the charted obstruction (OBSTRN) with attached question mark in 29° 04' 56.62"N 090° 13' 30.33"W.~~

~~The charted obstruction (OBSTRN) with attached question mark listed as depth unknown in 29° 04' 58.00"N 090° 13' 33.60"W was not found in its charted position. Several obstructions were found (features 285, 286 and 290) within 50 meters of the charted obstruction. Recommend removing the charted obstruction (OBSTRN) with attached question mark in 29° 04' 58.00"N 090° 13' 33.60"W and charting a 3.2-meter underwater rock (feature 285) in 29° 04' 57.81"N 090° 13' 32.15"W, a 3.6-meter underwater rock (feature 286) in 29° 04' 56.44"N 090° 13' 32.72"W and a 4.4 meter underwater rock (feature 290) in 29° 04' 56.79"N 090° 13' 33.61"W.~~

The charted pile (PILPNT) in 29° 04' 54.80"N 090° 13' 29.26"W was not found during this survey. Recommend removing the charted pile (PILPNT) in 29° 04' 54.80"N 090° 13' 29.26"W. ***Do not concur – Item is an Obstn (Subm pile) not a PILPNT. Area was not adequately surveyed. Retain as charted.***

~~The charted dangerous wreck (WRECKS) with attached question mark listed as always under water in 29° 05' 00.88"N 090° 13' 18.23"W was not found during this survey. Recommend removing the charted dangerous wreck and attached question mark in 29° 05' 00.88"N 090° 13' 18.23"W.~~

~~The charted obstruction (OBSTRN) with attached question mark listed as depth unknown in 29° 05' 00.90"N 090° 13' 00.27"W was not found during this survey. Recommend removing the charted obstruction (OBSTRN) with attached question mark in 29° 05' 00.90"N 090° 13' 00.27"W.~~

The charted dangerous wreck (WRECKS) with attached question mark listed as always under water in 29° 05' 54.92"N 090° 12' 36.28"W was not found during this survey. Recommend removing the charted dangerous wreck and attached question mark in 29° 05' 54.92"N 090° 12' 36.28"W. ***Do not concur – No wreck(s) in this location.***

~~The charted production platform (OFSPLF) in 29° 05' 13.72”N 090° 11' 47.54"W and associated obstruction (OBSTRN) listed as depth unknown in 29° 05' 13.80”N 090° 11' 47.47"W were not found during this survey. Recommend removing the charted~~

~~production platform (OFSPLF) in 29° 05' 13.72”N 090° 11' 47.54"W and associated obstruction (OBSTRN) in 29° 05' 13.80”N 090° 11' 47.47"W.~~

~~The charted production platform (OFSPLF) in 29° 05' 10.44”N 090° 11' 47.08"W and associated obstruction (OBSTRN) listed as depth unknown in 29° 05' 10.28”N 090° 11' 47.06"W were not found during this survey. Recommend removing the charted production platform (OFSPLF) in 29° 05' 10.44”N 090° 11' 47.08"W and associated obstruction (OBSTRN) in 29° 05' 10.28”N 090° 11' 47.06"W.~~

~~The charted production platform (OFSPLF) in 29° 06' 14.13”N 090° 10' 34.07"W and associated obstruction (OBSTRN) listed as mineral platform in 29° 06' 14.16”N 090° 10' 34.29"W was found to have a platform (feature 463) within 10 meters in 29° 06' 14.16”N 090° 10' 34.29"W. Recommend removing the charted production platform (OFSPLF) in 29° 06' 14.13”N 090° 10' 34.07"W and associated obstruction (OBSTRN) listed as mineral platform in 29° 06' 14.16”N 090° 10' 34.29"W and charting a platform in 29° 06' 14.16”N 090° 10' 34.29"W. Additionally, several obstructions (features 369, 370, 371, 372, 373, 374 and 375) were also found within 60 meters of the charted platforms which are also recommended for charting.~~

~~The charted pile (PILPNT) in 29° 06' 19.00"N 090° 10' 42.70"W was not found during this survey. Recommend removing the charted pile (PILPNT) in 29° 06' 19.00"N 090° 10' 42.70"W.~~

~~The charted obstruction (OBSTRN) listed as wellhead in 29° 06' 11.12"N 090° 10' 27.08"W was not found during this survey. Recommend removing the charted obstruction (OBSTRN) listed as wellhead in 29° 06' 11.12"N 090° 10' 27.08"W.~~

~~The charted obstruction (OBSTRN) listed as wellhead in 29° 06' 04.08"N 090° 10' 18.11"W was not found during this survey. Recommend removing the charted obstruction (OBSTRN) listed as wellhead in 29° 06' 04.08"N 090° 10' 18.11"W.~~

~~The charted obstruction (OBSTRN) listed as wellhead in 29° 06' 17.08"N 090° 10' 09.20"W was not found during this survey. Recommend removing the charted obstruction (OBSTRN) listed as wellhead in 29° 06' 17.08"N 090° 10' 09.20"W.~~

~~The charted 1.5 obstruction (OBSTRN) in 29° 06' 34.30"N 090° 10' 33.70"W was reported in Danger to Navigation Report #3 (feature 376). After final processing of the data, a depth of 1.6 meters was confirmed. Recommend removing the charted 1.5-meter obstruction (OBSTRN) in 29° 06' 34.30"N 090° 10' 33.70"W and charting a 1.6-meter obstruction (OBSTRN) in 29° 06' 34.28"N 090° 10' 33.71"W.~~

~~The charted 1.5 obstruction (OBSTRN) in 29° 06' 39.80"N 090° 10' 23.50"W was reported in Danger to Navigation Report #3 (feature 378). After final processing of the data, a depth of 1.7 meters was confirmed. An additional obstruction was also found (feature 377) in 29° 06' 40.73"N 090° 10' 21.93"W with a least depth of 2.7 meters. Recommend removing the charted 1.5 obstruction (OBSTRN) in 29° 06' 39.80"N 090°~~

~~10' 23.50"W and charting a 1.7-meter obstruction in 29° 06' 39.75"N 090° 10' 23.54"W. Also recommend charting a 2.7-meter obstruction in 29° 06' 40.73"N 090° 10' 21.93"W.~~

~~The charted production platform (OFSPLF) in 29° 05' 44.78”N 090° 09' 51.20"W and associated production platform (OFSPLF) in 29° 05' 44.53”N 090° 09' 51.08"W was found to have a platform (feature 477) within 10 meters located in 29° 05' 44.44”N 090° 09' 51.05"W. Recommend removing the charted production platform (OFSPLF) in 29° 05' 44.78”N 090° 09' 51.20"W and associated production platform (OFSPLF) in 29° 05' 44.53”N 090° 09' 51.08"W and charting a platform in 29° 05' 44.44”N 090° 09' 51.05"W.~~

~~The charted production platform (OFSPLF) in 29° 05' 42.52”N 090° 09' 40.58"W was not found during this survey. Recommend removing the charted production platform in 29° 05' 42.52”N 090° 09' 40.58"W.~~

~~The charted production platform (OFSPLF) in 29° 05' 19.78”N 090° 10' 28.25"W and associated obstruction (OBSTRN) in 29° 05' 19.90”N 090° 10' 28.30"W was found to have a platform (feature 440) within 10 meters located in 29° 05' 19.68”N 090° 10' 28.48"W but no obstruction was found. Recommend removing the charted production platform (OFSPLF) in 29° 05' 19.78”N 090° 10' 28.25"W and associated obstruction (OBSTRN) in 29° 05' 19.90”N 090° 10' 28.30"W and charting a platform (OFSPLF) in 29° 05' 19.68”N 090° 10' 28.48"W.~~

~~The charted production platform (OFSPLF) in 29° 05' 05.81”N 090° 10' 33.23"W was found in 29° 05' 05.49”N 090° 10' 33.00"W (feature 444). Recommend removing the charted production platform in 29° 05' 05.81”N 090° 10' 33.23"W and charting a platform in 29° 05' 05.49”N 090° 10' 33.00"W.~~

~~The charted production platform (OFSPLF) in 29° 05' 07.67”N 090° 10' 36.00"W was found in 29° 05' 07.82”N 090° 10' 35.34"W (feature 441). An additional platform connected by a cat walk was also found in 29° 05' 06.72”N 090° 10' 36.16"W (feature 493). Recommend removing the charted production platform in 29° 05' 07.67”N 090° 10' 36.00"W and charting platforms in 29° 05' 07.82”N 090° 10' 35.34"W and 29° 05' 06.72”N 090° 10' 36.16"W.~~

~~The charted production platform (OFSPLF) in 29° 05' 08.29”N 090° 10' 35.03"W was not found during this survey. Recommend removing the charted production platform in 29° 05' 08.29”N 090° 10' 35.03"W.~~

~~The charted production platform (OFSPLF) in 29° 05' 08.07”N 090° 09' 52.27"W was found near its charted position (feature 445) in 29° 05' 08.99”N 090° 09' 52.15"W. Recommend removing the charted production platform (OFSPLF) in 29° 05' 08.07”N 090° 09' 52.27"W and charting a platform in 29° 05' 08.99”N 090° 09' 52.15"W.~~

~~The charted production platform (OFSPLF) in 29° 05' 21.09”N 090° 09' 27.32"W and associated obstruction in 29° 05' 20.90”N 090° 09' 27.20"W had a platform found in 29° 05' 20.33”N 090° 09' 27.96"W (feature 442). Recommend removing the charted~~

~~production platform in 29° 05' 21.09”N 090° 09' 27.32"W and associated obstruction in 29° 05' 20.90”N 090° 09' 27.20"W and charting a platform in 29° 05' 20.33”N 090° 09' 27.96"W.~~

~~The charted production platform (OFSPLF) in 29° 05' 09.10”N 090° 09' 51.46"W was not found during this survey. Recommend removing the charted production platform in 29° 05' 09.10”N 090° 09' 51.46"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 57.86”N 090° 10' 09.89"W was found in 29° 04' 57.40”N 090° 10' 09.67"W (feature 443). Recommend removing the charted production platform (OFSPLF) in 29° 04' 57.86”N 090° 10' 09.89"W and charting a platform in 29° 04' 57.40”N 090° 10' 09.67"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 55.97”N 090° 10' 09.02"W was not found during this survey. Recommend removing the charted production platform in 29° 04' 55.97”N 090° 10' 09.02"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 41.01”N 090° 10' 22.19"W was found in 29° 04' 40.69”N 090° 10' 22.32"W (feature 451). An obstruction was also found in 29° 04' 41.06”N 090° 10' 23.02"W (feature 58) with a least depth of 9.0 meters which is a mound of sediment beside the platform. Recommend removing the charted production platform (OFSPLF) in 29° 04' 41.01”N 090° 10' 22.19"W and charting a platform in 29° 04' 40.69”N 090° 10' 22.32"W and charting a 9.0-meter obstruction (OBSTRN) in 29° 04' 41.06”N 090° 10' 23.02"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 27.92”N 090° 10' 13.03"W was not found during this survey. Recommend removing the charted production platform in 29° 04' 27.92”N 090° 10' 13.03"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 22.76”N 090° 10' 00.22"W was near its charted position (feature 461) in 29° 09' 22.78”N 090° 19' 00.23"W. Recommend removing the charted production platform (OFSPLF) in 29° 04' 22.76”N 090° 10' 00.22"W and charting a platform in 29° 09' 22.78”N 090° 19' 00.23"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 19.71”N 090° 10' 04.28"W was found in 29° 04' 20.15”N 090° 10' 04.59"W (feature 460). Recommend removing the charted production platform (OFSPLF) in 29° 04' 19.71”N 090° 10' 04.28"W and charting a platform in 29° 04' 20.15”N 090° 10' 04.59"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 18.22”N 090° 10' 25.06"W was found in 29° 04' 18.65”N 090° 10' 25.34"W (feature 456). Recommend removing the charted production platform (OFSPLF) in 29° 04' 18.22”N 090° 10' 25.06"W and charting a platform in 29° 04' 18.65”N 090° 10' 25.34"W.~~
~~The charted production platform (OFSPLF) in 29° 04' 13.76”N 090° 10' 06.26"W was found in 29° 04' 13.98”N 090° 10' 05.91"W (feature 482). Recommend removing the~~

~~charted production platform (OFSPLF) in 29° 04' 13.76”N 090° 10' 06.26"W and charting a platform in 29° 04' 13.98”N 090° 10' 05.91"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 08.24”N 090° 10' 20.16"W was found in 29° 04' 08.10”N 090° 10' 19.87"W (feature 492). An obstruction was also found in 29° 04' 08.63”N 090° 10' 19.77"W (feature 231) with a least depth of 9.6 meters which is a mound of sediment beside the platform. Recommend removing the charted production platform (OFSPLF) in 29° 04' 08.24”N 090° 10' 20.16"W and charting a platform in 29° 04' 08.10”N 090° 10' 19.87"W as well as charting a 9.6-meter obstruction (OBSTRN) in 29° 04' 08.63”N 090° 10' 19.77"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 55.34”N 090° 10' 18.03"W was found in 29° 03' 56.27”N 090° 10' 18.25"W (feature 488). Recommend removing the charted production platform (OFSPLF) in 29° 03' 55.34”N 090° 10' 18.03"W and charting a platform in 29° 03' 56.27”N 090° 10' 18.25"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 08.80”N 090° 09' 43.88"W was found in 29° 04' 06.35”N 090° 09' 46.90"W (feature 489). Recommend removing the charted production platform (OFSPLF) in 29° 04' 08.80”N 090° 09' 43.88"W and charting a platform in 29° 04' 06.35”N 090° 09' 46.90"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 13.10”N 090° 09' 35.19"W was found in 29° 04' 12.98”N 090° 09' 35.27"W (feature 490). Recommend removing the charted production platform (OFSPLF) in 29° 04' 13.10”N 090° 09' 35.19"W and charting a platform in 29° 04' 12.98”N 090° 09' 35.27"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 21.76”N 090° 09' 25.08"W was found in 29° 04' 21.76”N 090° 09' 24.81"W (feature 491). Recommend removing the charted production platform (OFSPLF) 29° 04' 21.76”N 090° 09' 25.08"W and charting a platform in 29° 04' 21.76”N 090° 09' 24.81"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 18.80”N 090° 09' 39.20"W was found in 29° 04' 18.33”N 090° 09' 38.99"W (feature 486). Recommend removing the charted production platform (OFSPLF) 29° 04' 18.80”N 090° 09' 39.20"W and charting a platform in 29° 04' 18.33”N 090° 09' 38.99"W.~~

~~The charted obstruction (OBSTRN) with attached question mark listed as depth unknown in 29° 04' 20.00"N 090° 09' 42.00"W was not found during this survey. Recommend removing the charted obstruction (OBSTRN) with attached question mark in 29° 04' 20.00"N 090° 09' 42.00"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 08.45”N 090° 09' 29.14"W was found in 29° 04' 08.99”N 090° 09' 28.35"W (feature 485). Recommend removing the charted production platform (OFSPLF) 29° 04' 08.45”N 090° 09' 29.14"W and charting a platform in 29° 04' 08.99”N 090° 09' 28.35"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 59.88”N 090° 09' 24.34"W was found in 29° 03' 59.68”N 090° 09' 24.15"W (feature 487). Multiple obstructions were also found in 29° 03' 58.82”N 090° 09' 23.30"W (feature 366) with a least depth of 11.2 meters. Recommend removing the charted production platform (OFSPLF) 29° 03' 59.88”N 090° 09' 24.34"W and charting a platform in 29° 03' 59.68”N 090° 09' 24.15"W and charting an 11.2-meter obstruction (OBSTRN) in 29° 03' 58.82”N 090° 09' 23.30"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 55.76”N 090° 09' 06.21"W and adjacent charted obstruction (OBSTRN) with attached question mark listed as depth unknown in 29° 03' 55.00"N 090° 09' 05.00"W was found to be a collapsed platform in 29° 03' 56.21”N 090° 09' 07.00"W (feature 367) with a least depth of 5.6 meters. A danger buoy in 29° 03' 56.43”N 090° 09' 06.08"W also marked the location of the collapsed platform which was releasing larges amounts of gas causing significant bubble activity on the surface. Recommend removing the charted production platform (OFSPLF) 29° 03' 55.76”N 090° 09' 06.21"W and adjacent charted obstruction (OBSTRN) with attached question mark in 29° 03' 55.00"N 090° 09' 05.00"W and charting a 5.6-meter obstruction (OBSTN) in 29° 03' 56.21”N 090° 09' 07.00"W and a danger buoy (BOYISD) in 29° 03' 56.43”N 090° 09' 06.08"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 52.12”N 090° 09' 54.45"W was found in 29° 03' 53.25”N 090° 09' 54.11"W (feature 476). Recommend removing the charted production platform (OFSPLF) 29° 03' 52.12”N 090° 09' 54.45"W and charting a platform in 29° 03' 53.25”N 090° 09' 54.11"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 51.80”N 090° 09' 37.21"W was found in 29° 03' 51.76”N 090° 09' 37.01"W (feature 484). Recommend removing the charted production platform (OFSPLF) 29° 03' 51.80”N 090° 09' 37.21"W and charting a platform in 29° 03' 51.76”N 090° 09' 37.01"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 42.67”N 090° 09' 36.72"W was found in 29° 03' 43.49”N 090° 09' 37.13"W (feature 457). Recommend removing the charted production platform (OFSPLF) 29° 03' 42.67”N 090° 09' 36.72"W and charting a platform in 29° 03' 43.49”N 090° 09' 37.13"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 39.00”N 090° 09' 37.00"W was found in 29° 03' 40.03”N 090° 09' 38.45"W (feature 466). Recommend removing the charted production platform (OFSPLF) 29° 03' 39.00”N 090° 09' 37.00"W and charting a platform in 29° 03' 40.03”N 090° 09' 38.45"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 37.79”N 090° 09' 27.21"W was found in 29° 03' 37.60”N 090° 09' 27.42"W (feature 467). Recommend removing the charted production platform (OFSPLF) 29° 03' 37.79”N 090° 09' 27.21"W and charting a platform in 29° 03' 37.60”N 090° 09' 27.42"W.~~
~~The charted production platform (OFSPLF) in 29° 03' 25.15”N 090° 09' 29.71"W was found in 29° 03' 26.18”N 090° 09' 30.50"W (feature 481). Recommend removing the~~

~~charted production platform (OFSPLF) 29° 03' 25.15”N 090° 09' 29.71"W and charting a platform in 29° 03' 26.18”N 090° 09' 30.50"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 25.85”N 090° 10' 01.18"W was found in 29° 03' 25.88”N 090° 10' 00.83"W (feature 473). Recommend removing the charted production platform (OFSPLF) 29° 03' 25.85”N 090° 10' 01.18"W and charting a platform in 29° 03' 25.88”N 090° 10' 00.83"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 26.76”N 090° 10' 06.28"W was found in 29° 03' 26.48”N 090° 10' 06.13"W (feature 468). Recommend removing the charted production platform (OFSPLF) 29° 03' 26.76”N 090° 10' 06.28"W and charting a platform in 29° 03' 26.48”N 090° 10' 06.13"W.~~

The charted production platform (OFSPLF) in 29° 03' 20.02”N 090° 10' 15.99"W was not found during this survey. Recommend removing the charted production platform in 29° 03' 20.02”N 090° 10' 15.99"W. ***Concur - Delete charted platform.***

~~The charted production platform (OFSPLF) in 29° 03' 17.80”N 090° 10' 14.25"W was found in 29° 03' 17.46”N 090° 10' 14.12"W (feature 494). Recommend removing the charted production platform (OFSPLF) 29° 03' 17.80”N 090° 10' 14.25"W and charting a platform in 29° 03' 17.46”N 090° 10' 14.12"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 14.78”N 090° 10' 27.29"W was found in 29° 03' 14.89”N 090° 10' 27.54"W (feature 474). Recommend removing the charted production platform (OFSPLF) 29° 03' 14.78”N 090° 10' 27.29"W and charting a platform in 29° 03' 14.89”N 090° 10' 27.54"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 06.73”N 090° 10' 23.23"W was found in 29° 03' 07.04”N 090° 10' 22.75"W (feature 479). Recommend removing the charted production platform (OFSPLF) 29° 03' 06.73”N 090° 10' 23.23"W and charting a platform in 29° 03' 07.04”N 090° 10' 22.75"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 05.78”N 090° 10' 21.30"W was found in 29° 03' 06.08”N 090° 10' 21.50"W (feature 480). Recommend removing the charted production platform (OFSPLF) 29° 03' 05.78”N 090° 10' 21.30"W and charting a platform in 29° 03' 06.08”N 090° 10' 21.50"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 27.87”N 090° 10' 49.01"W was found in 29° 04' 27.82”N 090° 10' 49.41"W (feature 450). An obstruction was also found in 29° 04' 28.39”N 090° 10' 49.63"W (feature 55) with a least depth of 9.2 meters which is a mound of sediment beside the platform. Recommend removing the charted production platform (OFSPLF) in 29° 04' 27.87”N 090° 10' 49.01"W and charting a platform in 29° 04' 27.82”N 090° 10' 49.41"W as well as a 9.2-meter obstruction in 29° 04' 28.39”N 090° 10' 49.63"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 44.25”N 090° 11' 09.09"W and adjacent charted obstruction (OBSTRN) listed as depth unknown in 29° 04' 44.20"N 090° 11' 09.10"W were not found during this survey. Recommend removing the charted production platform (OFSPLF) in 29° 04' 44.25”N 090° 11' 09.09"W and adjacent charted obstruction (OBSTRN) in 29° 04' 44.20"N 090° 11' 09.10"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 20.06”N 090° 11' 20.99"W and adjacent charted obstruction (OBSTRN) listed as depth unknown in 29° 04' 20.18"N 090° 11' 20.92"W had a platform found in 29° 04' 19.55"N 090° 11' 21.64"W (feature 448). Recommend removing the charted production platform (OFSPLF) in 29° 04' 20.06”N 090° 11' 20.99"W and adjacent charted obstruction (OBSTRN) in 29° 04' 20.18"N 090° 11' 20.92"W and charting a platform in 29° 04' 19.55"N 090° 11' 21.64"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 22.40”N 090° 11' 39.99"W and adjacent charted obstruction (OBSTRN) listed as depth unknown in 29° 04' 22.39"N 090° 11' 39.85"W were not found during this survey. Recommend removing the charted production platform (OFSPLF) in 29° 04' 22.40”N 090° 11' 39.99"W and adjacent charted obstruction (OBSTRN) in 29° 04' 22.39"N 090° 11' 39.85"W.~~

~~The charted obstruction (OSTRN) listed as a wellhead in 29° 04' 43.92”N 090° 12' 35.30"W was not found during this survey. Recommend removing the charted obstruction in 29° 04' 43.92”N 090° 12' 35.30"W.~~

~~The charted obstruction (OSTRN) listed as a mineral platform in 29° 04' 02.20”N 090° 13' 04.06"W had a platform found in 29° 04' 02.16”N 090° 13' 04.08"W. Recommend removing the charted obstruction in 29° 04' 02.20”N 090° 13' 04.06"W and charting a platform in 29° 04' 02.16”N 090° 13' 04.08"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 58.33”N 090° 12' 57.62"W and adjacent charted obstruction (OBSTRN) listed as depth unknown in 29° 03' 58.43"N 090° 12' 57.54"W were not found during this survey. Recommend removing the charted production platform (OFSPLF) in 29° 03' 58.33”N 090° 12' 57.62"W and adjacent charted obstruction (OBSTRN) in 29° 03' 58.43"N 090° 12' 57.54"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 53.94”N 090° 13' 15.43"W and adjacent charted obstruction (OBSTRN) listed as depth unknown in 29° 03' 53.87"N 090° 13' 15.42"W were not found during this survey. Recommend removing the charted production platform (OFSPLF) in 29° 03' 53.94”N 090° 13' 15.43"W and adjacent charted obstruction (OBSTRN) in 29° 03' 53.87"N 090° 13' 15.42"W.~~

~~The charted production platform (OFSPLF) in 29° 04' 01.95”N 090° 11' 40.37"W was not found during this survey. Recommend removing the charted production platform (OFSPLF) in 29° 04' 01.95”N 090° 11' 40.37"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 41.00”N 090° 13' 20.00"W was not found during this survey. No changes are recommended as the source date for the object is after the date of survey.~~

~~The charted obstruction (OSTRN) listed as a mineral platform in 29° 03' 39.18”N 090° 13' 18.36"W had a platform found in 29° 03' 39.30”N 090° 13' 18.38"W. Recommend removing the charted obstruction in 29° 03' 39.18”N 090° 13' 18.36"W and charting a platform in 29° 03' 39.30”N 090° 13' 18.38"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 32.95”N 090° 13' 34.16"W and adjacent charted obstruction (OBSTRN) listed as mineral platform in 29° 03' 32.78"N 090° 13' 34.30"W has a platform identified in 29° 03' 32.63"N 090° 13' 34.25"W (feature 454). Recommend removing the charted production platform (OFSPLF) in 29° 03' 32.95”N 090° 13' 34.16"W and adjacent charted obstruction (OBSTRN) in 29° 03' 32.78"N 090° 13' 34.30"W and charting a platform in 29° 03' 32.63"N 090° 13' 34.25"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 31.30”N 090° 13' 30.59"W was found in its charted position. No changes are recommended for the charted production platform (OFSPLF) in 29° 03' 31.30”N 090° 13' 30.59"W (feature 453).~~

~~The charted production platform (OFSPLF) in 29° 03' 29.92”N 090° 13' 29.87"W was not found during this survey. Recommend removing the charted production platform (OFSPLF) in 29° 03' 29.92”N 090° 13' 29.87"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 31.03”N 090° 13' 28.39"W and adjacent charted obstruction (OBSTRN) in 29° 03' 31.10"N 090° 13' 28.42"W was not found during this survey. Recommend removing the charted production platform (OFSPLF) in 29° 03' 31.03”N 090° 13' 28.39"W and adjacent charted obstruction (OBSTRN) in 29° 03' 31.10"N 090° 13' 28.42"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 29.05”N 090° 13' 24.38"W and adjacent charted obstruction (OBSTRN) in 29° 03' 29.12"N 090° 13' 24.51"W were not found during this survey. Recommend removing the charted production platform (OFSPLF) in 29° 03' 29.05”N 090° 13' 24.38"W and adjacent charted obstruction (OBSTRN) in 29° 03' 29.12"N 090° 13' 24.51"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 22.44”N 090° 13' 18.73"W and adjacent charted obstruction (OBSTRN) listed as mineral platform in 29° 03' 22.28"N 090° 13' 18.72"W has a platform identified in 29° 03' 22.16"N 090° 13' 18.62"W (feature 455). Recommend removing the charted production platform (OFSPLF) in 29° 03' 22.44”N 090° 13' 18.73"W and adjacent charted obstruction (OBSTRN) in 29° 03' 22.28"N 090° 13' 18.72"W and charting a platform in 29° 03' 22.16"N 090° 13' 18.62"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 12.01”N 090° 13' 34.66"W and adjacent charted obstruction (OBSTRN) in 29° 03' 12.02"N 090° 13' 34.65"W were not found during this survey. Recommend removing the charted production platform~~

~~(OFSPLF) in 29° 03' 12.01”N 090° 13' 34.66"W and adjacent charted obstruction (OBSTRN) in 29° 03' 12.02"N 090° 13' 34.65"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 04.53”N 090° 13' 40.92"W and adjacent charted obstruction (OBSTRN) in 29° 03' 04.66"N 090° 13' 40.96"W were not found during this survey. Recommend removing the charted production platform (OFSPLF) in 29° 03' 04.53”N 090° 13' 40.92"W and adjacent charted obstruction (OBSTRN) in 29° 03' 04.66"N 090° 13' 40.96"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 09.72”N 090° 13' 14.38"W was not found during this survey. Recommend removing the charted production platform (OFSPLF) in 29° 03' 09.72”N 090° 13' 14.38"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 29.01”N 090° 11' 41.87"W was not found during this survey. Recommend removing the charted production platform (OFSPLF) in 29° 03' 29.01”N 090° 11' 41.87"W.~~

~~The charted 9.1-meter obstruction (OBSTRN) in 29° 03' 18.10"N 090° 12' 01.10"W was reported in Danger to Navigation Report #3 (feature 362). After final processing of the data, a depth of 9.0 meters was identified. Recommend removing the charted 9.1-meter obstruction (OBSTRN) in 29° 03' 18.10"N 090° 12' 01.10"W and charting a 9.0-meter obstruction in 29° 03' 18.13"N 090° 12' 01.04"W.~~

The charted production platforms (OFSPLF) in ~~29° 02' 33.00”N 090° 12' 56.99"W,~~ 29° 02' 17.07”N 090° 12' 24.46"W ~~and 29° 02' 12.87”N 090° 12' 54.46"W were not found during this survey.~~ Recommend removing the charted production platforms (OFSPLF) in ~~29° 02' 33.00”N 090° 12' 56.99"W,~~ 29° 02' 17.07”N 090° 12' 24.46"W ~~and 29° 02' 12.87”N 090° 12' 54.46"W.~~ ***Concur – Delete charted platform.***

~~The charted production platforms (OFSPLF) in 29° 03' 56.82”N 090° 15' 10.24"W, 29° 03' 24.07”N 090° 14' 47.32"W and 29° 03' 12.88”N 090° 14' 58.28"W were not found during this survey. Recommend removing the charted production platforms (OFSPLF) in 29° 03' 56.82”N 090° 15' 10.24"W, 29° 03' 24.07”N 090° 14' 47.32"W and 29° 03' 12.88”N 090° 14' 58.28"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 23.07”N 090° 15' 07.96"W had a platform found in 29° 03' 23.39”N 090° 15' 07.94"W (feature 452). Recommend removing the charted obstruction in 29° 03' 23.07”N 090° 15' 07.96"W and charting a platform in 29° 03' 23.39”N 090° 15' 07.94"W.~~

~~The charted production platform (OFSPLF) in 29° 03' 45.82”N 090° 14' 34.36"W and adjacent charted obstruction (OBSTRN) in 29° 03' 45.80"N 090° 14' 34.30"W were not found during this survey. Recommend removing the charted production platform (OFSPLF) in 29° 03' 45.82”N 090° 14' 34.36"W and adjacent charted obstruction (OBSTRN) in 29° 03' 45.80"N 090° 14' 34.30"W.~~

~~The charted dangerous wreck (WRECKS) with attached question mark listed as depth unknown in 29° 04' 17.00"N 090° 13' 47.00"W was not found in its charted position. A wreck was found (feature 392) approximately 330 meters north northeast in 29° 04' 27.62"N 090° 13' 47.79"W with a least depth of 7.5 meters. Recommend removing the charted dangerous wreck and attached question mark in 29° 04' 17.00"N 090° 13' 47.00"W and charting a 7.5-meter wreck in 29° 04' 27.62"N 090° 13' 47.79"W.~~
~~The charted dangerous wreck (WRECKS) with attached question mark listed as always underwater in 29° 04' 24.00"N 090° 13' 30.00"W was not found during this survey. Recommend removing the charted dangerous wreck and attached question mark in 29° 04' 24.00"N 090° 13' 30.00"W.~~

~~The charted 8.5-meter dangerous wreck (WRECKS) in 29° 03' 14.29"N 090° 15' 22.14"W was found to have two wrecks found (features 267 and 268) both with least depths of 8.6 meters in 29° 03' 13.67"N 090° 15' 21.77"W and 29° 03' 15.18"N 090° 15' 22.78"W respectively. Recommend removing the charted 8.5-meter dangerous wreck in 29° 03' 14.29"N 090° 15' 22.14"W and charting 8.6-meter wrecks in 29° 03' 13.67"N 090° 15' 21.77"W and 29° 03' 15.18"N 090° 15' 22.78"W.~~

~~The charted dangerous wreck (WRECKS) with attached question mark listed as always underwater in 29° 02' 59.96"N 090° 16' 00.03"W was not found during this survey. Recommend removing the charted dangerous wreck and attached question mark in 29° 02' 59.96"N 090° 16' 00.03"W.~~

~~The charted dangerous wreck (WRECKS) with attached question mark listed as always underwater in 29° 02' 36.00"N 090° 16' 35.99"W was not found during this survey. Recommend removing the charted dangerous wreck and attached question mark in 29° 02' 36.00"N 090° 16' 35.99"W.~~

~~The charted dangerous obstruction (OBSTRN) with attached question mark listed as always underwater in 29° 02' 16.20"N 090° 17' 27.00"W was not found during this survey. Recommend removing the charted dangerous obstruction (OBSTRN) with attached question mark in 29° 02' 16.20"N 090° 17' 27.00"W.~~

The charted production platform (OFSPLF) in 29° 02' 19.07”N 090° 15' 48.29"W was not found during this survey. Recommend removing the charted production platform (OFSPLF) in 29° 02' 19.07”N 090° 15' 48.29"W. ***Concur with clarification – No platform shown on chart 11346, Ed., #2, Apr./09. No change in charting needed.***

~~The charted production platform (OFSPLF) in 29° 01' 37.04”N 090° 15' 33.89"W was found in 29° 01' 36.44”N 090° 15' 32.67"W (feature 472). Recommend removing the charted production platform (OFSPLF) in 29° 01' 37.04”N 090° 15' 33.89"W and charting a platform in 29° 01' 36.44”N 090° 15' 32.67"W.~~

~~The charted production platform (OFSPLF) in 29° 01' 35.45”N 090° 15' 51.07"W was found in 29° 01' 35.82”N 090° 15' 50.90"W (feature 469). An obstruction was also found~~

~~in 29° 01' 35.90”N 090° 15' 51.02"W (feature 114) with a least depth of 12.2 meters which is a mound of sediment beside the platform. Recommend removing the charted production platform (OFSPLF) in 29° 01' 35.45”N 090° 15' 51.07"W and charting a platform in 29° 01' 35.82”N 090° 15' 50.90"W as well as a 12.2-meter obstruction in 29° 01' 35.90”N 090° 15' 51.02"W.~~

~~The charted production platform (OFSPLF) in 29° 01' 33.18”N 090° 15' 59.37"W was found in 29° 01' 33.18”N 090° 15' 59.09"W (feature 470). Recommend removing the charted production platform (OFSPLF) in 29° 01' 33.18”N 090° 15' 59.37"W and charting a platform in 29° 01' 33.18”N 090° 15' 59.09"W.~~

~~The charted production platform (OFSPLF) in 29° 01' 30.42”N 090° 16' 09.70"W was found in 29° 01' 31.13”N 090° 16' 08.84"W (feature 464). Recommend removing the charted production platform (OFSPLF) in 29° 01' 30.42”N 090° 16' 09.70"W and charting a platform in 29° 01' 31.13”N 090° 16' 08.84"W.~~

The charted production platforms (OFSPLF) in 29° 01' 36.84”N 090° 16' 05.27"W and 29° 01' 37.78”N 090° 16' 05.68"W were found to have one platform in 29° 01' 37.54”N 090° 16' 05.31"W (feature 458). Recommend removing the charted production platform (OFSPLF) in 29° 01' 37.78”N 090° 16' 05.68"W and charting a platform in 29° 01' 37.54”N 090° 16' 05.31"W. No changes for the charted production platforms (OFSPLF) in 29° 01' 36.84”N 090° 16' 05.27"W are recommended as the source data are after the survey date. ***Delete charted platform. Add platform.***

~~The charted production platform (OFSPLF) in 29° 01' 33.77”N 090° 16' 15.16"W was found in 29° 01' 34.58”N 090° 16' 00.88"W (feature 465). Recommend removing the charted production platform (OFSPLF) in 29° 01' 33.77”N 090° 16' 15.16"W and charting a platform in 29° 01' 34.58”N 090° 16' 00.88"W.~~

~~The charted production platform (OFSPLF) in 29° 01' 27.40”N 090° 16' 15.16"W was found in 29° 01' 27.27”N 090° 16' 14.51"W (feature 471). Recommend removing the charted production platform (OFSPLF) in 29° 01' 27.40”N 090° 16' 15.16"W and charting a platform in 29° 01' 27.27”N 090° 16' 14.51"W.~~
~~The charted production platform (OFSPLF) in 29° 01' 19.91”N 090° 17' 07.66"W was found in 29° 01' 19.57”N 090° 17' 06.36"W (feature 459). Recommend removing the charted production platform (OFSPLF) in 29° 01' 19.91”N 090° 17' 07.66"W and charting a platform in 29° 01' 19.57”N 090° 17' 06.36"W.~~

There were numerous charted pipelines within ENC US5LA26M. Some of the charted pipelines were found in the data from this survey as charted and some of the charted pipelines were not found in the data collected from this survey. In addition, some pipelines were found that are not represented on the current ENC. Examples of these findings follow:

The charted pipelines (PIPSOL) extending from approximately 29° 02' 23.24"N 090° 18' 00.00"W to 29° 01’ 07.01”N 090° 17’ 02.53”W had a pipeline closely associated with it

extending from approximately 29° 01' 55.15"N 090° 17' 38.03"W to 29° 01’ 06.79”N 090° 17’ 02.28”W. No changes to the chart are recommended as a result of this survey. ***Concur***

The charted pipelines (PIPSOL) extending from approximately 29° 01' 34.37"N 090° 15' 37.30"W to 29° 04’ 25.30”N 090° 17’ 05.45”W and 29° 03’ 12.36”N 090° 10’ 00.07”W to 29° 04’ 38.12”N 090° 10’ 24.96”W were not found during this survey. No changes to the chart are recommended as a result of this survey. ***Concur***

The charted pipelines (PIPSOL) extending from approximately 29° 05' 08.73"N 090° 09' 19.67"W to 29° 06’ 01.58”N 090° 11’ 09.21”W had a pipeline closely associated with it extending from approximately 29° 05' 49.29"N 090° 10' 34.43"W to 29° 05’ 10.86”N 090° 09’ 22.38”W. No changes to the chart are recommended as a result of this survey. ***Concur***

Recommend charting the provided pipeline objects (PIPSOL) as submitted in the S-57 feature file (3S211785) provided as part of the H11785 delivery. No recommendation is made for removing pipelines where no pipeline was found. ***Concur***

Soundings across the surveyed area within ENC US5LA26M were generally found to range from near agreement to 5 meters deeper than charted. Examples of these findings are as follows:

The 8.5-meter sounding in 29° 04’ 34.98”N 090° 09’ 34.40”W was found to have depths of 11.2 to 11.4 meters. ***Concur***

The 6.4-meter sounding in 29° 05’ 23.88”N 090° 10’ 02.84”W was found to have depths of 9.0 to 9.2 meters. ***Concur***

The 7.6-meter sounding in 29° 04’ 31.03”N 090° 13’ 04.76”W was found to have depths of 7.7 to 7.9 meters. ***Concur***

The 1.5-meter sounding in 29° 04’ 17.96”N 090° 16’ 30.48”W was found to have depths of 5.9 to 6.0 meters. ***Concur***

Recommend updating the soundings within ENC US5LA26M with depths found during this survey. ***Concur***

Table D-7 lists other uncharted features that should be considered for charting on ENC US5LA26M. *****/*** See end of table for charting recommendations.***

Table D-7. Additional Features to be Considered for Charting on ENC US5LA26M

Feature Number	Feature Position (NAD83)		Depth (Feet)	Depth (Meters)	Description
	Latitude (N)	Longitude (W)			
~~101~~	~~29° 05' 53.31"~~	~~090° 11' 16.36"~~	~~14.86~~	~~4.53~~	~~Obstruction~~
~~134~~	~~29° 04' 57.69"~~	~~090° 13' 40.92"~~	~~20.57~~	~~6.27~~	~~Rock~~
~~135~~	~~29° 05' 00.08"~~	~~090° 13' 41.05"~~	~~17.81~~	~~5.43~~	~~Rock~~
~~136~~	~~29° 04' 46.81"~~	~~090° 13' 33.21"~~	~~22.80~~	~~6.95~~	~~Rock~~
193**	29° 03' 11.72"	090° 10' 14.06"	39.20	11.95	Mound
~~220~~	~~29° 01' 56.82"~~	~~090° 16' 24.51"~~	~~34.51~~	~~10.52~~	~~Obstruction~~
~~256~~	~~29° 01' 05.05"~~	~~090° 17' 50.76"~~	~~36.77~~	~~11.21~~	~~Obstruction~~
257**	29° 01' 06.84"	090° 17' 51.02"	37.63	11.47	Obstruction
~~258~~	~~29° 01' 15.71"~~	~~090° 16' 39.51"~~	~~36.90~~	~~11.25~~	~~Obstruction~~
259**	29° 01' 15.85"	090° 16' 41.20"	39.10	11.92	Obstruction
~~261~~	~~29° 01' 53.13"~~	~~090° 17' 43.32"~~	~~34.57~~	~~10.54~~	~~Obstruction~~
263***	29° 04' 07.62"	090° 16' 48.32"	16.30	4.97	Pile
~~264~~	~~29° 04' 07.94"~~	~~090° 16' 48.24"~~	~~15.51~~	~~4.73~~	~~Pile~~
265**	29° 03' 50.36"	090° 16' 21.75"	23.58	7.19	Obstruction
~~266~~	~~29° 03' 51.77"~~	~~090° 16' 21.24"~~	~~22.70~~	~~6.92~~	~~Obstruction~~
~~269~~	~~29° 03' 21.91"~~	~~090° 15' 05.65"~~	~~28.01~~	~~8.54~~	~~Obstruction~~
~~270~~	~~29° 03' 32.70"~~	~~090° 15' 14.88"~~	~~25.36~~	~~7.73~~	~~Obstruction~~
271**	29° 03' 31.76"	090° 15' 14.21"	27.42	8.36	Obstruction
~~280~~	~~29° 05' 16.57"~~	~~090° 14' 09.94"~~	~~4.49~~	~~1.37~~	~~Obstruction~~
~~281~~	~~29° 04' 32.52"~~	~~090° 14' 00.79"~~	~~20.50~~	~~6.25~~	~~Obstruction~~
287**	29° 04' 55.51"	090° 13' 32.78"	10.82	3.30	Rocks
288**	29° 05' 02.85"	090° 13' 31.48"	8.49	2.59	Rocks
289**	29° 05' 02.11"	090° 13' 31.93"	6.72	2.05	Obstruction
291**	29° 04' 59.84"	090° 13' 32.91"	12.79	3.90	Rock
292**	29° 04' 51.93"	090° 13' 32.48"	13.64	4.16	Rocks
293**	29° 04' 53.39"	090° 13' 31.57"	11.18	3.41	Rocks
~~294~~	~~29° 04' 55.39"~~	~~090° 13' 38.77"~~	~~25.03~~	~~7.63~~	~~Obstruction~~
~~295~~	~~29° 04' 18.56"~~	~~090° 11' 08.62"~~	~~27.88~~	~~8.50~~	~~Obstruction~~
~~298~~	~~29° 05' 09.84"~~	~~090° 09' 55.01"~~	~~30.21~~	~~9.21~~	~~Obstruction~~
~~311~~	~~29° 03' 09.77"~~	~~090° 17' 31.58"~~	~~24.57~~	~~7.49~~	~~Obstruction~~
~~312~~	~~29° 03' 14.60"~~	~~090° 15' 15.26"~~	~~28.21~~	~~8.60~~	~~Obstruction~~
~~314~~	~~29° 02' 06.12"~~	~~090° 15' 08.26"~~	~~32.93~~	~~10.04~~	~~Obstructions~~
~~315~~	~~29° 02' 17.03"~~	~~090° 14' 21.19"~~	~~35.07~~	~~10.69~~	~~Obstruction~~
~~316~~	~~29° 03' 29.72"~~	~~090° 13' 22.91"~~	~~32.93~~	~~10.04~~	~~Obstruction~~

Feature Number	Feature Position (NAD83)		Depth (Feet)	Depth (Meters)	Description
	Latitude (N)	Longitude (W)			
~~317~~	~~29° 03' 27.55"~~	~~090° 13' 21.67"~~	~~32.02~~	~~9.76~~	~~Obstruction~~
~~318~~	~~29° 03' 27.72"~~	~~090° 13' 20.87"~~	~~32.02~~	~~9.76~~	~~Obstruction~~
~~319~~	~~29° 04' 00.09"~~	~~090° 13' 08.86"~~	~~28.21~~	~~8.60~~	~~Obstruction~~
~~320~~	~~29° 04' 22.63"~~	~~090° 11' 24.32"~~	~~30.64~~	~~9.34~~	~~Obstruction~~
~~321~~	~~29° 04' 25.57"~~	~~090° 11' 23.40"~~	~~31.85~~	~~9.71~~	~~Obstruction~~
~~322~~	~~29° 04' 25.62"~~	~~090° 11' 18.90"~~	~~29.52~~	~~9.00~~	~~Obstruction~~
~~323~~	~~29° 04' 26.33"~~	~~090° 11' 16.47"~~	~~30.28~~	~~9.23~~	~~Obstruction~~
~~324~~	~~29° 04' 24.12"~~	~~090° 11' 05.83"~~	~~29.00~~	~~8.84~~	~~Obstruction~~
~~325~~	~~29° 05' 12.20"~~	~~090° 11' 45.56"~~	~~20.73~~	~~6.32~~	~~Obstructions~~
~~326~~	~~29° 04' 53.11"~~	~~090° 12' 16.15"~~	~~19.61~~	~~5.98~~	~~Obstruction~~
~~327~~	~~29° 04' 32.35"~~	~~090° 14' 15.23"~~	~~20.99~~	~~6.40~~	~~Obstruction~~
~~328~~	~~29° 04' 15.21"~~	~~090° 14' 43.85"~~	~~22.47~~	~~6.85~~	~~Obstruction~~
~~329~~	~~29° 05' 14.33"~~	~~090° 14' 30.22"~~	~~4.85~~	~~1.48~~	~~Obstruction~~
~~330~~	~~29° 05' 13.84"~~	~~090° 14' 39.70"~~	~~5.08~~	~~1.55~~	~~Obstruction~~
~~331~~	~~29° 05' 12.13"~~	~~090° 14' 43.59"~~	~~5.47~~	~~1.67~~	~~Obstruction~~
332	29° 05' 09.74"	090° 14' 52.29"	5.38	1.64	Pile ****
~~333~~	~~29° 05' 09.98"~~	~~090° 14' 51.91"~~	~~5.05~~	~~1.54~~	~~Pile~~
336**	29° 04' 48.70"	090° 15' 51.86"	8.75	2.67	Obstruction
~~337~~	~~29° 04' 50.25"~~	~~090° 15' 52.06"~~	~~7.02~~	~~2.14~~	~~Obstruction~~
~~347~~	~~29° 01' 12.94"~~	~~090° 17' 33.51"~~	~~37.43~~	~~11.41~~	~~Obstruction~~
~~349~~	~~29° 01' 08.84"~~	~~090° 16' 59.04"~~	~~38.35~~	~~11.69~~	~~Obstruction~~
~~350~~	~~29° 01' 11.76"~~	~~090° 16' 50.25"~~	~~37.10~~	~~11.31~~	~~Wreck~~
~~351~~	~~29° 01' 16.25"~~	~~090° 16' 54.21"~~	~~37.72~~	~~11.50~~	~~Obstruction~~
~~352~~	~~29° 01' 17.45"~~	~~090° 16' 45.63"~~	~~37.17~~	~~11.33~~	~~Obstruction~~
353**	29° 01' 26.02"	090° 16' 59.21"	37.79	11.52	Obstruction
~~354~~	~~29° 01' 26.60"~~	~~090° 16' 55.07"~~	~~33.75~~	~~10.29~~	~~Obstruction~~
~~355~~	~~29° 01' 43.51"~~	~~090° 17' 08.60"~~	~~36.12~~	~~11.01~~	~~Obstruction~~
~~356~~	~~29° 02' 06.29"~~	~~090° 17' 49.54"~~	~~32.34~~	~~9.86~~	~~Obstruction~~
~~357~~	~~29° 03' 16.40"~~	~~090° 17' 24.89"~~	~~24.34~~	~~7.42~~	~~Obstruction~~
~~358~~	~~29° 03' 06.77"~~	~~090° 13' 44.90"~~	~~33.23~~	~~10.13~~	~~Obstruction~~
360**	29° 03' 15.62"	090° 12' 58.31"	33.62	10.25	Obstruction
~~361~~	~~29° 03' 17.54"~~	~~090° 13' 02.30"~~	~~32.51~~	~~9.91~~	~~Obstruction~~
~~363~~	~~29° 04' 04.89"~~	~~090° 10' 22.68"~~	~~34.51~~	~~10.52~~	~~Obstruction~~
~~364~~	~~29° 04' 10.14"~~	~~090° 10' 08.93"~~	~~33.56~~	~~10.23~~	~~Obstruction~~
~~365~~	~~29° 04' 24.77"~~	~~090° 09' 51.99"~~	~~34.67~~	~~10.57~~	~~Obstruction~~
~~368~~	~~29° 05' 41.71"~~	~~090° 09' 49.71"~~	~~26.50~~	~~8.08~~	~~Obstruction~~
~~379~~	~~29° 06' 02.28"~~	~~090° 10' 59.29"~~	~~14.27~~	~~4.35~~	~~Obstruction~~
~~380~~	~~29° 05' 28.27"~~	~~090° 11' 10.94"~~	~~21.88~~	~~6.67~~	~~Obstruction~~
*****/**** See end of table for charting recommendations.***					

Feature Number	Feature Position (NAD83)		Depth (Feet)	Depth (Meters)	Description
	Latitude (N)	Longitude (W)			
~~383~~	~~29° 04' 46.33"~~	~~090° 13' 33.32"~~	~~21.94~~	~~6.69~~	~~Obstruction~~
~~384~~	~~29° 04' 42.71"~~	~~090° 13' 35.56"~~	~~24.31~~	~~7.41~~	~~Obstruction~~
~~385~~	~~29° 04' 47.18"~~	~~090° 13' 44.49"~~	~~21.55~~	~~6.57~~	~~Rock~~
~~386~~	~~29° 04' 41.25"~~	~~090° 13' 44.74"~~	~~21.88~~	~~6.67~~	~~Obstruction~~
~~387~~	~~29° 05' 05.85"~~	~~090° 13' 39.84"~~	~~10.82~~	~~3.30~~	~~Rock~~
~~388~~	~~29° 05' 11.00"~~	~~090° 13' 38.45"~~	~~9.77~~	~~2.98~~	~~Rock~~
~~389~~	~~29° 05' 11.71"~~	~~090° 13' 38.31"~~	~~9.44~~	~~2.88~~	~~Obstruction~~
~~390~~	~~29° 05' 09.64"~~	~~090° 13' 31.33"~~	~~15.84~~	~~4.83~~	~~Obstruction~~
~~393~~	~~29° 04' 12.73"~~	~~090° 16' 03.40"~~	~~20.89~~	~~6.37~~	~~Obstruction~~
~~415~~	~~29° 04' 34.13"~~	~~090° 16' 45.48"~~	~~15.41~~	~~4.70~~	~~Rock~~
446	29° 04' 02.16"	090° 13' 04.08"	N/A	N/A	Platform*
447	29° 04' 25.36"	090° 10' 20.39"	N/A	N/A	Platform*
448	29° 04' 19.55"	090° 11' 21.64"	N/A	N/A	Platform*
449	29° 03' 39.30"	090° 13' 18.38"	N/A	N/A	Platform*
452	29° 03' 23.39"	090° 15' 07.94"	N/A	N/A	Platform*
453	29° 03' 31.30"	090° 13' 30.59"	N/A	N/A	Platform*
454	29° 03' 32.63"	090° 13' 34.25"	N/A	N/A	Platform*
455	29° 03' 22.16"	090° 13' 18.61"	N/A	N/A	Platform*
465	29° 01' 34.58"	090° 16' 00.88"	N/A	N/A	Platform*
478	29° 03' 10.68"	090° 10' 12.58"	N/A	N/A	Platform*
501	29° 05' 49.73"	090° 11' 47.47"	N/A	N/A	Piles *
~~502~~	~~29° 04' 43.34"~~	~~090° 13' 32.72"~~	~~N/A~~	~~N/A~~	~~Pile~~
503	29° 04' 22.82"	090° 10' 17.68"	N/A	N/A	Platform*

#446 – Add platform.
#447 – Add platform.
#448 – Add platform.
#449 – Add platform.
#452 – Add platform.
#453 – Add platform.
#454 – Add platform.
#455 – Add platform.
#465 – Add platform.
#478 – Add platform.
#501 – Add piles.
#503 – Add platform.

***** Items determined insignificant during office processing. Chart present survey depths if adequate spacing at chart scale.***
***** See Appendix I for final charting recommendation.***

*******#332 – Item falls within the danger circle of item #333. Item combined with #333. See Table D-3 for charting recommendation of #333.***

AWOIS Item Investigations

A listing of all AWOIS items within the H11785 (Sheet C) survey is provided in Table D-8. Discussions of the AWOIS items are provided below. 11862

Table D-8. Complete AWOIS Listing Received from NOAA for H11785

AWOIS Number	Chart 11340_1	Chart 11346_1	Chart 11346_2	Chart 11352_1	Chart 11357_1	Chart 11358_1	ENC US5LA26M	ENC US4LA29M
Assigned AWOIS								
AWOIS 11862	X	X	X	X	X	O	X	O
AWOIS 11863	X	X	X	X	X	O	X	O
AWOIS 11864	X	X	X	X	X	O	X	O
AWOIS 11878	X	X	X	X	X	X	X	O
AWOIS 11879	X	O	X	X	X	X	X	O
Information Only AWOIS								
AWOIS 13219	X	O	X	X	X	O	O	X

X denotes that the AWOIS item falls within the limits of the chart; O indicates the AWOIS item is not on that chart.

AWOIS 11862 (Full):

Description: The Submerged object previously located in Belle Pass in approximate position Lat. 29 04 54N, Long. 090 13 42W (NAD 27) has been determined to be in approximate position Lat. 29 04 55.8N, Long. 090 13 30W (NAD 27) outside the channel limits and presumed to be a rock in approximately 11.5 feet of water.

Survey Results: 200 percent sidescan data and resulting bathymetry were collected from the east jetty inside Belle Pass across the AWOIS position covering a radius of 50 meters. The jetty prevented survey to the east of the AWOIS position. Several contacts were made on rocks along the jetty extending westward approximately 100 meters; however no discrete rock was identified as a AWOIS 11862. ***Delete charted Obstn, PA. Chart shoal soundings in area.***

AWOIS 11863 (Full):

Description: It has been reported that the *M/V Judy* is sunk in the Gulf of Mexico, approximately one quarter mile off shore and 330 yards west of Belle Pass Channel. Approximate position, Lat. 29 04 54N, Long. 090 13 42W (NAD 27).

Survey Results: 200 percent sidescan data and resulting bathymetry were collected in a 50-meter radius around the AWOIS position within the Bell Pass

Cannel. The western Belle Pass jetty prevented survey across the western extents of the AWOIS's 50-meter search radius. No contacts were identified within the 50-meter search radius covered by sidescan. ***No feature shown on chart #11346, Ed., #2, Apr. /09. No change in charting is recommended.***

AWOIS 11864 (Full):

Description: Shoaling has been reported 30 feet from Belle Pass Entrance Buoy 3 in approximate Lat. 29 04 24N, Long. 090 13 45W (NAD 27).

Survey Results: 200 percent sidescan data and resulting bathymetry were collected in a 350-meter radius around AWOIS 11864. There was no indication of shoaling; however there was a wreck identified (feature 392) in 29° 04' 27.62"N 090° 13' 47.79"W with a least depth of 7.50 meters (24.60 feet, 0.30 meters uncertainty). No other significant contacts were identified within the search radius. ***No shoaling determined during present survey. Wreck located is discussed earlier in this report. Chart present survey depths.***

AWOIS 11878 (Full):

Description: No source given in charting records. Obstruction added to 1962 edition of Chart 11357 in Pos. 29 05 00.9N, 090 10 59.7W NAD 83. Position scaled from current edition of chart. Note on aid proof states to add Obstn PA with danger curve. Obscured note appears to indicate that the obstruction may have been a fixed light.

Survey Results: 200 percent sidescan data and resulting bathymetry were collected in a 150-meter radius around AWOIS 11878. No contacts were identified within the search radius for AWOIS 11878. ***No feature shown on chart #11346, Ed., #2, Apr. /09. No change in charting is recommended.***

AWOIS 11879 (Full):

Description: A trawl board, net, and a 2 inch by 6 foot pipe was lost overboard at approx. pos 29-03-30N, 90-11-30W in approx. 14 ft of water.

Survey Results: 200 percent sidescan data and resulting bathymetry were collected in a 300-meter radius around AWOIS 11879. No contacts were identified within the search radius for AWOIS 11879. ***No feature shown on chart #11346, Ed., #2, Apr. /09. No change in charting is recommended.***

AWOIS 13219 (Information only):

Description: Drilling tender Murmanill reported sunk in 32 ft of water in approx 29/01/10N 90/16/48W helicopter deck protrudes 4 to 5 ft above water charted as Visible WK PA. Wreck now reported with bow awash and 4ft of mast showing above the water. A barge not visible is reported sunk alongside the WK.

Charting changed to Subm WK ED (Location of WK ED on chart is Lat. 29-01-04.5, Long. 90-16-47.56 approx 180 meters south of source position).

Survey Results: 200 percent sidescan data and resulting bathymetry were collected approximately 25 meters west of AWOIS 13219. While no wreck was observed to be visible above the water, a wreck was found in 29° 01' 11.76"N 090° 16' 50.25"W (feature 350) with a least depth of 11.69 meters (37.10 feet, 0.30 meters uncertainty). No other contacts were identified in the area covered. ***During office processing this item was determined not to be a wreck. The item falls on a dense area of pipelines. No change in charting is recommended.***

D.2 ADDITIONAL RESULTS

Shoreline verification was not required for this survey. Comparison with prior surveys was not required under this task order. See Section D.1 for comparison to the nautical charts. ***Concur***

Aids to Navigation

The charted buoy R "2" Q R Bell, was found (Feature 434) in 29° 04' 15.98"N 090° 13' 40.31"W (Figure D-1). This agreed with the charted position and the USCG Light List, Volume IV, Gulf of Mexico, 2009 for Entrance Lighted Bell Buoy 2. ***Concur***

Figure D-1. East Belle Pass Entrance Lighted, R "2" Q R Bell 26

The charted buoy G "1" Q G, was found (Feature 435) in 29° 04' 16.13"N 090° 13' 55.27"W (Figure D-2). The position of the G "1" Q G buoy differs from the charted position and the noted position in the USCG Light List, Volume IV, Gulf of Mexico, 2009 for Entrance Lighted Buoy 1. Recommend updating charts 11346_1, 11346_2, 11352_1, and 11357_1 by locating the G "1" Q G buoy in 29° 04' 16.13"N 090° 13' 55.27"W. ****Concur with clarification - Defer to MCD Update Services Branch for charting recommendation of navigational aid.***

Figure D-2. West Belle Pass Entrance Lighted G "1" Q G

The charted Fl R 2.5s 17ft 5M "4" Ra Ref day marker was found (Feature 437) in 29° 04' 44.03"N 090° 13' 32.09"W (Figure D-3). This agreed with The USCG Light List, Volume IV, Gulf of Mexico, 2009 for the East Jetty Light 3 Fl R 2.5s. However the day marker was found to be non-functioning. ***Concur***

Figure D-3. Belle Pass Reach East Jetty Light Fl R 2.5s 17ft 5M "4" Ra Ref

An uncharted red buoy number 4 was found (Feature 436) just south of the charted Fl R 2.5s 17ft 5M "4" Ra Ref day marker in 29° 04' 42.30"N 090° 13' 33.23"W (Figure D-4). This buoy was not noted in the USCG Light List, Volume IV, Gulf of Mexico, 2009. The lighted characteristics could not be determined during this survey. Recommend

updating charts 11346_1, 11346_2, 11352_1, and 11357_1 with a lighted red buoy symbol and number "4" in 29° 04' 42.30"N 090° 13' 33.23"W. ****Concur with clarification - Defer to MCD Update Services Branch for charting recommendation of navigational aid.***

Figure D-4. Uncharted red buoy "4" at Belle Pass Reach East Jetty

The charted Fl G 2.5s 17ft 5M "4" Ra Ref day marker was found (Feature 438) in at 29° 04' 45.72"N 090° 13' 46.04"W (Figure D-5). This agreed with The USCG Light List, Volume IV, Gulf of Mexico, 2009 for the East Jetty Light 3 Fl R 2.5s. However the day marker was found to be non-functioning. ***Concur with clarification - Defer to MCD Update Services Branch for charting recommendation of navigational aid.***

Figure D-5. Belle Pass Reach West Jetty Light Fl G 2.5s 17ft 5M "3" Ra Ref

An uncharted green buoy number 3 was found (Feature 439) just south of the charted Fl G 2.5s 17ft 5M "3" Ra Ref day marker in 29° 04' 45.03"N 090° 13' 45.94"W (Figure D-6). This buoy was not noted in the USCG Light List, Volume IV, Gulf of Mexico,

2009. The lighted characteristics could not be determined during this survey. Recommend updating charts 11346_1, 11346_2, 11352_1, and 11357_1 with a lighted green buoy symbol and number "3" in 29° 04' 45.~~0~~53"N 090° 13' 45.94"W. ***Concur with clarification - Defer to MCD Update Services Branch for charting recommendation of navigational aid.***

Figure D-6. Uncharted buoy "3" at Belle Pass Reach West Jetty

The charted Fl R 4s 17ft 3M "6" Ra Ref day marker was not found during this survey. An uncharted red buoy number 6 was found (Feature 499) just south of the charted Fl R 4s 17ft 3M "6" Ra Ref day marker in 29° 05' 03.96"N 090° 13' 31.22"W. The buoy was not present on JD 149 when sidescan and singlebeam bathymetry data were collected in the area; however on JD 182 when multibeam bathymetry was being collected on item investigations the buoy was present. This buoy was not noted in the USCG Light List, Volume IV, Gulf of Mexico, 2009. The lighted characteristics could not be determined during this survey. Recommend updating charts 11346_1, 11346_2, 11352_1, and 11357_1 with a lighted red buoy symbol and number "6" in 29° 05' 03.97"N 090° 13' 31.23"W. ***Concur with clarification - Defer to MCD Update Services Branch for charting recommendation of navigational aid.***

Table D-9. Aids to Navigation

Buoy Name	Multibeam File / SS Contact Name	Confirmed Position (NAD83) From Multibeam Feature / SS Contact Location		Feature Number
		Latitude (N)	Longitude (W)	
buoy G "1" Q G	166190009	29° 04' 16.13"	090° 13' 55.27"	435
buoy R "2" Q R Bell	emmba09182.d32	29° 04' 15.98"	090° 13' 40.31"	434
Fl R 2.5s 17 ft 5M "4" Ra Ref	156190539	29° 04' 44.03"	090° 13' 32.08"	437
Fl R "4"	156190519	29° 04' 42.30"	090° 13' 33.23"	436
Fl G 2.5s 17 ft 5M "3" Ra Ref	149174333	29° 04' 45.72"	090° 13' 46.03"	438
Fl G "3"	173213138	29° 04' 45.03"	090° 13' 45.94"	439
Fl R "6"	emmba09182.d39	29° 05' 03.97"	090° 13' 31.23"	499

Table D-10. Complete listing of Aids to Navigation within the bounds of H11785

Buoy Name	Chart 11340_1	Chart 11346_1	Chart 11346_2	Chart 11352_1	Chart 11357_1	Chart 11358_1	ENC US5LA26M	ENC US4LA29M
Buoy G "1" Q G	O	X	X	X	X	O	X	O
Buoy R "2" Q R Bell	O	X	X	X	X	O	X	O
Fl R 2.5s 17 ft 5M "4" Ra Ref **	O	X	X	X	X	O	X	O
Fl R "4"*	O	O	O	O	O	O	O	O
Fl G 2.5s 17 ft 5M "3" Ra Ref **	X	X	X	X	X	O	X	O
Fl G "3"*	O	O	O	O	O	O	O	O
Fl R "6"*	O	O	O	O	O	O	O	O
Fl R 4s 17ft 3M "6" Ra Ref**	X	O	X	X	X	O	X	O

X denotes that the buoy falls within the limits of the chart; O denotes that the buoy does not fall within the chart limits.
*indicates that the buoy is not currently charted, but is the functional buoy that corresponds to the nonfunctional or missing day marker (**).

Special Purpose Buoys

An uncharted yellow buoy was found (Feature 498) in 29° 04' 33.60"N 090° 16' 13.49"W (Figure D-7). The buoy is located along a section of charted pipeline which pass just off the eastern point of East Timbalier Island. Recommend charting in a yellow special purpose buoy in 29° 04' 33.60"N 090° 16' 13.49"W. ***Concur – Add buoy.***

Figure D-7

Figure D-7. Uncharted Yellow Special Purpose Buoy

An uncharted danger buoy was found (Feature 500) in 29° 03' 56.43"N 090° 09' 06.08"W (Figure D-8). The buoy is located near a collapsed; fully submerged platform (feature 367) and associated gas leak in 29° 03' 56.77"N 090° 09' 05.88"W on chart 11358_1. Recommend charting in a danger special purpose buoy in 29° 03' 56.43"N 090° 09' 06.08"W. ****Concur with clarification - Defer to MCD Update Services Branch for charting recommendation of navigational aid.***

Figure D-8. Uncharted Danger Special Purpose Buoy

Table D-11. Special Purpose Buoys

Buoy Name	Multibeam File / SS Contact Name	Confirmed Position (NAD83) From Multibeam Feature / SS Contact Location		Feature Number
		Latitude (N)	Longitude (W)	
Yellow Buoy	163135226	29° 04’ 33.60”	090° 16’ 13.49”	498
Danger Buoy	N/A	29° 03’ 56.43”	090° 09’ 06.08”	500

Weekly Sidescan Contact Delivery Compared to Final Sidescan Contact Delivery

Contacts were delivered weekly to the NOAA Share Point web site. On direction from NOAA the weekly deliveries consisted of a single “preferred” contact image for each item. The weekly deliveries consisted of an Excel spread sheet containing contact information such as length, width, height, estimated depth, and reviewer comments, a TIFF image of the contact, a PNG image of the contact in sepia color scheme with scale bars and a JPG image. There were a total of 350 contacts delivered to the Share Point web site as a “preferred” contact. During the last week of survey a request was made by NOAA to post all images of generated contacts to the Share Point web site, not just the preferred image. The last weekly delivery also consisted of JPG photographs of exposed contacts and a spread sheet that correlated the preferred delivered contacts to other associated contacts. There were a total of 912 contacts delivered to NOAA via the Share Point web site in this last weekly delivery. Of the 912 contacts originally delivered to the Share Point web site, 23 contacts were disproved during item investigations as not real contacts and an additional 37 contacts were identified as bubbles during item investigations (Table D-12). There were three additional contacts that were removed as not a real contact as a result of further data analysis. There are a total of 1576 contacts being delivered with the final data submission of which 664 were not delivered originally. Of the 664 new contacts being delivered, one contact was for the navigational aid day marker “G 3”, two were for the navigational aid buoy “G 3”, 15 were on obstructions, two were on a submerged pile, and 706 were on pipelines. Only seven of the new contacts made on obstructions were not associated with a sidescan contact originally delivered to the Share Point web site. Of the seven new contacts categorized as

obstructions, three were not significant while the remaining 4 contacts identified two new features.

Table D-12. Sidescan Contacts Delivered to the Share Point Web Site That Were Disproved During Item Investigations.

Contacts Disproved (Bubbles)		**Contacts Disproved (Nothing Found in MB)**	
1121180155	1134152009	1121165921	1136154341
1122174322	1134154510	1125163819	1136160723
1122184847	1134160043	1125181004	1136163912
1122193257	1134191742	1130171653	1136163915
1125144522	1143181141	1130174825	1136184124
1130190930	1143182321	1130184325	1136214456
1130191456	1143190332	1131204854	1148173831
1131153416	1143191510	1133160351	1149154952
1131185452	1144145025	1133181130	1149195949
1131185457	1144163426	1134141442	1157210907
1132151129	1147192406	1134191023	1158131549
1132151133	1148181620	1134203209	1158141341
1132164246	1148181628	1135190416	1158175834
1132191612	1150131608		
1133173208	1158163635		
1133173451	1158184649		
1133194833	1170193628		
1133195127	1171165903		
1133203056			

Some contacts that were originally delivered with a designation of OBSTN, PIPELINE, ROCKS, PILE, etc have changed in designation as a result of acquiring additional data and upon more detailed analysis. In many of the cases contacts were delivered with a designation of ROCK or ROCKS and now are being categorized as Breakwater. Similarly some contacts were categorized as obstructions associated with a pipeline. These contacts are now categorized as Pipeline and are associated with the rest of the contacts and features defining the pipeline. In one case there were four contacts that were delivered categorized as an obstruction which were re-categorized as “Platform”. All structures that are above the waters surface which are part of the oil and gas industry are categorized as “Platform”. If the contact was a Jack-up Rig beside a platform, the platform’s contacts were correlated with a feature while the Jack-up Rig was not and the associated contacts were captured as non-significant.

The “H11785_Sidescan_Contacts_List” and H11785_Echosounder_Features_List” are located in the “Appendix II Files” folder within the Appendices. The files contain a description column which gives information as to how the contact or feature was categorized. The files contain a listing sorted chronologically as well as a listing sorted by description (separate tab within Excel file). These lists report the position and

description of all platforms within the survey area. The contacts listing which is sorted by description, lists all non-significant contacts at the end of the list.

E. APPROVAL SHEET

06 November 2009

LETTER OF APPROVAL

REGISTRY NUMBER: H11785

This report and the accompanying digital data for project OPR-K977-SA-087, Gulf of Mexico, Coast of Louisiana Project are respectfully submitted.

Field operations and data processing contributing to the accomplishment of this survey, H11785, were conducted under supervision of myself and lead hydrographer Gary R. Davis with frequent personal checks of progress and adequacy. This report and accompanying deliverable data items have been closely reviewed and are considered complete and adequate as per the Statement of Work.

Reports concurrently submitted to NOAA for this project include:

Report	Submission Date
Data Acquisition and Processing Report, SAIC Doc 09-TR-014	06 November 2009

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION

Paul L. Donaldson

Digitally signed by Paul L. Donaldson
DN: cn=Paul L. Donaldson, o=MSTD, ou=SAIC, email=paul.l.donaldson@saic.com, c=US
Date: 2009.11.06 15:01:31 -05'00'

Paul L. Donaldson
Lead Hydrographer
Science Applications International Corporation
06 November 2009

APPENDIX I. DANGER TO NAVIGATION REPORTS (AHB SUBMISSIONS TO MCD)

This appendix provides copies of the four Danger to Navigation Reports, that SAIC submitted for H11785, as they were prepared by the Atlantic Hydrographic Branch (AHB) and submitted to the Marine Chart Division (MCD). These reports were provided to SAIC by AHB as PDF documents and then converted to **Microsoft Word** documents for inclusion in this Appendix. In addition, Appendix V also includes copies of the four Dangers to Navigation Reports as originally prepared by SAIC and submitted to AHB.

H11785_DToN Report #1

Registry Number: H11785
State: Louisiana
Locality: Gulf of Mexico
Sub-locality: Timbalier Island to Belle Pass
Project Number: OPR-K977_SA-08
Survey Date: 05/29/2009

Charts Affected

Number	Version	Date	Scale	RNC Correction(s)*
11357	39th	02/01/2008	1:80,000 (11357_1)	USCG LNM: 05/12/2009 (05/12/2009) NGA NTM: 04/18/2009 (05/16/2009)
11340	73rd	08/01/2008	1:458,596 (11340_1)	[L]NTM: ?
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	29 ft Submerged Obstruction	Obstruction	8.96 m	29° 00' 19.9" N	090° 22' 28.1" W	---
1.2	35 ft Submerged Wreck	Wreck	10.76 m	29° 00' 21.6" N	090° 20' 18.8" W	---

1.1) GP No. -1 from H11785 DToN#1.xls

DANGER TO NAVIGATION

Survey Summary

Survey Position:	29° 00' 19.9" N, 090° 22' 28.1" W
Least Depth:	8.96 m (=29.40 ft = 4.899 fm = 4 fm 5.40 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-149.20:32:25.000 (05/29/2009)
GP Dataset:	H11785 DToN#1.xls
GP No.:	1
Charts Affected:	11357_1, 1116A_1, 11340_1, 411_1

Remarks:

The submerged obstruction is a large 5 sided object, approximately 8 x 10 meters, protruding approximately 2.43 meters from the flat bottom. It is located approximately half way between two charted pipelines. It has an estimated least depth (from sidescan data) of 29 feet in 37 feet of water. There are numerous smaller pieces on and under the obstruction. The size, shape, strong acoustic return, and its close proximity to pipelines indicated that is may be a collapsed platform. The current charted depths in this area are 30 feet.

Depths are reduced to Mean Lower Low Water using predicted tides based on preliminary zoning. Positions are based on NAD-83. Positions were obtained using DGPS from a US Coast Guard Station.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11785 DToN#1.xls	1	0.00	000.0	Primary

Hydrographer Recommendations

Chart a 29 Obstruction (rep 2009) at surveyed location.

Cartographically-Rounded Depth (Affected Charts):

29 ft (11357_1)

4 ¾ fm (1116A_1, 11340_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: OBJNAM – 29-ft Obstrn

QUASOU – 9: value reported (not confirmed)

SORDAT - 20090529

SORIND - US,US,survy,H11785

TECSOU - 2:found by side scan sonar

VALSOU – 8.96 m

VERDAT – 12:Mean lower low water

WATLEV – 3: always under water/submerged

Office Notes

Concur with clarification. Shown on chart 11357; 40th Ed., Jun./2009 and smaller scale charts as a Obstn (rep 2009), least depth 29 feet. Office processing determined that the position and least depth are different from the initial DToN submission to MCD. Delete charted Obstn (rep 2009), least depth 29 feet. Chart an obstruction, least depth 22 feet at the present survey position in Latitude 29°'00'19.958"N, Longitude 090°22'28.2000"W. Add 22 ft Obstn and danger curve.

Feature Images

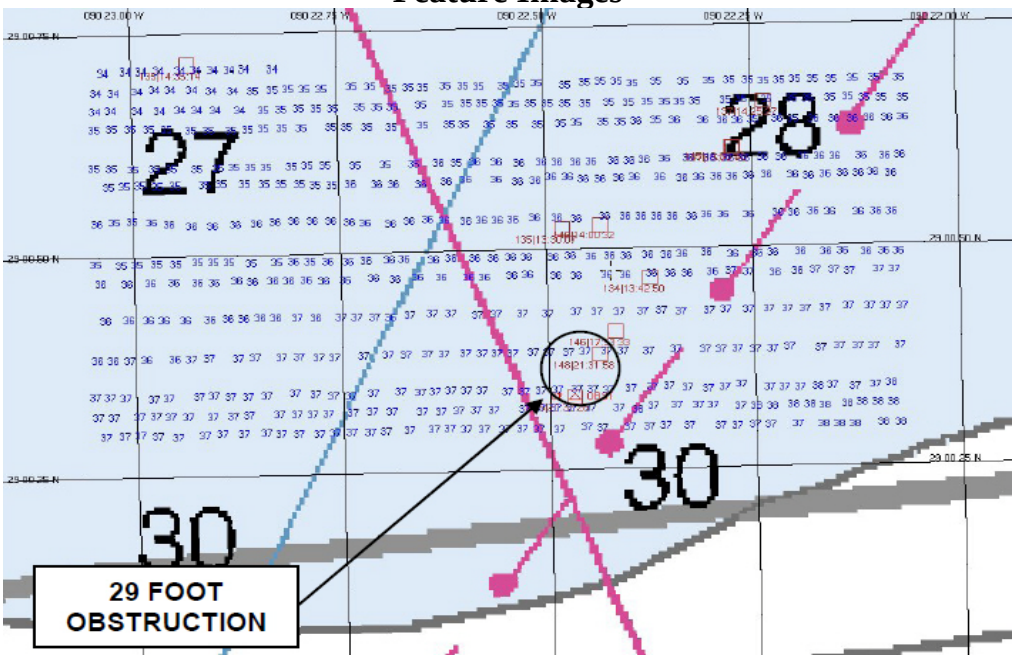

Figure 1.1.1

Isis - Main Window - L:\H11785_XTFIO\XTFIO\LM149_09052920160O.XTF
Vertical Waterfall Ch. 1,2 - Range=50.0m
Vertical Waterfall Ch. 3,4 - Range=50.0m, Freq=500 kHz
Isis Parameter Display
Navigation
Lat: 029° 00.338' N
Long: 090° 20.342' W
Ship
Speed: 7.44kts
Gyro: 265.58°
Sensor Data
Pitch: -5.30°
Roll: -5.60°
Heading: 270.91°
Speed: 7.43kts
Depth: 2.06m
Alt: 10.49m
Range Scale
50.0m
Display units
meters
feet
ms
Cursor
Time: 20:17:45.6
Ping: 346145
Channel: 2 Stbd
Depth: 2.0m
S Range: 38.44m
Alt: 10.6m
Speed: 7.27kts
Hdng: 265.10°
Lat: 029° 00.359' N
Long: 090° 20.314' W
Log
Current File
Path: L:\H11785_XTFI
Name: LM149_090529
Date: 29 MAY 2009
Time: 20:17:58.770
Ping: 346342
PAUSE
Switch
Note

Figure 1.1.2

1.2) GP No. -2 from H11785 DToN#1.xls

DANGER TO NAVIGATION

Survey Summary

Survey Position:	29° 00' 21.6" N, 090° 20' 18.8" W
Least Depth:	10.76 m (=35.30 ft = 5.884 fm = 5 fm 5.30 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-149.20:17:45.000 (05/29/2009)
GP Dataset:	H11785 DToN#1.xls
GP No.:	2
Charts Affected:	11357_1, 1116A_1, 11340_1, 411_1

Remarks:

The submerged wreck is an old deteriorated wreck (probably wood based on the weakness of the acoustic return) approximately 16m long x 7m wide, oriented approximately north-south. It is located approximately 110 meters east of charted pipeline. The highest point of the wreck is the north end which protrudes approximately 1.24 meters from the flat bottom. It has an estimated least depth (from sidescan data) of 35 feet in 39 feet of water. There is approximately 2 feet of scour around the wreck. Current charted depths in this area are 30 to 32 feet.

Depths are reduced to Mean Lower Low Water using predicted tides based on preliminary zoning. Positions are based on NAD-83. Positions were obtained using DGPS from a US Coast Guard Station.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11785 DToN#1.xls	2	0.00	000.0	Primary

Hydrographer Recommendations

Chart a 35 foot submerged wreck (rep 2009) at surveyed location.

Cartographically-Rounded Depth (Affected Charts):

35 ft (11357_1)

5 ¾ fm (1116A_1, 11340_1, 411_1)

S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes: CATWRK – 2:dangerous wreck

OBJNAM – 35-ft Wreck

QUASOU – 9: value reported (not confirmed)

SORDAT - 20090529

SORIND - US,US,survy,H11785

TECSOU - 2:found by side scan sonar

VALSOU – 10.76 m

VERDAT – 12:Mean lower low water

WATLEV – 3: always under water/submerged

Office Notes

Concur with clarification. Shown on chart 11357; 40th Ed., Jun./2009 and smaller scale charts as a Wk (rep 2009), least depth 35 feet. Office processing determined that the position and least depth are different from the initial DToN submission to MCD. Delete charted Wk (rep 2009), least depth 35 feet. Chart a dangerous wreck, least depth 38 feet at the present survey position in Latitude 29°00'21.605"N, Longitude 090°20'18.629"W. Add 38 ft Wk and danger curve.

Feature Images

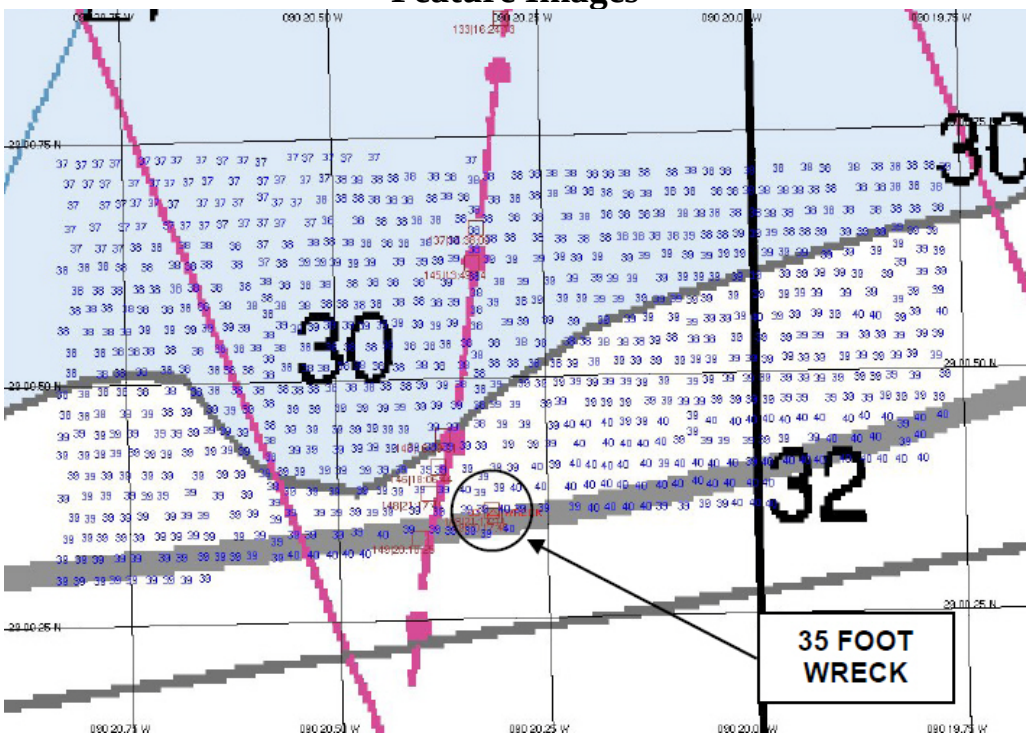

Figure 1.2.1

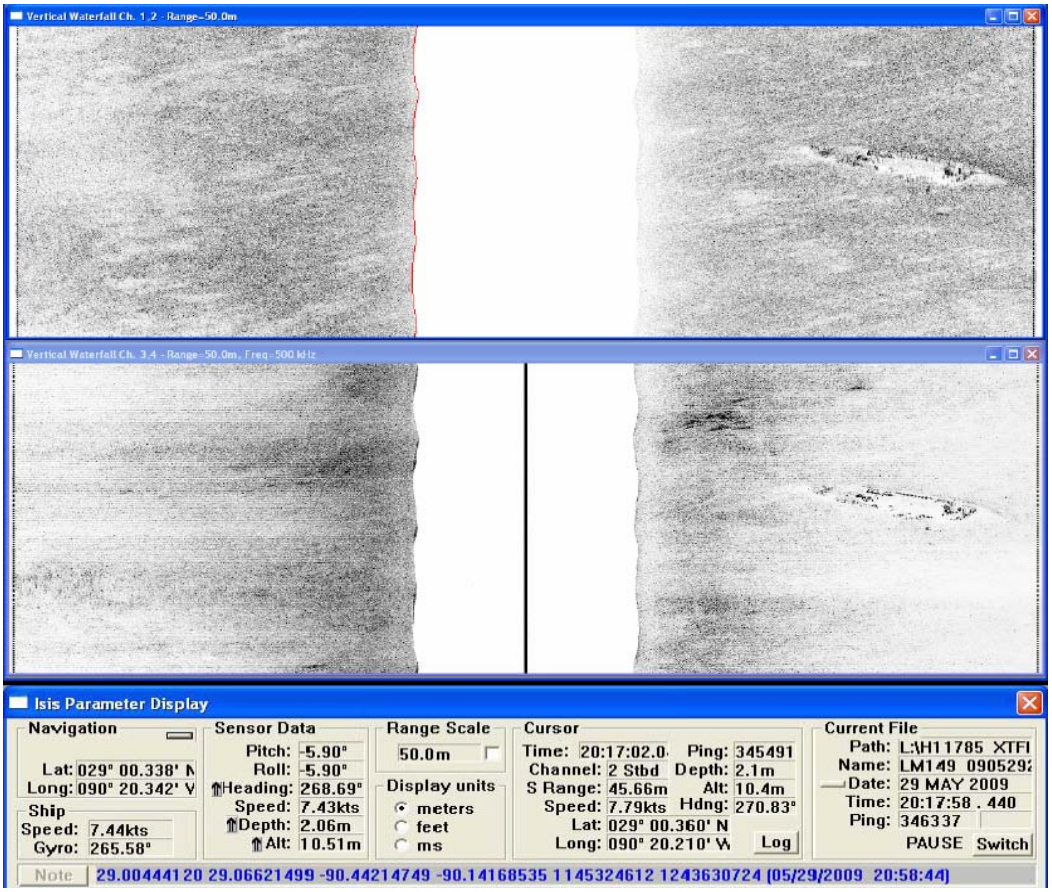
Vertical Waterfall Ch. 1,2 - Range=50.0m
Vertical Waterfall Ch. 3,4 - Range=50.0m, Freq=500 kHz
Isis Parameter Display
Navigation
Lat: 029° 00.338' N
Long: 090° 20.342' W
Ship
Speed: 7.44kts
Gyro: 265.58°
Sensor Data
Pitch: -5.90°
Roll: -5.90°
Heading: 268.69°
Speed: 7.43kts
Depth: 2.06m
Alt: 10.51m
Range Scale
50.0m
Display units
meters
feet
ms
Cursor
Time: 20:17:02.0
Ping: 345491
Channel: 2 Stbd
Depth: 2.1m
S Range: 45.66m
Alt: 10.4m
Speed: 7.79kts
Hdng: 270.83°
Lat: 029° 00.360' N
Long: 090° 20.210' W
Log
Current File
Path: L:\H11785 XTFI
Name: LM149 090529
Date: 29 MAY 2009
Time: 20:17:58 . 440
Ping: 346337
PAUSE
Switch
Note
29.00444120 29.06621499 -90.44214749 -90.14168535 1145324612 1243630724 (05/29/2009 20:58:44)

Figure 1.2.2

H11785 Danger to Navigation

Registry Number: H11785
State: Louisiana
Locality: Gulf of Mexico
Sub-locality: East Timbalier Island to Belle Pass
Project Number: OPR-K977_SA-08
Survey Date: 06/06/2009

Charts Affected

Number	Version	Date	Scale	RNC Correction(s)*
11346	1st	08/01/2004	1:40,000 (11346_2)	[L]NTM: ?
11357	39th	02/01/2008	1:80,000 (11357_1)	[L]NTM: ?
11352	40th	05/01/2008	1:175,000 (11352_1)	[L]NTM: ?
11340	73rd	08/01/2008	1:458,596 (11340_1)	[L]NTM: ?
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	Rocks Awash	Rock	0.0 m	29° 04' 06.1" N	090° 18' 09.2" W	---
1.2	(2) Pilings	GP	-0.30 m	29° 04' 11.8" N	090° 17' 43.3" W	---
1.3	(6) Pilings	GP	-0.30 m	29° 04' 13.8" N	090° 17' 36.9" W	---

1.1) GP No. -2 from H11785_DToN#2revised.txt

DANGER TO NAVIGATION

Survey Summary

Survey Position:	29° 04' 06.1" N, 090° 18' 09.2" W
Least Depth:	0.0 m (=0.0 ft = 0.0 fm = 0.0 fm 0.0 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-157.16:11:57.000 (06/06/2009)
GP Dataset:	H11785_DToN#2revised.txt
GP No.:	2
Charts Affected:	11357_1, 11352_1, 1116A_1, 11340_1, 411_1

Remarks:

Depths are reduced to Mean Lower Low Water using predicted tides based on preliminary zoning. Positions are based on NAD-83. Positions were obtained using DGPS from a US Coast Guard Station.

Description: The charted south shore line of East Timbalier Island from approximately 29-04-44.50N 090-16-31.73W to 29-03-21.04N 090-20-44.17W was lined with rocks to reduce erosion. The south shore line as eroded and is now between 0.5 to 0.75 miles north of its charted location. In some areas the island no longer exists. The rocks that once lined the south shore of the island are now submerged and awash.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11785_DToN#2revised.txt	2	0.00	000.0	Primary

Hydrographer Recommendations

Chart Rock Awash symbol in 29-04-06.07N 090-18-09.16W

Cartographically-Rounded Depth (Affected Charts):

0 ft (11357_1, 11352_1)

0 fm (1116A_1, 11340_1, 411_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM – visually seen
	OBJNAM – Rocks Awash

QUASOU – 1: depth known

SORDAT - 20090606

SORIND - US,US,survy,H11785

VALSOU – 0.0 m

VERDAT – 12:Mean lower low water

WATLEV – 5:awash

Office Notes

Concur with clarification. Shown on chart 11357; 40th Ed., Jun./2009 and smaller scale charts as a rock awash (rep 2009). Office processing determined that the position and least depth are different from the initial DToN submission to MCD. Delete rock awash (rep 2009). Chart rocks awash at the present survey position in Latitude 29°04'06.099"N, Longitude 090°18'09.201"W. Add Rocks awash.

Feature Images

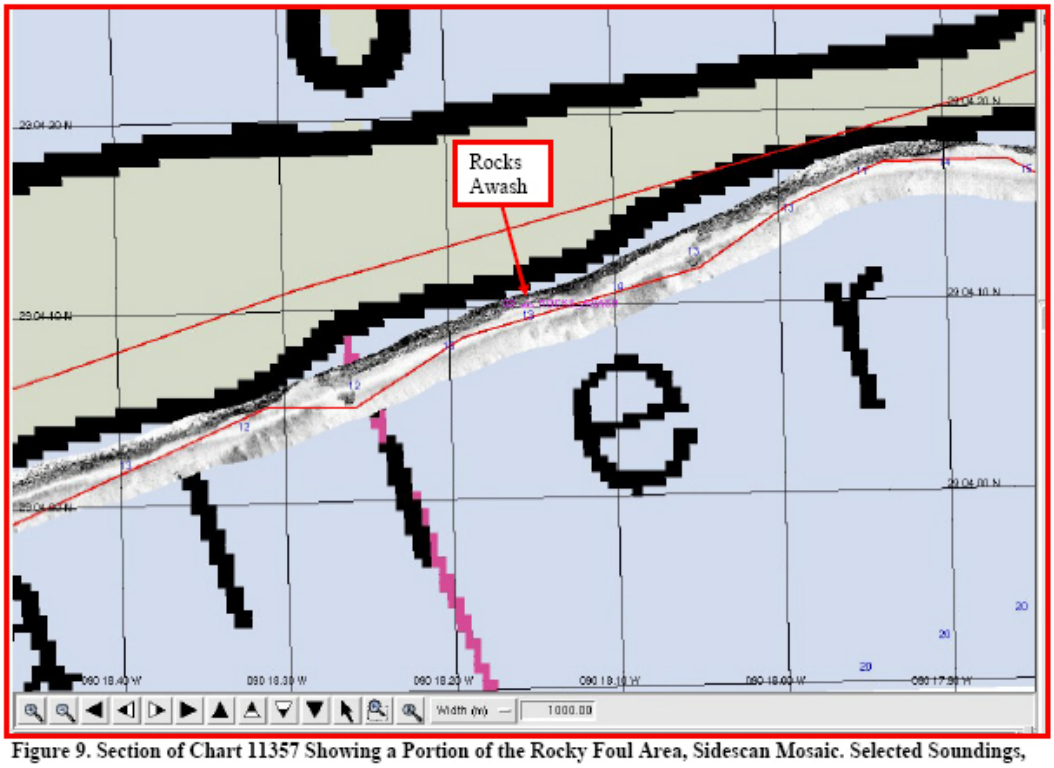

Figure 9. Section of Chart 11357 Showing a Portion of the Rocky Foul Area, Sidescan Mosaic. Selected Soundings, and Rocks Awash within H11785

Figure 1.1.1

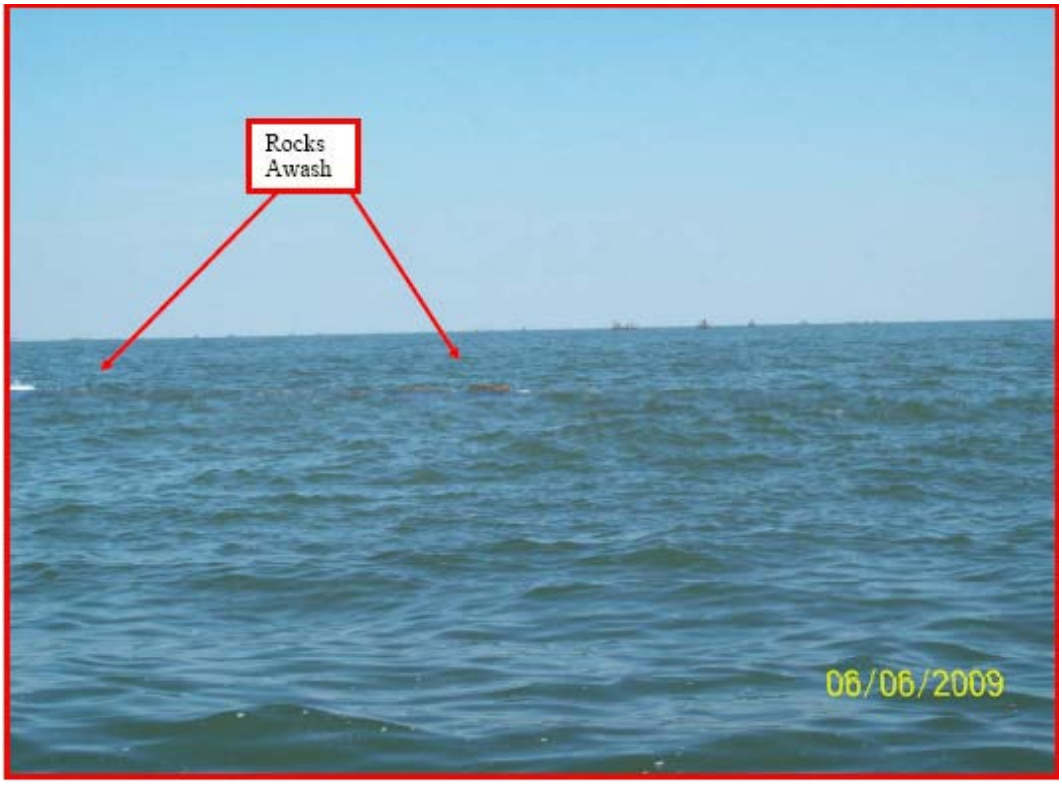

Figure 10. Photograph of the Rocks Awash
Figure 1.1.2

1.2) GP No. -3 from H11785_DtoN#2revised.txt

DANGER TO NAVIGATION

Survey Summary

Survey Position:	29° 04' 11.8" N, 090° 17' 43.3" W
Least Depth:	-0.30 m (=-0.98 ft = -0.164 fm = 0 fm 5.02 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-157.16:11:57.000 (06/06/2009)
GP Dataset:	H11785_DtoN#2revised.txt
GP No.:	3
Charts Affected:	11346_2, 11357_1, 11352_1, 1116A_1, 11340_1, 411_1

Remarks:

Heights are reduced to Mean Lower Low Water using predicted tides based on preliminary zoning. Positions are based on NAD-83. Positions were obtained using DGPS from US Coast Guard Station.

Exposed piles were visually observed.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11785_DtoN#2revised.txt	3	0.00	000.0	Primary

Hydrographer Recommendations

Chart exposed Piling symbol in 29-04-11.76N 090-17-43.28W and label 2_piles

Cartographically-Rounded Depth (Affected Charts):

-1ft (11346_2, 11357_1, 11352_1)

0fm (1116A_1, 11340_1, 411_1)

S-57 Data

Geo object 1:	Pile (PILPNT)
Attributes:	CONVIS – 1:visual conspicuous
	HEIGHT - -0.3 m
	OBJNAM – (2) Exposed Pilings
	SORDAT - 20090606

SORIND - US,US,survy,H11785

Office Notes

Concur with clarification. Shown on chart 11346; 2nd Ed., Apr./2009 and smaller scale charts as Piles (rep 2009). Office processing determined that the position and least depth are different from the initial DToN submission to MCD. Delete charted Piles (rep 2009). Chart Piles (visible) at the present survey position in Latitude 29°04'11.584"N, Longitude 090°17'43.150"W. Add Piles(visible).

Feature Images

Figure 1.2.1

1.3) GP No. -4 from H11785_DtoN#2revised.txt

DANGER TO NAVIGATION

Survey Summary

Survey Position: 29° 04' 13.8" N, 090° 17' 36.9" W

Least Depth: -0.30 m (=-0.98 ft = -0.164 fm = 0 fm 5.02 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2009-157.16:11:57.000 (06/06/2009)

GP Dataset: H11785_DtoN#2revised.txt

GP No.: 4

Charts Affected: 11346_2, 11357_1, 11352_1, 1116A_1, 11340_1, 411_1

Remarks:

Heights are reduced to Mean Lower Low Water using predicted tides based on preliminary zoning. Positions are based on NAD-83. Positions were obtained using DGPS from US Coast Guard Station.

Exposed piles were visually observed.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11785_DtoN#2revised.txt	4	0.00	000.0	Primary

Hydrographer Recommendations

Chart exposed Piling symbol in 29-04-13.79N 090-17-36.88W and label 6_piles

Cartographically-Rounded Depth (Affected Charts):

-1ft (11346_2, 11357_1, 11352_1)

0fm (1116A_1, 11340_1, 411_1)

S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: CONVIS – 1:visual conspicuous

HEIGHT - -0.3 m

OBJNAM – (6) Exposed Pilings

SORDAT - 20090606

SORIND - US,US,survy,H11785

Office Notes

Concur with clarification. Shown on chart 11346; 2nd Ed., Apr./2009 and smaller scale charts as Piles (rep 2009). Office processing determined that the position and least depth are different from the initial DToN submission to MCD. Delete charted Piles (rep 2009). Chart Piles (visible) at the present survey position in Latitude 29°04'13.839"N, Longitude 090°17'36'874"W. Add Piles (visible).

Figure 1.3.1

H11785 DtoN Report #3

Registry Number: H11785
State: Louisiana
Locality: Gulf of Mexico
Sub-locality: Timbalier Island to Belle Pass
Project Number: OPR-K977_SA-08
Survey Date: 06/30/2009 – 07/03/2009

Charts Affected

Number	Edition	Date	Scale (RCN)	RNC Correction(s)*
11346	2nd	04/01/2009	1:20,000 (11346_1)	USCG LNM: None (07/21/2009) NGA NTM: None (08/01/2009)
11346	2nd	04/01/2009	1:40,000 (11346_2)	USCG LNM: 06/09/2009 (07/21/2009) NGA NTM: None (08/01/2009)
11365	20th	02/01/2008	1:50,000 (11365_2)	[L]NTM: ?
11358	55th	06/01/2009	1:80,000 (11358_1)	USCG LNM: 07/07/2009 (07/21/2009) NGA NTM: 04/28/2007 (08/01/2009)
11357	39th	02/01/2008	1:80,000 (11357_1)	USCG LNM: 05/12/2009 (05/12/2009) NGA NTM: 04/18/2009 (05/16/2009)
11352	40th	05/01/2008	1:175,000 (11352_1)	[L]NTM: ?
11366	11th	01/01/2008	1:250,000 (11366_1)	[L]NTM: ?
11340	73rd	08/01/2008	1:458,596 (11340_1)	[L]NTM: ?
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	9ft Submerged Pilings	Obstruction	2.94 m	29° 03' 27.6" N	090° 20' 22.9" W	---
1.2	30ft Obstruction	Obstruction	9.23 m	29° 03' 18.1" N	090° 12' 01.1" W	---
1.3	11ft Obstruction	Obstruction	3.54	29° 04' 44.7" N	090° 14' 02.4" W	---
1.4	5ft Obstruction	Obstruction	1.69 m	29° 06' 39.8" N	090° 10' 23.5" W	---
1.5	5ft Obstruction	Obstruction	1.62 m	29° 06' 34.3" N	090° 10' 33.7" W	---
1.6	14ft Obstruction	Obstruction	4.32 m	29° 03' 12.5" N	090° 20' 18.7" W	---

1.1) 9ft Submerged Pilings

DANGER TO NAVIGATION

Survey Summary

Survey Position:	29° 03' 27.6" N, 090° 20' 22.9" W
Least Depth:	2.94 m (=9.65 ft = 1.608 fm = 1 fm 3.65 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-181.20:36:48.000 (06/30/2009)
GP Dataset:	H11785 DtoN#3.xls
GP No.:	1
Charts Affected:	11357_1, 11352_1, 1116A_1, 11340_1, 411_1

Remarks:

The five submerged pilings are located south of East Timbalier Island. The shoalest has a least depth of 2.94m (9ft) in 21 feet of water and is on a single piling. There are four closely spaced submerged pilings located approximately 50m to the southeast with a least dept of 13ft. These four pilings are oriented northeast to southwest and are spaced at approximately 5m.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11785 DtoN#3.xls	1	0.00	000.0	Primary

Hydrographer Recommendations

Chart 9 ft Submerged Piles at surveyed location.

Cartographically-Rounded Depth (Affected Charts):

9 ft (11357_1, 11352_1)

1 ½ fm (1116A_1, 11340_1, 411_1)

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	CATOBS - 1 :snag / stump
	OBJNAM - 9ft Submerged Piling
	QUASOU - 6:least depth known
	SORDAT - 20090630

SORIND - US,US,survy,H11785

TECSOU - 3:found by multi-beam

VALSOU - 2.94 m

VERDAT - 12:Mean Lower Low Water

WATLEV - 3:always under water/submerged

Office Notes

Concur with clarification. Shown on chart 11357; 40th Ed., Jun./2009 and smaller scale charts as an Obstn (rep 2009), least depth 9 feet. Office processing determined that the position and least depth are different from the initial DToN submission to MCD. Delete charted Obstn (rep 2009), least depth 9 feet. Chart an obstruction (subm piles), least depth 9 feet at the present survey position in Latitude 29°03'27.619"N, Longitude 090°20'22.868"W. Add 9 ft Obstn (subm piles) and danger curve.

Feature Images

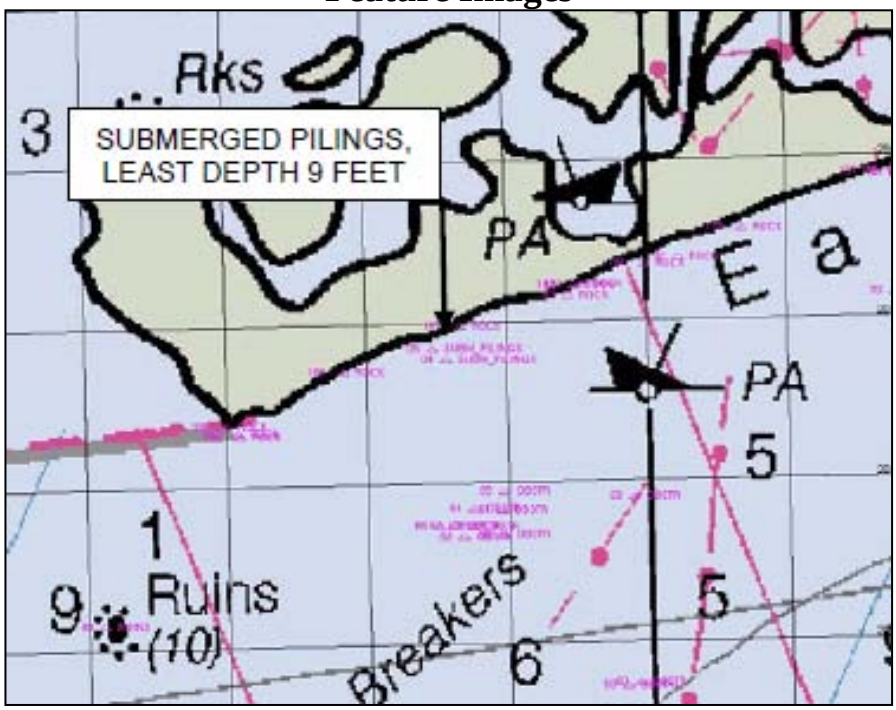

Figure 1.1.1

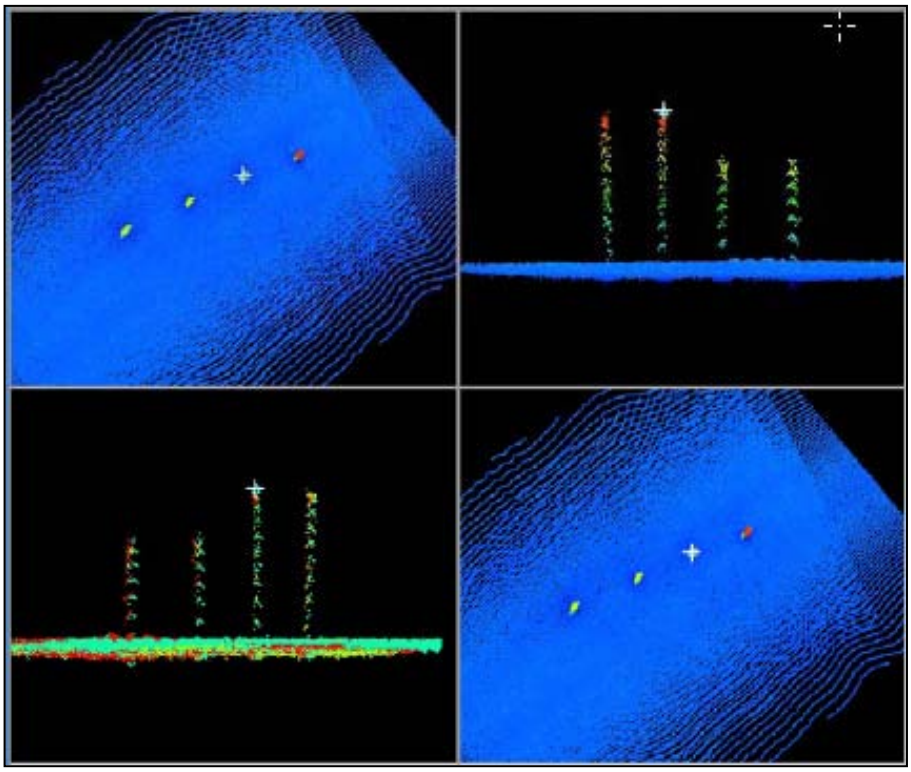

Figure 1.1.2

1.2) 30ft Obstruction

DANGER TO NAVIGATION

Survey Summary

Survey Position: 29° 03' 18.1" N, 090° 12' 01.1" W

Least Depth: 9.23 m (= 30.28 ft = 5.047 fm = 5 fm 0.28 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2009-184.15:42:54.000 (07/03/2009)

GP Dataset: H11785 DtoN#3.xls

GP No.: 2

Charts Affected: 11346_2, 11365_2, 11357_1, 11352_1, 11366_1, 1116A_1, 11340_1, 411_1

Remarks:

The submerged obstruction appears to be three rectangular shaped objects. The largest is approximately 6m long by 3m wide with a least depth of 9.23m (30ft) in 38 feet of water.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11785 DtoN#3.xls	2	0.00	000.0	Primary

Hydrographer Recommendations

Chart 30 ft Obstruction at surveyed location.

Cartographically-Rounded Depth (Affected Charts):

30ft (11346_2, 11365_2, 11357_1, 11352_1)

5fm (1116A_1, 11340_1, 411_1)

5fm 0ft (11366_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: OBJNAM – 30ft Obstruction

QUASOU – 6:least depth known

SORDAT - 20090703

SORIND – US,US,survy,H11785

TECSOU – 3:found by multi-beam

VALSOU – 9.23 m

VERDAT – 12: Mean Lower Low Water

WATLEV – 3:always under water/submerged

Office Notes

Concur with clarification. Shown on chart 11346; 2nd Ed., Apr./2009 and smaller scale charts as an Obstn (Rep 2009), least depth 30 feet. Office processing determined that the position and least depth are different from the initial DToN submission to MCD. Delete charted Obstn (Rep 2009), least depth 30 feet. Chart an obstruction, least depth 29 feet at the present survey position in Latitude 29°03'18/132"N, Longitude 090°12'01.041"W. Add 29 ft Obstn and danger curve.

Feature Images

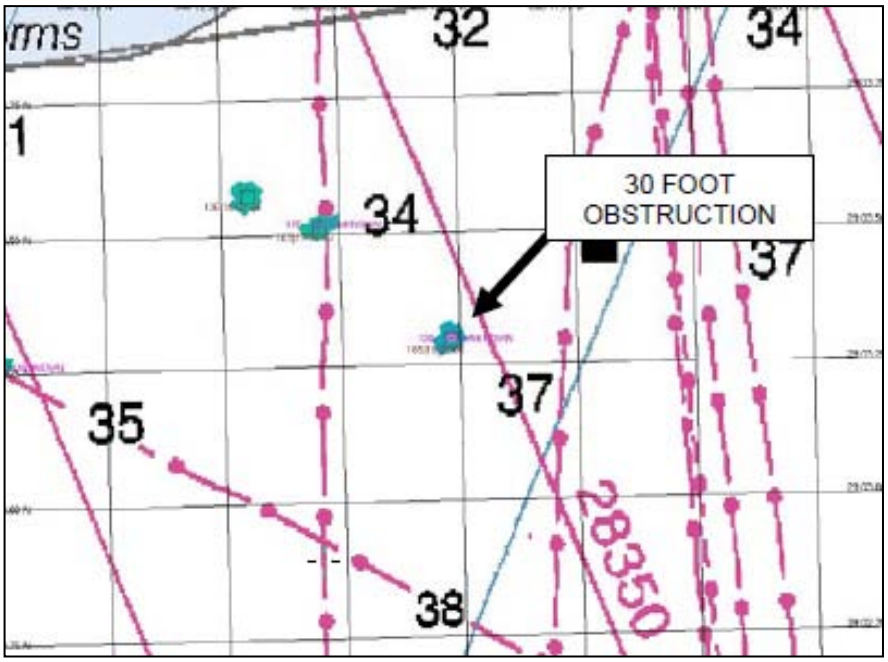

Figure 1.2.1

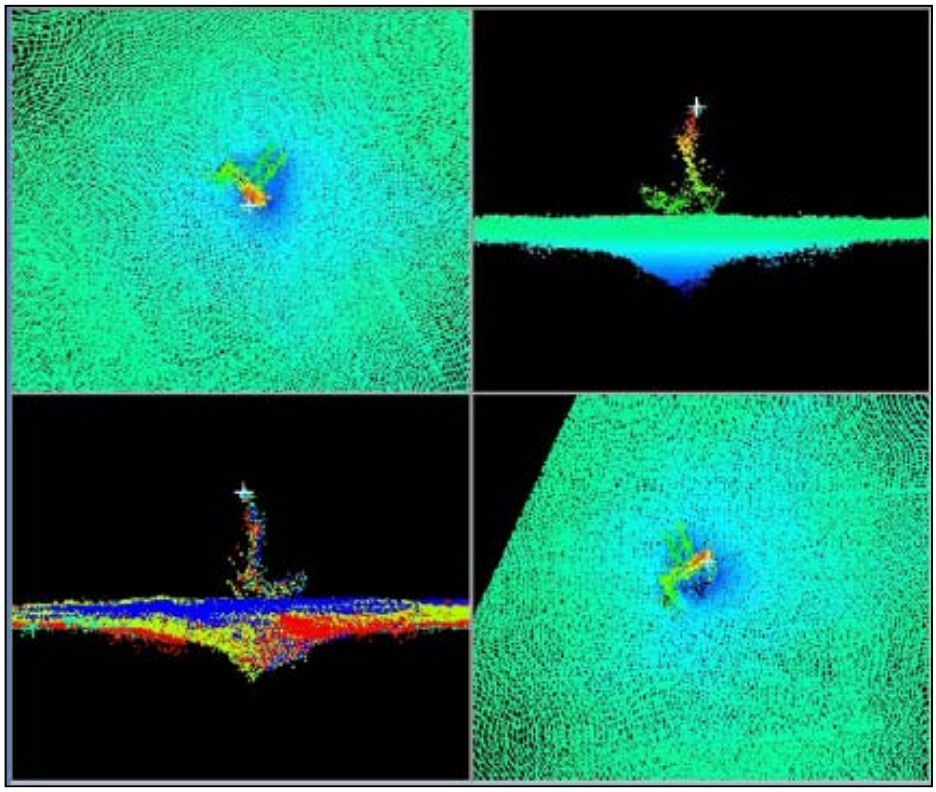

Figure 1.2.2

1.3) 11ft Obstruction

DANGER TO NAVIGATION

Survey Summary

Survey Position:	29° 04' 44.7" N, 090° 14' 02.4" W
Least Depth:	3.54 m (= 11.61 ft = 1.936 fm = 1 fm 5.61 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-184.19:48:38.000 (07/03/2009)
GP Dataset:	H11785 DtoN#3.xls
GP No.:	3
Charts Affected:	11346_1, 11346_2, 11365_2, 11357_1, 11352_1, 11366_1, 1116A_1, 11340_1, 411_1

Remarks:

The submerged obstruction is an irregularly shaped object approximately 3 meters by 3 meters with a least depth of 3.54m (11ft) in 15 feet of water.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11785 DtoN#3.xls	3	0.00	000.0	Primary

Hydrographer Recommendations

Chart 11 ft Obstruction at surveyed location.

Cartographically-Rounded Depth (Affected Charts):

11ft (11346_1, 11346_2, 11365_2, 11357_1, 11352_1)

1 ¾fm (1116A_1, 11340_1, 411_1)

1 fm 5ft (11366_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: OBJNAM – 11 ft Obstruction

QUASOU – 6:least depth known

SORDAT - 20090703

SORIND - US,US,survy,H11785

TECSOU – 3:found by multi-beam

VALSOU – 3.54 m

VERDAT – 12:Mean Lower Low Water

WATLEV – 3:always under water/submerged

Office Notes

Concur with clarification. Shown on chart 11346; 2nd Ed., Apr./2009 and smaller scale charts as an Obstn (Rep 2009), least depth 11 feet. Office processing determined that the position and least depth are different from the initial DToN submission to MCD. Delete charted Obstn (Rep 2009), least depth 11 feet. Chart an obstruction, least depth 11 feet at the present survey position in Latitude 29°04'44.698"N, Longitude 090°14'02.373"W. Add 11 ft Obstn and danger curve.

Feature Images

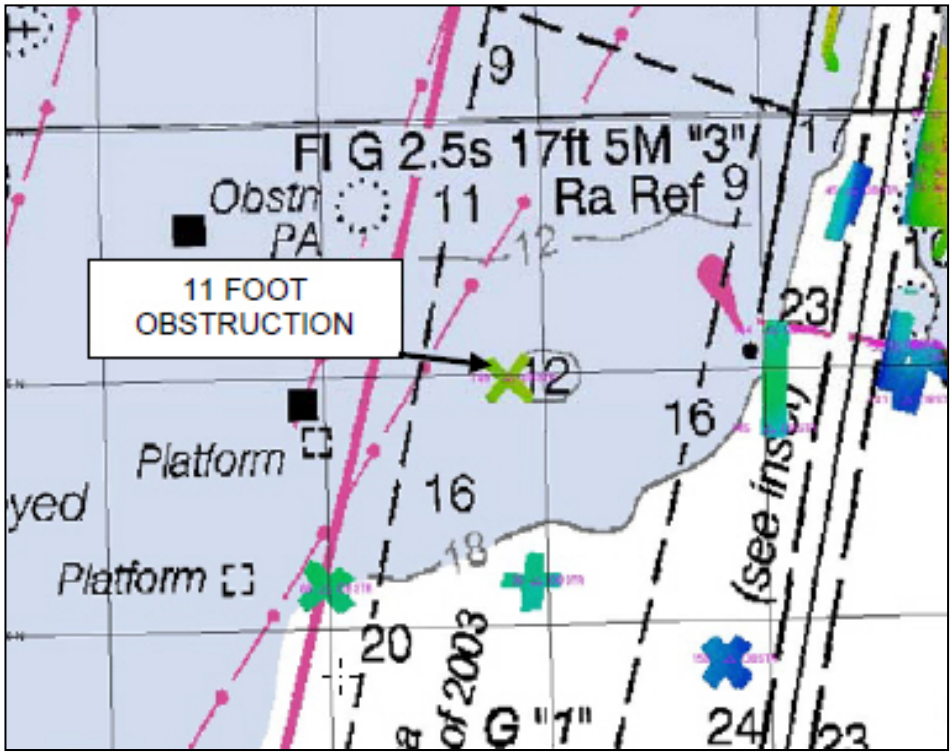

Figure 1.3.1

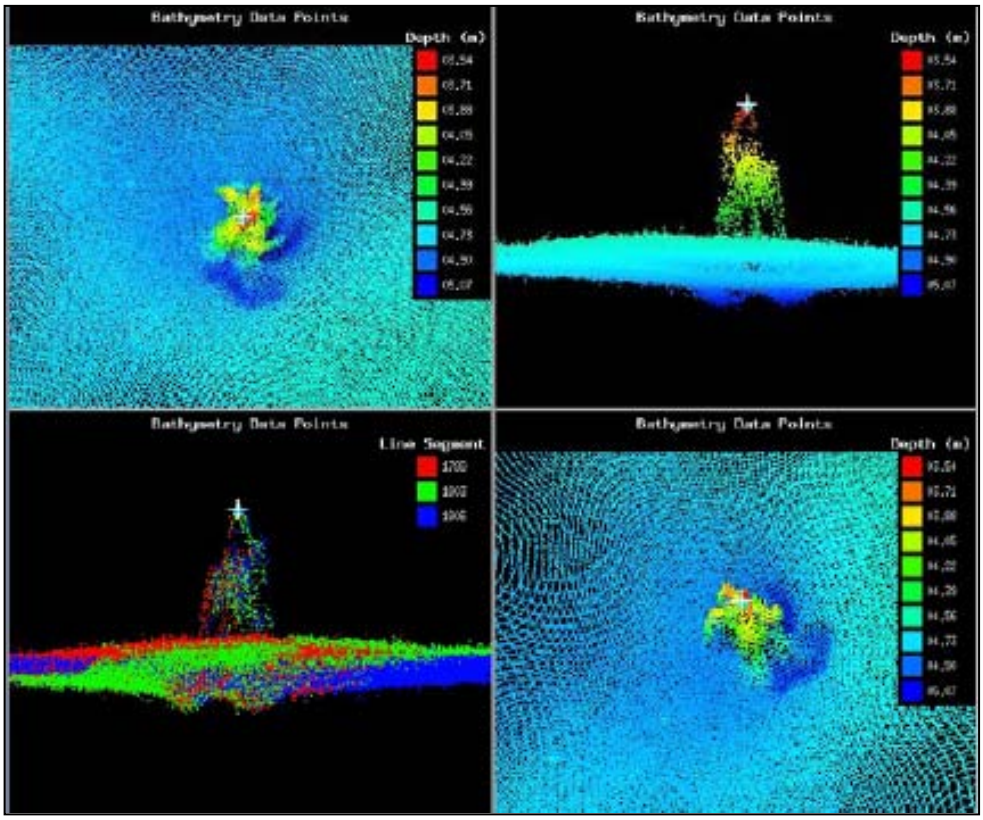
Bathymetry Data Points
Depth (m)
Bathymetry Data Points
Depth (m)
Bathymetry Data Points
Line Segment
Bathymetry Data Points
Depth (m)

Figure 1.3.2

1.4) 5ft Obstruction

DANGER TO NAVIGATION

Survey Summary

Survey Position: 29° 06' 39.8" N, 090° 10' 23.5" W

Least Depth: 1.69 m (= 5.54 ft = 0.924 fm = 0 fm 5.54 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2009-184.17:53:52.000 (07/03/2009)

GP Dataset: H11785 DtoN#3.xls

GP No.: 4

Charts Affected: 11346_2, 11365_2, 11358_1, 11352_1, 11366_1, 1116A_1, 11340_1, 411_1

Remarks:

The submerged obstructions are a group of 4 small objects approximately 1 x 1 meter with a least depth of 1.69m (5ft).

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11785 DtoN#3.xls	4	0.00	000.0	Primary

Hydrographer Recommendations

Chart 5 ft Obstruction at surveyed location.

Cartographically-Rounded Depth (Affected Charts):

5ft (11346_2, 11365_2, 11358_1, 11352_1)

0 ¾fm (1116A_1, 11340_1, 411_1)

0 fm 5ft (11366_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: OBJNAM – 5 ft Obstruction

QUASOU – 6:least depth known

SORDAT - 20090703

SORIND - US,US,survy,H11785

TECSOU – 3:found by multi-beam

VALSOU – 1.69 m

VERDAT – 12:Mean Lower Low Water

WATLEV – 3:always under water/submerged

Office Notes

Concur with clarification. Shown on chart 11346; 2nd Ed., Apr./2009 and smaller scale charts as an Obstn (Rep 2009), least depth 5 feet. Office processing determined that the position and least depth are different from the initial DToN submission to MCD. Delete charted Obstn (Rep 2009), least depth 5 feet. Chart an obstruction, least depth 5 feet at the present survey position in Latitude 29°06'39.748"N, Longitude 090°10'23.538"W. Add 5 ft Obstns and danger curve

Feature Images

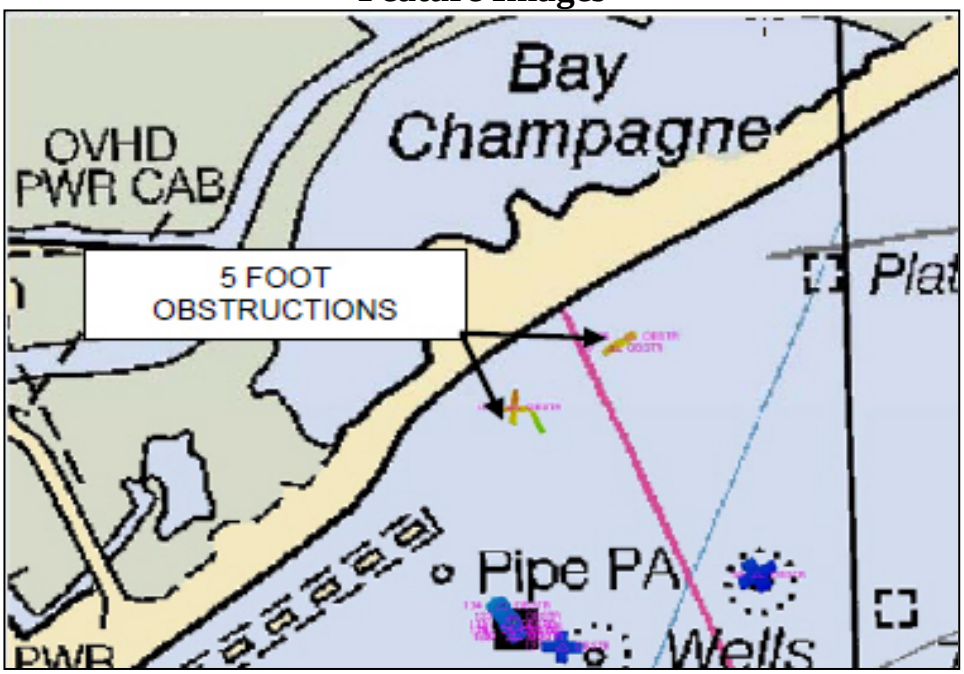

Figure 1.4.1

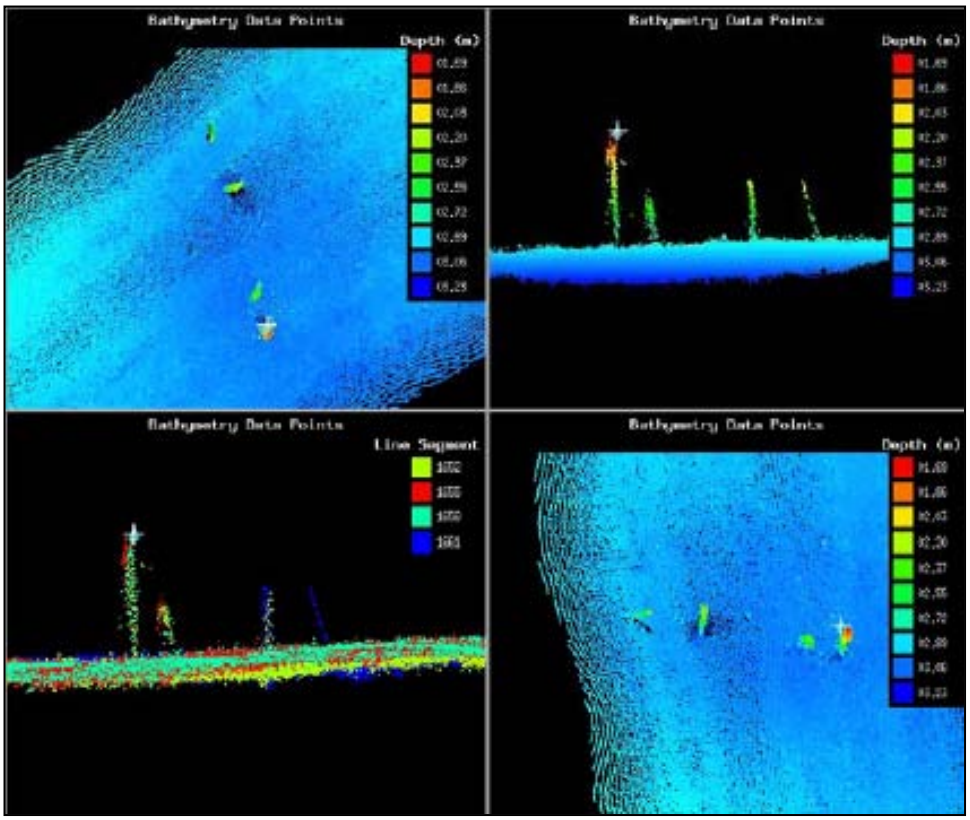
Bathymetry Data Points
Depth (m)
Bathymetry Data Points
Depth (m)
Bathymetry Data Points
Line Segment
Bathymetry Data Points
Depth (m)

Figure 1.4.2

1.5) 5ft Obstruction

DANGER TO NAVIGATION

Survey Summary

Survey Position: 29° 06' 34.3" N, 090° 10' 33.7" W

Least Depth: 1.62 m (= 5.31 ft = 0.886 fm = 0 fm 5.31 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2009-184.17:36:19.000 (07/03/2009)

GP Dataset: H11785 DtoN#3.xls

GP No.: 5

Charts Affected: 11346_2, 11365_2, 11358_1, 11352_1, 11366_1, 1116A_1, 11340_1, 411_1

Remarks:

There is a group of four small (1 x1m) submerged objects with a least depth of 1.62m (5ft).

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11785 DtoN#3.xls	5	0.00	000.0	Primary

Hydrographer Recommendations

Chart 5 ft Obstruction at surveyed location.

Cartographically-Rounded Depth (Affected Charts):

5ft (11346_2, 11365_2, 11358_1, 11352_1)

0 ¾fm (1116A_1, 11340_1, 411_1)

0 fm 5ft (11366_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: OBJNAM – 5 ft Obstruction

QUASOU – 6:least depth known

SORDAT - 20090703

SORIND - US,US,survy,H11785

TECSOU – 3:found by multi-beam

VALSOU – 1.62 m

VERDAT – 12:Mean Lower Low Water

WATLEV – 3:always under water/submerged

Office Notes

Concur with clarification. Shown on chart 11346; 2nd Ed., Apr./2009 and smaller scale charts as an Obstn (Rep 2009), least depth 5 feet. Office processing determined that the position and least depth are different from the initial DToN submission to MCD. Delete charted Obstn (Rep 2009), least depth 5 feet. Chart an obstruction, least depth 5 feet at the present survey position in Latitude 29°06'34.277"N, Longitude 090°10'33'705"W. Add 5 ft Obstns and danger curve.

Feature Images

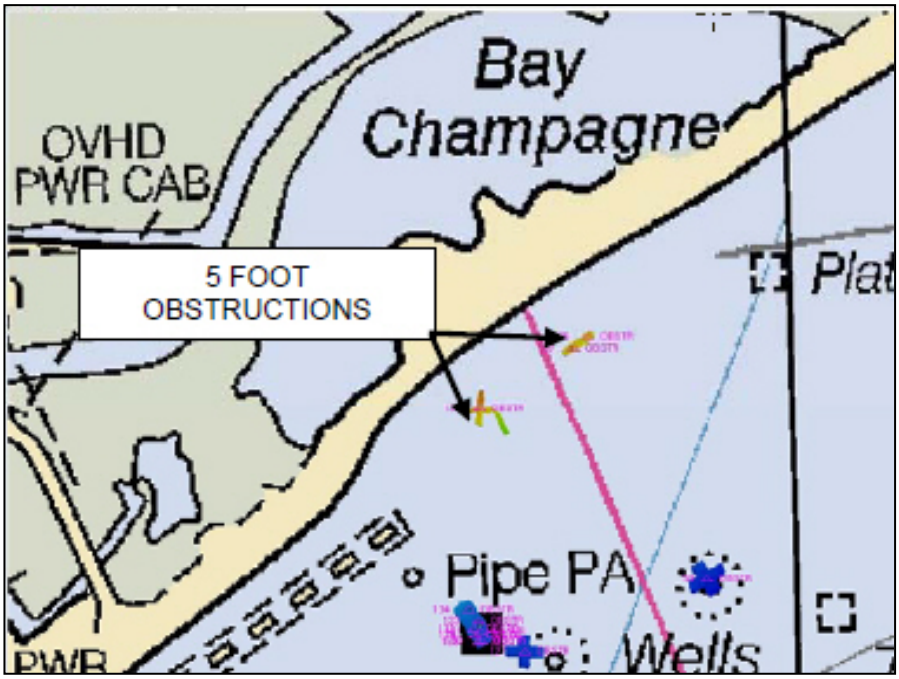

Figure 1.5.1

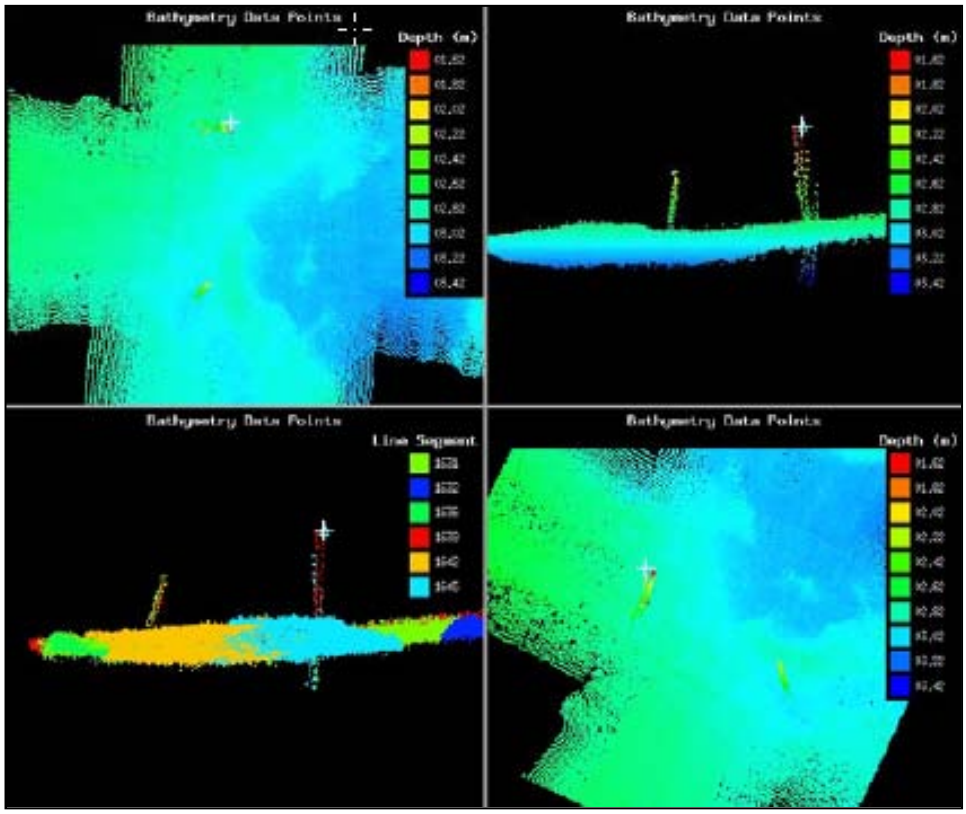
Bathymetry Data Points
Depth (m)
Bathymetry Data Points
Depth (m)
Bathymetry Data Points
Line Segment
Bathymetry Data Points
Depth (m)

Figure 1.5.2

1.6) 14ft Obstruction

DANGER TO NAVIGATION

Survey Summary

Survey Position: 29° 03' 12.5" N, 090° 20' 18.7" W

Least Depth: 4.32 m (= 14.17 ft = 2.362 fm = 2 fm 2.17 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2009-183.14:01:05.000 (07/02/2009)

GP Dataset: H11785 DtoN#3.xls

GP No.: 6

Charts Affected: 11357_1, 11352_1, 1116A_1, 11340_1, 411_1

Remarks:

The submerged obstruction with a lest depth of 4.32m (14ft) in 25 feet is the shoalest of multiple small obstructions in an 240 x 160m area. There is one very large (14 x 20m) flat object with a least depth of 5.26m (17ft) at the east end of the area.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11785 DtoN#3.xls	6	0.00	000.0	Primary

Hydrographer Recommendations

Chart 14 ft Obstruction at surveyed location.

Cartographically-Rounded Depth (Affected Charts):

14ft (11357_1, 11352_1)

2 ¼ fm (1116A_1, 11340_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: OBJNAM – 14 ft Obstruction

QUASOU – 6:least depth known

SORDAT - 20090702

SORIND - US,US,survy,H11785

TECSOU – 3:found by multi-beam

VALSOU – 4.32 m

VERDAT – 12:Mean Lower Low Water

WATLEV – 3:always under water/submerged

Office Notes

Concur with clarification. Shown on chart 11357; 40th Ed., Jun./2009 and smaller scale charts as an Obstn (Rep 2009), least depth 14 feet. Office processing determined that the position and least depth are different from the initial DToN submission to MCD. Delete charted Obstn (Rep 2009), least depth 14 feet. Chart an obstruction, least depth 13 feet at the present survey position in Latitude 29°03'12.493"N, Longitude 090°20'18.738"W. Add 13 ft Obstns and danger curve.

Feature Images

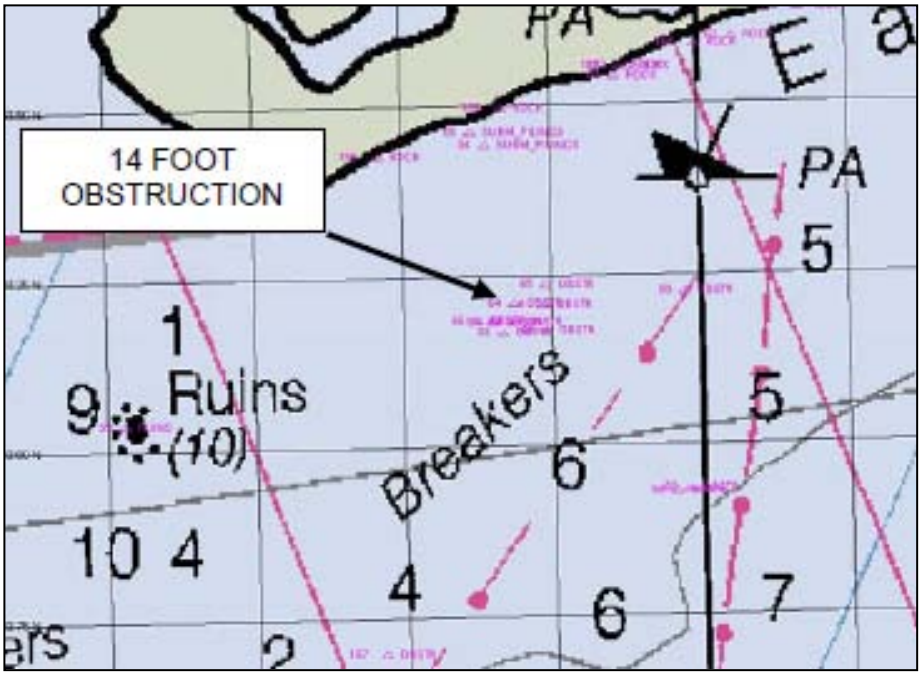

Figure 1.6.1

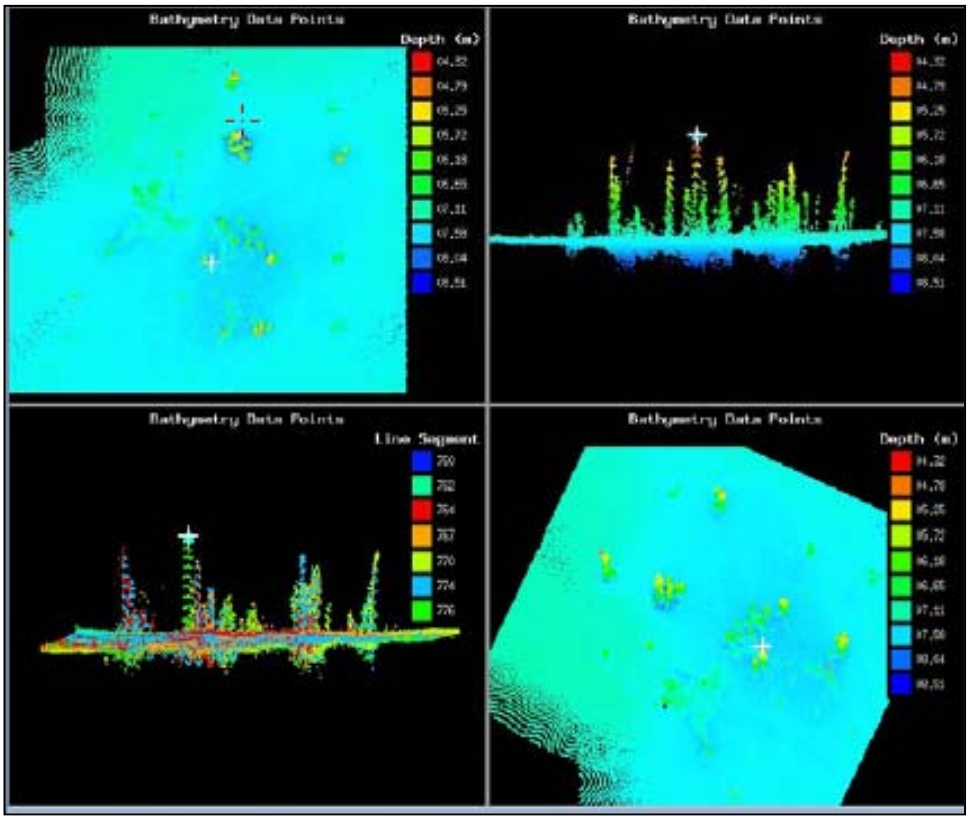
Bathymetry Data Points
Depth (m)
Bathymetry Data Points
Depth (m)
Bathymetry Data Points
Line Segment
Bathymetry Data Points
Depth (m)

Figure 1.6.2

H11785 DtoN Report #4

Registry Number: H11785
State: Louisiana
Locality: Gulf of Mexico
Sub-locality: Timbalier Island to Belle Pass
Project Number: OPR-K977_SA-08
Survey Date: 07/01/2009 – 07/02/2009

Charts Affected

Number	Edition	Date	Scale (RCN)	RNC Correction(s)*
11346	2nd	04/01/2009	1:40,000 (11346_2)	USCG LNM: 06/09/2009 (07/21/2009) NGA NTM: None (08/01/2009)
11365	20th	02/01/2008	1:50,000 (11365_2)	[L]NTM: ?
11357	40th	06/01/2009	1:80,000 (11357_1)	USCG LNM: 08/18/2009 (09/01/2009) NGA NTM: 04/18/2009 (09/12/2009)
11352	40th	05/01/2008	1:175,000 (11352_1)	USCG LNM: 08/18/2009 (09/01/2009) NGA NTM: 04/28/2007 (09/12/2009)
11366	11th	01/01/2008	1:250,000 (11366_1)	[L]NTM: ?
11340	74th	08/01/2009	1:458,596 (11340_1)	USCG LNM: 08/25/2009 (09/01/2009) NGA NTM: 08/22/2009 (09/12/2009)
1116A	74th	08/01/2009	1:458,596 (1116A_1)	USCG LNM: 08/25/2009 (09/01/2009) NGA NTM: 08/22/2009 (09/12/2009)
411	52nd	09/01/2007	1:2,160,000 (411_1)	USCG LNM: 10/21/2008 (09/01/2009) NGA NTM: 06/21/1997 (09/05/2009)

*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	11ft Wreck	Wreck	3.57 m	29° 02' 46.7" N	090° 25' 05.3" W	---
1.2	5ft Sub Piles	Obstruction	1.66 m	29° 05' 10.0" N	090° 14' 51.9" W	---
1.3	16ft Sub Piles	Obstruction	4.83 m	29° 04' 07.9" N	090° 16' 48.2" W	---

1.1) GP No. – 1 from H11785 DtoN#4.xls

DANGER TO NAVIGATION

Survey Summary

Survey Position: 29° 02' 46.7" N, 090° 25' 05.3" W

Least Depth: 3.57 m (= 11.71 ft = 1.952 fm = 1 fm 5.71 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2009-183.21:39:07.000 (07/02/2009)

GP Dataset: H11785 DtoN#4.xls

GP No.: 1

Charts Affected: 11357_1, 11352_1, 1116A_1, 11340_1, 411_1

Remarks:

The submerged wreck in 29-02-46.68N 090-25-05.32W with a least depth of 11 feet (3.57m) in 12 feet appears to be a barge approximately 15m long by 4m wide oriented approximately 310deg. It is laying upright with in a scour that is 1 foot deep.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11785 DtoN#4.xls	1	0.00	000.0	Primary

Hydrographer Recommendations

Chart 11 foot sounding with a danger circle and label Wk in 29-02-46.68N 090-25-05.32W.

Cartographically-Rounded Depth (Affected Charts):

11 ft (11357_1, 11352_1)

2 fm (1116A_1, 11340_1, 411_1)

S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes: CATWRK – 2:dangerous wreck

OBJNAM – 11 ft Wreck

QUASOU - 6:least depth known

SORDAT - 20090702

SORIND - US,US,survy,H11785

TECSOU – 1,2:found by echo-sounder, found by side scan sonar

VALSOU – 3.57 m

VERDAT - 12:Mean Lower Low Water

WATLEV - 3:always under water/submerged

Office Notes

Concur with clarification. Item was not shown on chart 11357; 40th Ed., Jun./2009 and smaller scale charts as a dangerous wreck, least depth 11 feet. Office processing determined that the position and least depth are different from the initial DToN submission to MCD. Chart a dangerous wreck, least depth 11 feet at the present survey position in Latitude 29°02'47.050"N, Longitude 090°25'05.319"W.
Add 11 ft Wk and danger curve.

Feature Images

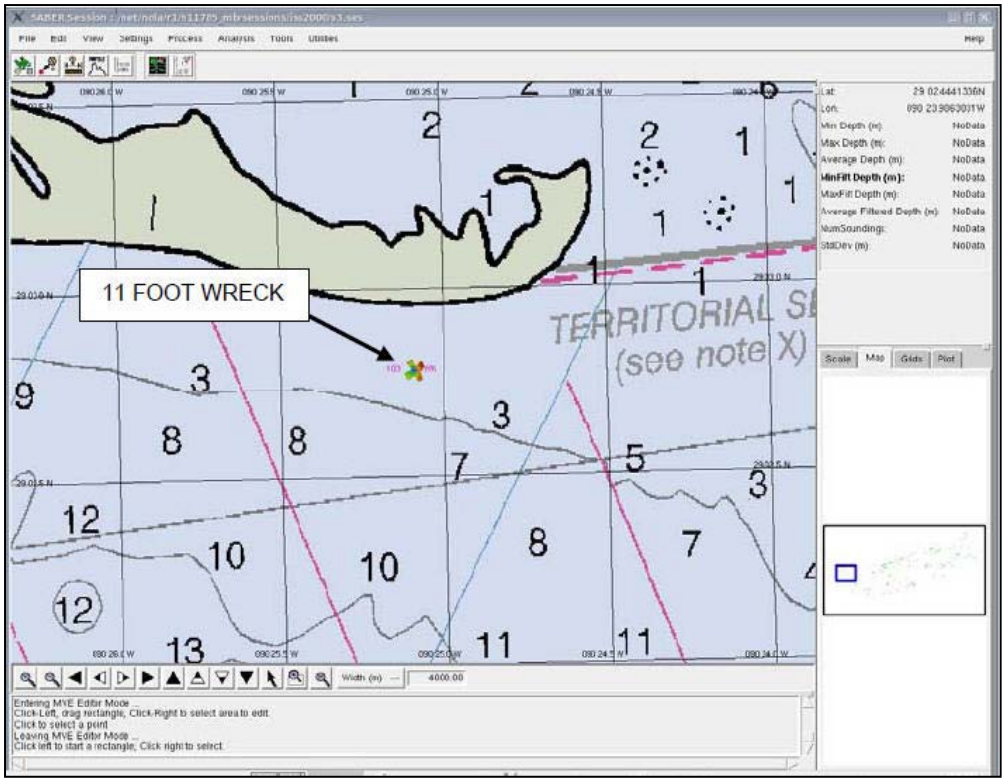

Figure 1.1.1

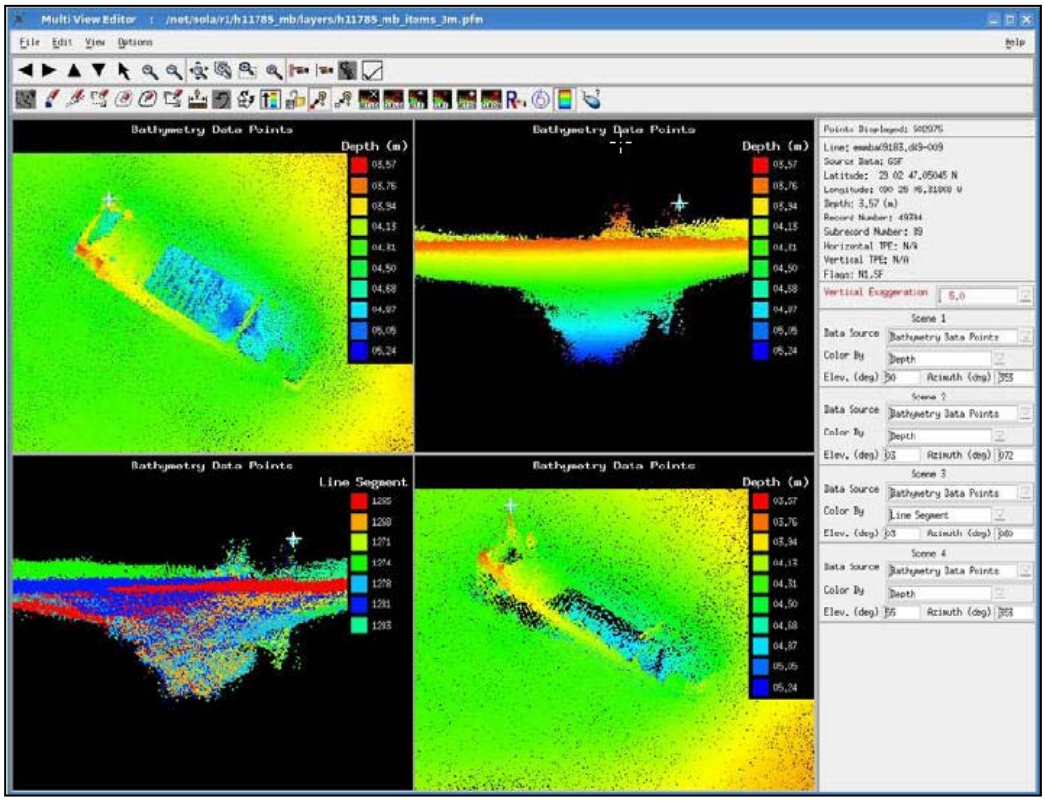
Multi View Editor : /net/sola/r1/h11785_mb/layers/h11785_mb_items_3m.pfm
File Edit View Options
Help
Bathymetry Data Points
Depth (m)
Bathymetry Data Points
Depth (m)
Bathymetry Data Points
Line Segment
Bathymetry Data Points
Depth (m)
Points Displayed: 900976
Line: ewsba0183,d69-009
Source Data: GSF
Latitude: 29 02 47.05045 N
Longitude: 090 29 46.31000 W
Depth: 3.57 (m)
Record Number: 49394
Subrecord Number: 89
Horizontal TPE: N/A
Vertical TPE: N/A
Flags: N1,SF
Vertical Exaggeration 5.0
Scene 1
Data Source Bathymetry Data Points
Color By Depth
Elev. (deg) 30 Azimuth (deg) 355
Scene 2
Data Source Bathymetry Data Points
Color By Depth
Elev. (deg) 03 Azimuth (deg) 072
Scene 3
Data Source Bathymetry Data Points
Color By Line Segment
Elev. (deg) 03 Azimuth (deg) 040
Scene 4
Data Source Bathymetry Data Points
Color By Depth
Elev. (deg) 56 Azimuth (deg) 355

Figure 1.1.2

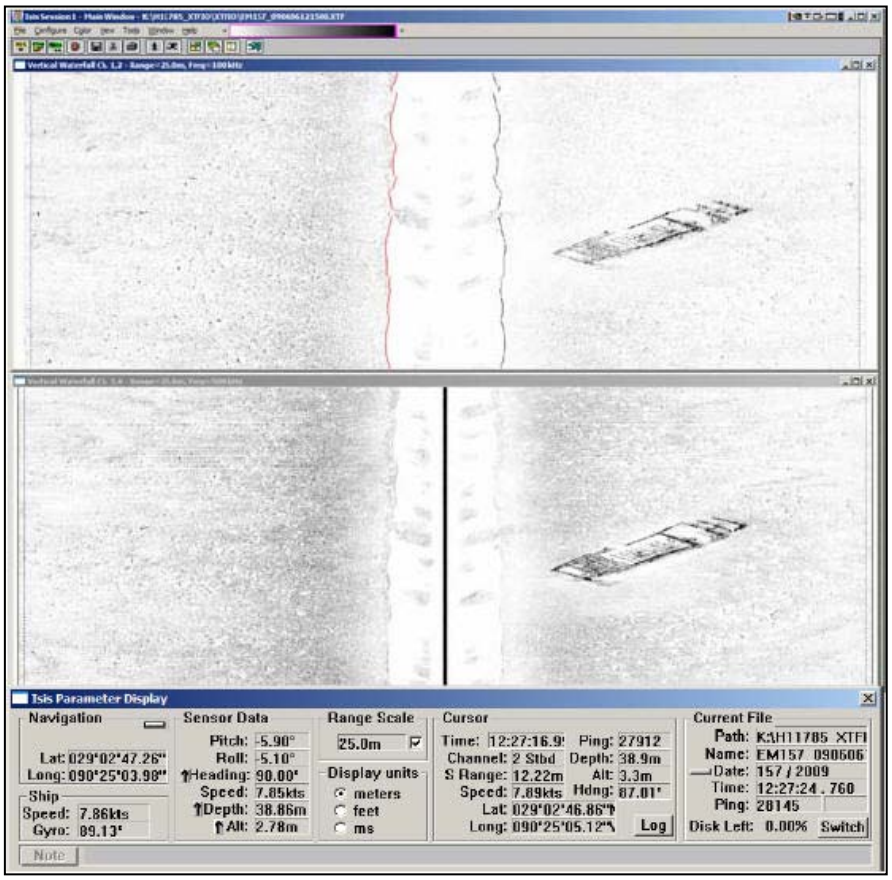
Tsis Parameter Display
Navigation
Lat: 029°02'47.26"
Long: 090°25'03.98"
Ship
Speed: 7.86kts
Gyro: 89.13°
Sensor Data
Pitch: -5.90°
Roll: -5.10°
Heading: 90.00°
Speed: 7.85kts
Depth: 38.86m
Alt: 2.78m
Range Scale
25.0m
Display units
meters
feet
ms
Cursor
Time: 12:27:16.9
Ping: 27912
Channel: 2 Stbd
Depth: 38.9m
S Range: 12.22m
Alt: 3.3m
Speed: 7.89kts
Hdng: 87.01°
Lat: 029°02'46.86"
Long: 090°25'05.12"
Log
Current File
Path: K:\H11785 XTF\
Name: EM157 090606
Date: 157 / 2009
Time: 12:27:24.760
Ping: 20145
Disk Left: 0.00%
Switch
Note

Figure 1.1.3

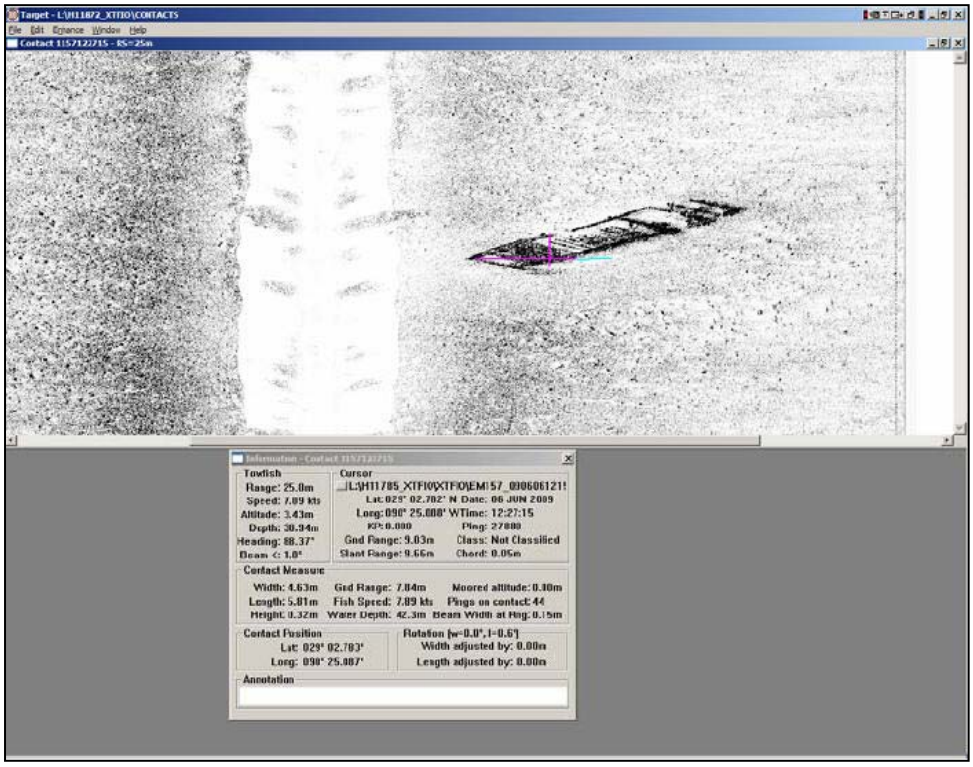
Target - L:\H11872_XTFIO\CONTACTS
File Edit Enhance Window Help
Contact 115712271 5 - RS=25m
Information - Contact 115712271
Towfish
Range: 25.0m
Speed: 7.89 kts
Altitude: 3.43m
Depth: 38.94m
Heading: 88.37°
Beam c: 1.0°
Cursor
L:\H11785_XTFIO\XTFIO\EM157_0906061211
Lat: 029° 02.702' N Date: 06 JUN 2009
Long: 098° 25.888' W Time: 12:27:15
KP: 0.000 Ping: 27880
Gnd Range: 9.03m Class: Not Classified
Slant Range: 9.66m Chord: 0.06m
Contact Measure
Width: 4.63m Gnd Range: 7.84m Moored altitude: 0.40m
Length: 5.81m Fish Speed: 7.89 kts Pings on contact: 44
Height: 0.32m Water Depth: 42.3m Beam Width at Hog: 0.15m
Contact Position
Lat: 029° 02.783'
Long: 098° 25.887'
Rotation (w=0.0°, l=0.6°)
Width adjusted by: 0.00m
Length adjusted by: 0.00m
Annotation

Figure 1.1.4

1.2) GP No. -2 from H11785 DtoN#4.xls

DANGER TO NAVIGATION

Survey Summary

Survey Position:	29° 05' 10.0" N, 090° 14' 51.9" W
Least Depth:	1.66 m (= 5.45 ft = 0.908 fm = 0 fm 5.45 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-183.19:01:21.000 (07/02/2009)
GP Dataset:	H11785 DtoN#4.xls
GP No.:	2
Charts Affected:	11346_2, 11365_2, 11357_1, 11352_1, 11366_1, 1116A_1, 11340_1, 411_1

Remarks:

Two 3 foot submerged pilings 13 meters apart were located in 29-05-09.98N 090-14-51.91W with a least depth of 5 feet (1.58m) and 29-05-09.74N 090-14-52.30W with a least depth of 5 feet (1.73m) are in water depths of 8 feet (2.65m).

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11785 DtoN#4.xls	2	0.00	000.0	Primary

Hydrographer Recommendations

Chart a 5 foot sound with a danger circle and label Subm Piles in 29-05-09.98N 090-14-51.91W.

Cartographically-Rounded Depth (Affected Charts):

5ft (11346_2, 11365_2, 11357_1, 11352_1)

0 ¾ fm (1116A_1, 11340_1, 411_1)

0fm 5ft (11366_1)

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	CATOBS – 1:snag / stump
	OBJNAM – 5ft Sub Piles
	QUASOU – 6:least depth known

SORDAT - 20090702

SORIND – US,US,survy,H11785

TECSOU – 1,2:found by echo-sounder, found by side scan sonar

VALSOU – 1.66

VERDAT – 12: Mean Lower Low Water

Office Notes

Concur with clarification. Item was not shown on chart 11346; 2nd Ed., Apr./2009 and smaller scale charts as an Obstruction, least depth 5 feet. Office processing determined that the position and least depth are different from the initial DToN submission to MCD. Chart an obstruction (subm piles), least depth 5 feet at the present survey position in Latitude 29°05'09.983"N, Longitude 090°14'51.910"W. Add 5 ft Obstn (Subm piles) and danger curve.

Feature Images

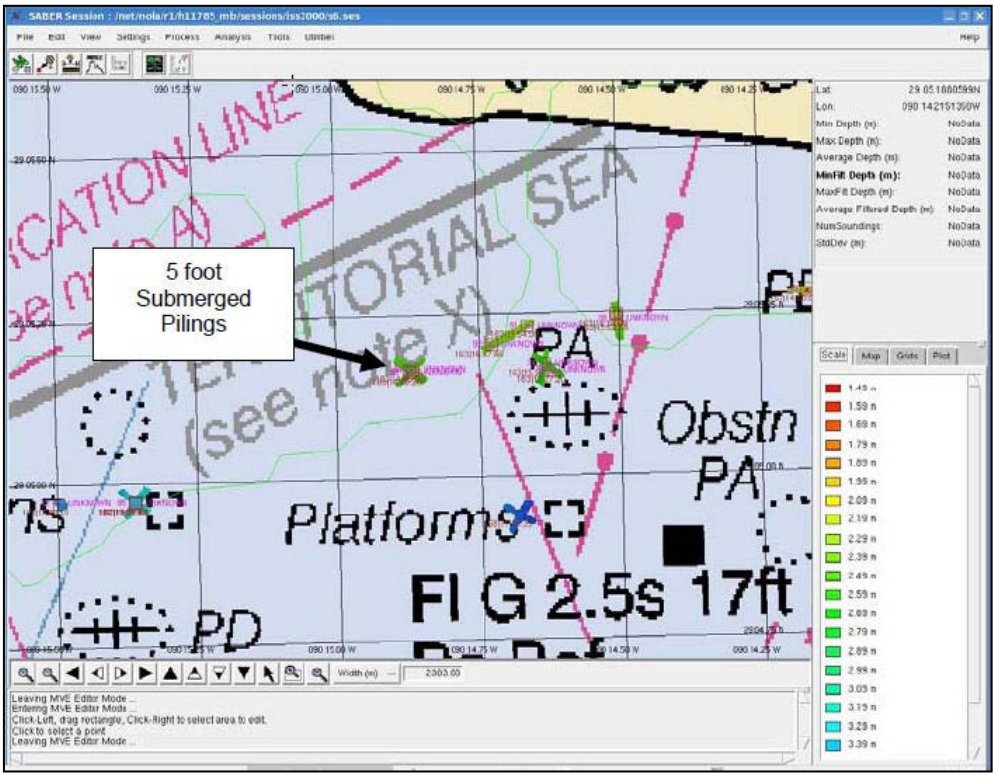

Figure 1.2.1

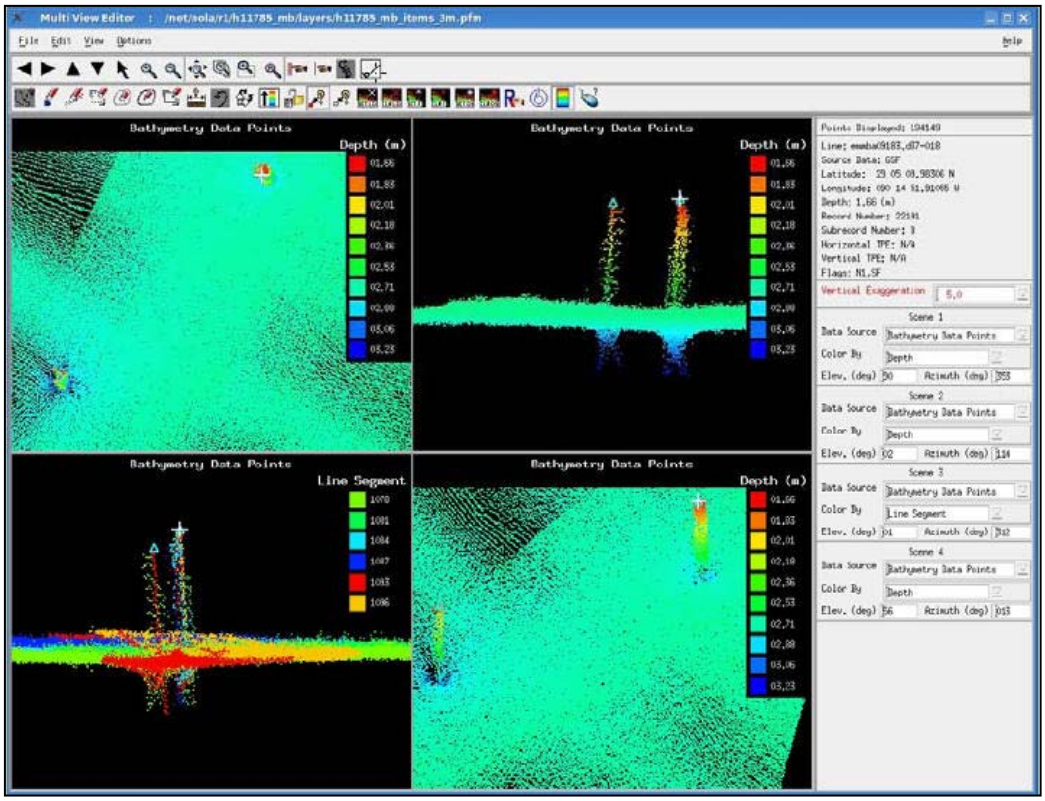
Multi View Editor : /net/sola/r1/h11785_mb/layers/h11785_mb_items_3m.pfm
File Edit View Options
Help
Bathymetry Data Points
Depth (m)
Bathymetry Data Points
Depth (m)
Bathymetry Data Points
Line Segment
Bathymetry Data Points
Depth (m)
Points Displayed: 194149
Source Data: GSF
Depth: 1.66 (m)
Subrecord Number: 3
Horizontal TPE: N/A
Vertical TPE: N/A
Flags: N1,SF
Vertical Exaggeration 5.0
Scene 1
Data Source Bathymetry Data Points
Color By Depth
Elev. (deg) 50 Azimuth (deg) 353
Scene 2
Data Source Bathymetry Data Points
Color By Depth
Elev. (deg) 02 Azimuth (deg) 114
Scene 3
Data Source Bathymetry Data Points
Color By Line Segment
Elev. (deg) 01 Azimuth (deg) 312
Scene 4
Data Source Bathymetry Data Points
Color By Depth
Elev. (deg) 56 Azimuth (deg) 013

Figure 1.2.2

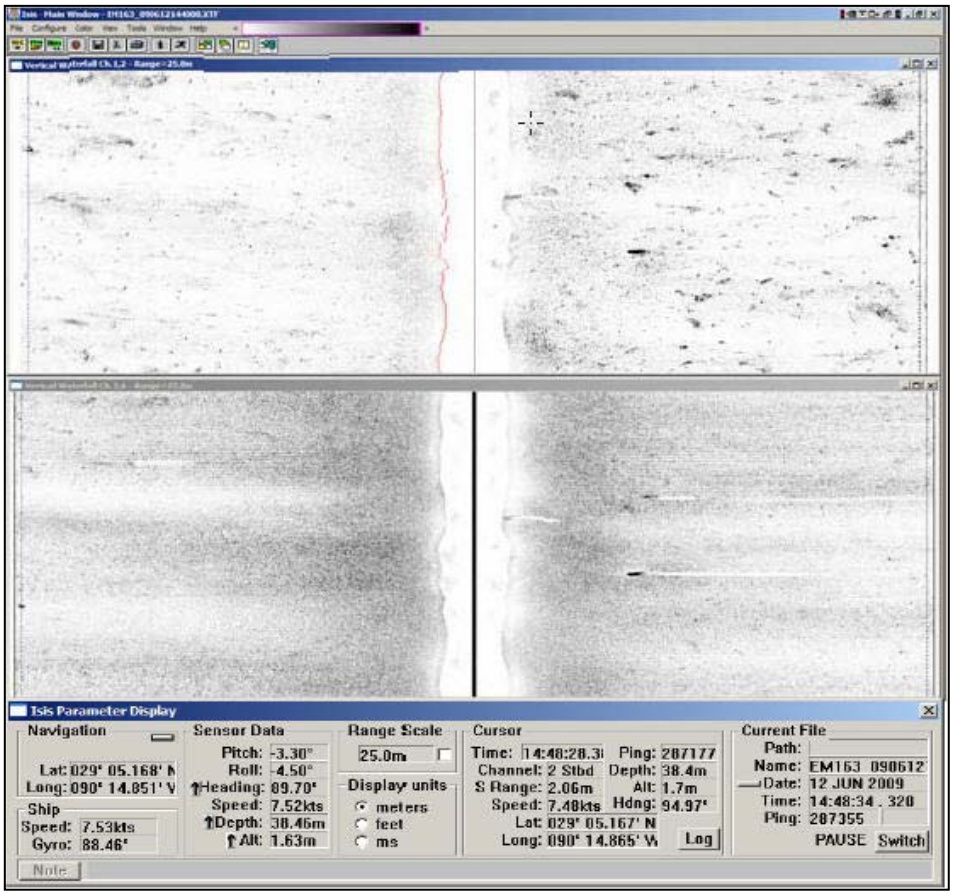

Figure 1.2.3

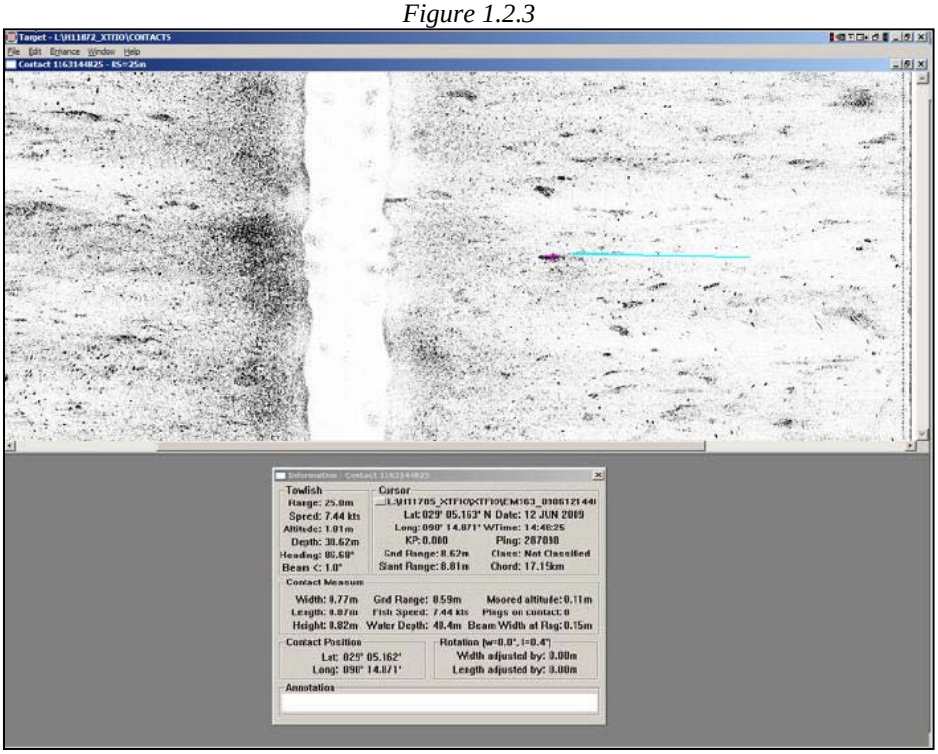

Figure 1.2.4

1.3) GP No. -3 from H11785 DtoN#4.xls

DANGER TO NAVIGATION

Survey Summary

Survey Position:	29° 04' 07.9" N, 090° 16' 48.2" W
Least Depth:	4.83 m (= 15.85 ft = 2.641 fm = 2 fm 3.85 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-182.16:16:54.000 (07/01/2009)
GP Dataset:	H11785 DtoN#4.xls
GP No.:	3
Charts Affected:	11346_2, 11365_2, 11357_1, 11352_1, 1116A_1, 11340_1, 411_1

Remarks:

Two 4 foot high submerged pilings 10 meters apart were located in 29-04-07.94N 090-16-48.24W with a least depth of 16 feet (4.83m) and 29-04-07.62N 090-16-48.32W with a least depth of 16 feet (5.08m) are in water depths of 20 feet (6.25m).

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11785 DtoN#4.xls	3	0.00	000.0	Primary

Hydrographer Recommendations

Chart a 16 foot sounding with a danger circle and label Subm Piles in 29-04-07.94N 090-16-48.24W.

Cartographically-Rounded Depth (Affected Charts):

16ft (11346_2, 11365_2, 11357_1, 11352_1)

2 ½ fm (1116A_1, 11340_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: CATOBS – 1:snag / stump

OBJNAM – 16ft Sub Piles

QUASOU – 6:least depth known

SORDAT - 20090701

SORIND - US,US,survy,H11785

TECSOU – 1,2:found by echo-sounder, found by side scan sonar

VALSOU – 4.83m

VERDAT – 12:Mean Lower Low Water

Office Notes

Concur with clarification. Item was not shown on chart 11346; 2nd Ed., Apr./2009 and smaller scale charts as an obstruction, least depth 15 feet. Office processing determined that the position and least depth are different from the initial DToN submission to MCD. Chart an obstruction (subm piles), least depth 15 feet at the present survey position in Latitude 29°04'07.940"N, Longitude 090°16'48.237"W. Add 15 ft Obstn (Subm piles) and danger curve.

Feature Images

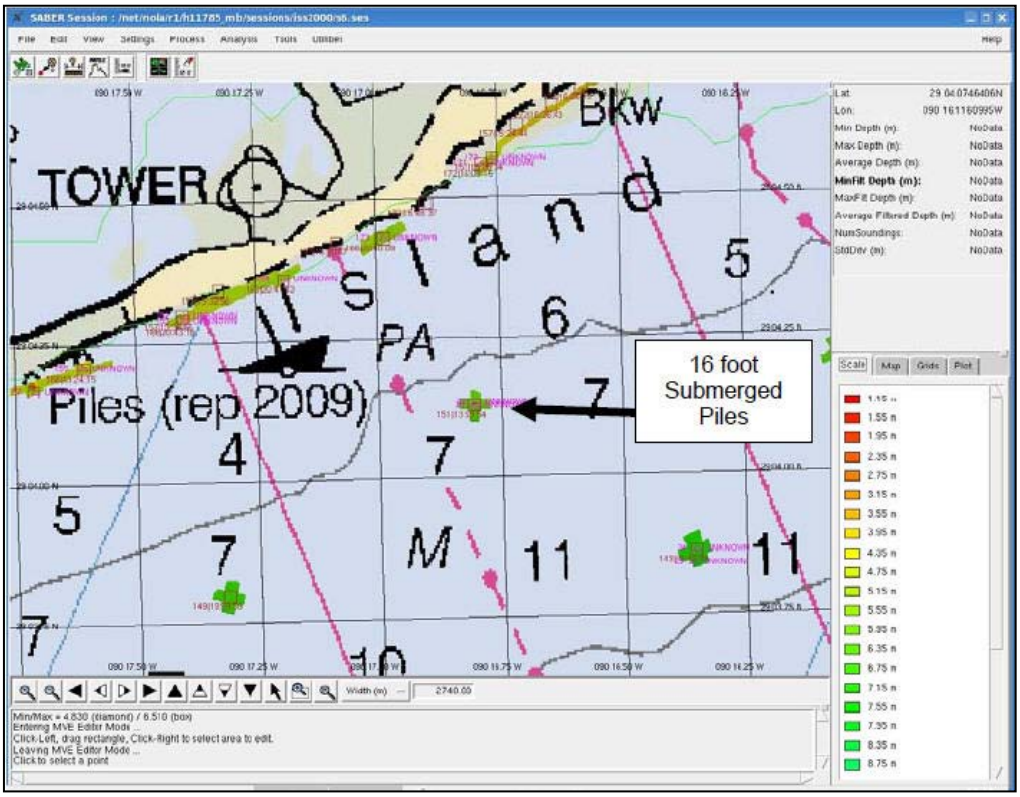

Figure 1.3.1

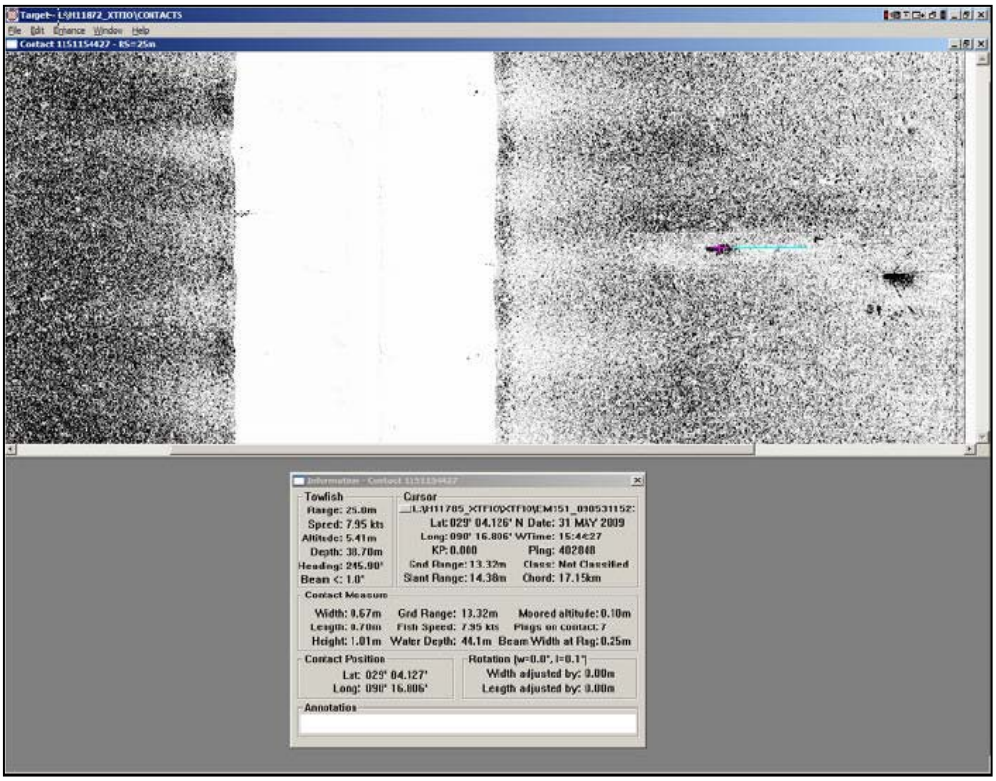
Target- L:\H11785_XTF10\CONTACTS
File Edit Enhance Window Help
Contact 1151154427 - BS=25m
Towfish
Range: 25.0m
Speed: 7.95 kts
Altitude: 5.41m
Depth: 30.70m
Heading: 245.90°
Beam <: 1.0°
Cursor
L:\H11785_XTF10\XTF10\EM151_090531152:
Lat: 029° 04.126' N Date: 31 MAY 2009
Long: 090° 16.806' WTime: 15:44:27
KP: 0.000
Ping: 402848
Gnd Range: 13.32m
Class: Not Classified
Slant Range: 14.38m
Chord: 17.15km
Contact Measure
Width: 0.67m
Gnd Range: 13.32m
Moored altitude: 0.10m
Length: 0.70m
Fish Speed: 7.95 kts
Pings on contact: 7
Height: 1.01m
Water Depth: 44.1m
Beam Width at Rng: 0.25m
Contact Position
Lat: 029° 04.127'
Long: 090° 16.806'
Rotation [w=0.0°, l=0.1°]
Width adjusted by: 0.00m
Length adjusted by: 0.00m
Annotation

Figure 1.3.2

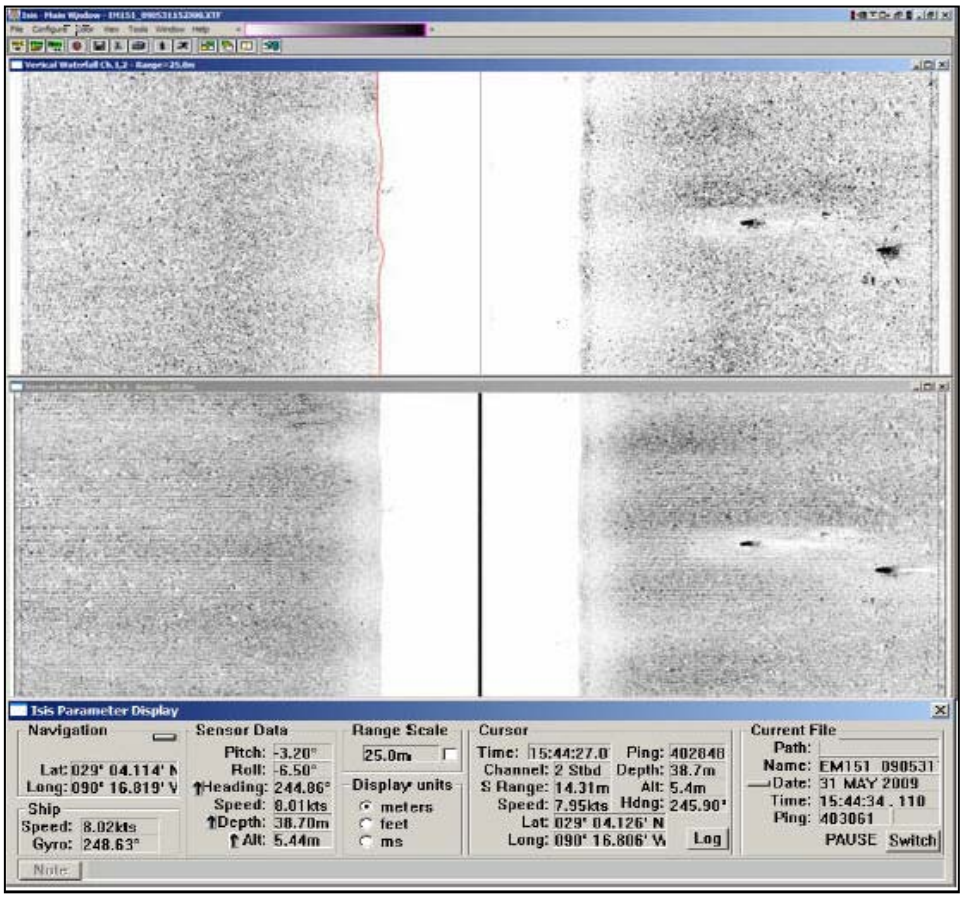

Figure 1.3.3

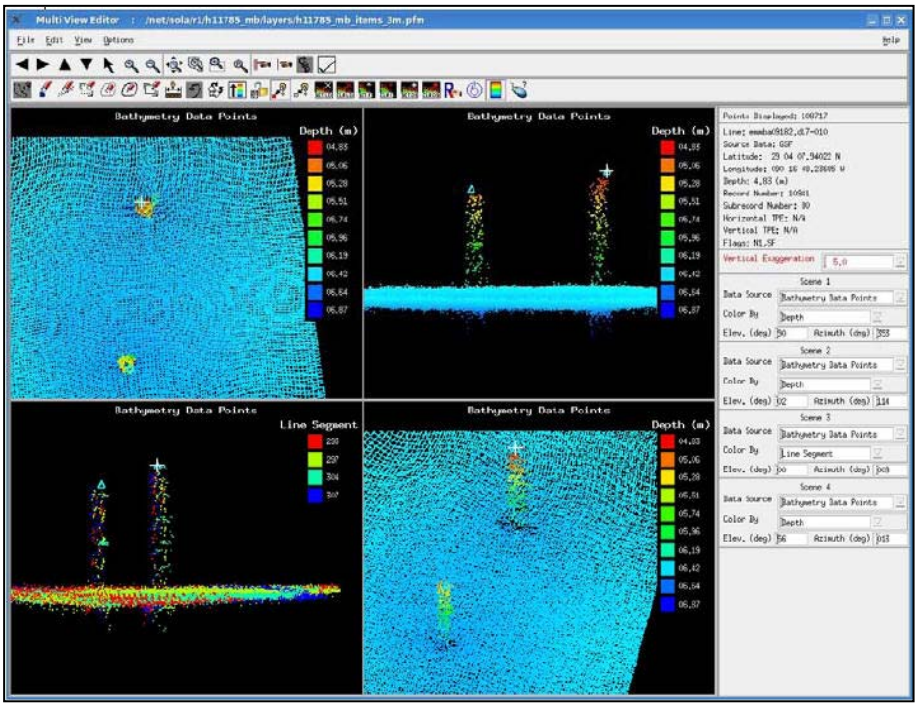

Figure 1.3.4

Appendix II
Survey Features Report

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Rocks ..... Section 5
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See Descriptive Report for final charting recommendations for all items.

Appendix II
Survey Features Report

1. Buoys

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0434 Least Depth: Lat: 29 04 15.98N Lon: 090 13 40.31W Ping: Beam:

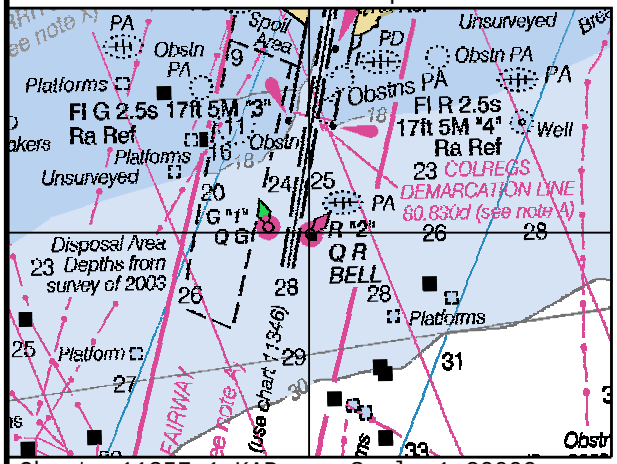


Chart: 11357_1.KAP Scale 1:20000

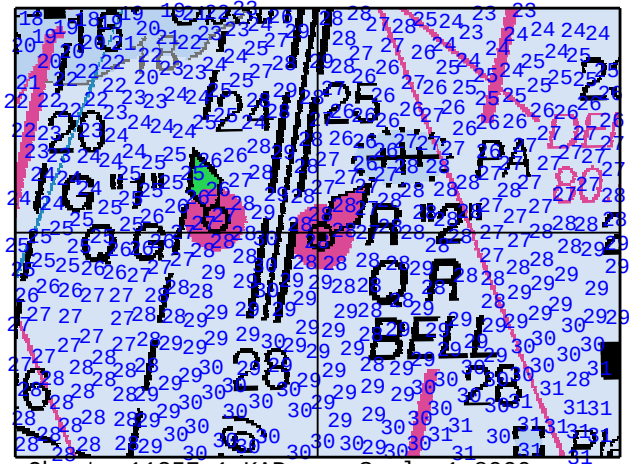
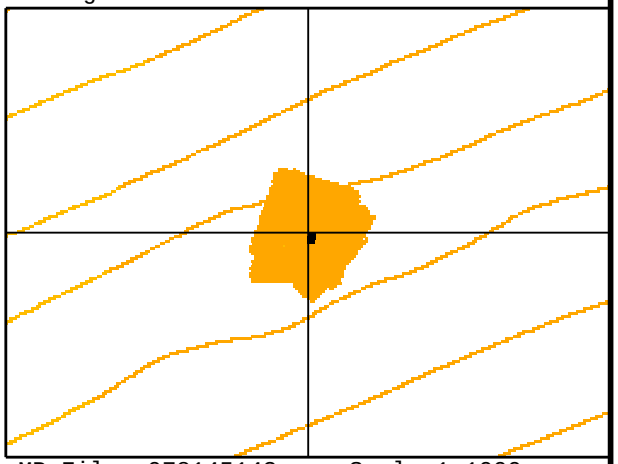


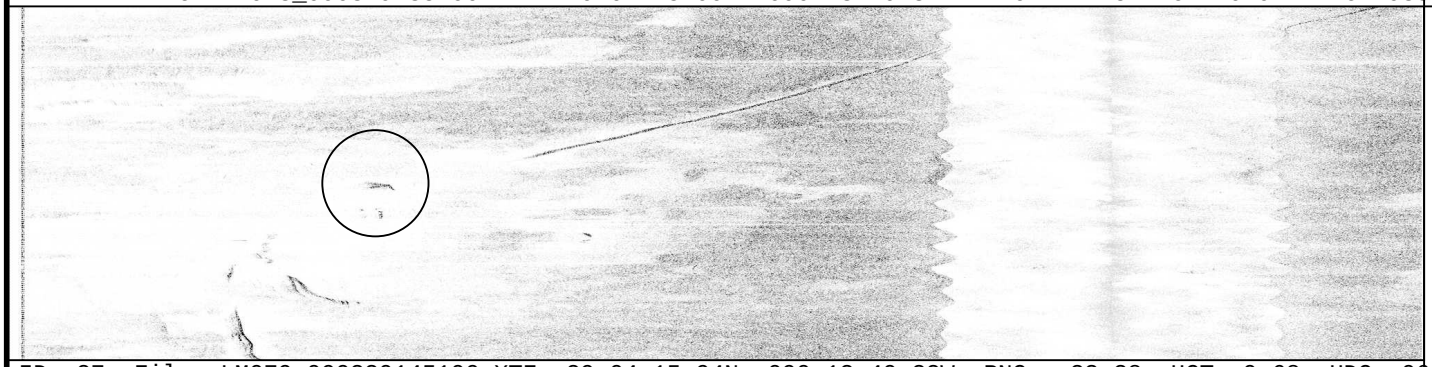
Chart: 11357_1.KAP Scale 1:8000



MB File: 078145143 Scale 1:1000

ID: 14 File: LM078_090319135400.XTF 29 04 15.99N 090 13 40.31W RNG: 14.25 HGT: 0.92 HDG: 083

COMMENT:
BUOY. Chart buoy symbol and label R 2 Q R Bell.



ID: 27 File: LM079_090320145100.XTF 29 04 15.94N 090 13 40.32W RNG: -33.38 HGT: 0.68 HDG: 063

CORRELATED SS CONTACTS:

Contact	Range/Height
1078145143	14.25/0.92
1079145703	-33.38/0.68

2
03/18/2009 14:05

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0435 Least Depth: Lat: 29 04 16.13N Lon: 090 13 55.27W Ping: Beam:

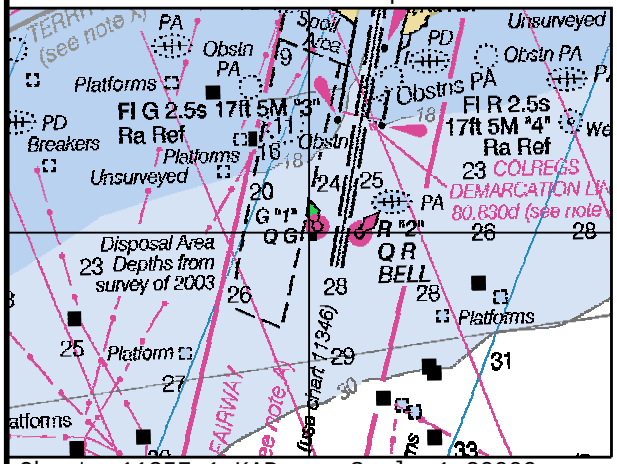


Chart: 11357_1.KAP Scale 1:20000

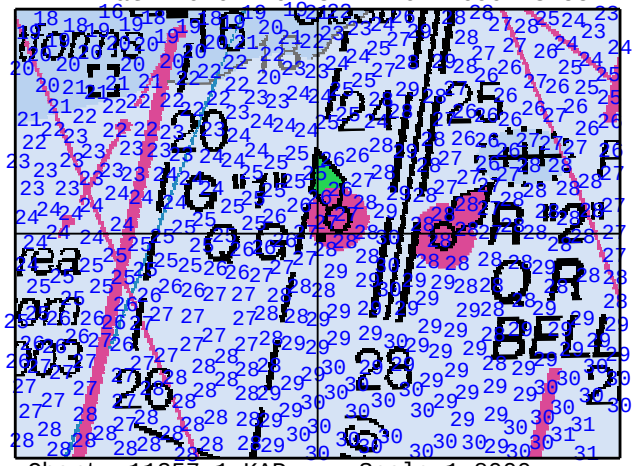
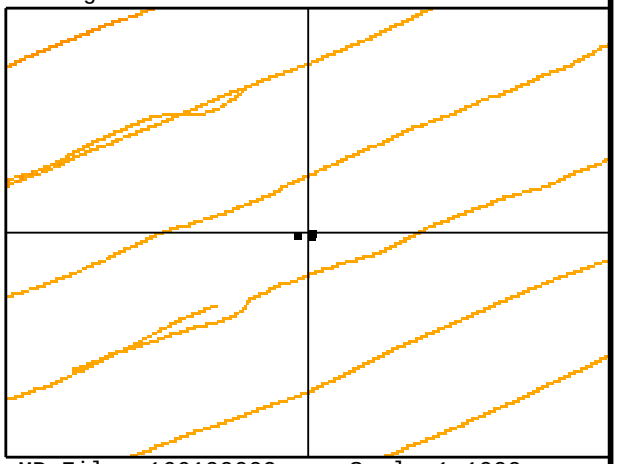


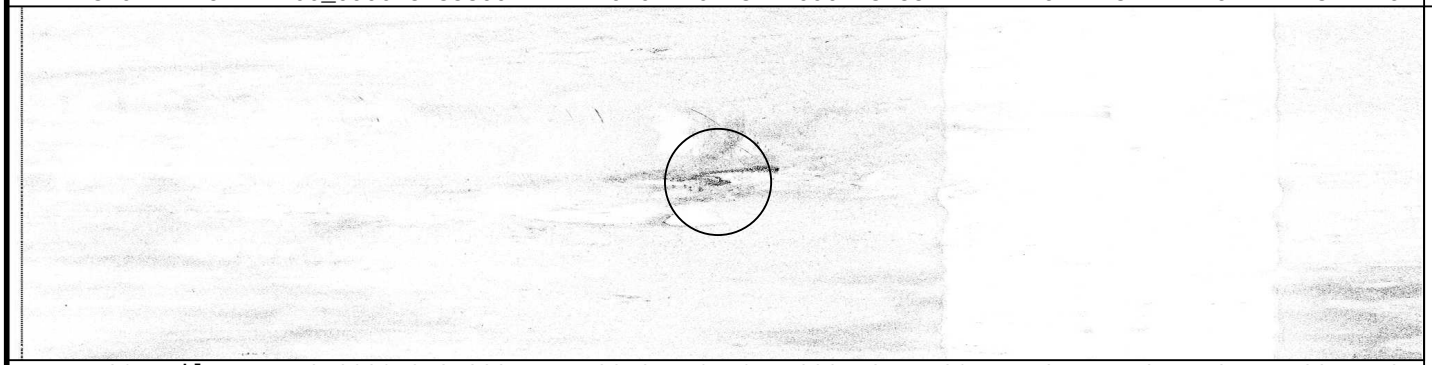
Chart: 11357_1.KAP Scale 1:8000



MB File: 166190009 Scale 1:1000

ID: 1319 File: EM166_090615185800.XTF 29 04 16.13N 090 13 55.27W RNG: -18.44 HGT: 1.18 HDG: 069

COMMENT:
BUOY. Chart buoy symbol and label G 1 Q G



ID: 1486 File: EM170_090619131800.XTF 29 04 16.16N 090 13 55.26W RNG: -17.81 HGT: 1.20 HDG: 073

CORRELATED SS CONTACTS:

Contact	Range/Height
1166190008	-18.44/1.18
1170134014	-17.81/1.20
1168193825	-19.22/0.92

06/15/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0437 Least Depth: Lat: 29 04 44.03N Lon: 090 13 32.09W Ping: Beam:

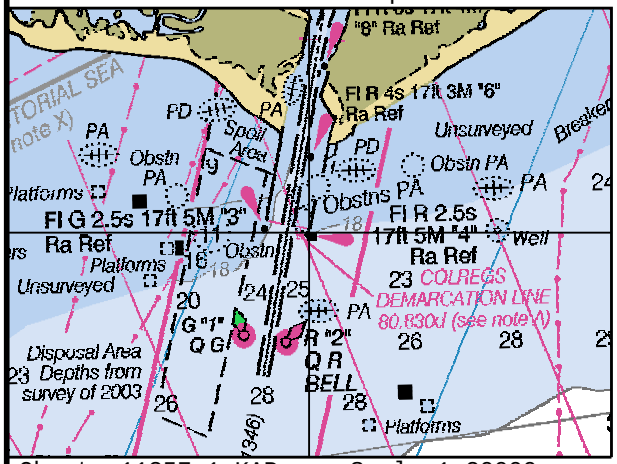


Chart: 11357_1.KAP Scale 1:20000

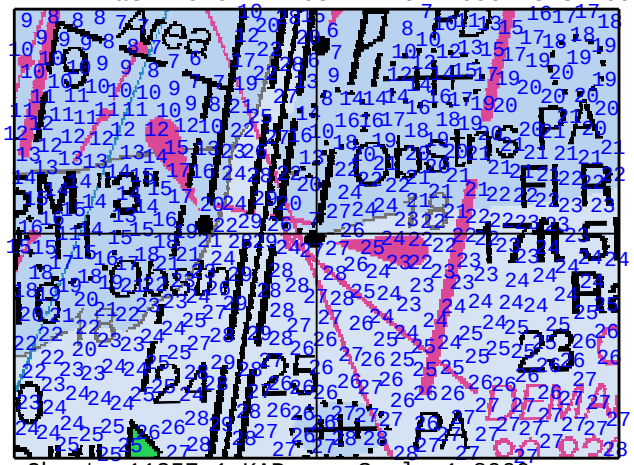
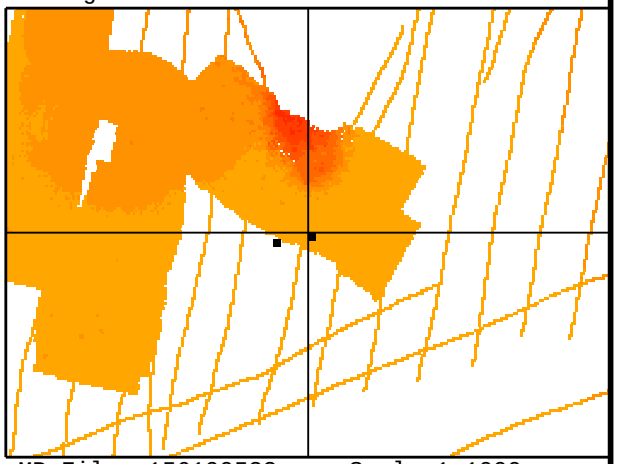


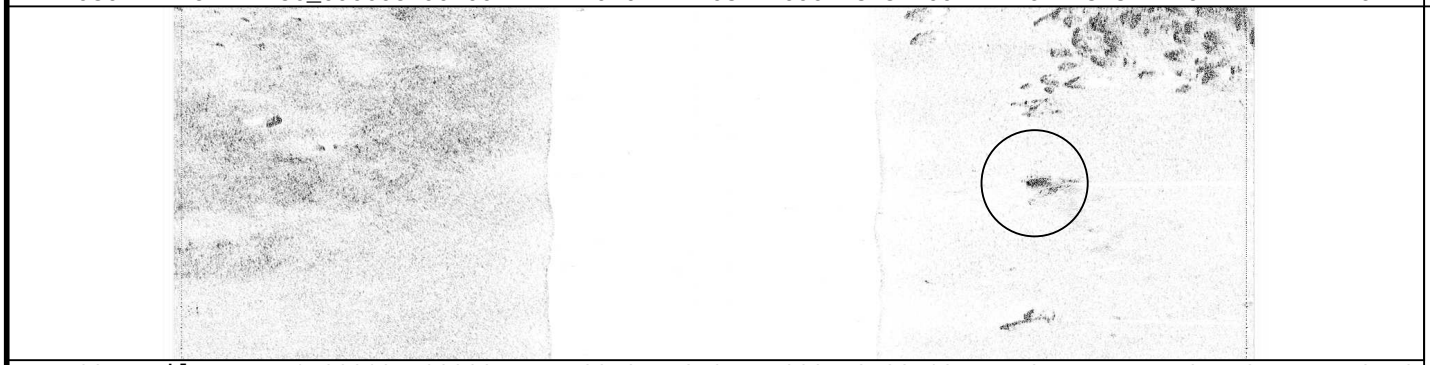
Chart: 11357_1.KAP Scale 1:8000



MB File: 156190532 Scale 1:1000

ID: 980 File: EM156_090605190400.XTF 29 04 44.03N 090 13 32.09W RNG: -8.31 HGT: 4.74 HDG: 125

COMMENT:
DAY_MARKER. Chart pile symbol and label Pile.



ID: 984 File: EM156_090605190900.XTF 29 04 43.95N 090 13 32.62W RNG: 14.44 HGT: 3.11 HDG: 012

CORRELATED SS CONTACTS:

Contact	Range/Height
1156190538	-8.31/4.74
1156190926	14.44/3.11

07/02/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0436 Least Depth: Lat: 29 04 42.30N Lon: 090 13 33.23W Ping: Beam:

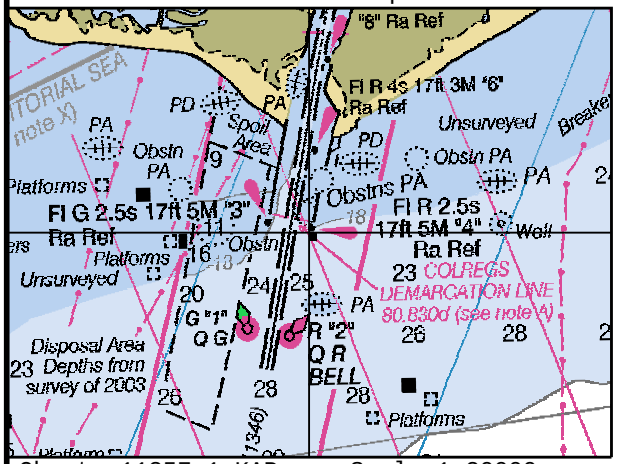
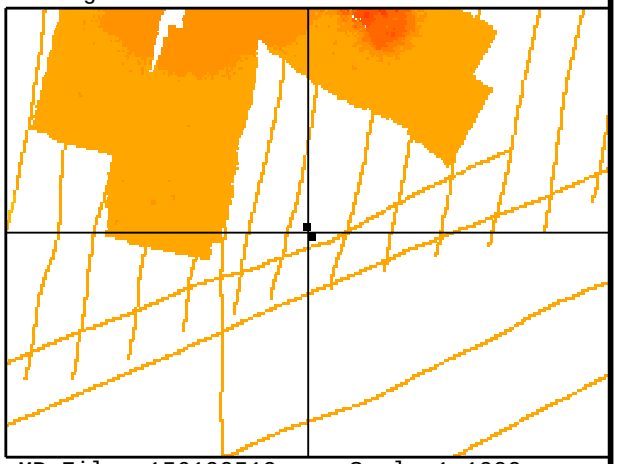
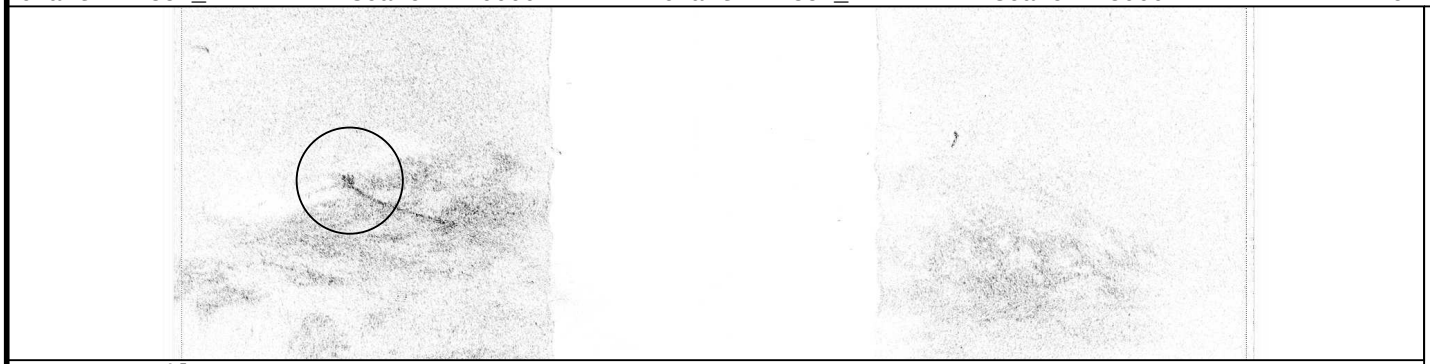


Chart: 11357_1.KAP Scale 1:20000

Chart: 11357_1.KAP Scale 1:8000

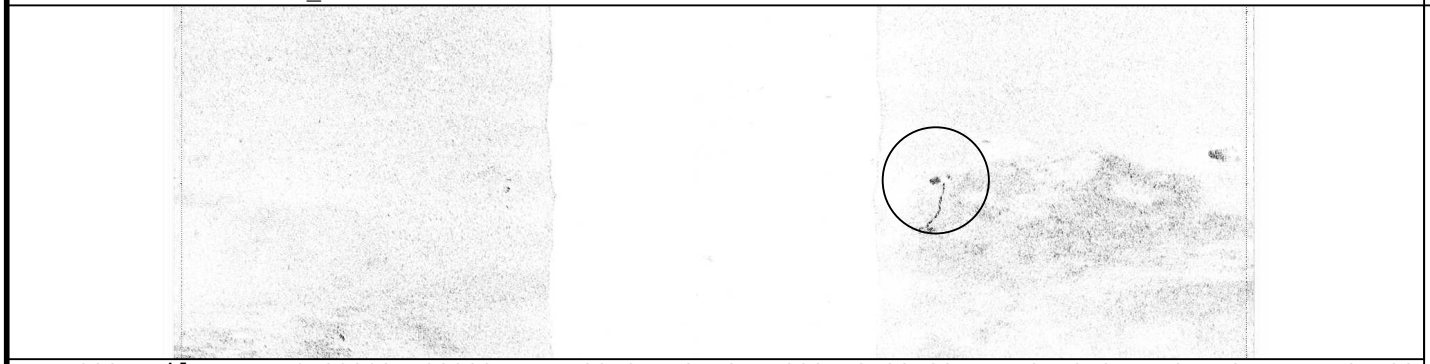


MB File: 156190519 Scale 1:1000



ID: 978 File: EM156_090605190400.XTF 29 04 42.30N 090 13 33.23W RNG: -16.53 HGT: 0.69 HDG: 017

COMMENT:
BUOY. Chart buoy symbol and label R 4



ID: 982 File: EM156_090605190900.XTF 29 04 42.43N 090 13 33.30W RNG: 9.97 HGT: 0.57 HDG: 334

CORRELATED SS CONTACTS:

Contact	Range/Height
1156190519	-16.53/0.69
1156190908	9.97/0.57

4
07/02/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0438 Least Depth: Lat: 29 04 45.72N Lon: 090 13 46.04W Ping: Beam:

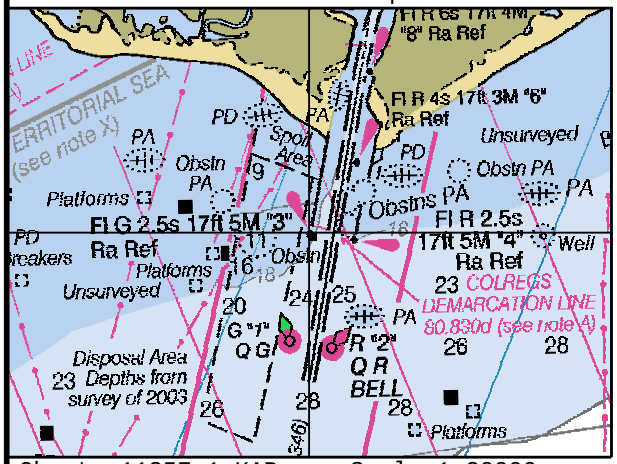


Chart: 11357_1.KAP Scale 1:20000

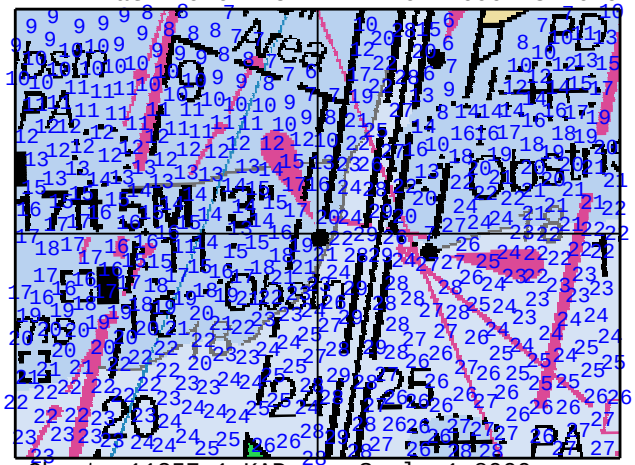
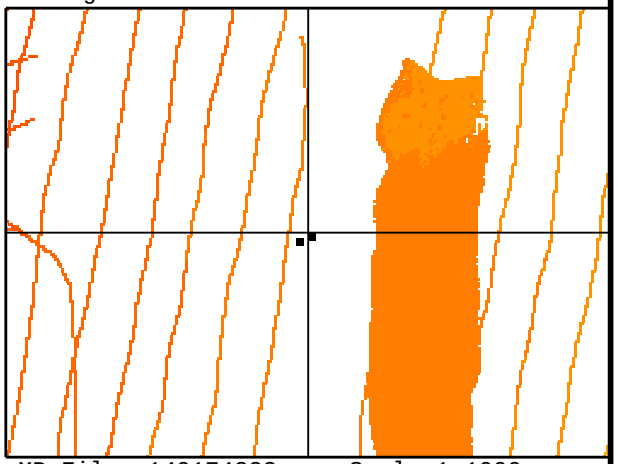


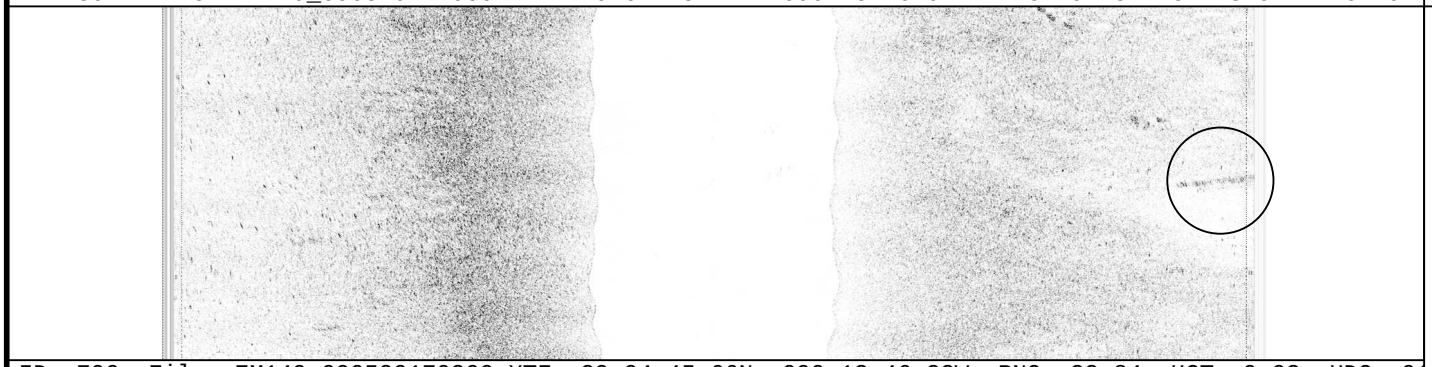
Chart: 11357_1.KAP Scale 1:8000



MB File: 149174333 Scale 1:1000

ID: 807 File: EM149_090529174000.XTF 29 04 45.72N 090 13 46.04W RNG: 9.75 HGT: 3.91 HDG: 014

COMMENT:
DAY_MARKER. Chart pile symbol and label Pile.



ID: 790 File: EM149_090529170300.XTF 29 04 45.66N 090 13 46.23W RNG: 22.84 HGT: 0.03 HDG: 014

CORRELATED SS CONTACTS:

Contact	Range/Height
1149174332	9.75/3.91
1149170543	22.84/0.03

05/29/2009
3

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0439 Least Depth: Lat: 29 04 45.03N Lon: 090 13 45.94W Ping: Beam:

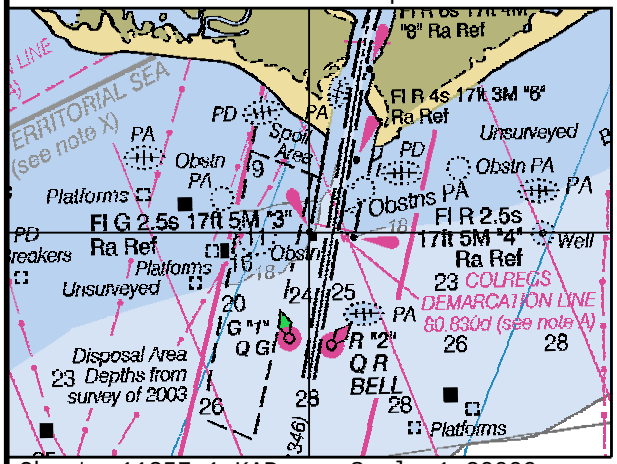


Chart: 11357_1.KAP Scale 1:20000

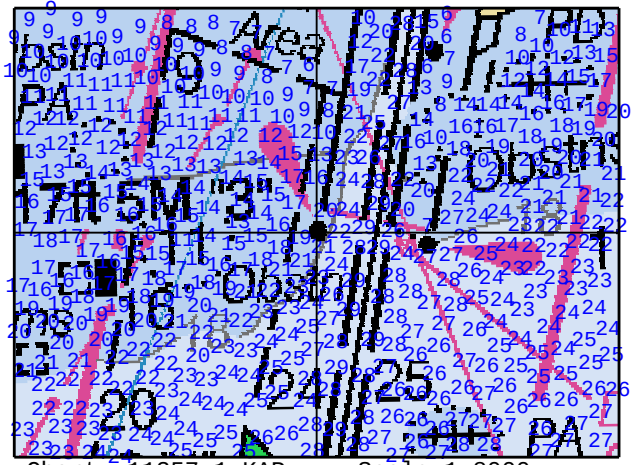
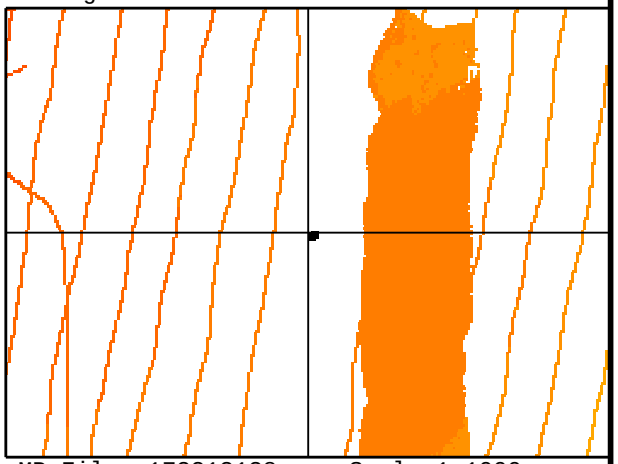


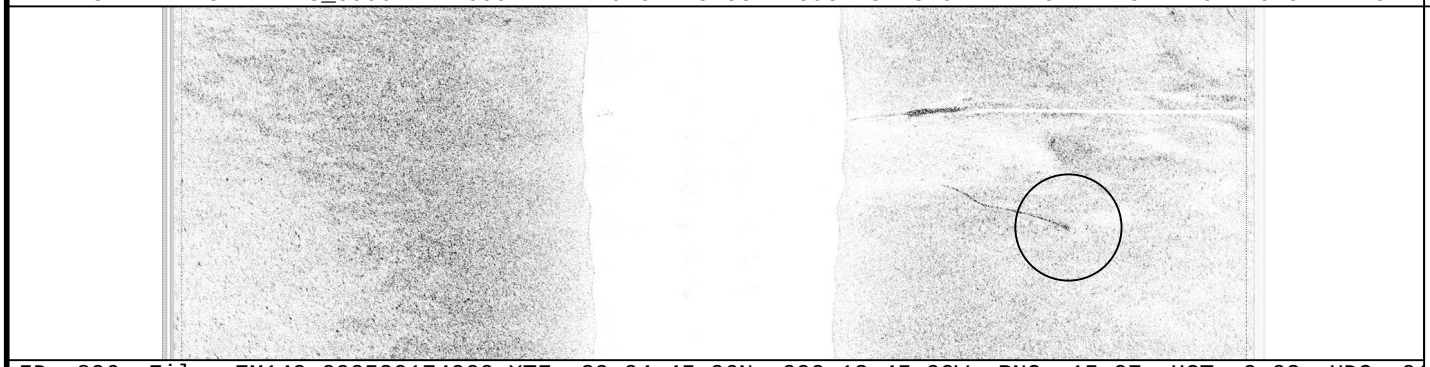
Chart: 11357_1.KAP Scale 1:8000



MB File: 173213138 Scale 1:1000

ID: 1571 File: EM173_090622212600.XTF 29 04 45.03N 090 13 45.94W RNG: 21.91 HGT: 0.07 HDG: 194

COMMENT:
BUOY. Chart buoy symbol and label G 3



ID: 806 File: EM149_090529174000.XTF 29 04 45.06N 090 13 45.90W RNG: 15.97 HGT: 0.03 HDG: 015

CORRELATED SS CONTACTS:

Contact	Range/Height
1173213138	21.91/0.07
1149174327	15.97/0.03

3
07/02/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0498 Least Depth: Lat: 29 04 33.60N Lon: 090 16 13.49W Ping: Beam:

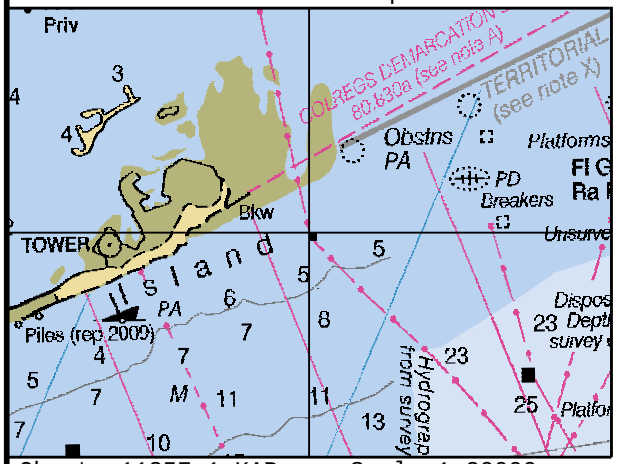


Chart: 11357_1.KAP Scale 1:20000

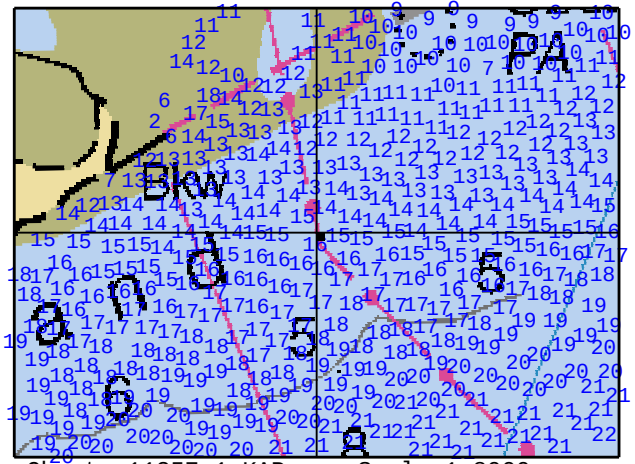
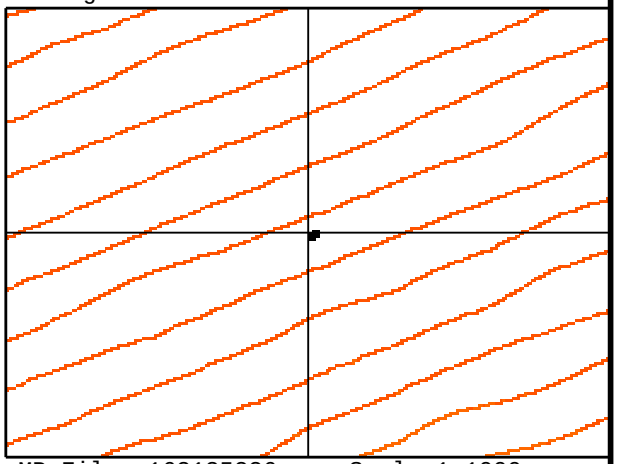
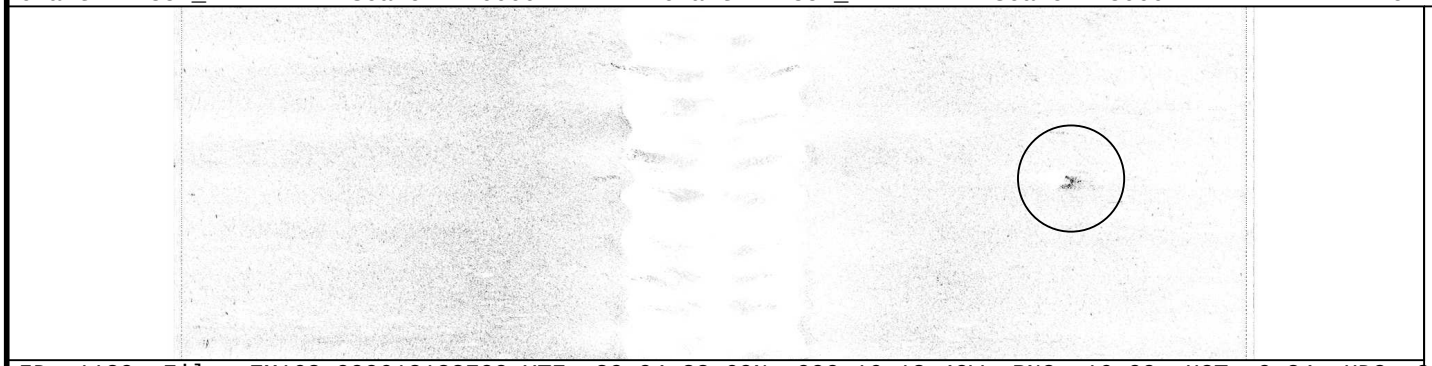


Chart: 11357_1.KAP Scale 1:8000

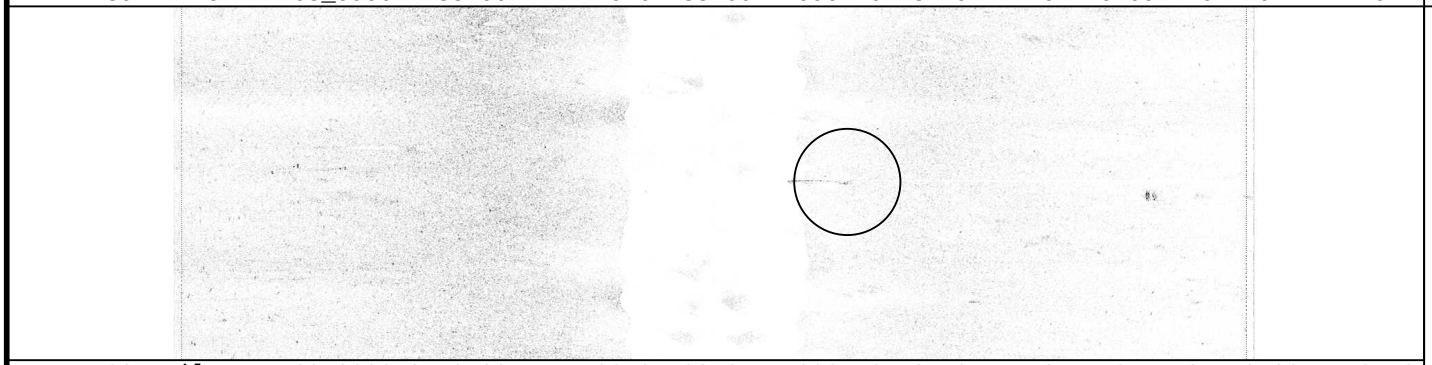


MB File: 163135226 Scale 1:1000



ID: 1189 File: EM163_090612133700.XTF 29 04 33.60N 090 16 13.49W RNG: 16.09 HGT: 0.24 HDG: 248

COMMENT:
BUOY. Chart a buoy symbol and label "Y"



ID: 1190 File: EM163_090612140100.XTF 29 04 33.64N 090 16 13.42W RNG: 5.97 HGT: 3.09 HDG: 069

CORRELATED SS CONTACTS:

Contact	Range/Height
1163135226	16.09/0.24
1163140958	5.97/3.09

06/12/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0499 Least Depth: Lat: 29 05 03.96N Lon: 090 13 31.22W Ping: Beam:

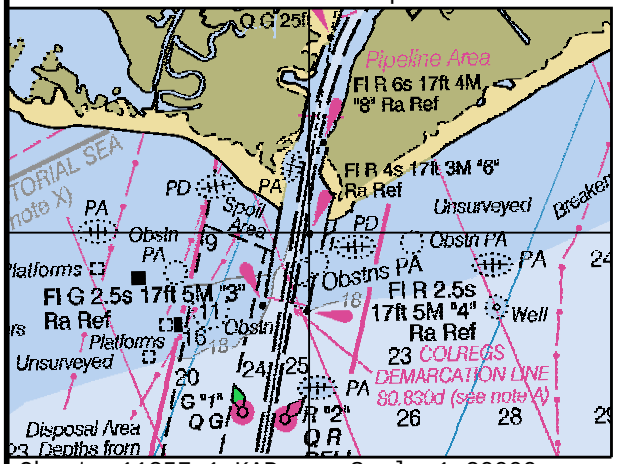


Chart: 11357_1.KAP Scale 1:20000

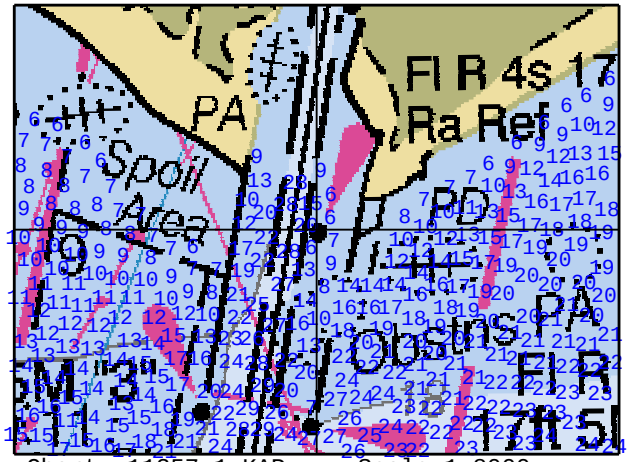
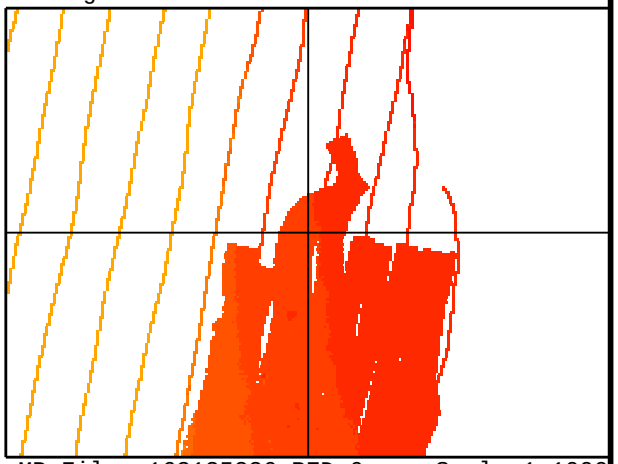


Chart: 11357_1.KAP Scale 1:8000



MB File: 163135226 RED 6 Scale 1:1000

COMMENT:
BUOY. Chart buoy symbol and label R 6

CORRELATED SS CONTACTS:

Contact	Range/Height

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0500 Least Depth: Lat: 29 03 56.43N Lon: 090 09 06.08W Ping: Beam:

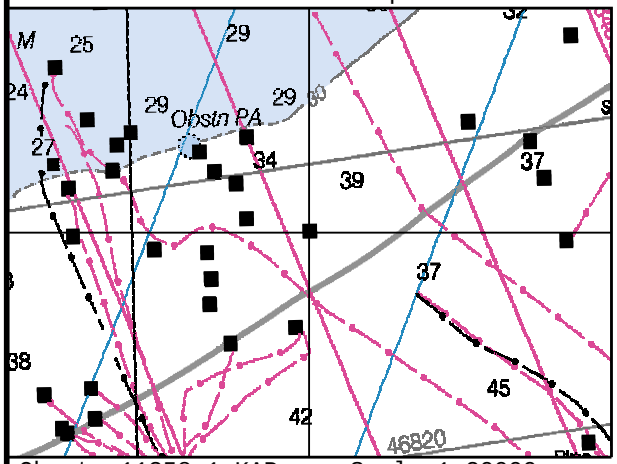


Chart: 11358_1.KAP Scale 1:20000

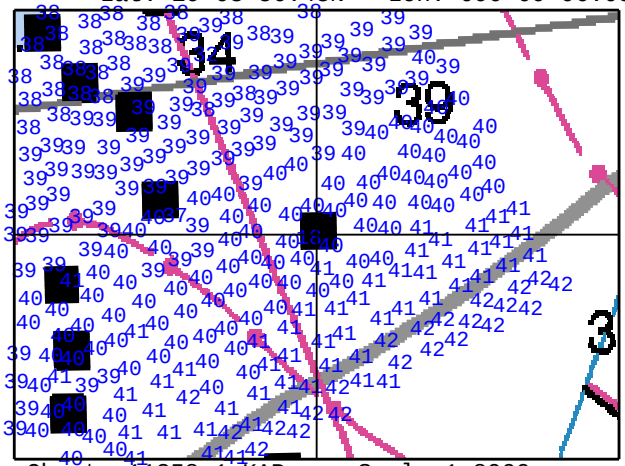
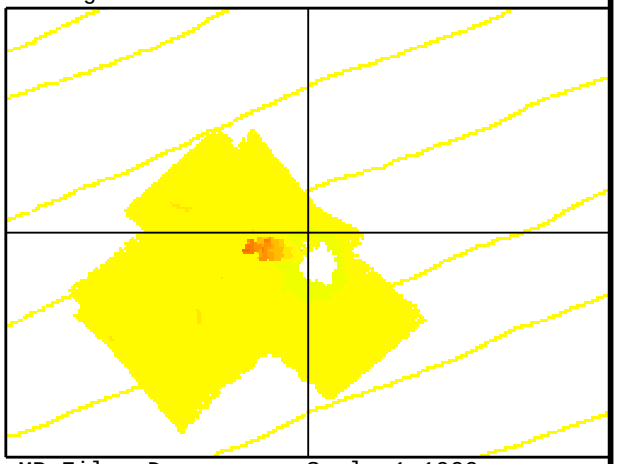


Chart: 11358_1.KAP Scale 1:8000



MB File: Danger Scale 1:1000

COMMENT:
BUOY. Chart a buoy symbol and label "Danger"

CORRELATED SS CONTACTS:

Contact	Range/Height

07/03/2009

Appendix II
Survey Features Report

2. Obstructions

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0242 Least Depth: 16(ft), 4.85(m) Lat: 29 03 35.74N Lon: 090 19 56.42W Ping: 7868 Beam: 64

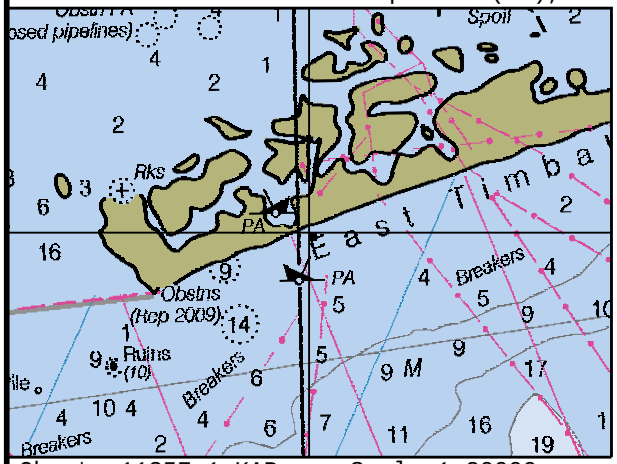


Chart: 11357_1.KAP Scale 1:20000

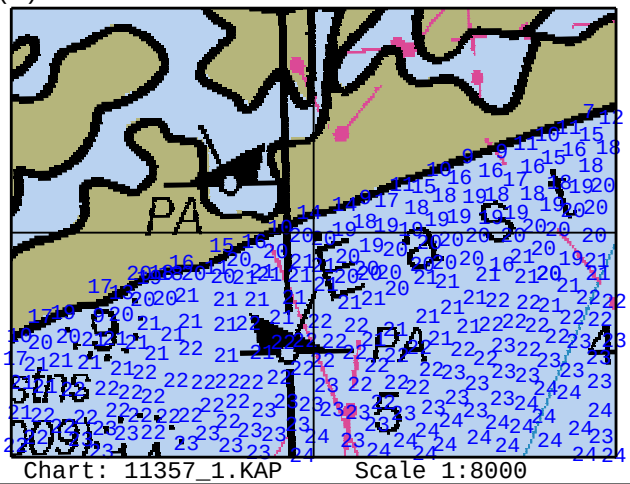
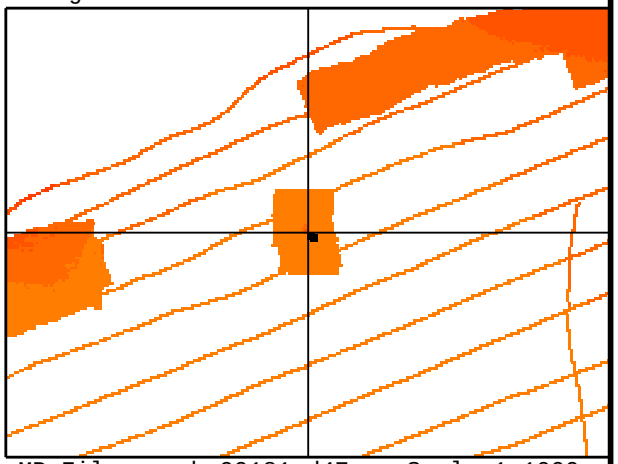
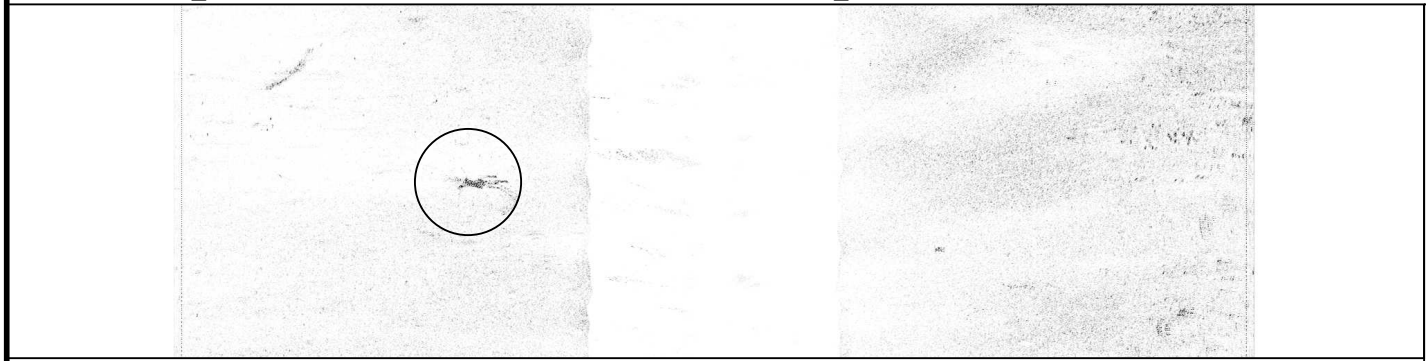


Chart: 11357_1.KAP Scale 1:8000

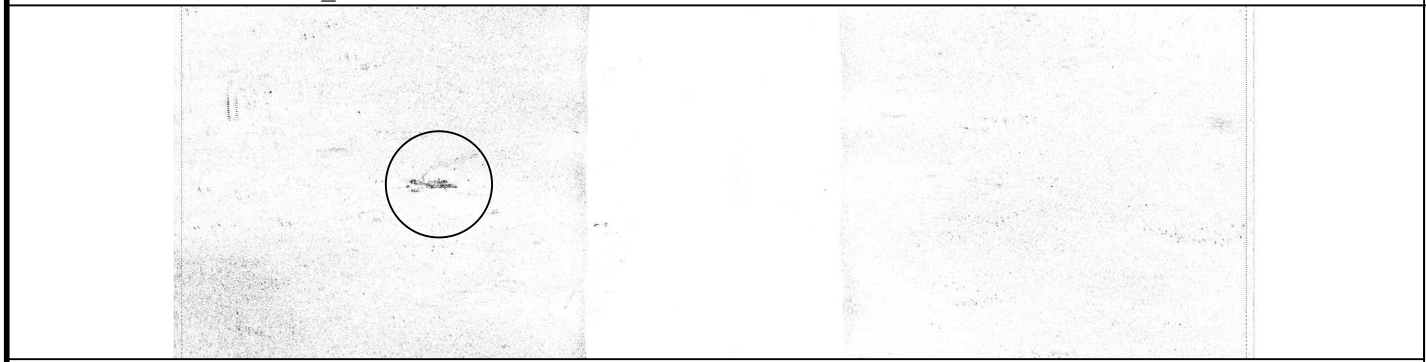


MB File: emmba09181.d47 Scale 1:1000



ID: 1603 File: EM174_090623152000.XTF 29 03 35.75N 090 19 56.44W RNG: -11.19 HGT: 1.53 HDG: 244

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.



ID: 1593 File: EM174_090623150900.XTF 29 03 35.72N 090 19 56.39W RNG: -12.50 HGT: 0.85 HDG: 069

CORRELATED SS CONTACTS:

Contact	Range/Height
1174152446	-11.19/1.53
1174151633	-12.50/0.85

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0243 Least Depth: 11(ft), 3.46(m) Lat: 29 03 32.32N Lon: 090 20 08.35W Ping: 10748 Beam: 22

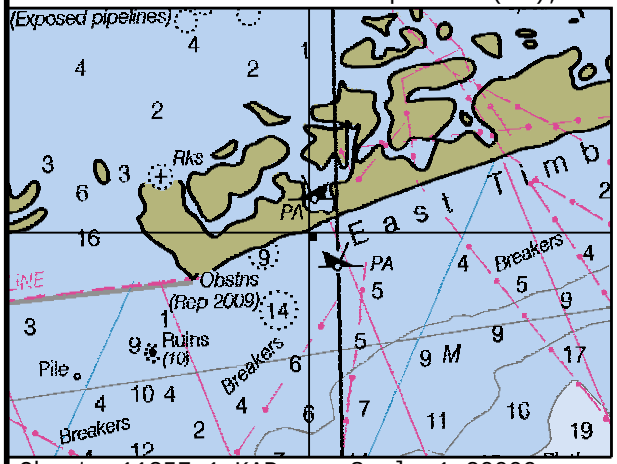


Chart: 11357_1.KAP Scale 1:20000

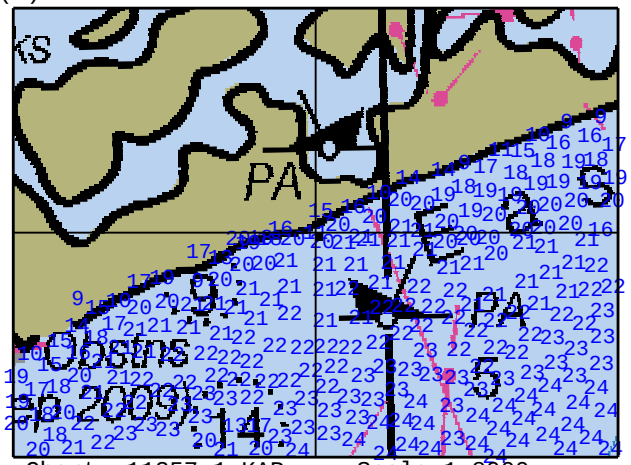
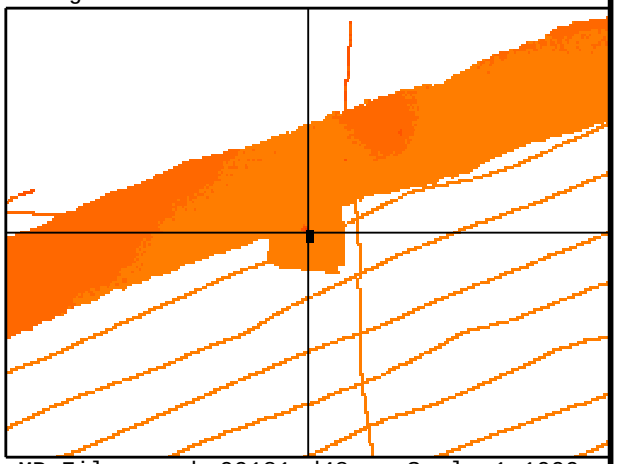
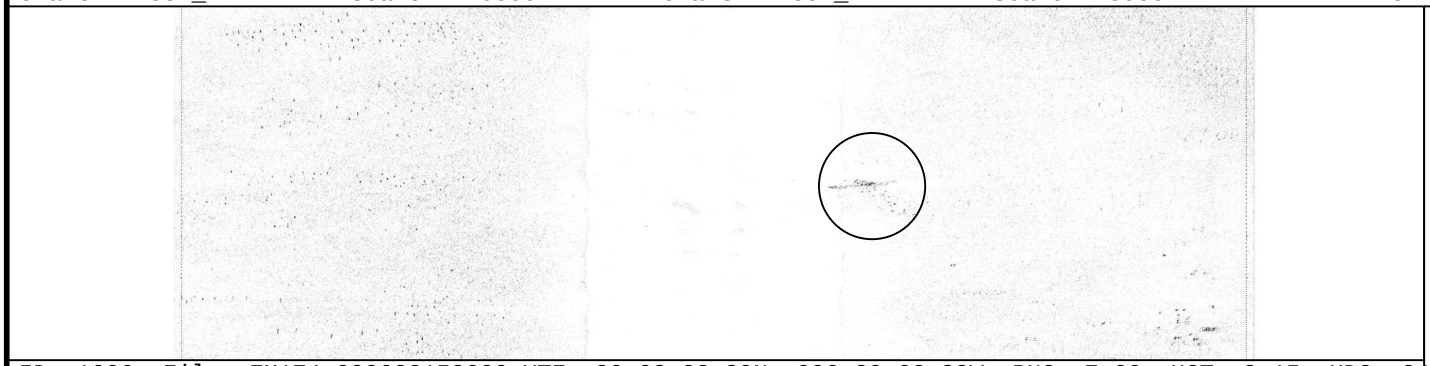


Chart: 11357_1.KAP Scale 1:8000

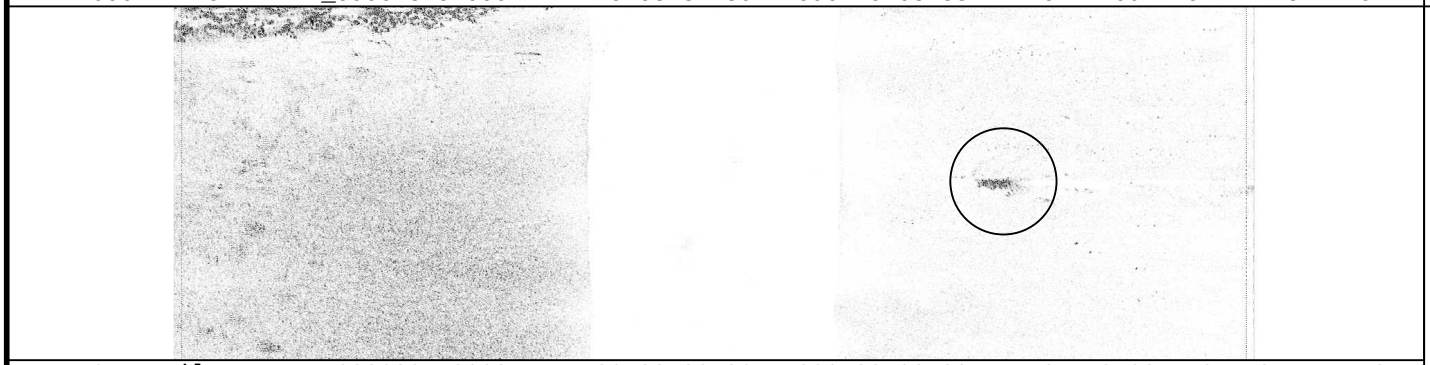


MB File: emmba09181.d48 Scale 1:1000



ID: 1606 File: EM174_090623152000.XTF 29 03 32.30N 090 20 08.38W RNG: 7.09 HGT: 2.15 HDG: 248

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.



ID: 1611 File: EM174_090623153000.XTF 29 03 32.36N 090 20 08.38W RNG: 13.03 HGT: 2.47 HDG: 073

CORRELATED SS CONTACTS:

Contact	Range/Height
1174152615	7.09/2.15
1174153528	13.03/2.47

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0244 Least Depth: 13(ft), 4.04(m) Lat: 29 03 26.54N Lon: 090 20 21.34W Ping: 4485 Beam: 34

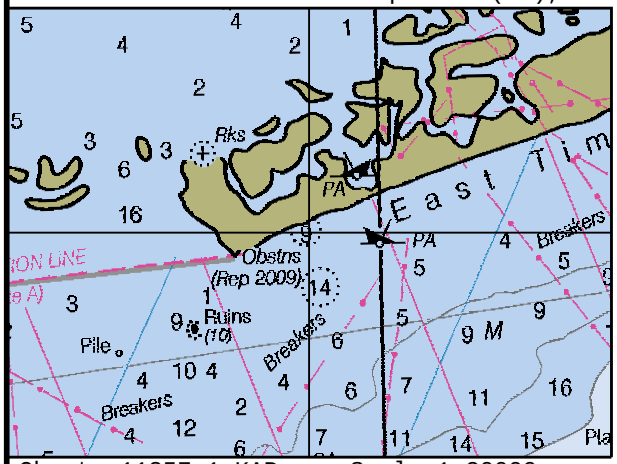


Chart: 11357_1.KAP Scale 1:20000

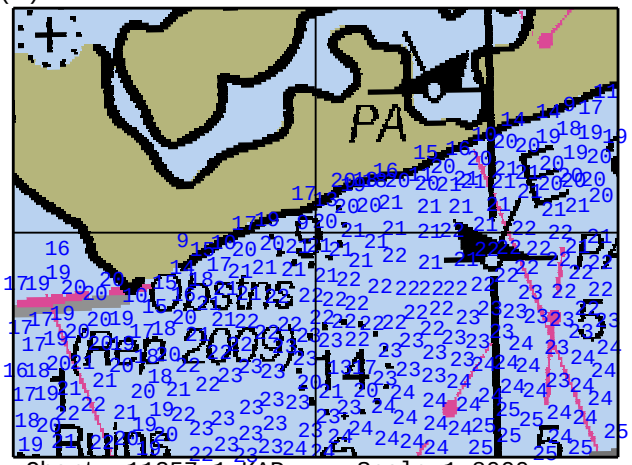
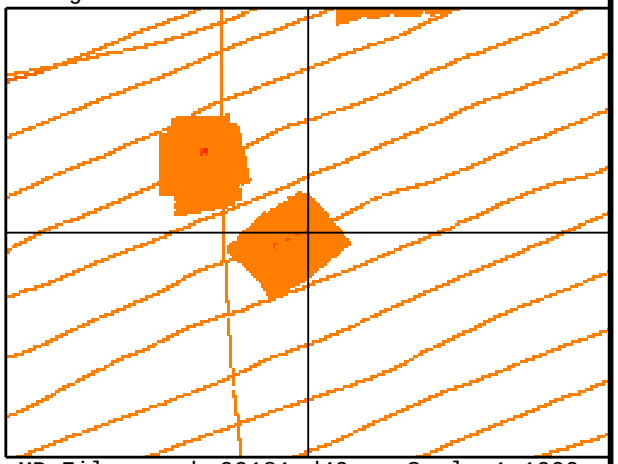


Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09181.d49 Scale 1:1000

COMMENT:
PILE. No Chart. See Feature 248. See Danger to Navigation Report #3.

CORRELATED SS CONTACTS:

Contact	Range/Height

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0245 Least Depth: 15(ft), 4.76(m) Lat: 29 03 26.38N Lon: 090 20 21.83W Ping: 6963 Beam: 11

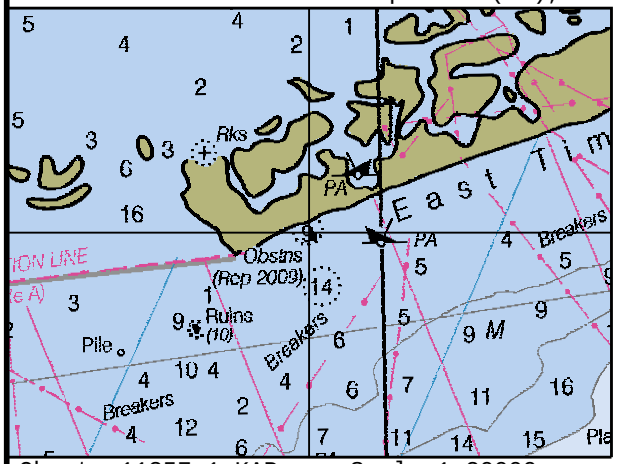


Chart: 11357_1.KAP Scale 1:20000

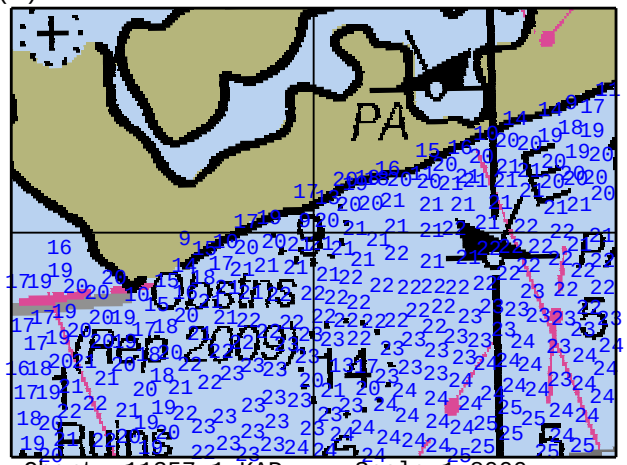
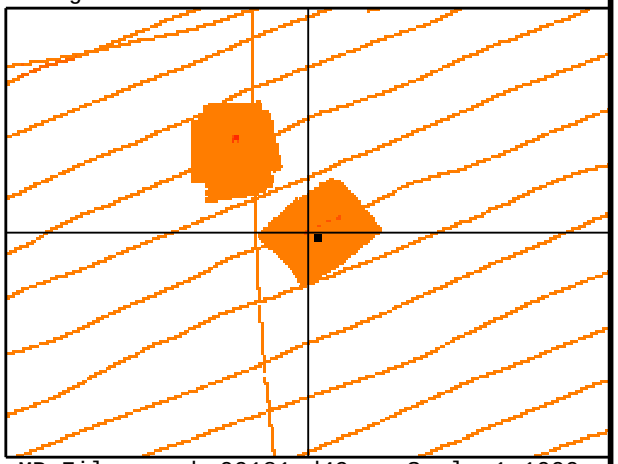
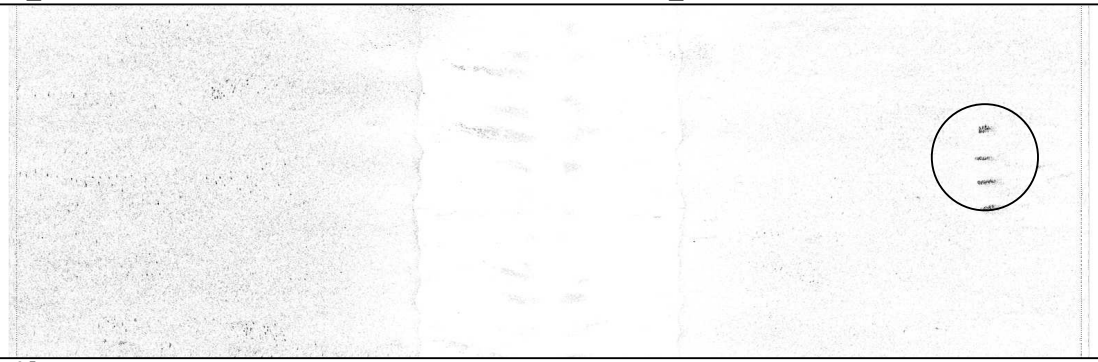


Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09181.d49 Scale 1:1000



ID: 1591 File: EM174_090623145500.XTF 29 03 26.36N 090 20 21.75W RNG: 19.66 HGT: 0.95 HDG: 251

COMMENT:
PILE. No Chart. See Feature 248. See Danger to Navigation Report #3.

CORRELATED SS CONTACTS:

Contact	Range/Height
1174150614	19.66/0.95

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0246 Least Depth: 15(ft), 4.70(m) Lat: 29 03 26.44N Lon: 090 20 21.66W Ping: 7019 Beam: 15

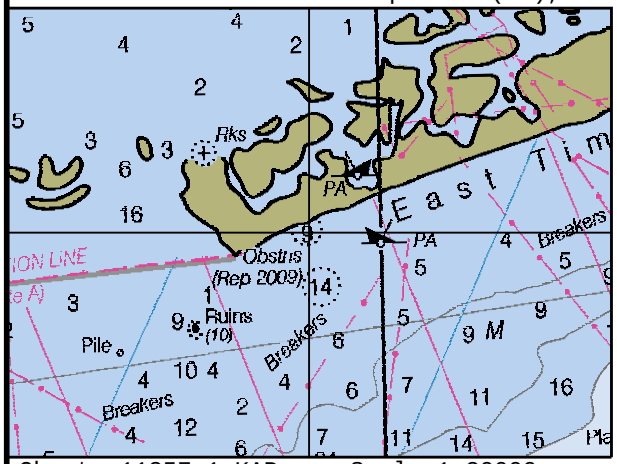


Chart: 11357_1.KAP Scale 1:20000

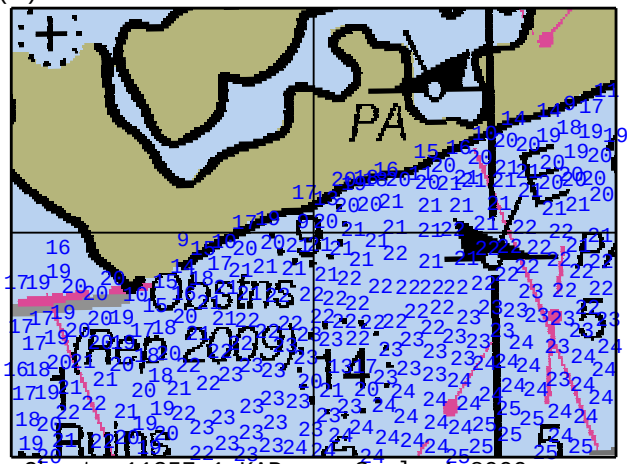
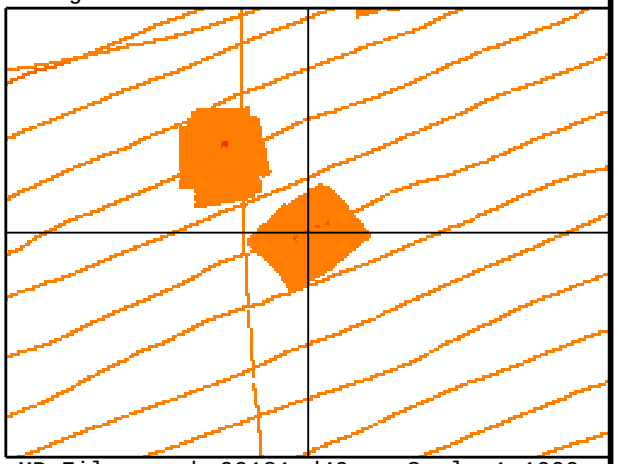


Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09181.d49 Scale 1:1000

COMMENT:
PILE. No Chart. See Feature 248. See Danger to Navigation Report #3.

CORRELATED SS CONTACTS:

Contact	Range/Height

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0247 Least Depth: 13(ft), 4.01(m) Lat: 29 03 26.49N Lon: 090 20 21.50W Ping: 7065 Beam: 17

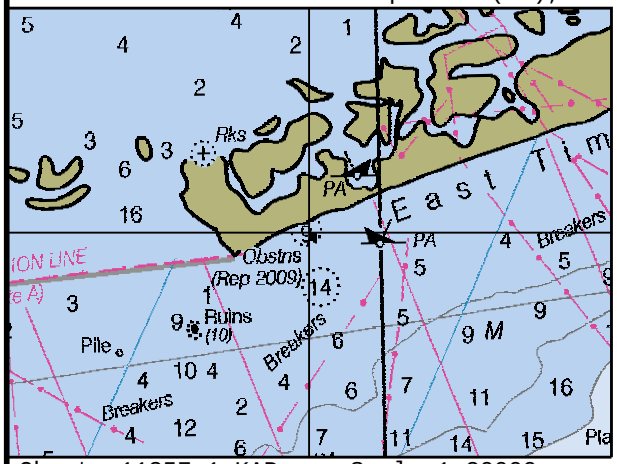


Chart: 11357_1.KAP Scale 1:20000

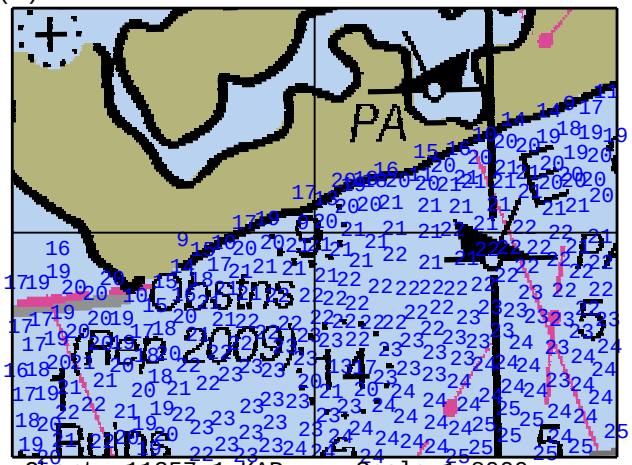
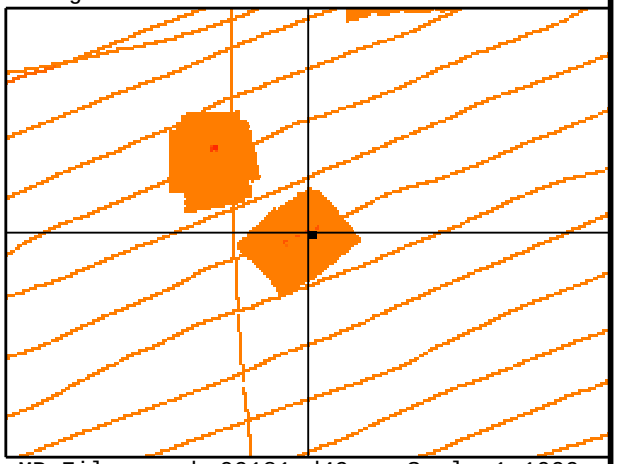
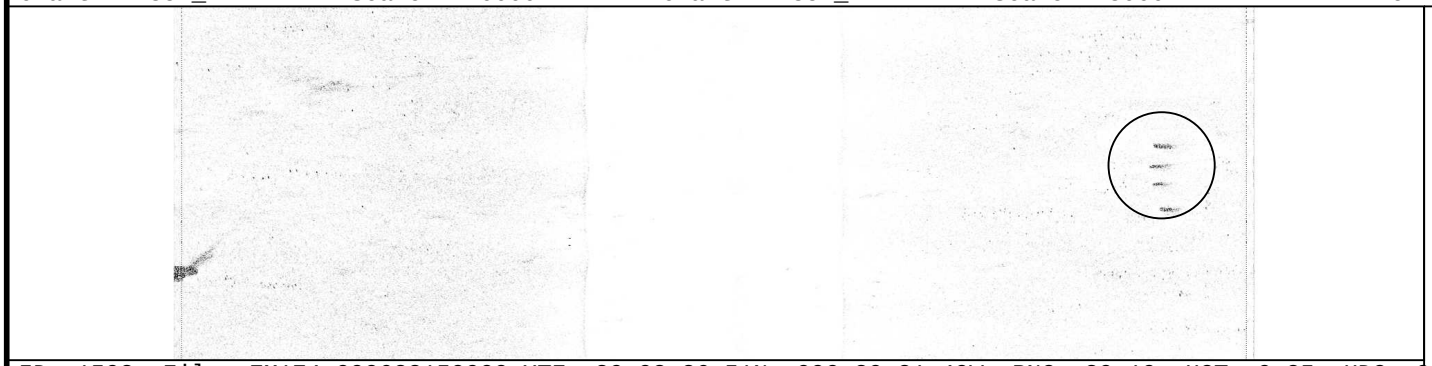


Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09181.d49 Scale 1:1000



ID: 1592 File: EM174_090623150900.XTF 29 03 26.51N 090 20 21.49W RNG: 20.19 HGT: 0.85 HDG: 068

COMMENT:
PILE. No Chart. See Feature 248. See Danger to Navigation Report #3.

CORRELATED SS CONTACTS:

Contact	Range/Height
1174151344	20.19/0.85

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0248 Least Depth: 9(ft), 2.82(m) Lat: 29 03 27.62N Lon: 090 20 22.87W Ping: 1501 Beam: 23

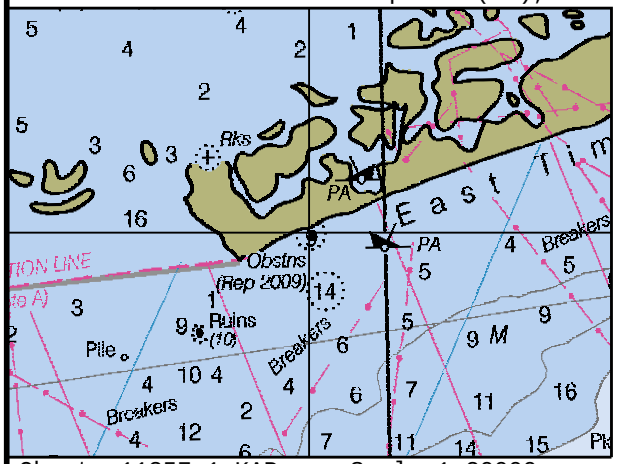


Chart: 11357_1.KAP Scale 1:20000

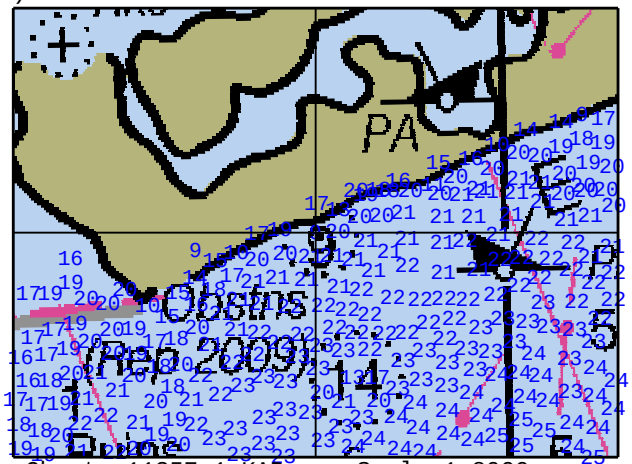
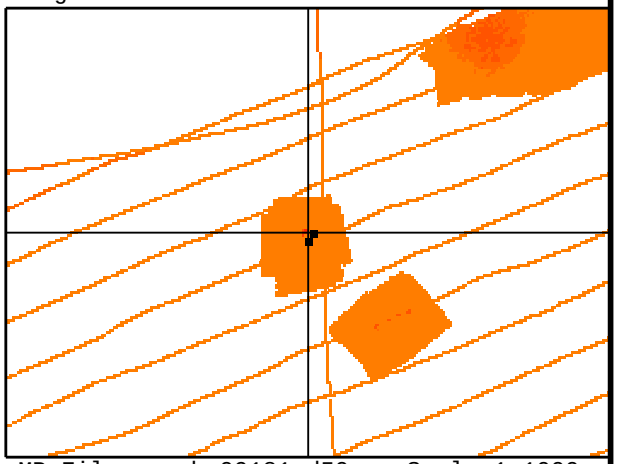
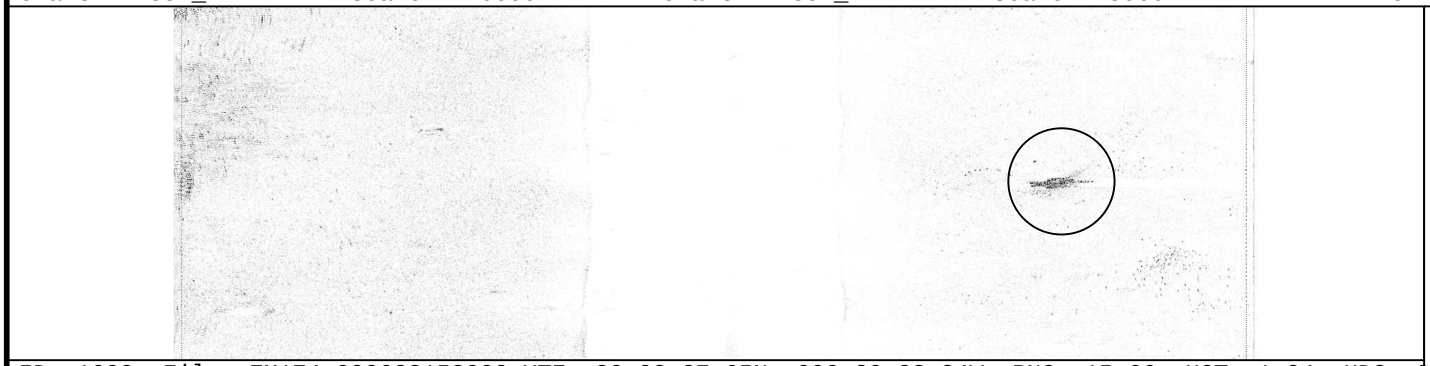


Chart: 11357_1.KAP Scale 1:8000

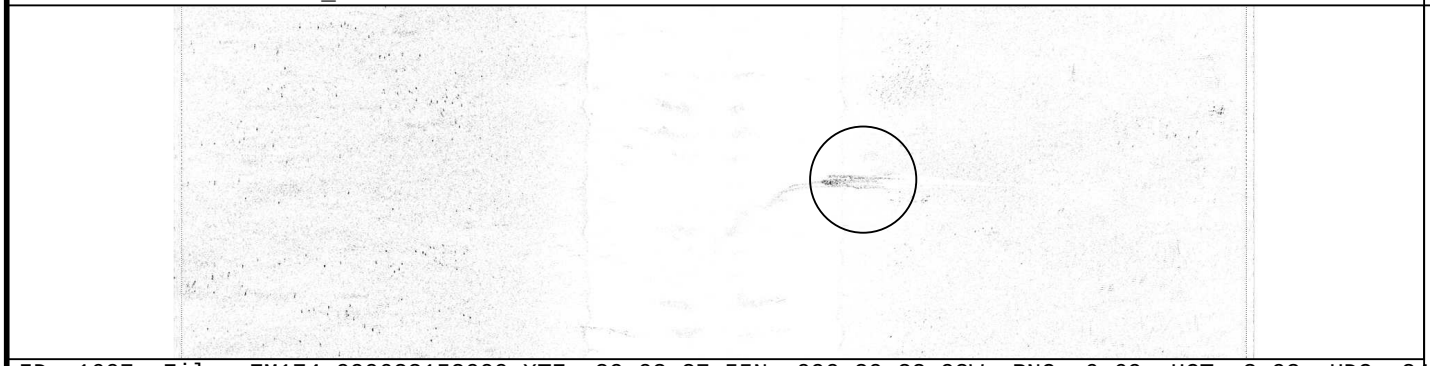


MB File: emmba09181.d50 Scale 1:1000



ID: 1609 File: EM174_090623153000.XTF 29 03 27.65N 090 20 22.84W RNG: 15.66 HGT: 1.84 HDG: 061

COMMENT:
OBSTN. Chart sounding. See Danger to Navigation Report #3.



ID: 1607 File: EM174_090623152000.XTF 29 03 27.55N 090 20 22.92W RNG: 6.69 HGT: 3.93 HDG: 248

CORRELATED SS CONTACTS:

Contact	Range/Height
1174153353	15.66/1.84
1174152806	6.69/3.93

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0249 Least Depth: 31(ft), 9.65(m) Lat: 29 00 35.41N Lon: 090 24 10.55W Ping: 7609 Beam: 79

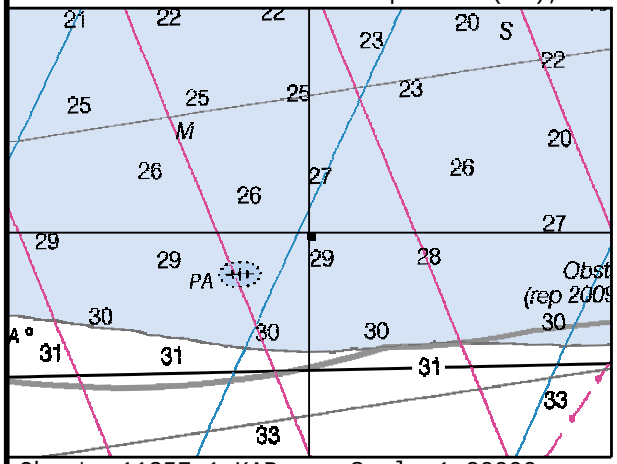


Chart: 11357_1.KAP Scale 1:20000

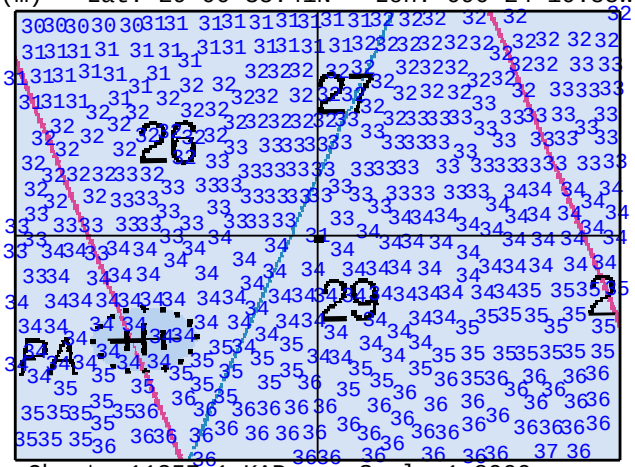
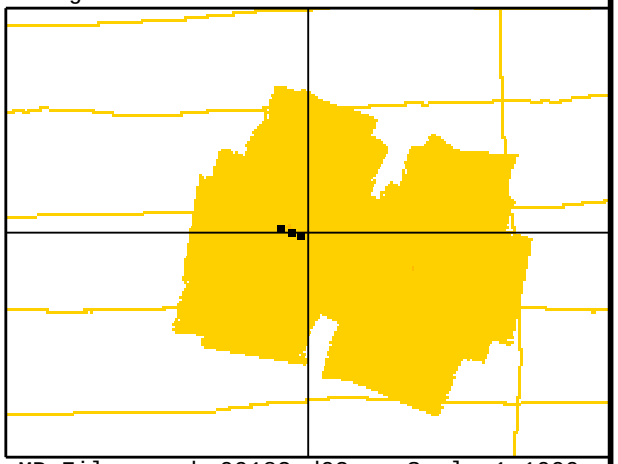


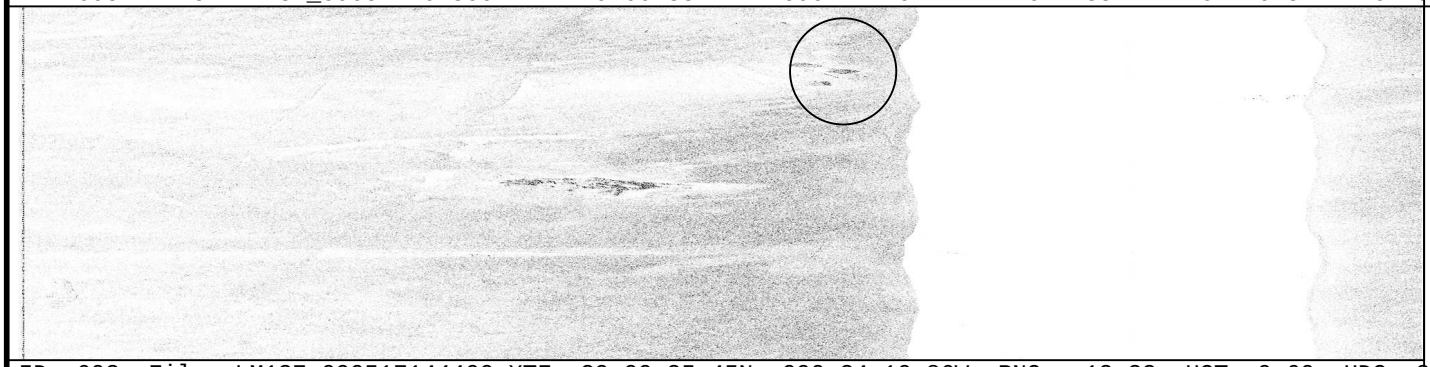
Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09182.d02 Scale 1:1000

ID: 605 File: LM137_090517162300.XTF 29 00 35.42N 090 24 10.71W RNG: -35.12 HGT: 0.57 HDG: 093

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTNS.



ID: 603 File: LM137_090517144400.XTF 29 00 35.45N 090 24 10.86W RNG: -12.22 HGT: 0.60 HDG: 271

CORRELATED SS CONTACTS:

Contact	Range/Height
1137163918	-35.12/0.57
1137151135	-12.22/0.60
1145132202	47.62/0.22

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0251 Least Depth: 25(ft), 7.84(m) Lat: 29 01 24.80N Lon: 090 23 52.76W Ping: 18784 Beam: 67

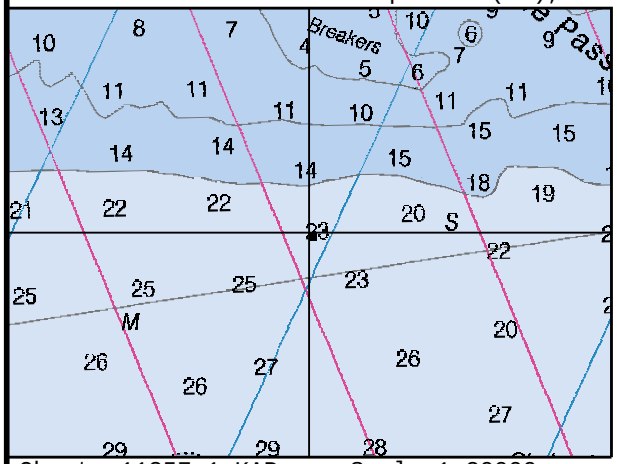


Chart: 11357_1.KAP Scale 1:20000

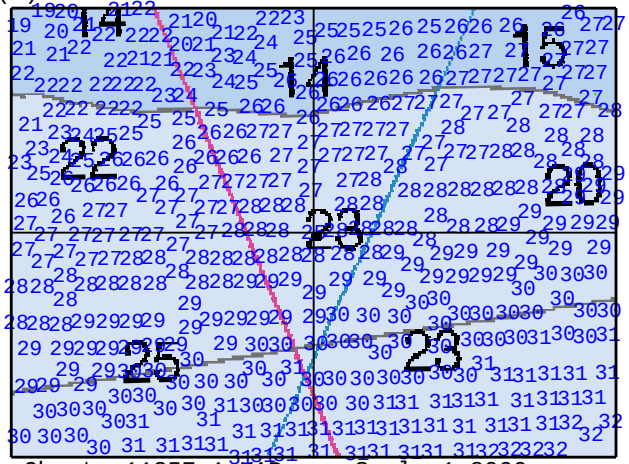
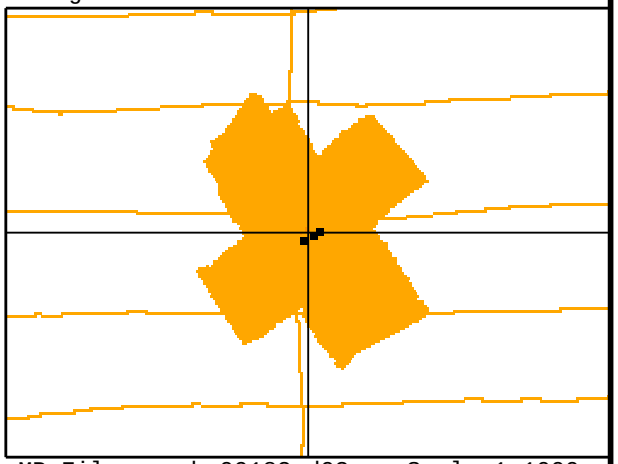


Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09182.d03 Scale 1:1000

ID: 157 File: LM112_090422132200.XTF 29 01 24.81N 090 23 52.73W RNG: 7.97 HGT: 1.01 HDG: 093

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.

ID: 164 File: LM112_090422153100.XTF 29 01 24.75N 090 23 52.88W RNG: 29.84 HGT: 0.51 HDG: 273

CORRELATED SS CONTACTS:

Contact	Range/Height
1112133946	7.97/1.01
1112155632	29.84/0.51
1111144116	47.06/0.31

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0252 Least Depth: 29(ft), 9.05(m) Lat: 29 00 59.68N Lon: 090 22 26.97W Ping: 6013 Beam: 28

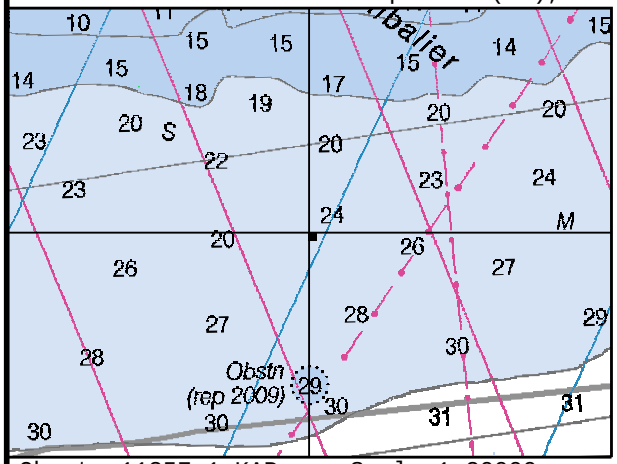


Chart: 11357_1.KAP Scale 1:20000

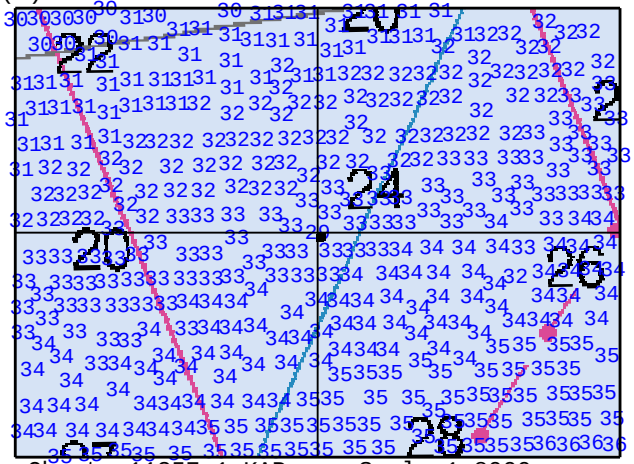
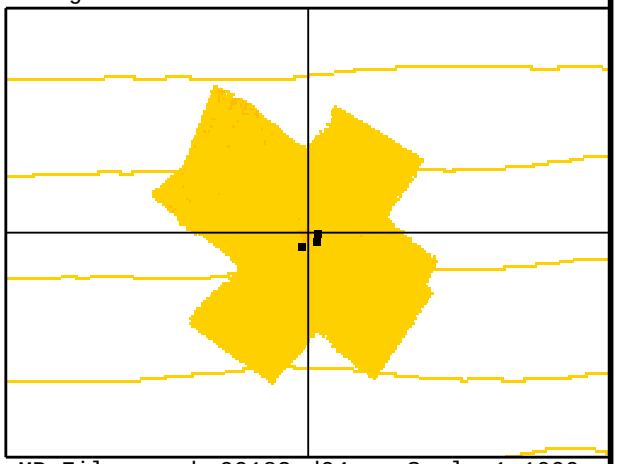
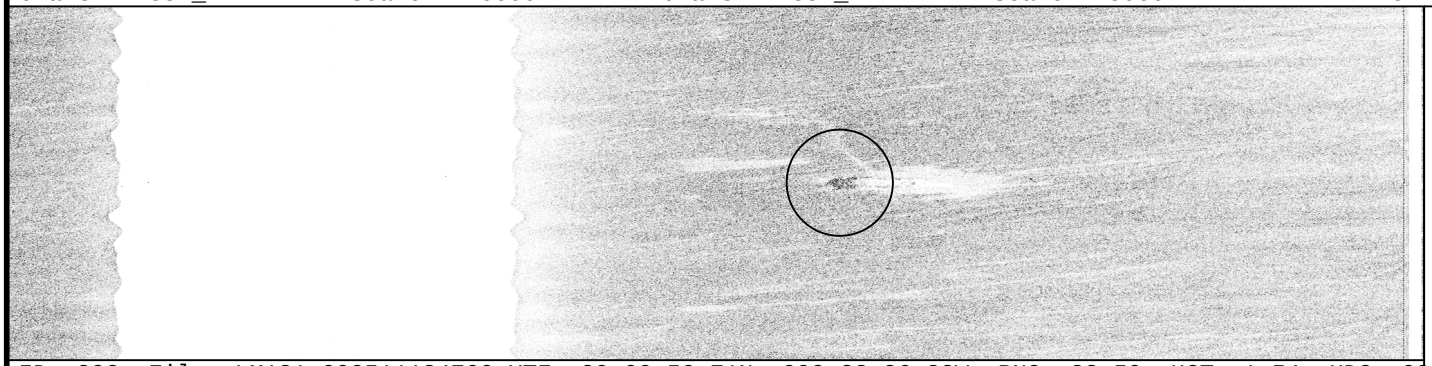


Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09182.d04 Scale 1:1000



ID: 302 File: LM131_090511134700.XTF 29 00 59.71N 090 22 26.88W RNG: 23.59 HGT: 1.54 HDG: 092

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.

ID: 344 File: LM132_090512134400.XTF 29 00 59.61N 090 22 26.90W RNG: -19.03 HGT: 1.36 HDG: 093

CORRELATED SS CONTACTS:

Contact	Range/Height
1131141424	23.59/1.54
1132135332	-19.03/1.36
1131205121	48.19/0.02

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0254 Least Depth: 22(ft), 6.81(m) Lat: 29 00 19.96N Lon: 090 22 28.20W Ping: 23866 Beam: 79

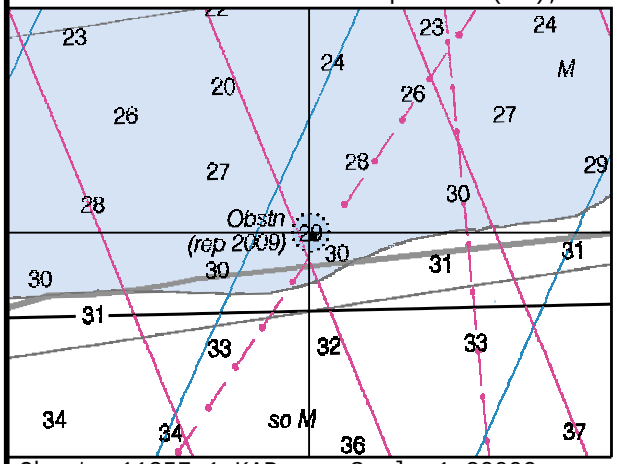


Chart: 11357_1.KAP Scale 1:20000

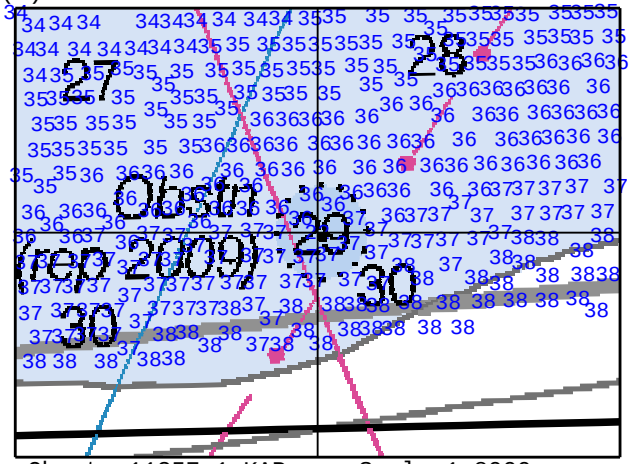
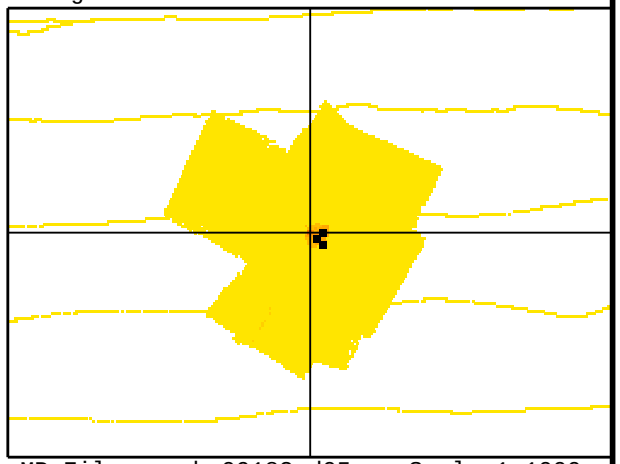
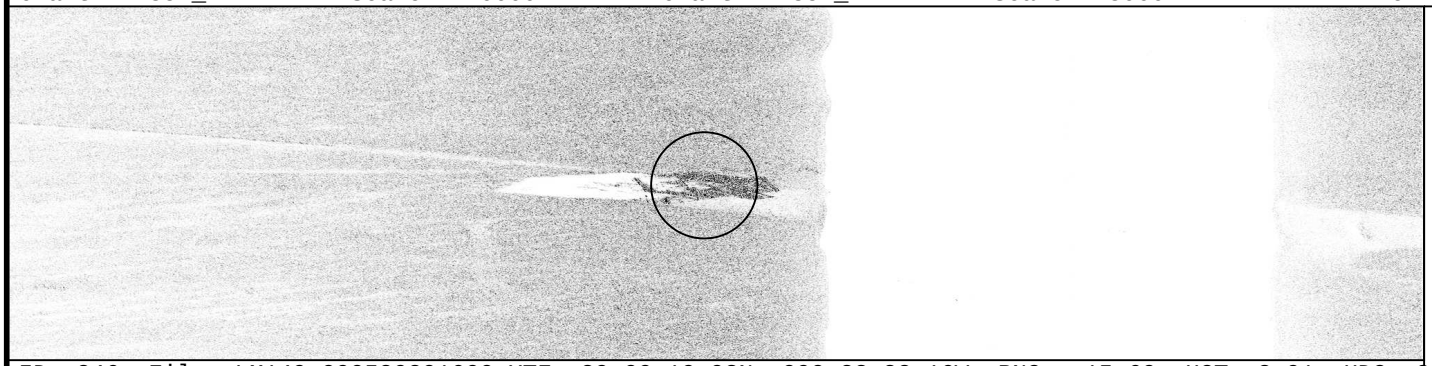


Chart: 11357_1.KAP Scale 1:8000

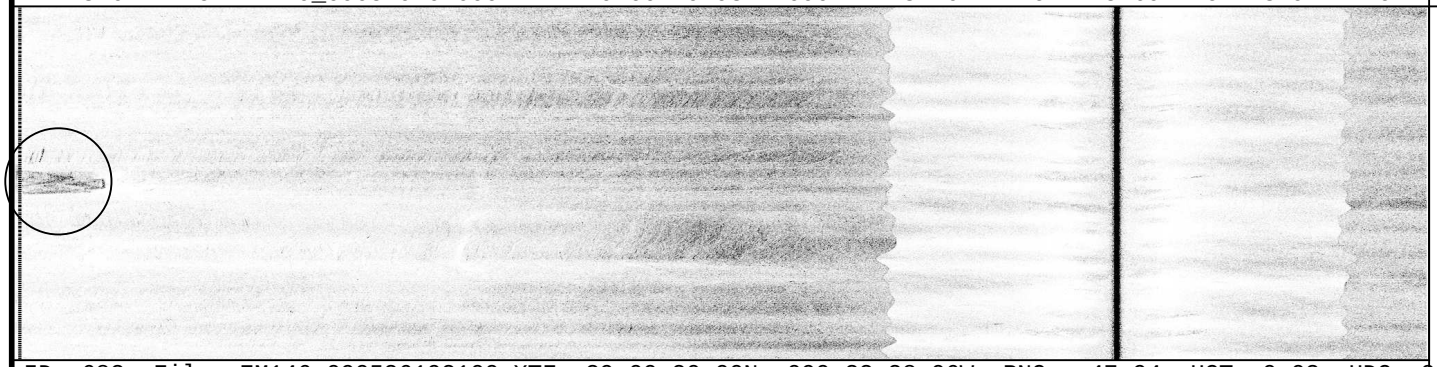


MB File: emmba09182.d05 Scale 1:1000



ID: 846 File: LM149_090529201600.XTF 29 00 19.93N 090 22 28.16W RNG: -15.69 HGT: 3.91 HDG: 267

COMMENT:
OBSTN. Chart sounding. See Danger to Navigation Report #1



ID: 683 File: EM146_090526192100.XTF 29 00 20.00N 090 22 28.06W RNG: -47.94 HGT: 0.03 HDG: 266

CORRELATED SS CONTACTS:

Contact	Range/Height
1149203225	-15.69/3.91
1146194551	-47.94/0.03
1150142500	-32.00/2.44

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0258 Least Depth: 37(ft), 11.25(m) Lat: 29 01 15.71N Lon: 090 16 39.51W Ping: 7529 Beam: 38

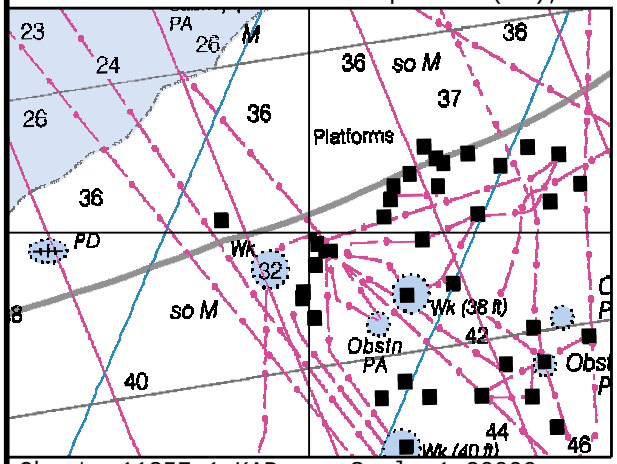


Chart: 11357_1.KAP Scale 1:20000

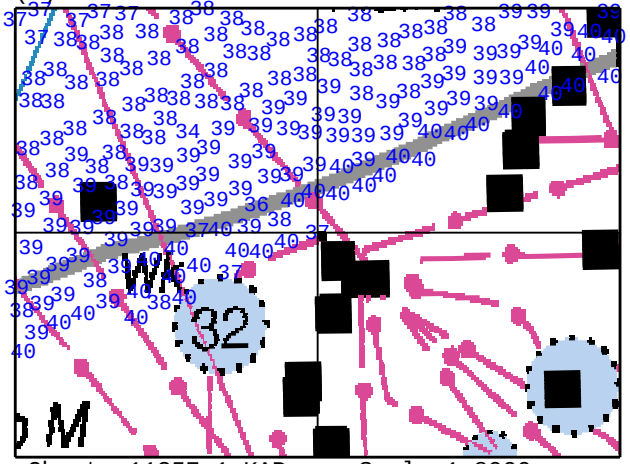
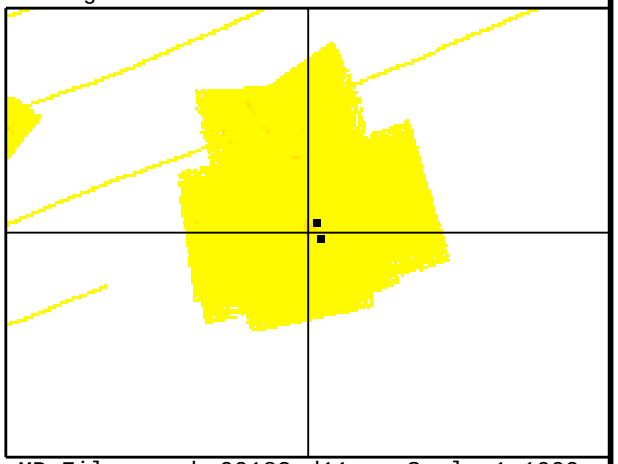


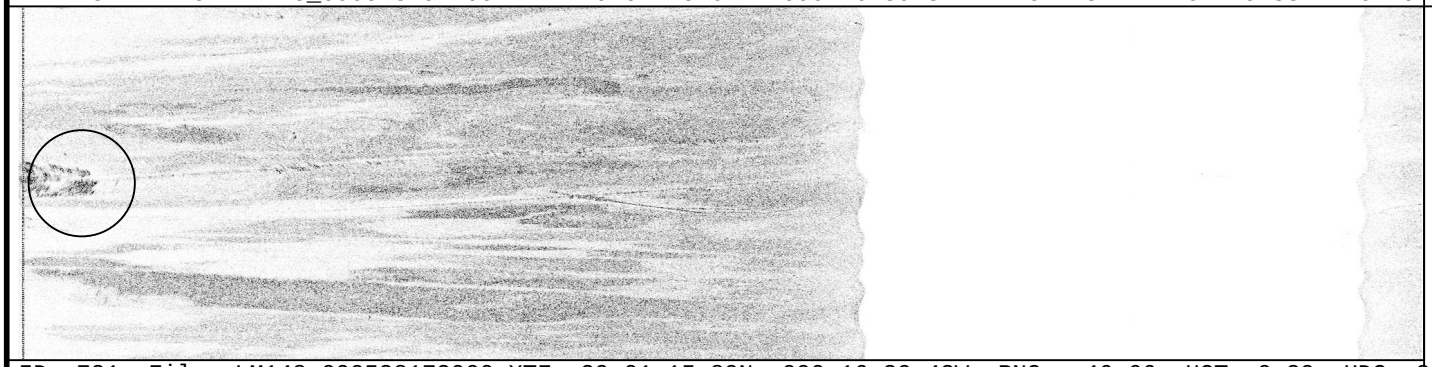
Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09182.d11 Scale 1:1000

ID: 751 File: LM148_090528191400.XTF 29 01 15.67N 090 16 39.37W RNG: 15.12 HGT: 0.88 HDG: 070

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTNS.



ID: 721 File: LM148_090528172000.XTF 29 01 15.89N 090 16 39.43W RNG: -46.66 HGT: 0.29 HDG: 246

CORRELATED SS CONTACTS:

Contact	Range/Height
1148192545	15.12/0.88
1148172501	-46.66/0.29

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0261 Least Depth: 34(ft), 10.54(m) Lat: 29 01 53.13N Lon: 090 17 43.32W Ping: 11388 Beam: 66

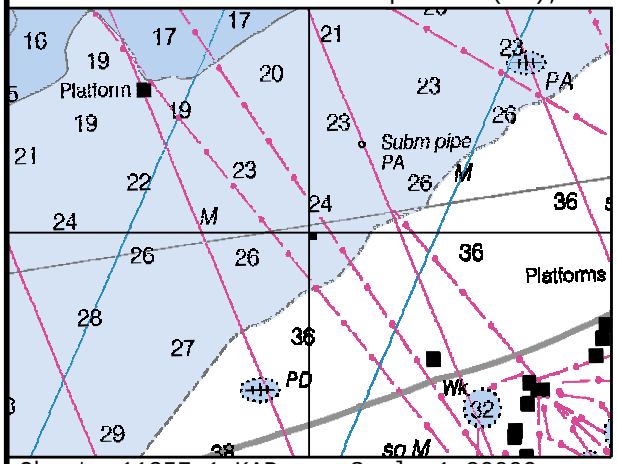


Chart: 11357_1.KAP Scale 1:20000

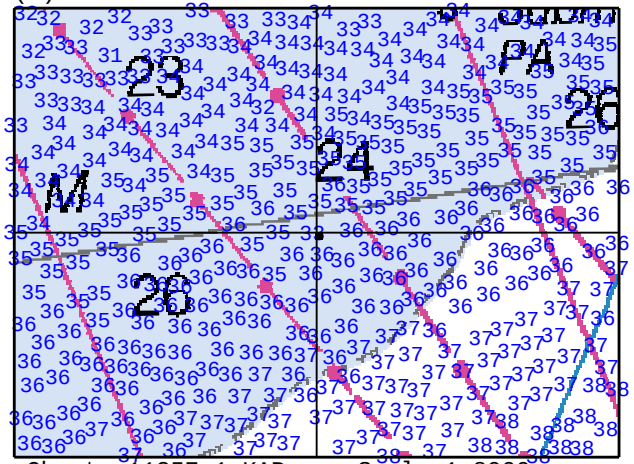
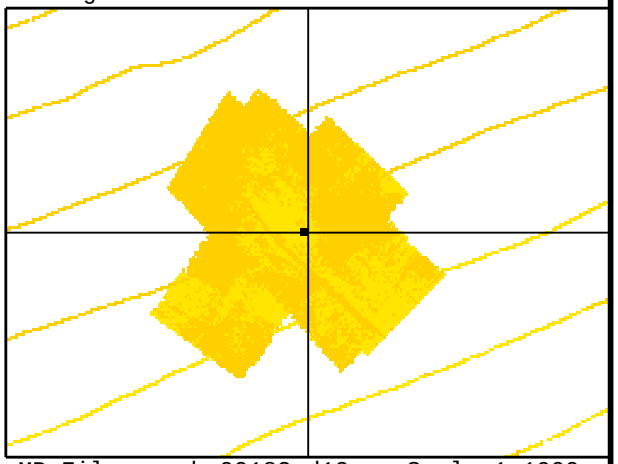


Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09182.d12 Scale 1:1000

ID: 341 File: LM131_090511192800.XTF 29 01 53.19N 090 17 43.45W RNG: -45.75 HGT: 0.57 HDG: 252

COMMENT:
OBSTN. Chart sounding and label OBSTN

CORRELATED SS CONTACTS:

Contact	Range/Height
1131201513	-45.75/0.57

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0263 Least Depth: 16(ft), 4.97(m) Lat: 29 04 07.62N Lon: 090 16 48.32W Ping: 1341 Beam: 84

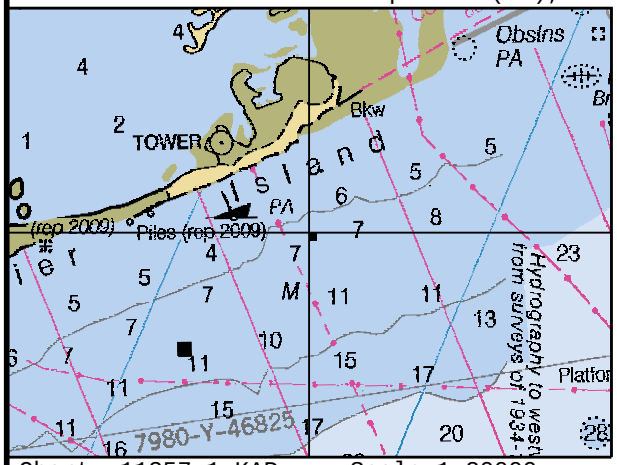


Chart: 11357_1.KAP Scale 1:20000

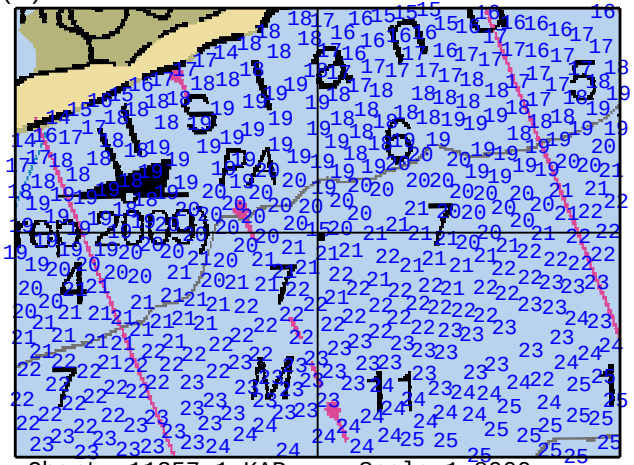
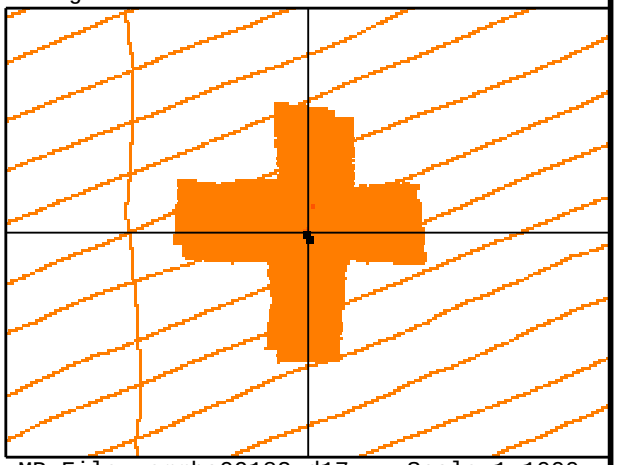


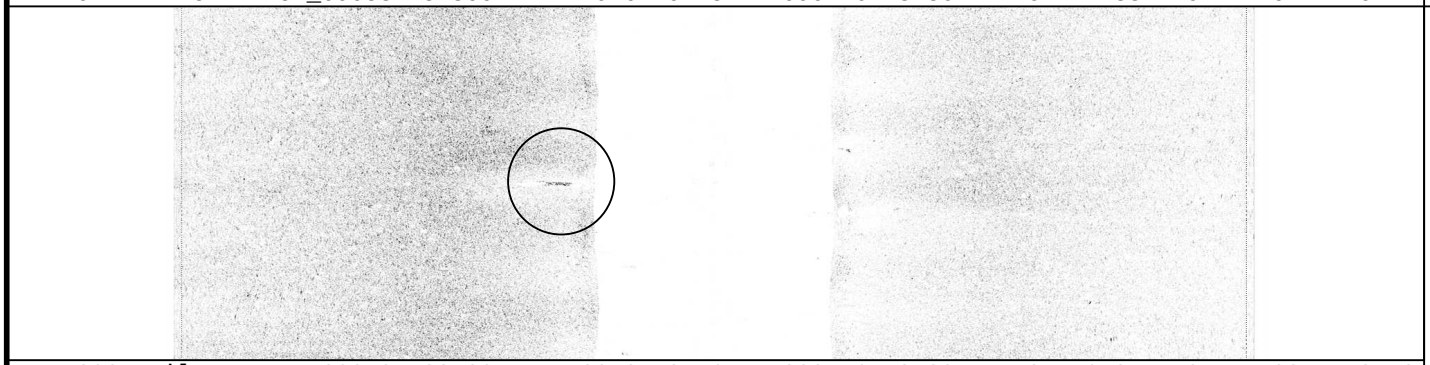
Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09182.d17 Scale 1:1000

ID: 914 File: EM151_090531152300.XTF 29 04 07.57N 090 16 48.36W RNG: 14.38 HGT: 1.01 HDG: 246

COMMENT:
PILE. No Chart. See Feature 264. See Danger to Navigation Report #4.



ID: 892 File: EM151_090531133700.XTF 29 04 07.64N 090 16 48.39W RNG: -6.97 HGT: 1.03 HDG: 255

CORRELATED SS CONTACTS:

Contact	Range/Height
1151154427	14.38/1.01
1151135954	-6.97/1.03

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0264 Least Depth: 15(ft), 4.73(m) Lat: 29 04 07.94N Lon: 090 16 48.24W Ping: 10941 Beam: 80

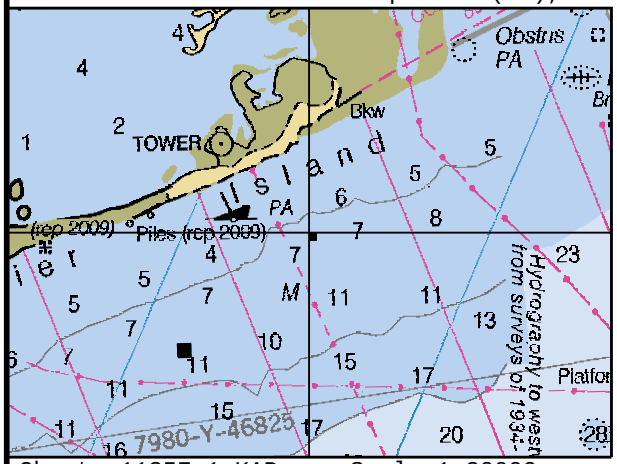


Chart: 11357_1.KAP Scale 1:20000

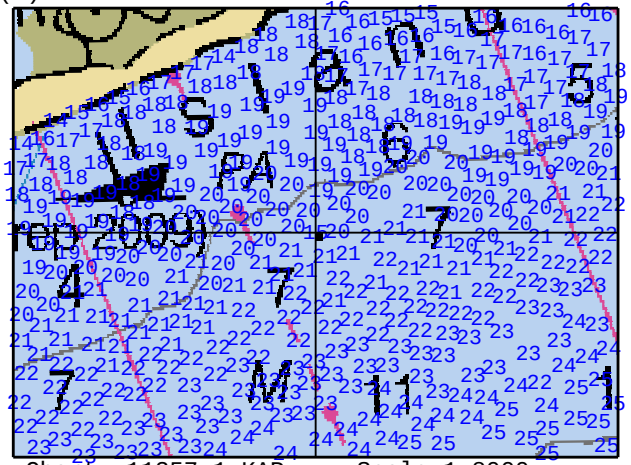
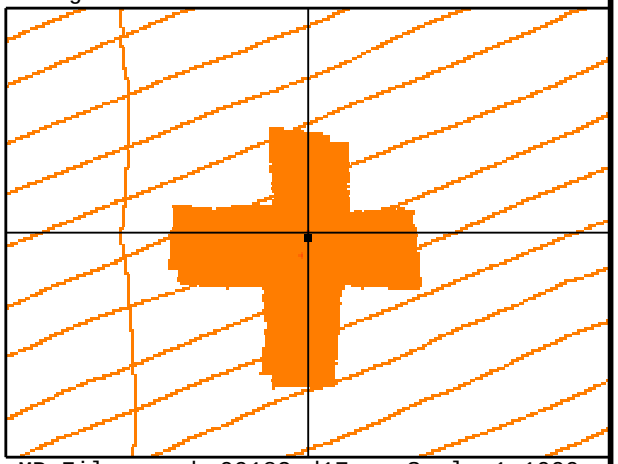
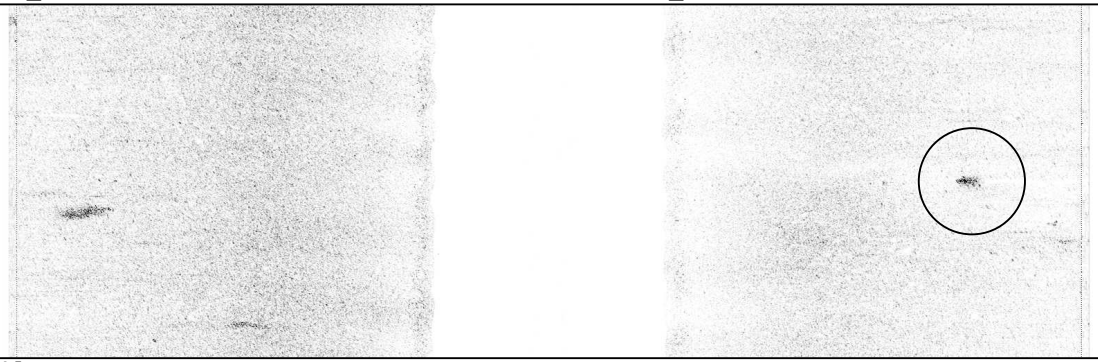


Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09182.d17 Scale 1:1000



ID: 920 File: EM151_090531161400.XTF 29 04 07.92N 090 16 48.31W RNG: 19.06 HGT: 1.09 HDG: 072

COMMENT:
PILE. Chart sounding. See Danger to Navigation Report #4.

CORRELATED SS CONTACTS:

Contact	Range/Height
1151164330	19.06/1.09

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0266 Least Depth: 22(ft), 6.92(m) Lat: 29 03 51.77N Lon: 090 16 21.24W Ping: 19623 Beam: 16

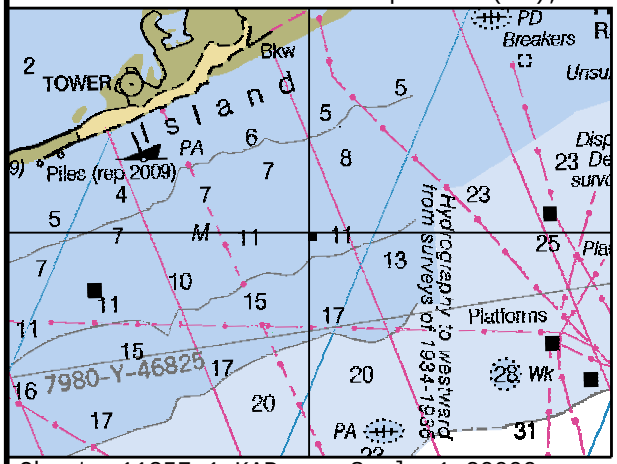


Chart: 11357_1.KAP Scale 1:20000

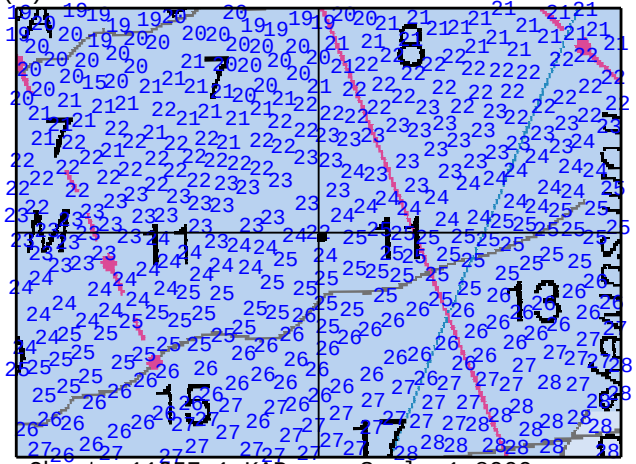
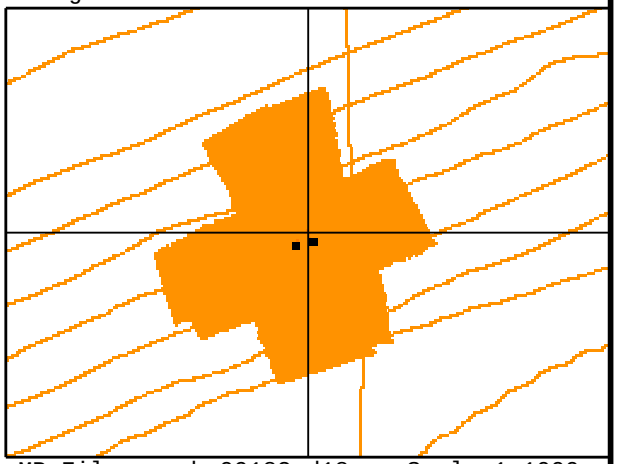
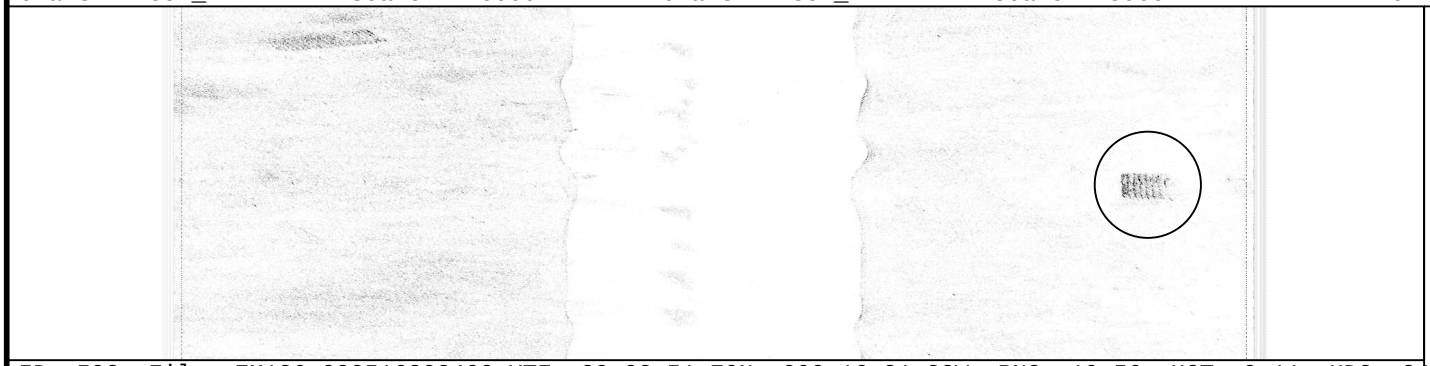


Chart: 11357_1.KAP Scale 1:8000

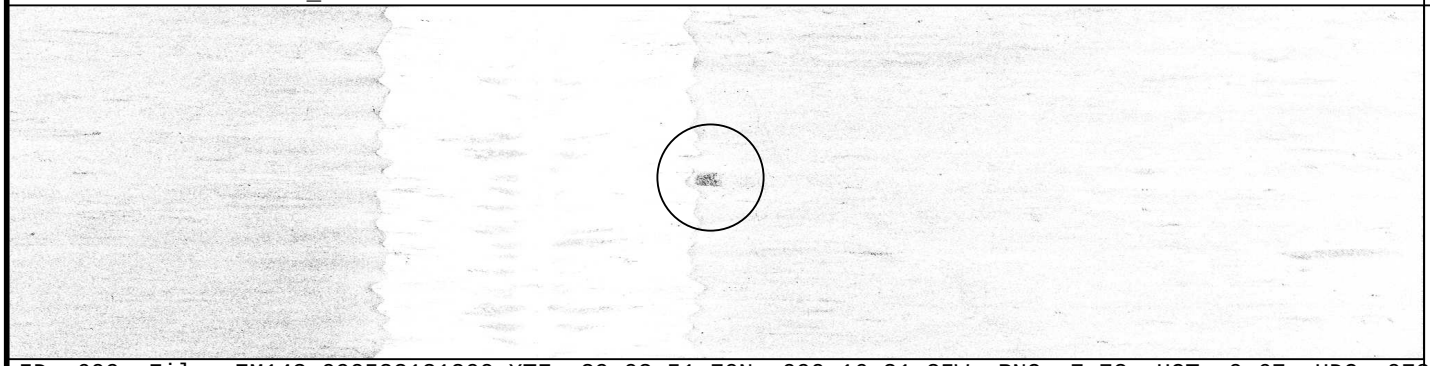


MB File: emmba09182.d18 Scale 1:1000



ID: 593 File: EM136_090516203400.XTF 29 03 51.70N 090 16 21.22W RNG: 19.56 HGT: 0.11 HDG: 248

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTNS.



ID: 609 File: EM143_090523131200.XTF 29 03 51.70N 090 16 21.25W RNG: 7.72 HGT: 0.67 HDG: 072

CORRELATED SS CONTACTS:

Contact	Range/Height
1136205321	19.56/0.11
1143134928	7.72/0.67
1143210423	-20.19/0.05

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0269 Least Depth: 28(ft), 8.54(m) Lat: 29 03 21.91N Lon: 090 15 05.65W Ping: 11484 Beam: 90

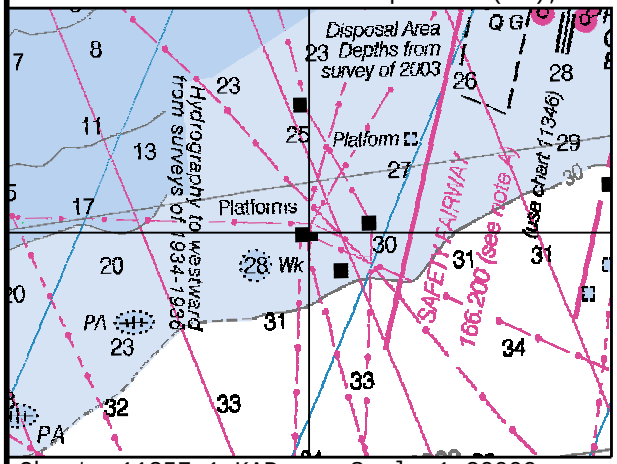


Chart: 11357_1.KAP Scale 1:20000

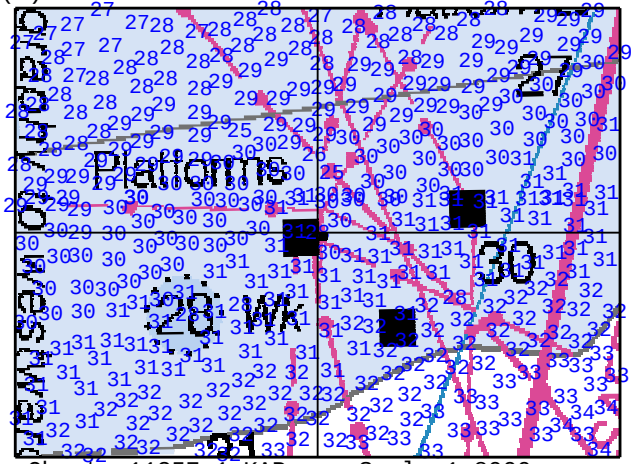
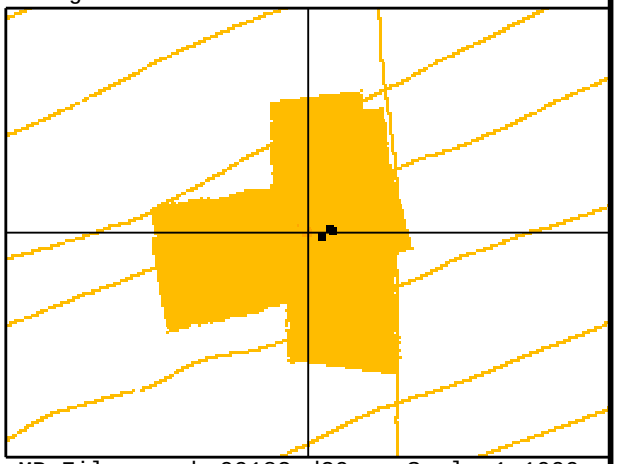
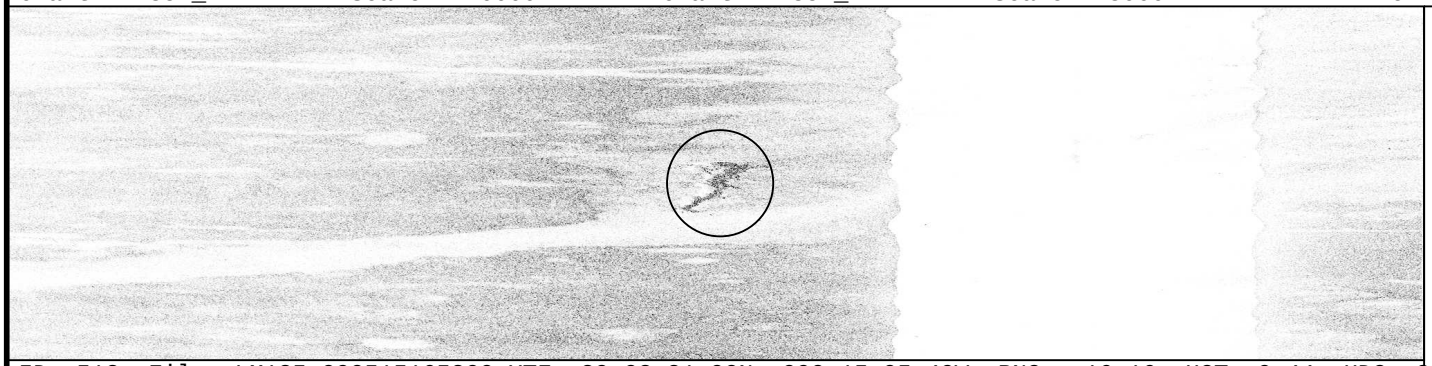


Chart: 11357_1.KAP Scale 1:8000

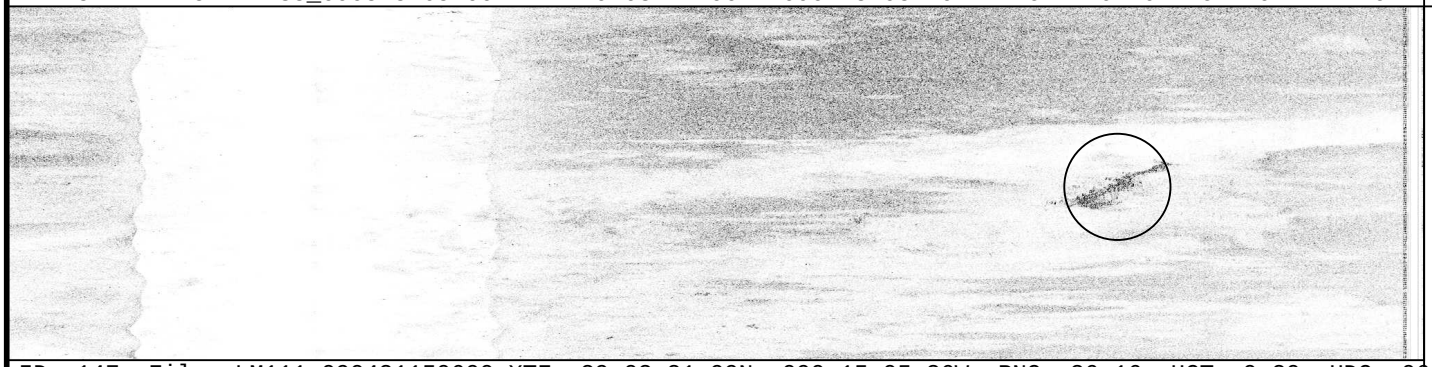


MB File: emmba09182.d20 Scale 1:1000



ID: 512 File: LM135_090515165200.XTF 29 03 21.90N 090 15 05.49W RNG: -16.16 HGT: 0.44 HDG: 250

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.



ID: 147 File: LM111_090421150600.XTF 29 03 21.99N 090 15 05.36W RNG: 36.16 HGT: 0.20 HDG: 066

CORRELATED SS CONTACTS:

Contact	Range/Height
1135172907	-16.16/0.44
1111154906	36.16/0.20
1093162211	-37.62/0.59

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0273 Least Depth: 13(ft), 4.17(m) Lat: 29 04 33.55N Lon: 090 15 21.46W Ping: 20350 Beam: 16

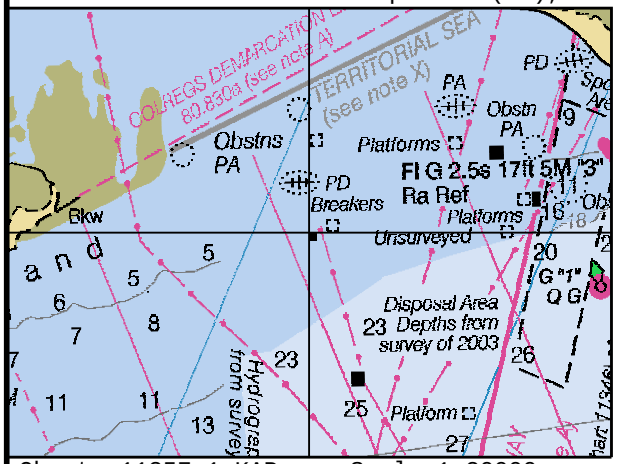


Chart: 11357_1.KAP Scale 1:20000

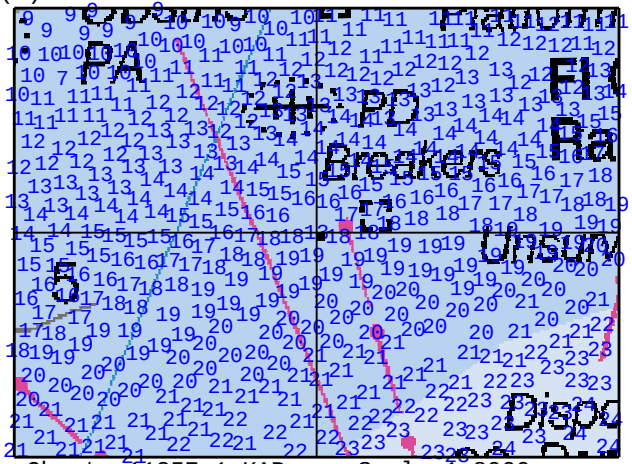
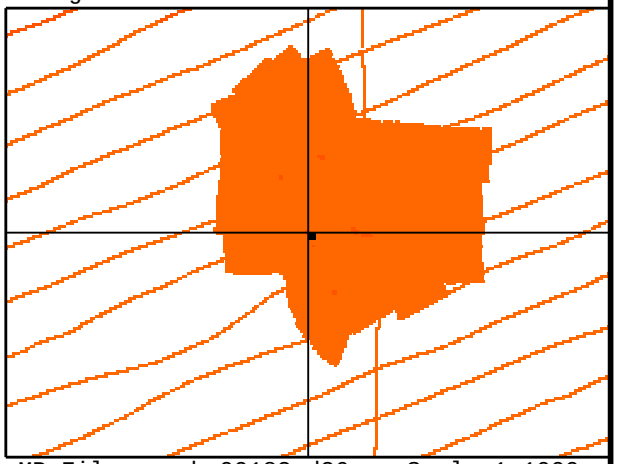
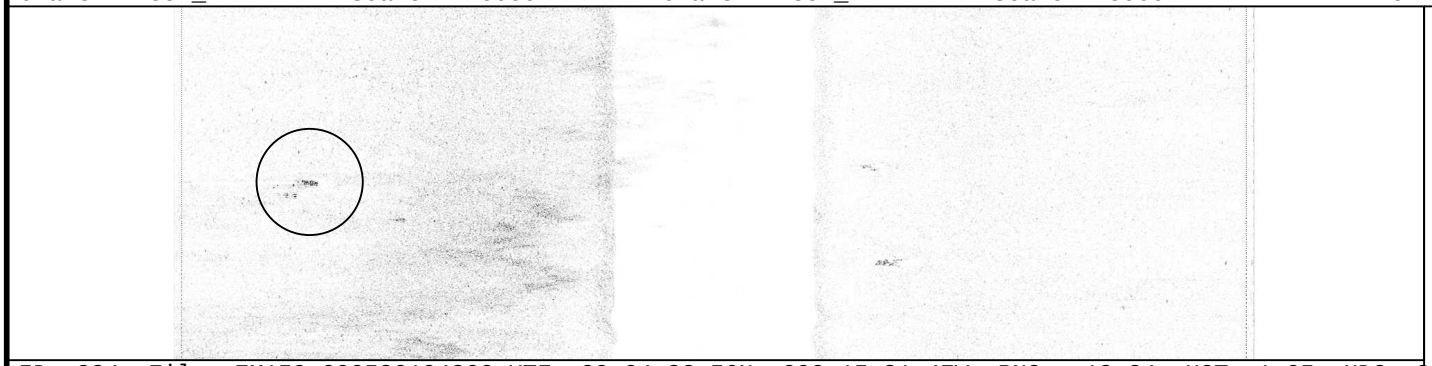


Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09182.d26 Scale 1:1000



ID: 884 File: EM150_090530194300.XTF 29 04 33.56N 090 15 21.47W RNG: -18.34 HGT: 1.05 HDG: 249

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTNS.

CORRELATED SS CONTACTS:

Contact	Range/Height
1150195440	-18.34/1.05

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0280 Least Depth: 4(ft), 1.37(m) Lat: 29 05 16.57N Lon: 090 14 09.94W Ping: 25061 Beam: 12

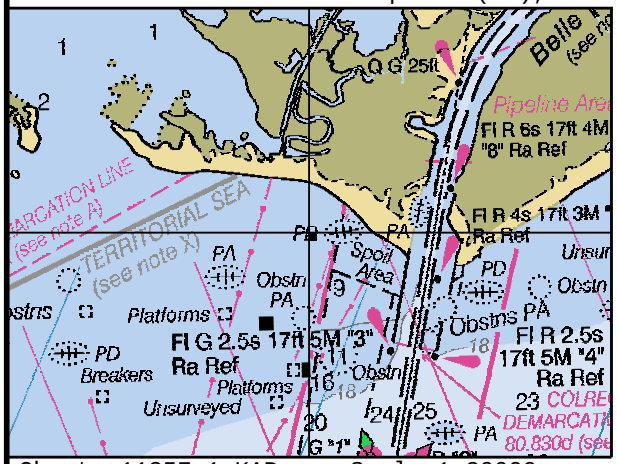


Chart: 11357_1.KAP Scale 1:20000

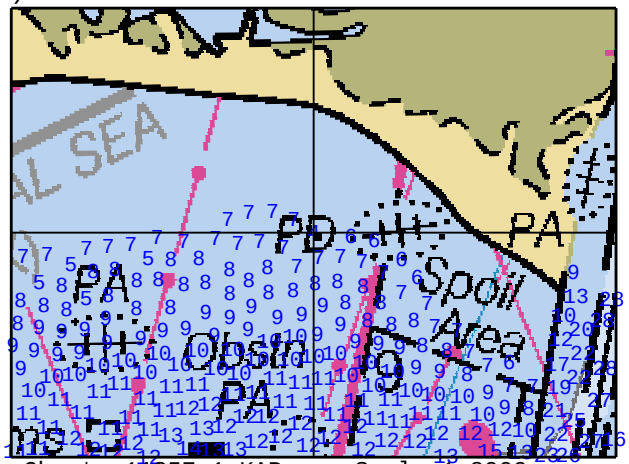
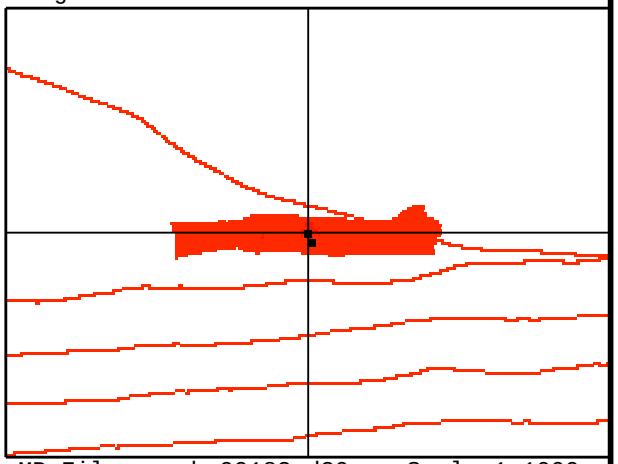
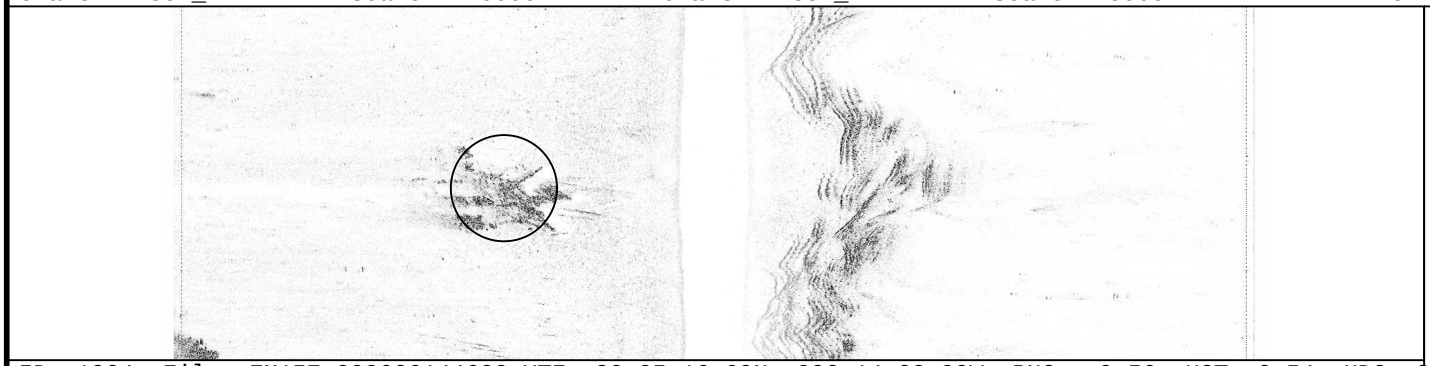


Chart: 11357_1.KAP Scale 1:8000

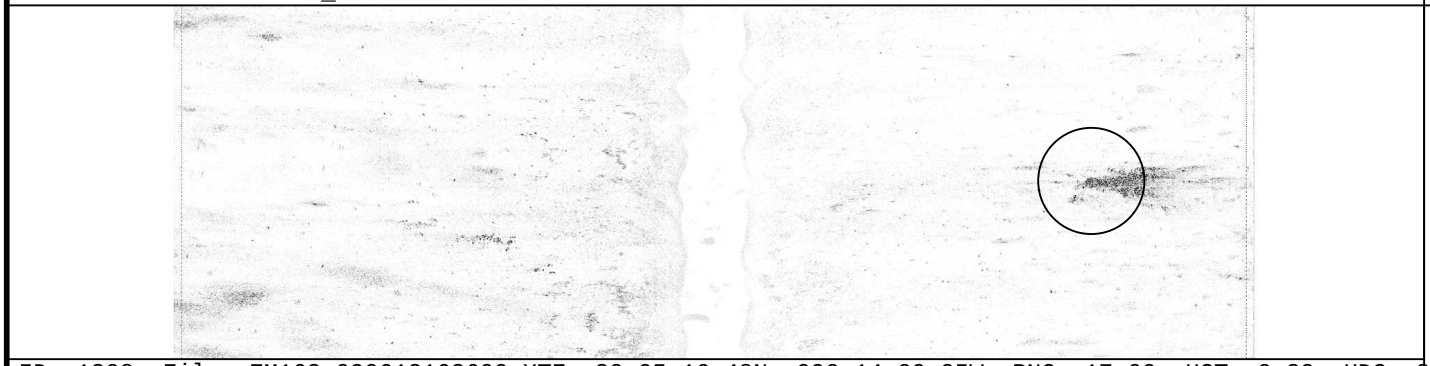


MB File: emmba09182.d30 Scale 1:1000



ID: 1004 File: EM157_090606144600.XTF 29 05 16.60N 090 14 09.99W RNG: -9.56 HGT: 0.54 HDG: 285

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.



ID: 1208 File: EM163_090612163600.XTF 29 05 16.48N 090 14 09.95W RNG: 17.00 HGT: 0.29 HDG: 274

CORRELATED SS CONTACTS:

Contact	Range/Height
1157145007	-9.56/0.54
1163163818	17.00/0.29

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0281 Least Depth: 20(ft), 6.25(m) Lat: 29 04 32.52N Lon: 090 14 00.79W Ping: 12784 Beam: 10

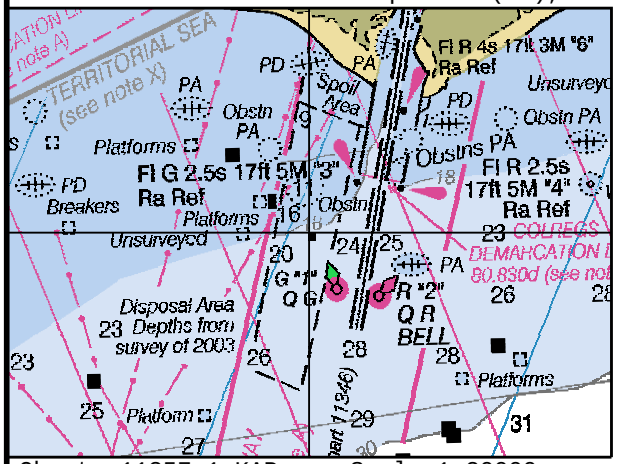


Chart: 11357_1.KAP Scale 1:20000

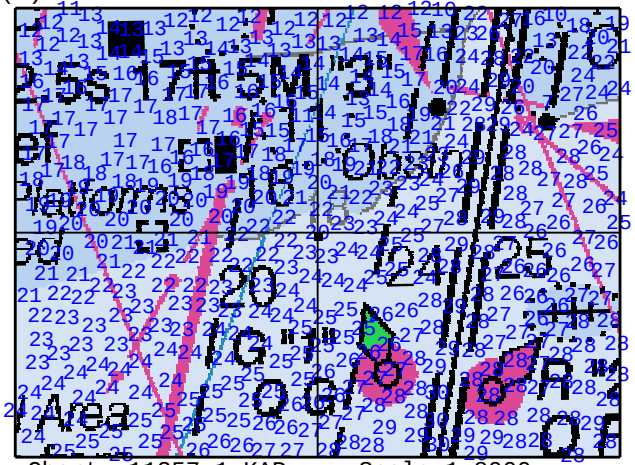
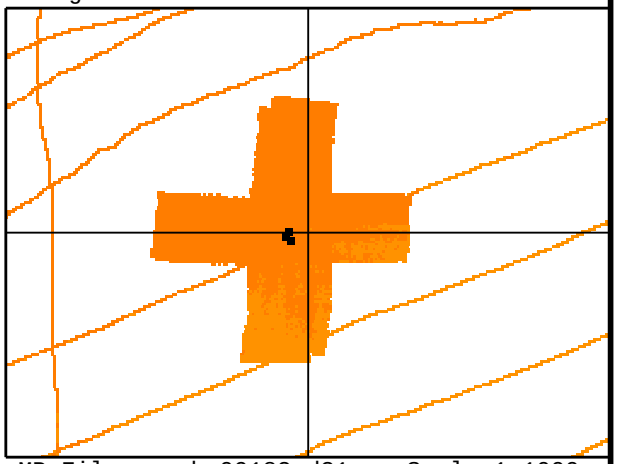


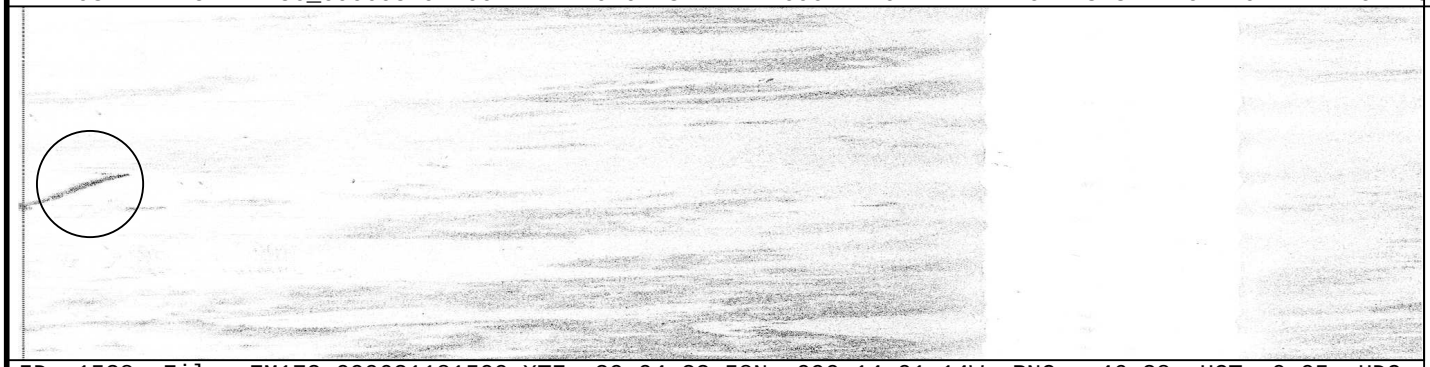
Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09182.d31 Scale 1:1000

ID: 987 File: EM156_090605191400.XTF 29 04 32.47N 090 14 01.11W RNG: 43.81 HGT: 0.47 HDG: 252

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.



ID: 1538 File: EM172_090621181500.XTF 29 04 32.58N 090 14 01.14W RNG: -46.28 HGT: 0.05 HDG: 247

CORRELATED SS CONTACTS:

Contact	Range/Height
1156191510	43.81/0.47
1172181659	-46.28/0.05
1156135850	-9.03/0.60

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0282 Least Depth: 20(ft), 6.32(m) Lat: 29 04 47.25N Lon: 090 13 35.32W Ping: 6803 Beam: 21

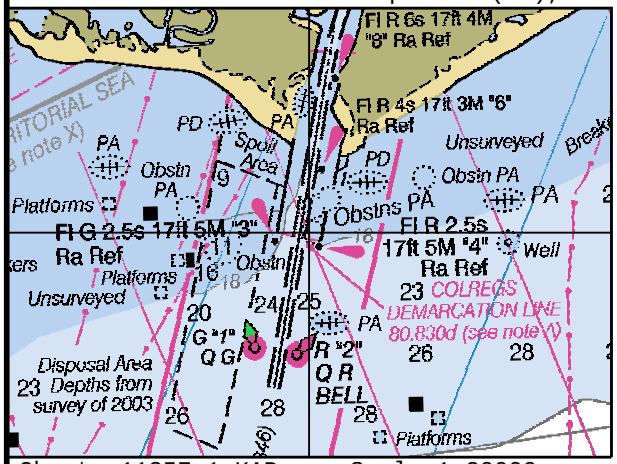


Chart: 11357_1.KAP Scale 1:20000

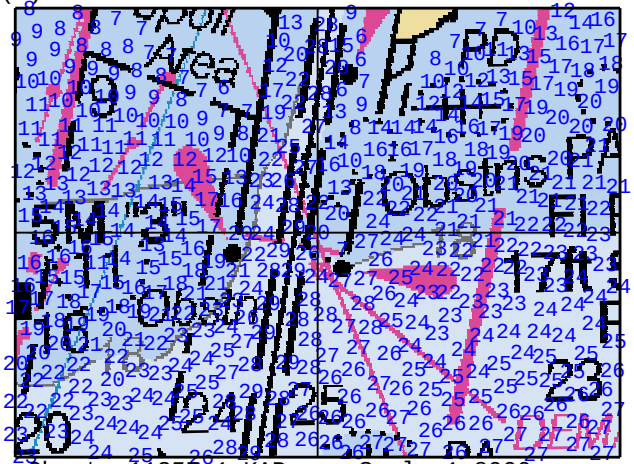
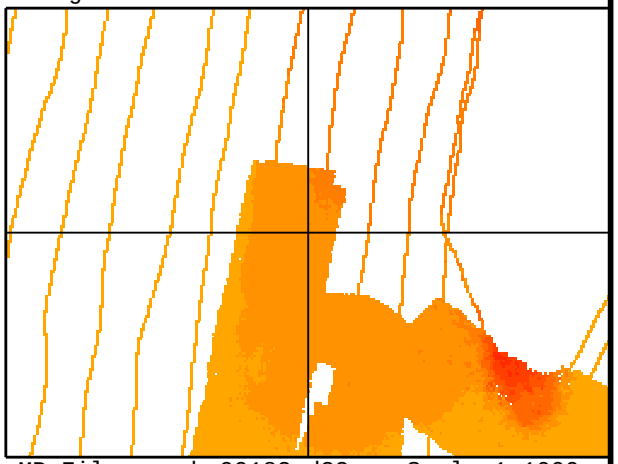


Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09182.d33 Scale 1:1000

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTNS.

CORRELATED SS CONTACTS:

Contact	Range/Height

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0289 Least Depth: 6(ft), 2.05(m) Lat: 29 05 02.11N Lon: 090 13 31.93W Ping: 8600 Beam: 100

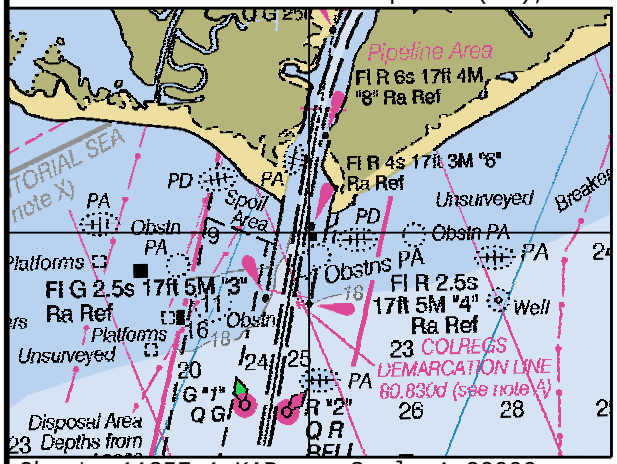


Chart: 11357_1.KAP Scale 1:20000

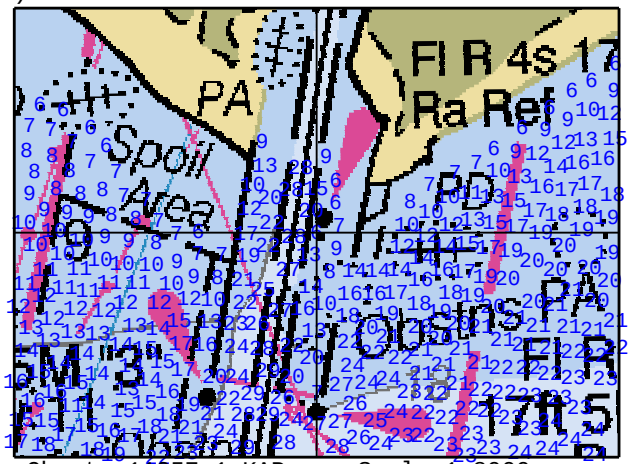
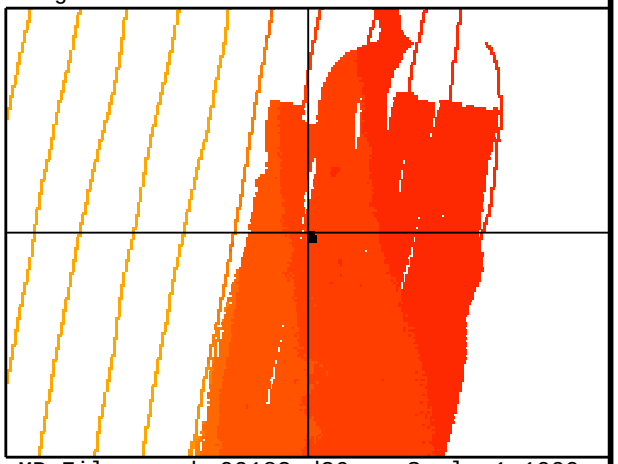
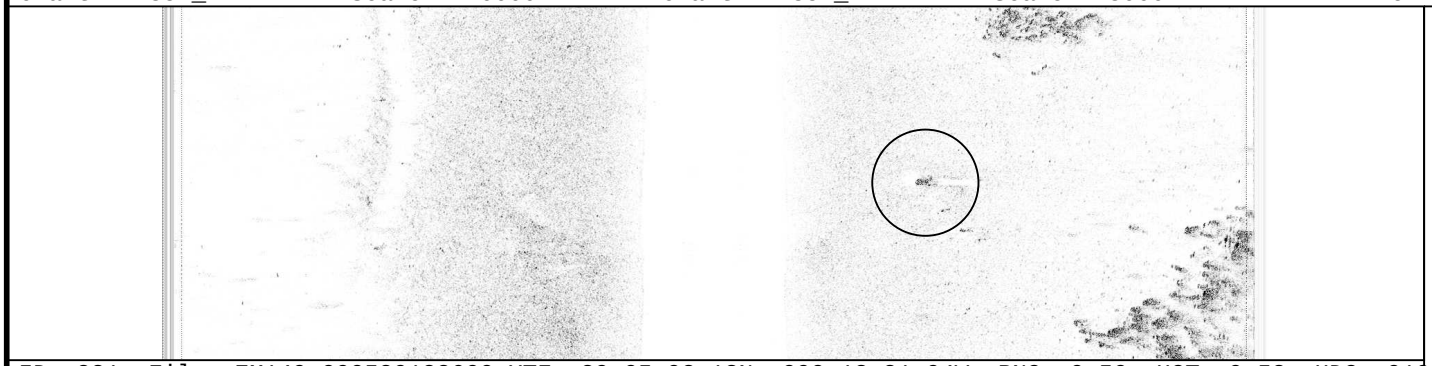


Chart: 11357_1.KAP Scale 1:8000

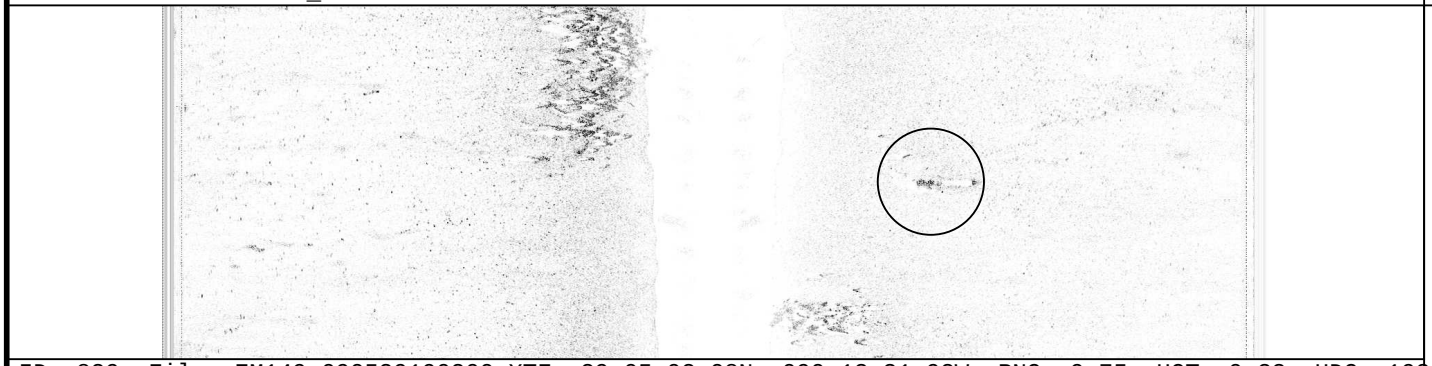


MB File: emmba09182.d36 Scale 1:1000



ID: 821 File: EM149_090529182600.XTF 29 05 02.13N 090 13 31.94W RNG: 9.50 HGT: 0.53 HDG: 010

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.



ID: 829 File: EM149_090529190200.XTF 29 05 02.08N 090 13 31.92W RNG: 9.75 HGT: 0.33 HDG: 193

CORRELATED SS CONTACTS:

Contact	Range/Height
1149183128	9.50/0.53
1149190358	9.75/0.33

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0295 Least Depth: 28(ft), 8.50(m) Lat: 29 04 18.56N Lon: 090 11 08.62W Ping: 14477 Beam: 83

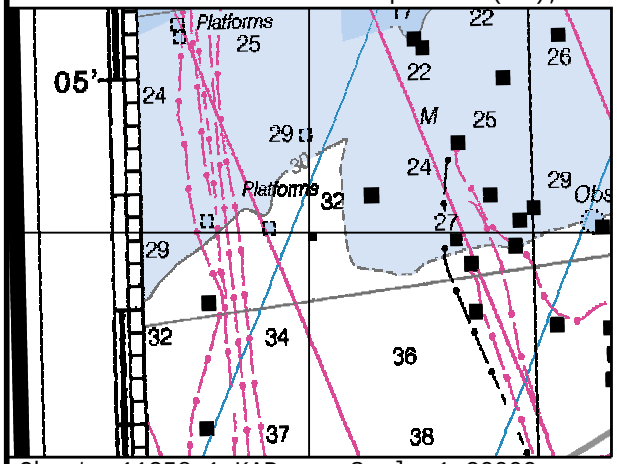


Chart: 11358_1.KAP Scale 1:20000

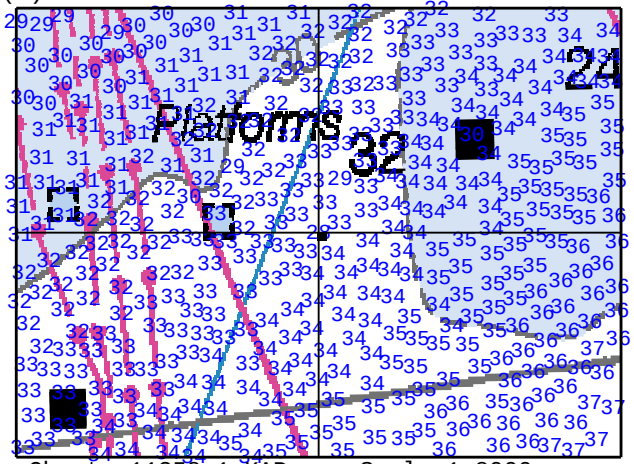
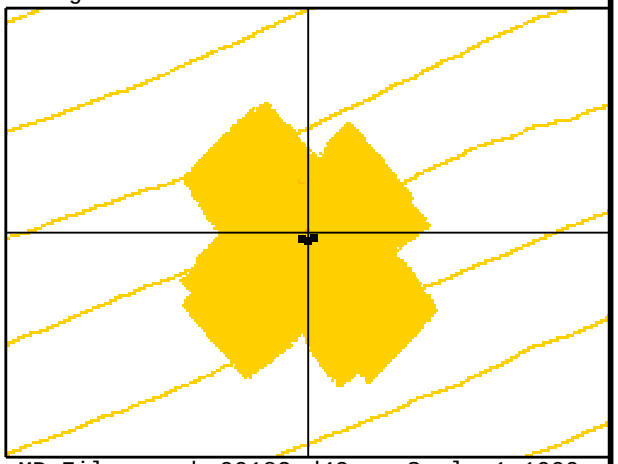


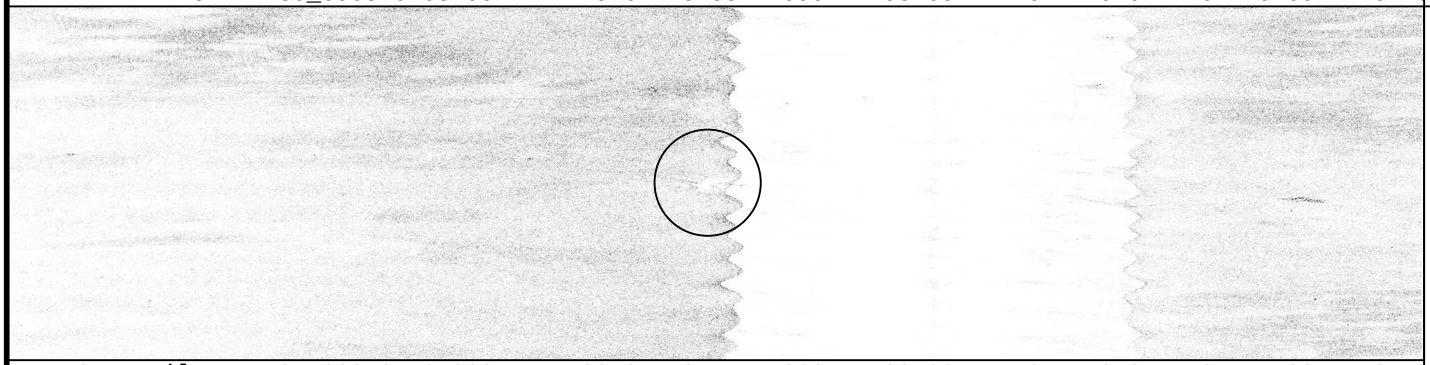
Chart: 11358_1.KAP Scale 1:8000



MB File: emmba09182.d42 Scale 1:1000

ID: 277 File: LM130_090510163700.XTF 29 04 18.55N 090 11 08.60W RNG: -40.94 HGT: 0.60 HDG: 071

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.



ID: 247 File: LM125_090505161300.XTF 29 04 18.51N 090 11 08.69W RNG: -10.25 HGT: 1.23 HDG: 249

CORRELATED SS CONTACTS:

Contact	Range/Height
1130164309	-40.94/0.60
1125163556	-10.25/1.23
1130171446	-40.91/0.88

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0300 Least Depth: 21(ft), 6.53(m) Lat: 29 02 22.58N Lon: 090 19 51.50W Ping: 6247 Beam: 90

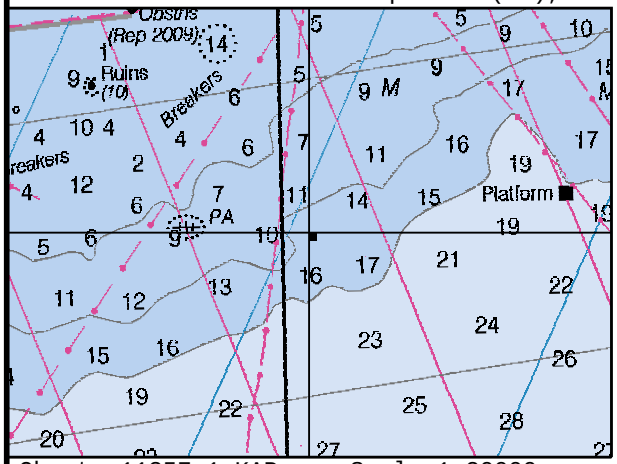


Chart: 11357_1.KAP Scale 1:20000

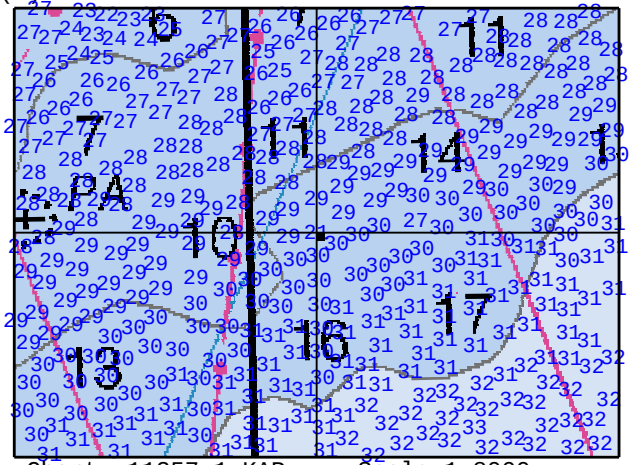
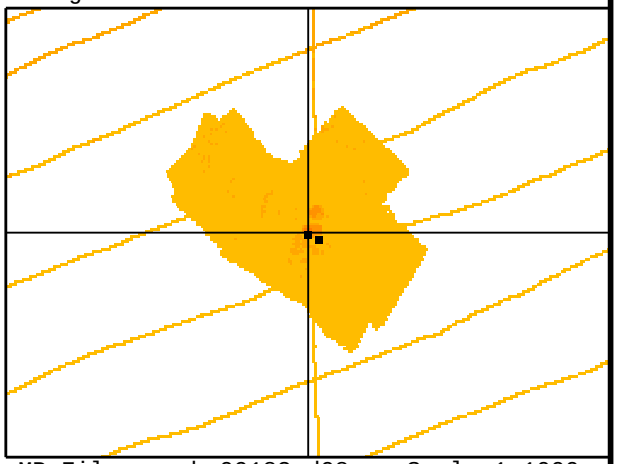
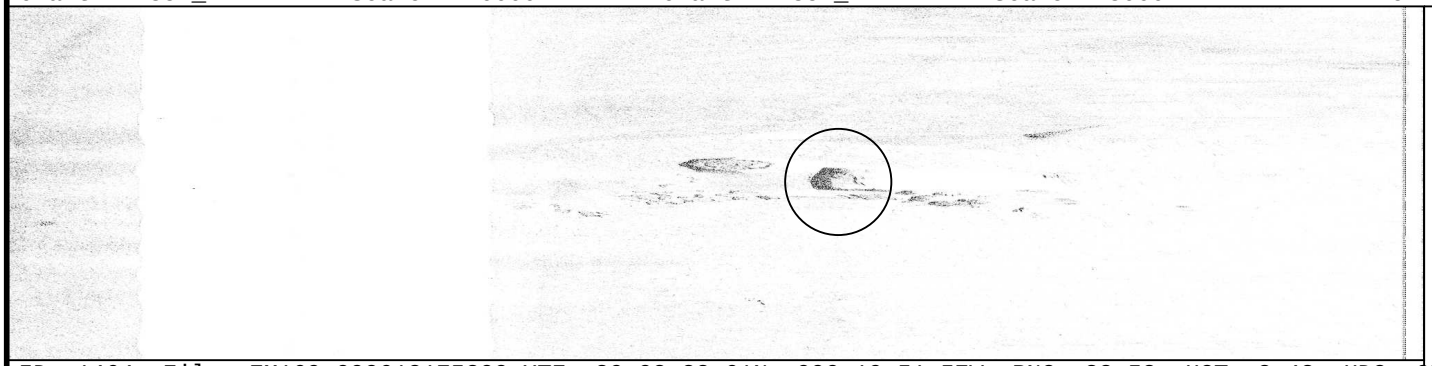


Chart: 11357_1.KAP Scale 1:8000

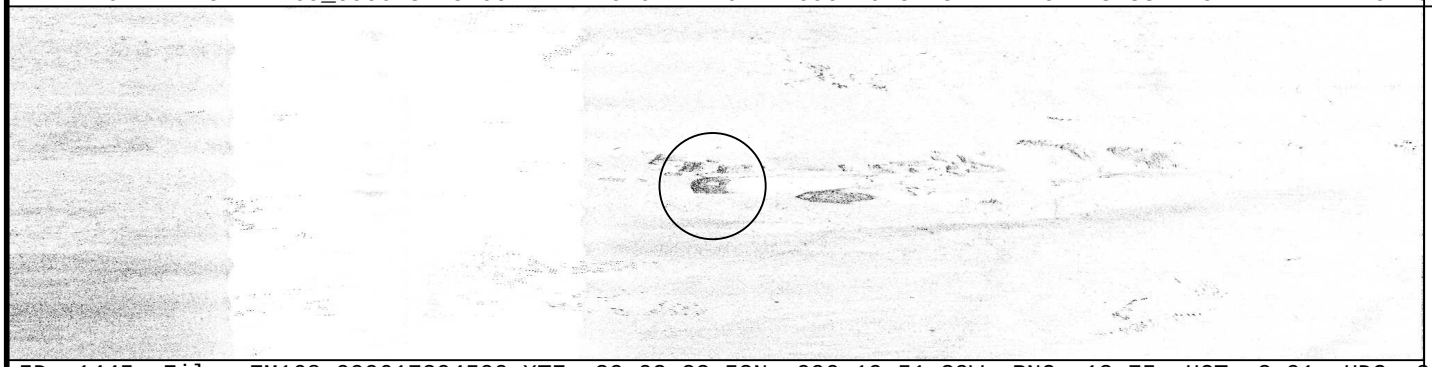


MB File: emmba09183.d08 Scale 1:1000



ID: 1464 File: EM169_090618175200.XTF 29 02 22.61N 090 19 51.57W RNG: 23.53 HGT: 2.42 HDG: 072

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.



ID: 1445 File: EM168_090617204500.XTF 29 02 22.53N 090 19 51.39W RNG: 13.75 HGT: 2.91 HDG: 251

CORRELATED SS CONTACTS:

Contact	Range/Height
1169180022	23.53/2.42
1168205316	13.75/2.91

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0304 Least Depth: 13(ft), 4.18(m) Lat: 29 03 12.49N Lon: 090 20 18.74W Ping: 21472 Beam: 65

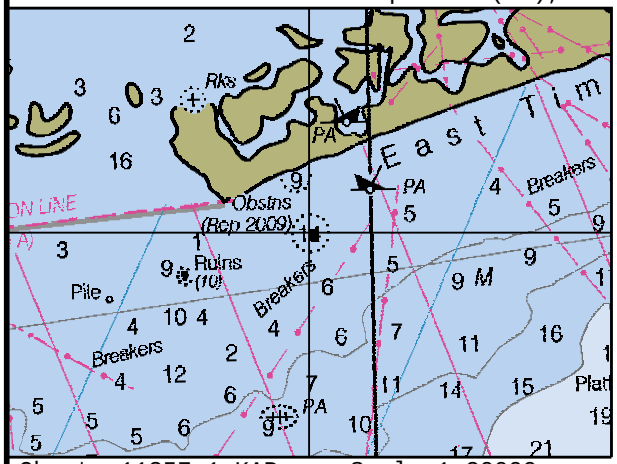


Chart: 11357_1.KAP Scale 1:20000

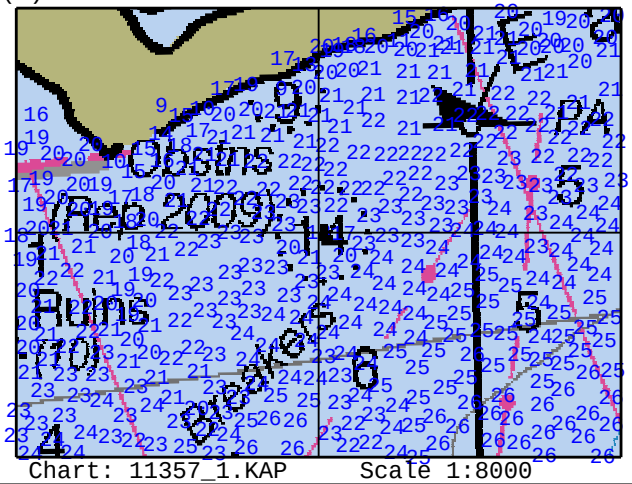
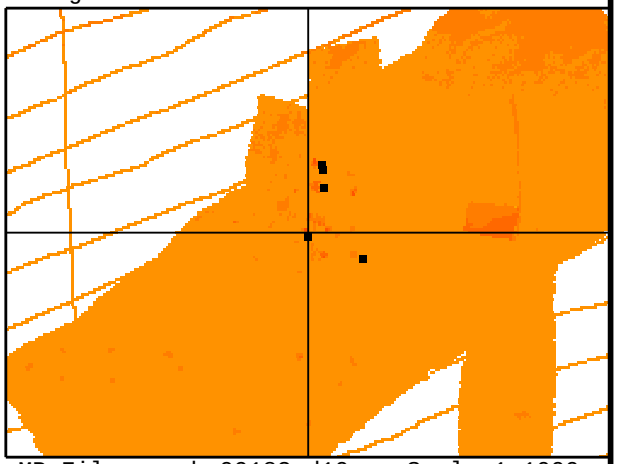


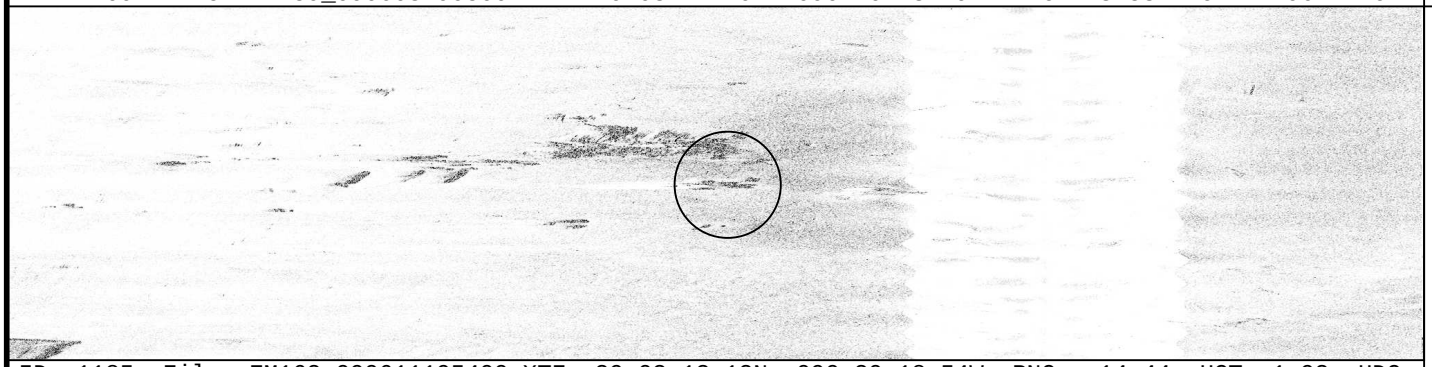
Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09183.d10 Scale 1:1000

ID: 1109 File: EM159_090608190500.XTF 29 03 12.49N 090 20 18.79W RNG: 13.53 HGT: 2.96 HDG: 241

COMMENT:
OBSTNS. Chart sounding. See Danger to Navigation Report #3.



ID: 1185 File: EM162_090611195400.XTF 29 03 13.12N 090 20 18.54W RNG: -14.44 HGT: 1.92 HDG: 239

CORRELATED SS CONTACTS:

Contact	Range/Height
1159194930	13.53/2.96
1162202043	-14.44/1.92
1159160319	-16.31/0.72
1162125903	-14.75/2.50
1162204733	-26.22/1.24

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0309 Least Depth: 16(ft), 4.86(m) Lat: 29 03 32.01N Lon: 090 19 33.49W Ping: 6131 Beam: 57

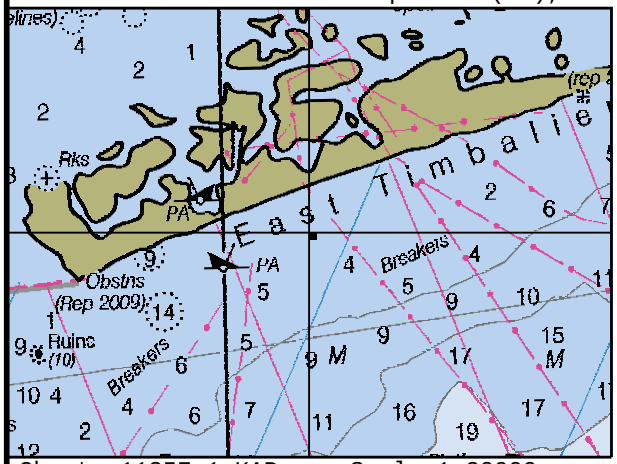


Chart: 11357_1.KAP Scale 1:20000

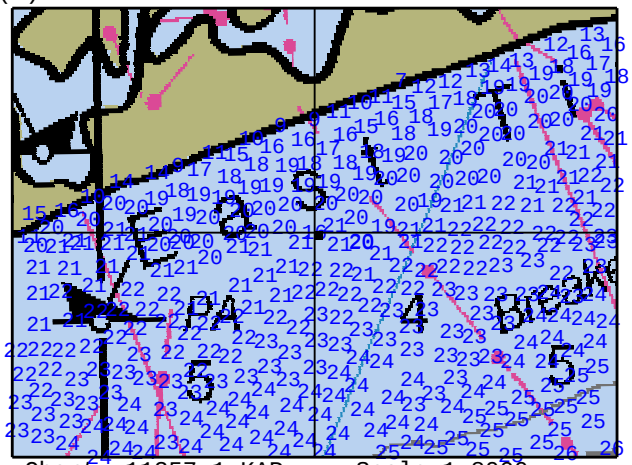
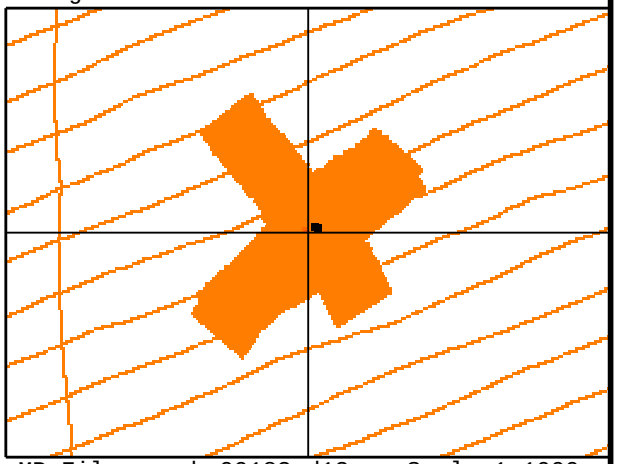


Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09183.d13 Scale 1:1000

ID: 1246 File: EM165_090614125700.XTF 29 03 32.13N 090 19 33.43W RNG: 9.72 HGT: 0.79 HDG: 070

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.

ID: 1229 File: EM164_090613124600.XTF 29 03 32.11N 090 19 33.39W RNG: -8.16 HGT: 0.68 HDG: 063

CORRELATED SS CONTACTS:

Contact	Range/Height
1165130813	9.72/0.79
1164125748	-8.16/0.68

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0312 Least Depth: 28(ft), 8.60(m) Lat: 29 03 14.60N Lon: 090 15 15.26W Ping: 23973 Beam: 62

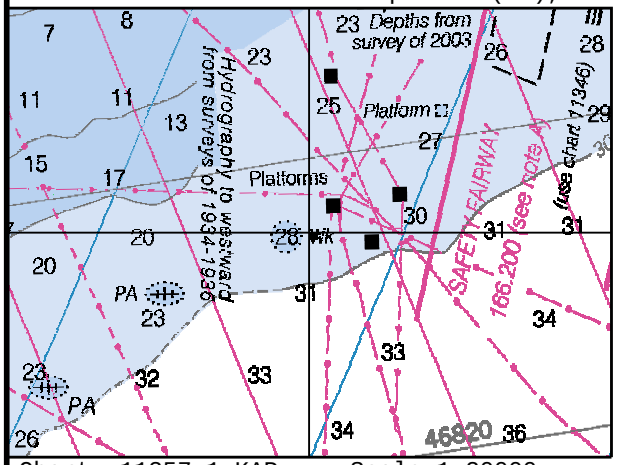


Chart: 11357_1.KAP Scale 1:20000

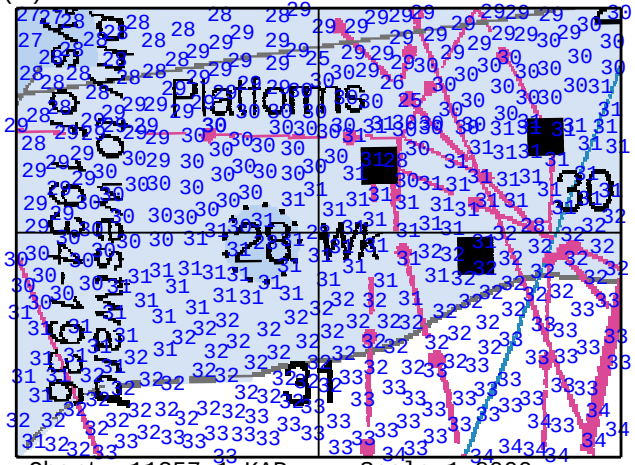
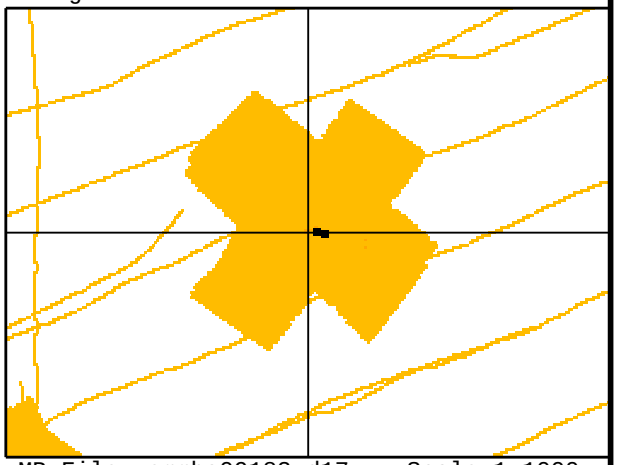
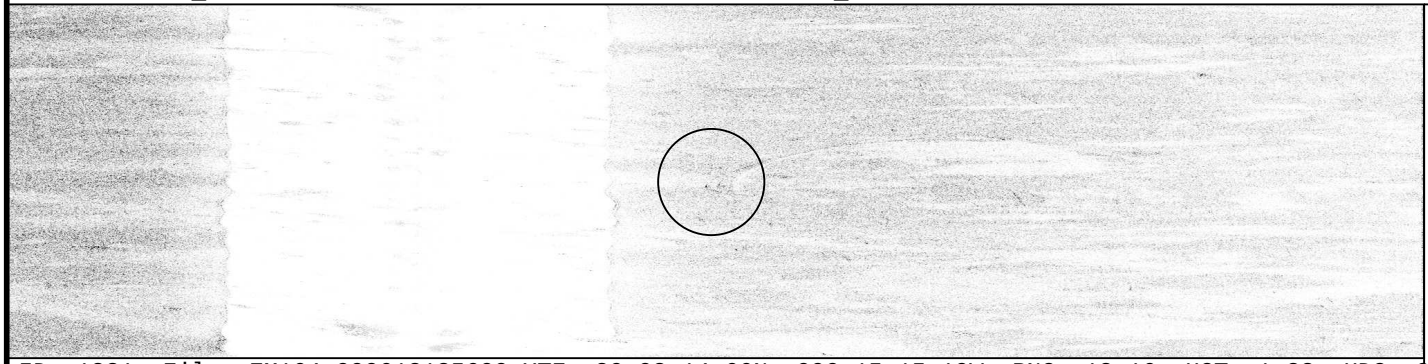


Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09183.d17 Scale 1:1000



ID: 1231 File: EM164_090613135600.XTF 29 03 14.66N 090 15 15.19W RNG: 13.16 HGT: 1.23 HDG: 071

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.

ID: 527 File: LM135_090515182000.XTF 29 03 14.62N 090 15 15.06W RNG: -29.25 HGT: 0.88 HDG: 074

CORRELATED SS CONTACTS:

Contact	Range/Height
1164135834	13.16/1.23
1135190505	-29.25/0.88

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0314 Least Depth: 33(ft), 10.04(m) Lat: 29 02 06.12N Lon: 090 15 08.26W Ping: 8506 Beam: 76

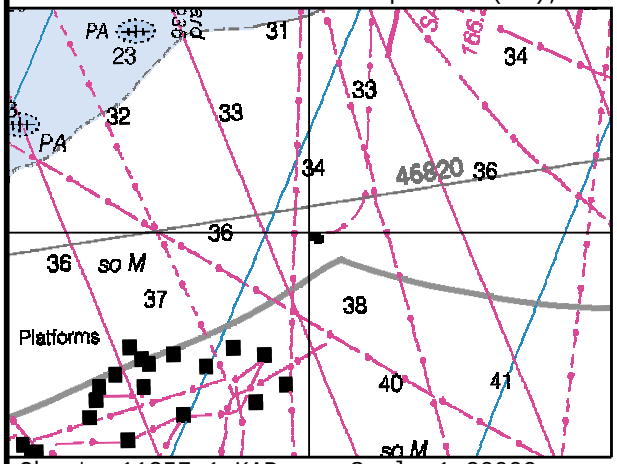


Chart: 11357_1.KAP Scale 1:20000

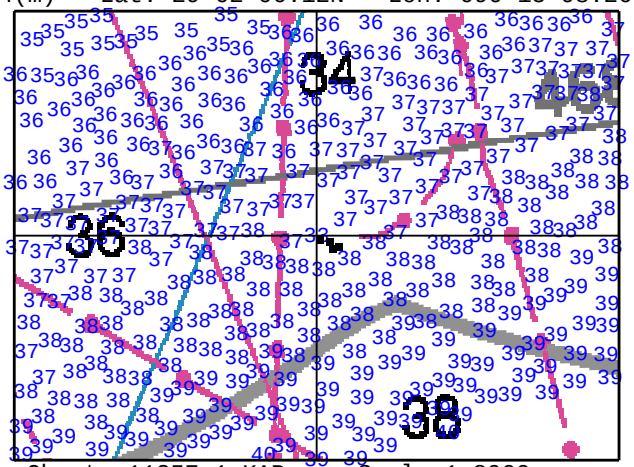
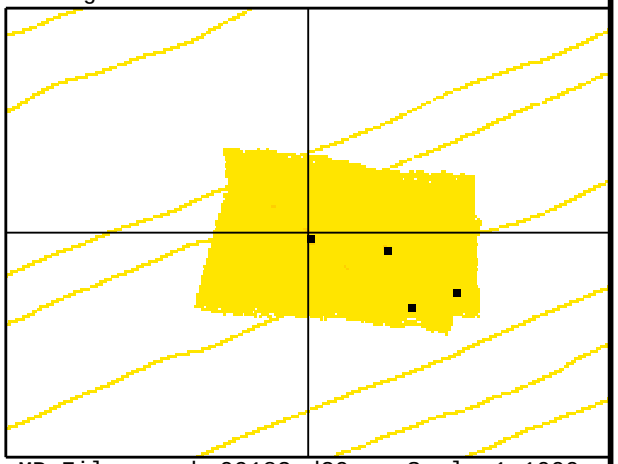
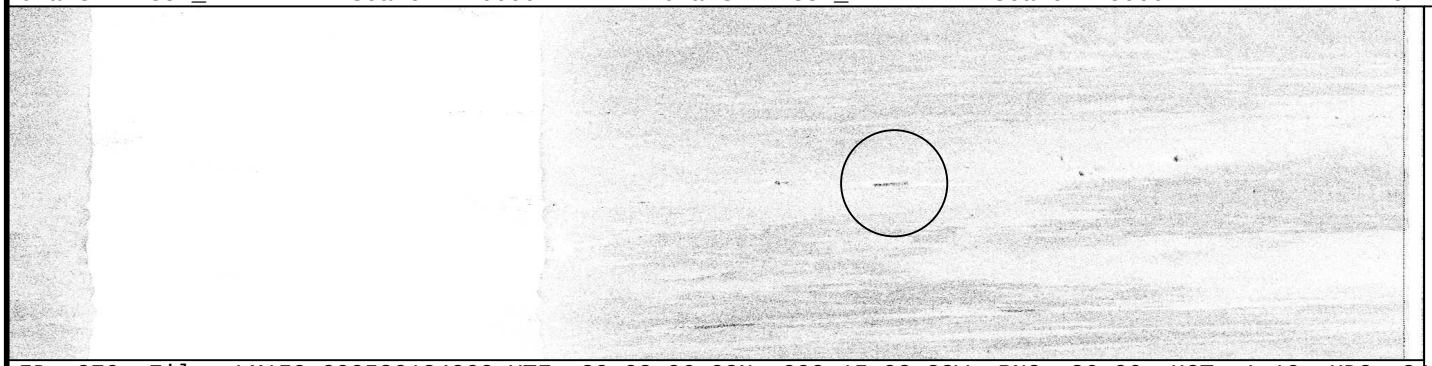


Chart: 11357_1.KAP Scale 1:8000

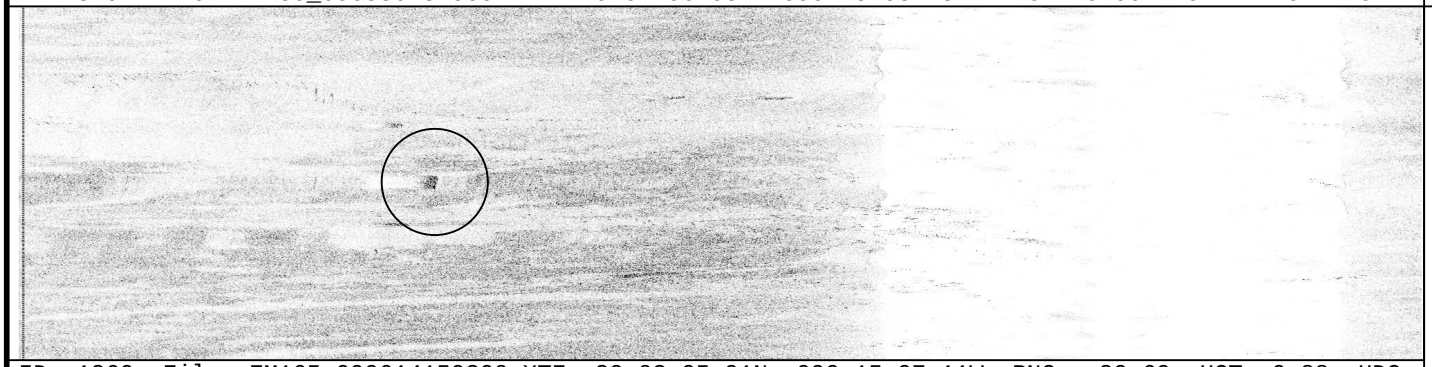


MB File: emmba09183.d20 Scale 1:1000



ID: 879 File: LM150_090530184000.XTF 29 02 06.08N 090 15 08.28W RNG: 26.06 HGT: 1.10 HDG: 244

COMMENT:
OBSTNS. Chart sounding, danger circle with blue tint, and label OBSTNS.



ID: 1260 File: EM165_090614150300.XTF 29 02 05.91N 090 15 07.11W RNG: -30.69 HGT: 0.88 HDG: 248

CORRELATED SS CONTACTS:

Contact	Range/Height
1150192649	26.06/1.10
1165155549	-30.69/0.88
1150151623	-30.75/0.07
1150192638	-21.91/0.05

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0319 Least Depth: 28(ft), 8.60(m) Lat: 29 04 00.09N Lon: 090 13 08.86W Ping: 5353 Beam: 25

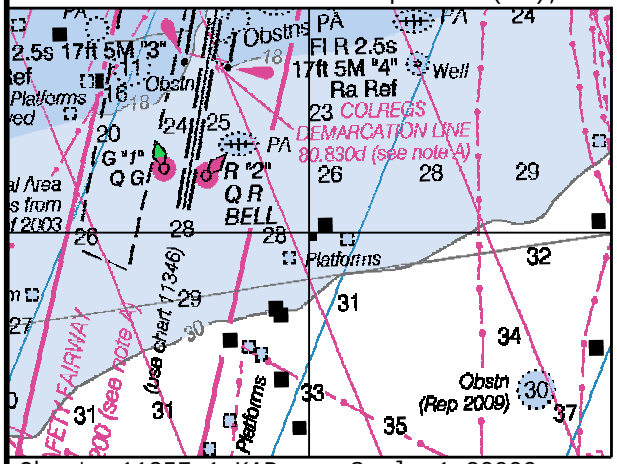


Chart: 11357_1.KAP Scale 1:20000

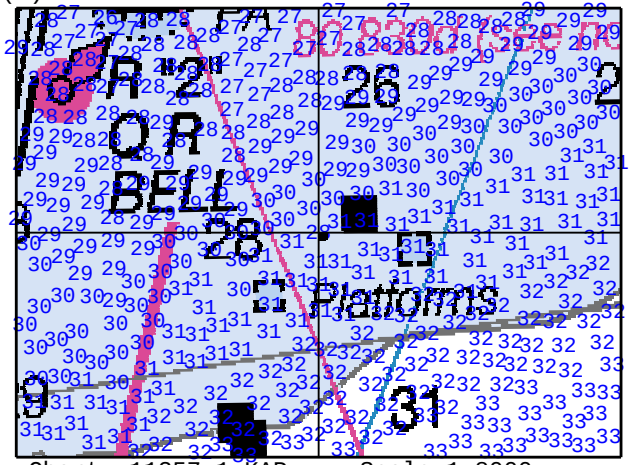
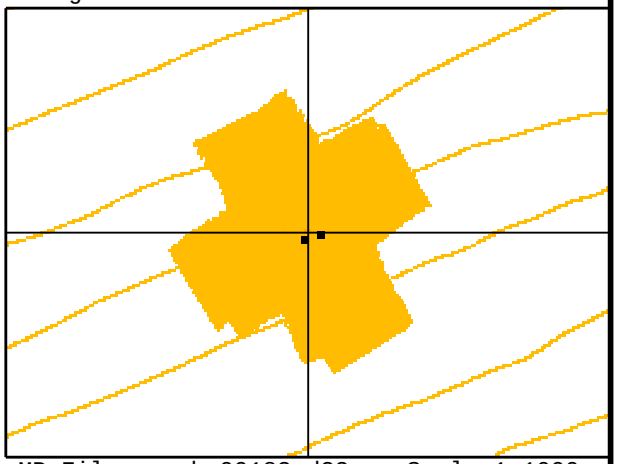
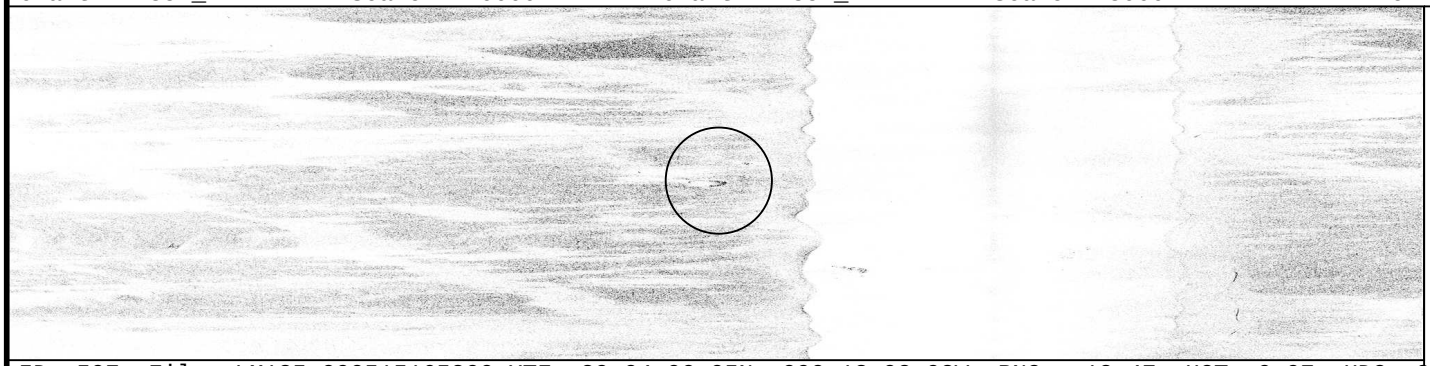


Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09183.d23 Scale 1:1000



ID: 507 File: LM135_090515165200.XTF 29 04 00.05N 090 13 08.98W RNG: -12.47 HGT: 0.97 HDG: 246

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.

ID: 63 File: LM093_090403154200.XTF 29 04 00.11N 090 13 08.72W RNG: -33.25 HGT: 0.69 HDG: 071

CORRELATED SS CONTACTS:

Contact	Range/Height
1135171554	-12.47/0.97
1093163513	-33.25/0.69

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0324 Least Depth: 29(ft), 8.84(m) Lat: 29 04 24.12N Lon: 090 11 05.83W Ping: 4538 Beam: 18

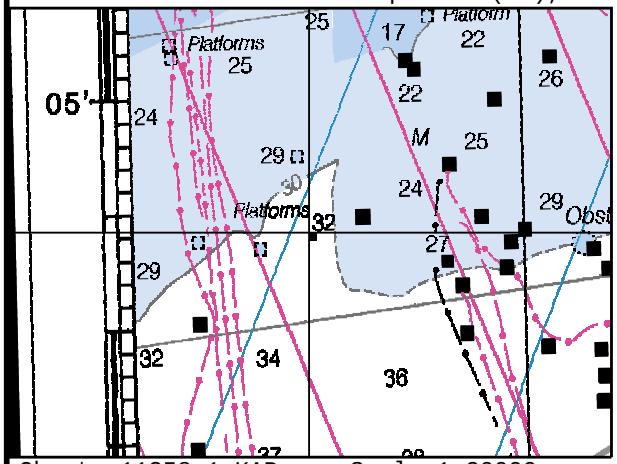


Chart: 11358_1.KAP Scale 1:20000

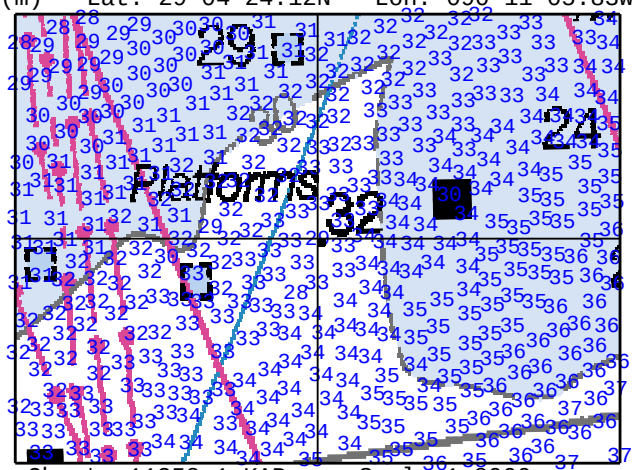
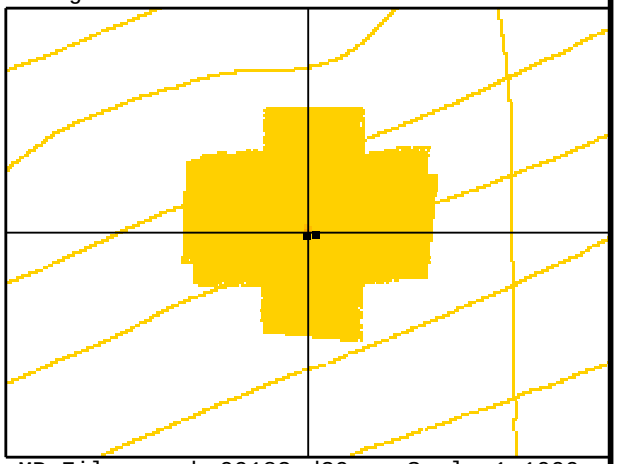


Chart: 11358_1.KAP Scale 1:8000



MB File: emmba09183.d30 Scale 1:1000

ID: 353 File: LM132_090512141100.XTF 29 04 24.13N 090 11 05.77W RNG: -15.56 HGT: 1.27 HDG: 069

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.

ID: 316 File: LM131_090511173400.XTF 29 04 24.13N 090 11 05.91W RNG: -30.00 HGT: 1.31 HDG: 252

CORRELATED SS CONTACTS:

Contact	Range/Height
1132151855	-15.56/1.27
1131175130	-30.00/1.31

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0325 Least Depth: 20(ft), 6.32(m) Lat: 29 05 12.20N Lon: 090 11 45.56W Ping: 19200 Beam: 71

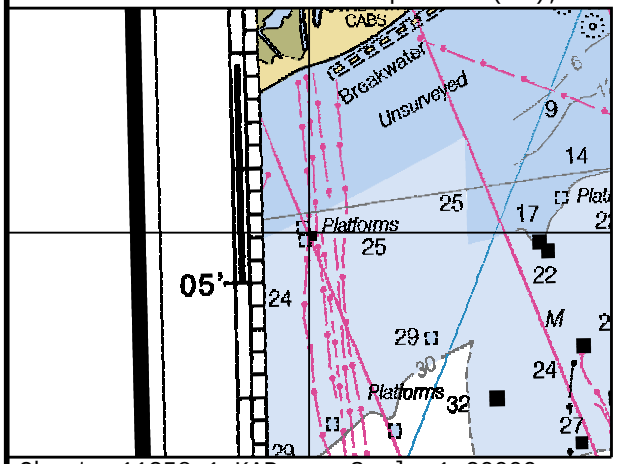


Chart: 11358_1.KAP Scale 1:20000

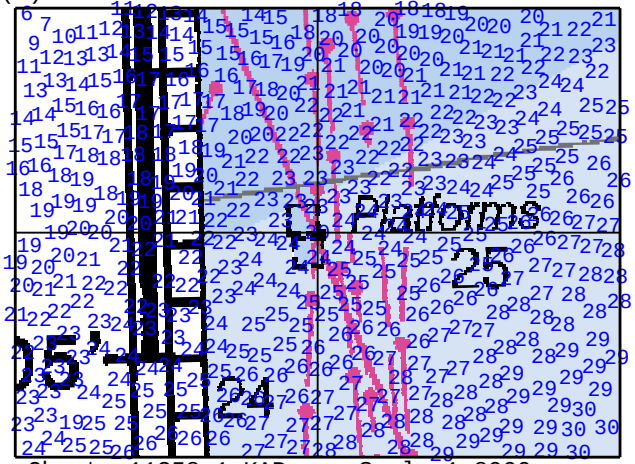
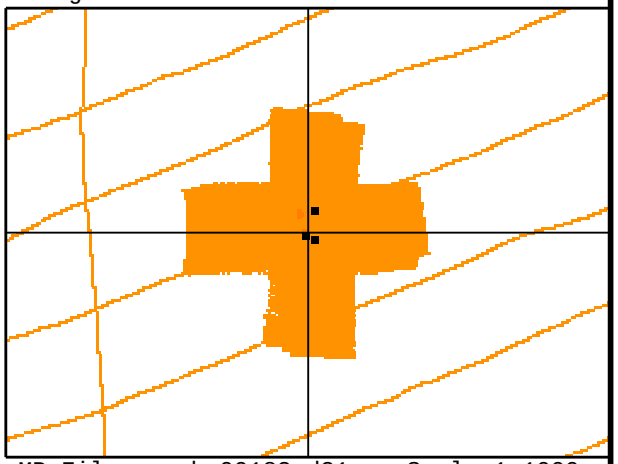


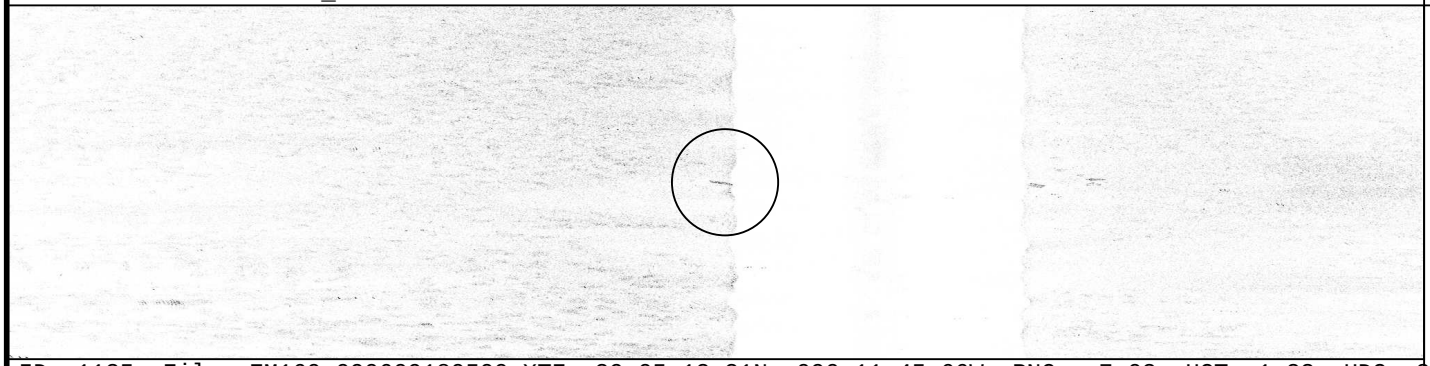
Chart: 11358_1.KAP Scale 1:8000



MB File: emmba09183.d31 Scale 1:1000

ID: 1146 File: EM161_090610141600.XTF 29 05 12.16N 090 11 45.51W RNG: -35.34 HGT: 0.62 HDG: 069

COMMENT:
OBSTNS. Chart sounding, danger circle with blue tint, and label OBSTNS.



ID: 1135 File: EM160_090609180500.XTF 29 05 12.21N 090 11 45.66W RNG: -7.03 HGT: 1.23 HDG: 252

CORRELATED SS CONTACTS:

Contact	Range/Height
1161142824	-35.34/0.62
1160182226	-7.03/1.23
1160144325	37.38/0.90

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0326 Least Depth: 19(ft), 5.98(m) Lat: 29 04 53.11N Lon: 090 12 16.15W Ping: 13925 Beam: 24

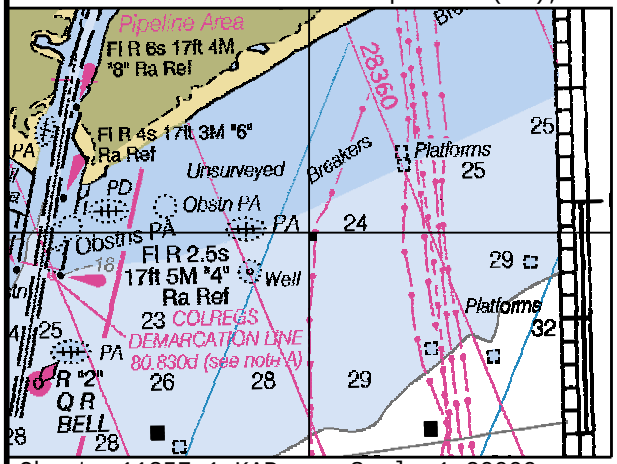


Chart: 11357_1.KAP Scale 1:20000

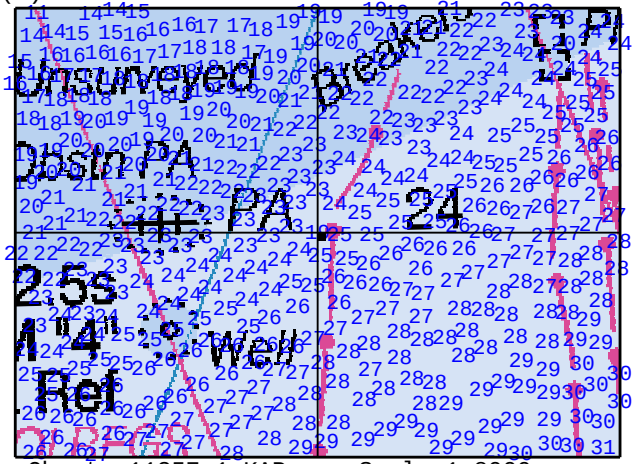
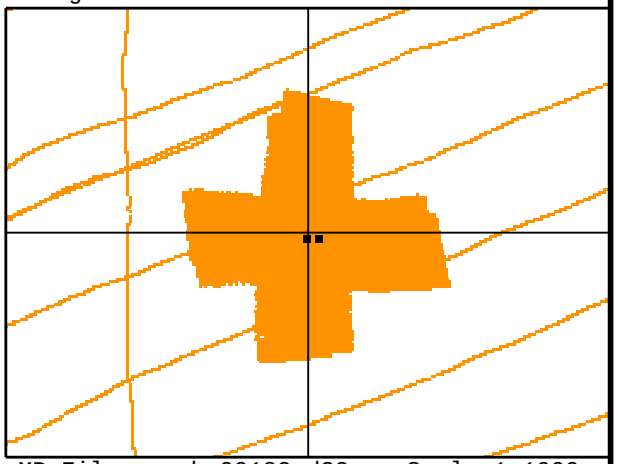
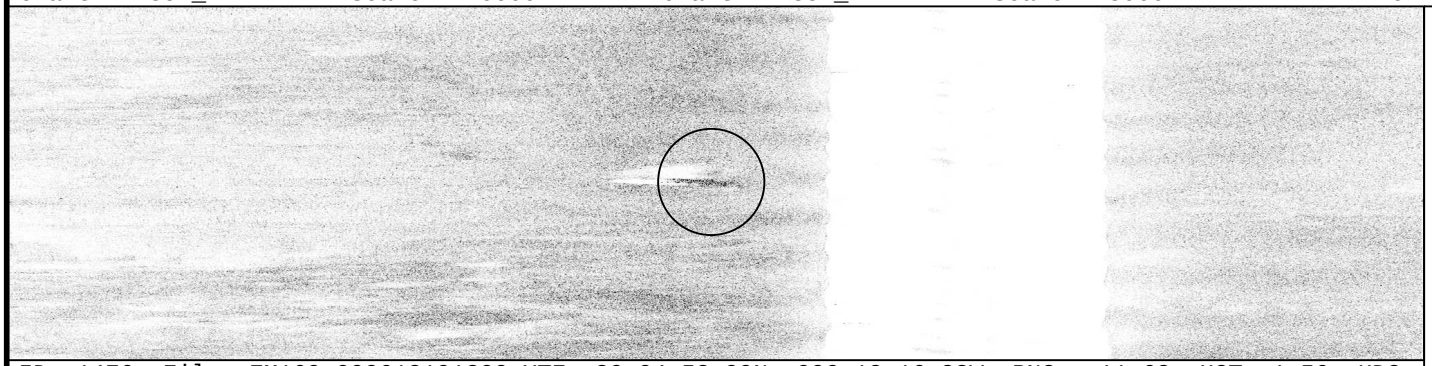


Chart: 11357_1.KAP Scale 1:8000

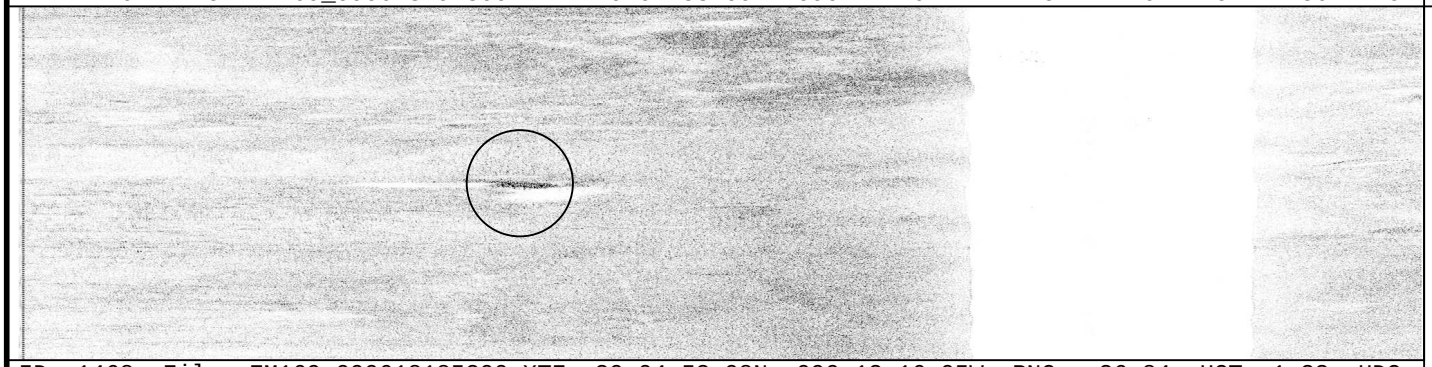


MB File: emmba09183.d32 Scale 1:1000



ID: 1476 File: EM169_090618191300.XTF 29 04 53.09N 090 12 16.22W RNG: -11.62 HGT: 1.56 HDG: 249

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.



ID: 1468 File: EM169_090618185200.XTF 29 04 53.08N 090 12 16.05W RNG: -26.84 HGT: 1.33 HDG: 071

CORRELATED SS CONTACTS:

Contact	Range/Height
1169193332	-11.62/1.56
1169185503	-26.84/1.33

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0329 Least Depth: 5(ft), 1.48(m) Lat: 29 05 14.33N Lon: 090 14 30.22W Ping: 14291 Beam: 40

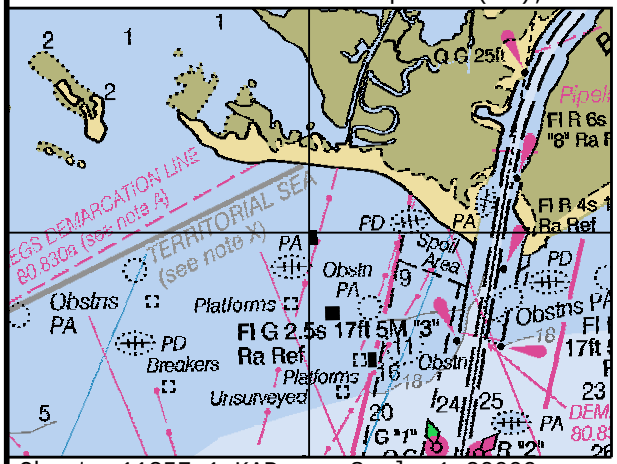


Chart: 11357_1.KAP Scale 1:20000

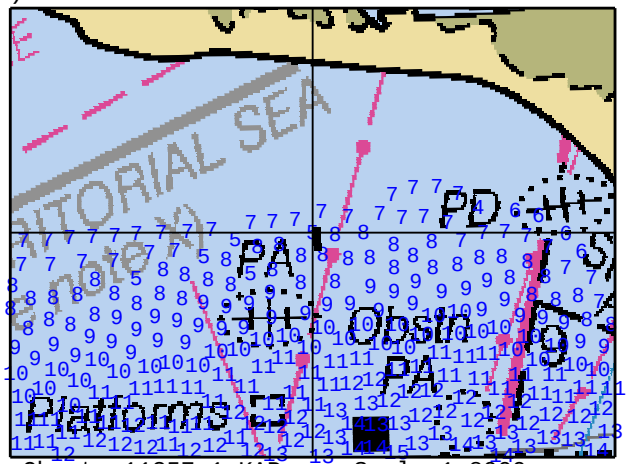
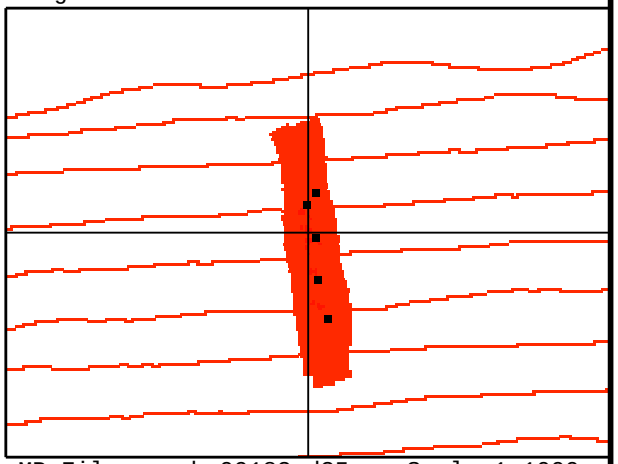
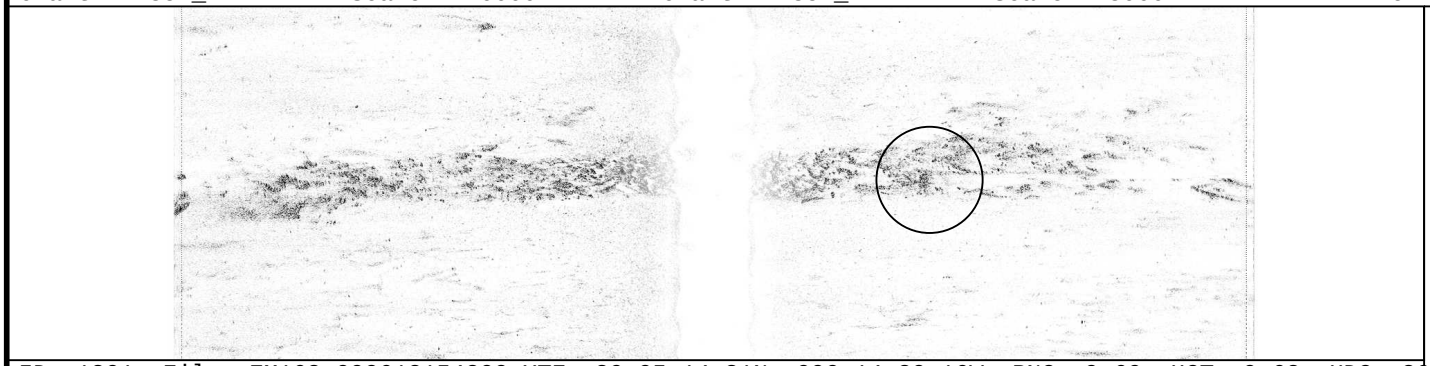


Chart: 11357_1.KAP Scale 1:8000

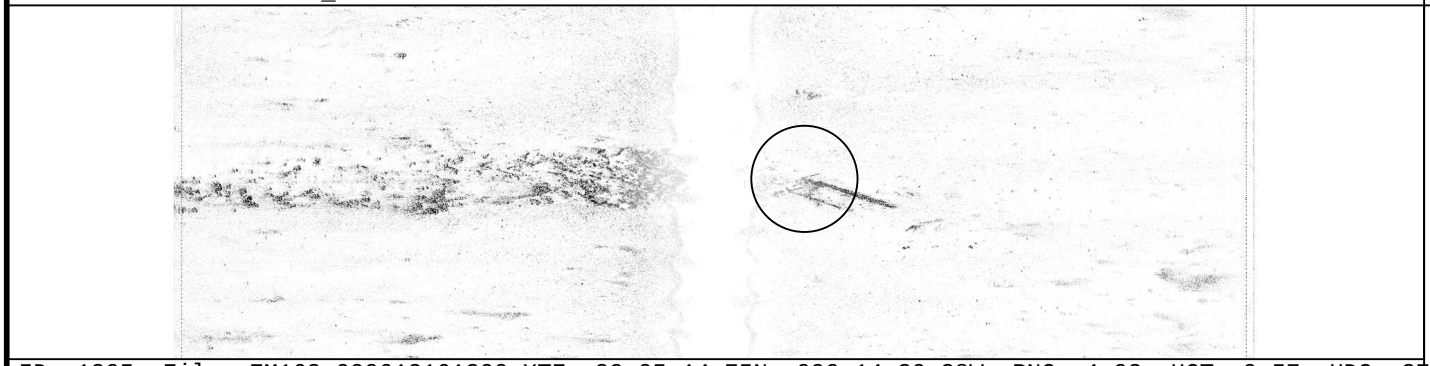


MB File: emmba09183.d35 Scale 1:1000



ID: 1201 File: EM163_090612154800.XTF 29 05 14.31N 090 14 30.16W RNG: 9.69 HGT: 0.62 HDG: 269

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.



ID: 1205 File: EM163_090612161300.XTF 29 05 14.75N 090 14 30.28W RNG: 4.03 HGT: 0.57 HDG: 272

CORRELATED SS CONTACTS:

Contact	Range/Height
1163155259	9.69/0.62
1163161729	4.03/0.57
1163163301	-14.34/0.29
1163164045	-10.41/0.35
1163160922	-15.53/0.51

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0332 Least Depth: 5(ft), 1.64(m) Lat: 29 05 09.74N Lon: 090 14 52.29W Ping: 18187 Beam: 95

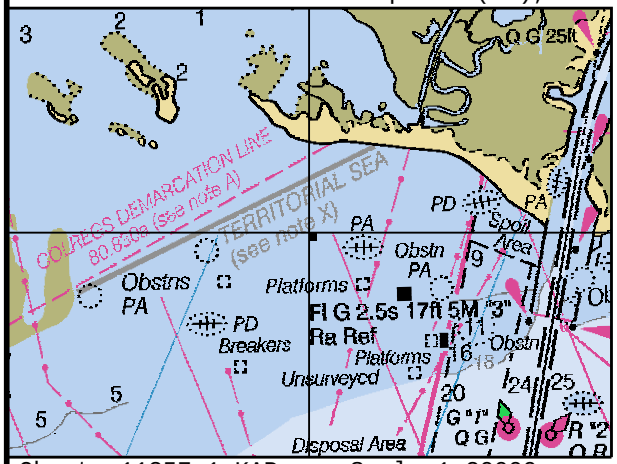


Chart: 11357_1.KAP Scale 1:20000

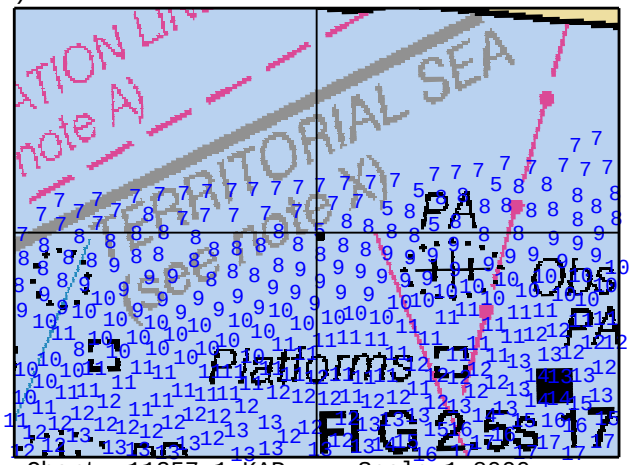
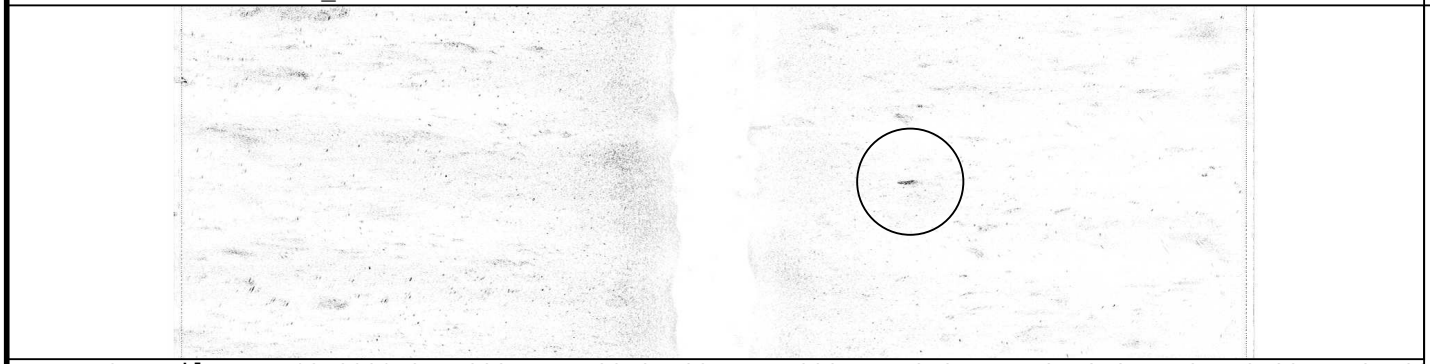


Chart: 11357_1.KAP Scale 1:8000

MB File: emmba09183.d37 Scale 1:1000

ID: 1199 File: EM163_090612152200.XTF 29 05 09.72N 090 14 52.34W RNG: 10.25 HGT: 0.79 HDG: 268

COMMENT:
PILE. No Chart. See Feature 333. See Danger to Navigation Report #3.



ID: 1191 File: EM163_090612144000.XTF 29 05 09.77N 090 14 52.25W RNG: 8.81 HGT: 0.82 HDG: 087

CORRELATED SS CONTACTS:

Contact	Range/Height
1163152911	10.25/0.79
1163144825	8.81/0.82

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0333 Least Depth: 5(ft), 1.54(m) Lat: 29 05 09.98N Lon: 090 14 51.91W Ping: 22191 Beam: 8

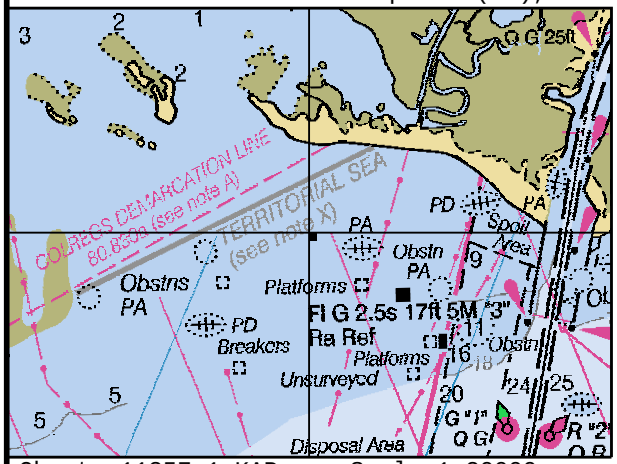


Chart: 11357_1.KAP Scale 1:20000

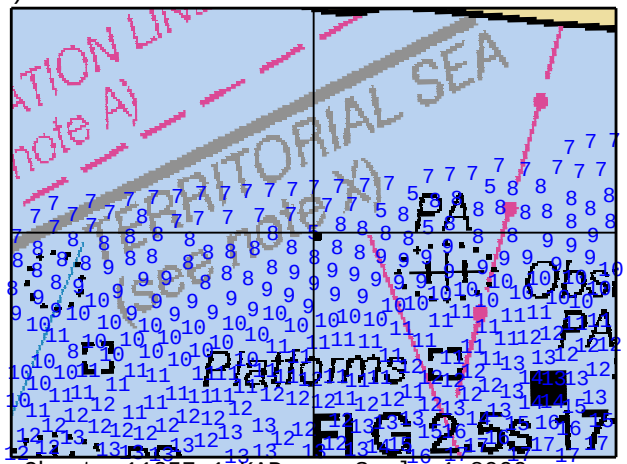
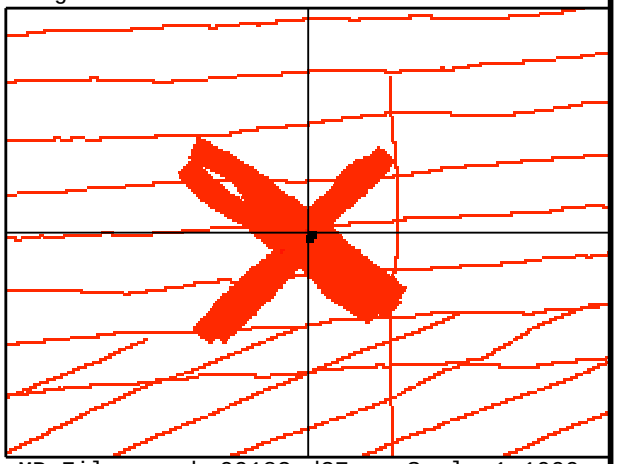
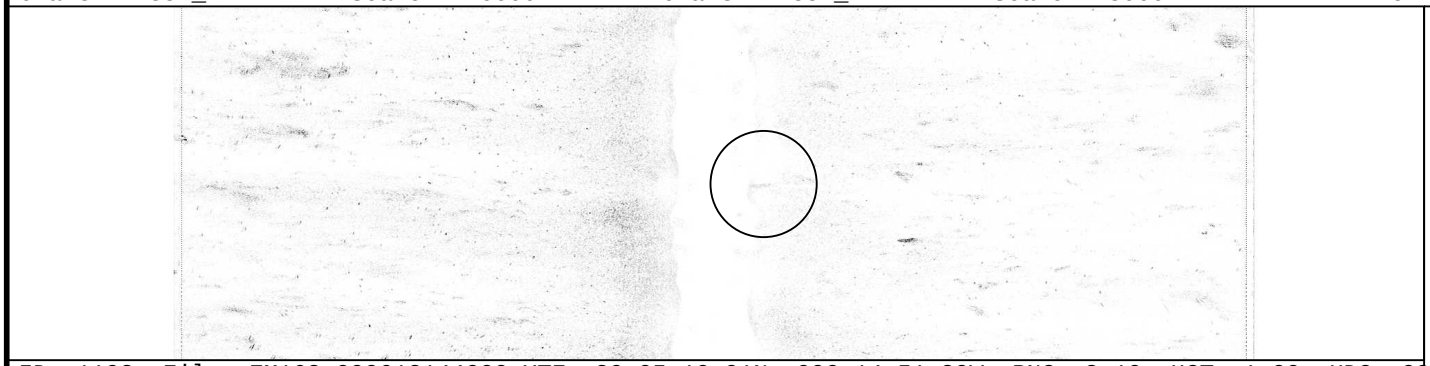


Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09183.d37 Scale 1:1000



ID: 1192 File: EM163_090612144000.XTF 29 05 10.01N 090 14 51.89W RNG: 2.19 HGT: 1.00 HDG: 096

COMMENT:
PILE. Chart sounding. See Danger to Navigation Report #3.

ID: 1198 File: EM163_090612152200.XTF 29 05 09.96N 090 14 51.94W RNG: 17.41 HGT: 0.40 HDG: 266

CORRELATED SS CONTACTS:

Contact	Range/Height
1163144828	2.19/1.00
1163152908	17.41/0.40

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0334 Least Depth: 8(ft), 2.46(m) Lat: 29 04 58.23N Lon: 090 15 21.62W Ping: 7830 Beam: 81

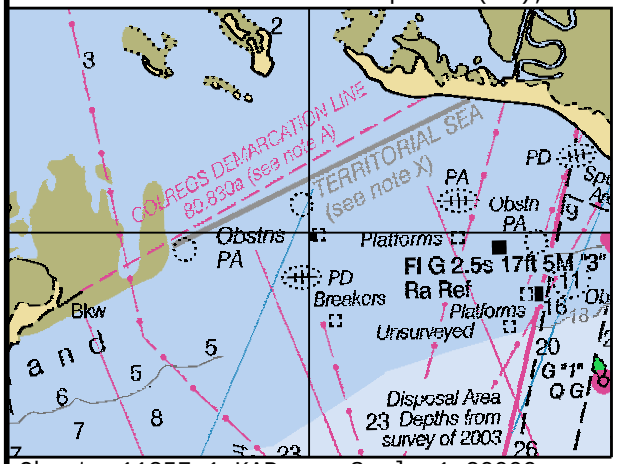


Chart: 11357_1.KAP Scale 1:20000

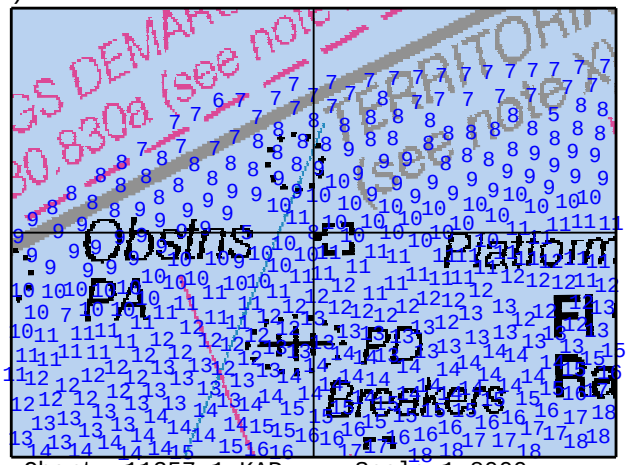
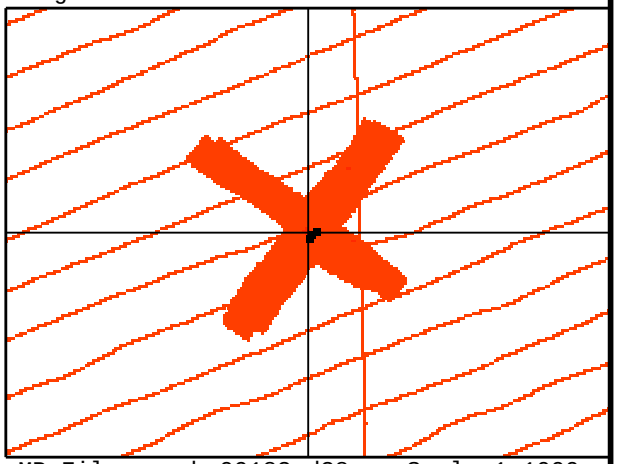
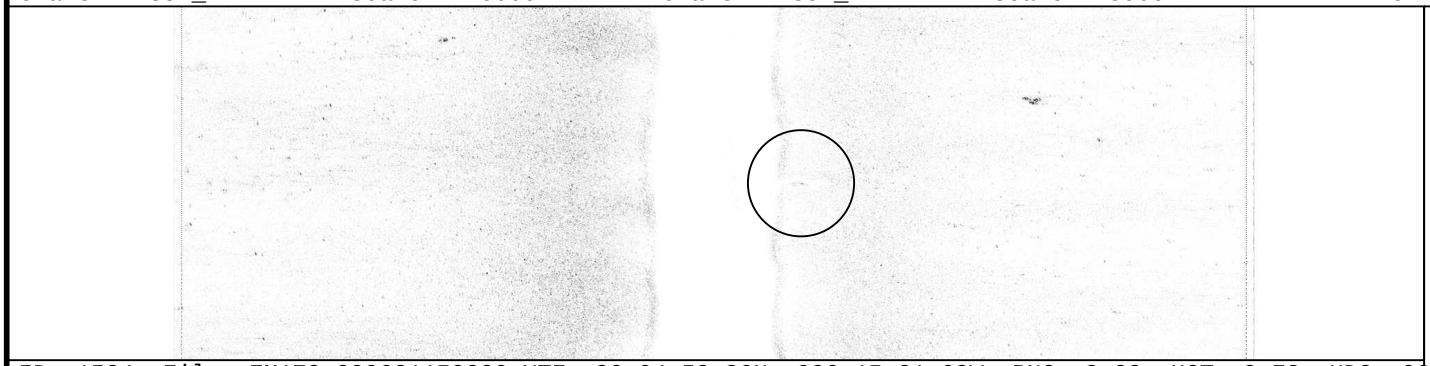


Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09183.d38 Scale 1:1000



ID: 1524 File: EM172_090621150800.XTF 29 04 58.26N 090 15 21.62W RNG: 3.88 HGT: 0.72 HDG: 066

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.

ID: 1291 File: EM166_090615134500.XTF 29 04 58.20N 090 15 21.65W RNG: 12.47 HGT: 0.61 HDG: 248

CORRELATED SS CONTACTS:

Contact	Range/Height
1172152540	3.88/0.72
1166135038	12.47/0.61
1167132243	-17.31/0.54

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0337 Least Depth: 7(ft), 2.14(m) Lat: 29 04 50.25N Lon: 090 15 52.06W Ping: 17011 Beam: 94

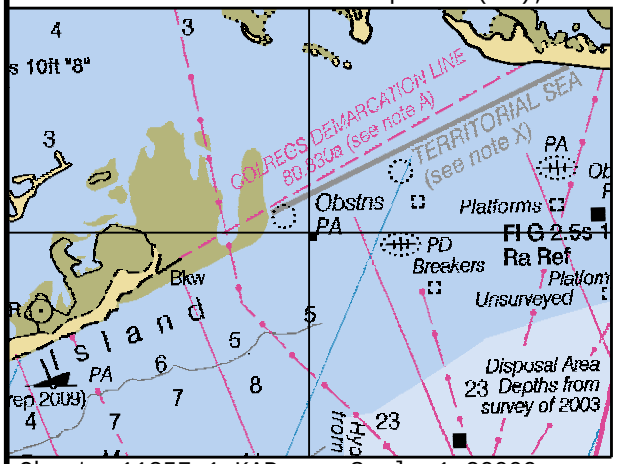


Chart: 11357_1.KAP Scale 1:20000

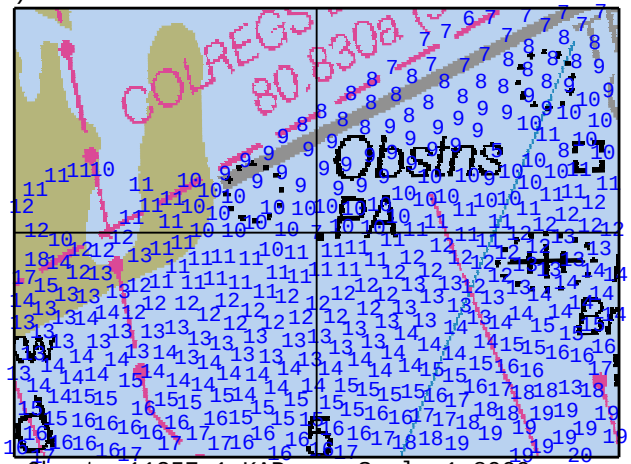
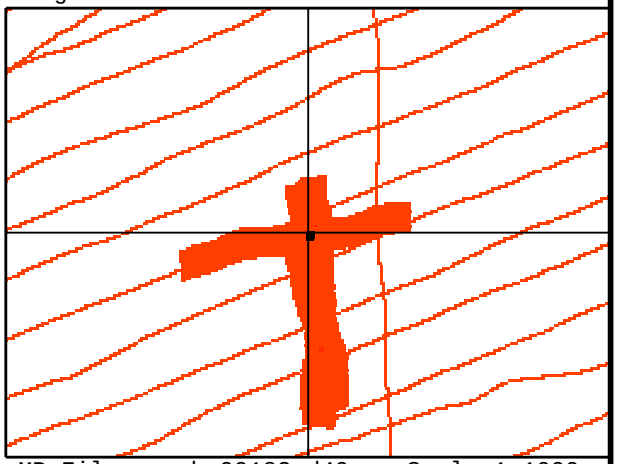
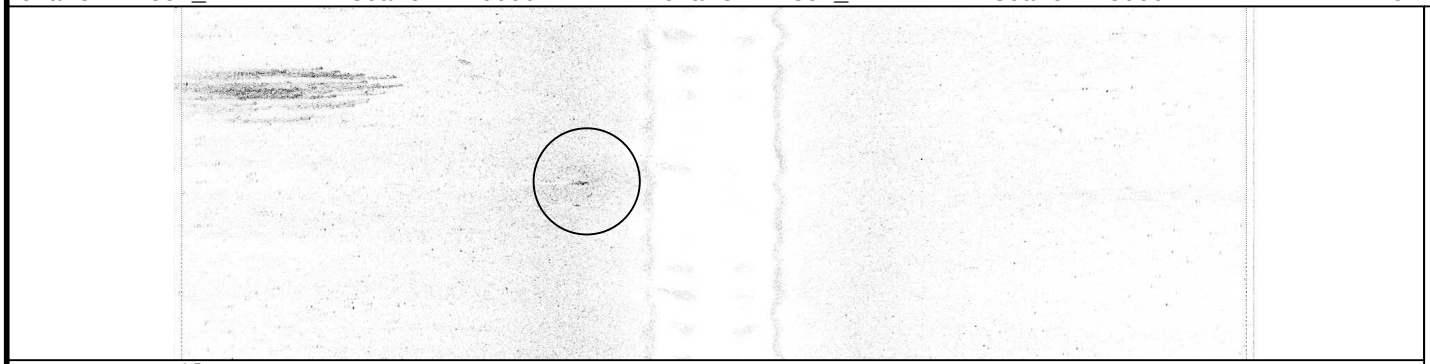


Chart: 11357_1.KAP Scale 1:8000

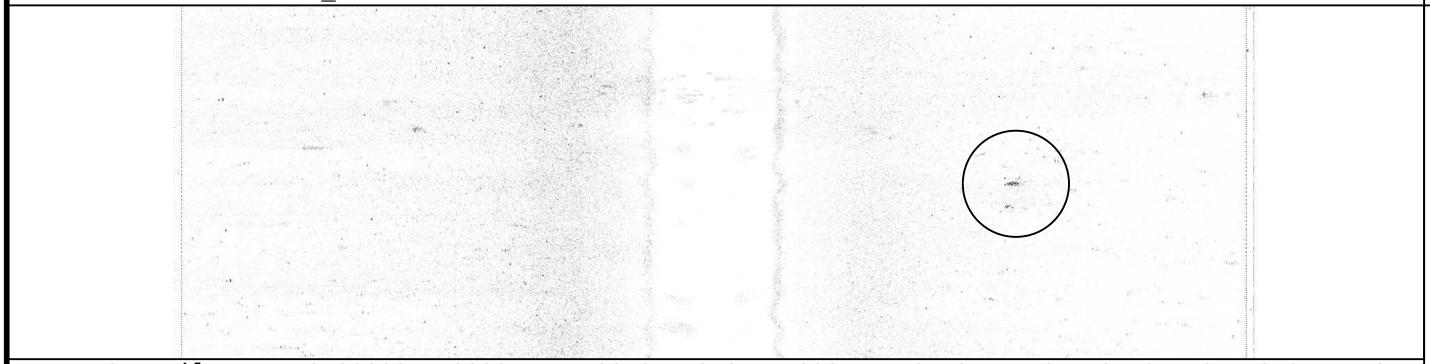


MB File: emmba09183.d40 Scale 1:1000



ID: 1523 File: EM172_090621145500.XTF 29 04 50.26N 090 15 52.08W RNG: -5.81 HGT: 0.82 HDG: 248

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.



ID: 1525 File: EM172_090621152900.XTF 29 04 50.24N 090 15 52.10W RNG: 13.59 HGT: 0.94 HDG: 250

CORRELATED SS CONTACTS:

Contact	Range/Height
1172150341	-5.81/0.82
1172153805	13.59/0.94

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0339 Least Depth: 11(ft), 3.49(m) Lat: 29 03 02.19N Lon: 090 20 58.28W Ping: 17771 Beam: 61

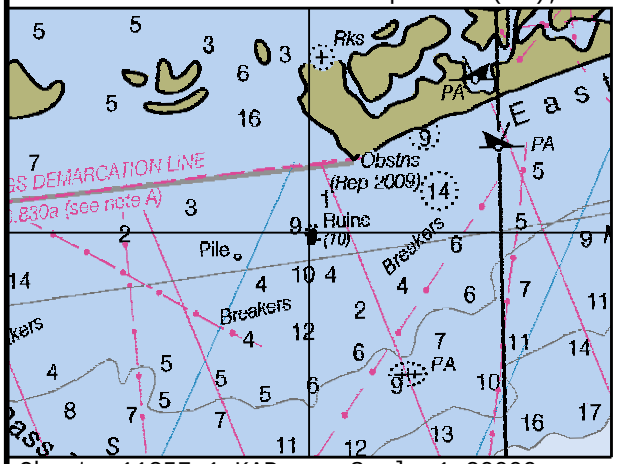


Chart: 11357_1.KAP Scale 1:20000

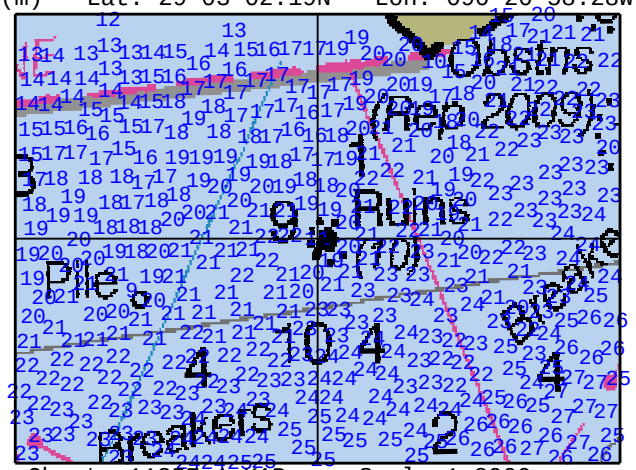
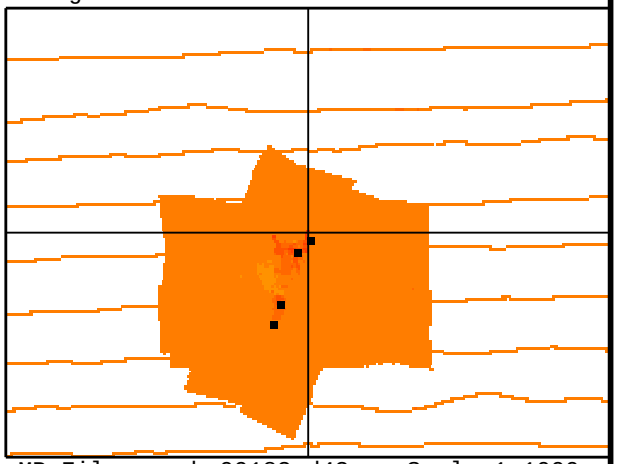


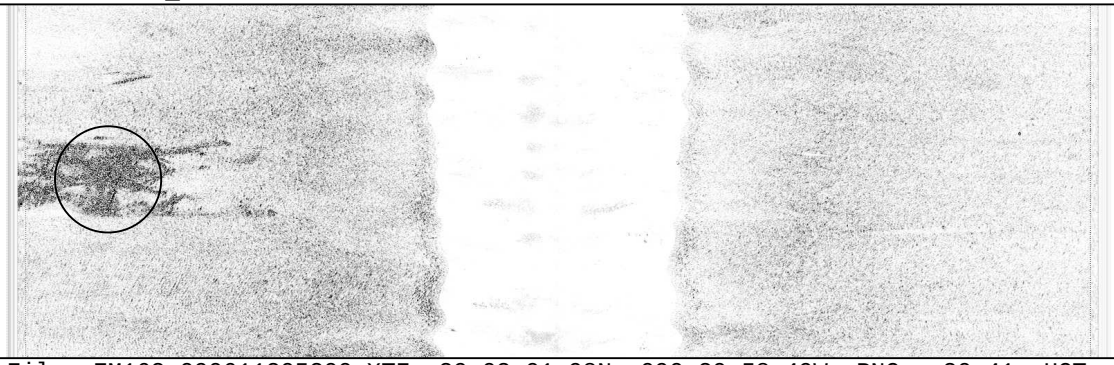
Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09183.d43 Scale 1:1000

ID: 1159 File: EM162_090611121400.XTF 29 03 02.14N 090 20 58.30W RNG: -9.91 HGT: 3.16 HDG: 081

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.



ID: 1188 File: EM162_090611205200.XTF 29 03 01.98N 090 20 58.49W RNG: -20.41 HGT: 0.51 HDG: 271

CORRELATED SS CONTACTS:

Contact	Range/Height
1162125038	-9.91/3.16
1162205429	-20.41/0.51
1160205746	4.88/2.45
1161205927	15.12/0.82

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0340 Least Depth: 9(ft), 2.96(m) Lat: 29 02 57.25N Lon: 090 21 21.08W Ping: 5164 Beam: 67

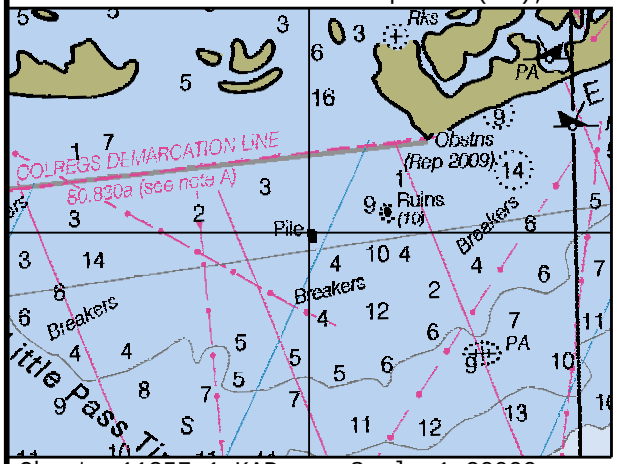


Chart: 11357_1.KAP Scale 1:20000

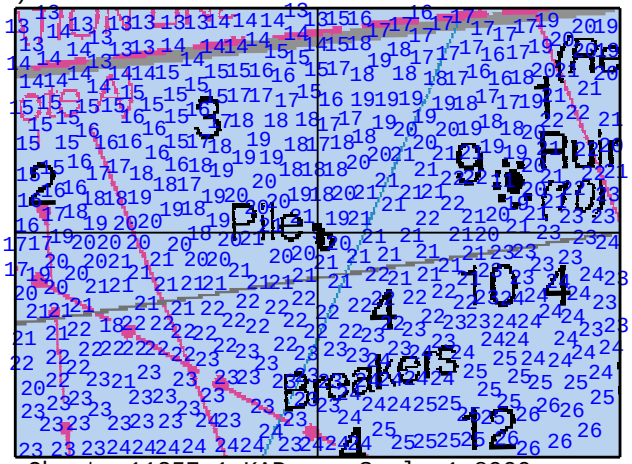
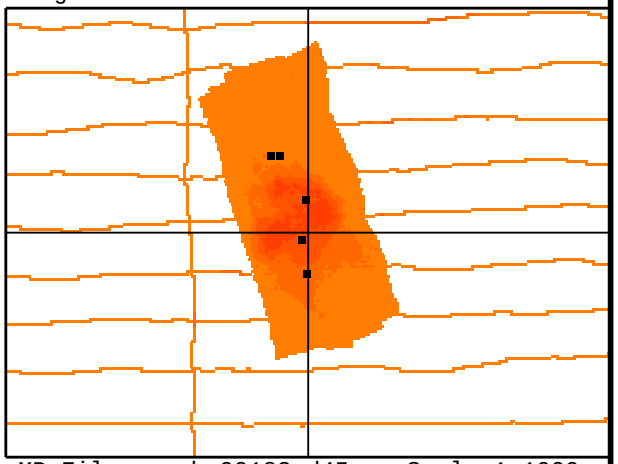
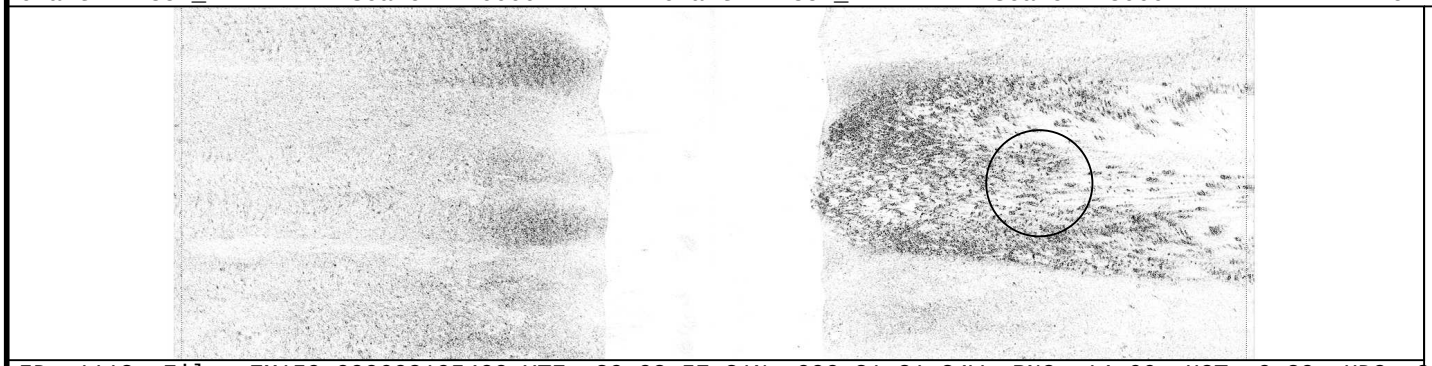


Chart: 11357_1.KAP Scale 1:8000

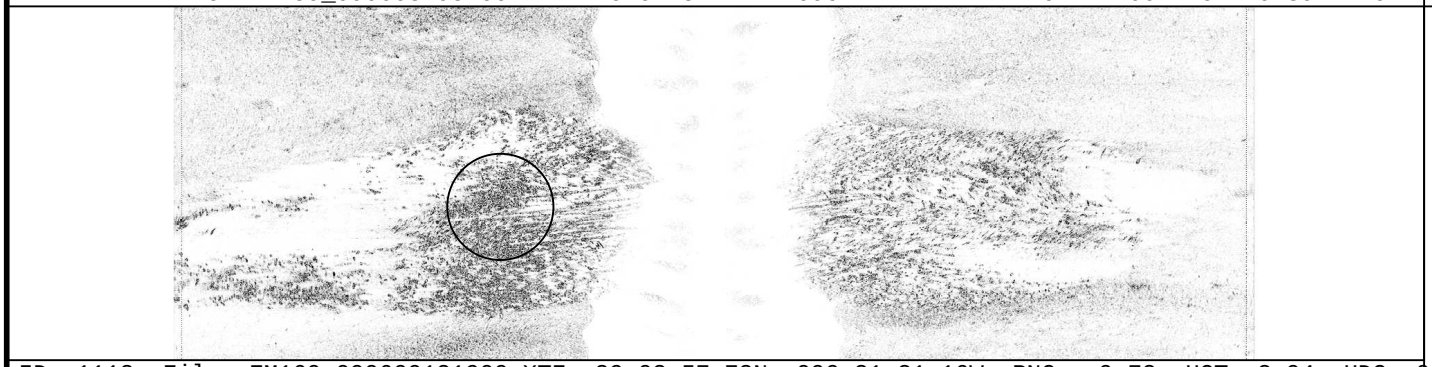


MB File: emmba09183.d45 Scale 1:1000



ID: 1112 File: EM159_090608195400.XTF 29 02 57.21N 090 21 21.24W RNG: 14.66 HGT: 0.39 HDG: 266

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.



ID: 1113 File: EM160_090609121900.XTF 29 02 57.73N 090 21 21.16W RNG: -9.72 HGT: 2.94 HDG: 096

CORRELATED SS CONTACTS:

Contact	Range/Height
1159200016	14.66/0.39
1160125300	-9.72/2.94
1160130131	19.56/0.32
1160132805	-10.16/0.40
1160194059	-10.38/1.05

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0342 Least Depth: 18(ft), 5.65(m) Lat: 29 02 48.14N Lon: 090 21 46.46W Ping: 10063 Beam: 89

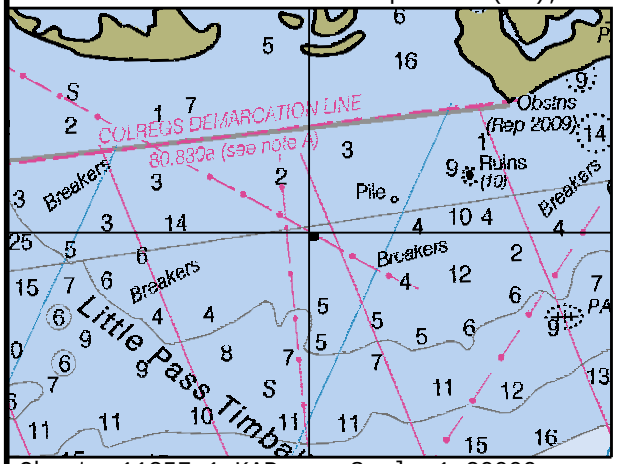


Chart: 11357_1.KAP Scale 1:20000

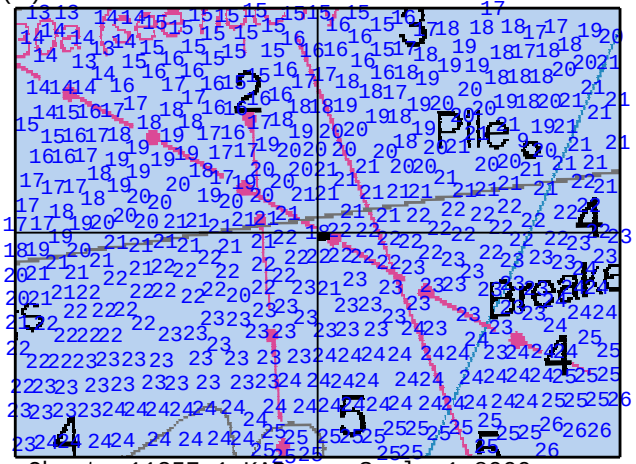
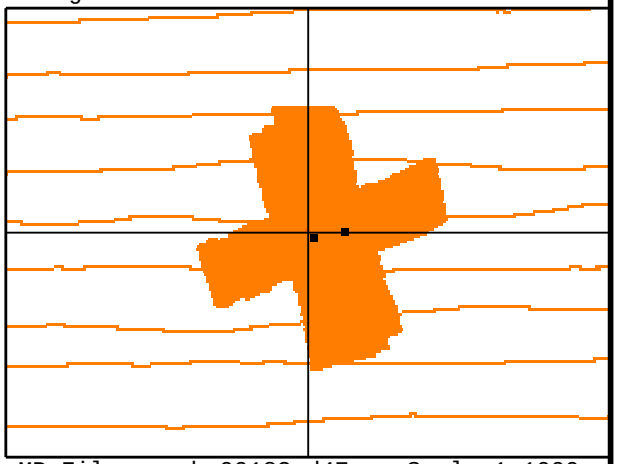


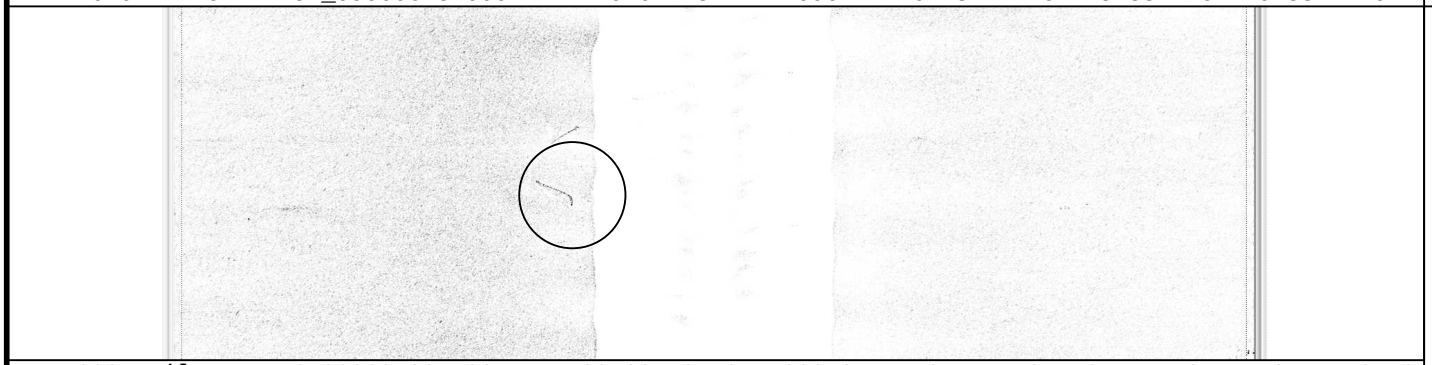
Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09183.d47 Scale 1:1000

ID: 1049 File: EM157_090606182000.XTF 29 02 48.12N 090 21 46.43W RNG: 15.38 HGT: 0.83 HDG: 270

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.



ID: 998 File: EM156_090605205500.XTF 29 02 48.19N 090 21 45.95W RNG: -6.47 HGT: 1.21 HDG: 273

CORRELATED SS CONTACTS:

Contact	Range/Height
1157182923	15.38/0.83
1156210127	-6.47/1.21

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0346 Least Depth: 29(ft), 8.83(m) Lat: 29 01 23.56N Lon: 090 18 34.73W Ping: 9492 Beam: 81

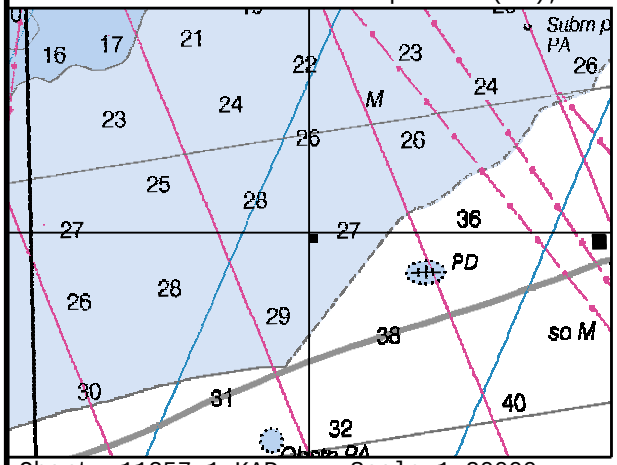


Chart: 11357_1.KAP Scale 1:20000

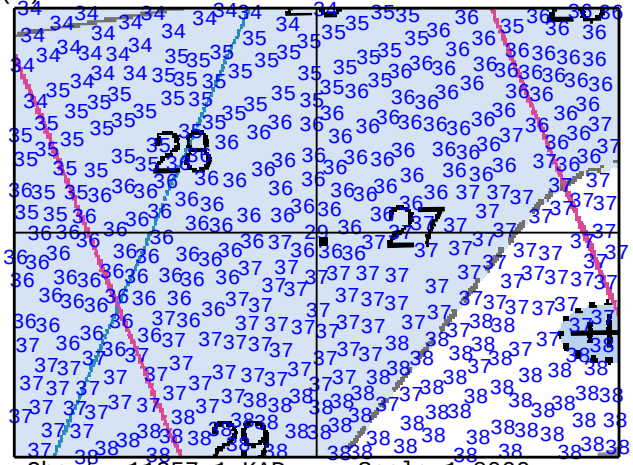
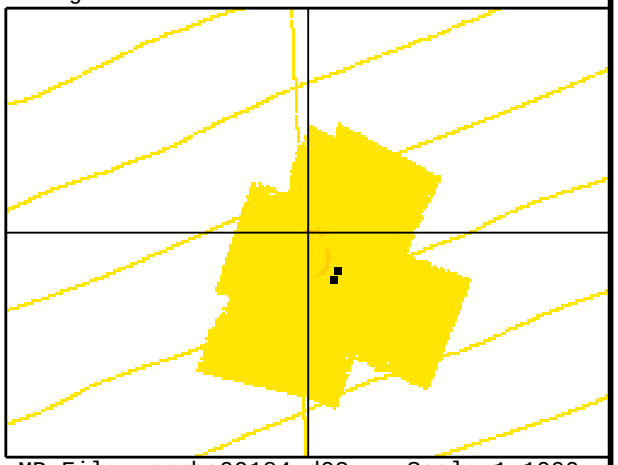


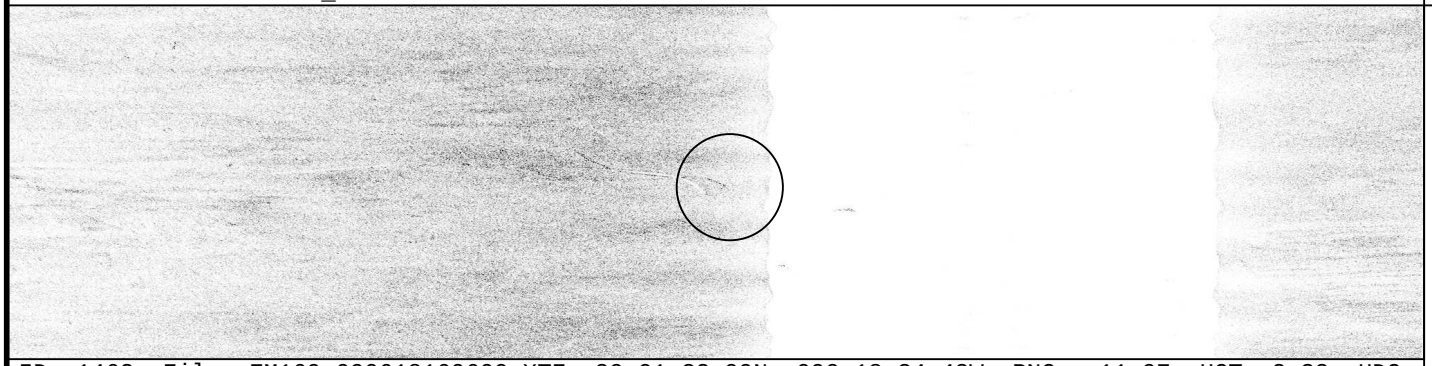
Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09184.d03 Scale 1:1000

ID: 1059 File: LM157_090606202200.XTF 29 01 23.11N 090 18 34.35W RNG: 30.56 HGT: 0.16 HDG: 067

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.



ID: 1462 File: EM169_090618160600.XTF 29 01 22.99N 090 18 34.42W RNG: -11.97 HGT: 2.32 HDG: 067

CORRELATED SS CONTACTS:

Contact	Range/Height
1157203121	30.56/0.16
1169161703	-11.97/2.32

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0354 Least Depth: 33(ft), 10.29(m) Lat: 29 01 26.60N Lon: 090 16 55.07W Ping: 9074 Beam: 41

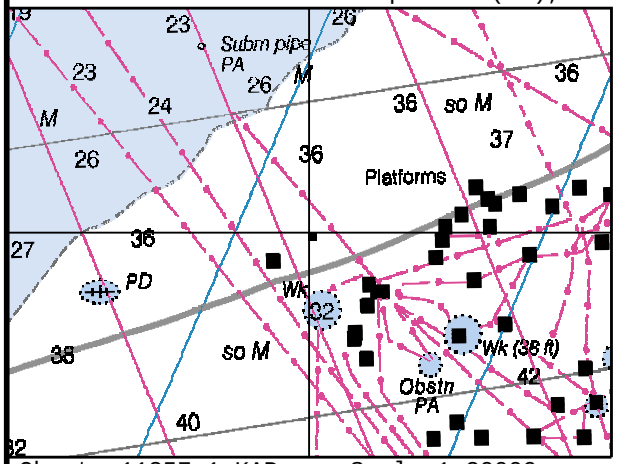


Chart: 11357_1.KAP Scale 1:20000

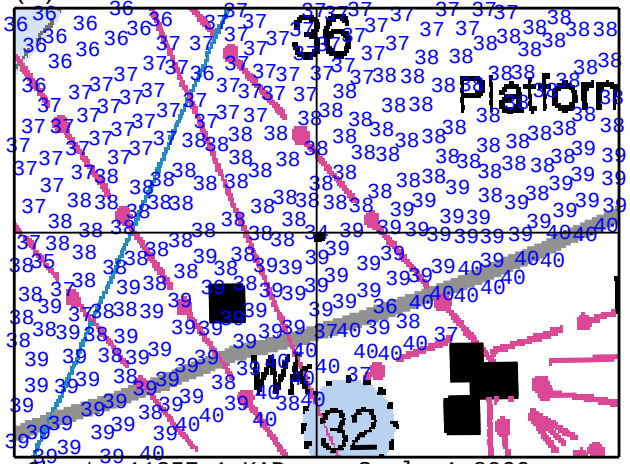
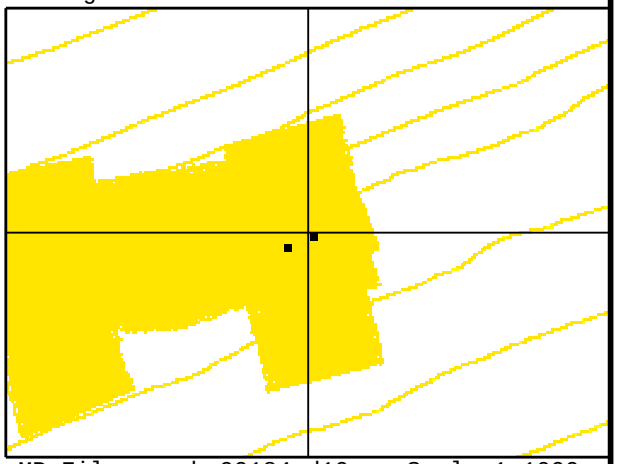


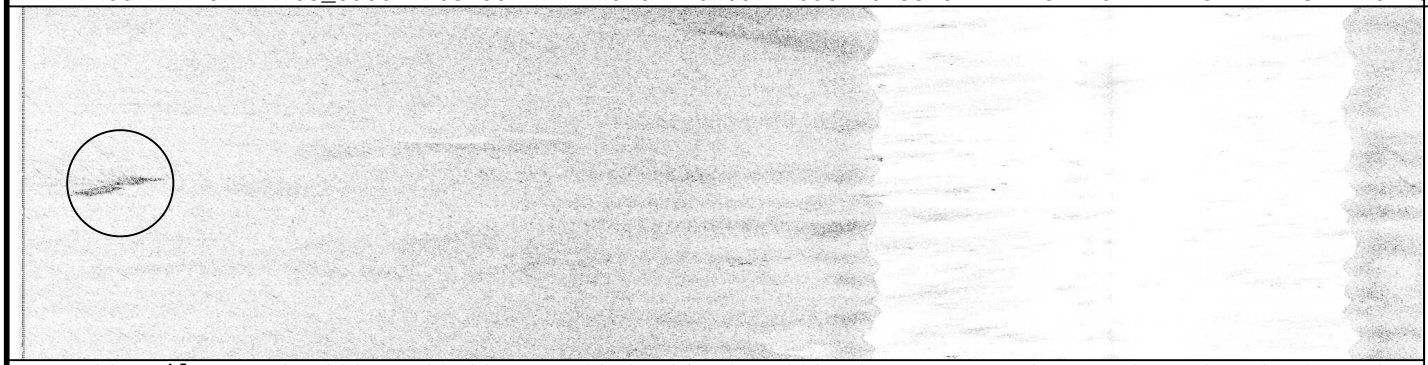
Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09184.d10 Scale 1:1000

ID: 1266 File: EM165_090614163700.XTF 29 01 26.60N 090 16 55.04W RNG: 26.44 HGT: 1.48 HDG: 074

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.



ID: 529 File: EM135_090515183500.XTF 29 01 26.46N 090 16 55.44W RNG: -44.91 HGT: 0.78 HDG: 258

CORRELATED SS CONTACTS:

Contact	Range/Height
1165165639	26.44/1.48
1135193152	-44.91/0.78

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0357 Least Depth: 24(ft), 7.42(m) Lat: 29 03 16.40N Lon: 090 17 24.89W Ping: 14632 Beam: 83

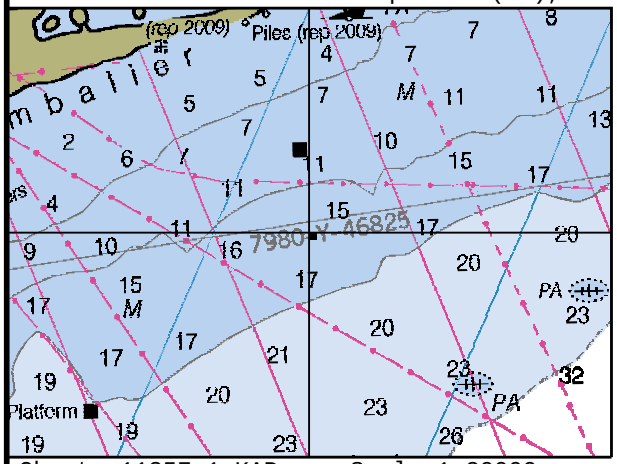


Chart: 11357_1.KAP Scale 1:20000

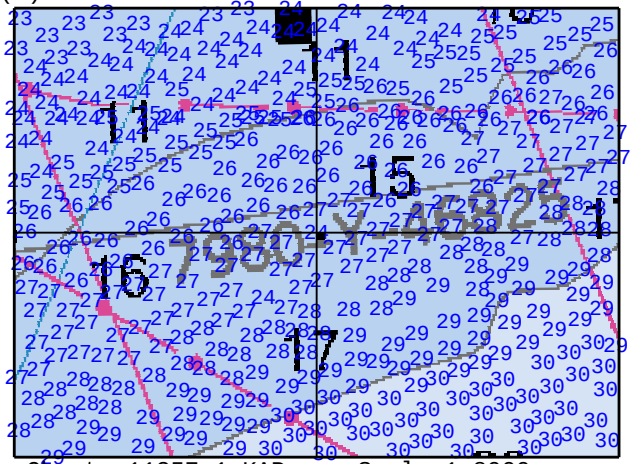
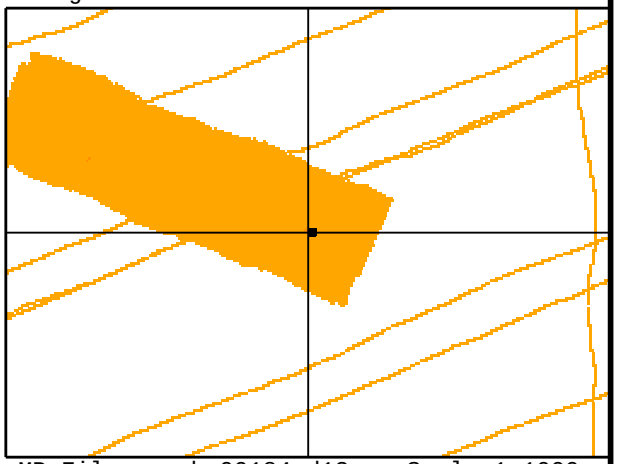
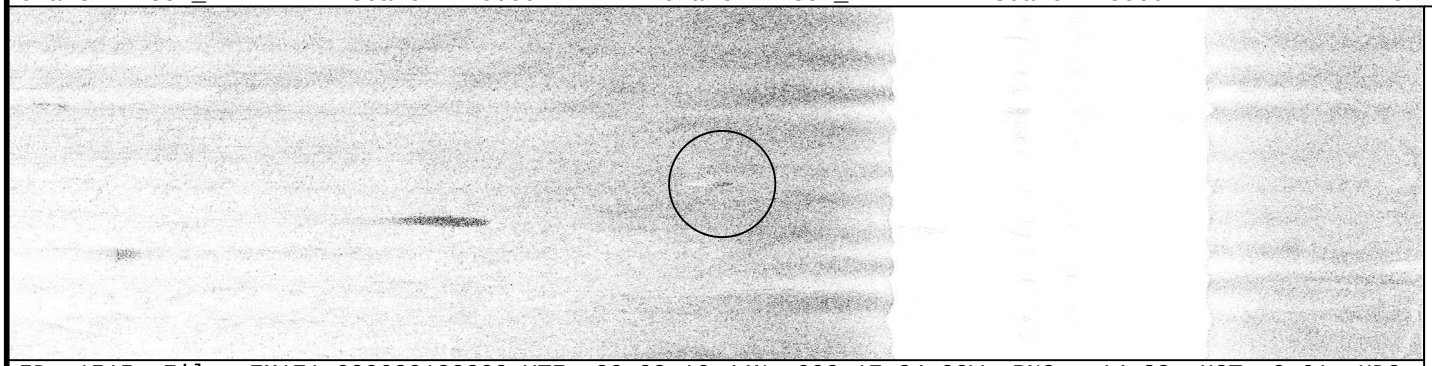


Chart: 11357_1.KAP Scale 1:8000

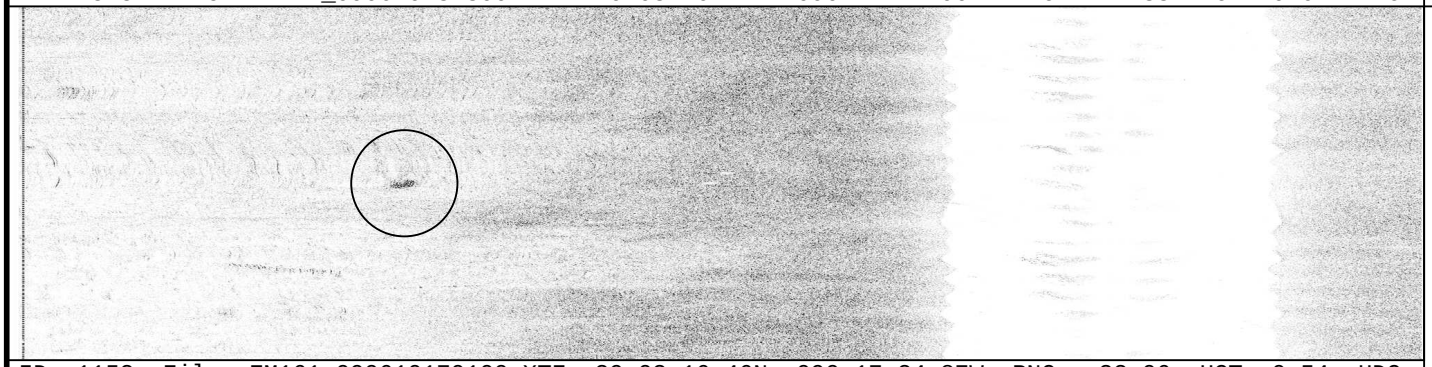


MB File: emmba09184.d13 Scale 1:1000



ID: 1515 File: EM171_090620182300.XTF 29 03 16.44N 090 17 24.90W RNG: -14.88 HGT: 0.61 HDG: 246

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.



ID: 1152 File: EM161_090610170100.XTF 29 03 16.46N 090 17 24.87W RNG: -32.06 HGT: 0.54 HDG: 256

CORRELATED SS CONTACTS:

Contact	Range/Height
1171185526	-14.88/0.61
1161170416	-32.06/0.54

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0358 Least Depth: 33(ft), 10.13(m) Lat: 29 03 06.77N Lon: 090 13 44.90W Ping: 15186 Beam: 10

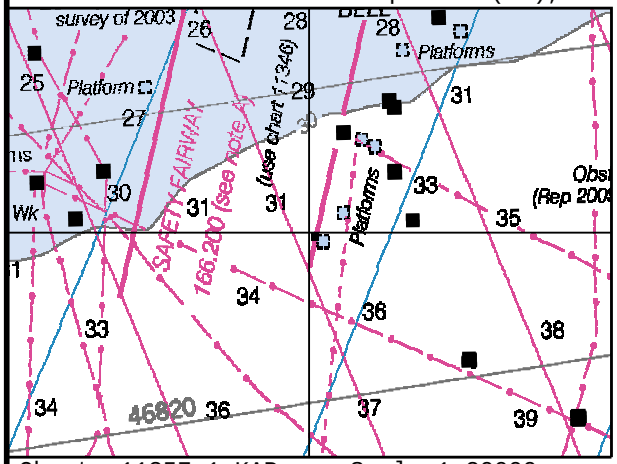


Chart: 11357_1.KAP Scale 1:20000

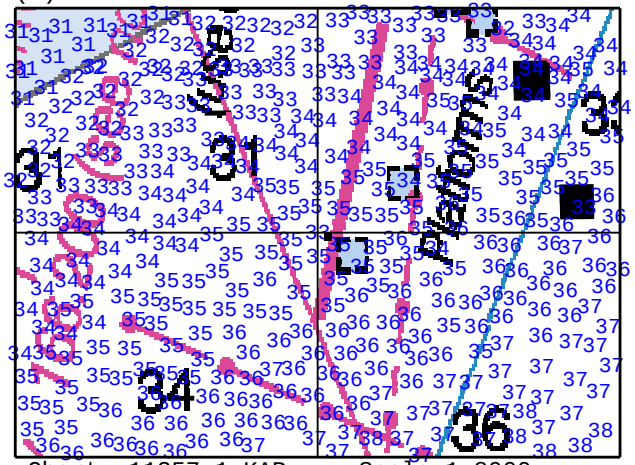
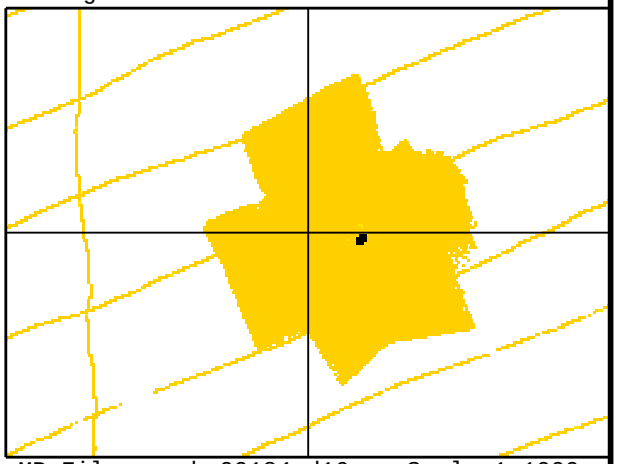
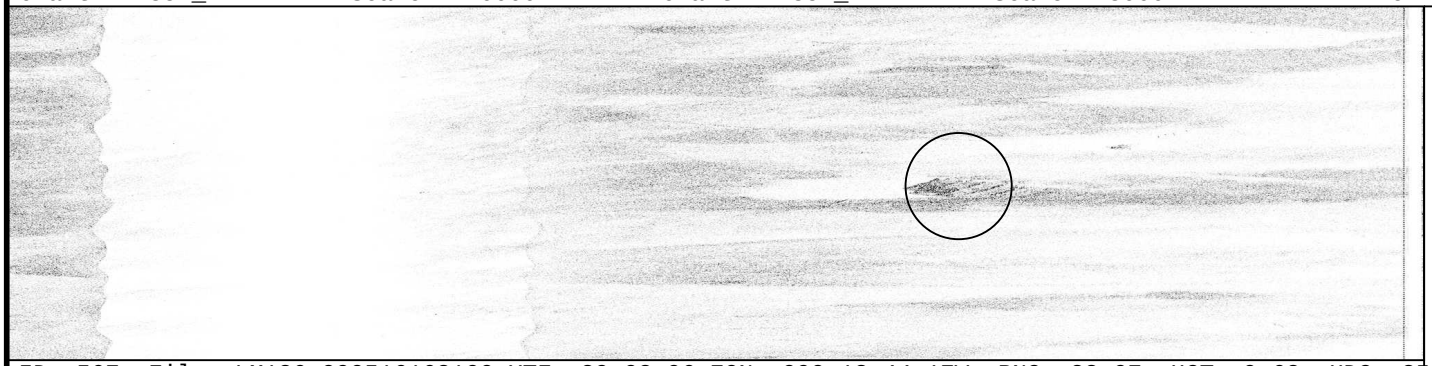


Chart: 11357_1.KAP Scale 1:8000

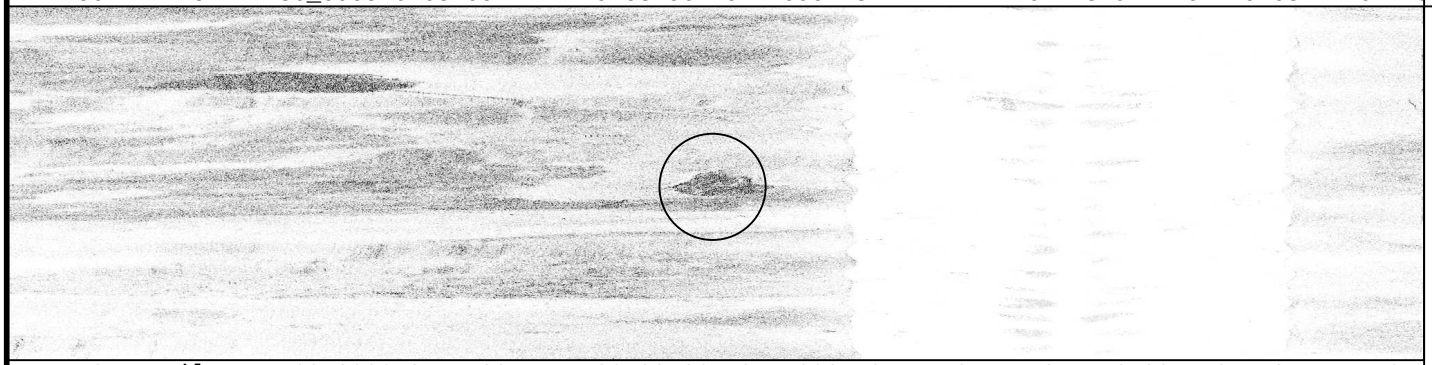


MB File: emmba09184.d16 Scale 1:1000



ID: 567 File: LM136_090516163100.XTF 29 03 06.70N 090 13 44.17W RNG: 28.97 HGT: 0.68 HDG: 252

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.



ID: 1217 File: EM163_090612175700.XTF 29 03 06.73N 090 13 44.13W RNG: -16.22 HGT: 0.44 HDG: 256

CORRELATED SS CONTACTS:

Contact	Range/Height
1136170026	28.97/0.68
1163183336	-16.22/0.44

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0361 Least Depth: 32(ft), 9.91(m) Lat: 29 03 17.54N Lon: 090 13 02.30W Ping: 14058 Beam: 86

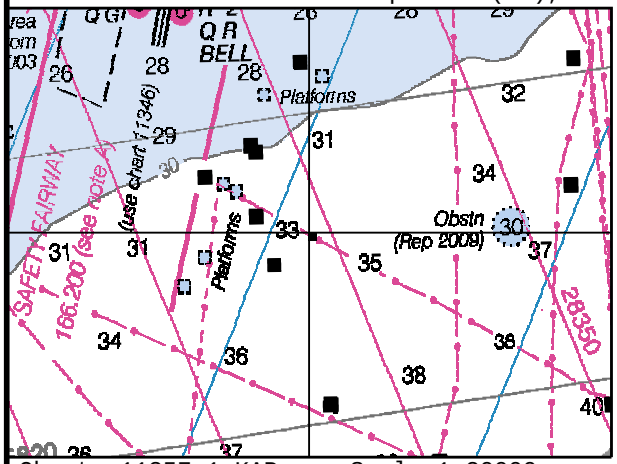


Chart: 11357_1.KAP Scale 1:20000

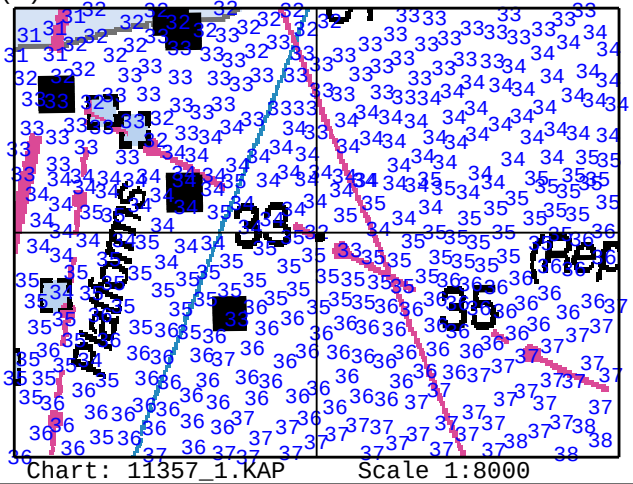
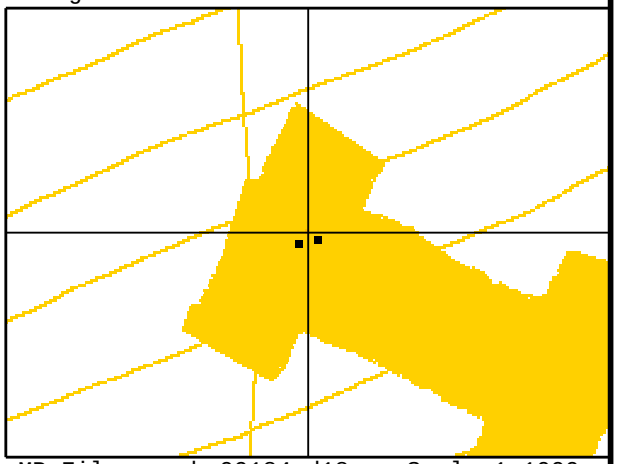
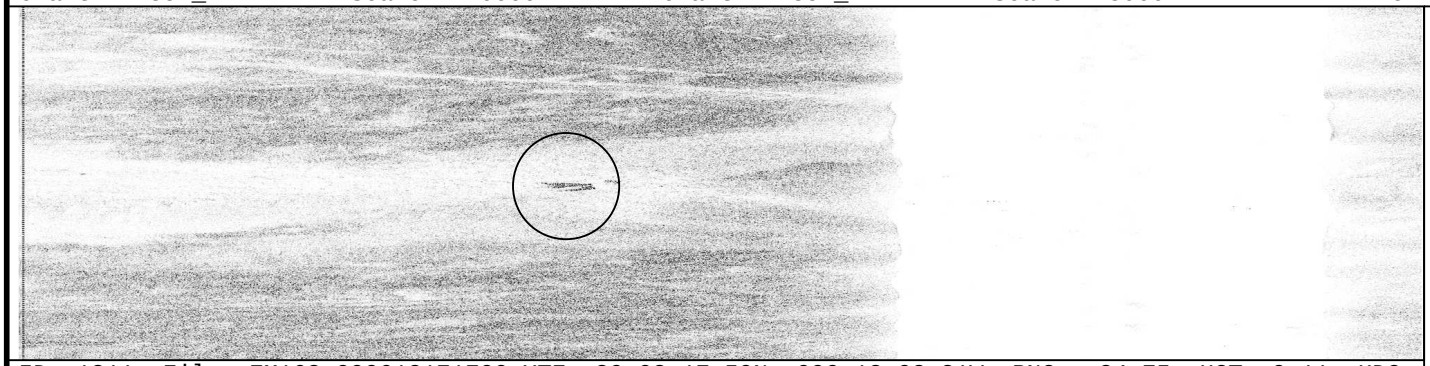


Chart: 11357_1.KAP Scale 1:8000

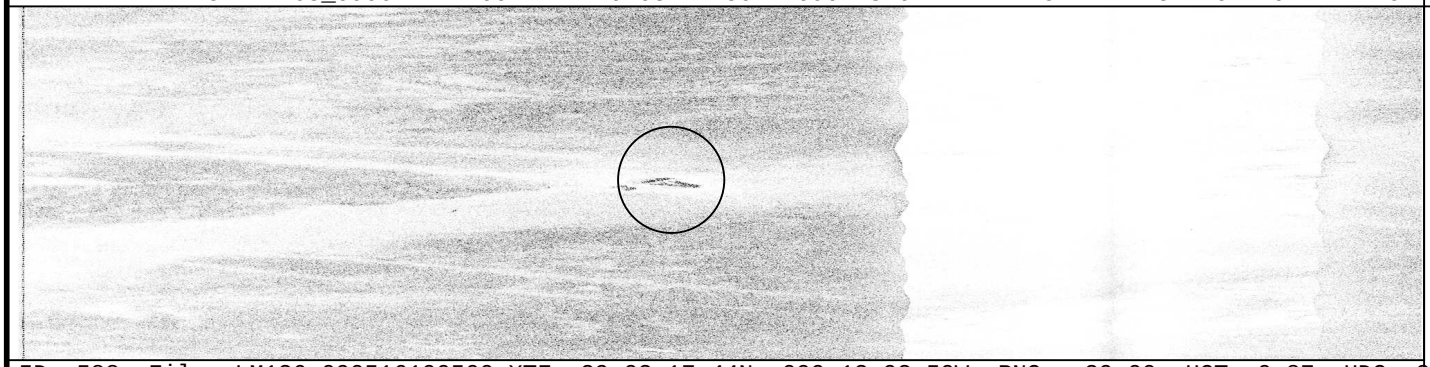


MB File: emmba09184.d18 Scale 1:1000



ID: 1211 File: EM163_090612171700.XTF 29 03 17.50N 090 13 02.21W RNG: -24.75 HGT: 0.11 HDG: 075

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.



ID: 588 File: LM136_090516190500.XTF 29 03 17.44N 090 13 02.50W RNG: -20.00 HGT: 0.87 HDG: 250

CORRELATED SS CONTACTS:

Contact	Range/Height
1163172935	-24.75/0.11
1136193011	-20.00/0.87

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0362 Least Depth: 29(ft), 9.00(m) Lat: 29 03 18.13N Lon: 090 12 01.04W Ping: 13934 Beam: 79

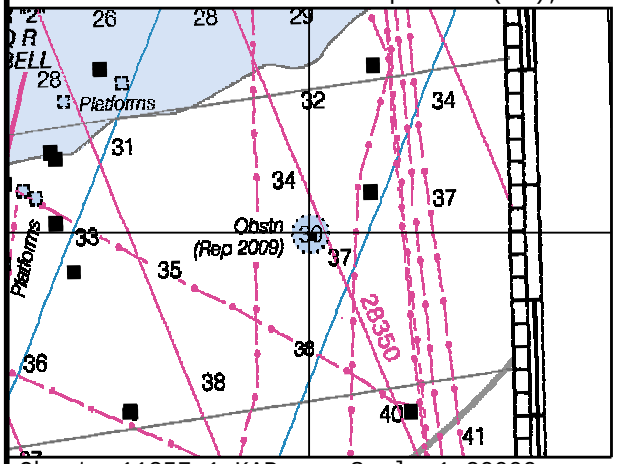


Chart: 11357_1.KAP Scale 1:20000

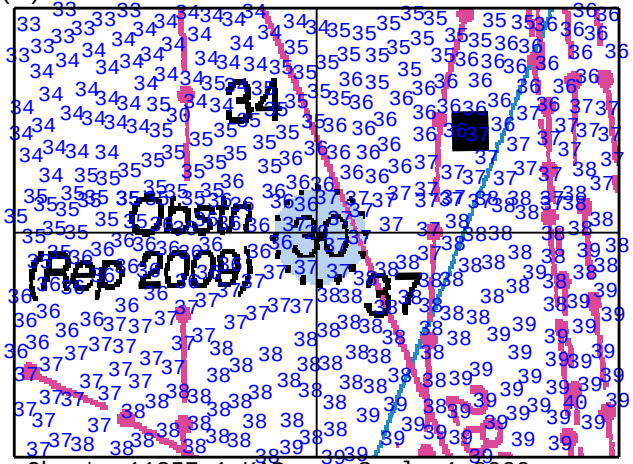
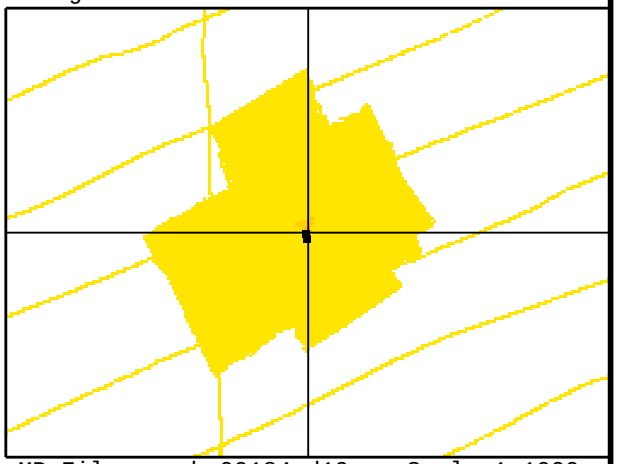
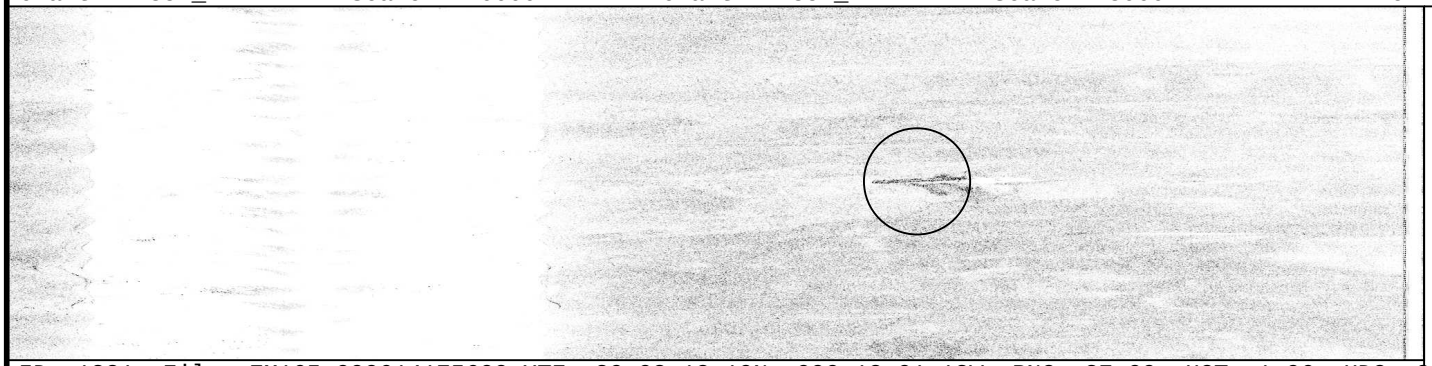


Chart: 11357_1.KAP Scale 1:8000

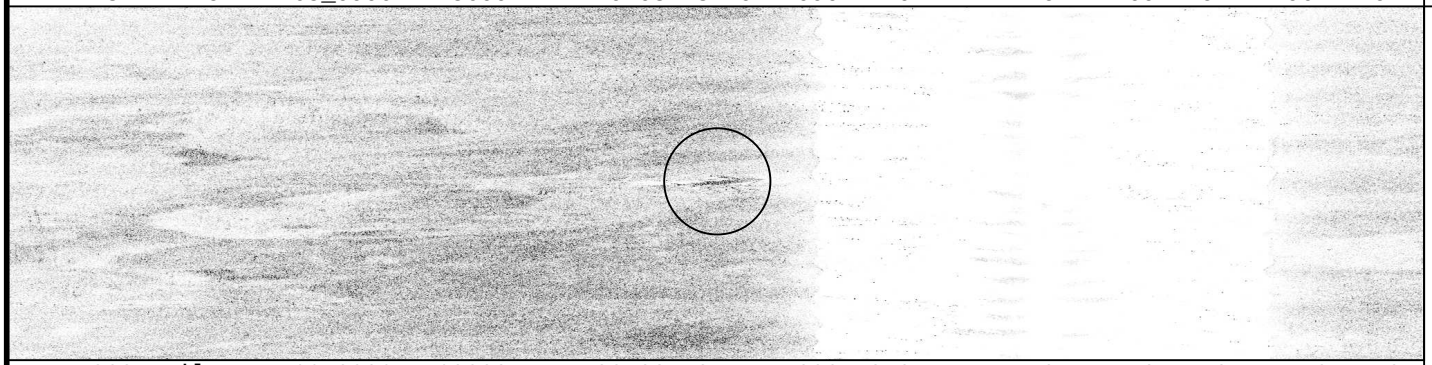


MB File: emmba09184.d19 Scale 1:1000



ID: 1281 File: EM165_090614175600.XTF 29 03 18.10N 090 12 01.12W RNG: 27.09 HGT: 1.96 HDG: 248

COMMENT:
OBSTN. Chart sounding. See Danger to Navigation Report #3.



ID: 1308 File: EM166_090615162900.XTF 29 03 18.17N 090 12 01.14W RNG: -14.81 HGT: 1.79 HDG: 253

CORRELATED SS CONTACTS:

Contact	Range/Height
1165182206	27.09/1.96
1166165256	-14.81/1.79

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0364 Least Depth: 33(ft), 10.23(m) Lat: 29 04 10.14N Lon: 090 10 08.93W Ping: 4782 Beam: 29

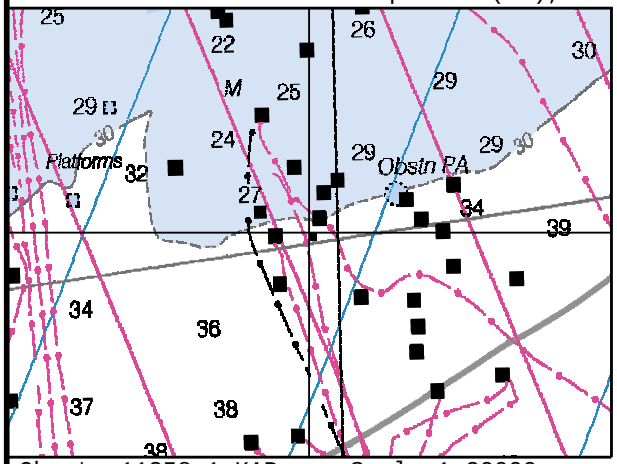


Chart: 11358_1.KAP Scale 1:20000

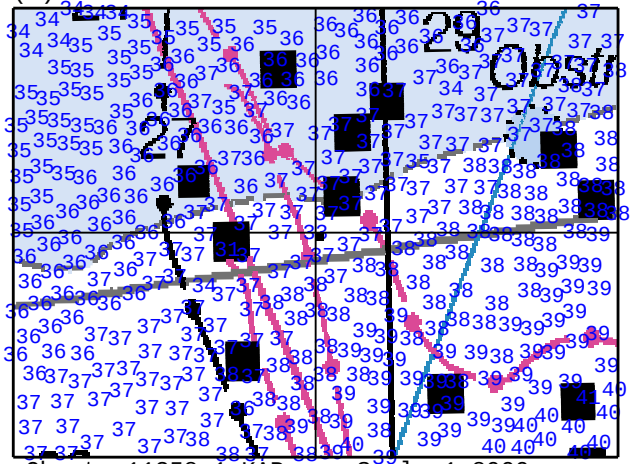
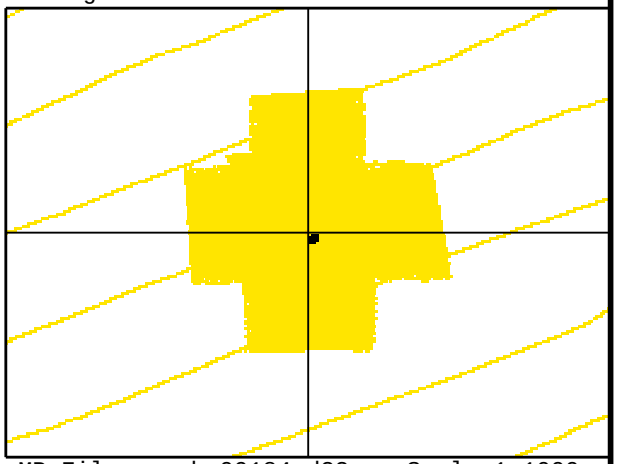
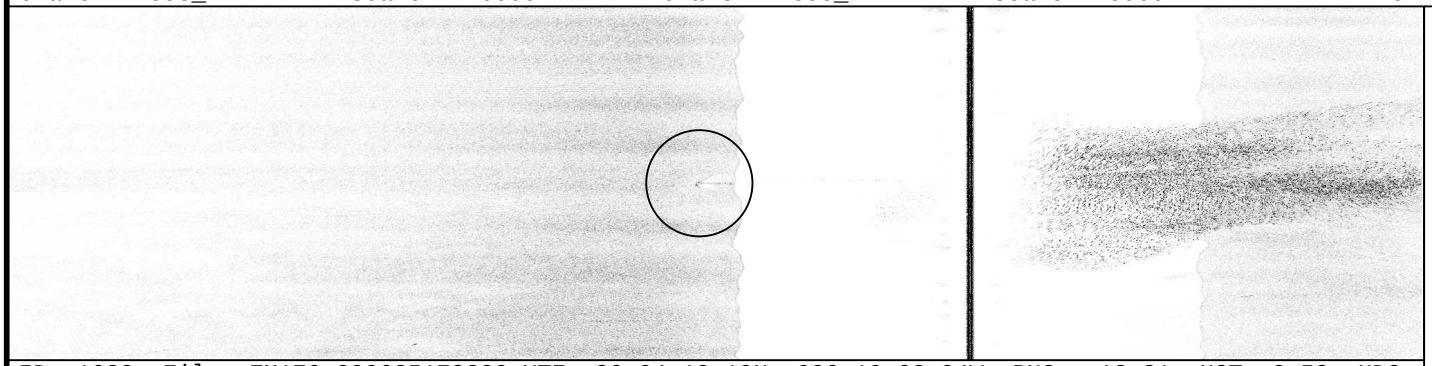


Chart: 11358_1.KAP Scale 1:8000

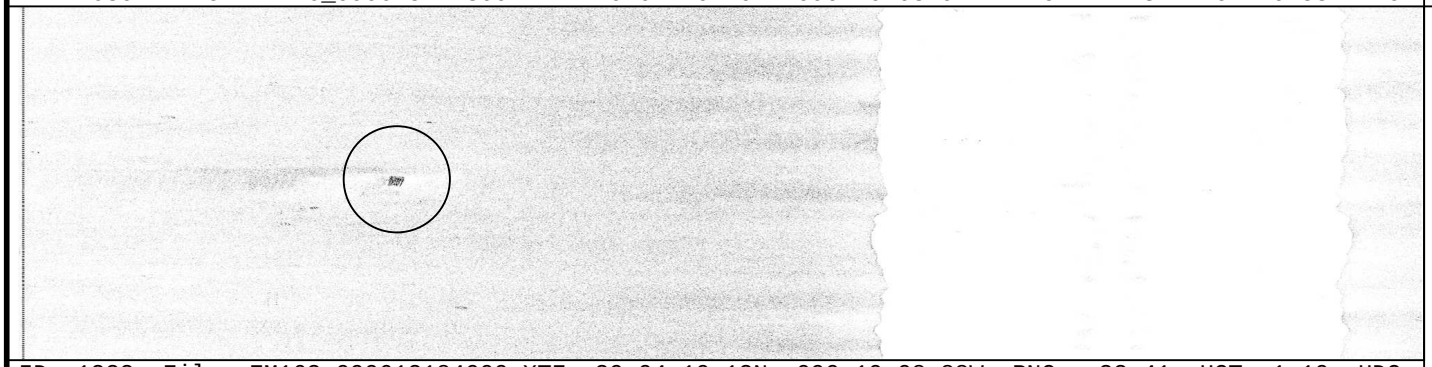


MB File: emmba09184.d22 Scale 1:1000



ID: 1630 File: EM176_090625172300.XTF 29 04 10.10N 090 10 08.94W RNG: -12.31 HGT: 0.53 HDG: 250

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.



ID: 1222 File: EM163_090612184000.XTF 29 04 10.12N 090 10 08.88W RNG: -32.41 HGT: 1.10 HDG: 061

CORRELATED SS CONTACTS:

Contact	Range/Height
1176173510	-12.31/0.53
1163191024	-32.41/1.10

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0365 Least Depth: 34(ft), 10.57(m) Lat: 29 04 24.77N Lon: 090 09 51.99W Ping: 4062 Beam: 91

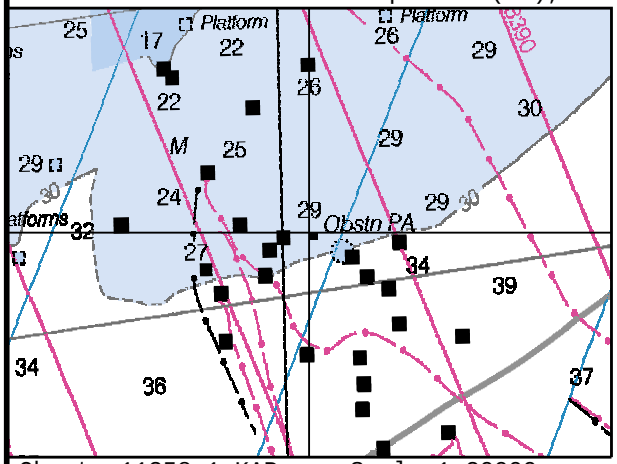


Chart: 11358_1.KAP Scale 1:20000

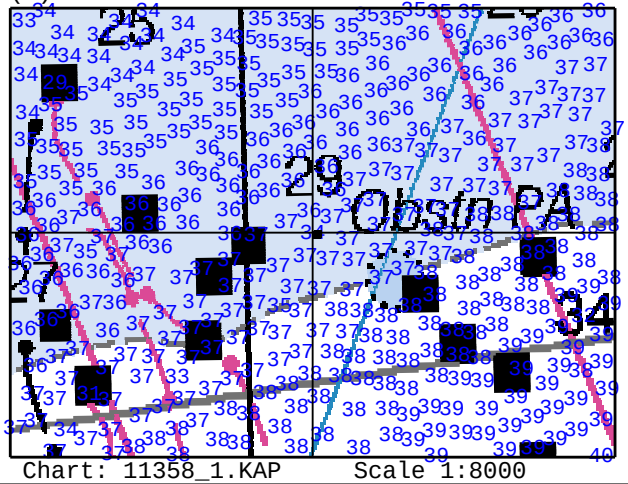
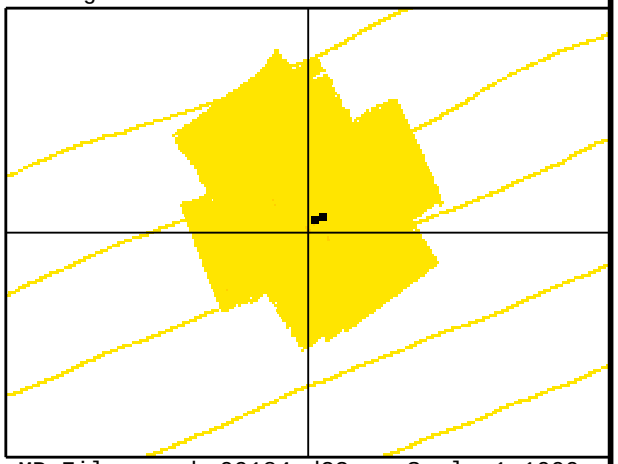
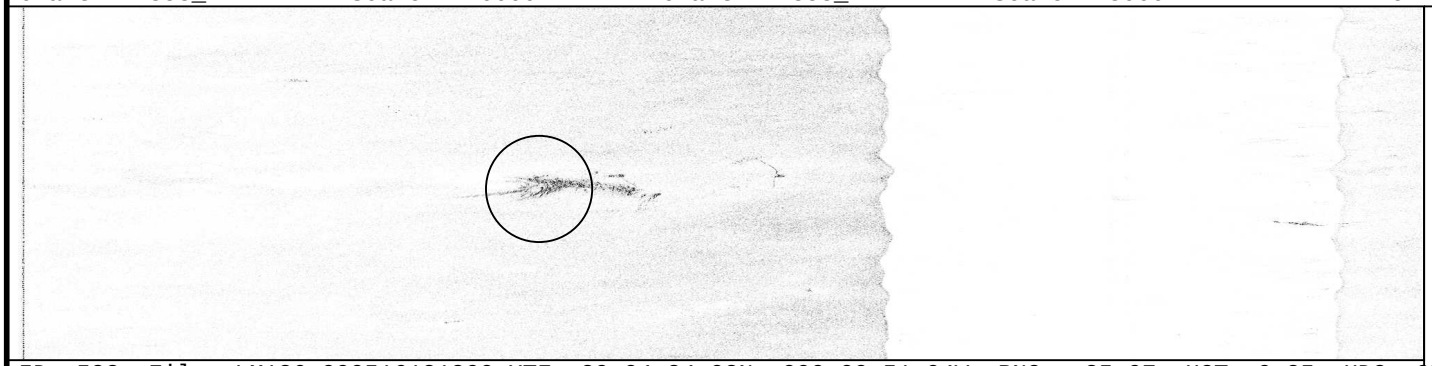


Chart: 11358_1.KAP Scale 1:8000

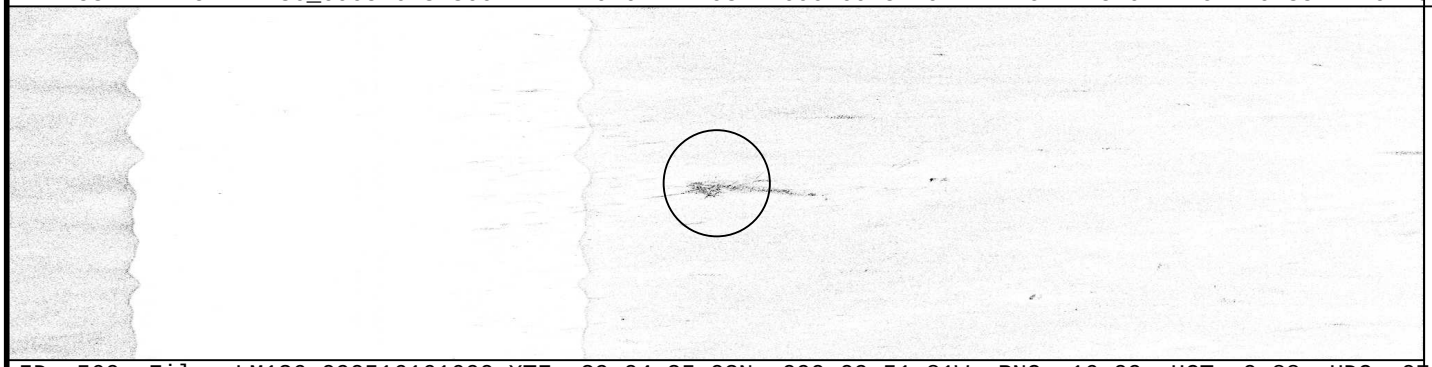


MB File: emmba09184.d23 Scale 1:1000



ID: 582 File: LM136_090516181800.XTF 29 04 24.98N 090 09 51.94W RNG: -25.97 HGT: 0.85 HDG: 071

COMMENT:
OBSTN. Chart sounding Only.
Nonsig.



ID: 560 File: LM136_090516161600.XTF 29 04 25.03N 090 09 51.81W RNG: 16.09 HGT: 0.88 HDG: 072

CORRELATED SS CONTACTS:

Contact	Range/Height
1136185847	-25.97/0.85
1136162440	16.09/0.88

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0366 Least Depth: 37(ft), 11.22(m) Lat: 29 03 58.82N Lon: 090 09 23.30W Ping: 16313 Beam: 90

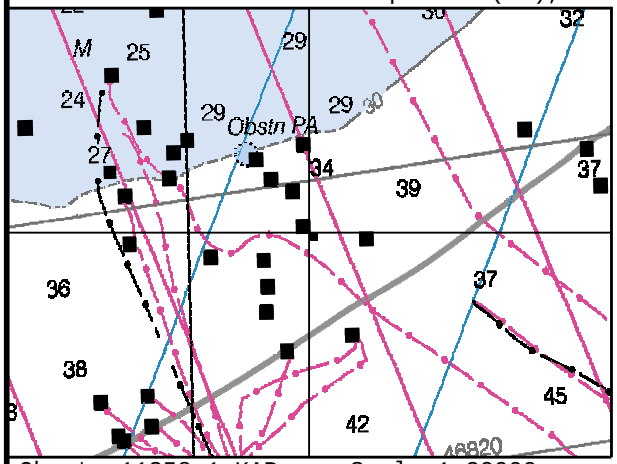


Chart: 11358_1.KAP Scale 1:20000

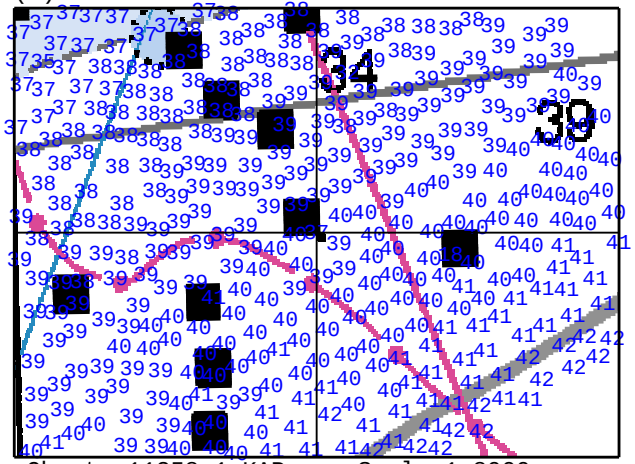
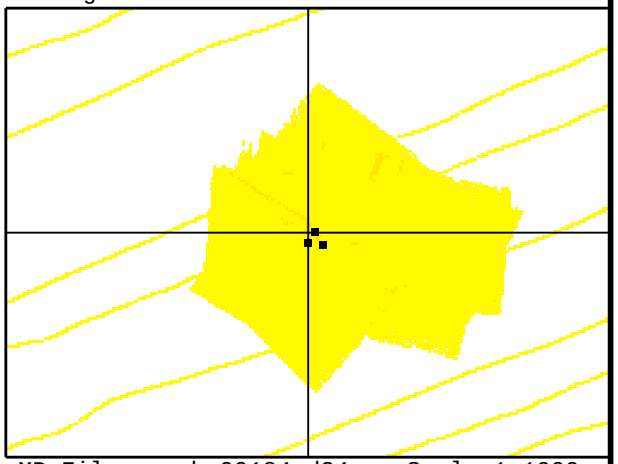
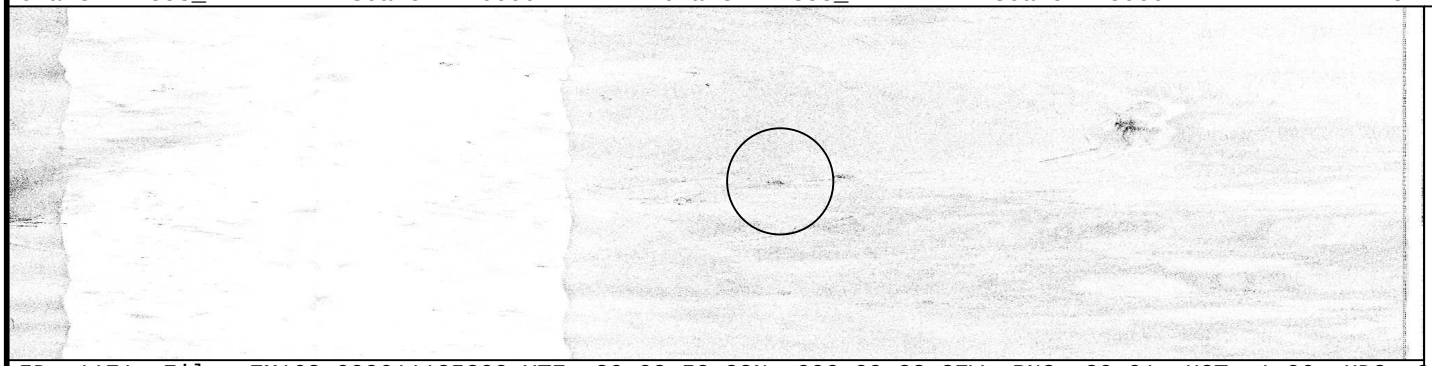


Chart: 11358_1.KAP Scale 1:8000



MB File: emmba09184.d24 Scale 1:1000



ID: 1171 File: EM162_090611135200.XTF 29 03 58.88N 090 09 23.27W RNG: 20.91 HGT: 1.06 HDG: 067

COMMENT:
OBSTNS. Chart sounding, danger circle with blue tint, and label OBSTNS.

ID: 872 File: LM150_090530184000.XTF 29 03 58.74N 090 09 23.37W RNG: 37.44 HGT: 0.87 HDG: 249

CORRELATED SS CONTACTS:

Contact	Range/Height
1162144714	20.91/1.06
1150184634	37.44/0.87
1150184632	34.59/0.63

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0367 Least Depth: 18(ft), 5.62(m) Lat: 29 03 56.21N Lon: 090 09 07.00W Ping: 7048 Beam: 92

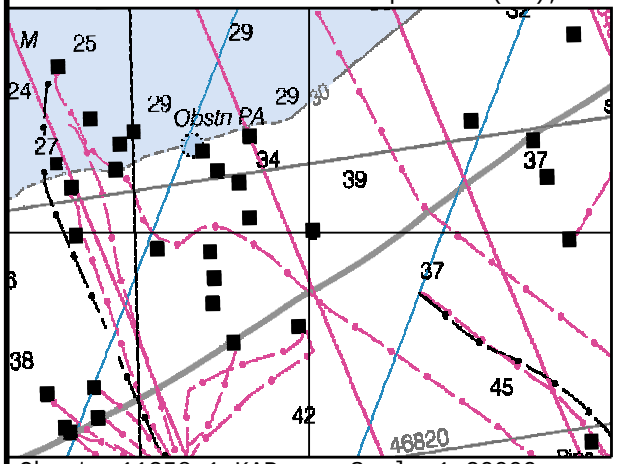


Chart: 11358_1.KAP Scale 1:20000

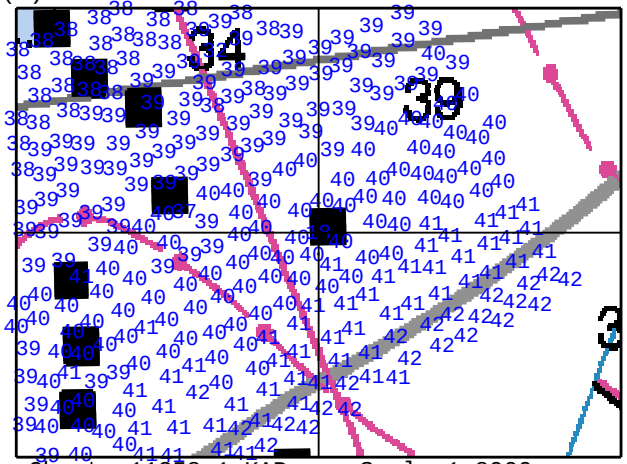
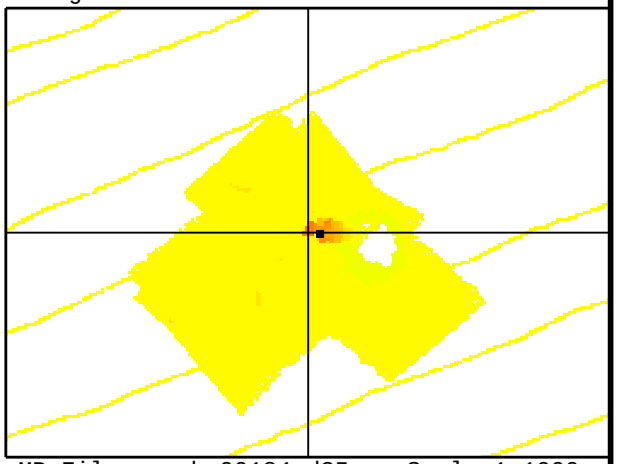


Chart: 11358_1.KAP Scale 1:8000



MB File: emmba09184.d25 Scale 1:1000

ID: 521 File: EM135_090515175300.XTF 29 03 56.24N 090 09 06.87W RNG: 10.22 HGT: 0.08 HDG: 065

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.

CORRELATED SS CONTACTS:

Contact	Range/Height
1135183150	10.22/0.08

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0368 Least Depth: 26(ft), 8.08(m) Lat: 29 05 41.71N Lon: 090 09 49.71W Ping: 24635 Beam: 66

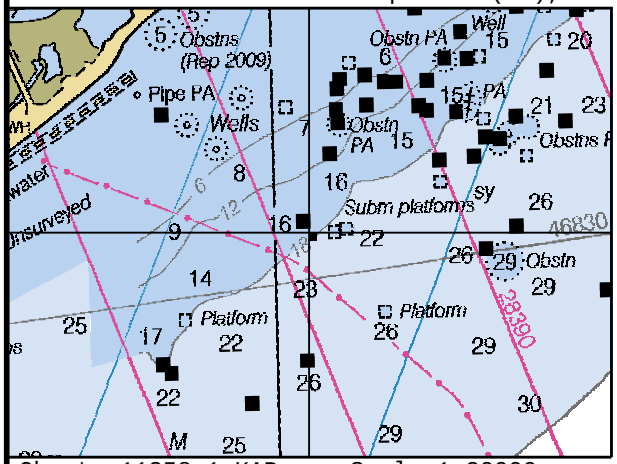


Chart: 11358_1.KAP Scale 1:20000

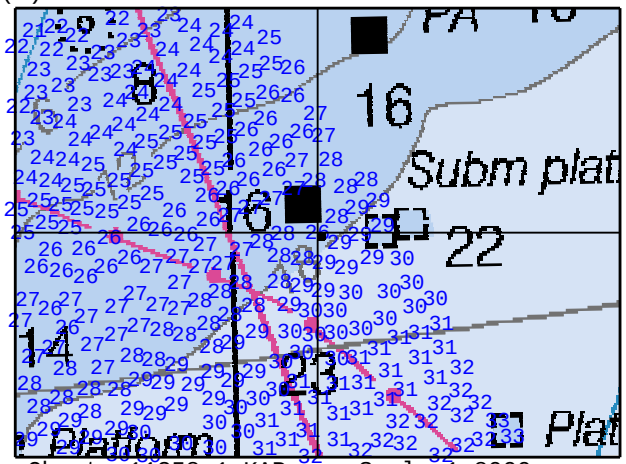
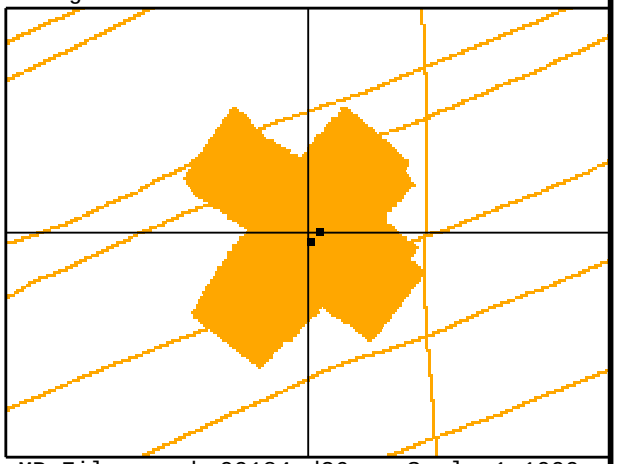
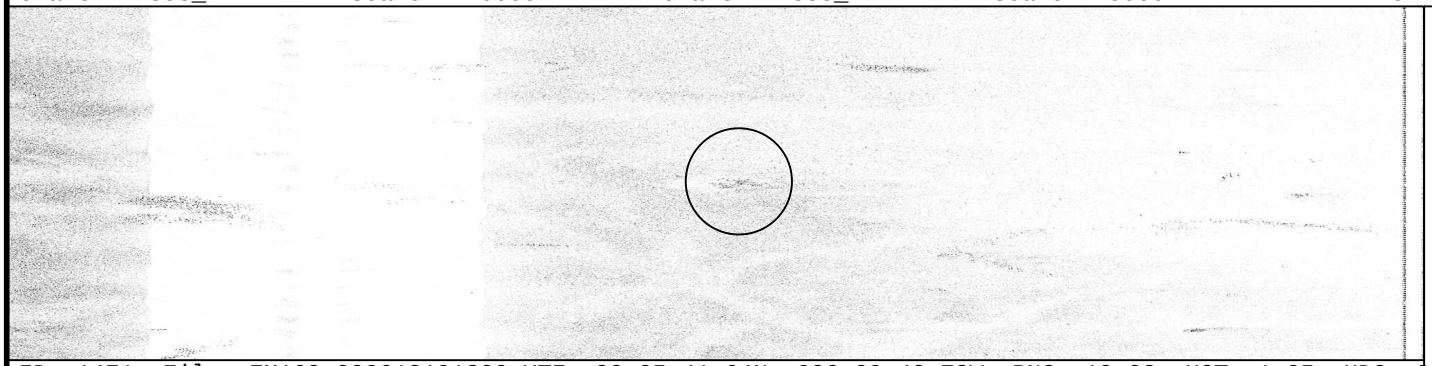


Chart: 11358_1.KAP Scale 1:8000

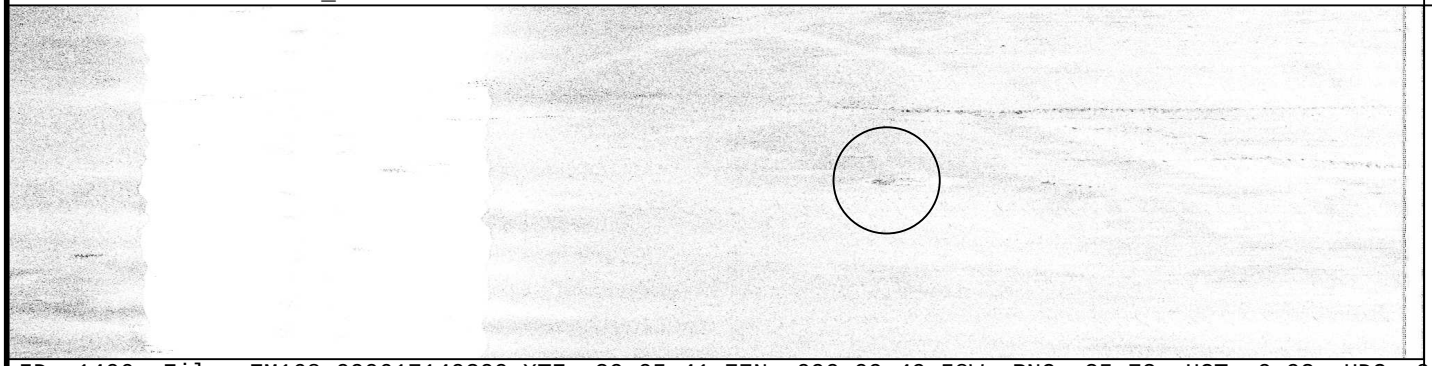


MB File: emmba09184.d26 Scale 1:1000



ID: 1471 File: EM169_090618191300.XTF 29 05 41.64N 090 09 49.73W RNG: 19.03 HGT: 1.05 HDG: 245

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.



ID: 1406 File: EM168_090617140300.XTF 29 05 41.77N 090 09 49.58W RNG: 25.72 HGT: 0.92 HDG: 067

CORRELATED SS CONTACTS:

Contact	Range/Height
1169191623	19.03/1.05
1168142052	25.72/0.92

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0370 Least Depth: 13(ft), 3.99(m) Lat: 29 06 13.62N Lon: 090 10 34.89W Ping: 6819 Beam: 8

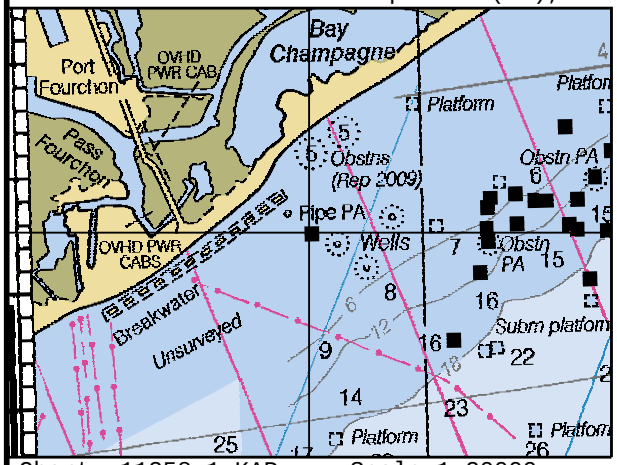


Chart: 11358_1.KAP Scale 1:20000

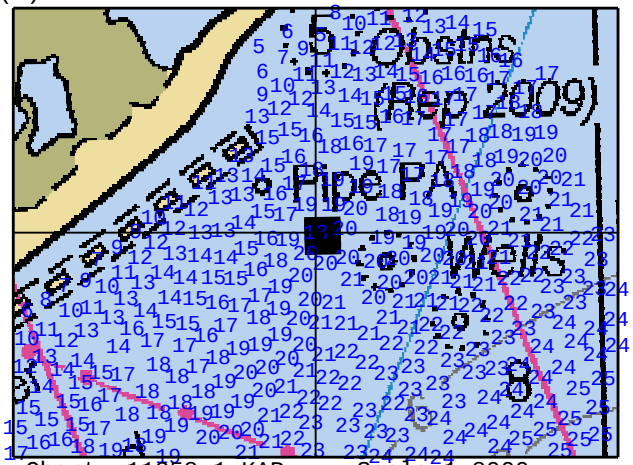
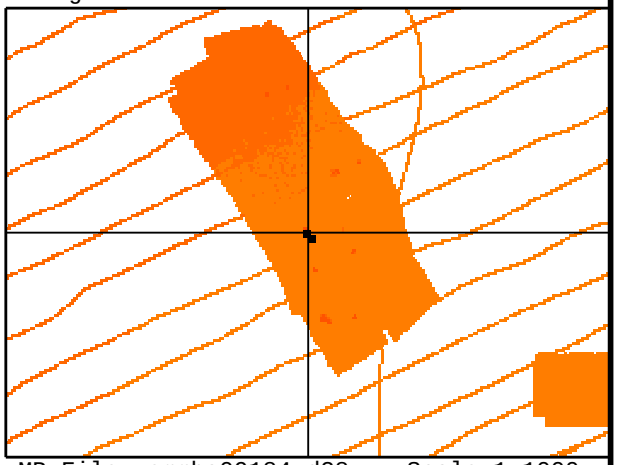


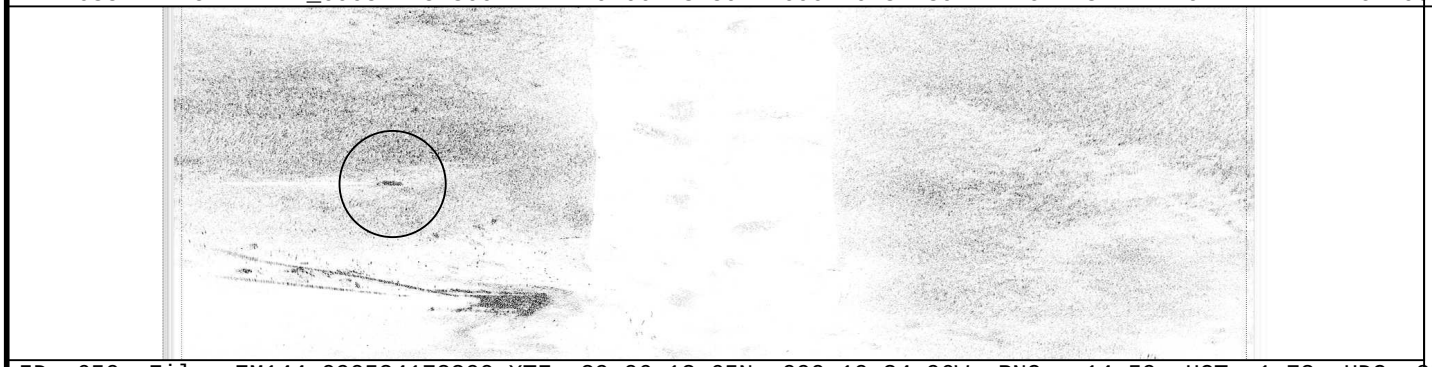
Chart: 11358_1.KAP Scale 1:8000



MB File: emmba09184.d28 Scale 1:1000

ID: 635 File: EM144_090524151800.XTF 29 06 13.59N 090 10 34.89W RNG: -8.47 HGT: 1.74 HDG: 063

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTNS.



ID: 650 File: EM144_090524172300.XTF 29 06 13.65N 090 10 34.96W RNG: -14.59 HGT: 1.73 HDG: 251

CORRELATED SS CONTACTS:

Contact	Range/Height
1144153644	-8.47/1.74
1144172659	-14.59/1.73

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0376 Least Depth: 5(ft), 1.58(m) Lat: 29 06 34.28N Lon: 090 10 33.71W Ping: 14125 Beam: 93

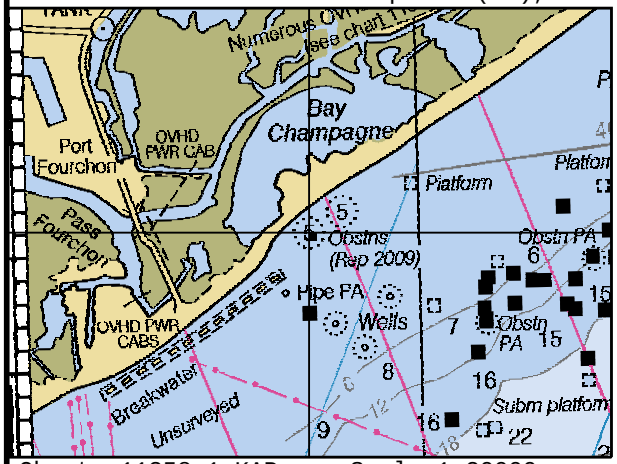


Chart: 11358_1.KAP Scale 1:20000

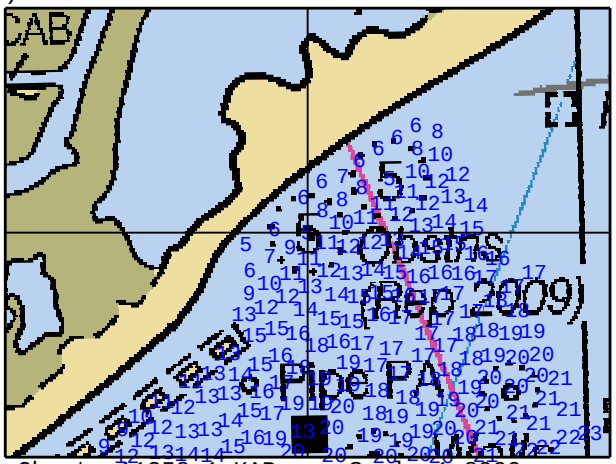
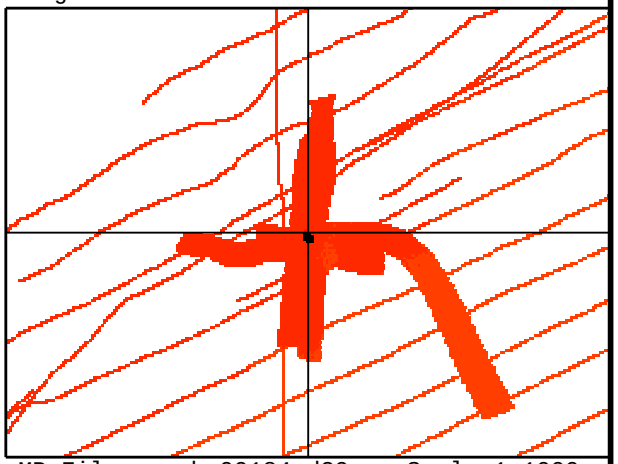
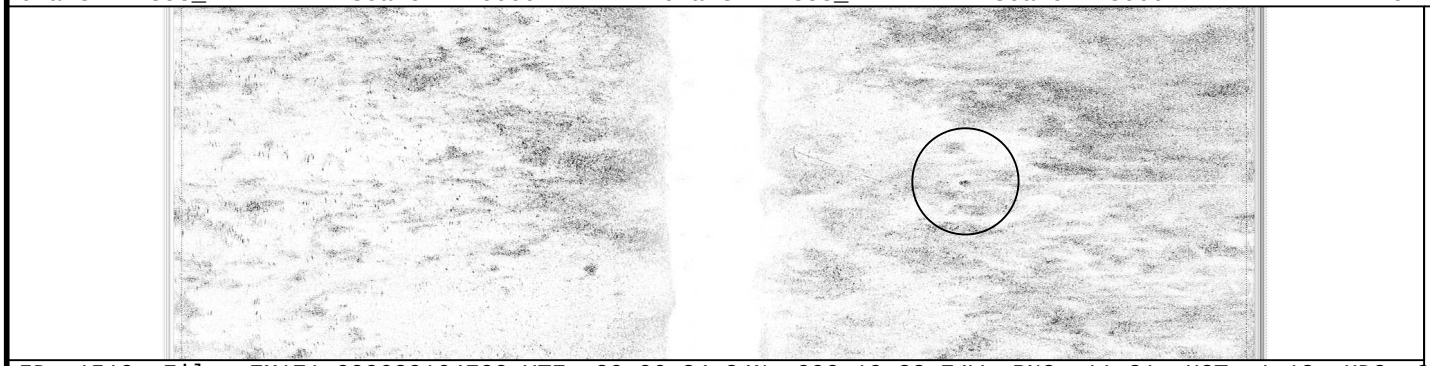


Chart: 11358_1.KAP Scale 1:8000

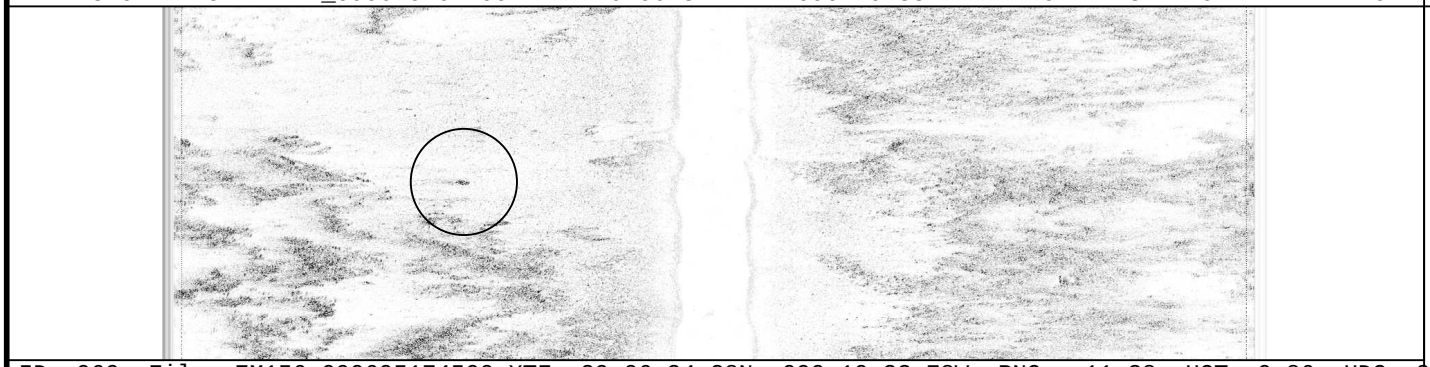


MB File: emmba09184.d29 Scale 1:1000



ID: 1510 File: EM171_090620164700.XTF 29 06 34.24N 090 10 33.74W RNG: 11.31 HGT: 1.12 HDG: 246

COMMENT:
OBSTN. Chart sounding. See Danger to Navigation Report #3.



ID: 969 File: EM156_090605174500.XTF 29 06 34.28N 090 10 33.78W RNG: -11.38 HGT: 0.86 HDG: 243

CORRELATED SS CONTACTS:

Contact	Range/Height
1171164822	11.31/1.12
1156174723	-11.38/0.86

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0377 Least Depth: 9(ft), 2.74(m) Lat: 29 06 40.73N Lon: 090 10 21.93W Ping: 6632 Beam: 72

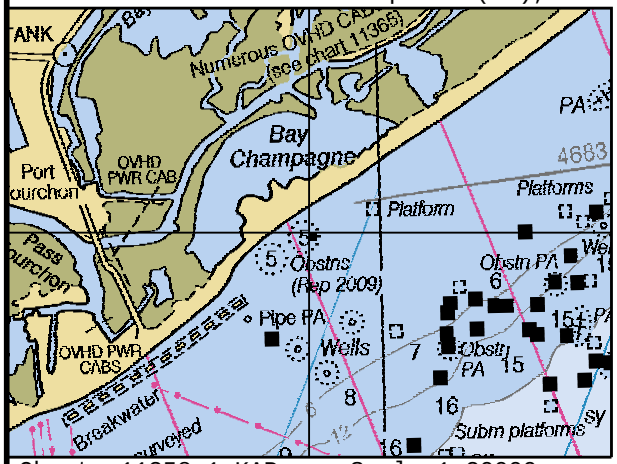


Chart: 11358_1.KAP Scale 1:20000

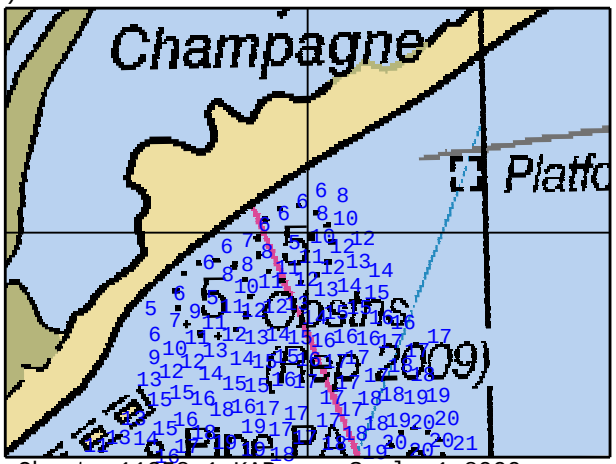
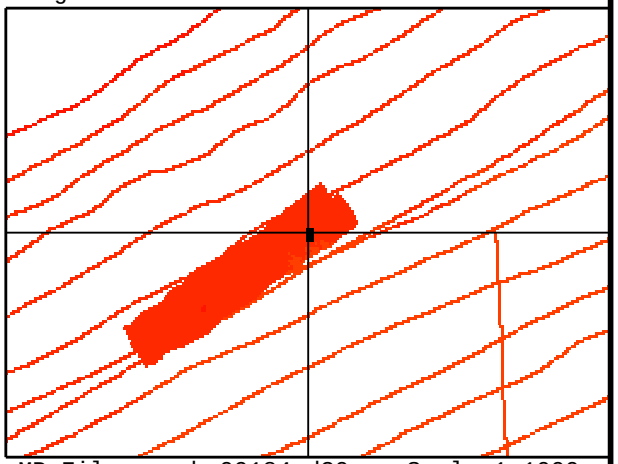


Chart: 11358_1.KAP Scale 1:8000



MB File: emmba09184.d30 Scale 1:1000

ID: 1409 File: EM168_090617144300.XTF 29 06 40.71N 090 10 21.96W RNG: 13.03 HGT: 0.06 HDG: 241

COMMENT:
OBSTN. No Chart. See feature 376.

ID: 1414 File: EM168_090617145500.XTF 29 06 40.79N 090 10 21.97W RNG: -7.38 HGT: 0.35 HDG: 238

CORRELATED SS CONTACTS:

Contact	Range/Height
1168144657	13.03/0.06
1168145651	-7.38/0.35

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0378 Least Depth: 5(ft), 1.65(m) Lat: 29 06 39.75N Lon: 090 10 23.54W Ping: 13340 Beam: 14

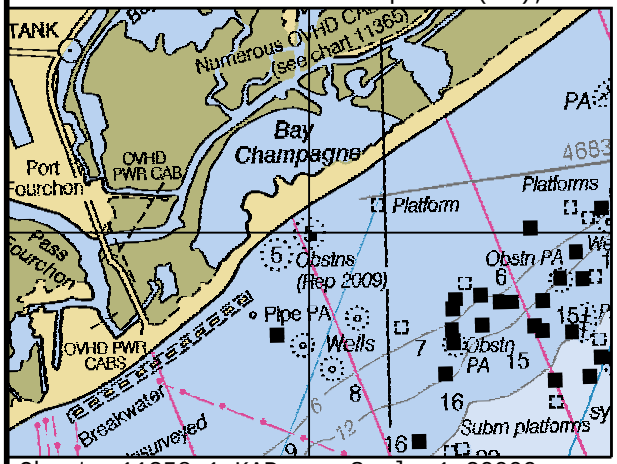


Chart: 11358_1.KAP Scale 1:20000

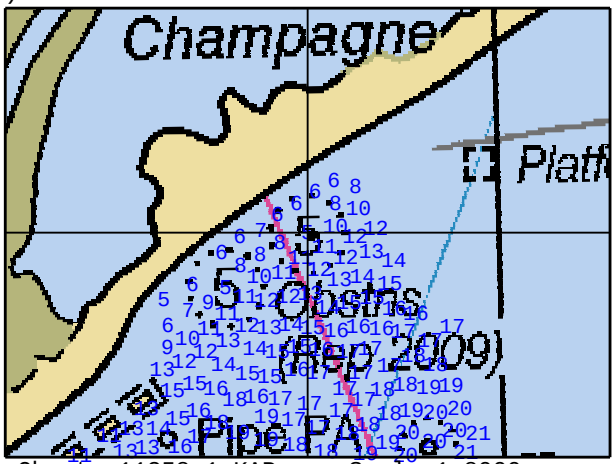
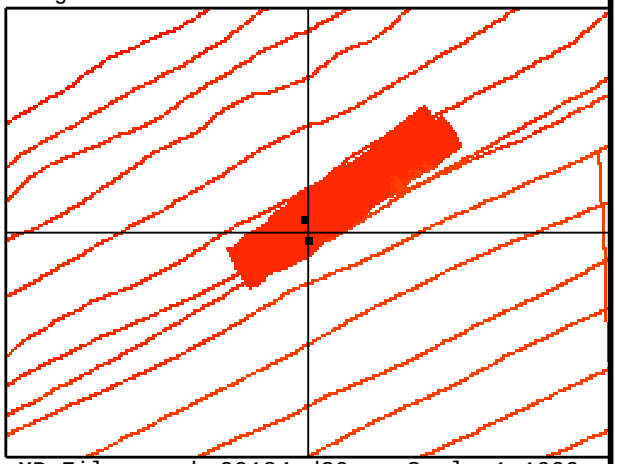
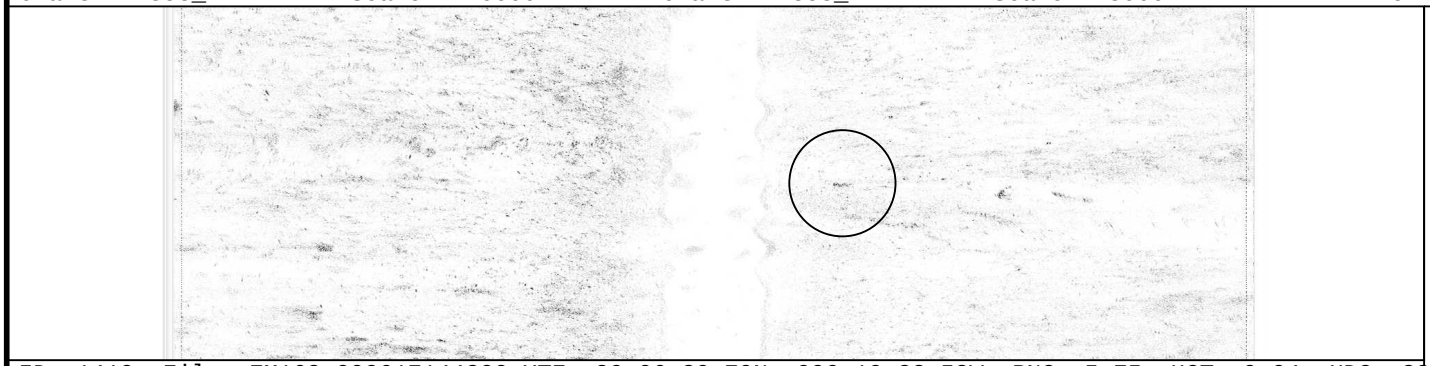


Chart: 11358_1.KAP Scale 1:8000



MB File: emmba09184.d30 Scale 1:1000



ID: 1410 File: EM168_090617144300.XTF 29 06 39.70N 090 10 23.58W RNG: 5.75 HGT: 0.94 HDG: 239

COMMENT:
OBSTN. Chart sounding. See Danger to Navigation Report #3.

ID: 1415 File: EM168_090617145500.XTF 29 06 39.96N 090 10 23.65W RNG: -7.53 HGT: 0.47 HDG: 246

CORRELATED SS CONTACTS:

Contact	Range/Height
1168144712	5.75/0.94
1168145707	-7.53/0.47

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0391 Least Depth: 11(ft), 3.46(m) Lat: 29 04 44.70N Lon: 090 14 02.37W Ping: 2809 Beam: 86

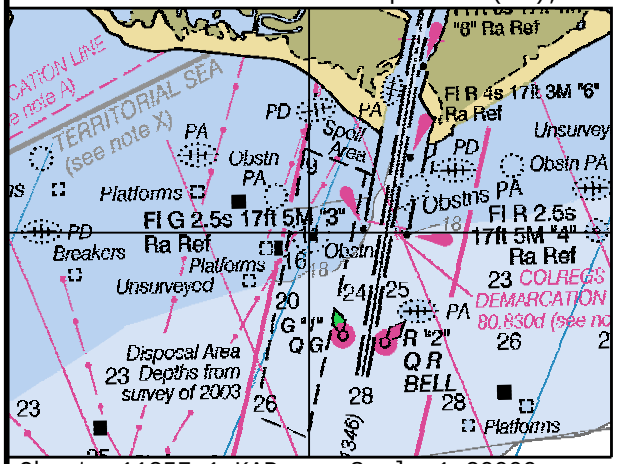


Chart: 11357_1.KAP Scale 1:20000

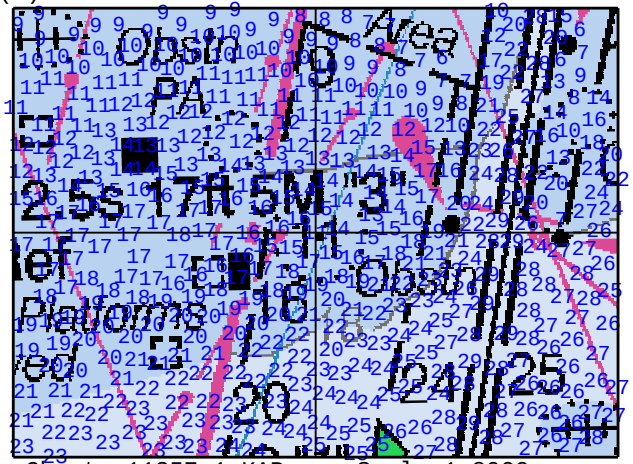
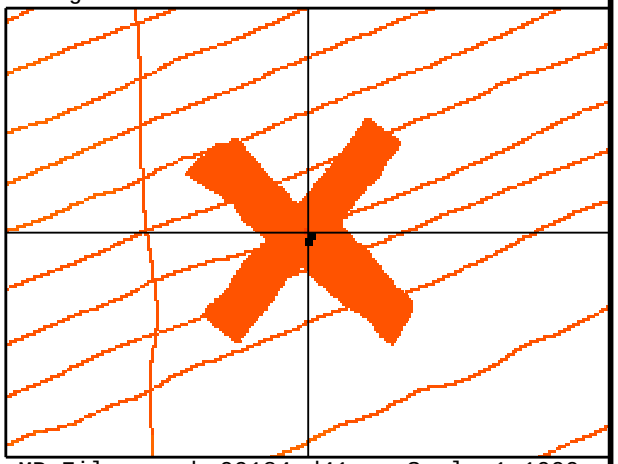
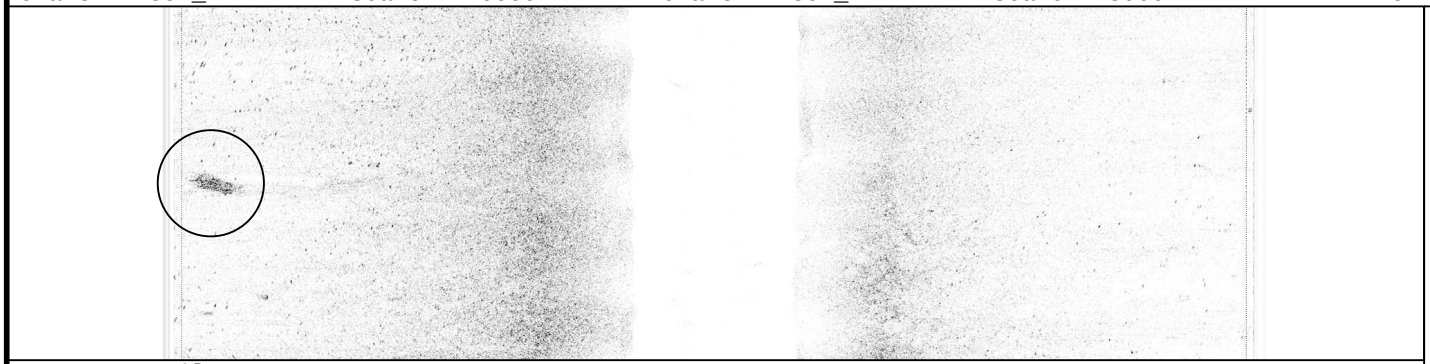


Chart: 11357_1.KAP Scale 1:8000

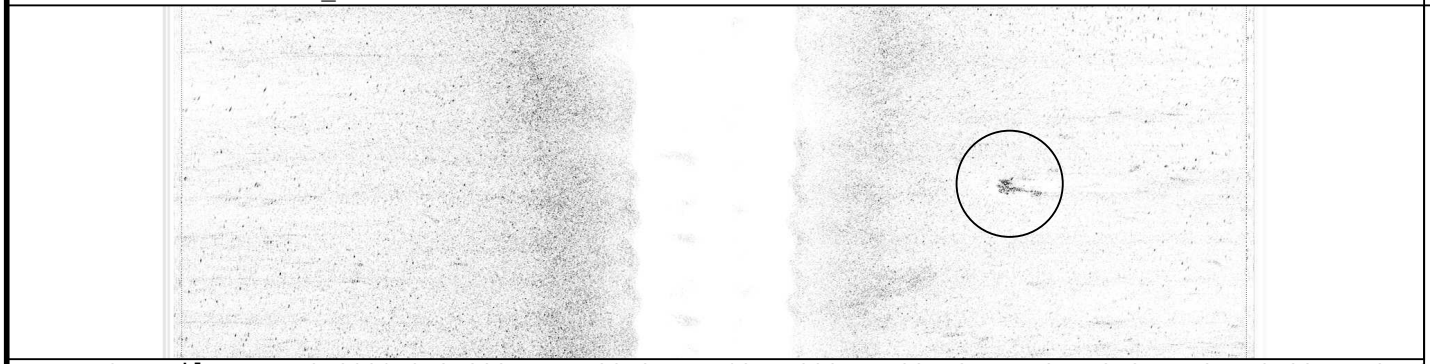


MB File: emmba09184.d41 Scale 1:1000



ID: 1493 File: EM170_090619165600.XTF 29 04 44.70N 090 14 02.38W RNG: -22.81 HGT: 0.11 HDG: 250

COMMENT:
OBSTN. Chart sounding. See Danger to Navigation Report #3.



ID: 1497 File: EM170_090619184200.XTF 29 04 44.62N 090 14 02.43W RNG: 13.31 HGT: 0.88 HDG: 247

CORRELATED SS CONTACTS:

Contact	Range/Height
1170165855	-22.81/0.11
1170184424	13.31/0.88

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0407 Least Depth: 23(ft), 7.17(m) Lat: 29 02 47.14N Lon: 090 19 21.28W Ping: 19286 Beam: 56

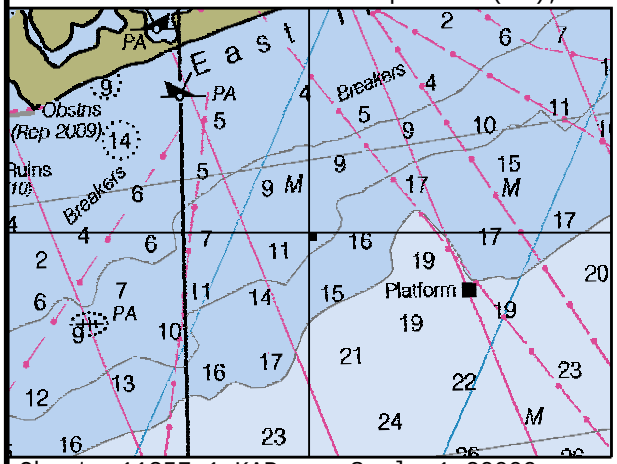


Chart: 11357_1.KAP Scale 1:20000

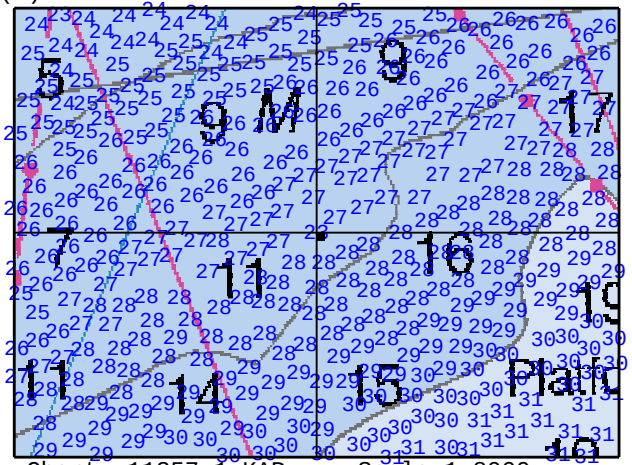
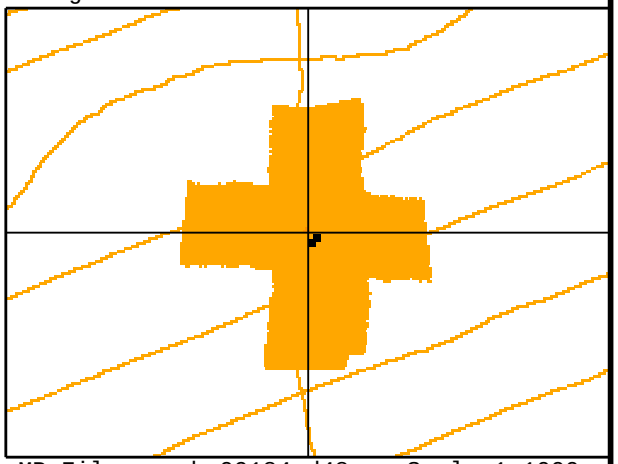
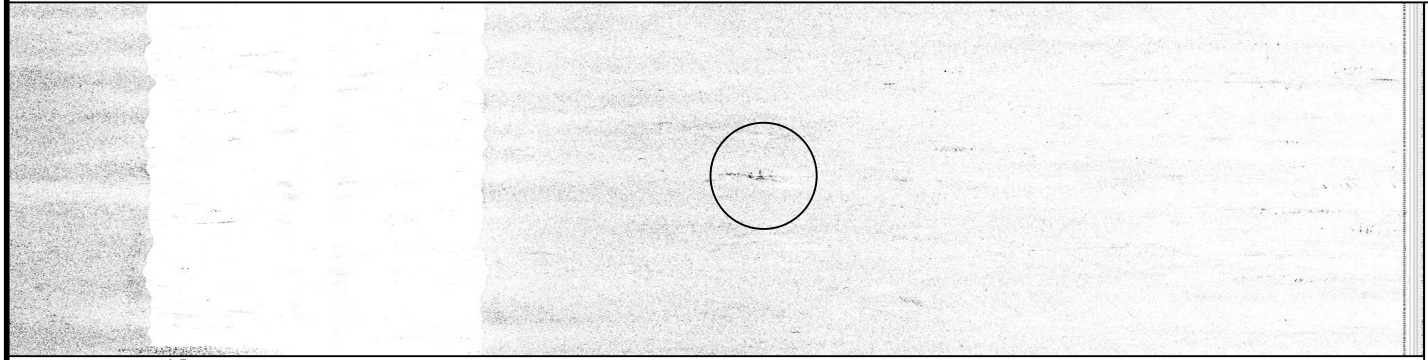


Chart: 11357_1.KAP Scale 1:8000

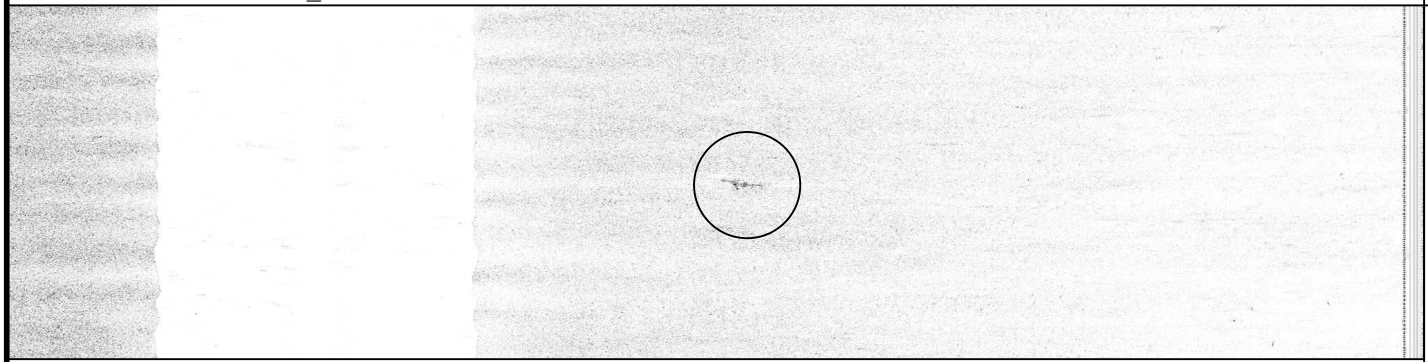


MB File: emmba09184.d48 Scale 1:1000



ID: 933 File: EM156_090605130900.XTF 29 02 47.13N 090 19 21.21W RNG: 20.16 HGT: 0.51 HDG: 072

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.



ID: 994 File: EM156_090605191400.XTF 29 02 47.06N 090 19 21.29W RNG: 19.41 HGT: 0.95 HDG: 246

CORRELATED SS CONTACTS:

Contact	Range/Height
1156132134	20.16/0.51
1156195511	19.41/0.95

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0410 Least Depth: 27(ft), 8.27(m) Lat: 29 02 23.62N Lon: 090 19 39.36W Ping: 1579 Beam: 16

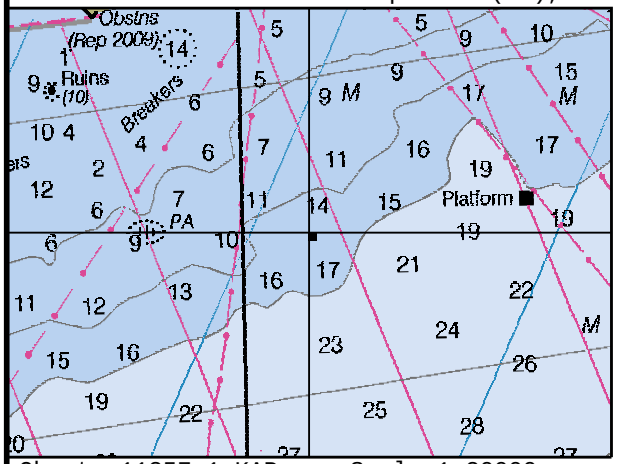


Chart: 11357_1.KAP Scale 1:20000

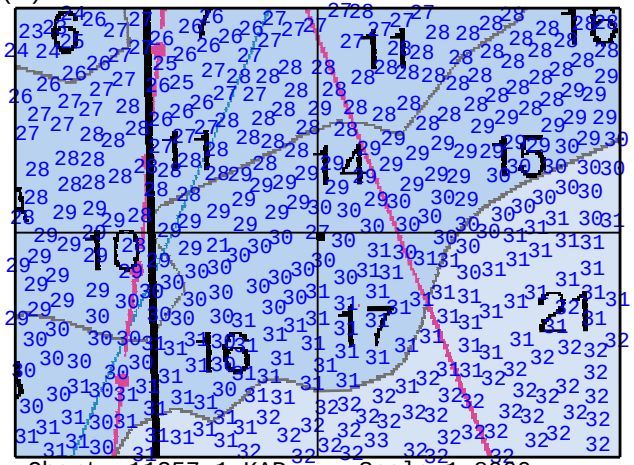
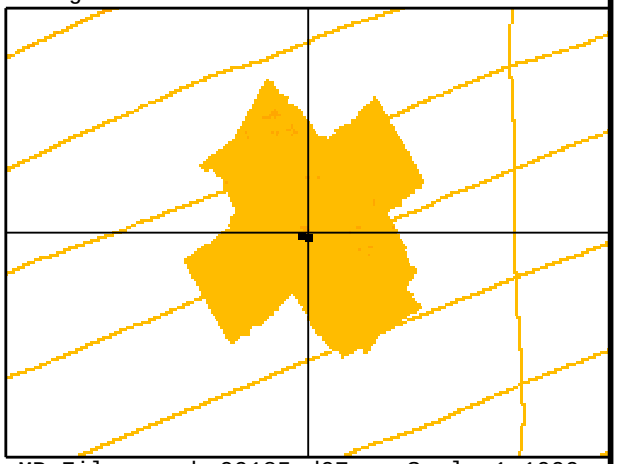
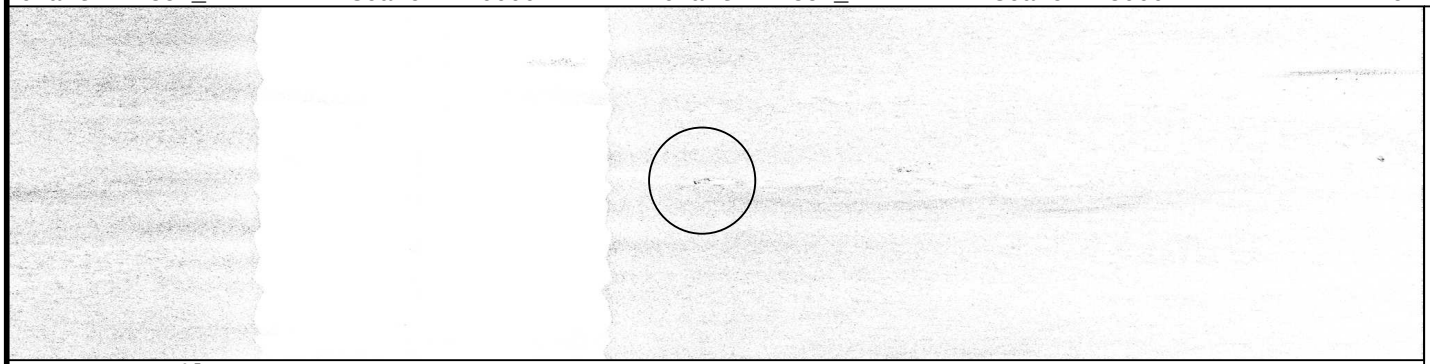


Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09185.d07 Scale 1:1000



ID: 1479 File: EM169_090618203500.XTF 29 02 23.60N 090 19 39.41W RNG: 12.09 HGT: 1.26 HDG: 249

COMMENT:
OBSTN. Chart sounding, danger circle with blue tint, and label OBSTN.

ID: 1443 File: EM168_090617201300.XTF 29 02 23.63N 090 19 39.51W RNG: -27.91 HGT: 0.50 HDG: 250

CORRELATED SS CONTACTS:

Contact	Range/Height
1169205639	12.09/1.26
1168202032	-27.91/0.50

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0425 Least Depth: 14(ft), 4.21(m) Lat: 29 03 33.24N Lon: 090 20 07.75W Ping: 3598 Beam: 80

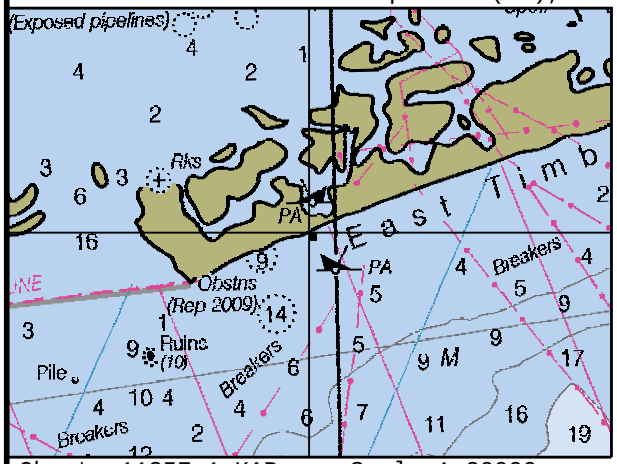


Chart: 11357_1.KAP Scale 1:20000

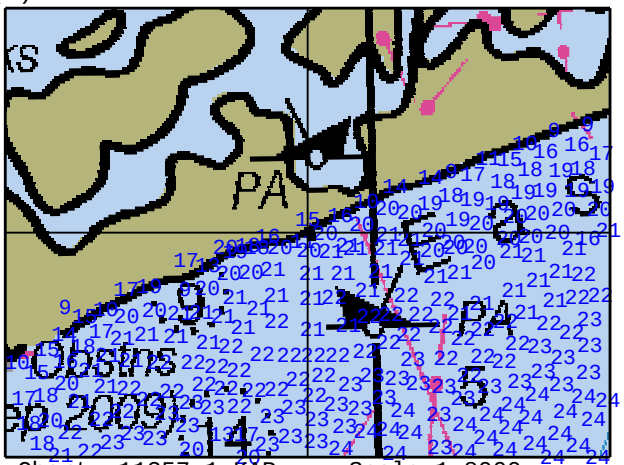
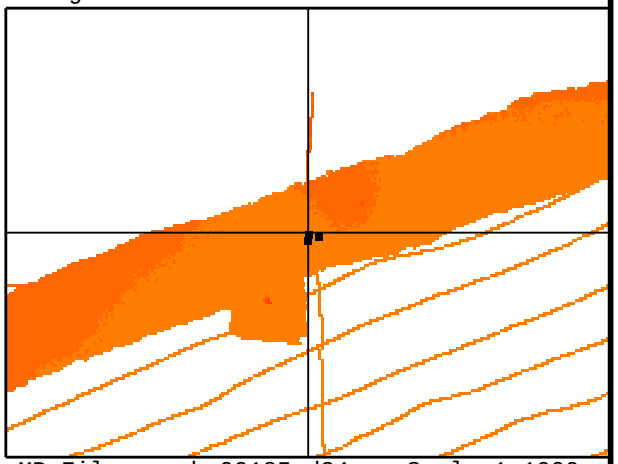


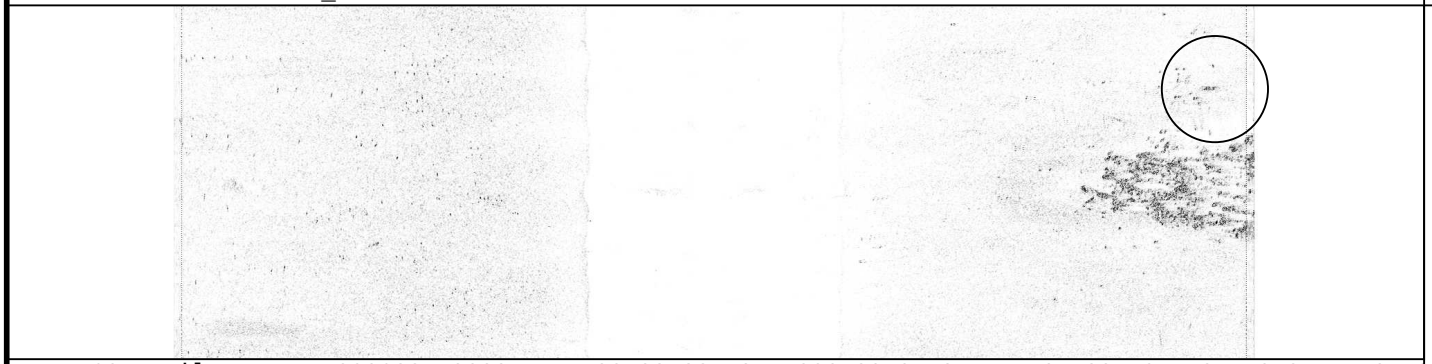
Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09185.d24 Scale 1:1000

ID: 1040 File: EM157_090606154600.XTF 29 03 33.26N 090 20 07.79W RNG: -6.59 HGT: 1.39 HDG: 241

COMMENT:
PILE. Chart Sounding, pile symbol and label Pile.



ID: 1605 File: EM174_090623152000.XTF 29 03 33.18N 090 20 07.81W RNG: 22.59 HGT: 0.27 HDG: 249

CORRELATED SS CONTACTS:

Contact	Range/Height
1157160447	-6.59/1.39
1174152608	22.59/0.27
1174153534	-8.31/1.25

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0502 Least Depth: Lat: 29 04 43.34N Lon: 090 13 32.72W Ping: Beam:

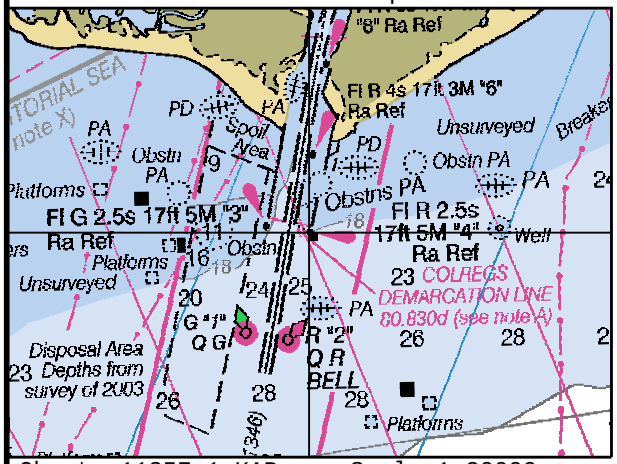


Chart: 11357_1.KAP Scale 1:20000

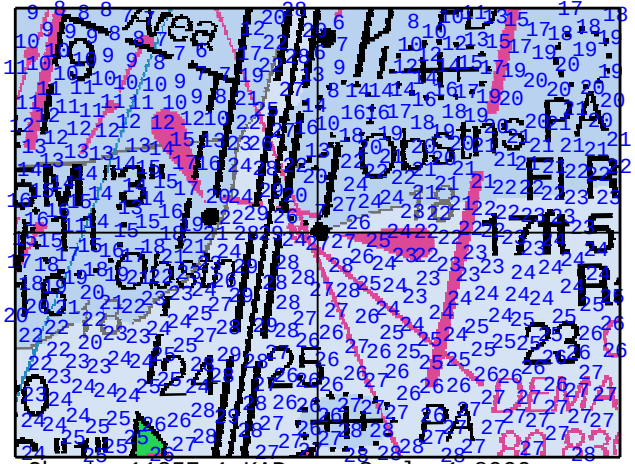
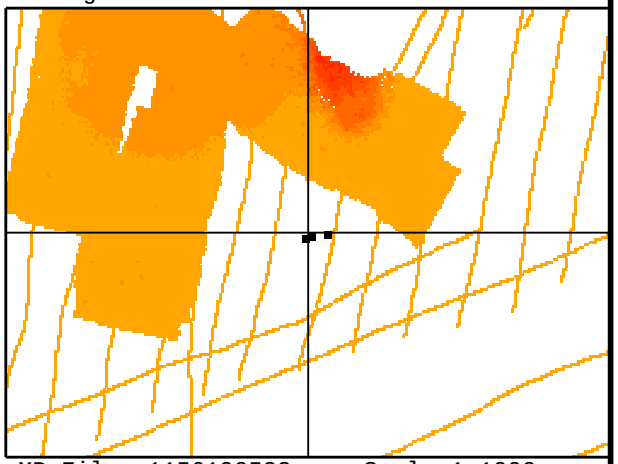
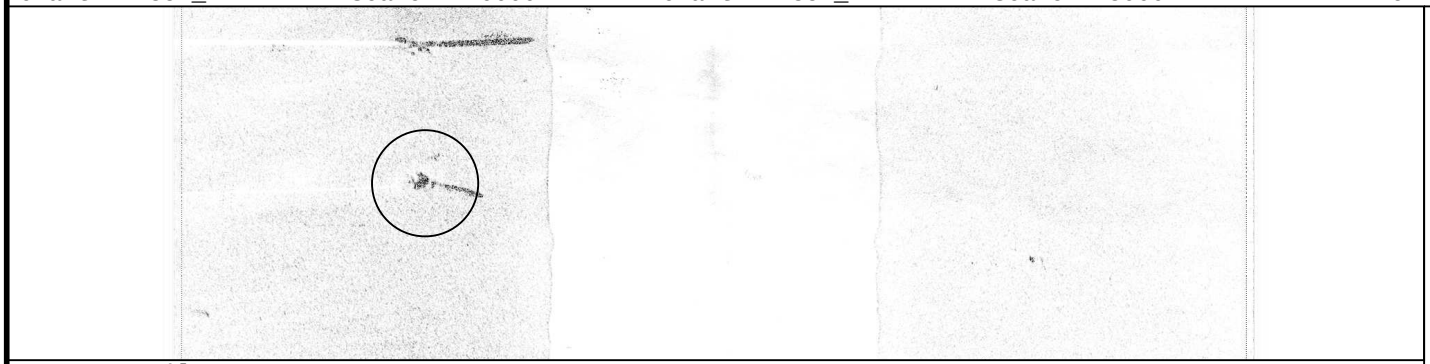


Chart: 11357_1.KAP Scale 1:8000

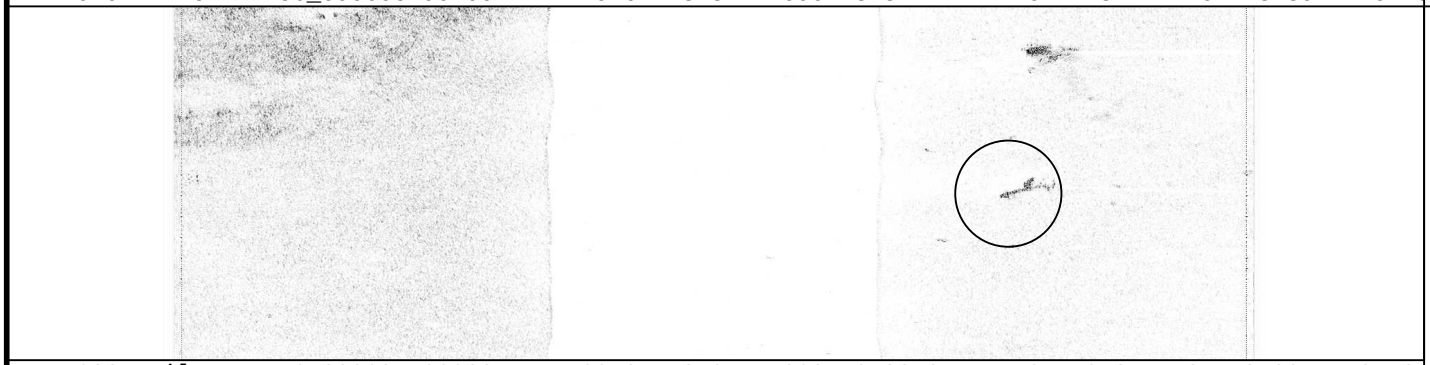


MB File: 1156190532 Scale 1:1000



ID: 979 File: EM156_090605190400.XTF 29 04 43.34N 090 13 32.72W RNG: -13.12 HGT: 3.89 HDG: 009

COMMENT:
PILE. Chart pile symbol and label Subm Pile.



ID: 983 File: EM156_090605190900.XTF 29 04 43.31N 090 13 32.81W RNG: 13.25 HGT: 3.22 HDG: 012

CORRELATED SS CONTACTS:

Contact	Range/Height
1156190531	-13.12/3.89
1156190919	13.25/3.22
1176192506	30.59/0.29

Appendix II
Survey Features Report

3. Pilings

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0497 Least Depth: Lat: 29 04 11.58N Lon: 090 17 43.15W Ping: Beam:

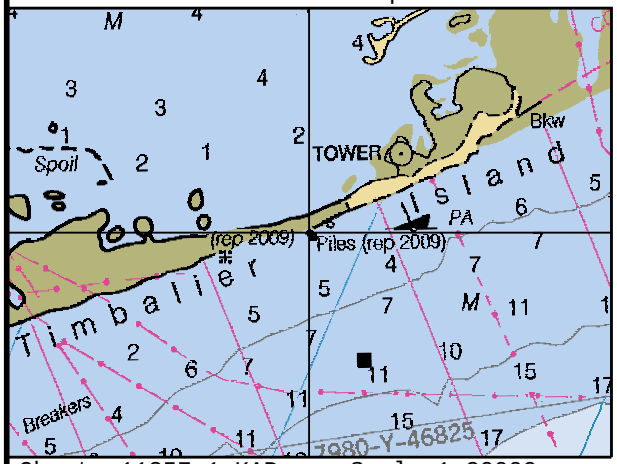


Chart: 11357_1.KAP Scale 1:20000

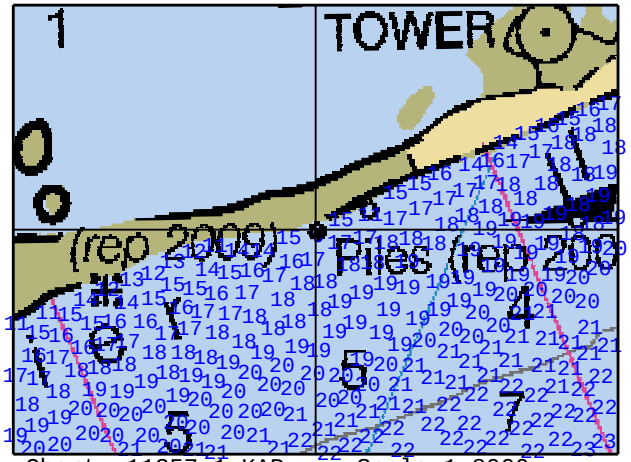
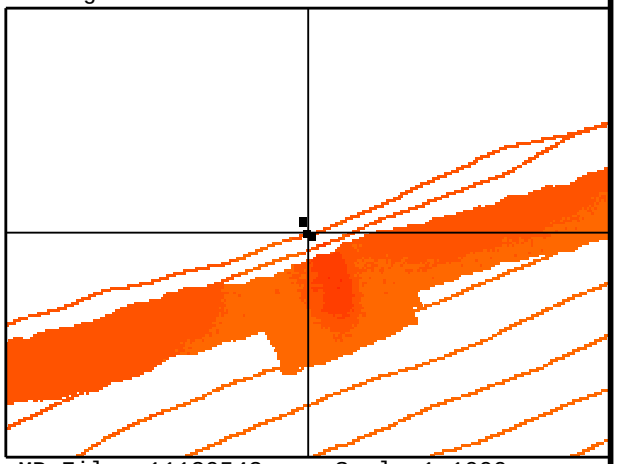
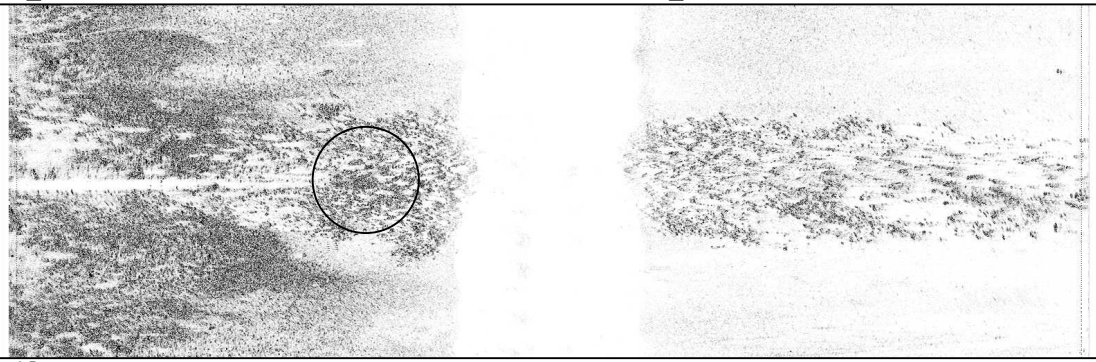


Chart: 11357_1.KAP Scale 1:8000

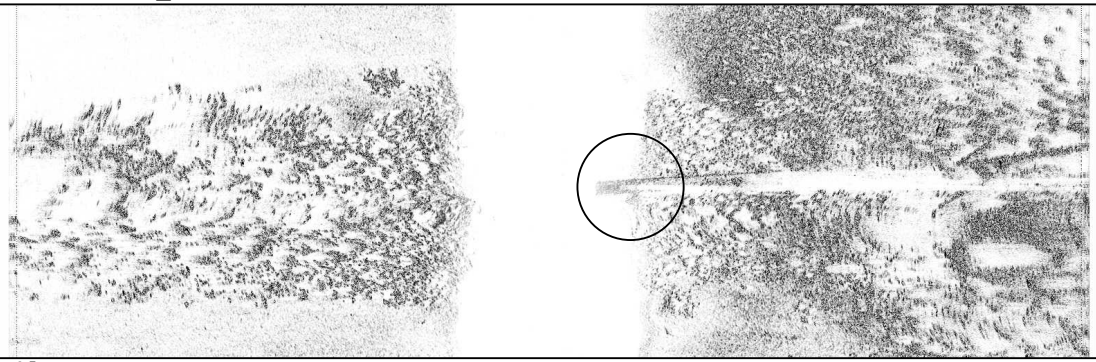


MB File: 11130543 Scale 1:1000



ID: 1332 File: EM167_090616124100.XTF 29 04 11.58N 090 17 43.15W RNG: -8.34 HGT: 2.41 HDG: 066

COMMENT:
PILES. Chart pile symbol. See Danger to Navigation Report #2



ID: 1027 File: EM157_090606144600.XTF 29 04 11.62N 090 17 43.22W RNG: 3.62 HGT: 2.60 HDG: 257

CORRELATED SS CONTACTS:

Contact	Range/Height
1167130543	-8.34/2.41
1157153740	3.62/2.60
1157153741	8.25/2.40
1167130542	-15.16/1.34

06/06/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0496 Least Depth: Lat: 29 04 13.82N Lon: 090 17 36.87W Ping: Beam:

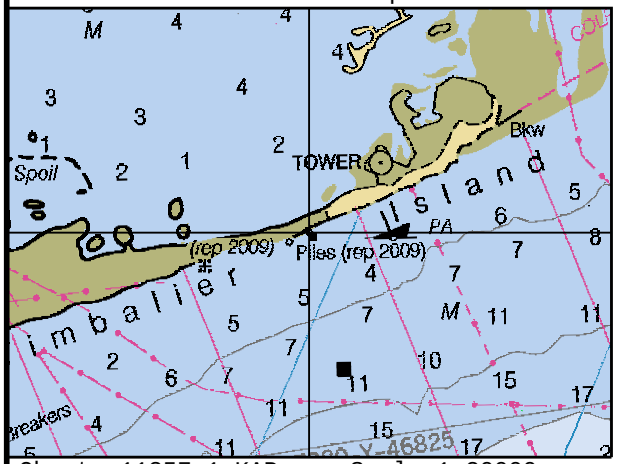


Chart: 11357_1.KAP Scale 1:20000

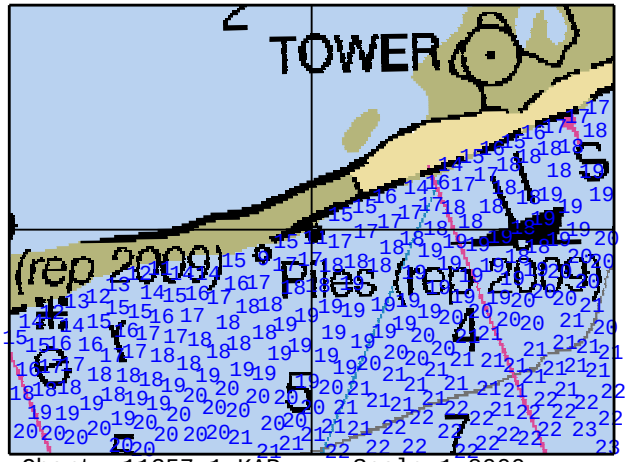
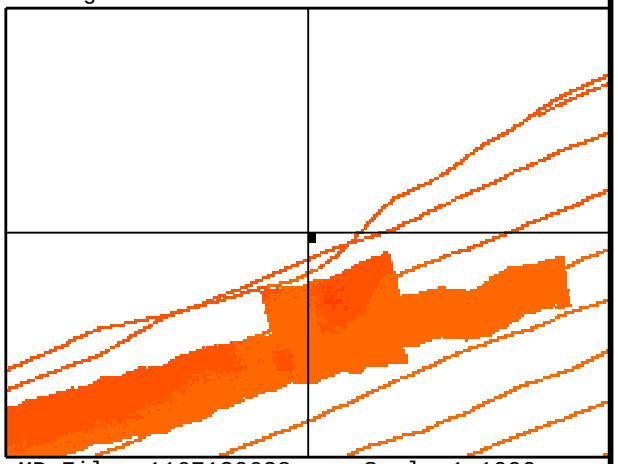
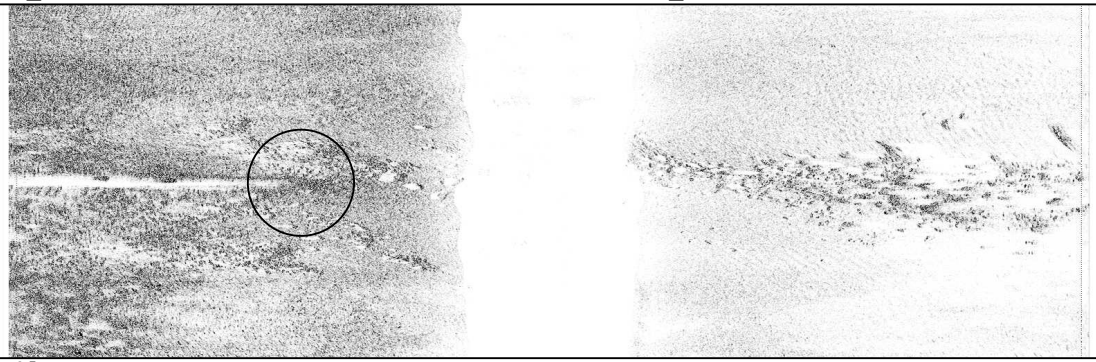


Chart: 11357_1.KAP Scale 1:8000

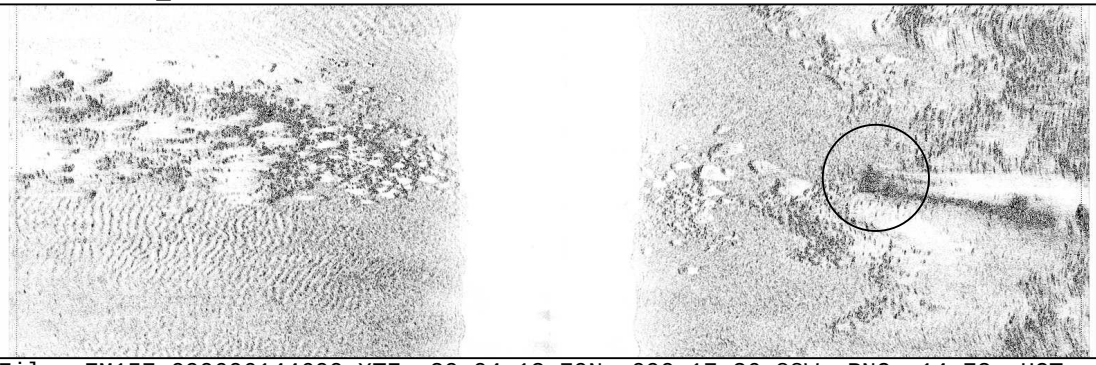


MB File: 1167130628 Scale 1:1000



ID: 1333 File: EM167_090616124100.XTF 29 04 13.82N 090 17 36.87W RNG: -11.28 HGT: 2.17 HDG: 063

COMMENT:
PILES. Chart pile symbol. See Danger to Navigation Report #2



ID: 1026 File: EM157_090606144600.XTF 29 04 13.79N 090 17 36.88W RNG: 14.72 HGT: 1.59 HDG: 237

CORRELATED SS CONTACTS:

Contact	Range/Height
1167130628	-11.28/2.17
1157153623	14.72/1.59

06/16/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0501 Least Depth: Lat: 29 05 49.73N Lon: 090 11 47.47W Ping: Beam:

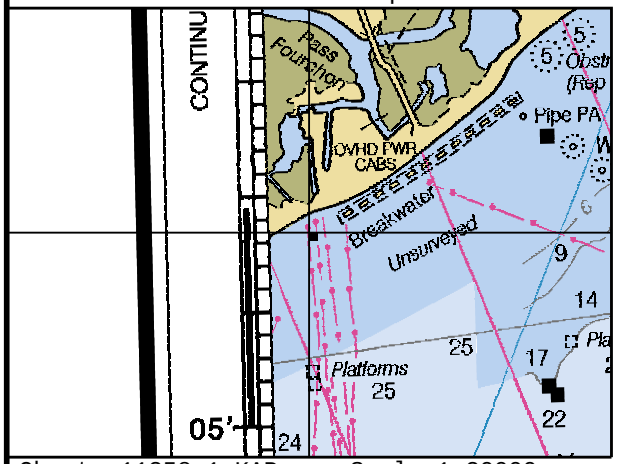


Chart: 11358_1.KAP Scale 1:20000

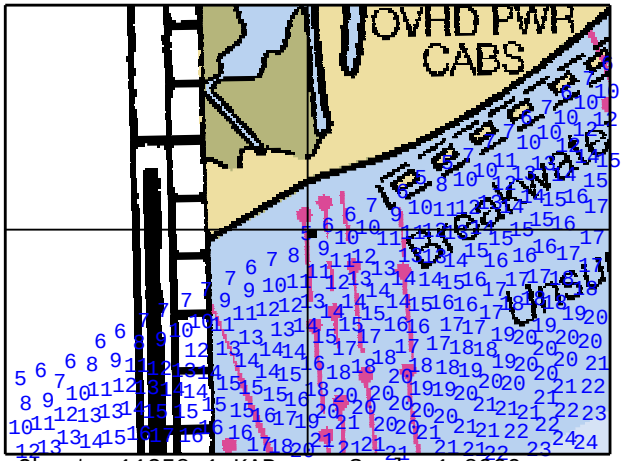
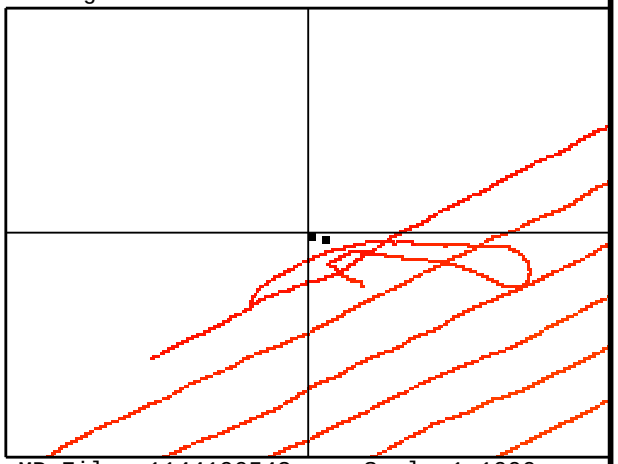
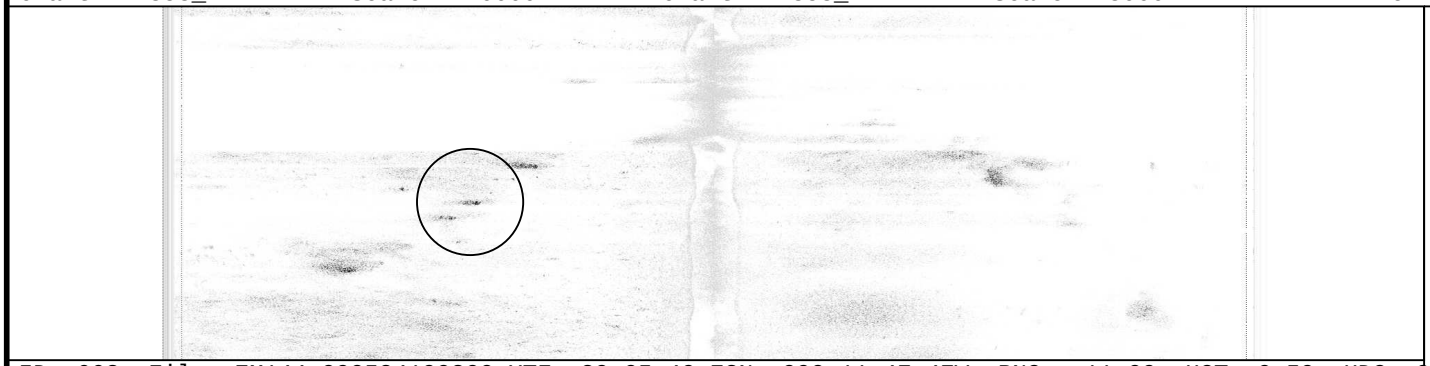


Chart: 11358_1.KAP Scale 1:8000

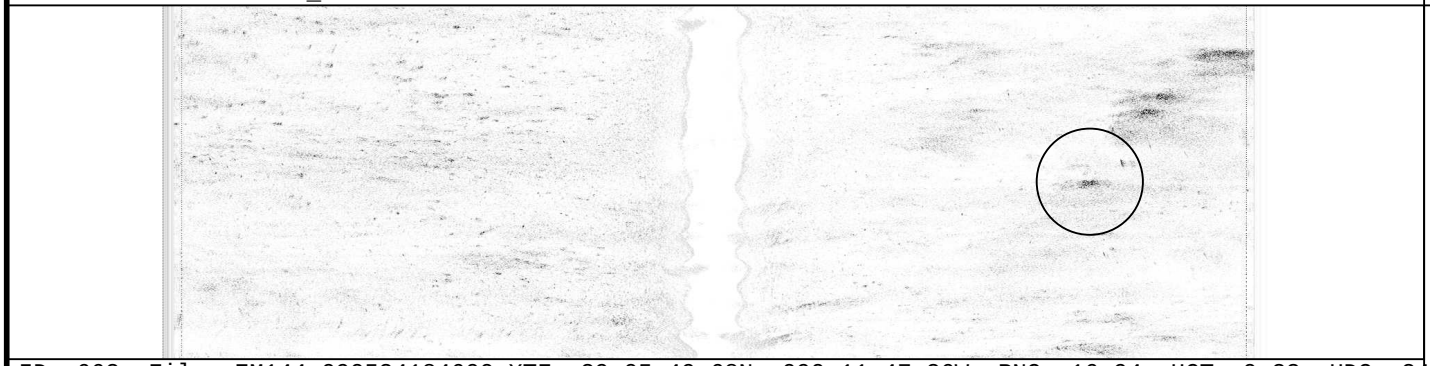


MB File: 1144190543 Scale 1:1000



ID: 663 File: EM144_090524190300.XTF 29 05 49.73N 090 11 47.47W RNG: -11.09 HGT: 0.59 HDG: 082

COMMENT:
PILES. Chart pile symbol and label Piles.



ID: 662 File: EM144_090524184600.XTF 29 05 49.68N 090 11 47.26W RNG: 16.94 HGT: 0.33 HDG: 246

CORRELATED SS CONTACTS:

Contact	Range/Height
1144190541	-11.09/0.59
1144190217	16.94/0.33

05/24/2009

Appendix II
Survey Features Report

4. Platforms

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0440 Least Depth: Lat: 29 05 19.68N Lon: 090 10 28.48W Ping: Beam:

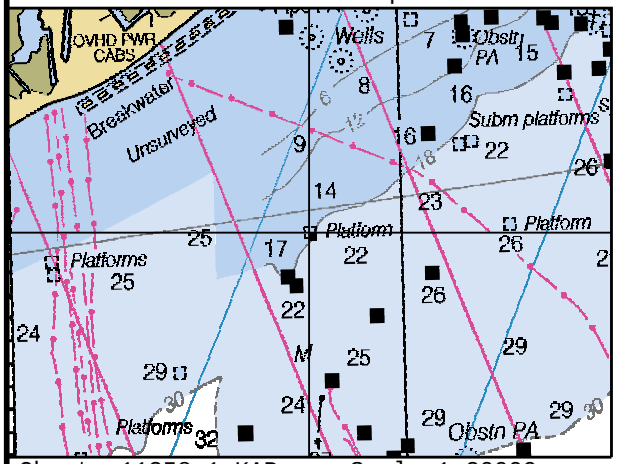


Chart: 11358_1.KAP Scale 1:20000

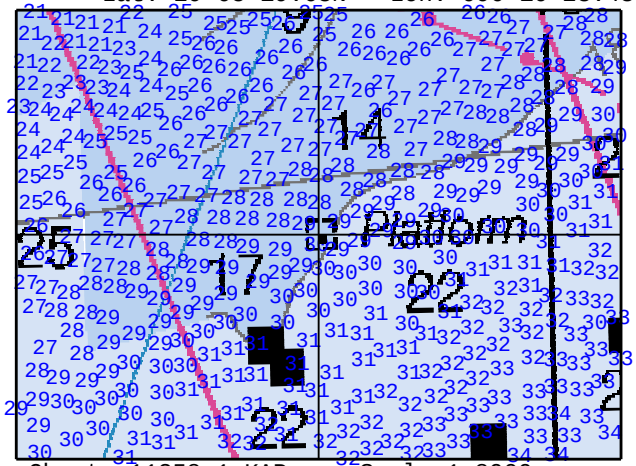
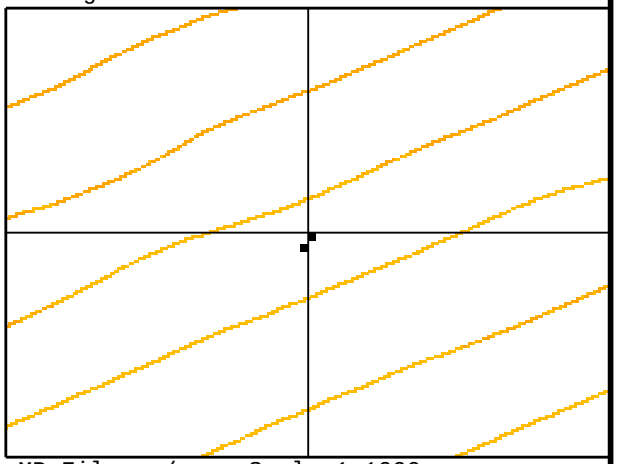
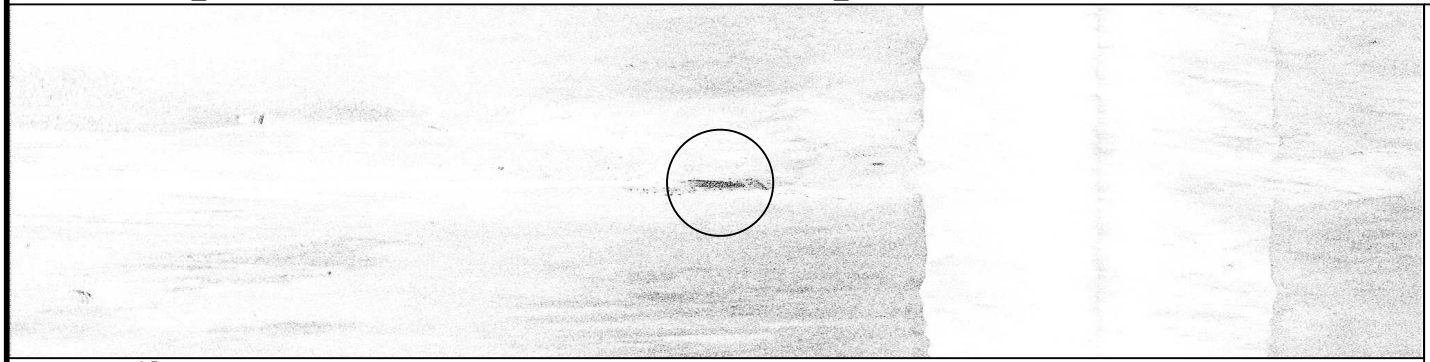


Chart: 11358_1.KAP Scale 1:8000

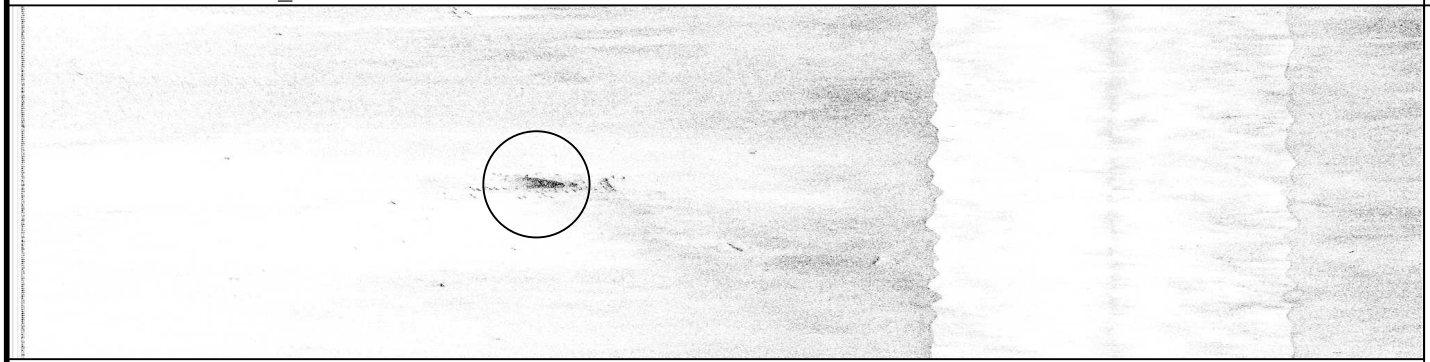


MB File: n/a Scale 1:1000



ID: 9 File: LM077_090318161100.XTF 29 05 19.68N 090 10 28.48W RNG: -17.16 HGT: 5.54 HDG: 253

COMMENT:
PLATFORM. Chart platform symbol. Owner information is not visible.



ID: 16 File: LM078_090319153000.XTF 29 05 19.55N 090 10 28.61W RNG: -26.09 HGT: 3.54 HDG: 069

CORRELATED SS CONTACTS:

Contact	Range/Height
1077161850	-17.16/5.54
1078155025	-26.09/3.54

03/18/2009 16:19

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0441 Least Depth: Lat: 29 05 07.82N Lon: 090 10 35.34W Ping: Beam:

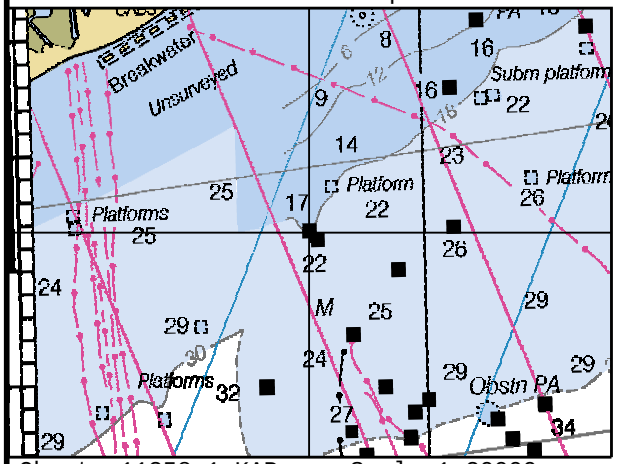


Chart: 11358_1.KAP Scale 1:20000

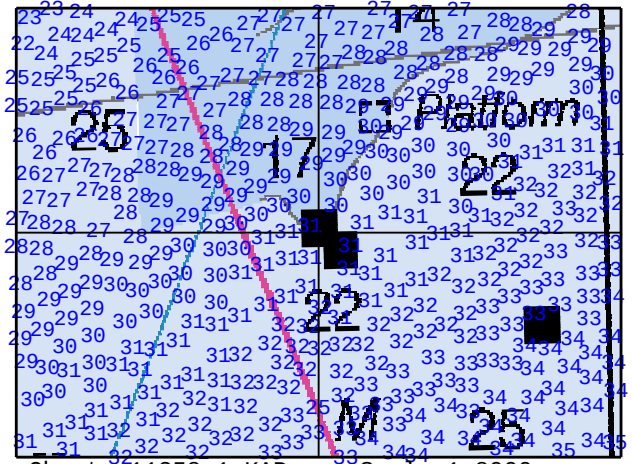
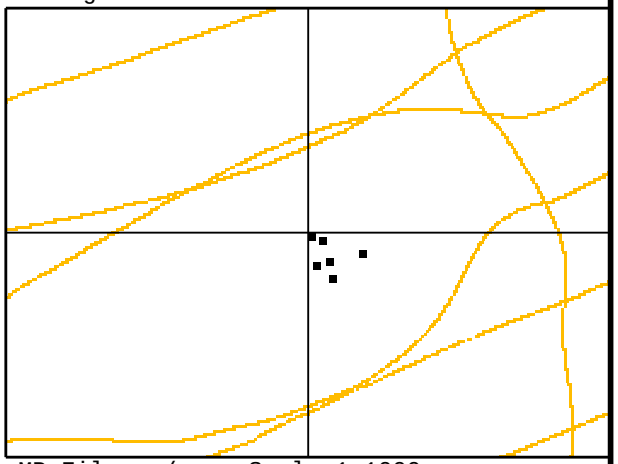


Chart: 11358_1.KAP Scale 1:8000



MB File: n/a Scale 1:1000

ID: 17 File: LM078_090319184500.XTF 29 05 07.82N 090 10 35.35W RNG: 34.69 HGT: 1.02 HDG: 070

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. BM 3 J 5/25".

ID: 13 File: LM077_090318185400.XTF 29 05 07.76N 090 10 35.18W RNG: -38.22 HGT: 0.23 HDG: 257

CORRELATED SS CONTACTS:

Contact	Range/Height
1078185558	34.69/1.02
1077190236	-38.22/0.23
1173165803	22.41/1.67
1173165244	27.91/1.39
1173164357	-21.44/5.54
1098160731	-46.09/0.04

CHEVRON USA INC
B M BLK 3
S/L 1367 J-13
06/22/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0442 Least Depth: Lat: 29 05 20.33N Lon: 090 09 27.96W Ping: Beam:

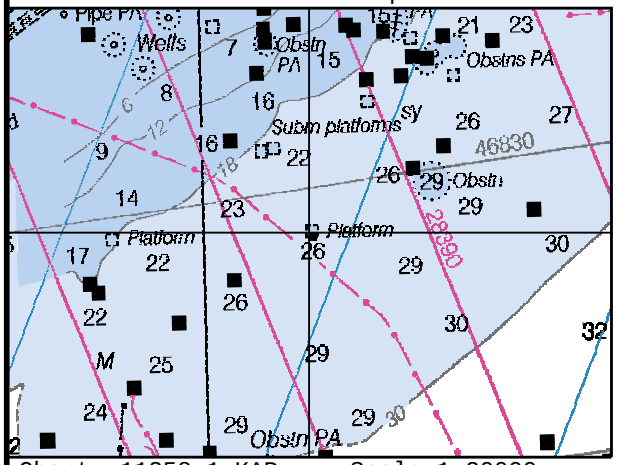


Chart: 11358_1.KAP Scale 1:20000

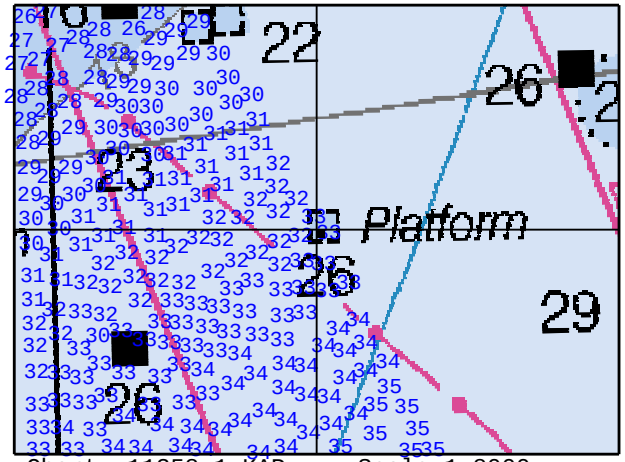
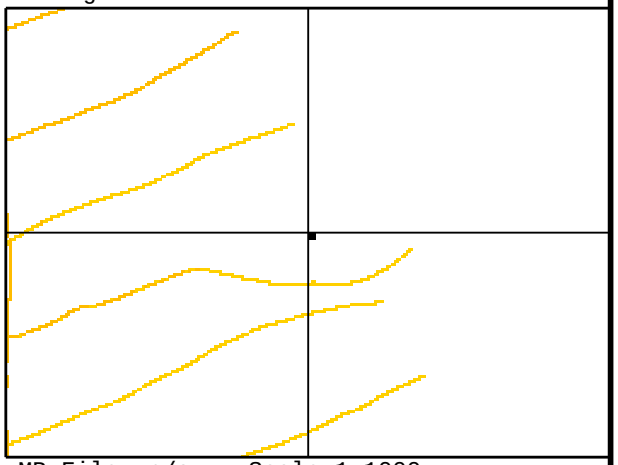
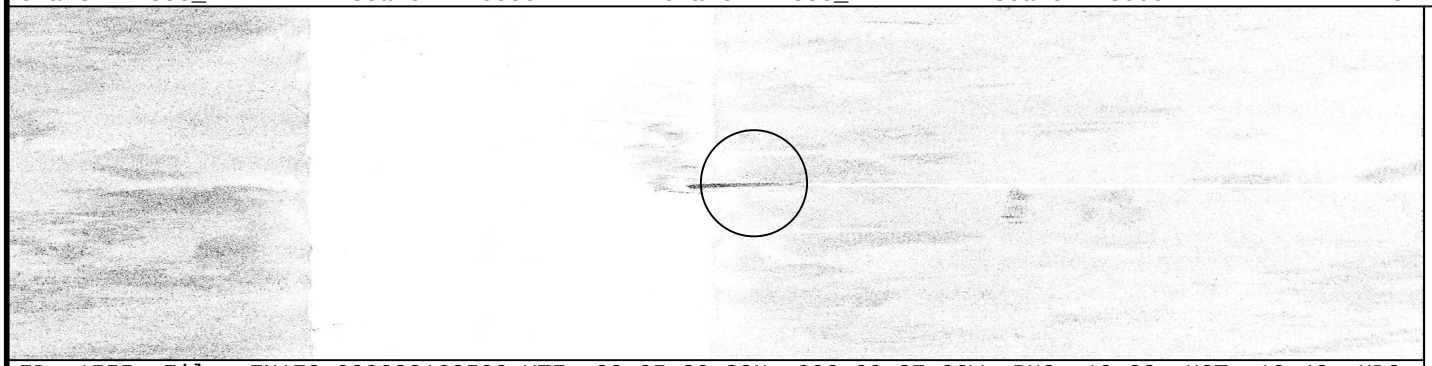


Chart: 11358_1.KAP Scale 1:8000



MB File: n/a Scale 1:1000



ID: 1555 File: EM173_090622162500.XTF 29 05 20.33N 090 09 27.96W RNG: 10.88 HGT: 10.42 HDG: 083

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. BM BLK 1 S/L 1365 #70".

CORRELATED SS CONTACTS:

Contact	Range/Height
1173162753	10.88/10.42

CHEVRON USA INC
B M BLK 1
S/L 1365 #70
06/22/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0443 Least Depth: Lat: 29 04 57.40N Lon: 090 10 09.67W Ping: Beam:

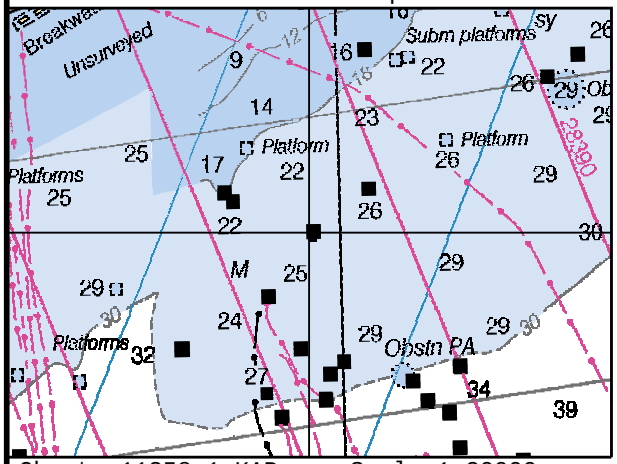


Chart: 11358_1.KAP Scale 1:20000

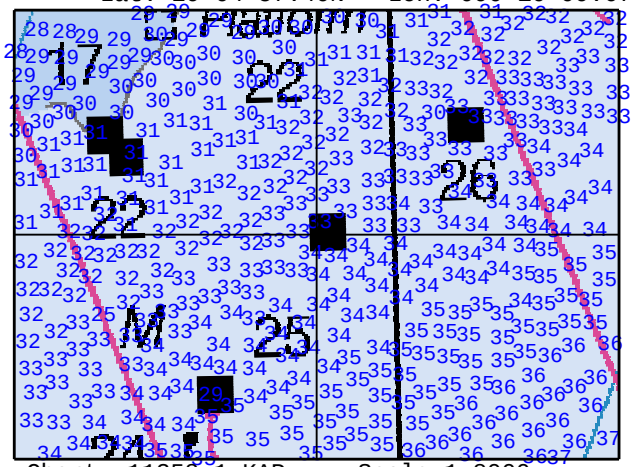
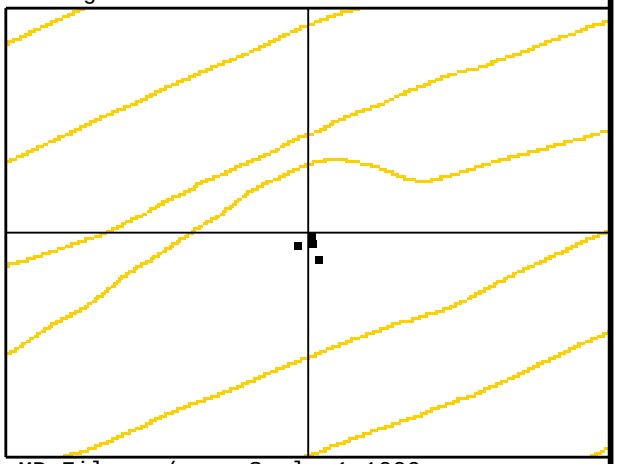
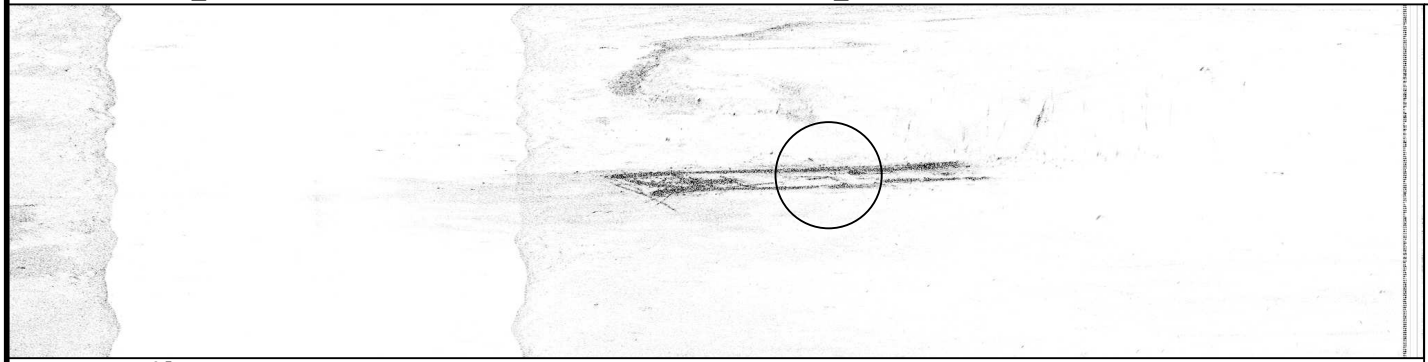


Chart: 11358_1.KAP Scale 1:8000



MB File: n/a Scale 1:1000



ID: 67 File: LM093_090403165200.XTF 29 04 57.40N 090 10 09.67W RNG: 23.09 HGT: 2.50 HDG: 069

COMMENT:
PLATFORM. Chart platform symbol. "Chevron BM 3 SK 5-40".

ID: 152 File: LM111_090421162800.XTF 29 04 57.31N 090 10 09.65W RNG: 42.69 HGT: 0.05 HDG: 254

CORRELATED SS CONTACTS:

Contact	Range/Height
1093165533	23.09/2.50
1111164104	42.69/0.05
1135165736	-39.12/0.46
1173162129	-26.97/3.23

04/21/2009 16:38

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0444 Least Depth: Lat: 29 05 05.49N Lon: 090 10 33.00W Ping: Beam:

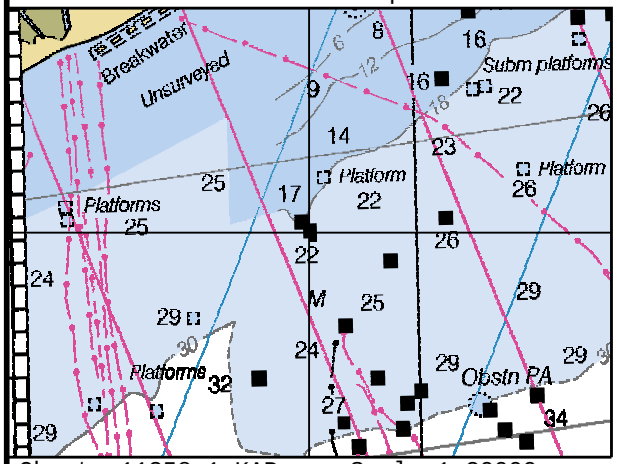


Chart: 11358_1.KAP Scale 1:20000

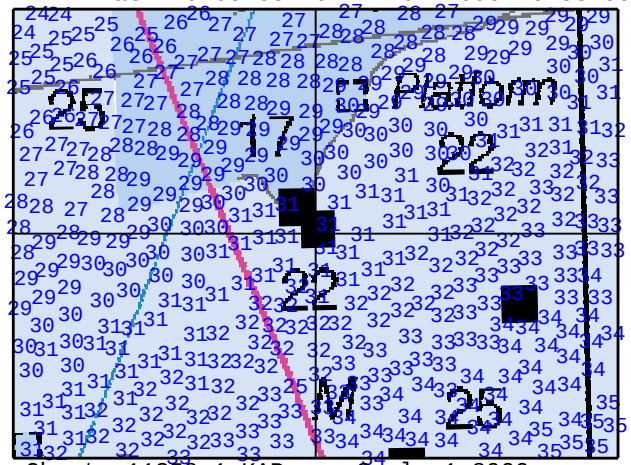
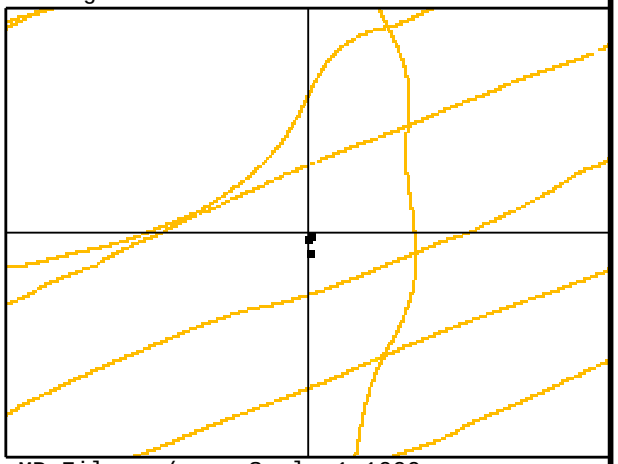
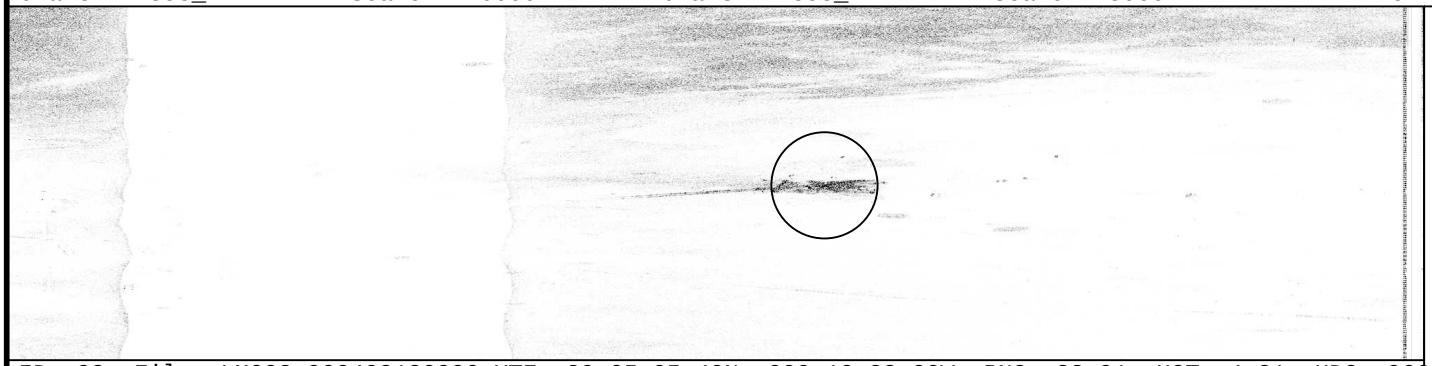


Chart: 11358_1.KAP Scale 1:8000



MB File: n/a Scale 1:1000



ID: 83 File: LM093_090403180800.XTF 29 05 05.49N 090 10 33.00W RNG: 22.91 HGT: 4.81 HDG: 066

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. BM BLK 3. S/L 1367 J-14".

ID: 114 File: LM098_090408155500.XTF 29 05 05.45N 090 10 33.05W RNG: 31.25 HGT: 2.65 HDG: 051

CORRELATED SS CONTACTS:

Contact	Range/Height
1093190432	22.91/4.81
1098160726	31.25/2.65
1078191255	17.06/5.71

04/08/2009 16:08

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0445 Least Depth: Lat: 29 05 08.99N Lon: 090 09 52.15W Ping: Beam:

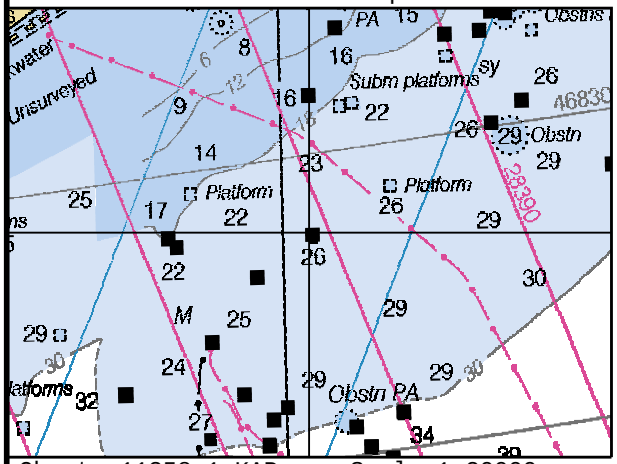


Chart: 11358_1.KAP Scale 1:20000

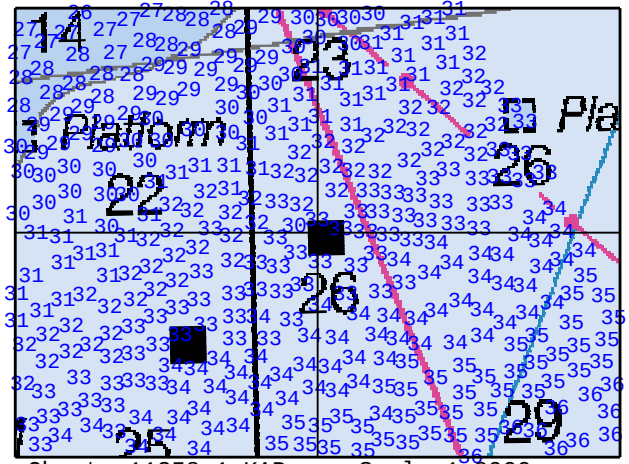
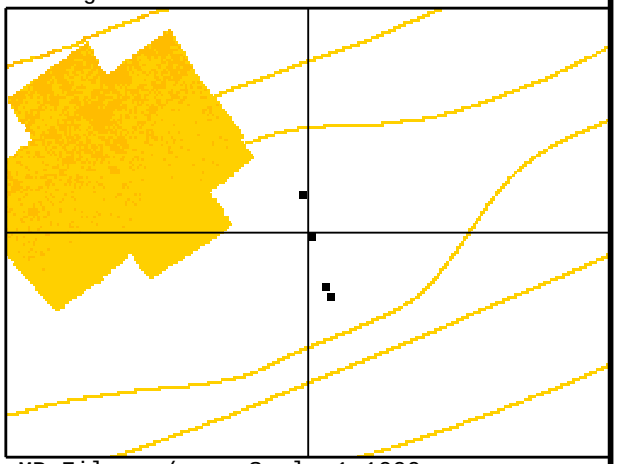


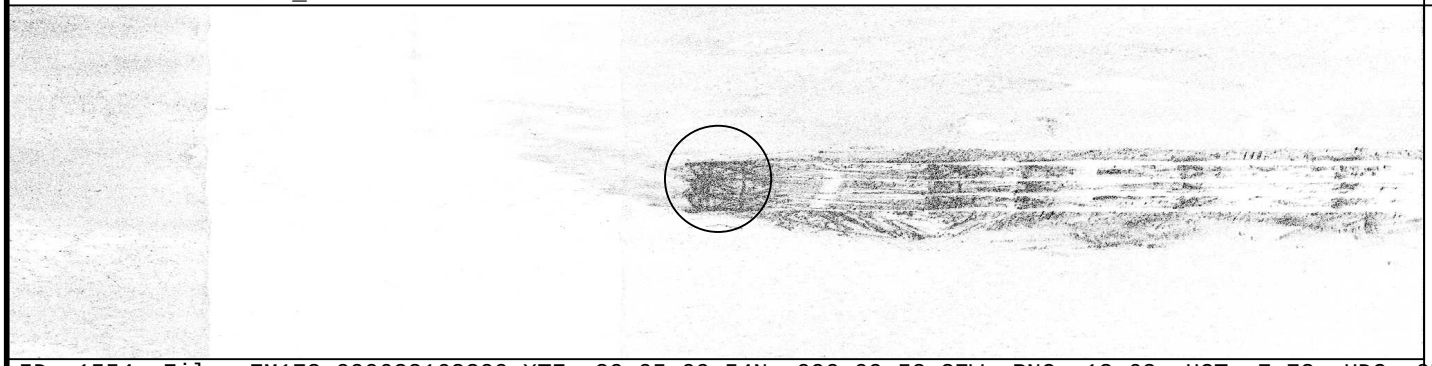
Chart: 11358_1.KAP Scale 1:8000



MB File: n/a Scale 1:1000

ID: 98 File: LM093_090403200600.XTF 29 05 08.99N 090 09 52.15W RNG: 38.69 HGT: 0.54 HDG: 079

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. BM 3 L 5/40".



ID: 1554 File: EM173_090622162200.XTF 29 05 09.54N 090 09 52.27W RNG: 13.62 HGT: 7.72 HDG: 071

CORRELATED SS CONTACTS:

Contact	Range/Height
1093205639	38.69/0.54
1173162431	13.62/7.72
1098162030	34.75/1.90
1098153012	-22.91/4.53

04/08/2009 16:20

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0446 Least Depth: Lat: 29 04 02.16N Lon: 090 13 04.08W Ping: Beam:

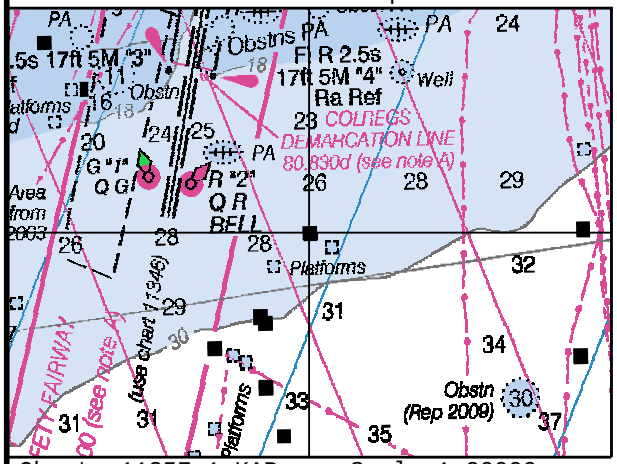


Chart: 11357_1.KAP Scale 1:20000

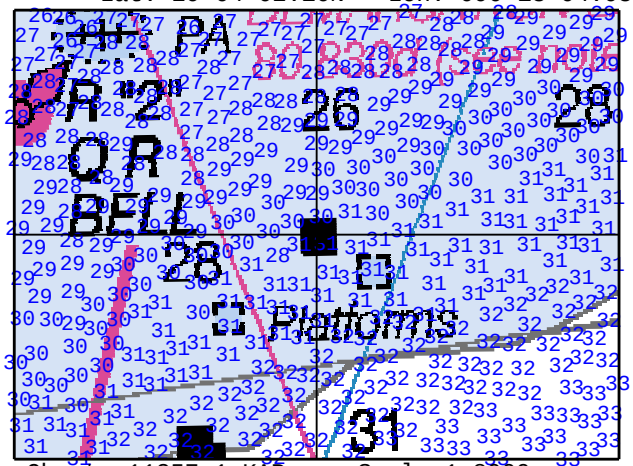
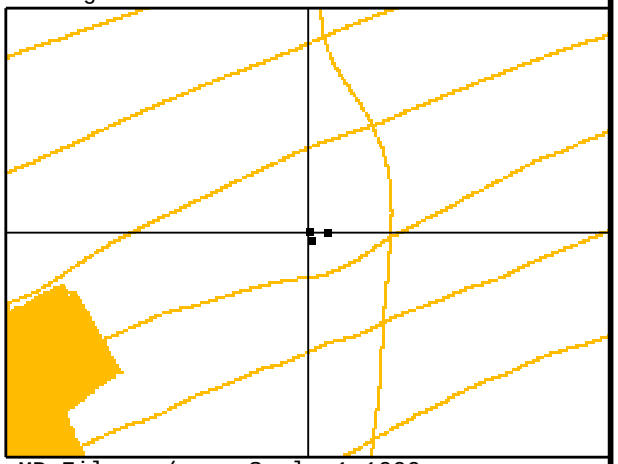
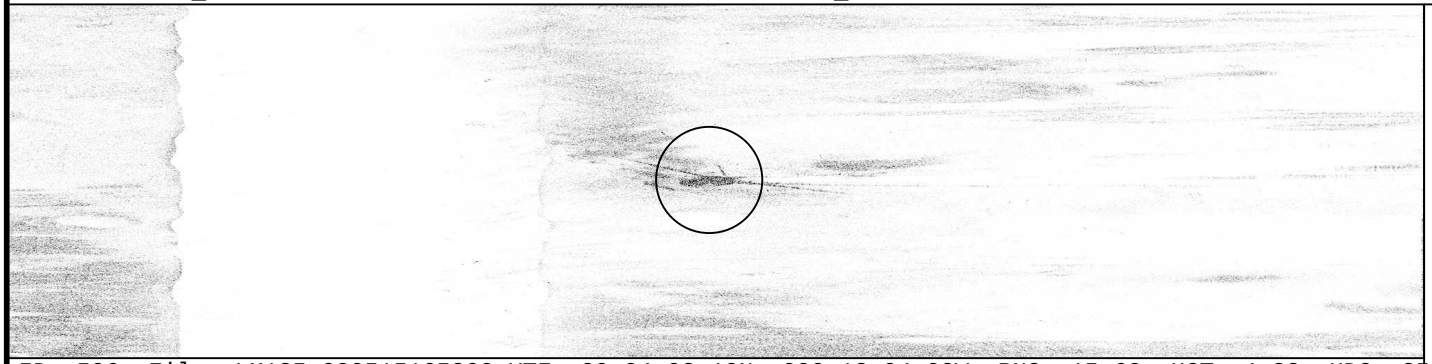


Chart: 11357_1.KAP Scale 1:8000

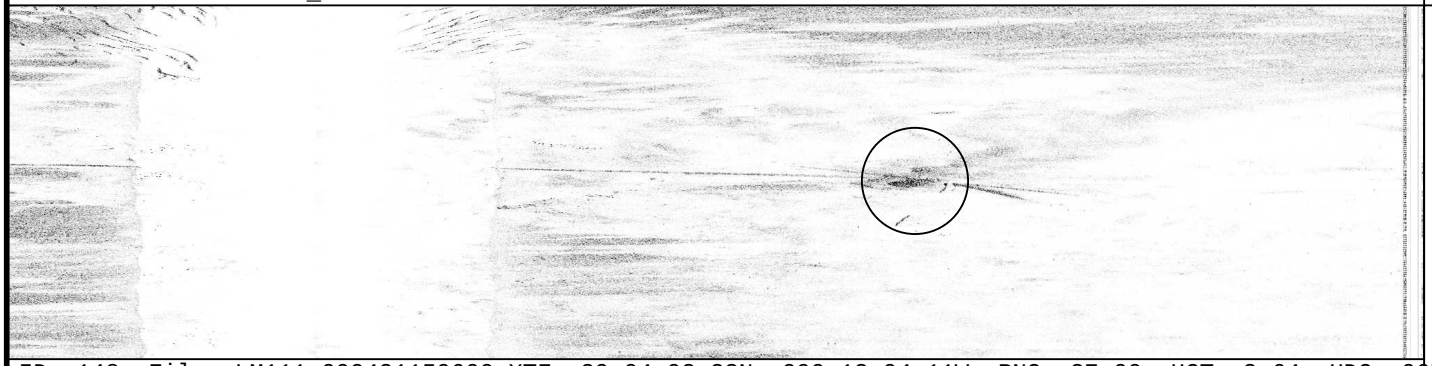


MB File: n/a Scale 1:1000



ID: 506 File: LM135_090515165200.XTF 29 04 02.10N 090 13 04.08W RNG: 15.69 HGT: 4.82 HDG: 258

COMMENT:
PLATFORM. Chart platform symbol. "BDO BM -5 S/L 18367 #1".



ID: 148 File: LM111_090421150600.XTF 29 04 02.23N 090 13 04.11W RNG: 27.00 HGT: 3.64 HDG: 067

CORRELATED SS CONTACTS:

Contact	Range/Height
1135171523	15.69/4.82
1111160236	27.00/3.64
1093163547	-48.09/0.04

04/21/2009 16:02

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0447 Least Depth: Lat: 29 04 25.36N Lon: 090 10 20.39W Ping: Beam:

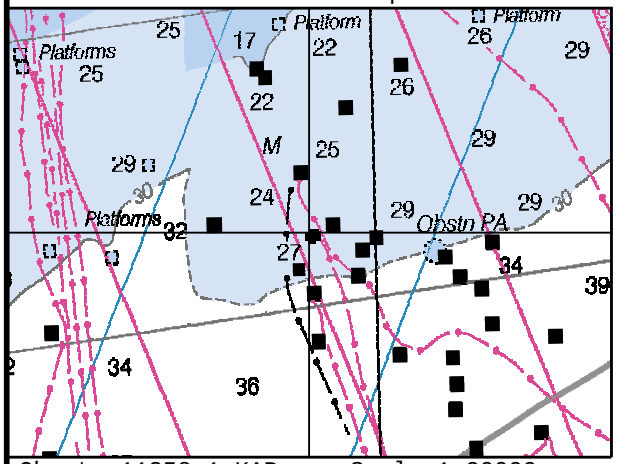


Chart: 11358_1.KAP Scale 1:20000

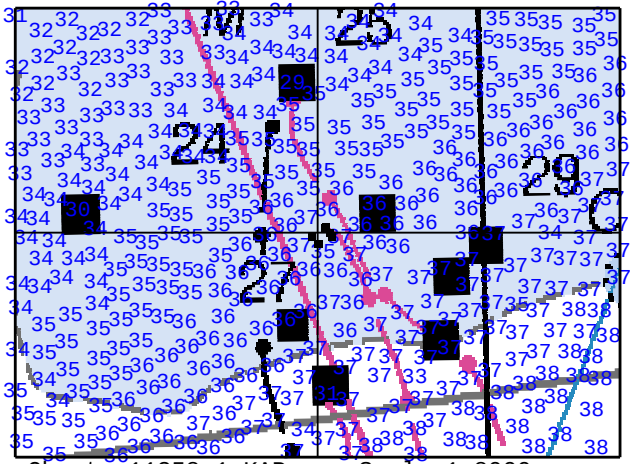
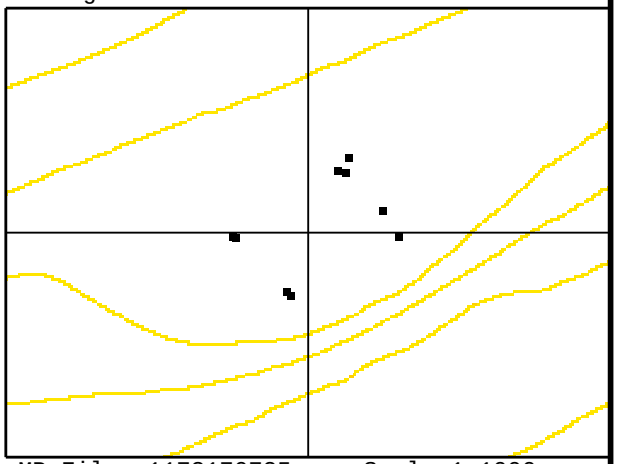


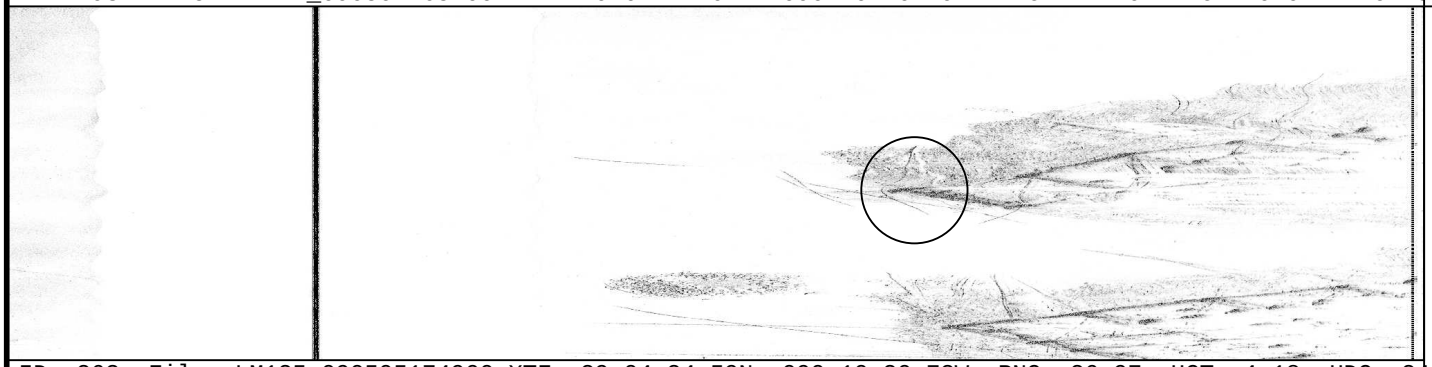
Chart: 11358_1.KAP Scale 1:8000



MB File: 1173170725 Scale 1:1000

ID: 193 File: LM121_090501165400.XTF 29 04 24.64N 090 10 20.79W RNG: -47.97 HGT: 0.01 HDG: 062

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. 5 BM C&I".



ID: 263 File: LM125_090505174900.XTF 29 04 24.59N 090 10 20.73W RNG: 26.97 HGT: 4.18 HDG: 249

CORRELATED SS CONTACTS:

Contact	Range/Height
1121170955	-47.97/0.01
1125180014	26.97/4.18
1173171232	-18.75/8.24
1121175242	-43.53/0.02
1125180001	40.50/0.05
1173170725	35.34/2.62
1173171249	-18.03/7.01
1173170740	25.62/4.97
1122173325	21.12/6.37

CHEVRON USA INC
BM 3 C&I
05/01/2009 17:50

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0448 Least Depth: Lat: 29 04 19.55N Lon: 090 11 21.64W Ping: Beam:

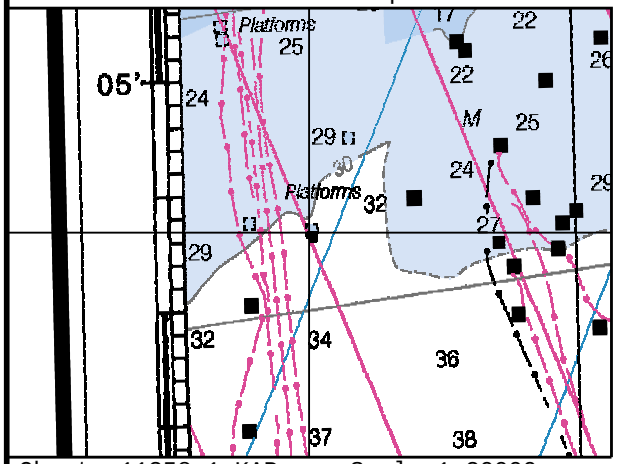


Chart: 11358_1.KAP Scale 1:20000

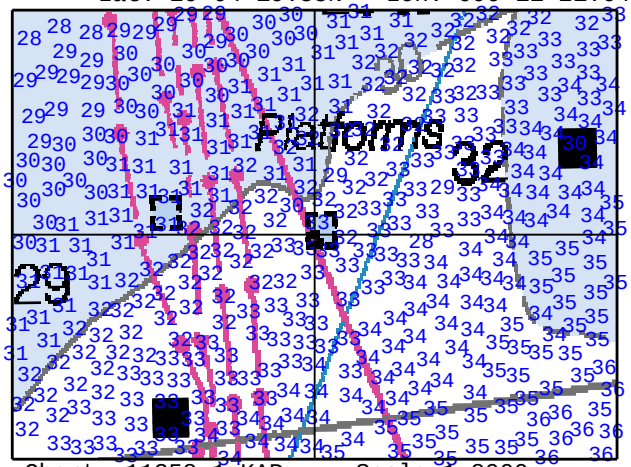
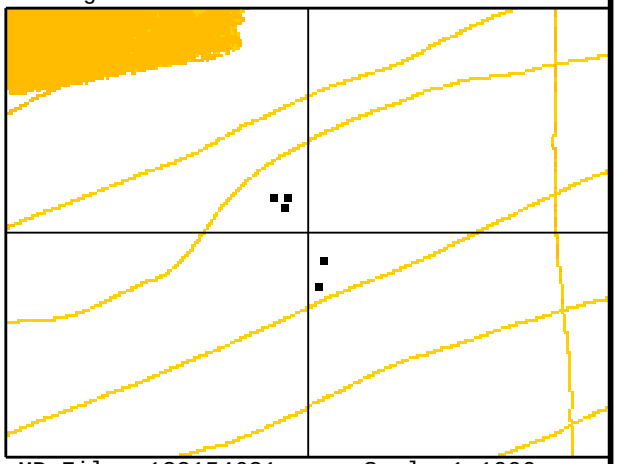
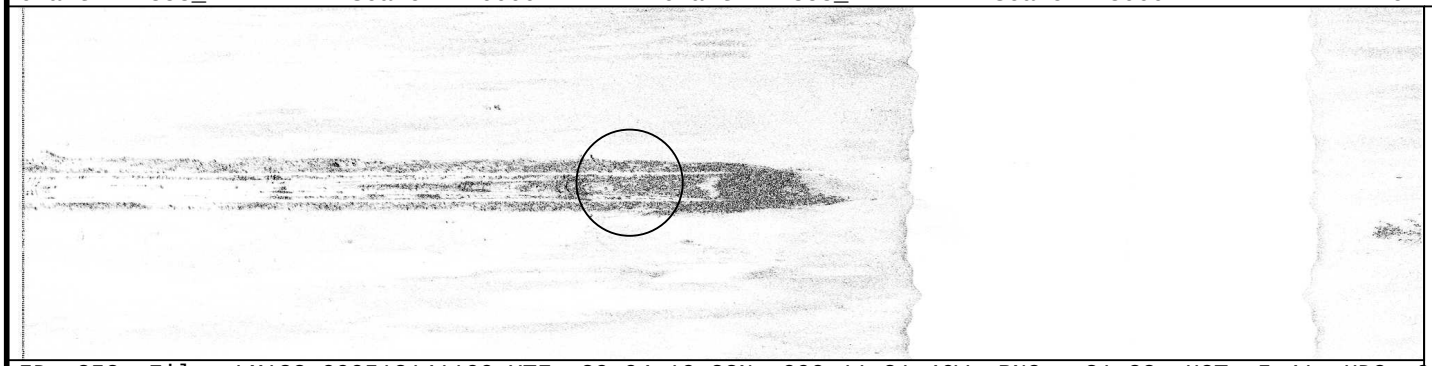


Chart: 11358_1.KAP Scale 1:8000



MB File: 132154631, Scale 1:1000



ID: 352 File: LM132_090512141100.XTF 29 04 19.22N 090 11 21.46W RNG: -21.88 HGT: 5.41 HDG: 068

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. 5/25 BM 30".

ID: 363 File: LM132_090512153100.XTF 29 04 19.92N 090 11 22.04W RNG: -37.81 HGT: 1.02 HDG: 250

CORRELATED SS CONTACTS:

Contact	Range/Height
1132151712	-21.88/5.41
1132154630	-37.81/1.02
1131175321	-17.47/5.72
1131190017	-47.53/0.05
1173160737	-12.12/9.58

05/11/2009 17:45

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0449 Least Depth: Lat: 29 03 39.30N Lon: 090 13 18.38W Ping: Beam:

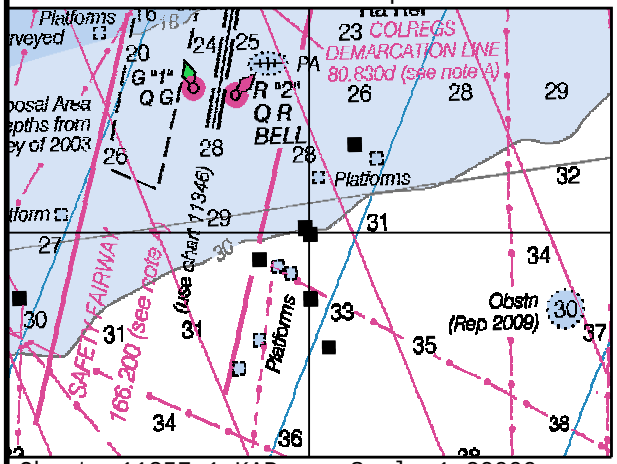


Chart: 11357_1.KAP Scale 1:20000

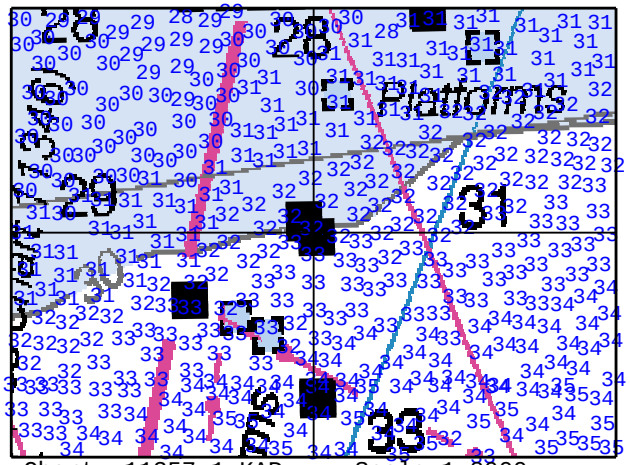
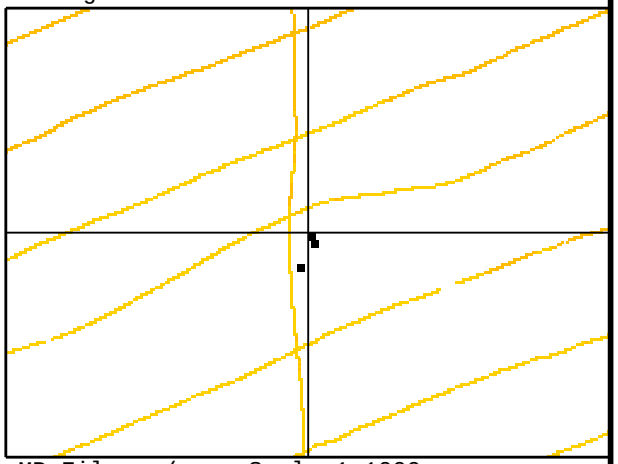


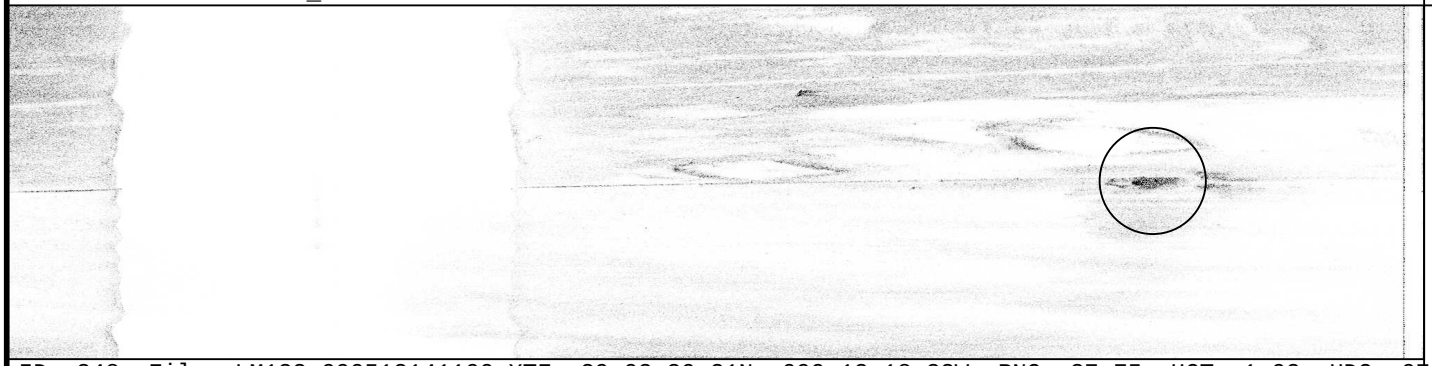
Chart: 11357_1.KAP Scale 1:8000



MB File: n/a Scale 1:1000

ID: 326 File: LM131_090511182700.XTF 29 03 39.30N 090 13 18.38W RNG: 10.06 HGT: 9.97 HDG: 071

COMMENT:
PLATFORM. Chart platform symbol. "BDO BM 5 S/L 14498 #1".



ID: 348 File: LM132_090512141100.XTF 29 03 39.21N 090 13 18.33W RNG: 37.75 HGT: 1.92 HDG: 072

CORRELATED SS CONTACTS:

Contact	Range/Height
1131184754	10.06/9.97
1132150411	37.75/1.92
1130172959	30.50/3.16

05/11/2009 18:06

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0450 Least Depth: Lat: 29 04 27.82N Lon: 090 10 49.41W Ping: Beam:

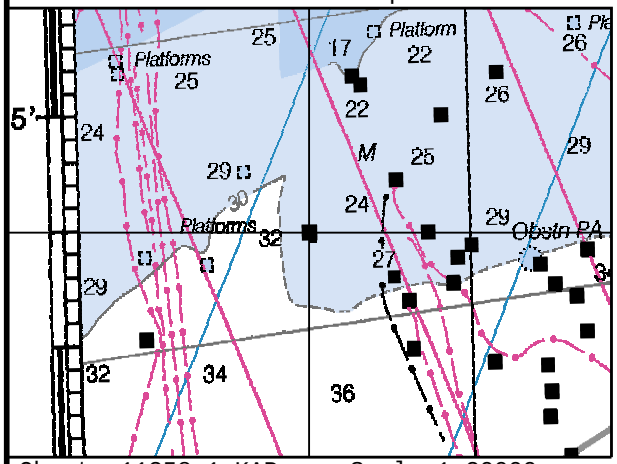


Chart: 11358_1.KAP Scale 1:20000

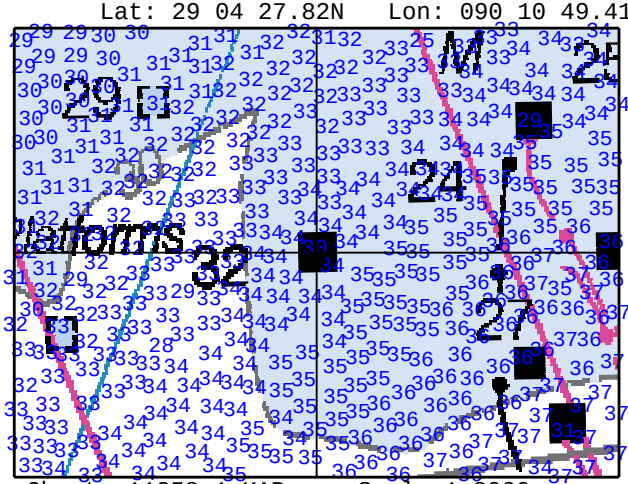
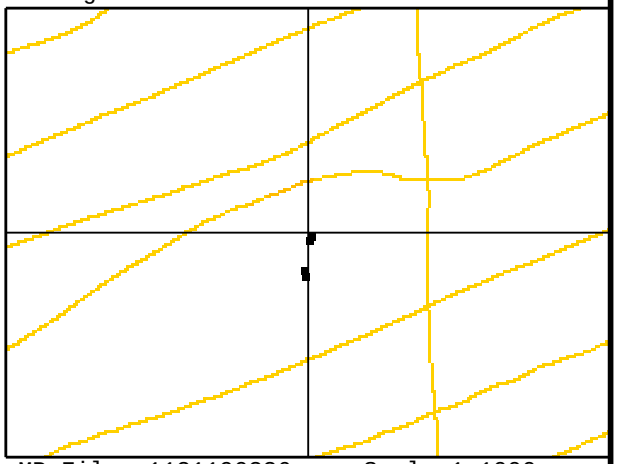
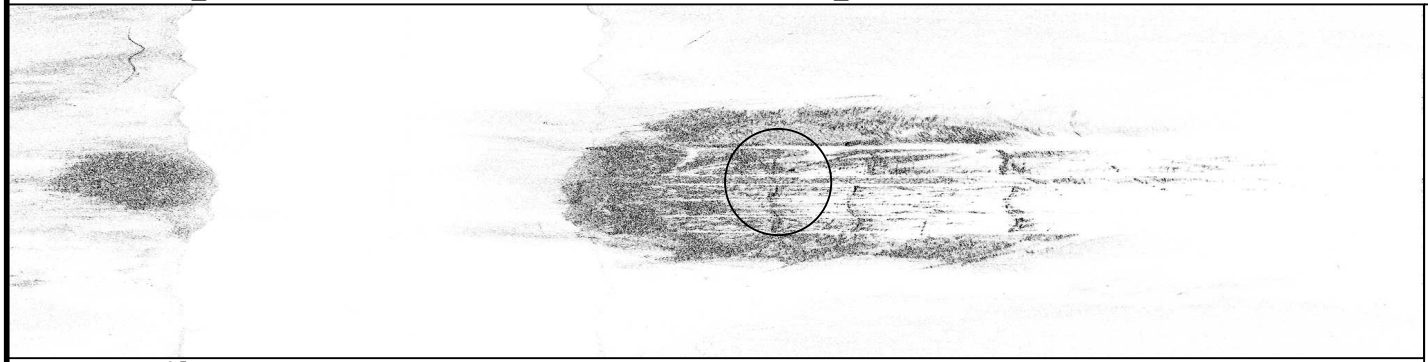


Chart: 11358_1.KAP Scale 1:8000

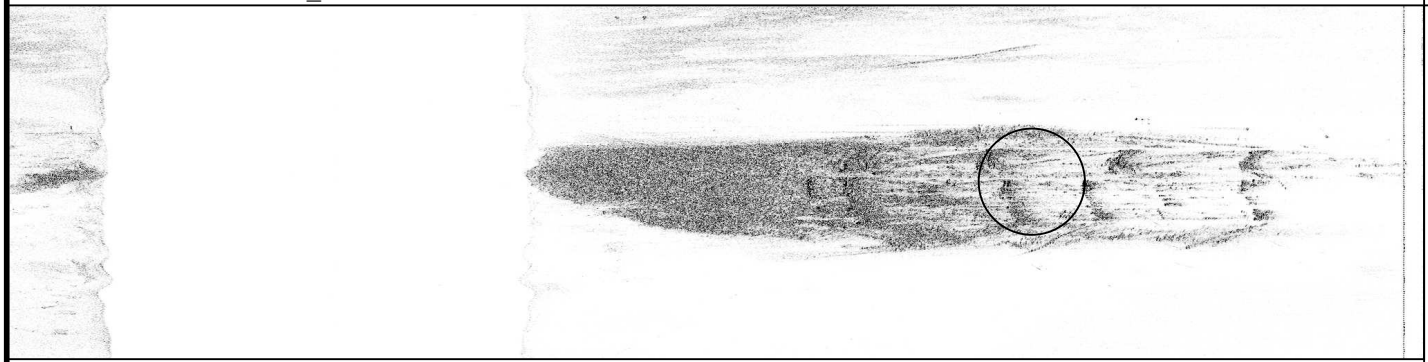


MB File: 1131190336 Scale 1:1000



ID: 332 File: LM131_090511182700.XTF 29 04 27.82N 090 10 49.41W RNG: 17.47 HGT: 2.25 HDG: 073

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. B M BLK 3 S/L 1367 H".



ID: 354 File: LM132_090512141100.XTF 29 04 27.77N 090 10 49.44W RNG: 32.28 HGT: 1.07 HDG: 069

CORRELATED SS CONTACTS:

Contact	Range/Height
1131190336	17.47/2.25
1132152038	32.28/1.07
1130171222	34.72/1.83
1173160305	38.94/0.19

05/10/2009 17:03

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0451 Least Depth: Lat: 29 04 40.69N Lon: 090 10 22.32W Ping: Beam:

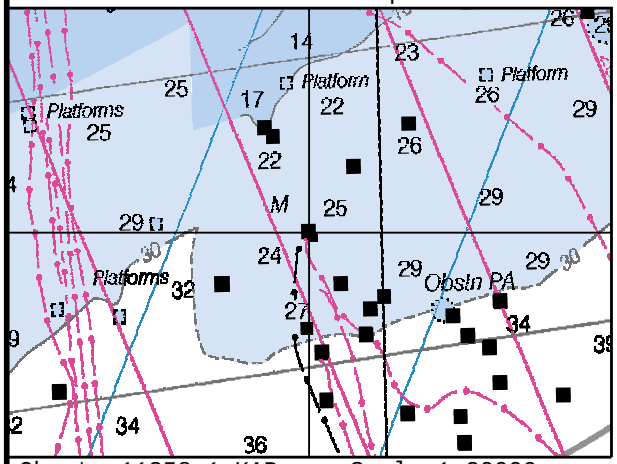


Chart: 11358_1.KAP Scale 1:20000

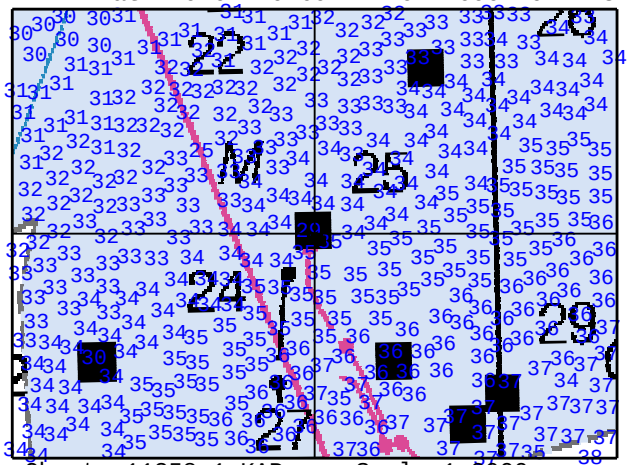
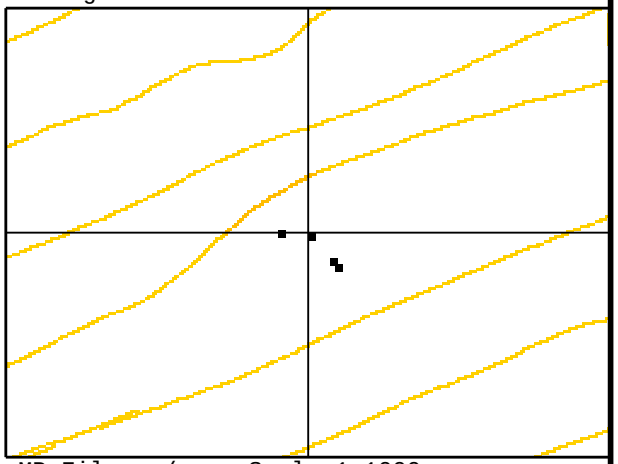
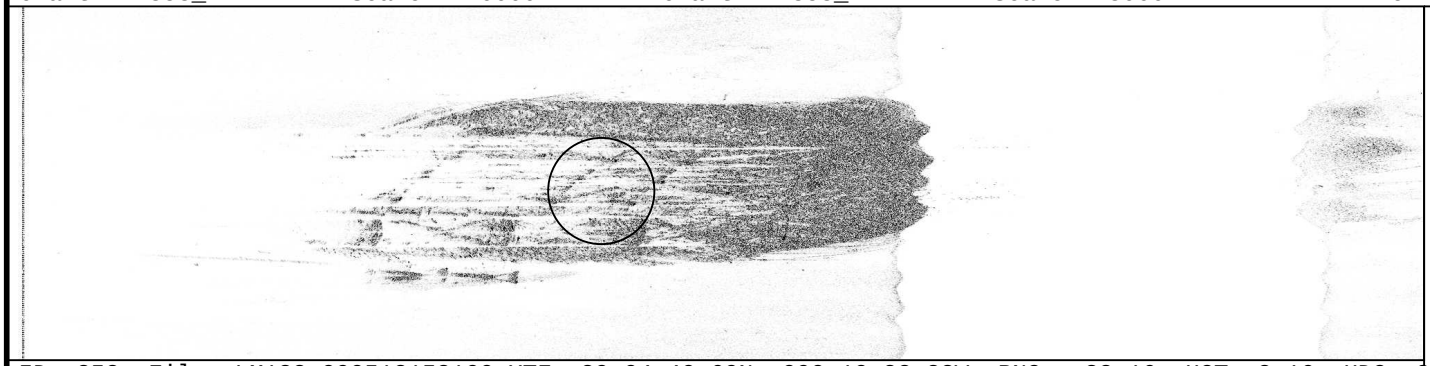


Chart: 11358_1.KAP Scale 1:8000

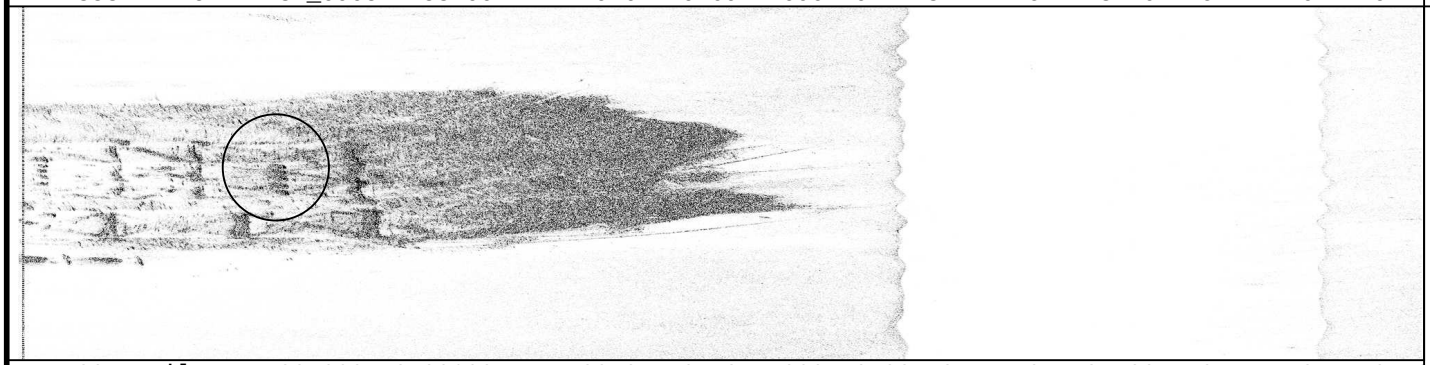


MB File: n/a Scale 1:1000



ID: 358 File: LM132_090512153100.XTF 29 04 40.69N 090 10 22.32W RNG: -23.16 HGT: 2.16 HDG: 240

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. BM3 SL 1367 Delta" and "Chevron USA Inc. B M BLK 3 S/L 1367 Lafourche Parish D-14 D-51".



ID: 384 File: LM132_090512180600.XTF 29 04 40.73N 090 10 22.78W RNG: -37.88 HGT: 1.42 HDG: 251

CORRELATED SS CONTACTS:

Contact	Range/Height
1132153951	-23.16/2.16
1132181447	-37.88/1.42
1131174618	27.66/4.21
1173161706	-12.50/5.43

CHEVRON
USA INC
BM3 SL 1367
DELTA
05/12/2009 14:49

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0452 Least Depth: Lat: 29 03 23.39N Lon: 090 15 07.94W Ping: Beam:

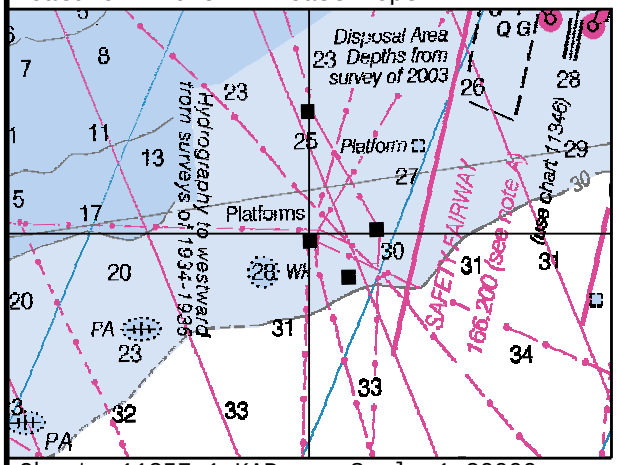


Chart: 11357_1.KAP Scale 1:20000

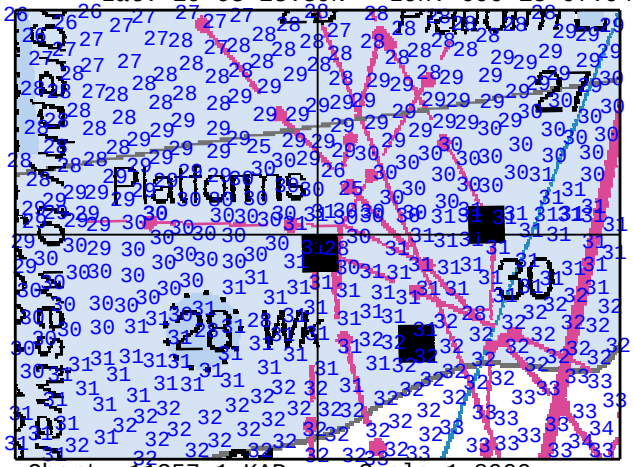
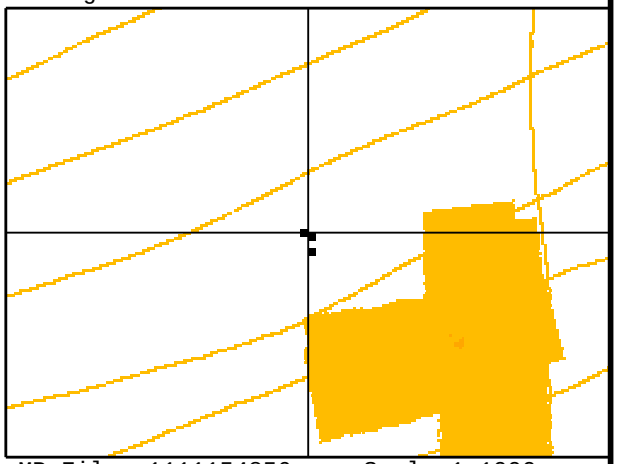


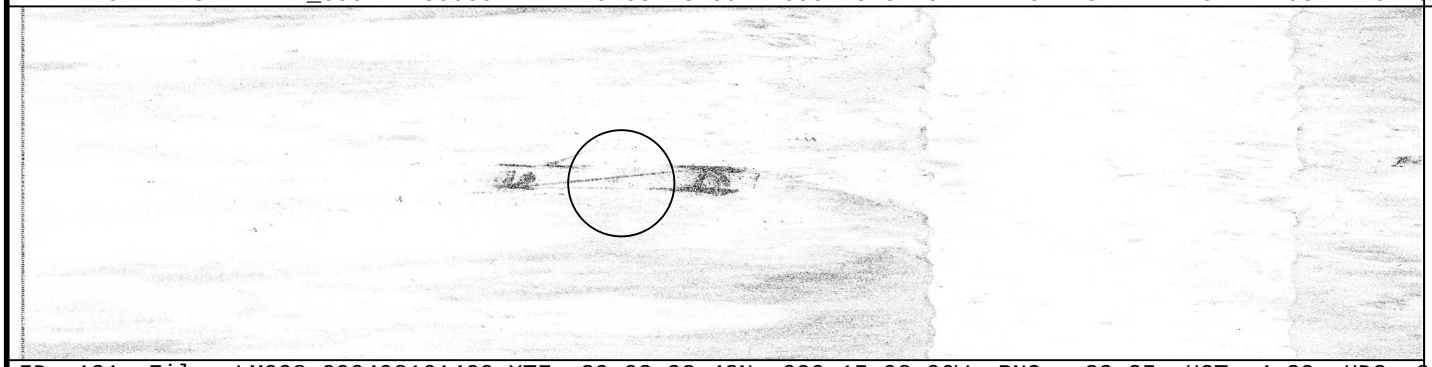
Chart: 11357_1.KAP Scale 1:8000



MB File: 1111154856 Scale 1:1000

ID: 146 File: LM111_090421150600.XTF 29 03 23.39N 090 15 07.94W RNG: -34.41 HGT: 1.93 HDG: 062

COMMENT:
PLATFORM. Chart platform symbol. "TGP BM 5".



ID: 121 File: LM098_090408161400.XTF 29 03 23.43N 090 15 08.06W RNG: -22.25 HGT: 4.29 HDG: 242

CORRELATED SS CONTACTS:

Contact	Range/Height
1111154856	-34.41/1.93
1098165946	-22.25/4.29
1135172917	47.09/0.04

TGP BM 5
04/08/2009 17:00

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0453 Least Depth: Lat: 29 03 31.30N Lon: 090 13 30.59W Ping: Beam:

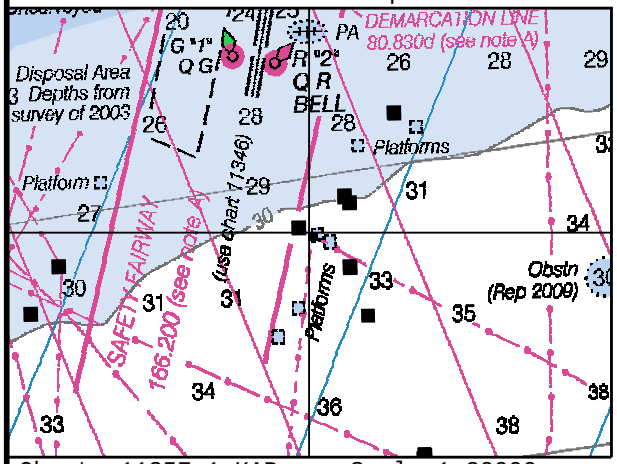


Chart: 11357_1.KAP Scale 1:20000

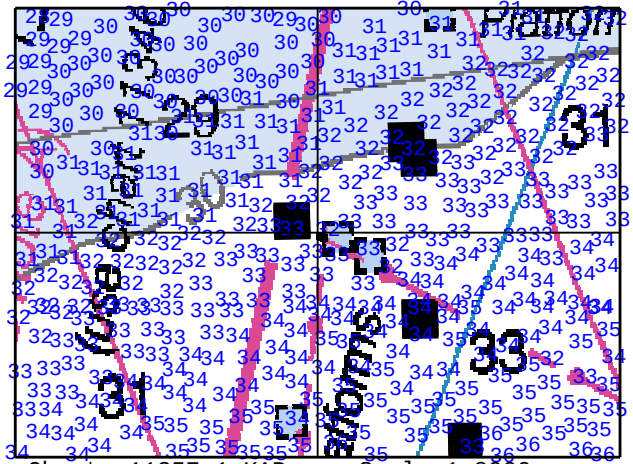
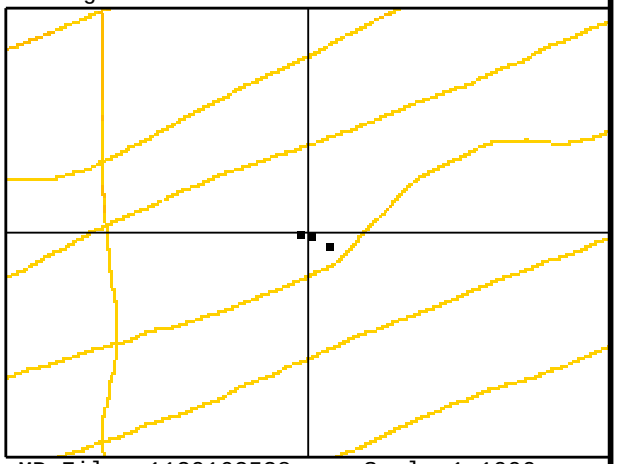
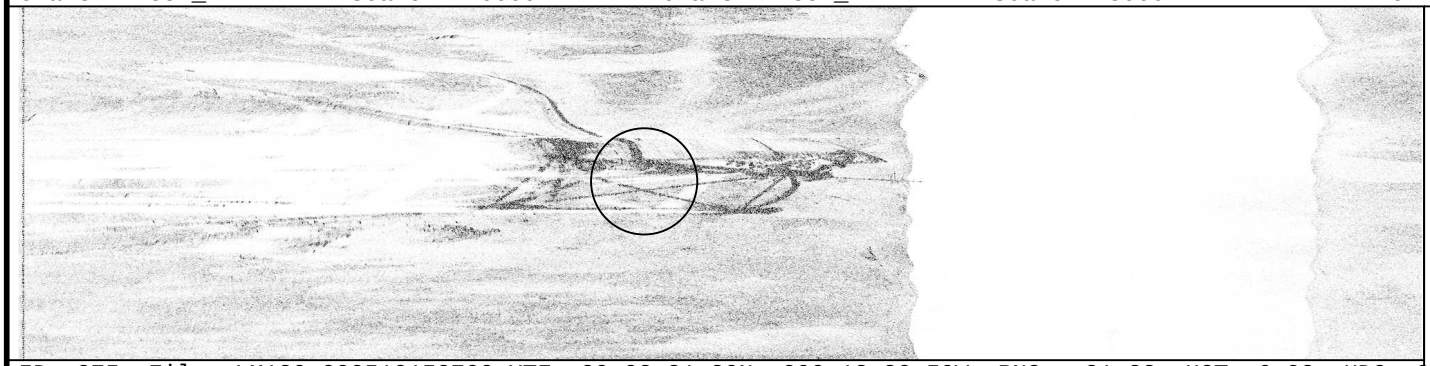


Chart: 11357_1.KAP Scale 1:8000



MB File: 1130162538 Scale 1:1000



ID: 275 File: LM130_090510152700.XTF 29 03 31.30N 090 13 30.59W RNG: -21.22 HGT: 6.03 HDG: 061

COMMENT:
PLATFORM. Chart platform symbol. "BDO BM-5-A".

ID: 253 File: LM125_090505161300.XTF 29 03 31.33N 090 13 30.75W RNG: -33.88 HGT: 1.93 HDG: 253

CORRELATED SS CONTACTS:

Contact	Range/Height
1130162538	-21.22/6.03
1125165459	-33.88/1.93
1125153802	-44.53/0.79

05/05/2009 15:29

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0454 Least Depth: Lat: 29 03 32.63N Lon: 090 13 34.25W Ping: Beam:

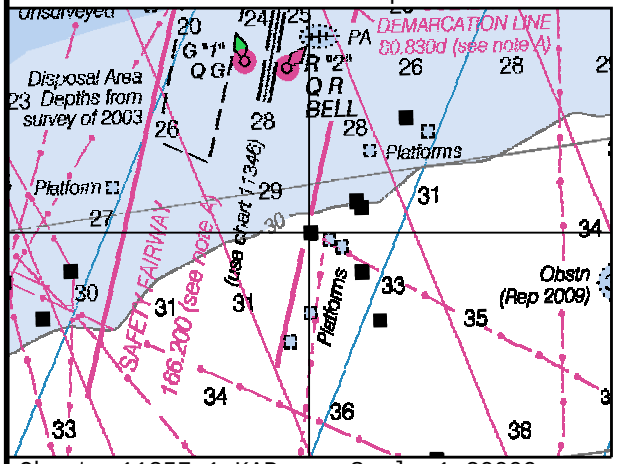


Chart: 11357_1.KAP Scale 1:20000

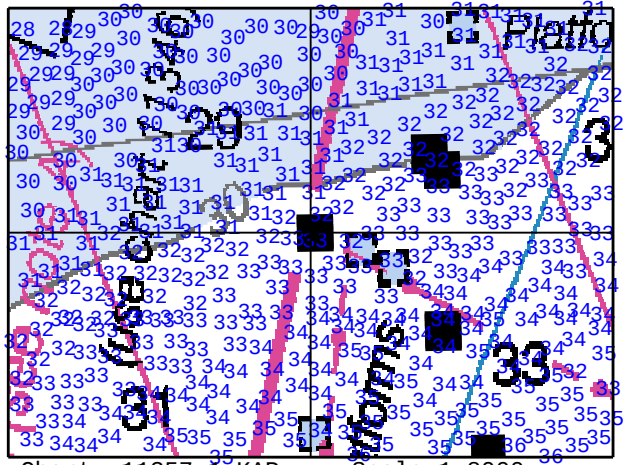
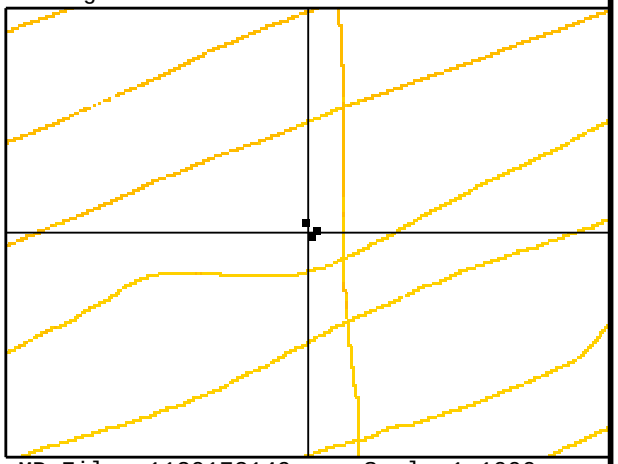
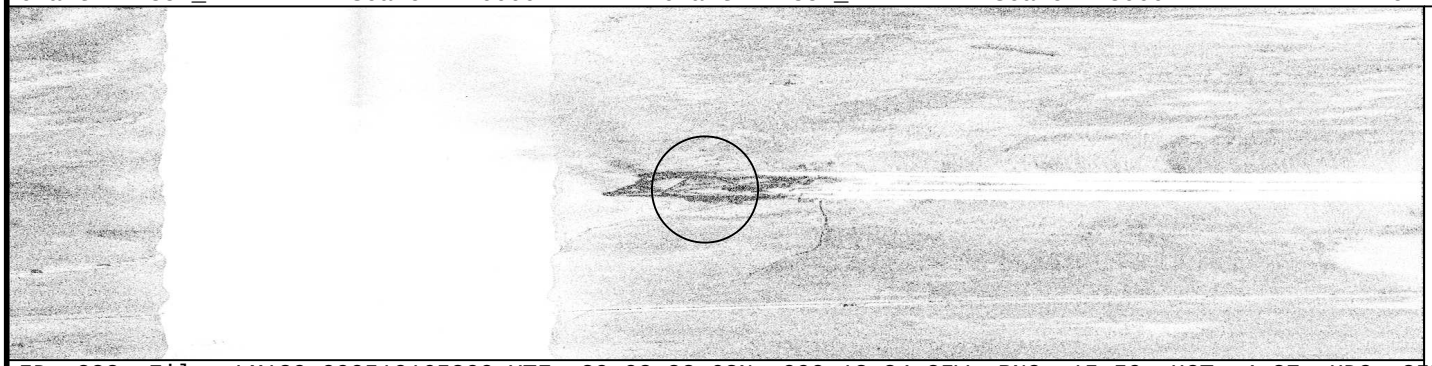


Chart: 11357_1.KAP Scale 1:8000



MB File: 1130173149 Scale 1:1000



ID: 288 File: LM130_090510165800.XTF 29 03 32.63N 090 13 34.25W RNG: 15.59 HGT: 4.27 HDG: 257

COMMENT:
PLATFORM. Chart platform symbol. Owner information is not visible.

ID: 254 File: LM125_090505161300.XTF 29 03 32.70N 090 13 34.17W RNG: 39.81 HGT: 1.19 HDG: 249

CORRELATED SS CONTACTS:

Contact	Range/Height
1130173149	15.59/4.27
1125165520	39.81/1.19
1131184609	32.88/1.76

05/05/2009 16:47

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0455 Least Depth: Lat: 29 03 22.16N Lon: 090 13 18.61W Ping: Beam:

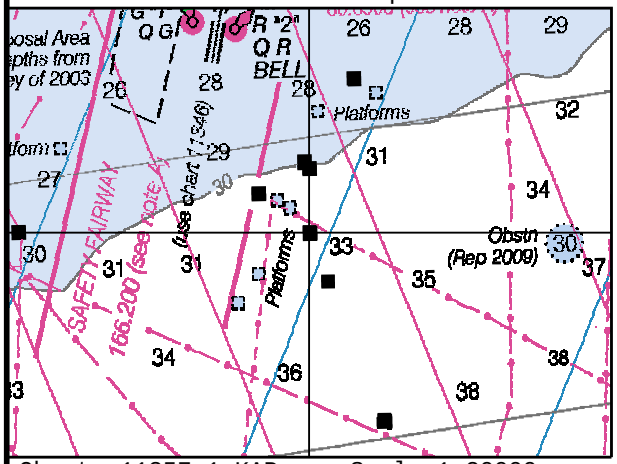


Chart: 11357_1.KAP Scale 1:20000

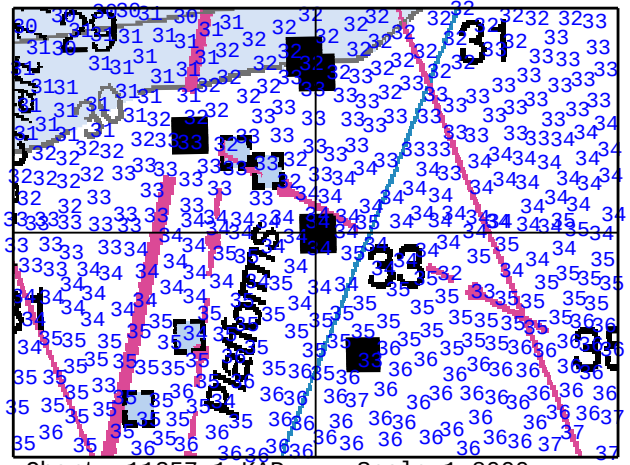
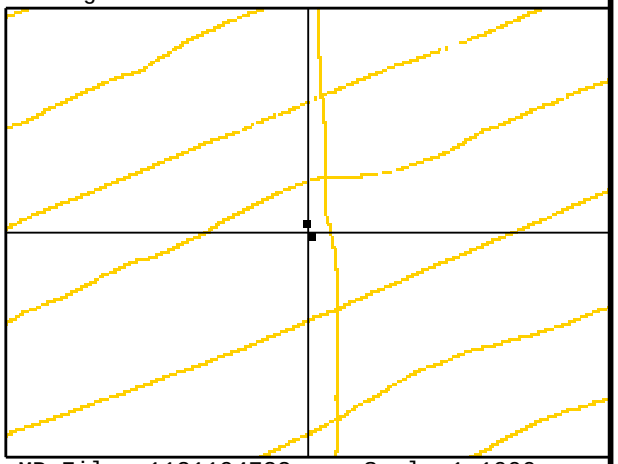


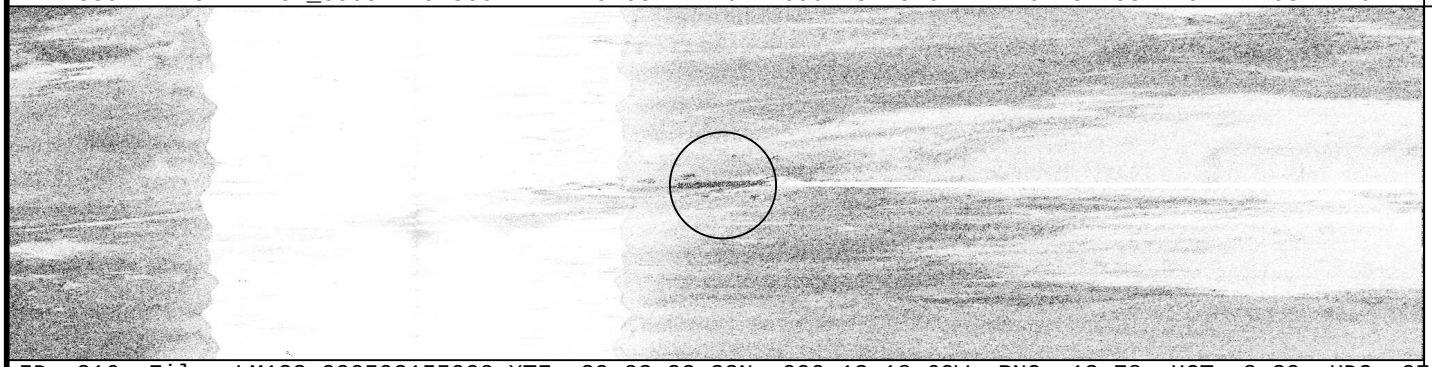
Chart: 11357_1.KAP Scale 1:8000



MB File: 1131194722 Scale 1:1000

ID: 339 File: LM131_090511192800.XTF 29 03 22.16N 090 13 18.61W RNG: 32.53 HGT: 2.98 HDG: 246

COMMENT:
PLATFORM. Chart platform symbol. "BDO BM-5 S/L 14498 #3 & S/L 16255 #1D".



ID: 216 File: LM122_090502155000.XTF 29 03 22.33N 090 13 18.69W RNG: 13.78 HGT: 8.29 HDG: 072

CORRELATED SS CONTACTS:

Contact	Range/Height
1131194722	32.53/2.98
1122164715	13.78/8.29

05/02/2009 16:44

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0456 Least Depth: Lat: 29 04 18.65N Lon: 090 10 25.34W Ping: Beam:

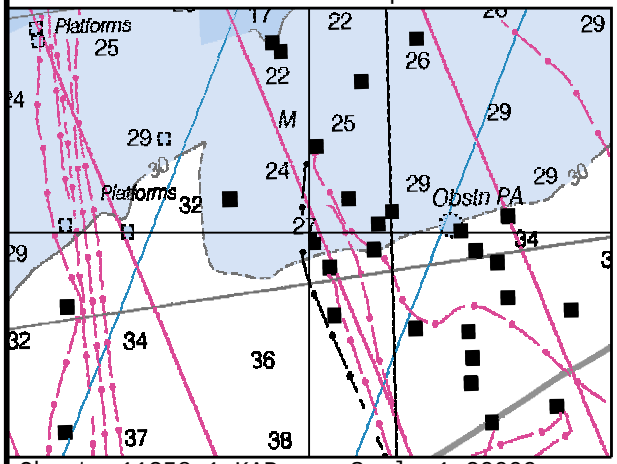


Chart: 11358_1.KAP Scale 1:20000

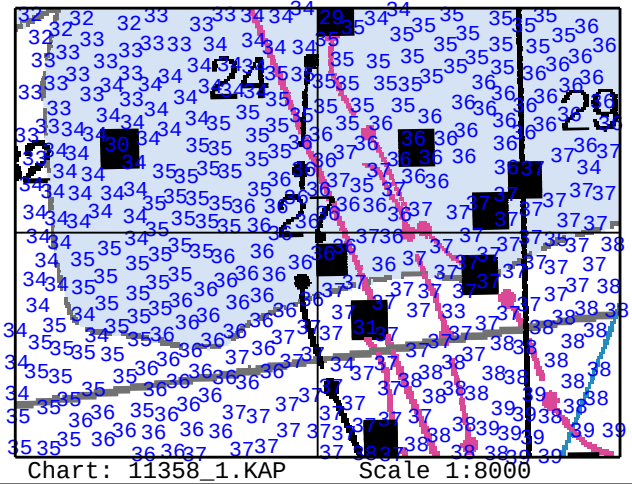
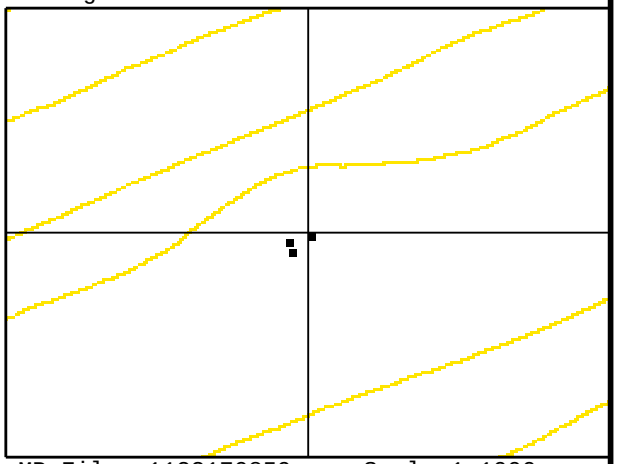


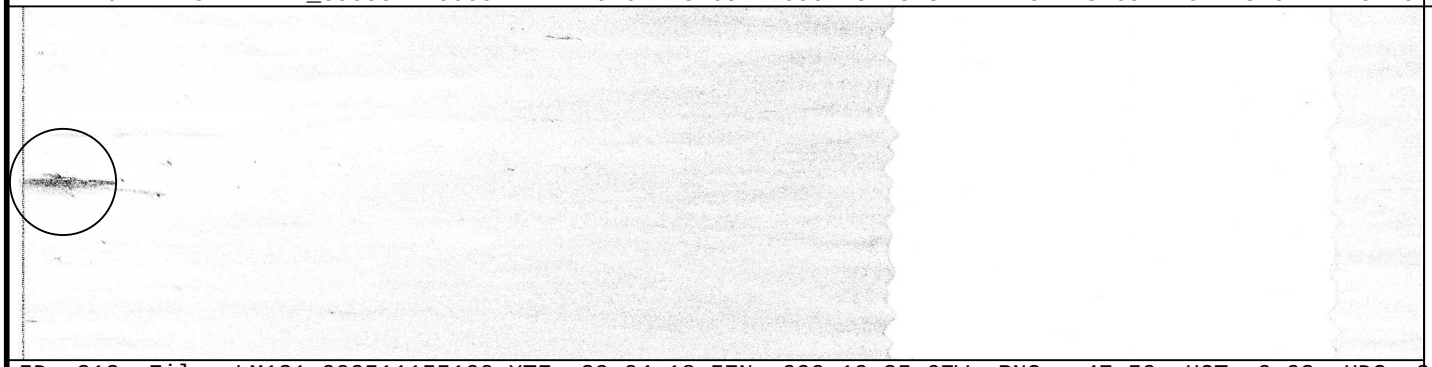
Chart: 11358_1.KAP Scale 1:8000



MB File: 1122170859 Scale 1:1000

ID: 219 File: LM122_090502170000.XTF 29 04 18.65N 090 10 25.34W RNG: 23.69 HGT: 5.61 HDG: 071

COMMENT:
PLATFORM. Chart platform symbol. Owner information is not visible.



ID: 312 File: LM131_090511155100.XTF 29 04 18.57N 090 10 25.67W RNG: -47.50 HGT: 0.03 HDG: 249

CORRELATED SS CONTACTS:

Contact	Range/Height
1122170859	23.69/5.61
1131160210	-47.50/0.03
1173155019	32.81/3.20

05/11/2009 15:53

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0457 Least Depth: Lat: 29 03 43.49N Lon: 090 09 37.13W Ping: Beam:

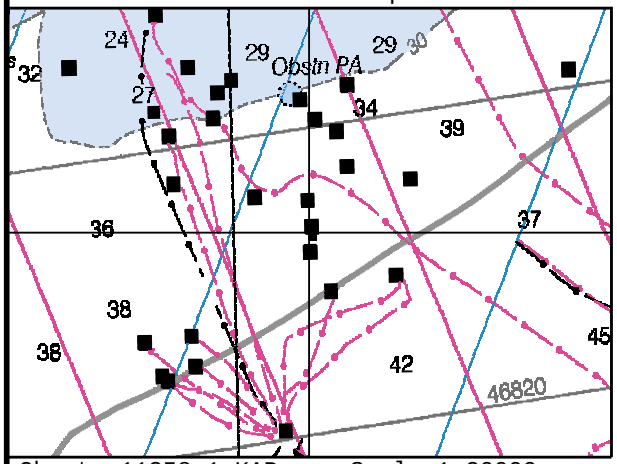


Chart: 11358_1.KAP Scale 1:20000

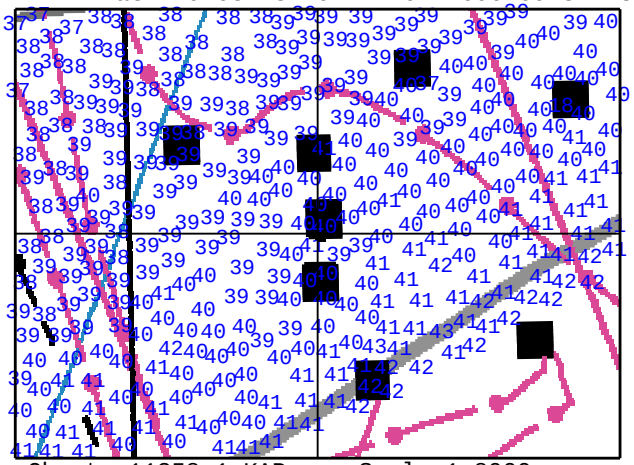
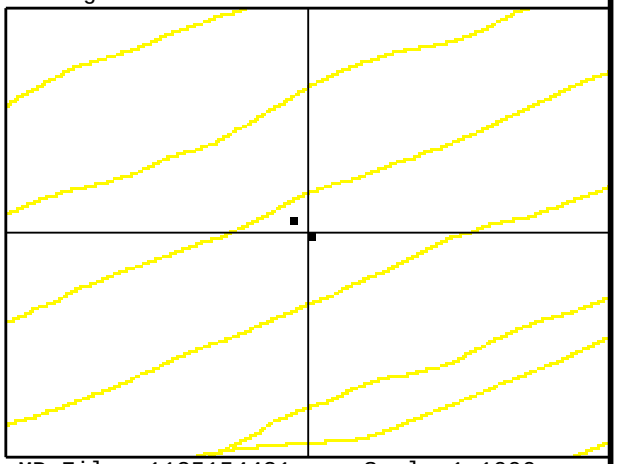


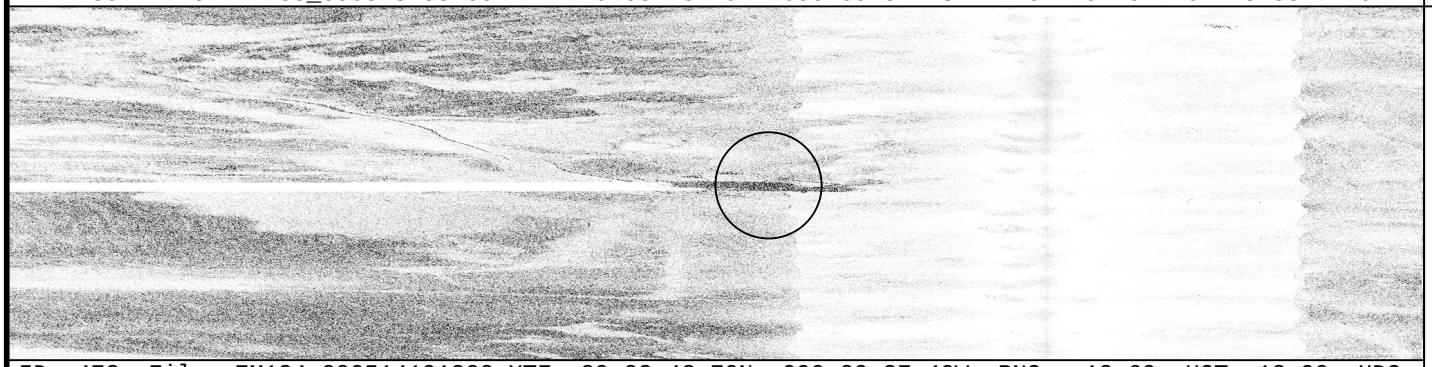
Chart: 11358_1.KAP Scale 1:8000



MB File: 1135154421 Scale 1:1000

ID: 489 File: EM135_090515153700.XTF 29 03 43.49N 090 09 37.13W RNG: 29.19 HGT: 3.83 HDG: 248

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. BM BLK 2 #76-#81-#81 D".



ID: 472 File: EM134_090514191300.XTF 29 03 43.70N 090 09 37.40W RNG: -12.69 HGT: 12.90 HDG: 245

CORRELATED SS CONTACTS:

Contact	Range/Height
1135154421	29.19/3.83
1134192134	-12.69/12.90

CHEVRON USA INC
BM BLK. 2
#76-#81-#81-D
05/14/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0458 Least Depth: Lat: 29 01 37.54N Lon: 090 16 05.31W Ping: Beam:

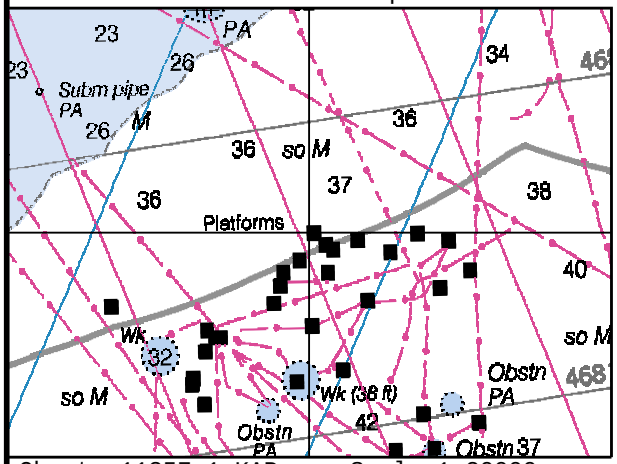


Chart: 11357_1.KAP Scale 1:20000

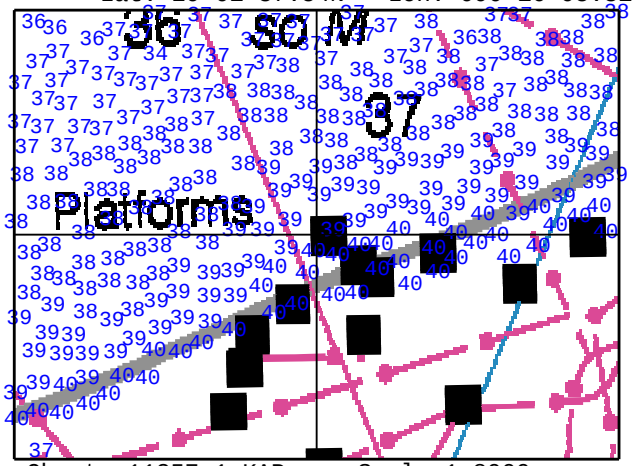
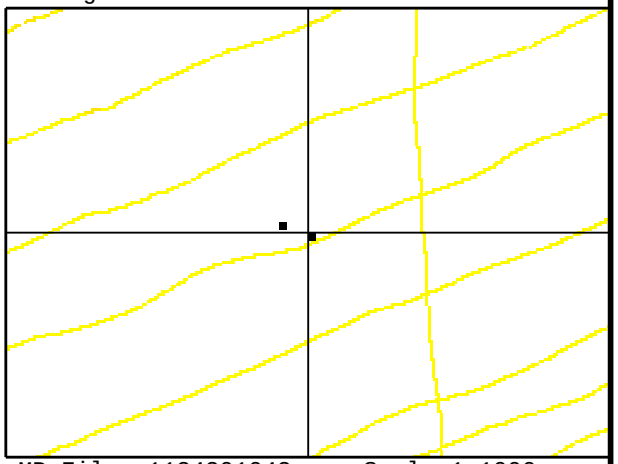
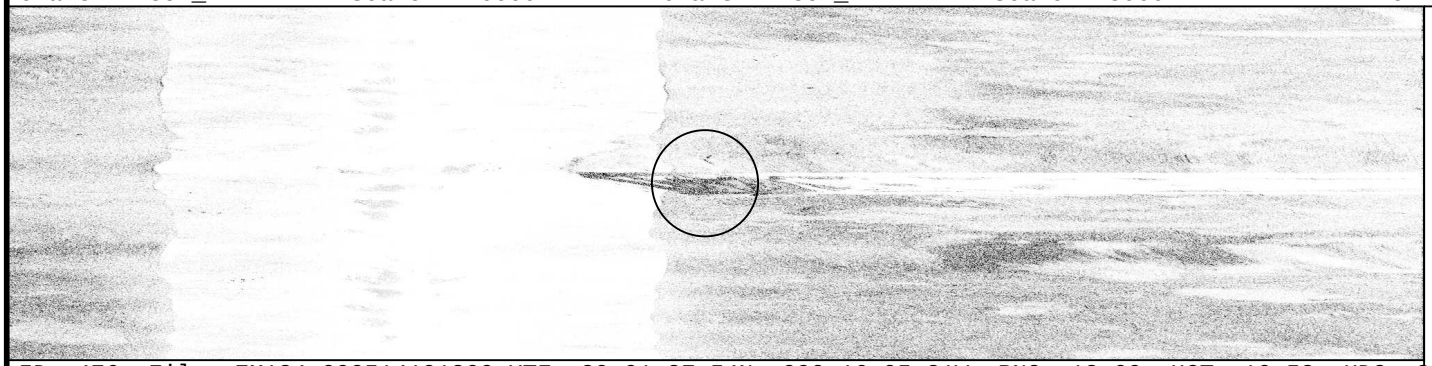


Chart: 11357_1.KAP Scale 1:8000

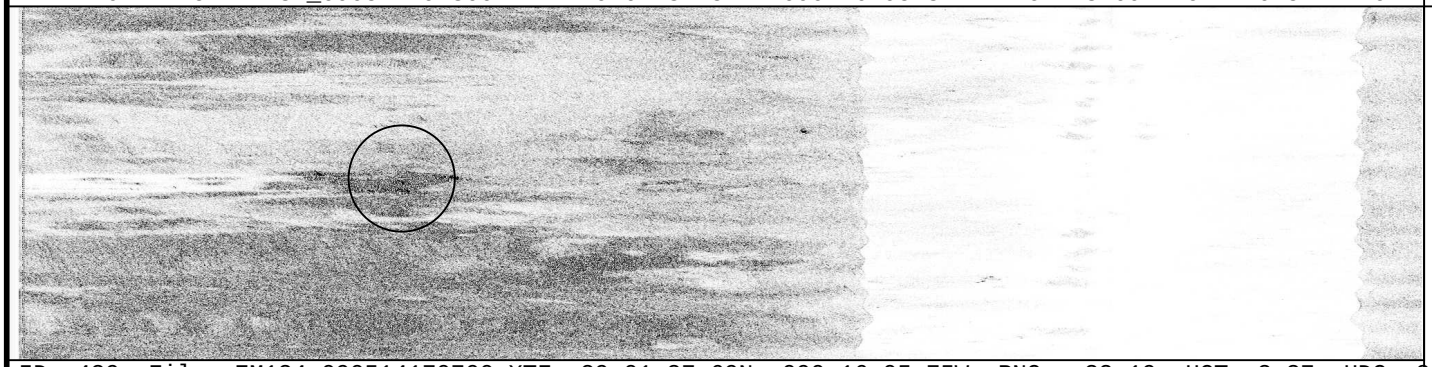


MB File: 1134201042 Scale 1:1000



ID: 476 File: EM134_090514191300.XTF 29 01 37.54N 090 16 05.31W RNG: 13.09 HGT: 10.52 HDG: 259

COMMENT:
PLATFORM. Chart platform symbol. "Energy XXI", barley legible the sign reads "Energy XXI SL-1423-35".



ID: 439 File: EM134_090514170700.XTF 29 01 37.69N 090 16 05.75W RNG: -32.19 HGT: 3.37 HDG: 244

CORRELATED SS CONTACTS:

Contact	Range/Height
1134201042	13.09/10.52
1134171546	-32.19/3.37

05/14/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0459 Least Depth: Lat: 29 01 19.57N Lon: 090 17 06.36W Ping: Beam:

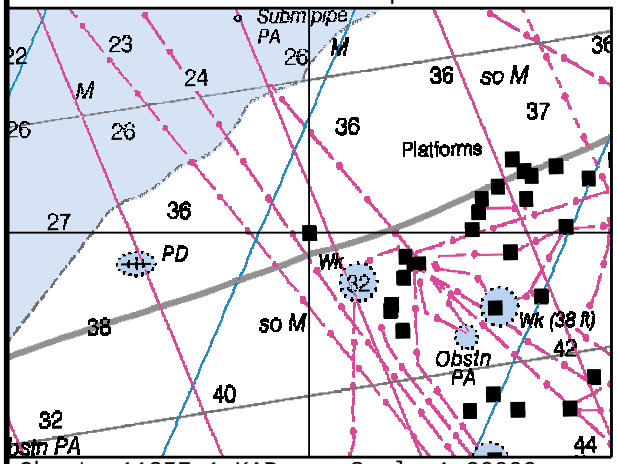


Chart: 11357_1.KAP Scale 1:20000

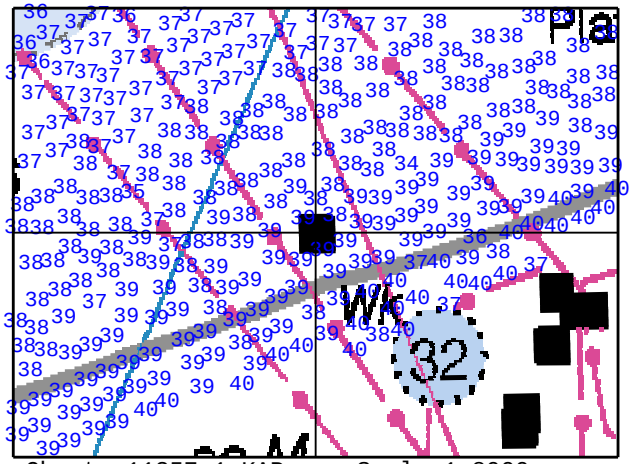
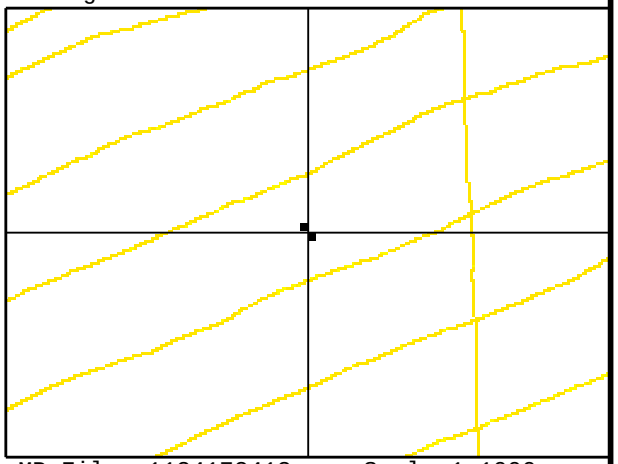
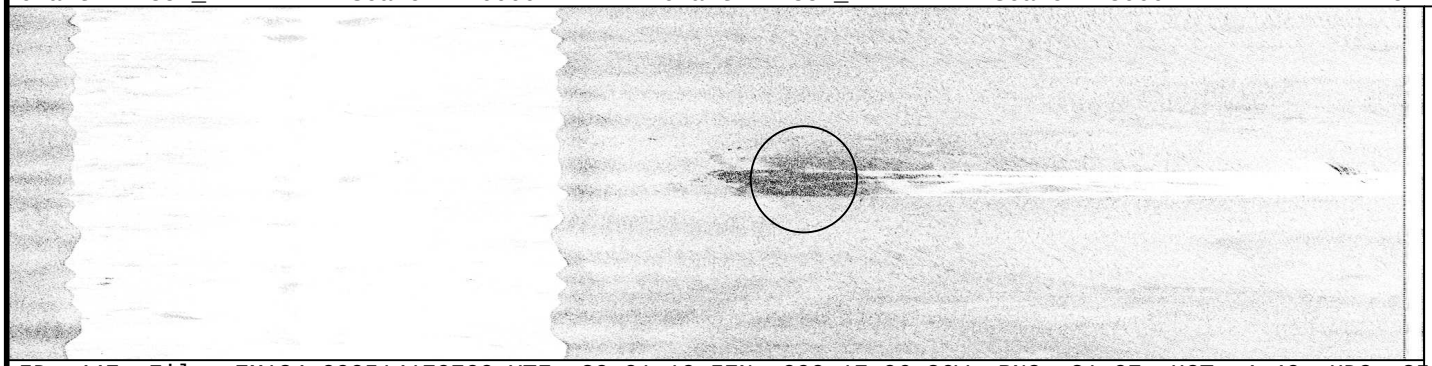


Chart: 11357_1.KAP Scale 1:8000

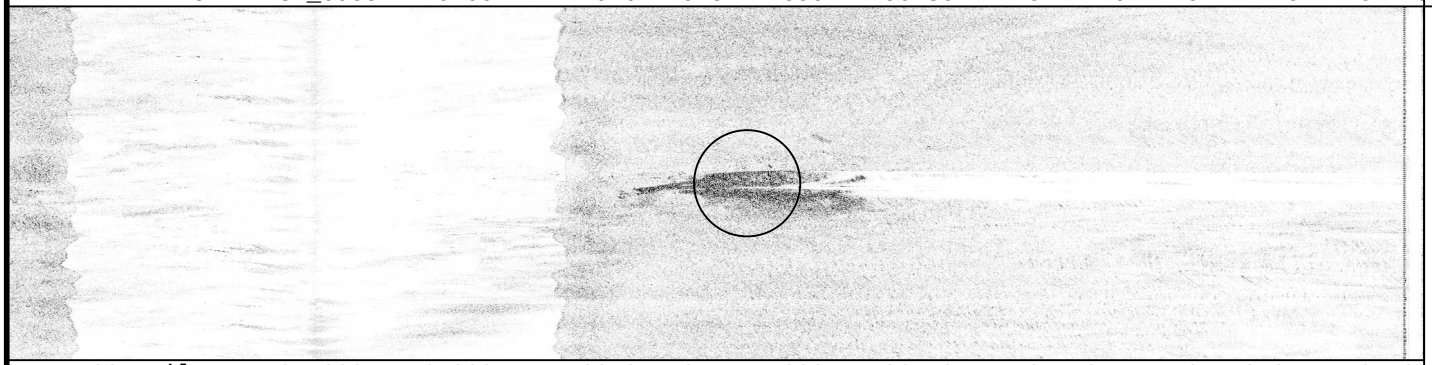


MB File: 1134172413 Scale 1:1000



ID: 447 File: EM134_090514170700.XTF 29 01 19.57N 090 17 06.36W RNG: 21.97 HGT: 4.40 HDG: 254

COMMENT:
PLATFORM. Chart platform symbol. Owner information is not visible.



ID: 508 File: EM135_090515165300.XTF 29 01 19.71N 090 17 06.48W RNG: 19.41 HGT: 8.04 HDG: 073

CORRELATED SS CONTACTS:

Contact	Range/Height
1134172413	21.97/4.40
1135171845	19.41/8.04

05/14/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0460 Least Depth: Lat: 29 04 20.15N Lon: 090 10 04.59W Ping: Beam:

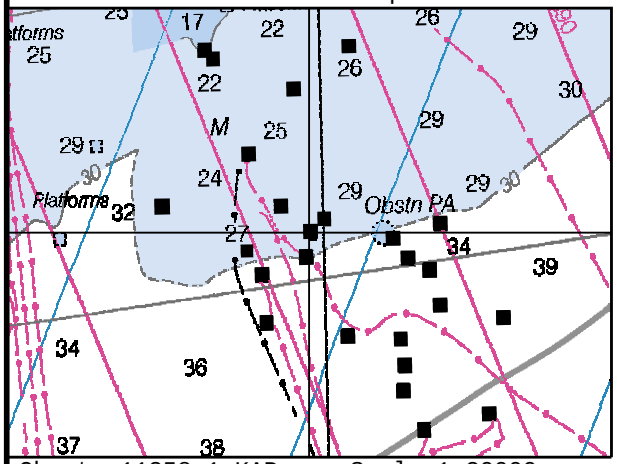


Chart: 11358_1.KAP Scale 1:20000

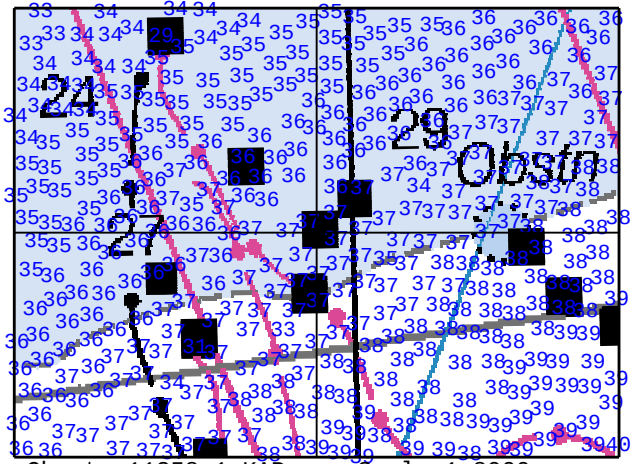
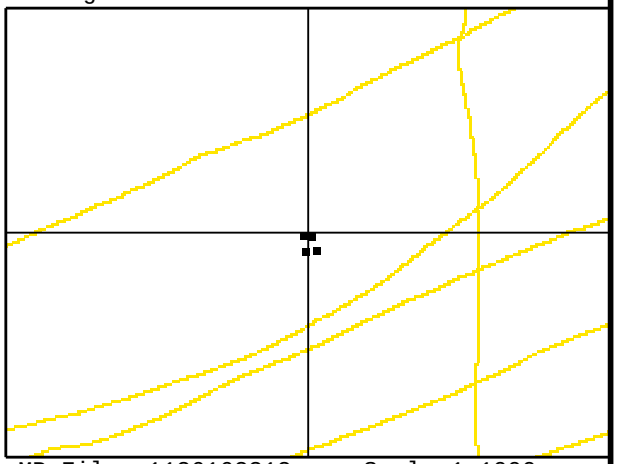


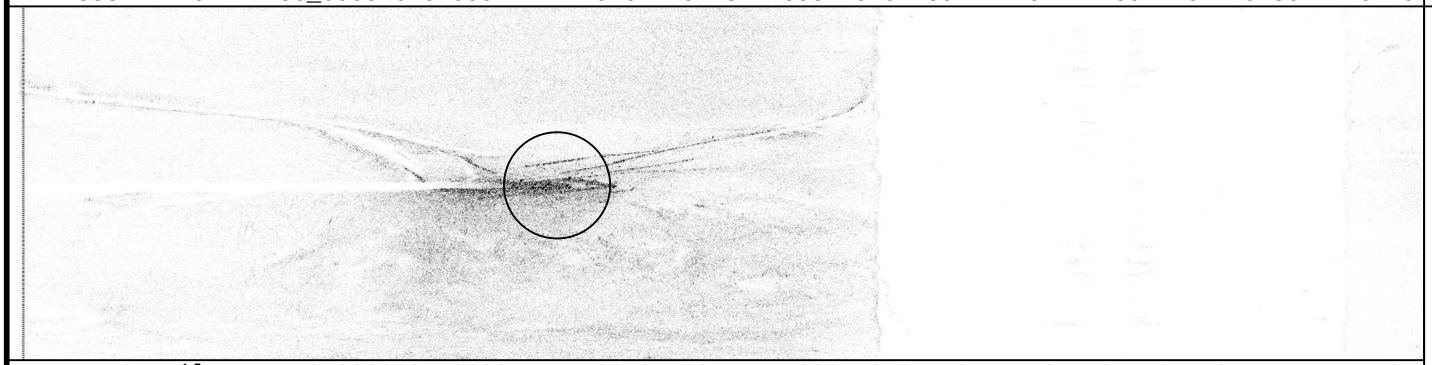
Chart: 11358_1.KAP Scale 1:8000



MB File: 1136162312 Scale 1:1000

ID: 558 File: LM136_090516161600.XTF 29 04 20.15N 090 10 04.59W RNG: 41.09 HGT: 0.86 HDG: 072

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA BM BLK 3 S/L 1367 #26-#43-#43D"



ID: 1546 File: EM173_090622153300.XTF 29 04 20.17N 090 10 04.72W RNG: -25.16 HGT: 5.41 HDG: 238

CORRELATED SS CONTACTS:

Contact	Range/Height
1136162312	41.09/0.86
1173153645	-25.16/5.41
1136185720	-32.09/2.87
1163180607	39.75/1.23

06/22/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0461 Least Depth: Lat: 29 04 22.78N Lon: 090 10 00.23W Ping: Beam:

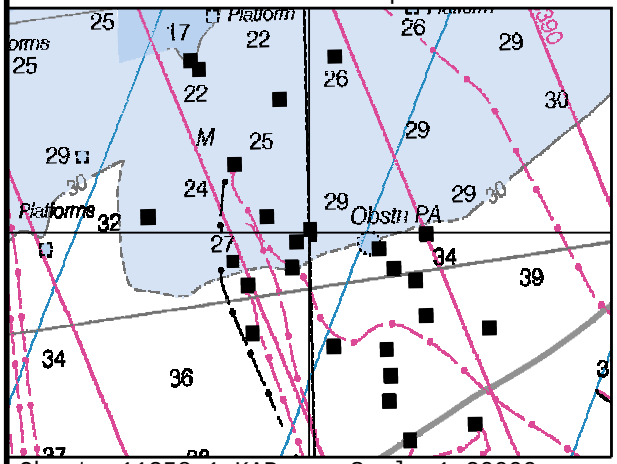


Chart: 11358_1.KAP Scale 1:20000

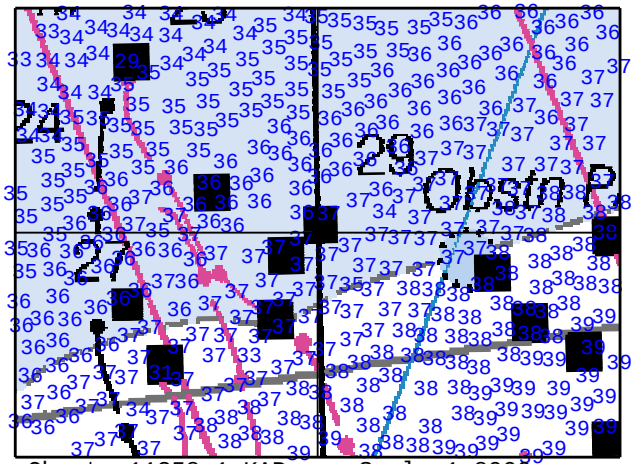
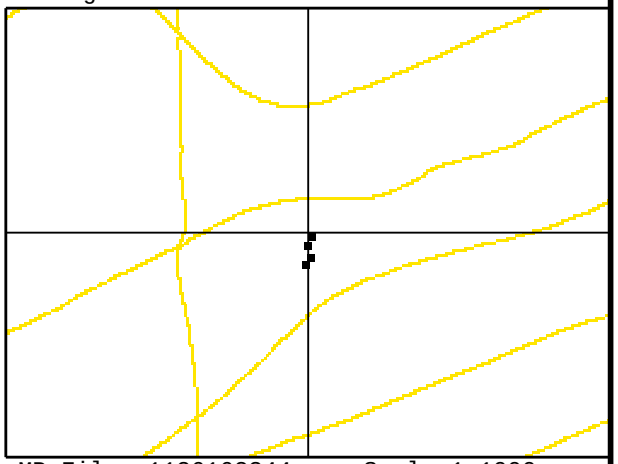
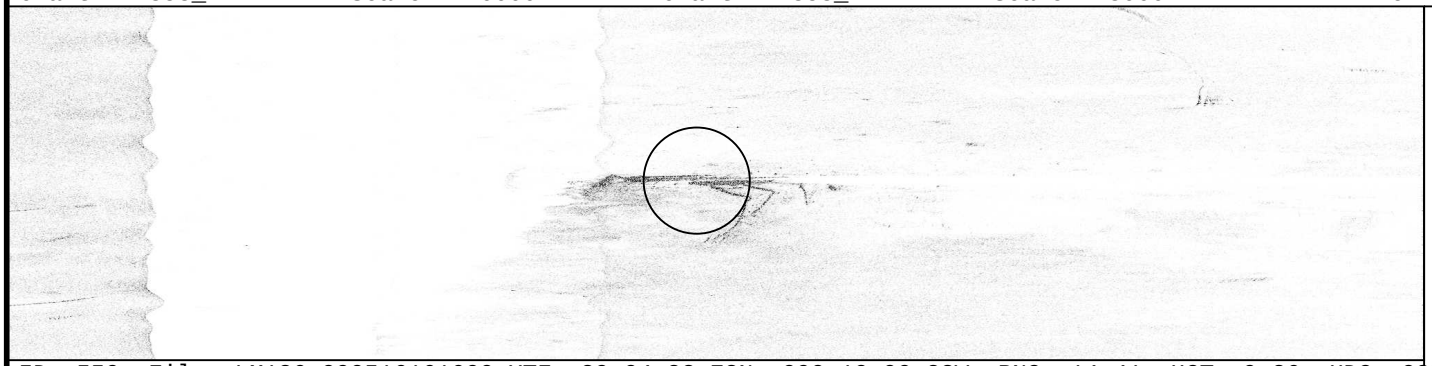


Chart: 11358_1.KAP Scale 1:8000

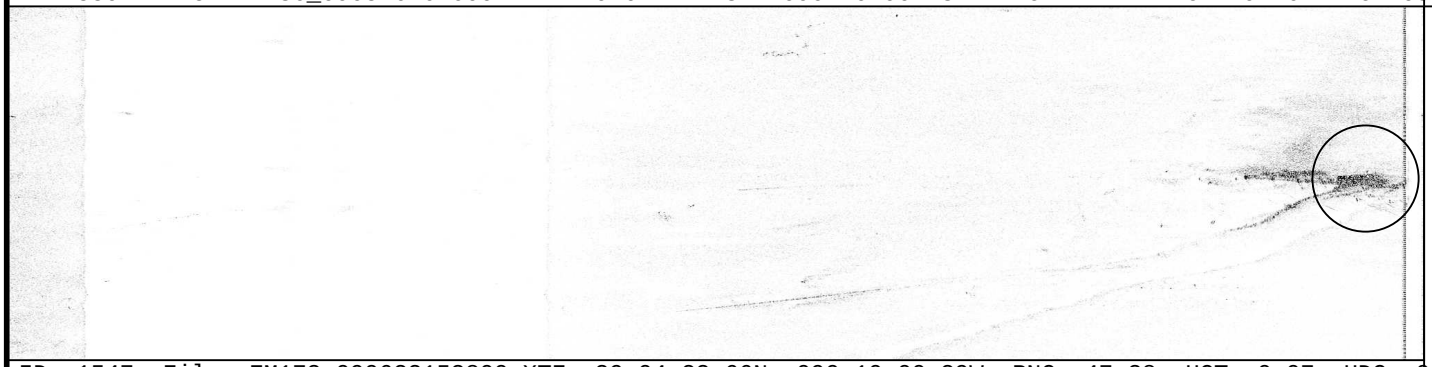


MB File: 1136162344 Scale 1:1000



ID: 559 File: LM136_090516161600.XTF 29 04 22.78N 090 10 00.23W RNG: 14.41 HGT: 9.26 HDG: 085

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. BM BLK 3 S/L 1367 #30-#52".



ID: 1547 File: EM173_090622153800.XTF 29 04 22.66N 090 10 00.29W RNG: 47.38 HGT: 0.07 HDG: 069

CORRELATED SS CONTACTS:

Contact	Range/Height
1136162344	14.41/9.26
1173154118	47.38/0.07
1136185752	-26.56/3.97
1173153555	13.91/4.55

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FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0462 Least Depth: Lat: 29 04 32.78N Lon: 090 14 21.85W Ping: Beam:

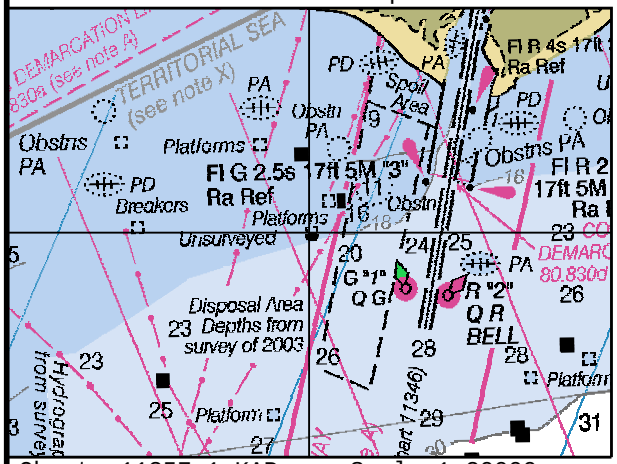


Chart: 11357_1.KAP Scale 1:20000

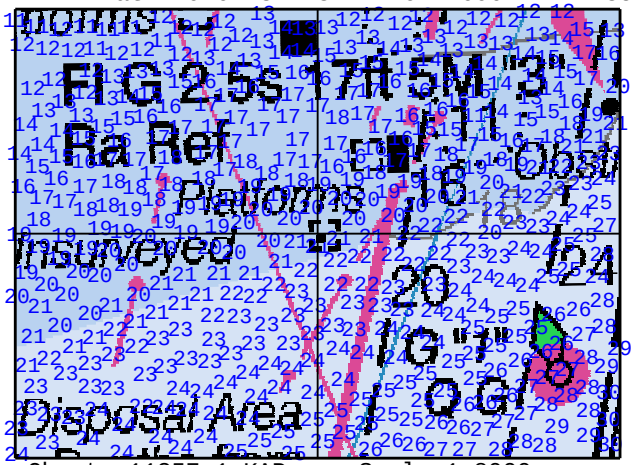
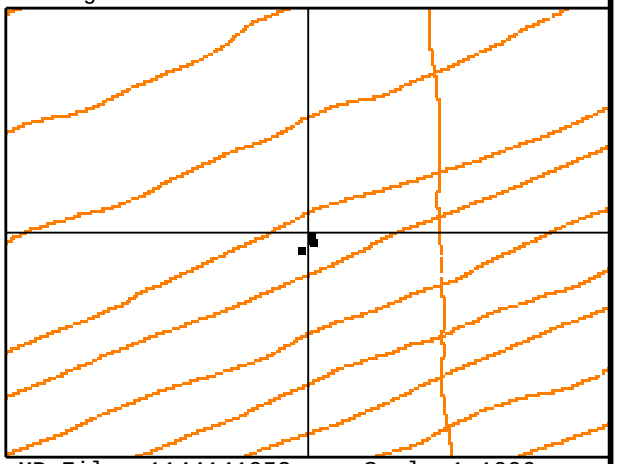
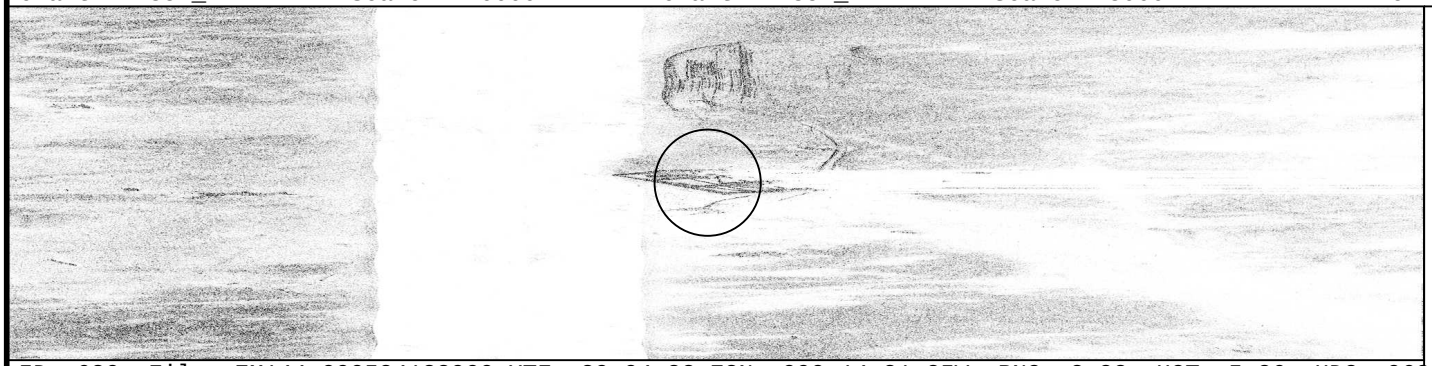


Chart: 11357_1.KAP Scale 1:8000



MB File: 1144141953 Scale 1:1000



ID: 630 File: EM144_090524132900.XTF 29 04 32.78N 090 14 21.85W RNG: 8.88 HGT: 5.86 HDG: 068

COMMENT:
PLATFORM. Chart platform symbol. Owner information is not visible.

ID: 671 File: EM144_090524195600.XTF 29 04 32.73N 090 14 21.86W RNG: -42.62 HGT: 0.57 HDG: 243

CORRELATED SS CONTACTS:

Contact	Range/Height
1144141953	8.88/5.86
1144200216	-42.62/0.57
1170183816	-14.88/1.42
1143204825	34.75/1.38

06/19/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0463 Least Depth: Lat: 29 06 14.16N Lon: 090 10 34.29W Ping: Beam:

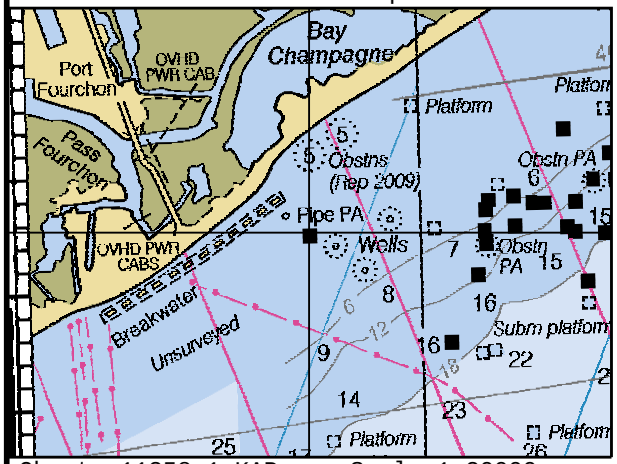


Chart: 11358_1.KAP Scale 1:20000

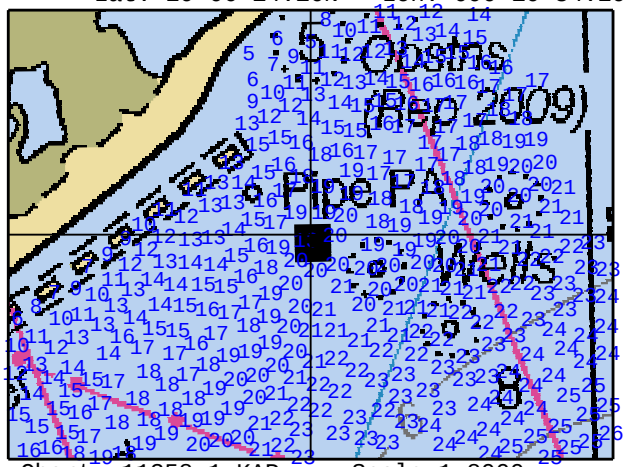
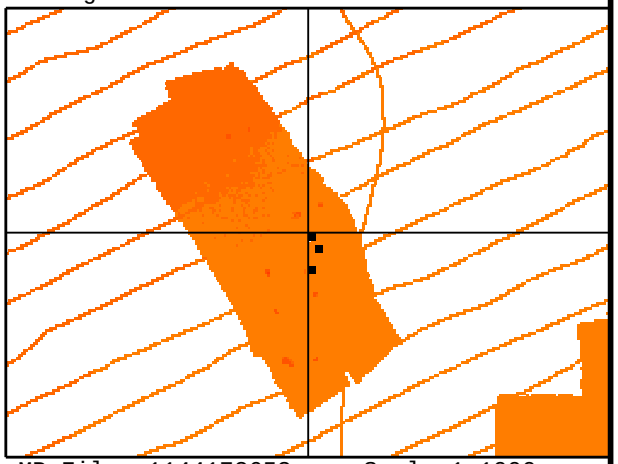


Chart: 11358_1.KAP Scale 1:8000



MB File: 1144172653 Scale 1:1000

ID: 649 File: EM144_090524172300.XTF 29 06 14.16N 090 10 34.29W RNG: -9.09 HGT: 3.61 HDG: 249

COMMENT:
PLATFORM. Chart platform symbol. Owner information is not visible.

ID: 637 File: EM144_090524151800.XTF 29 06 13.99N 090 10 34.19W RNG: -11.66 HGT: 1.51 HDG: 063

CORRELATED SS CONTACTS:

Contact	Range/Height
1144172653	-9.09/3.61
1144153649	-11.66/1.51
1144162608	-21.50/0.03

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FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0464 Least Depth: Lat: 29 01 31.13N Lon: 090 16 08.84W Ping: Beam:

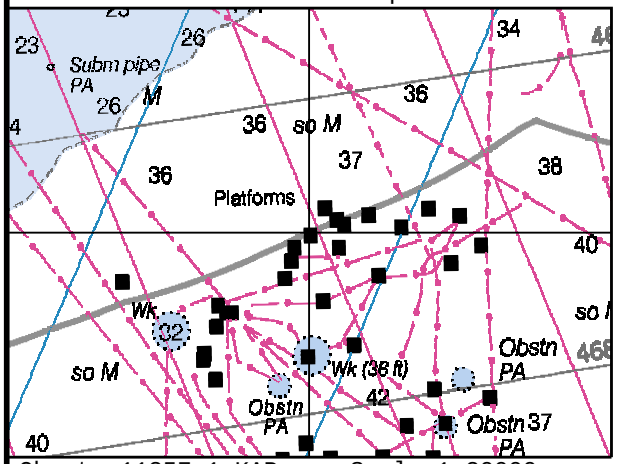


Chart: 11357_1.KAP Scale 1:20000

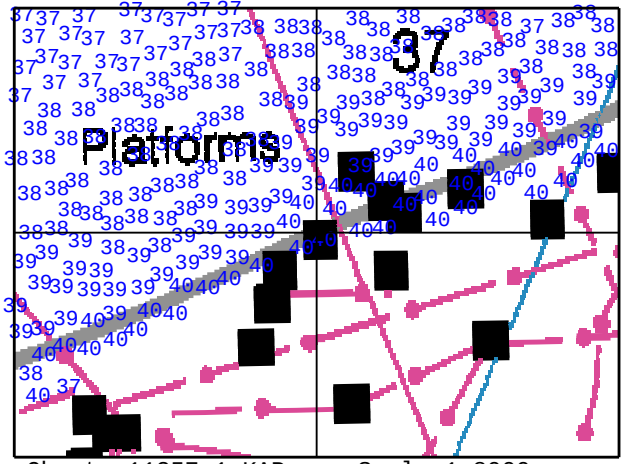
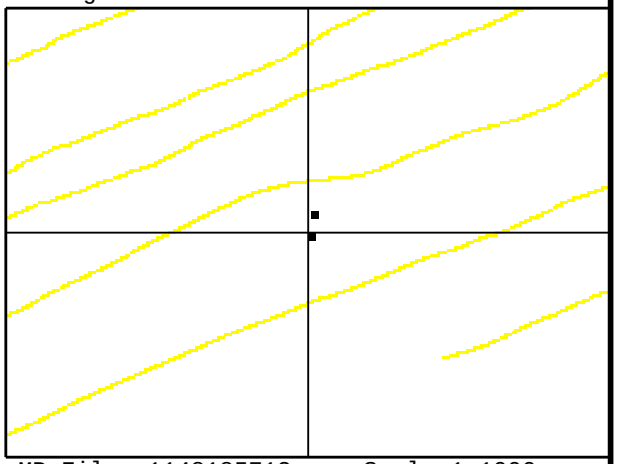


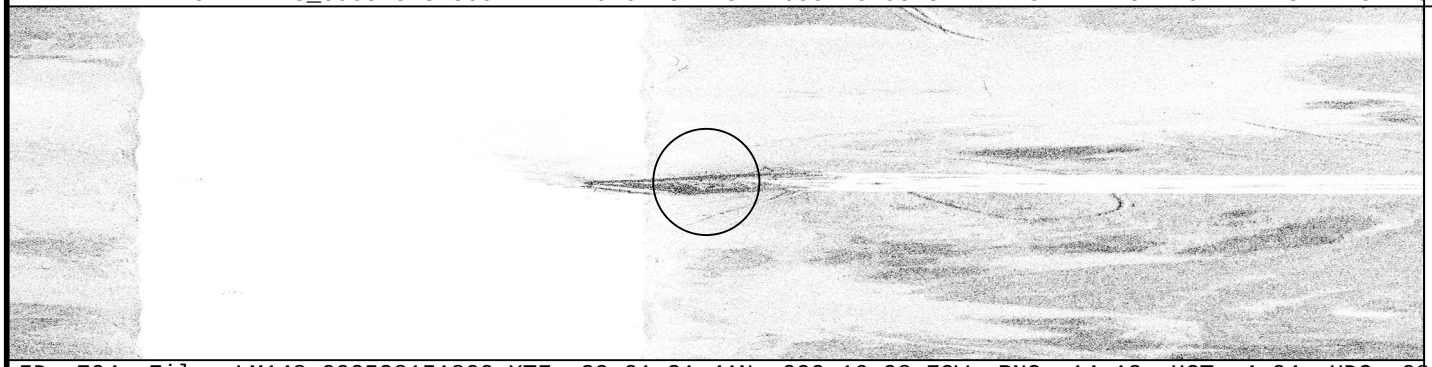
Chart: 11357_1.KAP Scale 1:8000



MB File: 1148185712 Scale 1:1000

ID: 741 File: LM148_090528181800.XTF 29 01 31.13N 090 16 08.84W RNG: 27.25 HGT: 4.73 HDG: 252

COMMENT:
PLATFORM. Chart platform symbol. "Energy XXI ST 21 104".



ID: 704 File: LM148_090528151800.XTF 29 01 31.41N 090 16 08.79W RNG: 14.12 HGT: 4.04 HDG: 083

CORRELATED SS CONTACTS:

Contact	Range/Height
1148185712	27.25/4.73
1148153451	14.12/4.04

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FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0465 Least Depth: Lat: 29 01 34.58N Lon: 090 16 00.88W Ping: Beam:

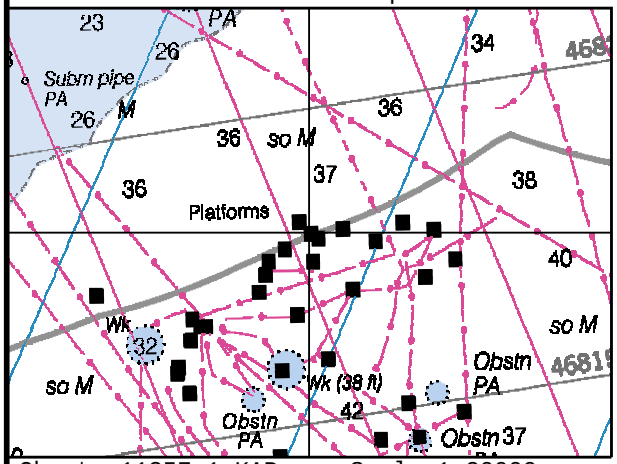


Chart: 11357_1.KAP Scale 1:20000

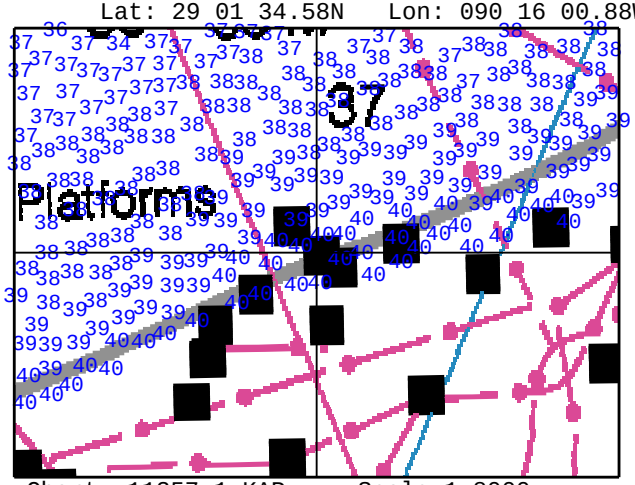
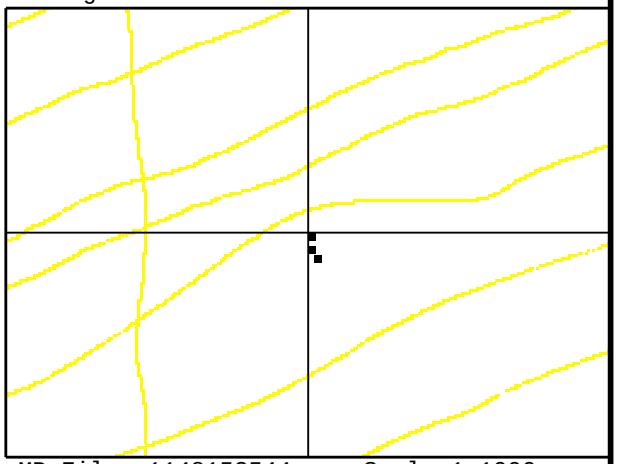
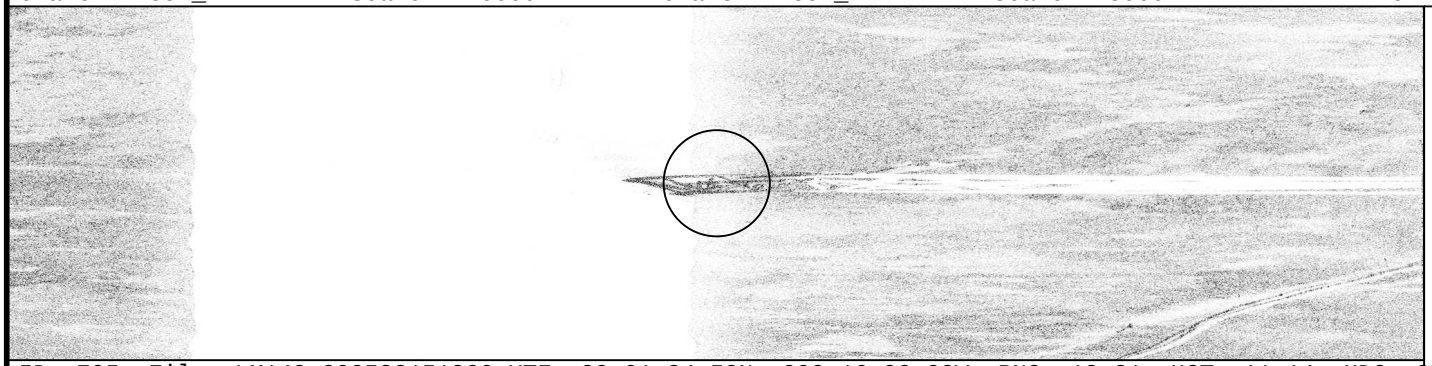


Chart: 11357_1.KAP Scale 1:8000

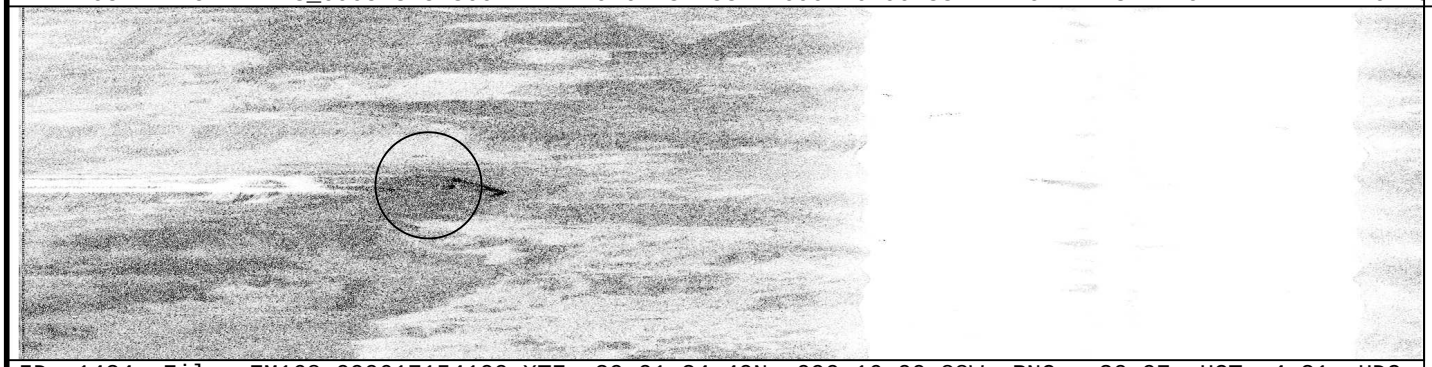


MB File: 1148153544 Scale 1:1000



ID: 705 File: LM148_090528151800.XTF 29 01 34.58N 090 16 00.88W RNG: 12.31 HGT: 11.14 HDG: 072

COMMENT:
PLATFORM. Chart platform symbol. "Energy XXI ST 21 43".



ID: 1424 File: EM168_090617154100.XTF 29 01 34.40N 090 16 00.88W RNG: -30.97 HGT: 4.21 HDG: 247

CORRELATED SS CONTACTS:

Contact	Range/Height
1148153544	12.31/11.14
1168163243	-30.97/4.21
1148185606	40.56/1.50

ENERGY XXI
ST 21 43
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FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0466 Least Depth: Lat: 29 03 40.03N Lon: 090 09 38.45W Ping: Beam:

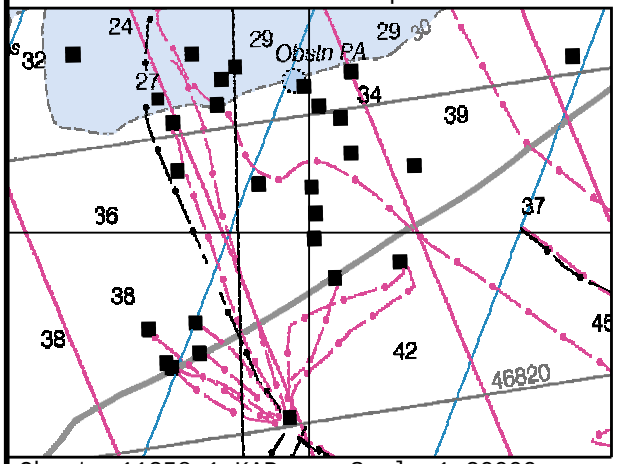


Chart: 11358_1.KAP Scale 1:20000

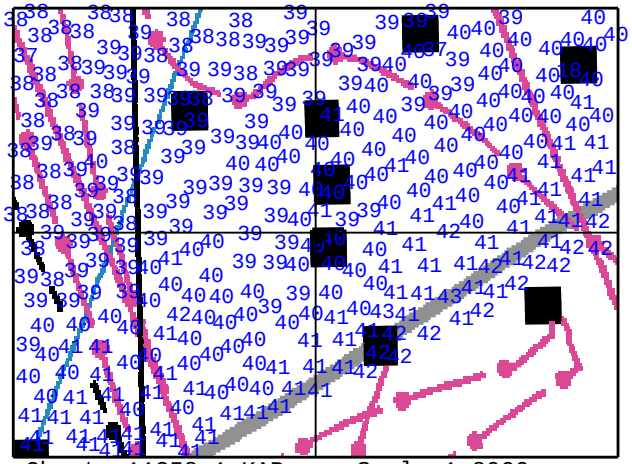
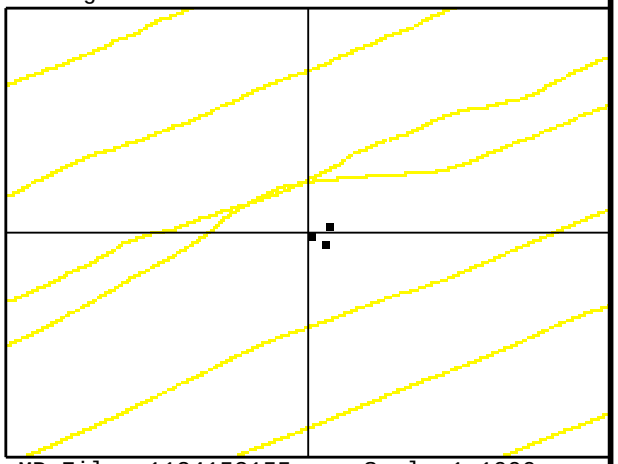
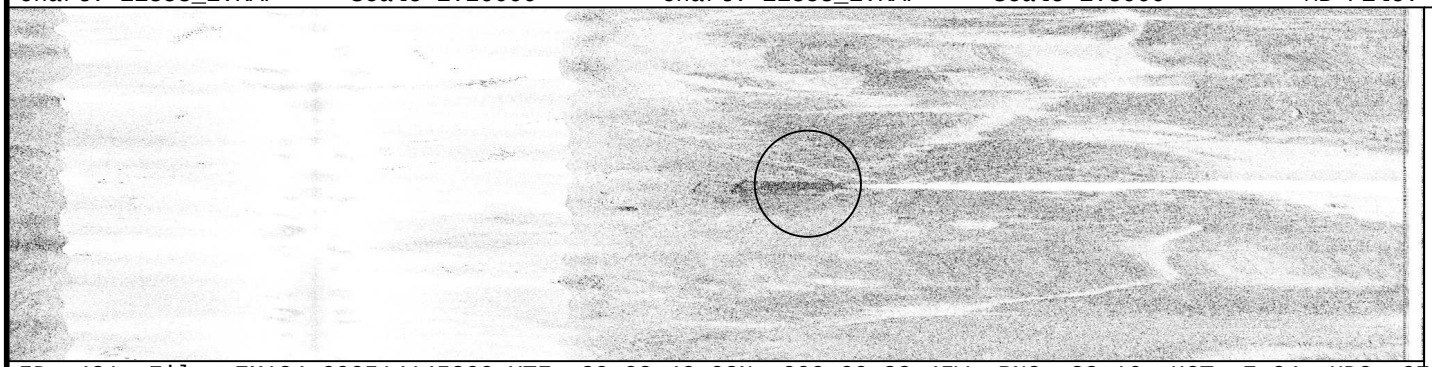


Chart: 11358_1.KAP Scale 1:8000



MB File: 1134153155 Scale 1:1000



ID: 421 File: EM134_090514145300.XTF 29 03 40.03N 090 09 38.45W RNG: 22.16 HGT: 7.04 HDG: 071

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. B M BLK 3 S/L 1367 #62".

ID: 711 File: LM148_090528151800.XTF 29 03 39.91N 090 09 38.24W RNG: -35.44 HGT: 2.81 HDG: 070

CORRELATED SS CONTACTS:

Contact	Range/Height
1134153155	22.16/7.04
1148161742	-35.44/2.81
1168184426	-21.78/5.48

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FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0467 Least Depth: Lat: 29 03 37.60N Lon: 090 09 27.42W Ping: Beam:

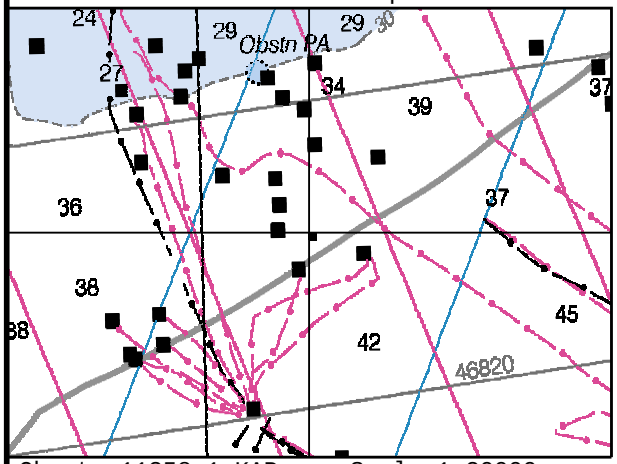


Chart: 11358_1.KAP Scale 1:20000

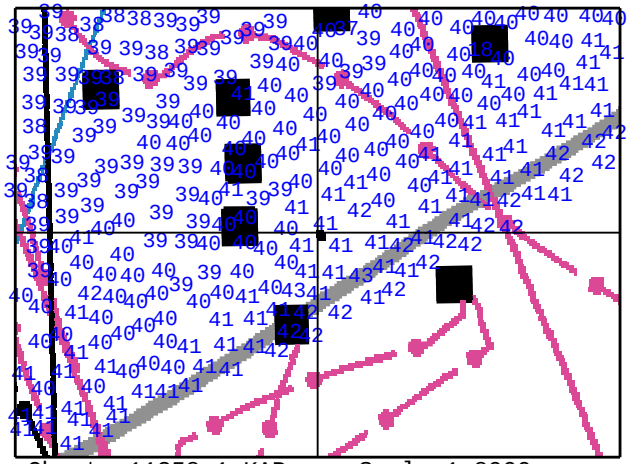
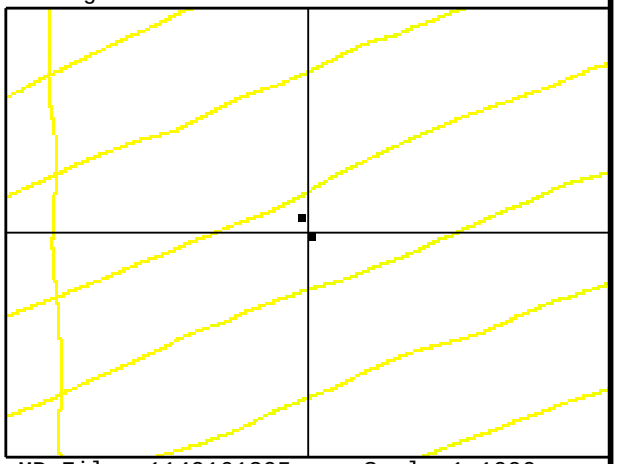
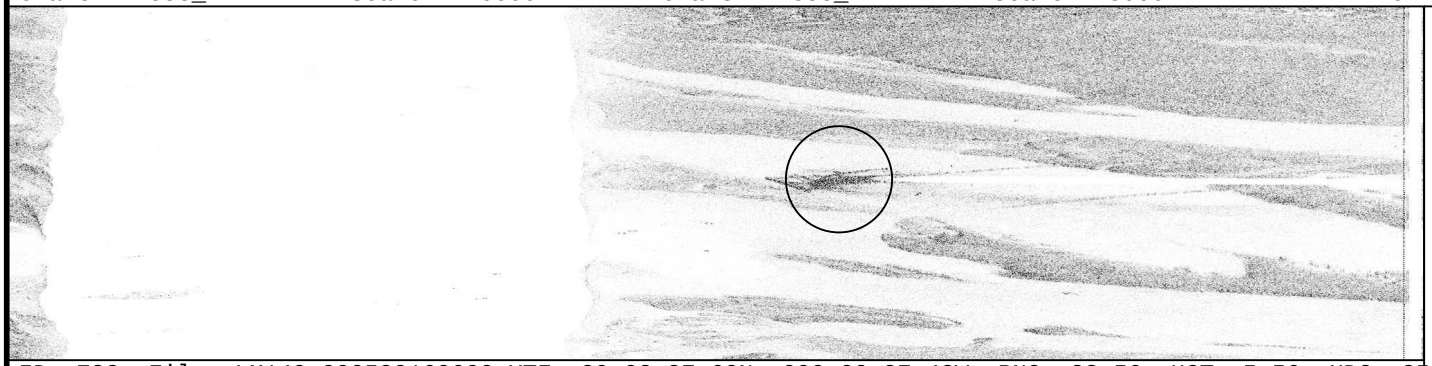


Chart: 11358_1.KAP Scale 1:8000

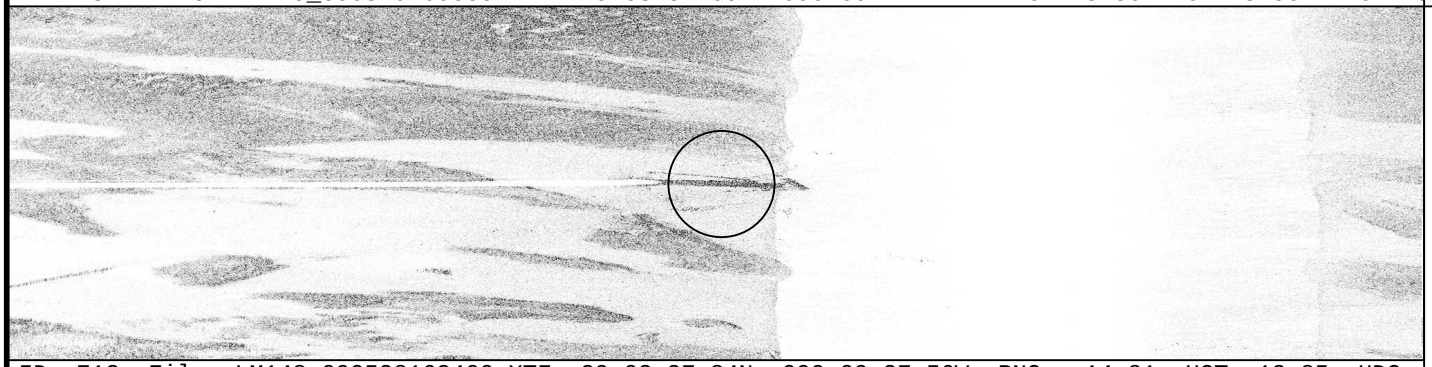


MB File: 1149161305 Scale 1:1000



ID: 782 File: LM149_090529160600.XTF 29 03 37.60N 090 09 27.42W RNG: 23.56 HGT: 5.56 HDG: 254

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. BM BLK 2. S/L 1366 #52".



ID: 713 File: LM148_090528162400.XTF 29 03 37.84N 090 09 27.56W RNG: -14.81 HGT: 12.85 HDG: 245

CORRELATED SS CONTACTS:

Contact	Range/Height
1149161305	23.56/5.56
1148163221	-14.81/12.85

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FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0468 Least Depth: Lat: 29 03 26.48N Lon: 090 10 06.13W Ping: Beam:

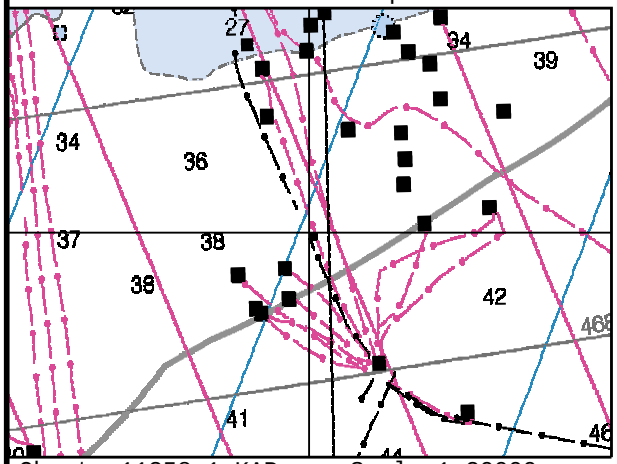


Chart: 11358_1.KAP Scale 1:20000

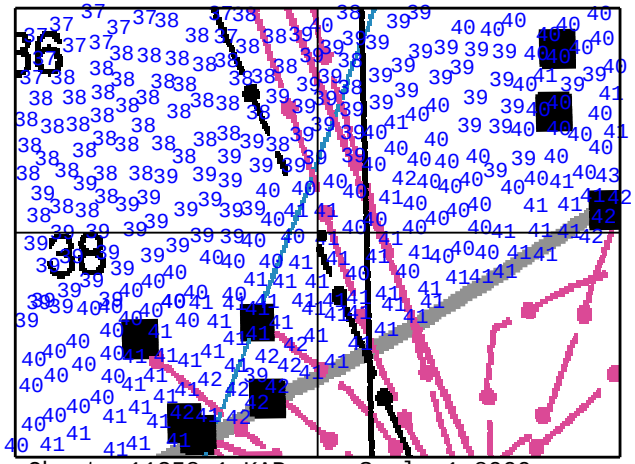
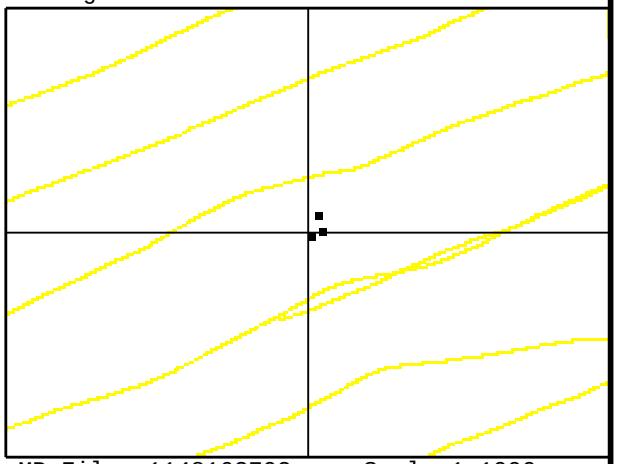
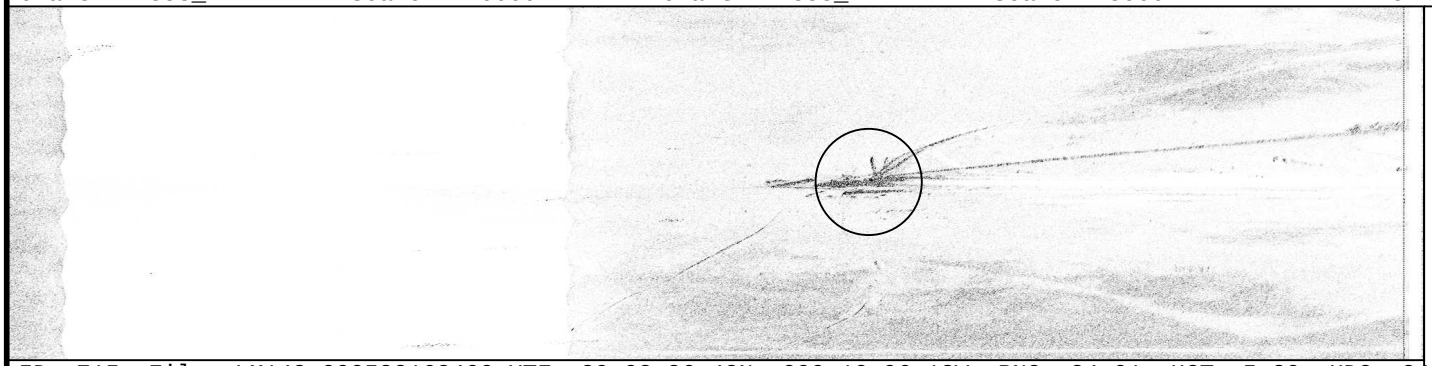


Chart: 11358_1.KAP Scale 1:8000

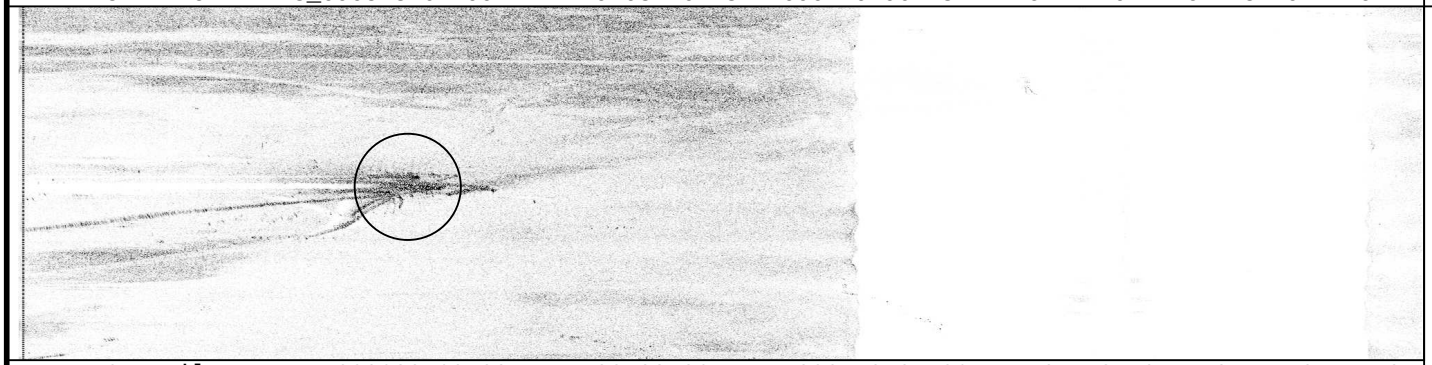


MB File: 1148163702 Scale 1:1000



ID: 715 File: LM148_090528162400.XTF 29 03 26.48N 090 10 06.13W RNG: 24.91 HGT: 5.29 HDG: 249

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. BM BLK 3 S/L 1367 #35-#55-#57".



ID: 1507 File: EM171_090620160400.XTF 29 03 26.54N 090 10 05.96W RNG: -31.91 HGT: 4.07 HDG: 069

CORRELATED SS CONTACTS:

Contact	Range/Height
1148163702	24.91/5.29
1171160520	-31.91/4.07
1149155444	15.62/9.34

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FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0469 Least Depth: Lat: 29 01 35.82N Lon: 090 15 50.90W Ping: Beam:

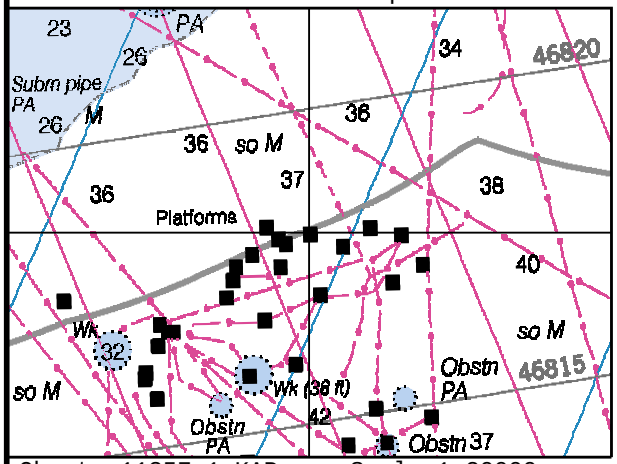


Chart: 11357_1.KAP Scale 1:20000

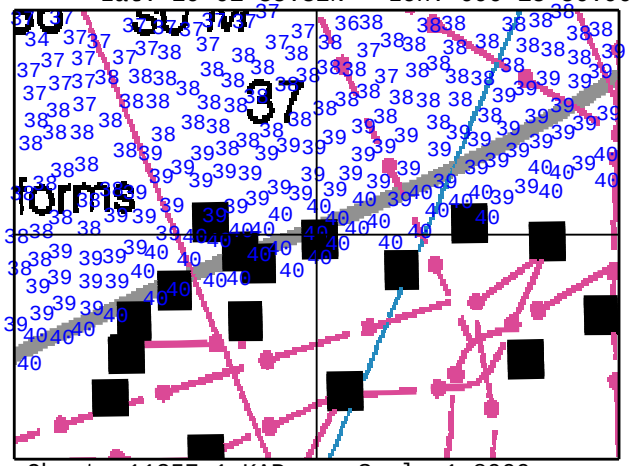
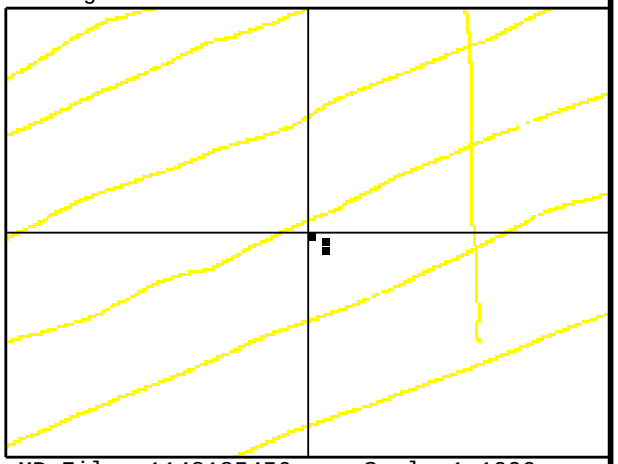
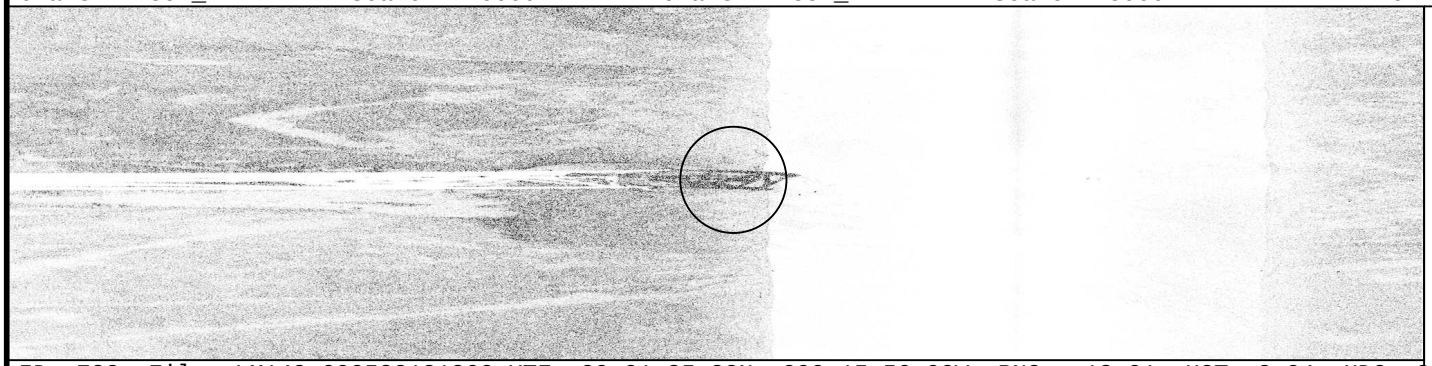


Chart: 11357_1.KAP Scale 1:8000

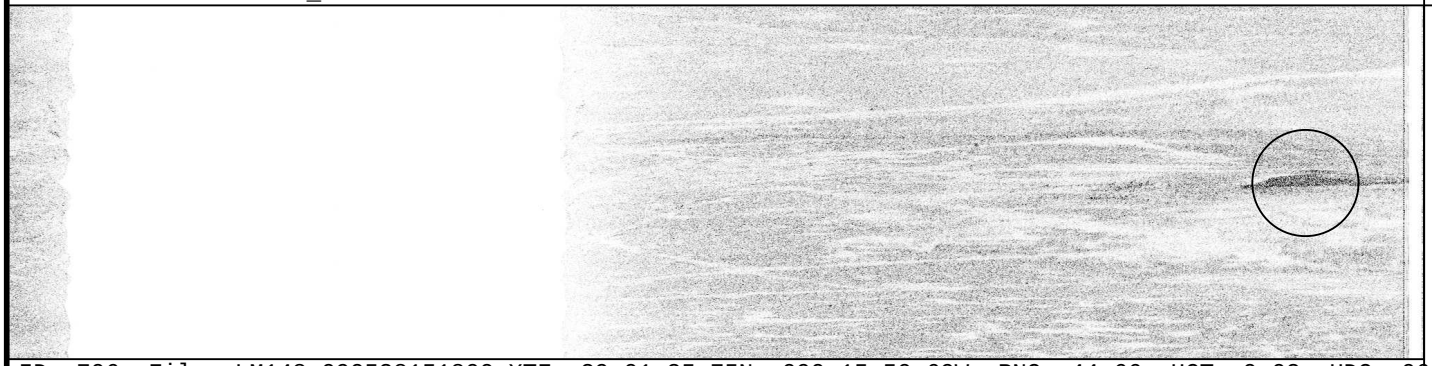


MB File: 1148185456 Scale 1:1000



ID: 738 File: LM148_090528181800.XTF 29 01 35.82N 090 15 50.90W RNG: -12.91 HGT: 8.04 HDG: 250

COMMENT:
PLATFORM. Chart platform symbol. "Energy XXI ST 21 37 SL-1423-37".



ID: 706 File: LM148_090528151800.XTF 29 01 35.75N 090 15 50.69W RNG: 44.66 HGT: 0.02 HDG: 069

CORRELATED SS CONTACTS:

Contact	Range/Height
1148185456	-12.91/8.04
1148153646	44.66/0.02
1149151437	-31.72/2.82

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FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0470 Least Depth: Lat: 29 01 33.18N Lon: 090 15 59.09W Ping: Beam:

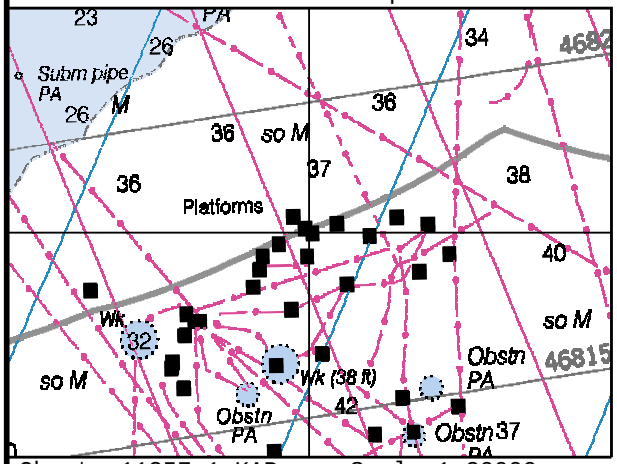


Chart: 11357_1.KAP Scale 1:20000

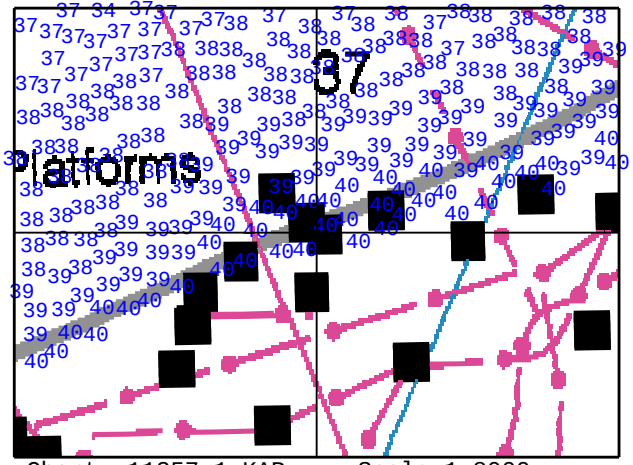
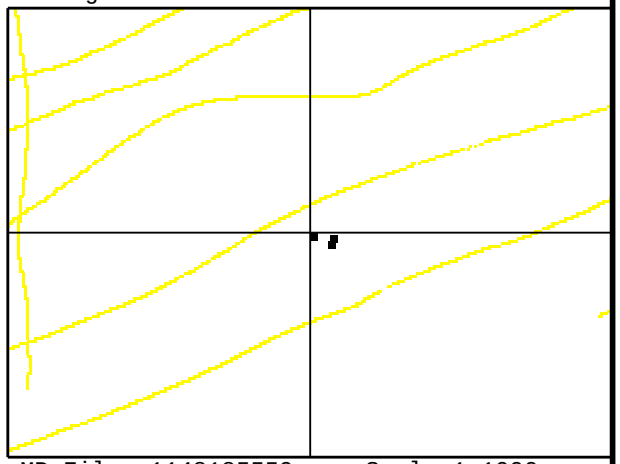
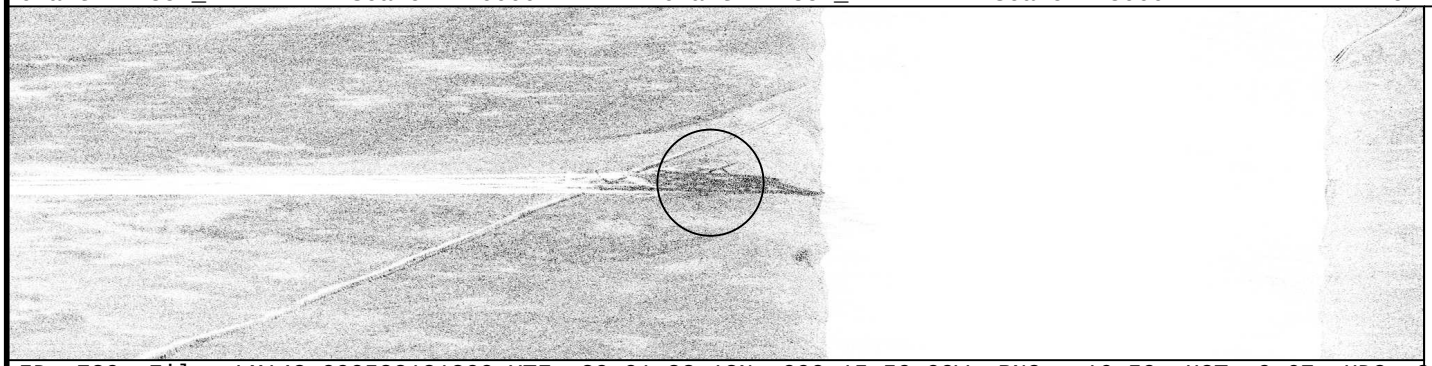


Chart: 11357_1.KAP Scale 1:8000

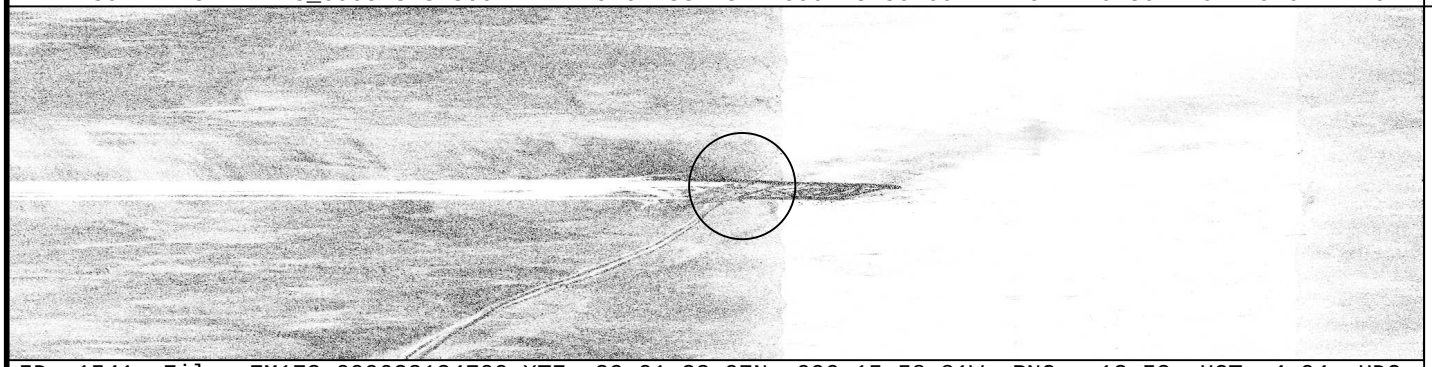


MB File: 1148185559 Scale 1:1000



ID: 739 File: LM148_090528181800.XTF 29 01 33.18N 090 15 59.09W RNG: -16.50 HGT: 9.67 HDG: 247

COMMENT:
PLATFORM. Chart platform symbol. "Energy XXI ST 21 105".



ID: 1541 File: EM173_090622134700.XTF 29 01 33.07N 090 15 58.81W RNG: -13.53 HGT: 4.94 HDG: 067

CORRELATED SS CONTACTS:

Contact	Range/Height
1148185559	-16.50/9.67
1173135015	-13.53/4.94
1149151333	-34.97/2.58

ST 21 105
06/22/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0471 Least Depth: Lat: 29 01 27.27N Lon: 090 16 14.51W Ping: Beam:

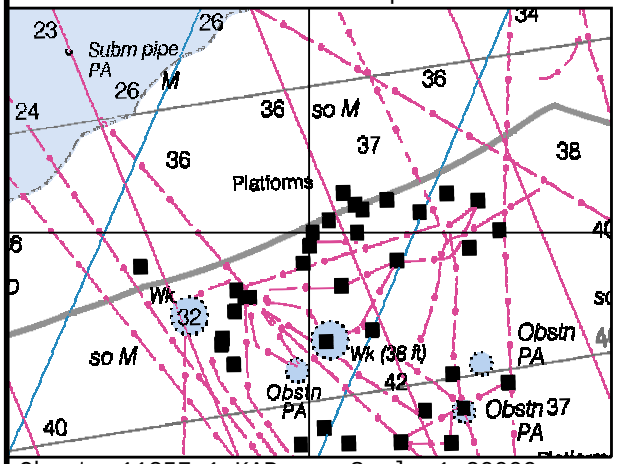


Chart: 11357_1.KAP Scale 1:20000

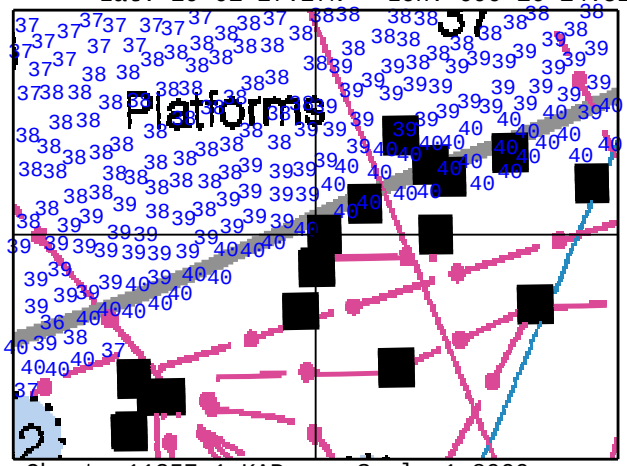
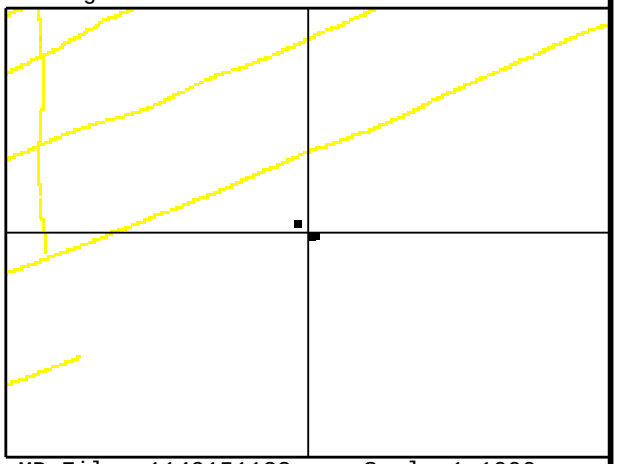
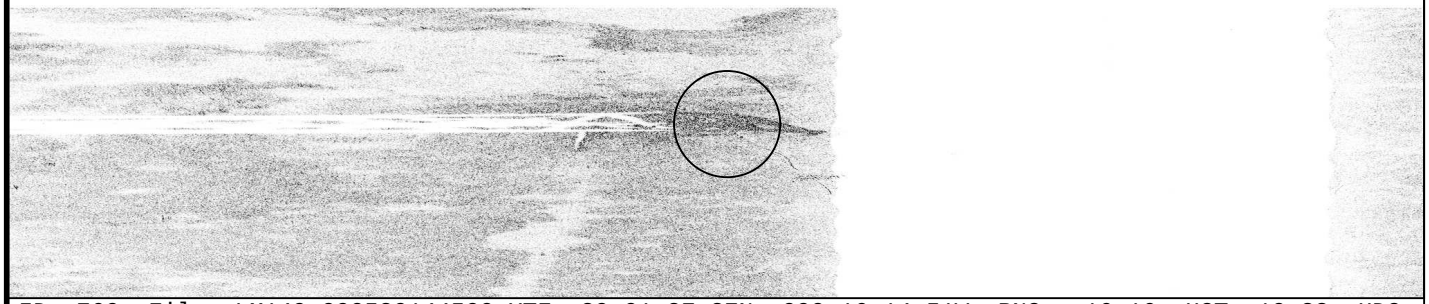


Chart: 11357_1.KAP Scale 1:8000

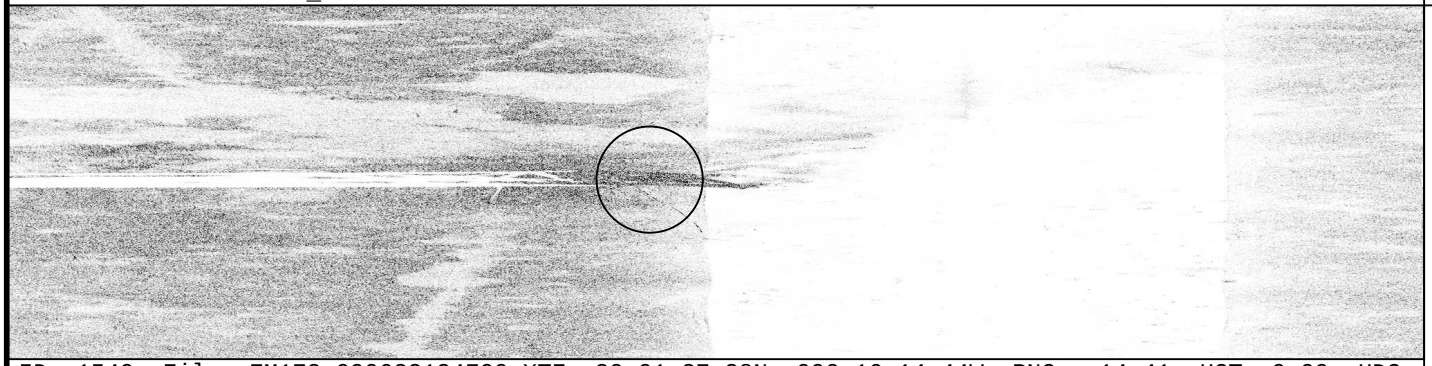


MB File: 1149151123 Scale 1:1000



ID: 769 File: LM149_090529144500.XTF 29 01 27.27N 090 16 14.51W RNG: -16.16 HGT: 10.28 HDG: 064

COMMENT:
PLATFORM. Chart platform symbol. "Energy XXI ST 21 61".



ID: 1540 File: EM173_090622134700.XTF 29 01 27.28N 090 16 14.44W RNG: -14.41 HGT: 9.99 HDG: 065

CORRELATED SS CONTACTS:

Contact	Range/Height
1149151123	-16.16/10.28
1173134828	-14.41/9.99
1148185803	-27.00/5.10

06/22/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0472 Least Depth: Lat: 29 01 36.44N Lon: 090 15 32.67W Ping: Beam:

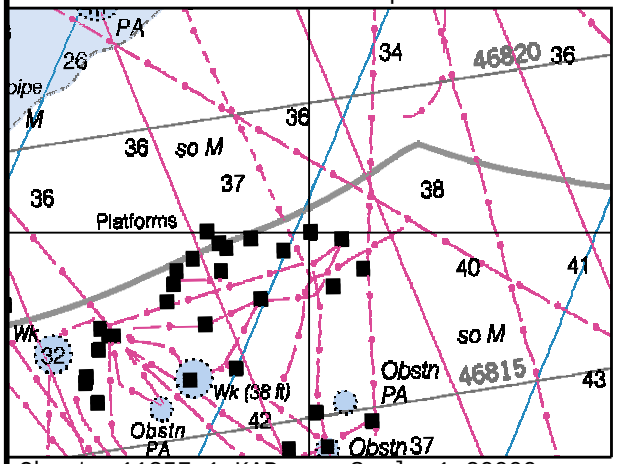


Chart: 11357_1.KAP Scale 1:20000

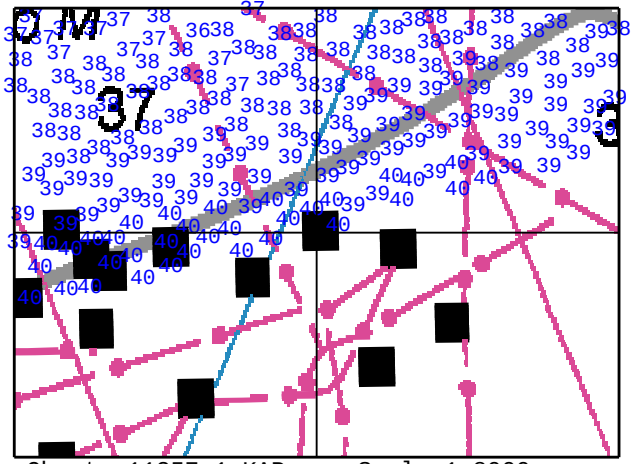
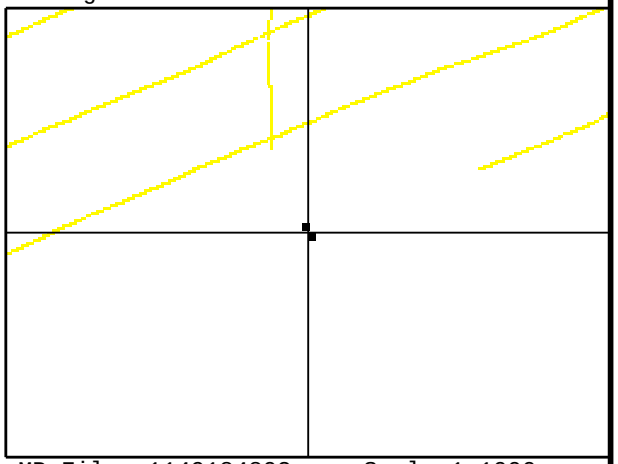
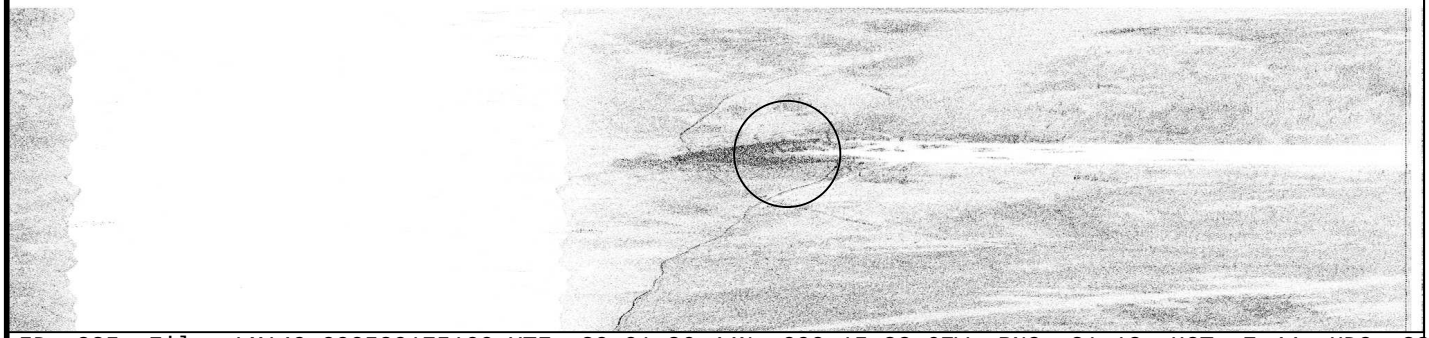


Chart: 11357_1.KAP Scale 1:8000



MB File: 1149184802 Scale 1:1000



ID: 825 File: LM149_090529175100.XTF 29 01 36.44N 090 15 32.67W RNG: 21.12 HGT: 7.44 HDG: 238

COMMENT:
PLATFORM. Chart platform symbol. Owner information is not visible.

ID: 753 File: LM148_090528192600.XTF 29 01 36.56N 090 15 32.77W RNG: 35.06 HGT: 2.71 HDG: 071

CORRELATED SS CONTACTS:

Contact	Range/Height
1149184802	21.12/7.44
1148193250	35.06/2.71

05/28/2009 19:31

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0473 Least Depth: Lat: 29 03 25.88N Lon: 090 10 00.83W Ping: Beam:

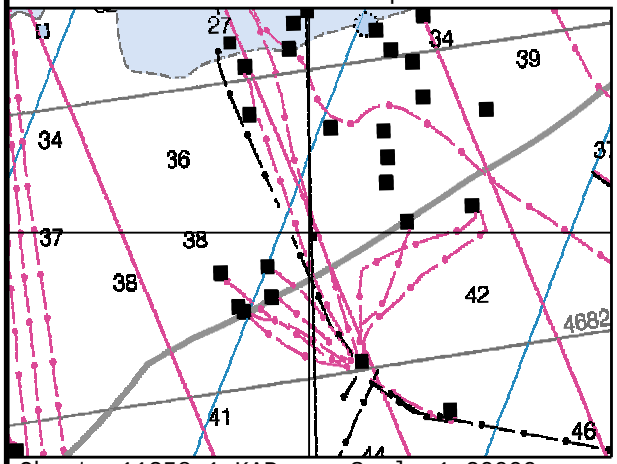


Chart: 11358_1.KAP Scale 1:20000

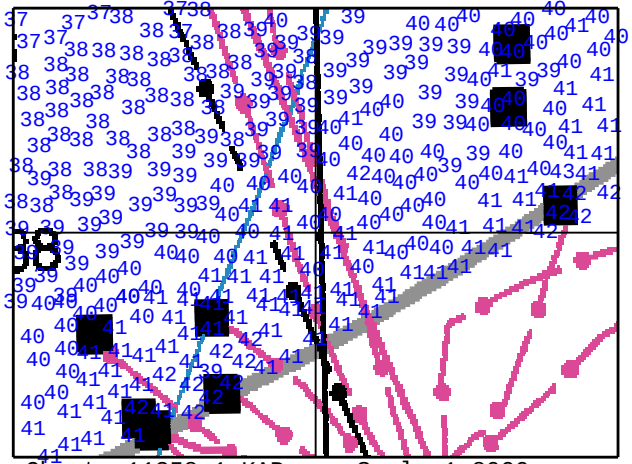
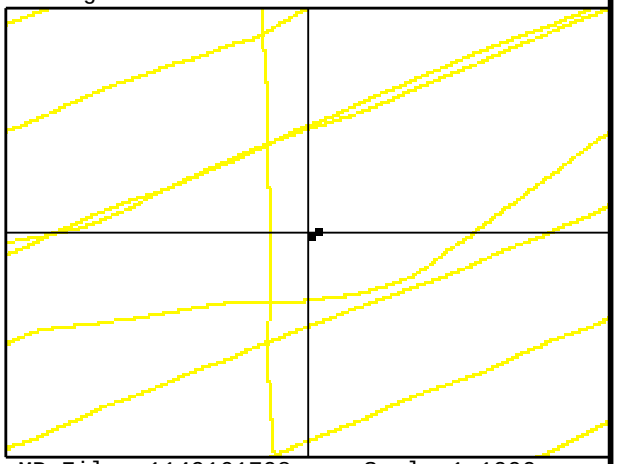
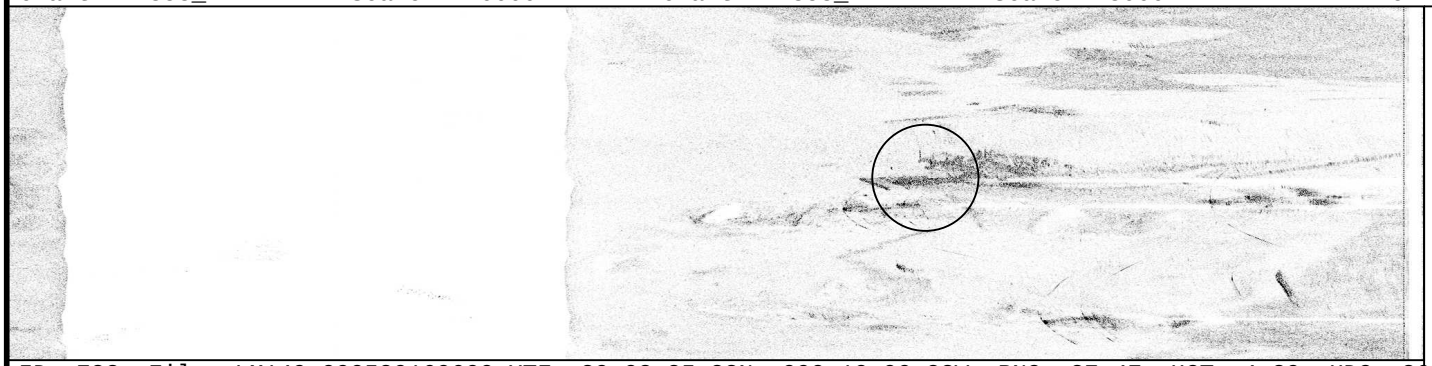


Chart: 11358_1.KAP Scale 1:8000



MB File: 1149161708 Scale 1:1000



ID: 783 File: LM149_090529160600.XTF 29 03 25.88N 090 10 00.83W RNG: 27.47 HGT: 4.39 HDG: 265

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. BM BLK 3 S/L 1367 #35-#55-#57".

ID: 814 File: LM149_090529175100.XTF 29 03 25.93N 090 10 00.72W RNG: 35.88 HGT: 2.90 HDG: 254

CORRELATED SS CONTACTS:

Contact	Range/Height
1149161708	27.47/4.39
1149180444	35.88/2.90

RAM
SUPERIOR FUTURE
7
6
5
05/29/2009 17:05

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0474 Least Depth: Lat: 29 03 14.89N Lon: 090 10 27.54W Ping: Beam:

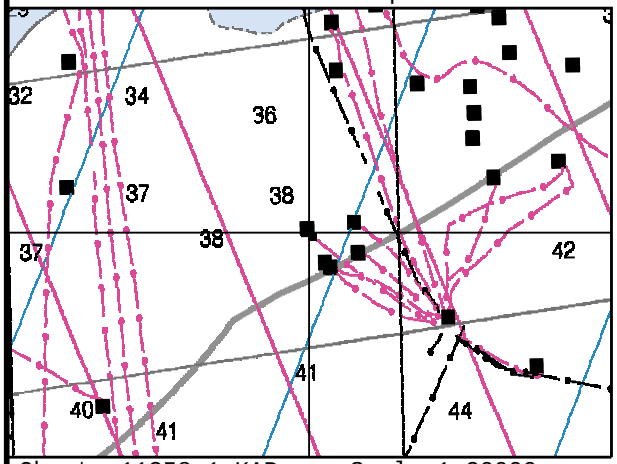


Chart: 11358_1.KAP Scale 1:20000

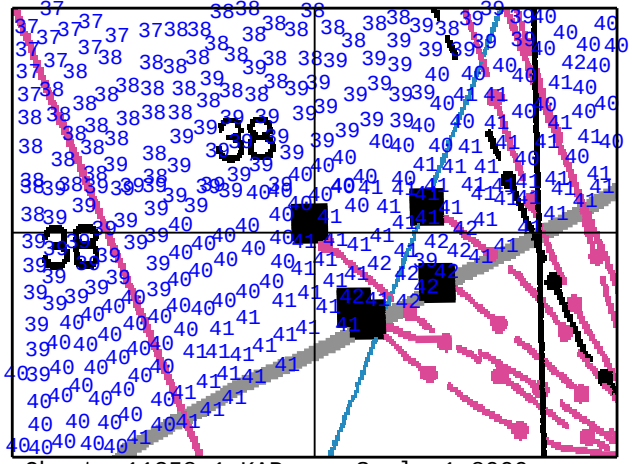
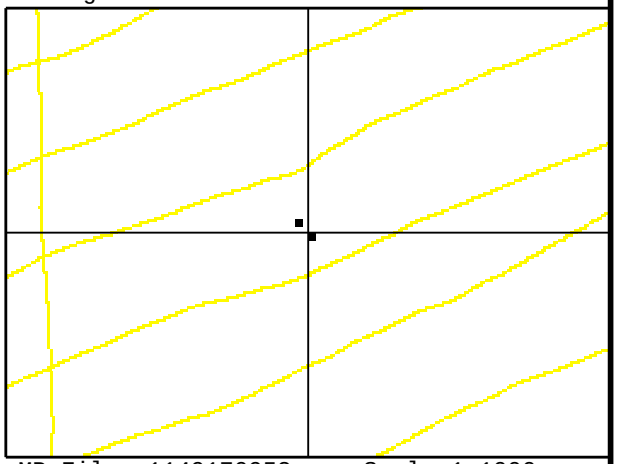
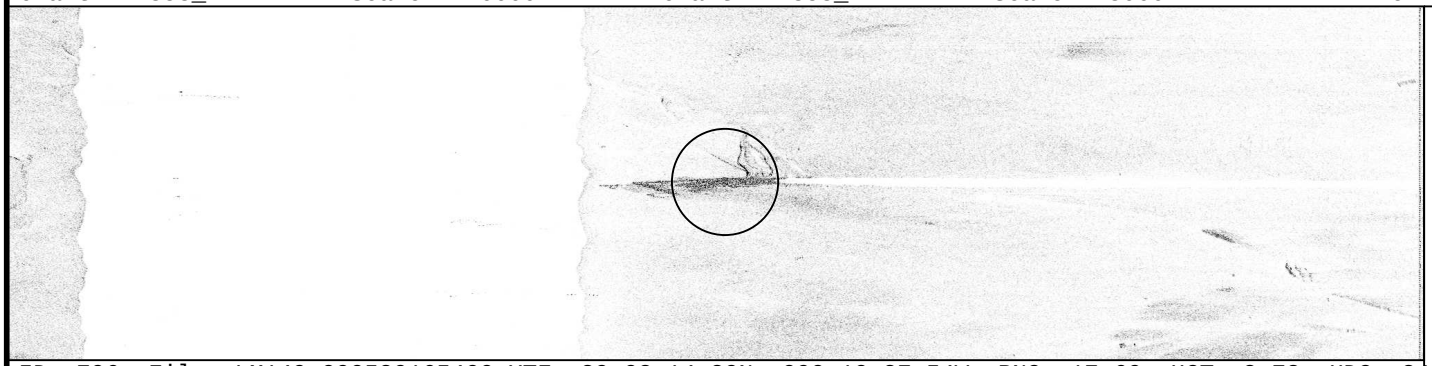


Chart: 11358_1.KAP Scale 1:8000

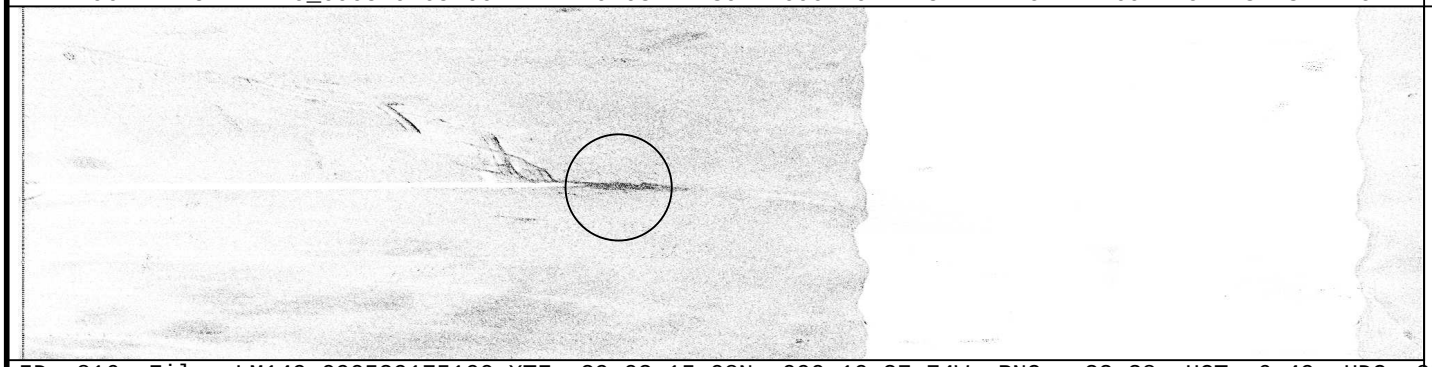


MB File: 1149170952 Scale 1:1000



ID: 796 File: LM149_090529165400.XTF 29 03 14.89N 090 10 27.54W RNG: 17.69 HGT: 8.73 HDG: 248

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. BM BLK 3 S/L 1367 #29".



ID: 816 File: LM149_090529175100.XTF 29 03 15.08N 090 10 27.74W RNG: -22.38 HGT: 6.49 HDG: 255

CORRELATED SS CONTACTS:

Contact	Range/Height
1149170952	17.69/8.73
1149180818	-22.38/6.49

CHEVRON USA INC
BM BLK 3
S/L 1367
#29-
05/29/2009 17:09

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0475 Least Depth: Lat: 29 04 53.46N Lon: 090 14 24.09W Ping: Beam:

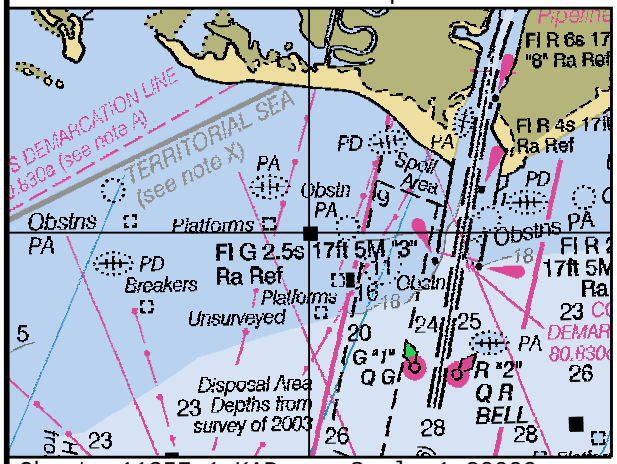


Chart: 11357_1.KAP Scale 1:20000

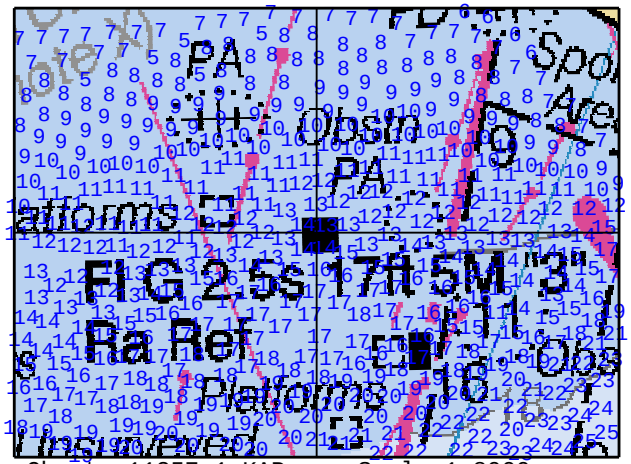
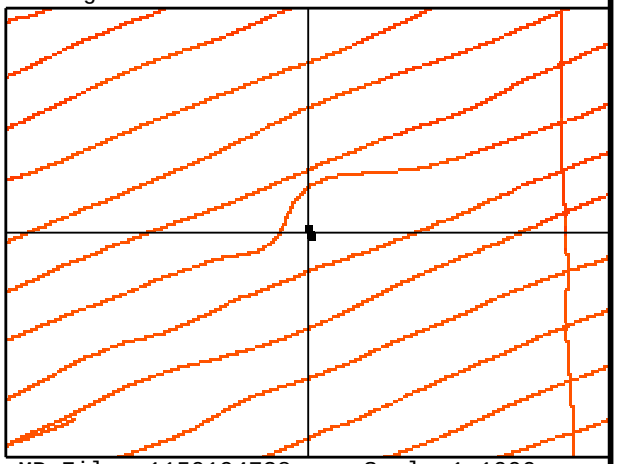
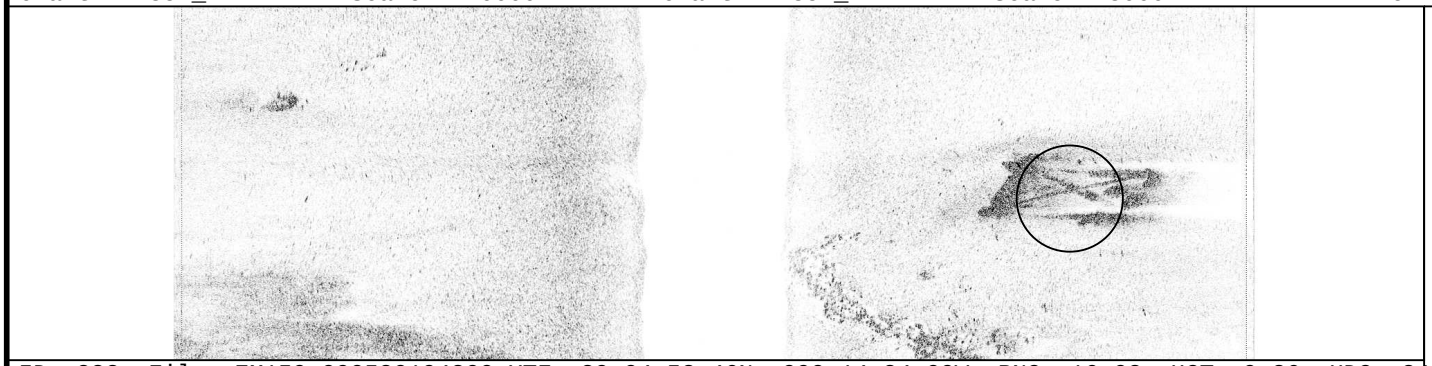


Chart: 11357_1.KAP Scale 1:8000

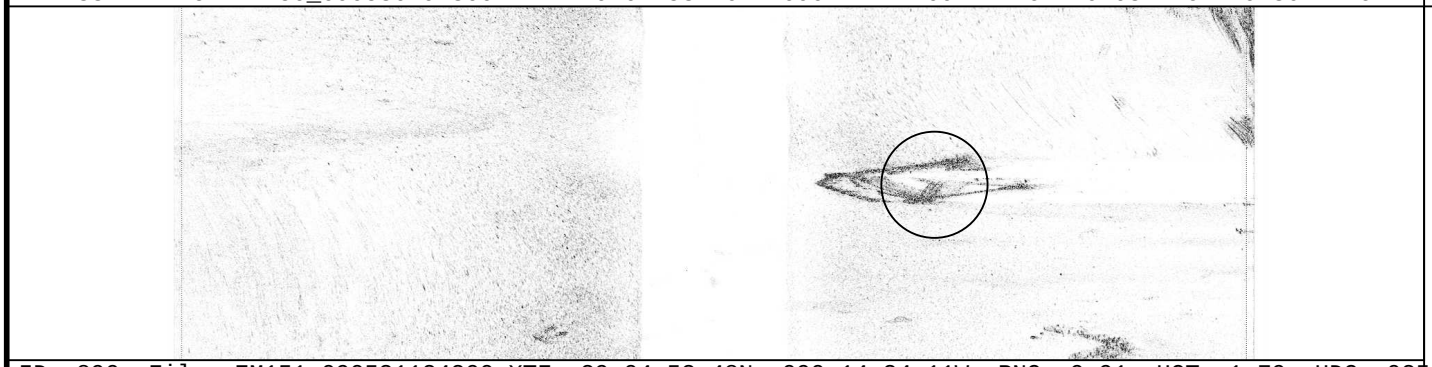


MB File: 1150194738 Scale 1:1000



ID: 882 File: EM150_090530194300.XTF 29 04 53.46N 090 14 24.09W RNG: 16.03 HGT: 0.36 HDG: 249

COMMENT:
PLATFORM. Chart platform symbol. "Timbalier Bay Field, Bay Marchand, BLK. 5 Well No. 3, Serial No. 153588-S/L6430".



ID: 890 File: EM151_090531124200.XTF 29 04 53.48N 090 14 24.11W RNG: 9.91 HGT: 1.79 HDG: 025

CORRELATED SS CONTACTS:

Contact	Range/Height
1150194738	16.03/0.36
1151132855	9.91/1.79
1151152715	-19.75/0.45

TIMBALIER BAY FIELD
BAY MARCHAND
BLK 5 WELL NO. 3
SERIAL NO. 15358B-5-L6430
05/30/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0476 Least Depth: Lat: 29 03 53.25N Lon: 090 09 54.11W Ping: Beam:

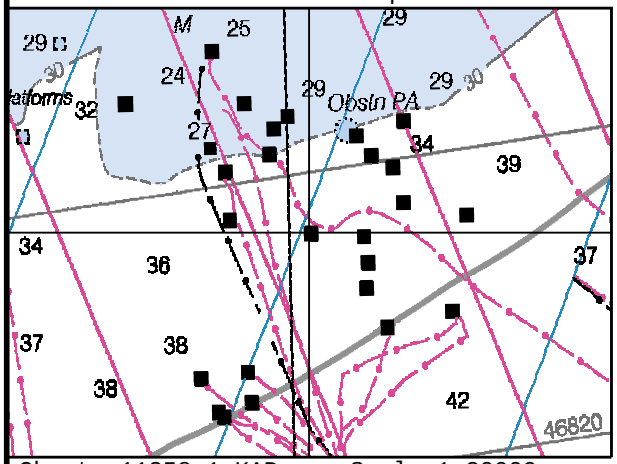


Chart: 11358_1.KAP Scale 1:20000

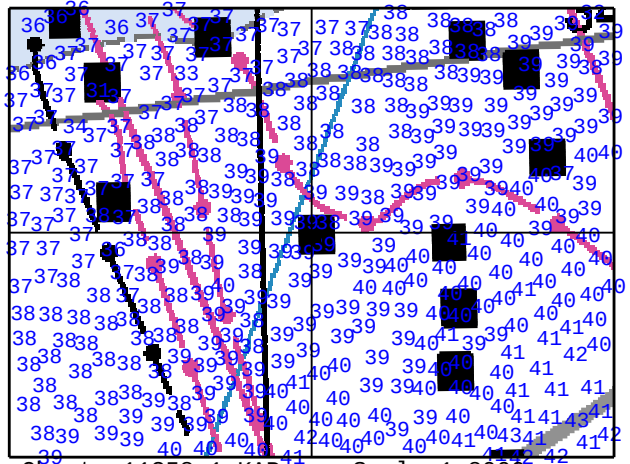
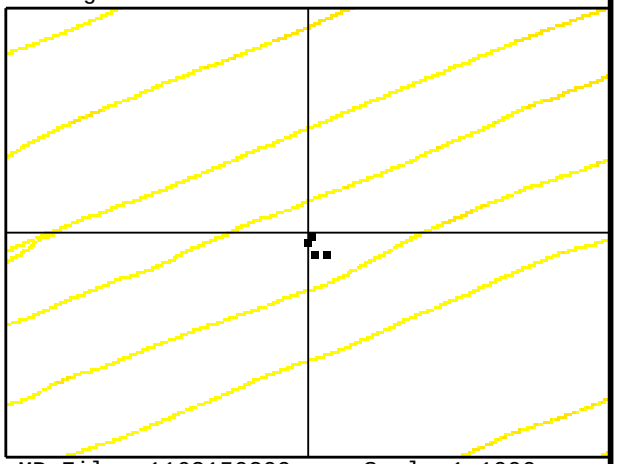
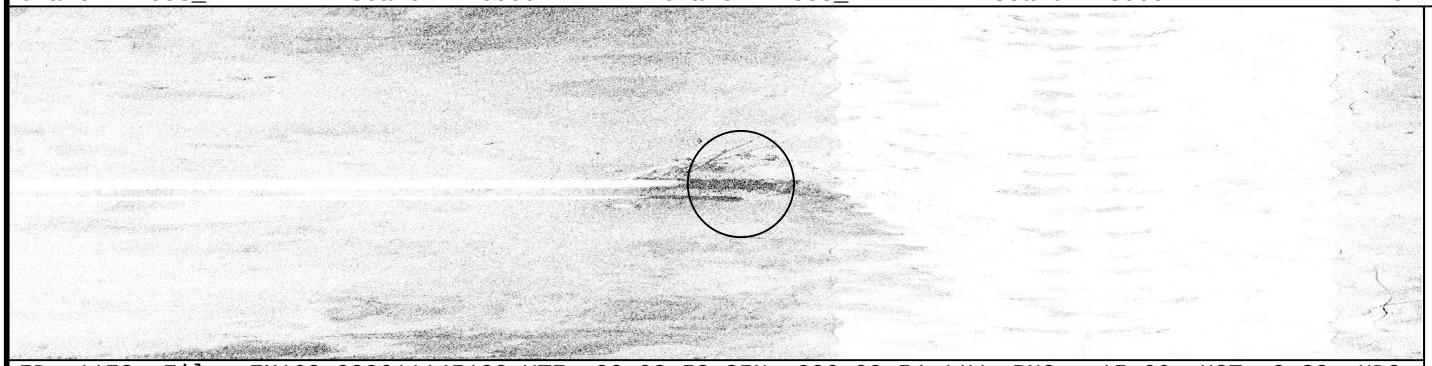


Chart: 11358_1.KAP Scale 1:8000



MB File: 1162150209 Scale 1:1000



ID: 1173 File: EM162_090611145100.XTF 29 03 53.25N 090 09 54.11W RNG: -15.66 HGT: 9.33 HDG: 247

COMMENT:
PLATFORM. Chart platform symbol. Owner information is not visible.

ID: 1624 File: EM176_090625141000.XTF 29 03 53.16N 090 09 54.17W RNG: 42.03 HGT: 1.30 HDG: 072

CORRELATED SS CONTACTS:

Contact	Range/Height
1162150209	-15.66/9.33
1176142607	42.03/1.30
1150161036	40.16/1.50
1165174719	-17.22/8.40

05/30/2009 16:09

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0477 Least Depth: Lat: 29 05 44.44N Lon: 090 09 51.05W Ping: Beam:

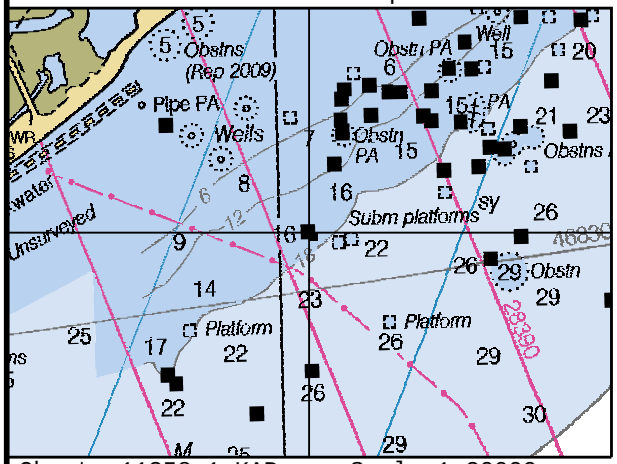


Chart: 11358_1.KAP Scale 1:20000

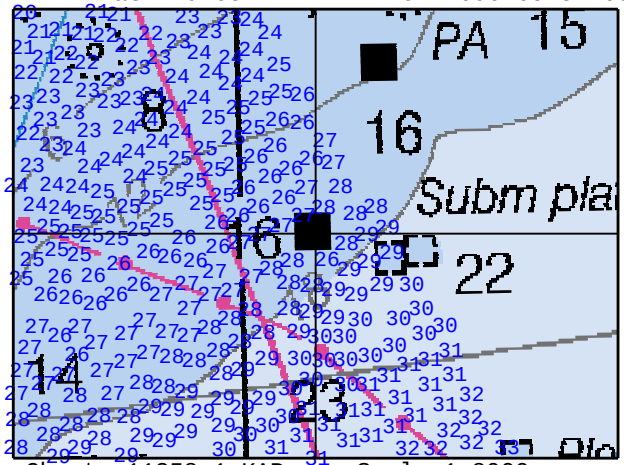
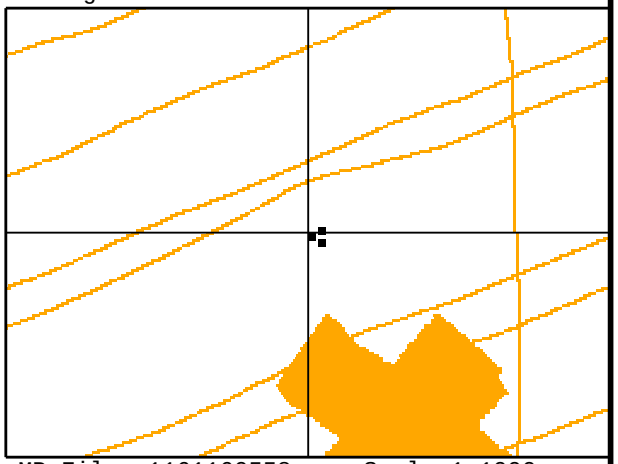
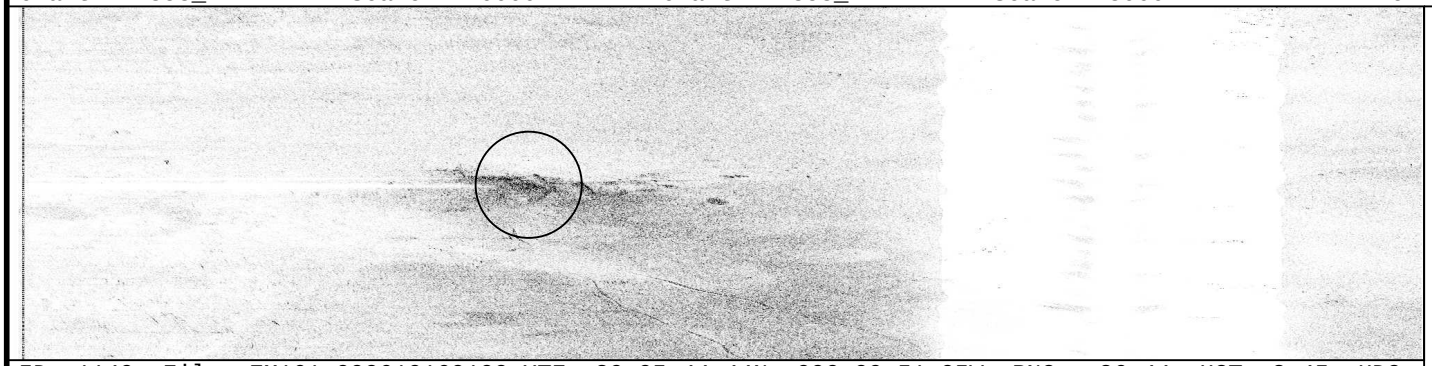


Chart: 11358_1.KAP Scale 1:8000

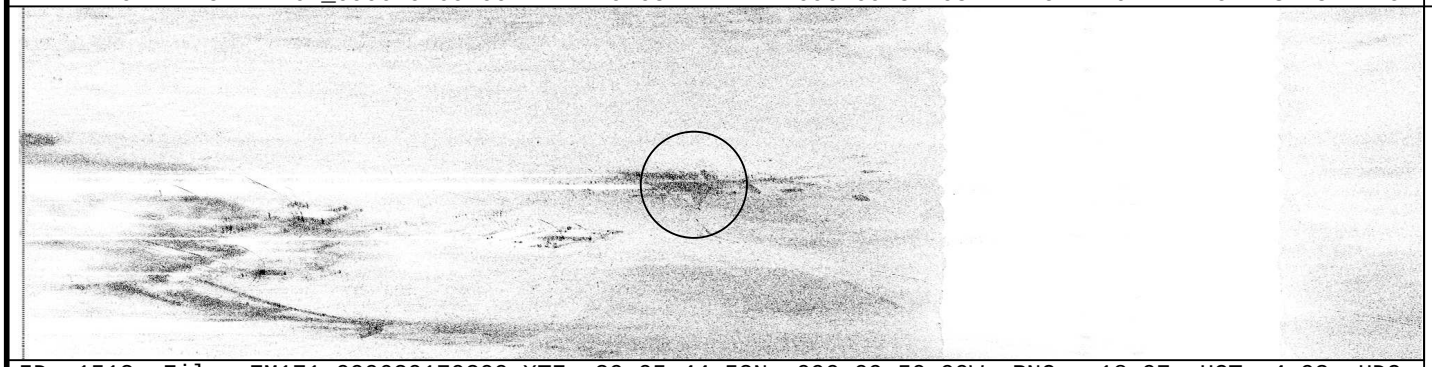


MB File: 1161160558 Scale 1:1000



ID: 1149 File: EM161_090610160100.XTF 29 05 44.44N 090 09 51.05W RNG: -26.44 HGT: 3.45 HDG: 249

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA BM BLK 1 S/L 1365 #74 #75 #87".



ID: 1512 File: EM171_090620170200.XTF 29 05 44.52N 090 09 50.90W RNG: -18.97 HGT: 4.93 HDG: 244

CORRELATED SS CONTACTS:

Contact	Range/Height
1161160558	-26.44/3.45
1171170735	-18.97/4.93
1161192316	-43.47/0.81

06/10/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0478 Least Depth: Lat: 29 03 10.68N Lon: 090 10 12.58W Ping: Beam:

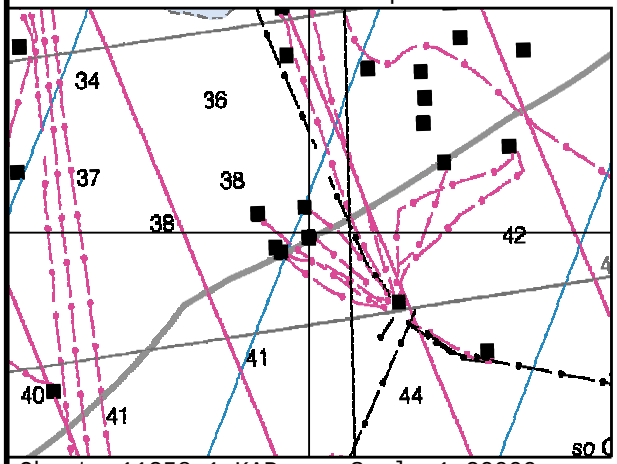


Chart: 11358_1.KAP Scale 1:20000

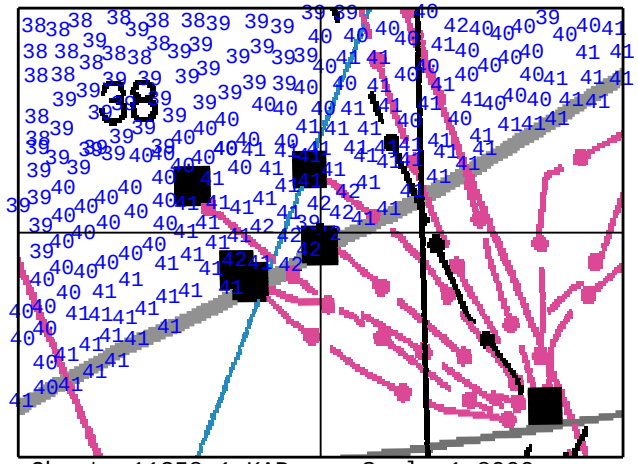
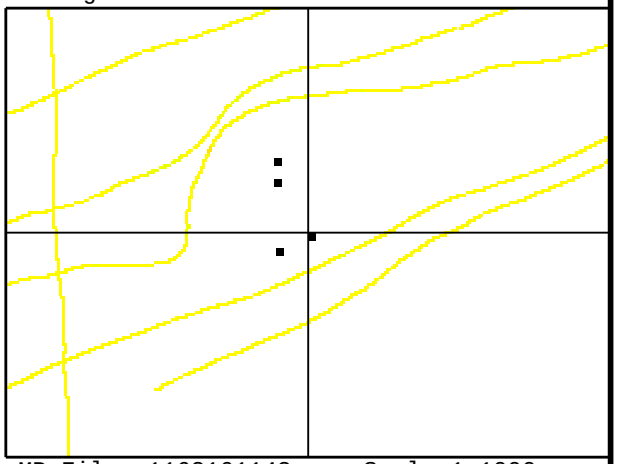
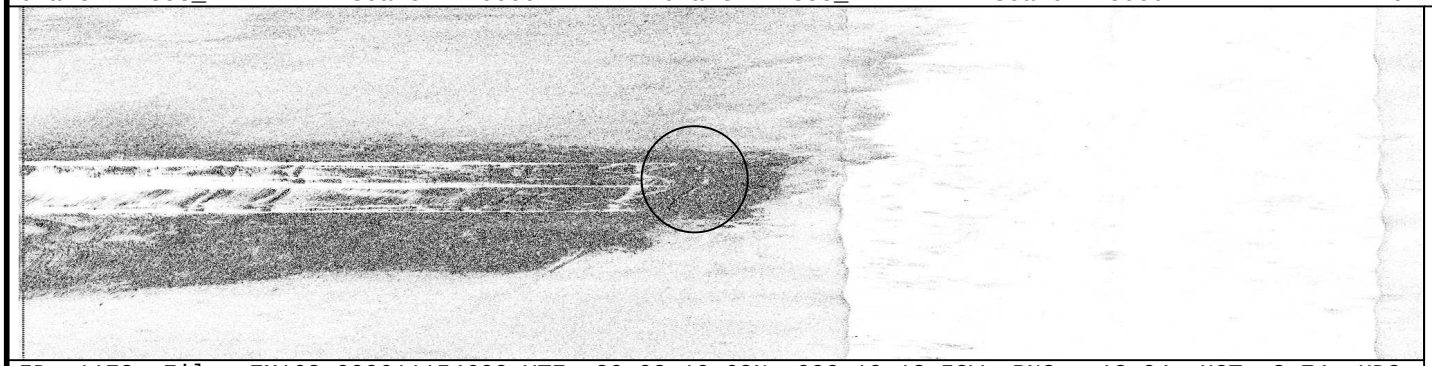


Chart: 11358_1.KAP Scale 1:8000

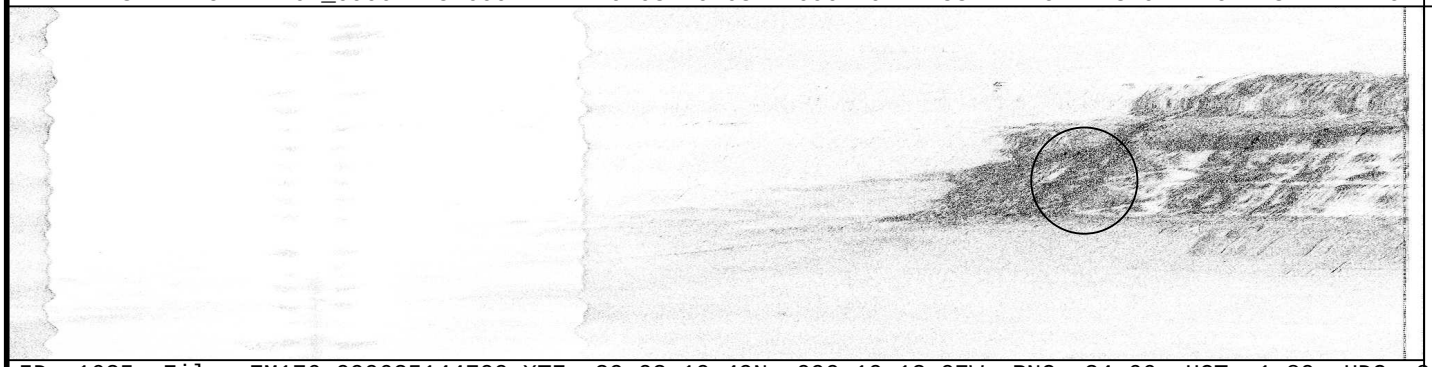


MB File: 1162161143 Scale 1:1000



ID: 1178 File: EM162_090611154600.XTF 29 03 10.68N 090 10 12.58W RNG: -18.94 HGT: 8.74 HDG: 067

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. BM 3 M 11/60".



ID: 1625 File: EM176_090625144700.XTF 29 03 10.49N 090 10 13.07W RNG: 34.66 HGT: 1.80 HDG: 240

CORRELATED SS CONTACTS:

Contact	Range/Height
1162161143	-18.94/8.74
1176145035	34.66/1.80
1162151602	-29.78/4.00
1164150016	-29.56/3.86

06/11/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0479 Least Depth: Lat: 29 03 07.04N Lon: 090 10 22.75W Ping: Beam:

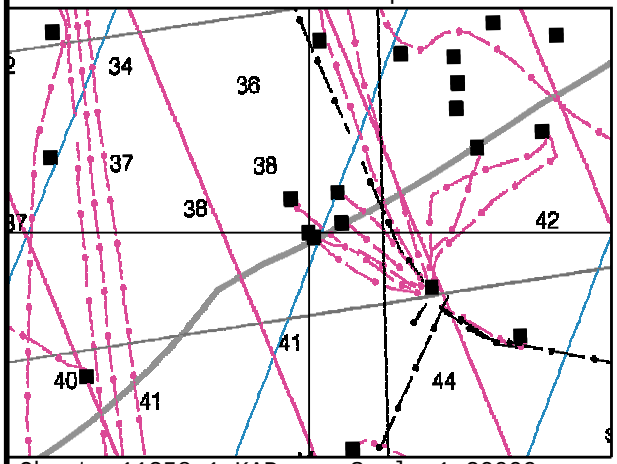


Chart: 11358_1.KAP Scale 1:20000

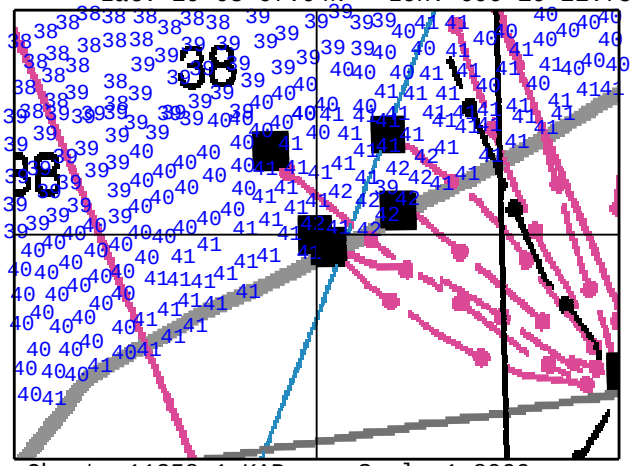
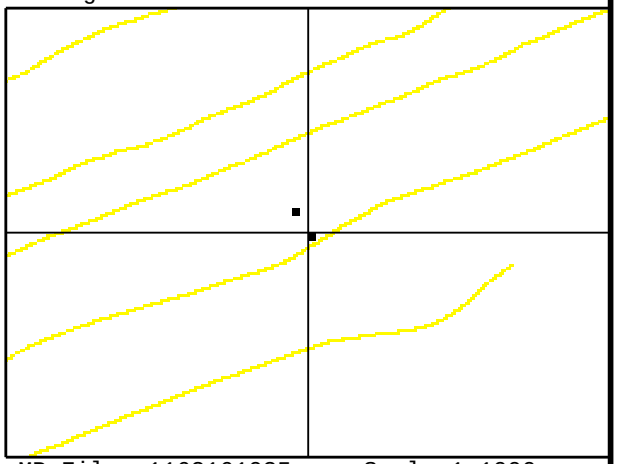
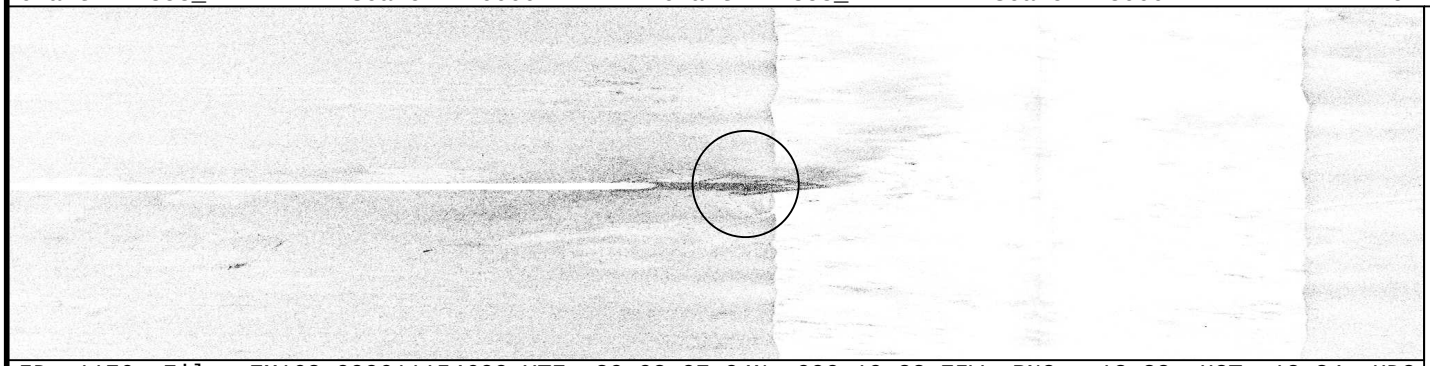


Chart: 11358_1.KAP Scale 1:8000

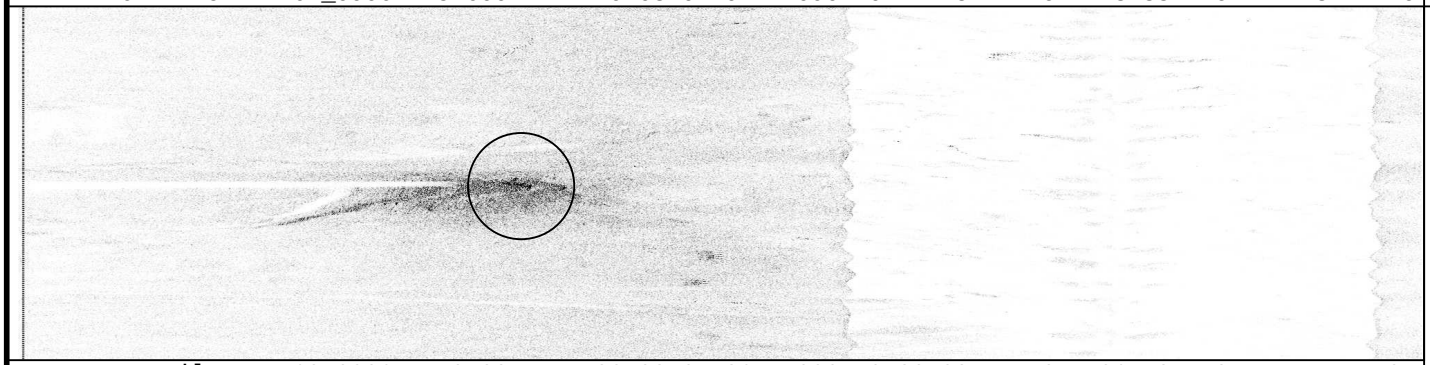


MB File: 1162161035 Scale 1:1000



ID: 1176 File: EM162_090611154600.XTF 29 03 07.04N 090 10 22.75W RNG: -13.38 HGT: 12.84 HDG: 059

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. BM BLK 3 S/L 1367 #33".



ID: 1175 File: EM162_090611150700.XTF 29 03 07.36N 090 10 22.98W RNG: -26.78 HGT: 5.51 HDG: 244

CORRELATED SS CONTACTS:

Contact	Range/Height
1162161035	-13.38/12.84
1162151729	-26.78/5.51

06/11/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0480 Least Depth: Lat: 29 03 06.08N Lon: 090 10 21.50W Ping: Beam:

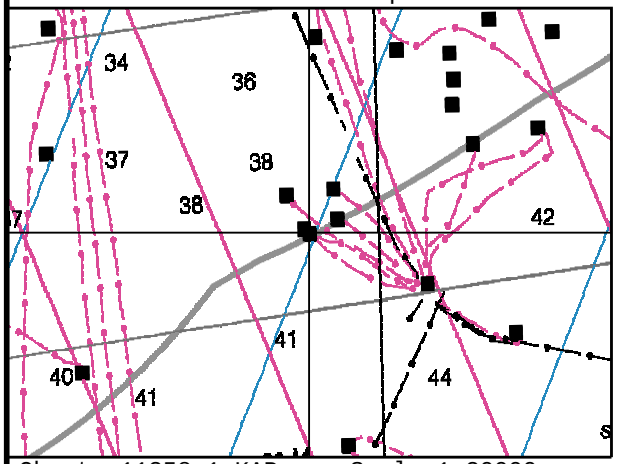


Chart: 11358_1.KAP Scale 1:20000

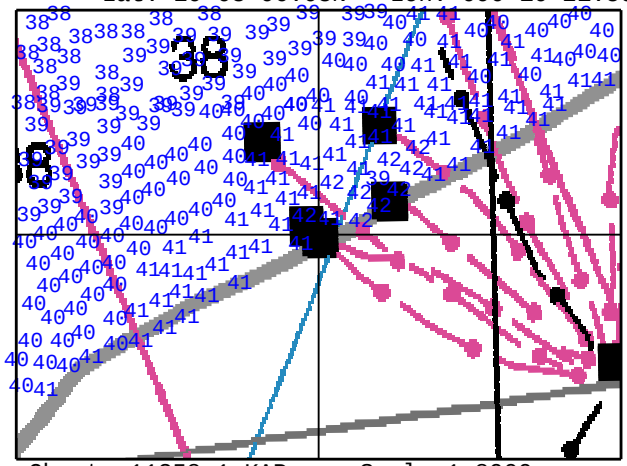
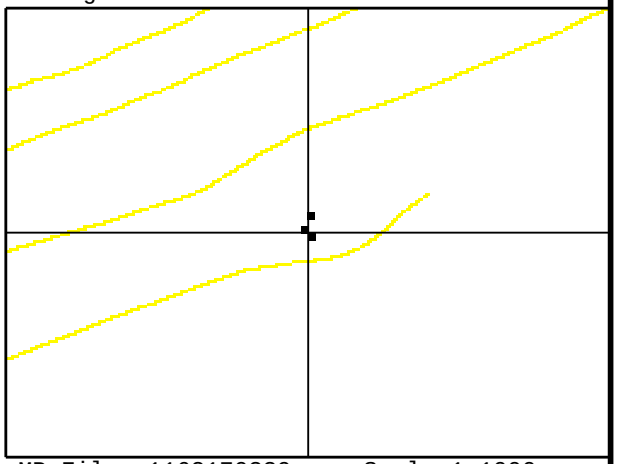
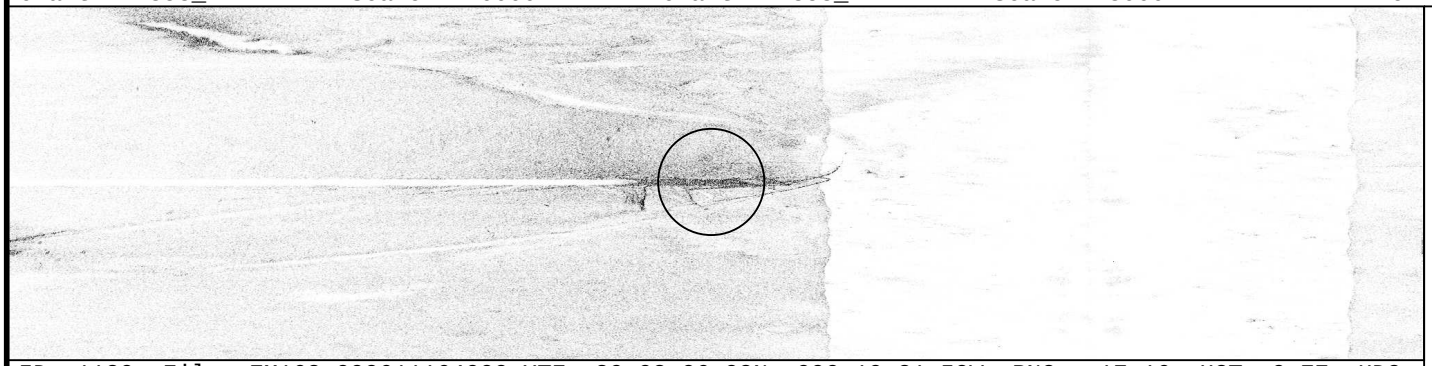


Chart: 11358_1.KAP Scale 1:8000

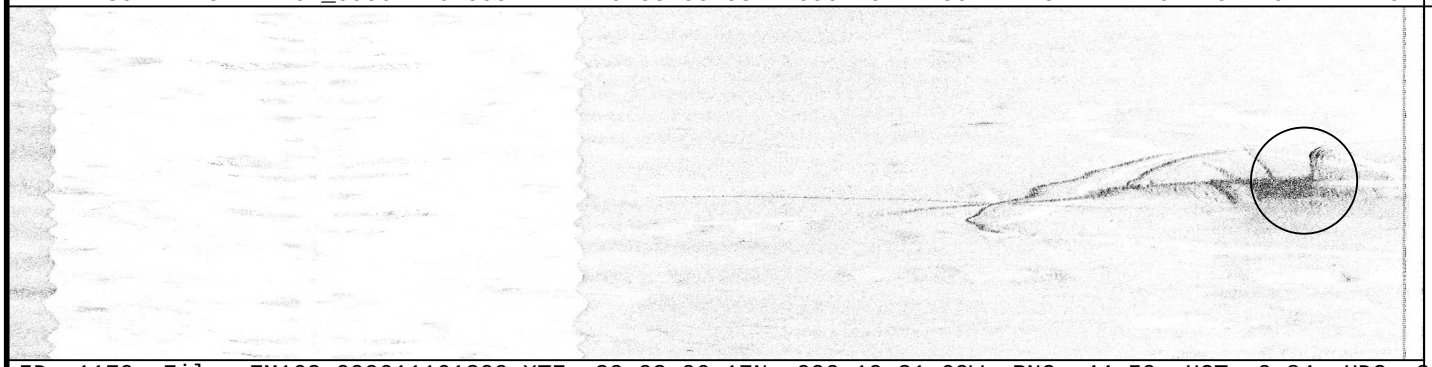


MB File: 1162170339 Scale 1:1000



ID: 1180 File: EM162_090611164000.XTF 29 03 06.08N 090 10 21.50W RNG: -17.16 HGT: 9.77 HDG: 085

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. BM BLK 3 S/L 1367 #27".



ID: 1179 File: EM162_090611161300.XTF 29 03 06.17N 090 10 21.60W RNG: 44.59 HGT: 0.84 HDG: 261

CORRELATED SS CONTACTS:

Contact	Range/Height
1162170339	-17.16/9.77
1162161617	44.59/0.84
1162161040	31.53/4.48

06/11/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0481 Least Depth: Lat: 29 03 26.18N Lon: 090 09 30.50W Ping: Beam:

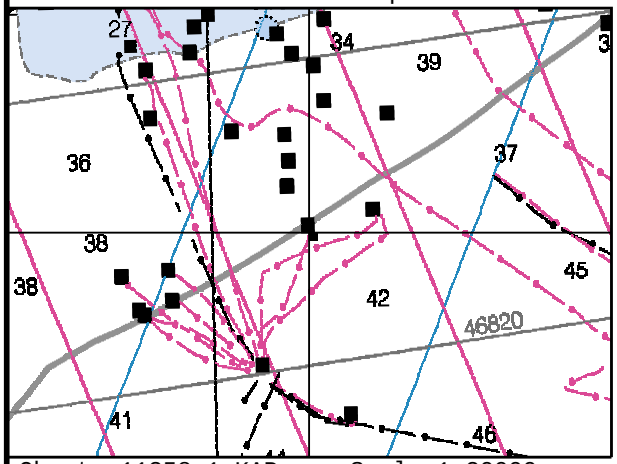


Chart: 11358_1.KAP Scale 1:20000

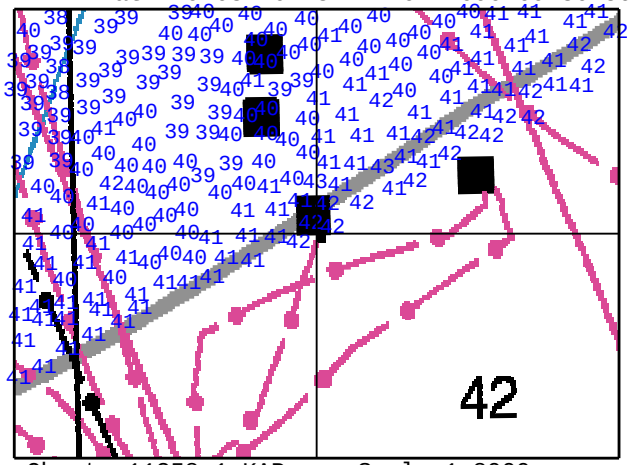
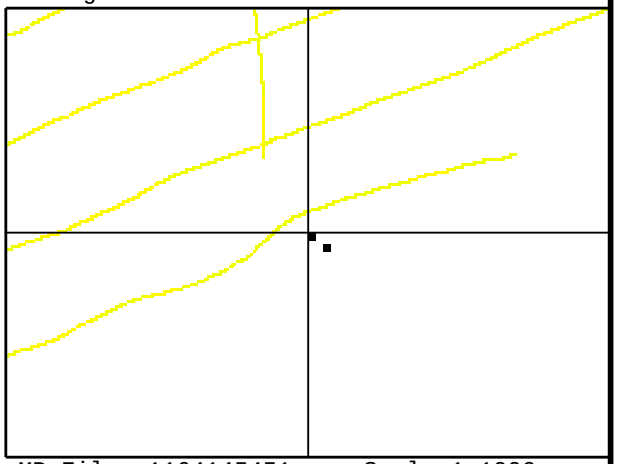
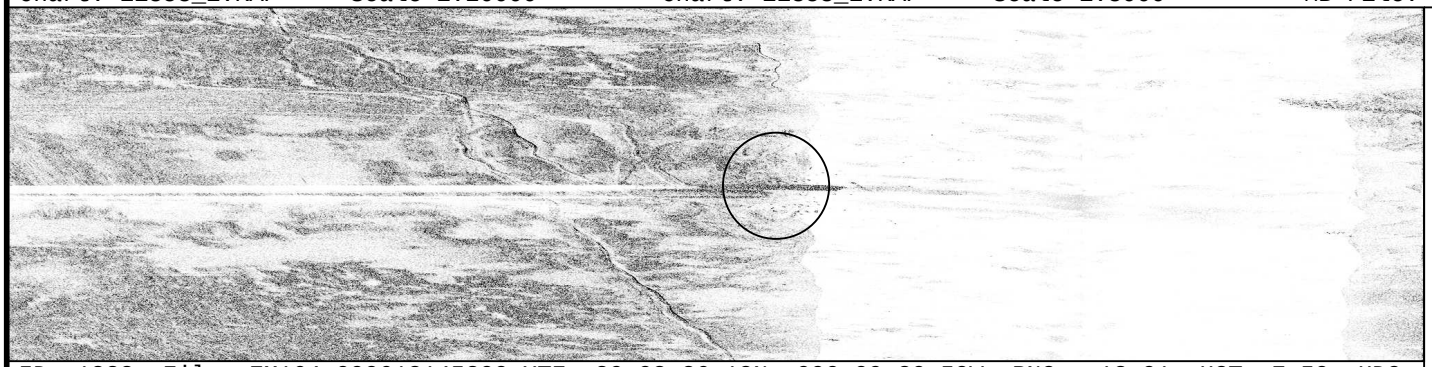


Chart: 11358_1.KAP Scale 1:8000



MB File: 1164145451 Scale 1:1000



ID: 1233 File: EM164_090613145300.XTF 29 03 26.18N 090 09 30.50W RNG: -13.91 HGT: 7.50 HDG: 248

COMMENT:
PLATFORM. Chart platform symbol. Owner information is not visible.

ID: 1237 File: EM164_090613150500.XTF 29 03 26.02N 090 09 30.26W RNG: 46.84 HGT: 0.28 HDG: 075

CORRELATED SS CONTACTS:

Contact	Range/Height
1164145451	-13.91/7.50
1164151531	46.84/0.28

06/13/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0482 Least Depth: Lat: 29 04 13.98N Lon: 090 10 05.91W Ping: Beam:

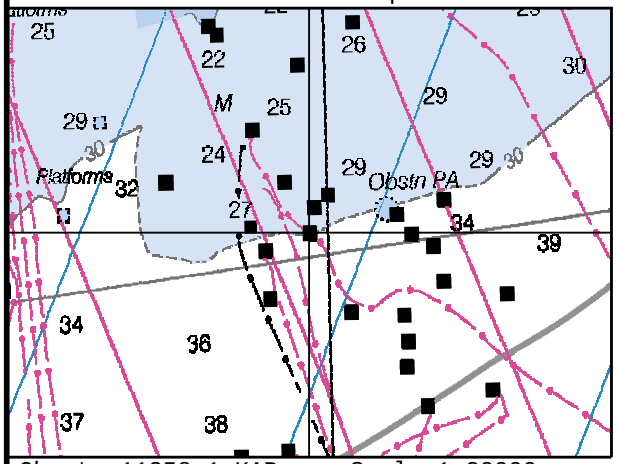


Chart: 11358_1.KAP Scale 1:20000

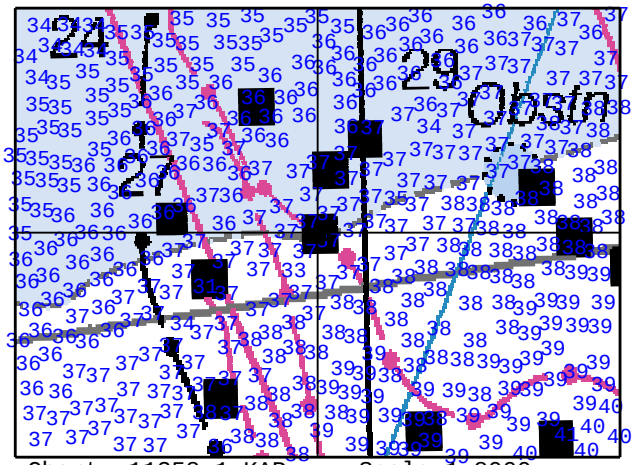
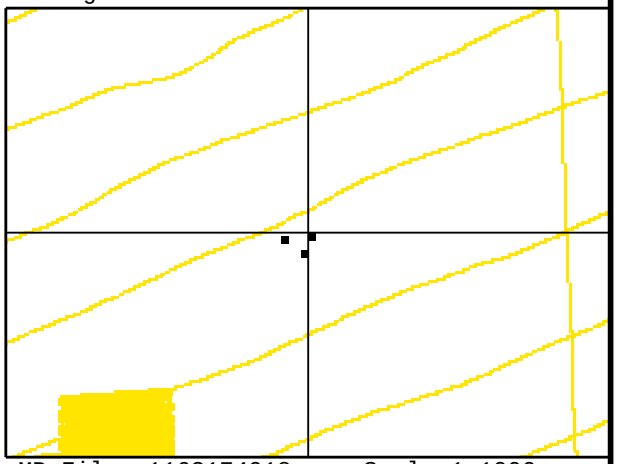
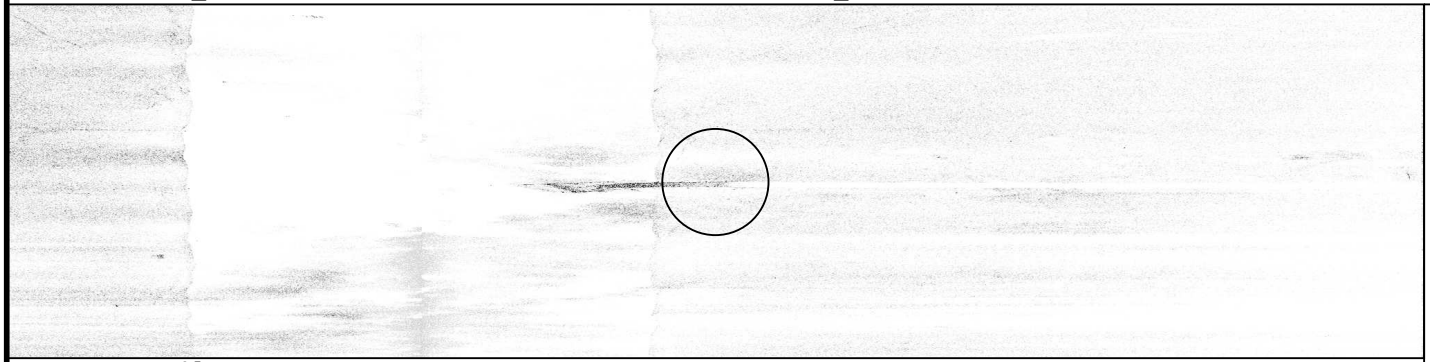


Chart: 11358_1.KAP Scale 1:8000

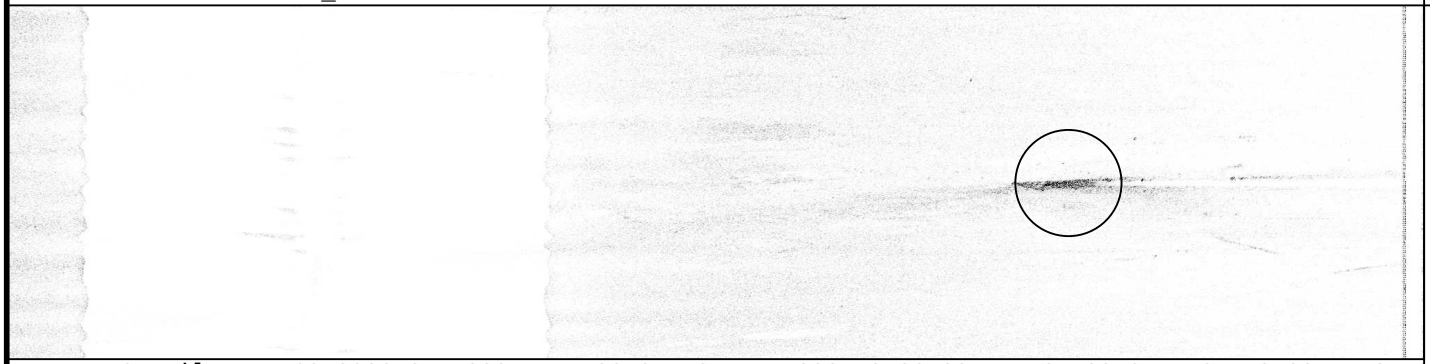


MB File: 1163174918 Scale 1:1000



ID: 1215 File: EM163_090612171700.XTF 29 04 13.98N 090 10 05.91W RNG: 13.19 HGT: 0.89 HDG: 066

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. B M BLK 3 S/L 1367 #32".



ID: 1456 File: EM169_090618144200.XTF 29 04 13.75N 090 10 06.02W RNG: 33.94 HGT: 2.82 HDG: 244

CORRELATED SS CONTACTS:

Contact	Range/Height
1163174918	13.19/0.89
1169145128	33.94/2.82
1136191227	-46.50/0.31

CHEVRON USA INC
B M BLK 3
S/L 1367 #32
32
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FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0483 Least Depth: Lat: 29 04 42.42N Lon: 090 14 17.53W Ping: Beam:

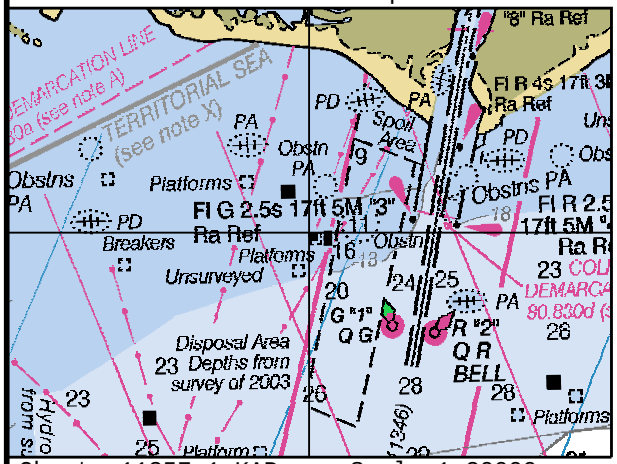


Chart: 11357_1.KAP Scale 1:20000

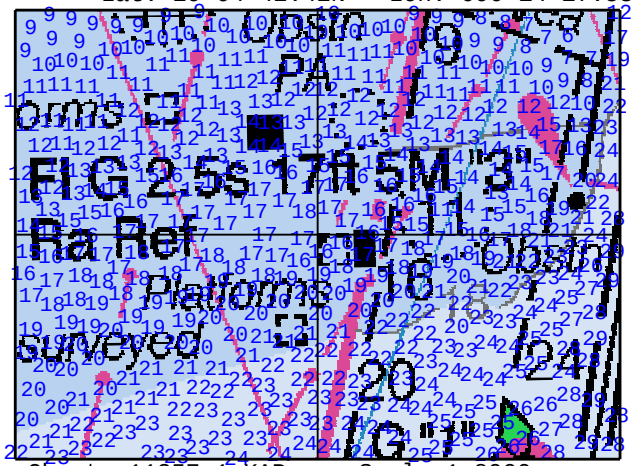
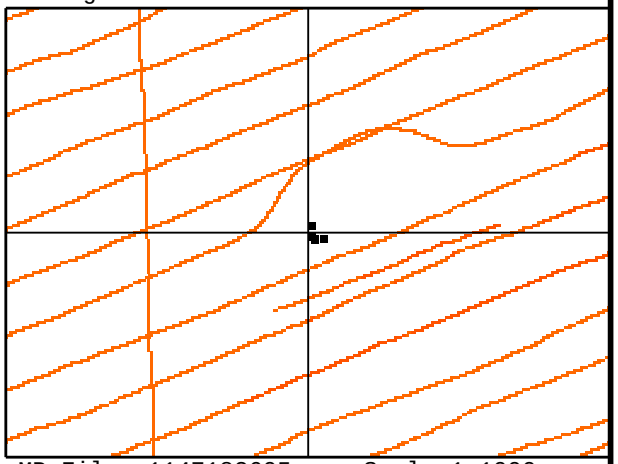
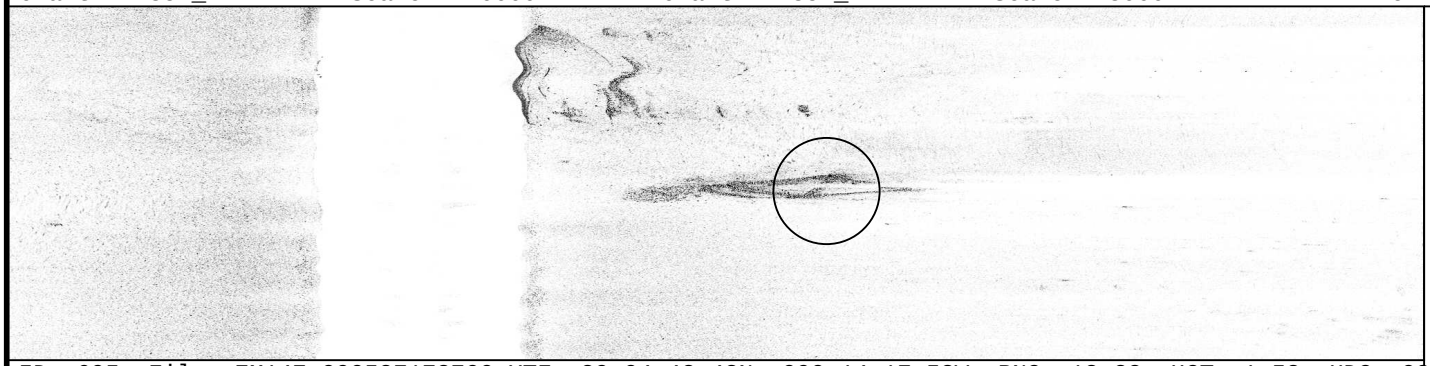


Chart: 11357_1.KAP Scale 1:8000



MB File: 1147182605 Scale 1:1000



ID: 695 File: EM147_090527173700.XTF 29 04 42.42N 090 14 17.53W RNG: 18.28 HGT: 1.53 HDG: 035

COMMENT:
PLATFORM. Chart platform symbol. Owner information is not visible.

ID: 692 File: EM147_090527161300.XTF 29 04 42.39N 090 14 17.49W RNG: 31.66 HGT: 1.03 HDG: 250

CORRELATED SS CONTACTS:

Contact	Range/Height
1147182605	18.28/1.53
1147161751	31.66/1.03
1170151107	13.50/0.64
1170165307	23.28/0.07
1168134526	-23.19/0.03

06/19/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0484 Least Depth: Lat: 29 03 51.76N Lon: 090 09 37.01W Ping: Beam:

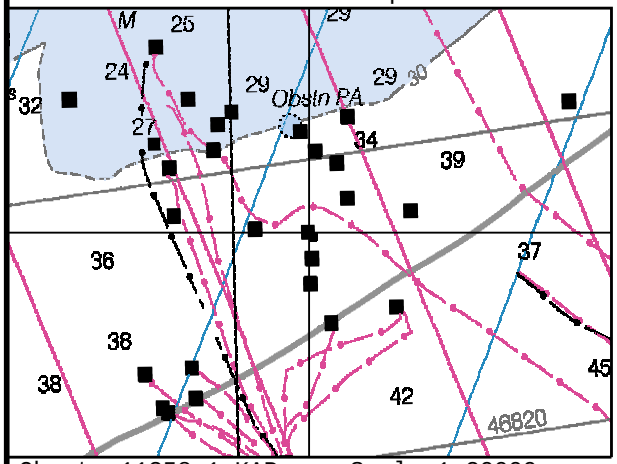


Chart: 11358_1.KAP Scale 1:20000

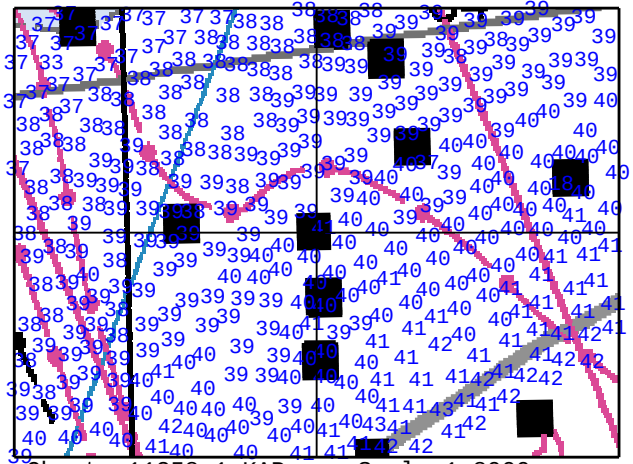
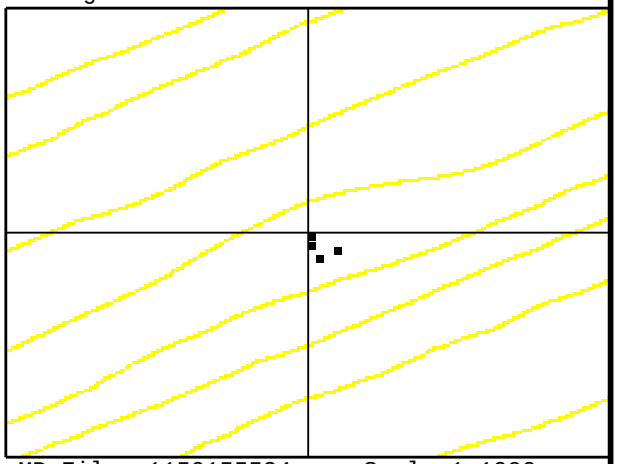


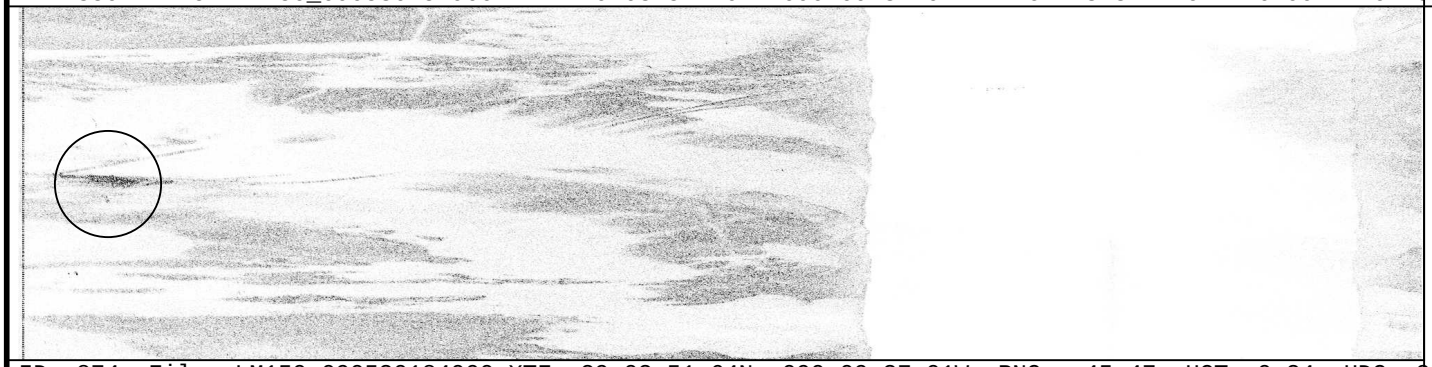
Chart: 11358_1.KAP Scale 1:8000



MB File: 1150155524 Scale 1:1000

ID: 859 File: LM150_090530154900.XTF 29 03 51.76N 090 09 37.01W RNG: 13.81 HGT: 10.99 HDG: 071

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. BM BLK 2 S/L 1366 #56".



ID: 874 File: LM150_090530184000.XTF 29 03 51.64N 090 09 37.01W RNG: -45.47 HGT: 0.24 HDG: 250

CORRELATED SS CONTACTS:

Contact	Range/Height
1150155524	13.81/10.99
1150184815	-45.47/0.24
1135184218	17.69/6.25
1165145715	-35.06/3.06

05/30/2009 15:54

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0485 Least Depth: Lat: 29 04 08.99N Lon: 090 09 28.35W Ping: Beam:

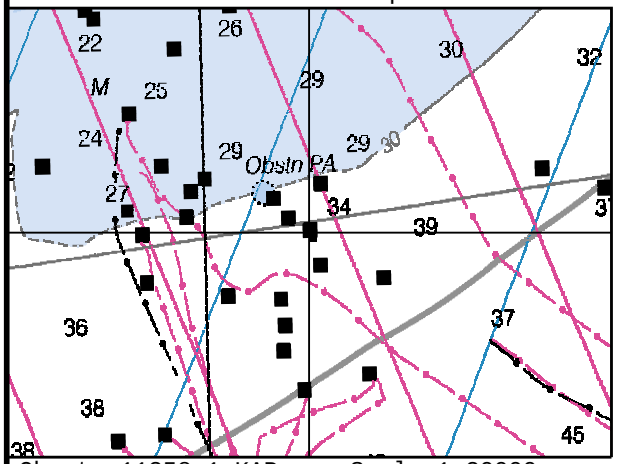


Chart: 11358_1.KAP Scale 1:20000

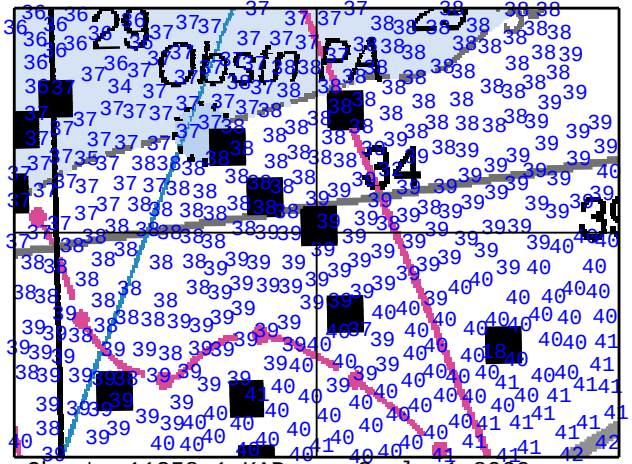
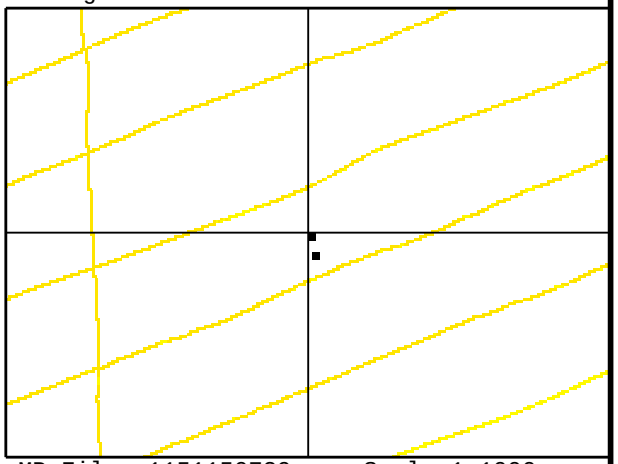
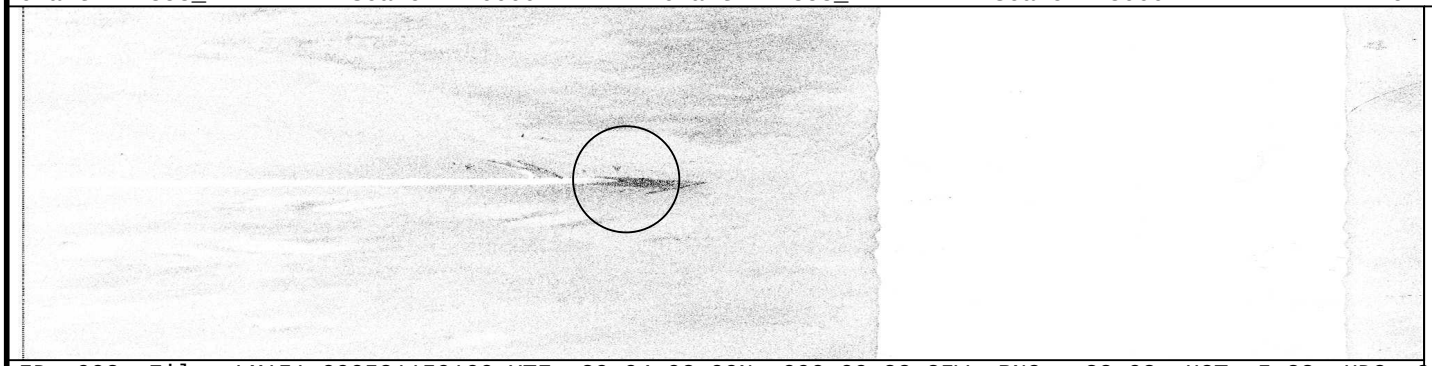


Chart: 11358_1.KAP Scale 1:8000

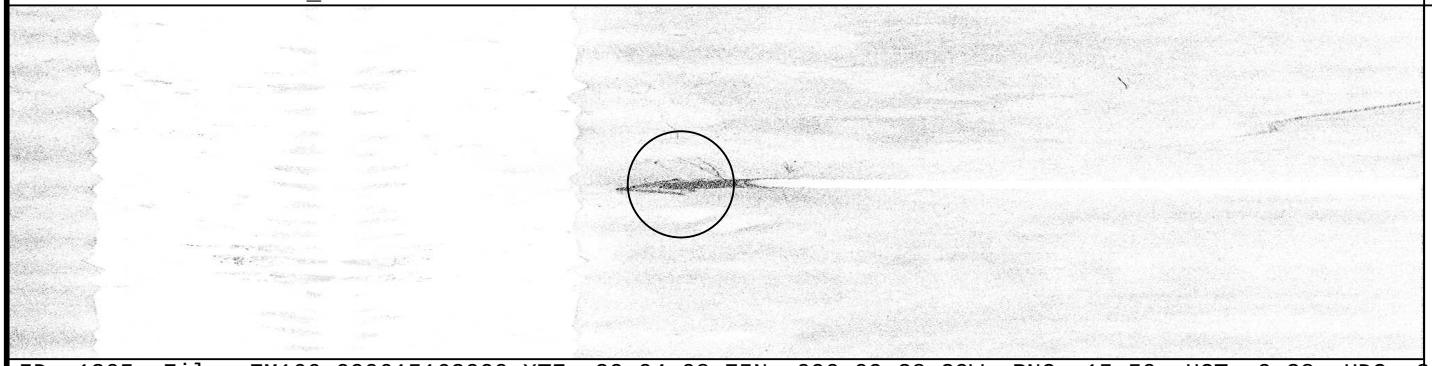


MB File: 1151150729 Scale 1:1000



ID: 902 File: LM151_090531150100.XTF 29 04 08.99N 090 09 28.35W RNG: -22.03 HGT: 5.33 HDG: 248

COMMENT:
PLATFORM. Chart platform symbol. Owner information is not visible.



ID: 1305 File: EM166_090615162900.XTF 29 04 08.75N 090 09 28.29W RNG: 15.50 HGT: 9.38 HDG: 246

CORRELATED SS CONTACTS:

Contact	Range/Height
1151150729	-22.03/5.33
1166163354	15.50/9.38

06/15/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0486 Least Depth: Lat: 29 04 18.33N Lon: 090 09 38.99W Ping: Beam:

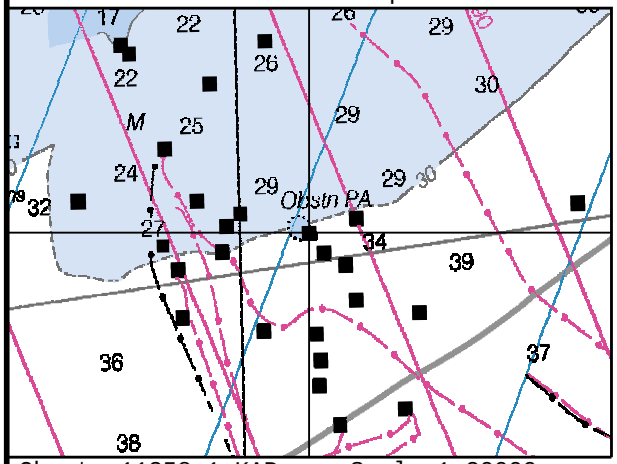


Chart: 11358_1.KAP Scale 1:20000

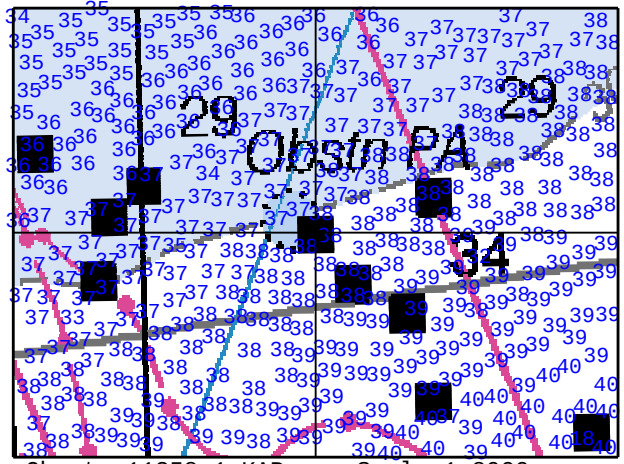
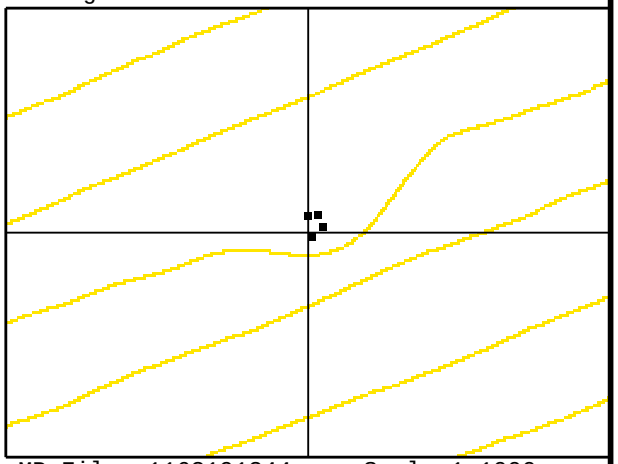
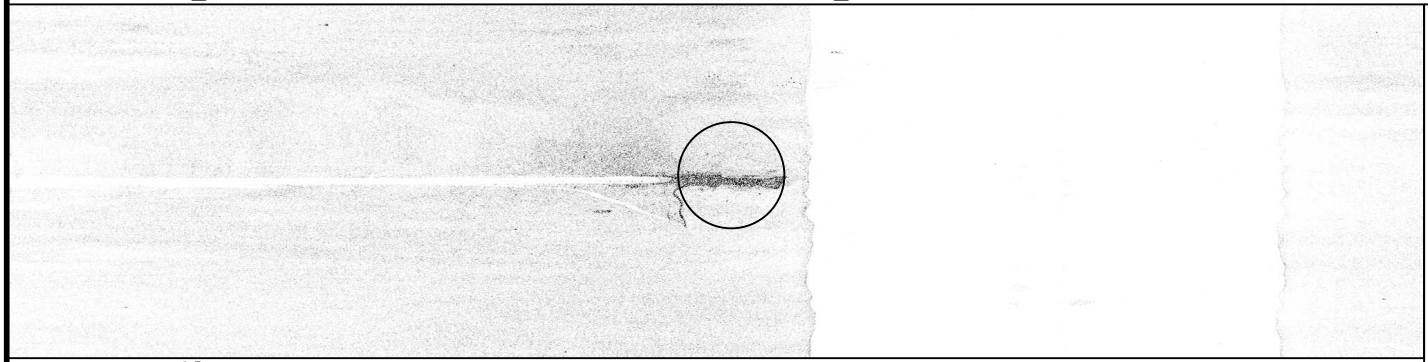


Chart: 11358_1.KAP Scale 1:8000

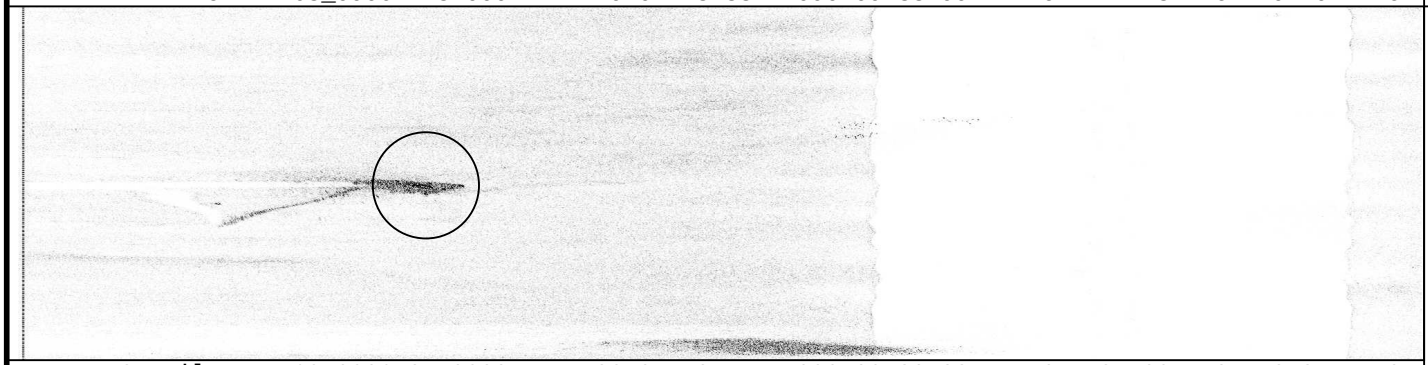


MB File: 1163191344 Scale 1:1000



ID: 1224 File: EM163_090612184000.XTF 29 04 18.33N 090 09 38.99W RNG: -14.28 HGT: 9.79 HDG: 090

COMMENT:
PLATFORM. Chart platform symbol. "BM BLK 3 S/L 1367 #25".



ID: 1452 File: EM169_090618140900.XTF 29 04 18.45N 090 09 38.83W RNG: -31.09 HGT: 3.31 HDG: 069

CORRELATED SS CONTACTS:

Contact	Range/Height
1163191344	-14.28/9.79
1169143725	-31.09/3.31
1176171754	43.22/0.71
1176173040	-43.41/1.25

06/12/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0487 Least Depth: Lat: 29 03 59.68N Lon: 090 09 24.15W Ping: Beam:

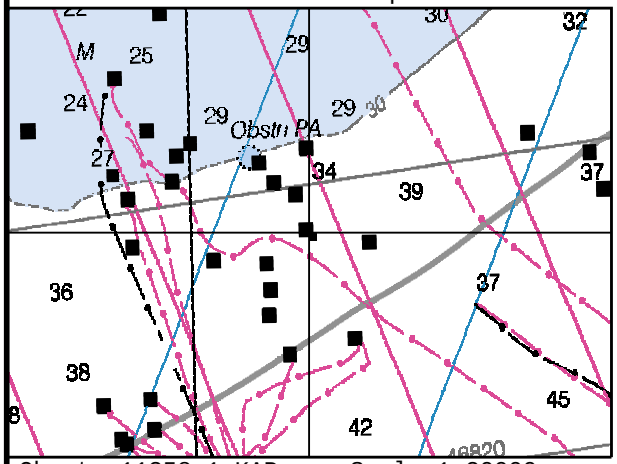


Chart: 11358_1.KAP Scale 1:20000

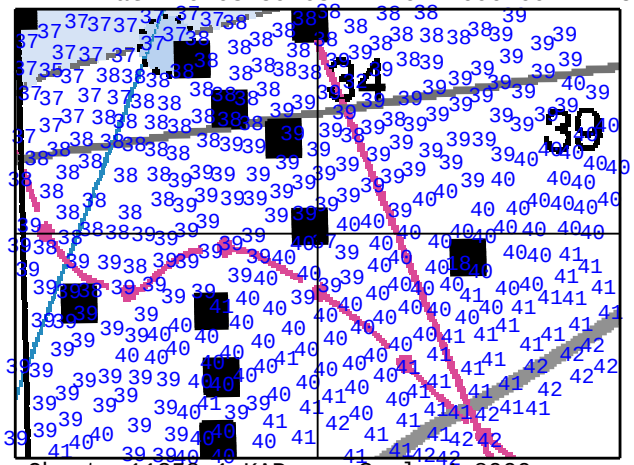
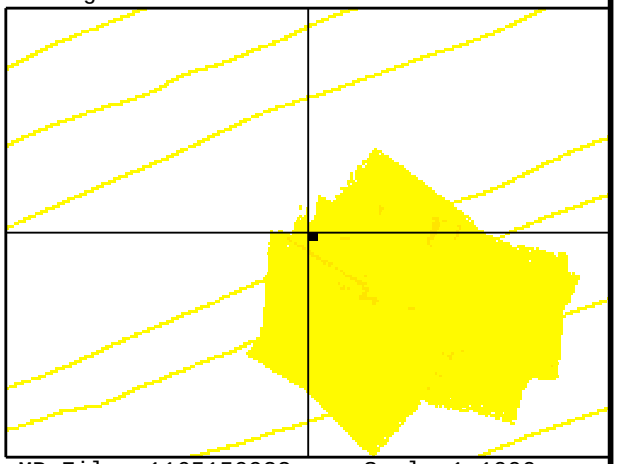


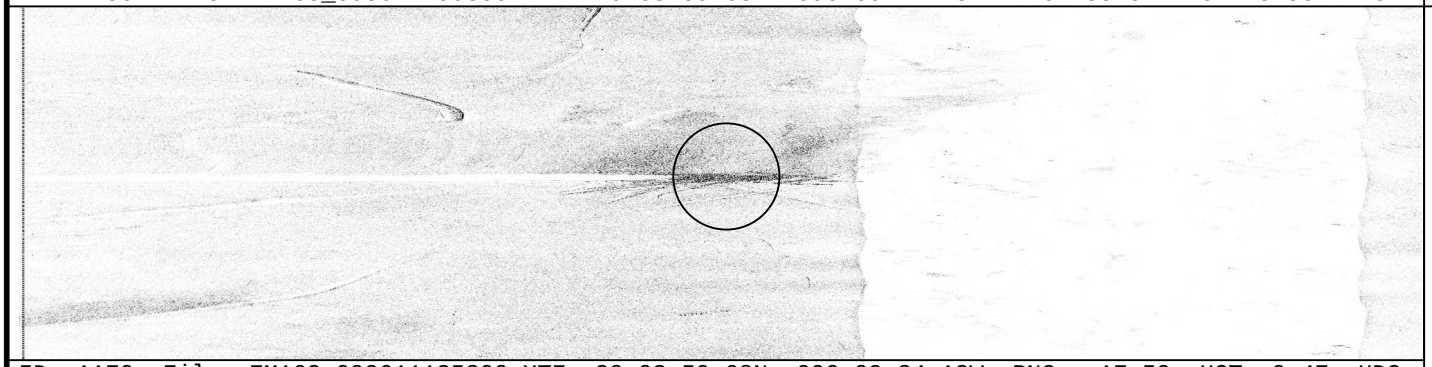
Chart: 11358_1.KAP Scale 1:8000



MB File: 1165150922 Scale 1:1000

ID: 1256 File: EM165_090614150300.XTF 29 03 59.68N 090 09 24.15W RNG: 33.84 HGT: 3.56 HDG: 249

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. B M BLK 2 S/L 1366 #48".



ID: 1170 File: EM162_090611135200.XTF 29 03 59.68N 090 09 24.12W RNG: -17.50 HGT: 9.47 HDG: 080

CORRELATED SS CONTACTS:

Contact	Range/Height
1165150922	33.84/3.56
1162144711	-17.50/9.47

06/11/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0488 Least Depth: Lat: 29 03 56.27N Lon: 090 10 18.25W Ping: Beam:

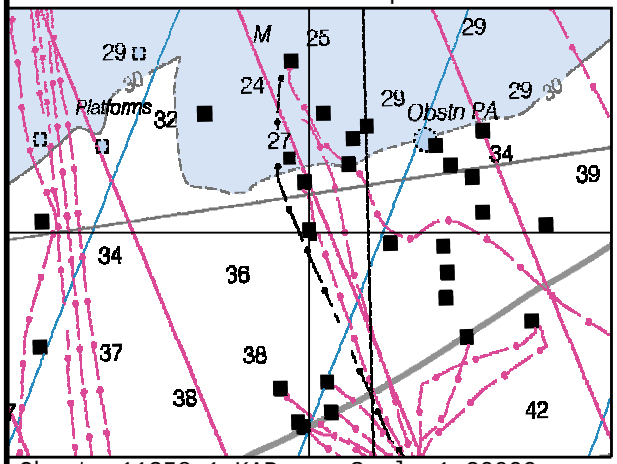


Chart: 11358_1.KAP Scale 1:20000

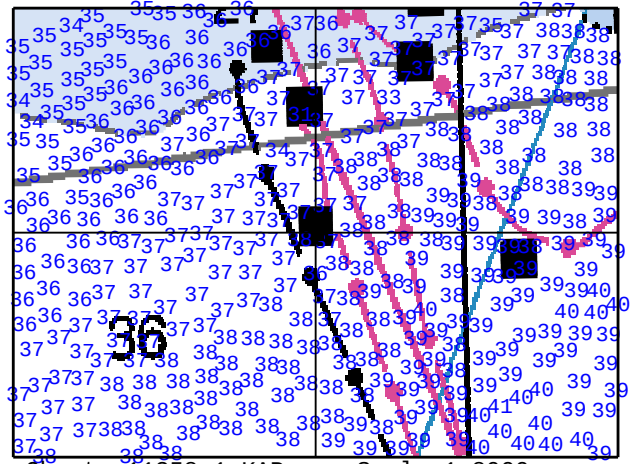
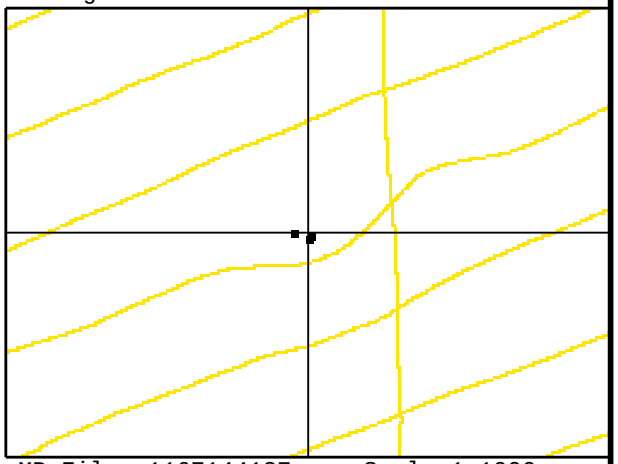
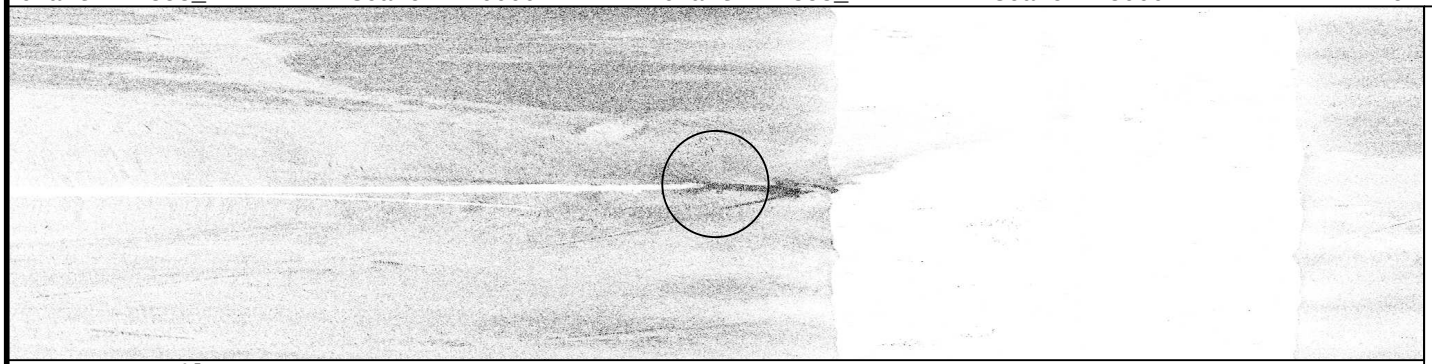


Chart: 11358_1.KAP Scale 1:8000



MB File: 1167144137 Scale 1:1000



ID: 1341 File: EM167_090616140200.XTF 29 03 56.27N 090 10 18.25W RNG: -15.94 HGT: 7.87 HDG: 073

COMMENT:
PLATFORM. Chart platform symbol. Owner information is not visible.

ID: 1301 File: EM166_090615161100.XTF 29 03 56.22N 090 10 18.27W RNG: -43.69 HGT: 0.87 HDG: 071

CORRELATED SS CONTACTS:

Contact	Range/Height
1167144137	-15.94/7.87
1166161636	-43.69/0.87
1167172736	39.09/1.85

06/16/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0489 Least Depth: Lat: 29 04 06.35N Lon: 090 09 46.90W Ping: Beam:

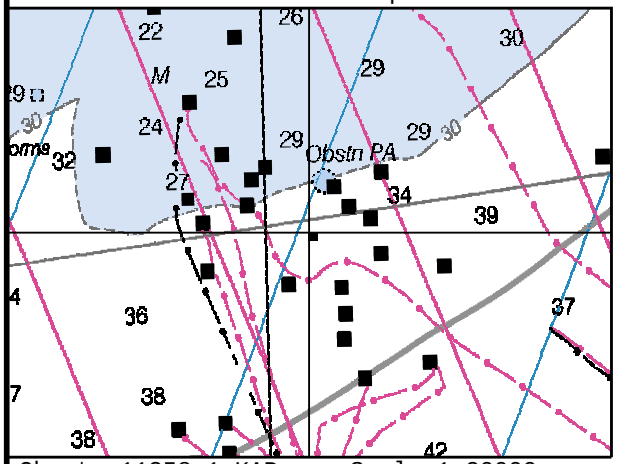


Chart: 11358_1.KAP Scale 1:20000

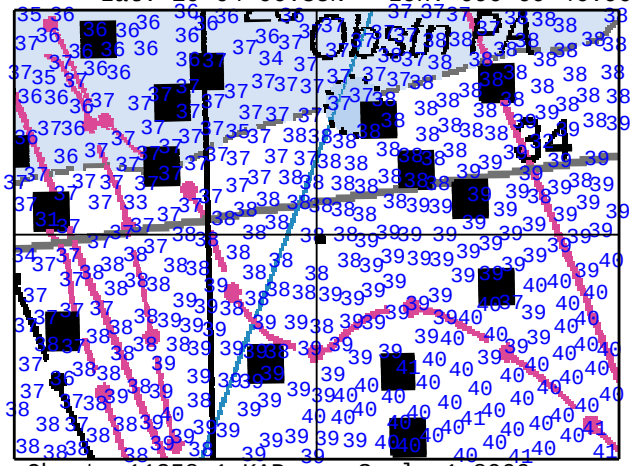
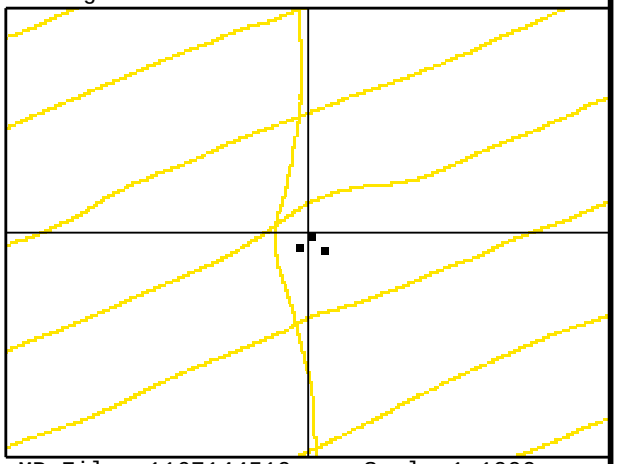
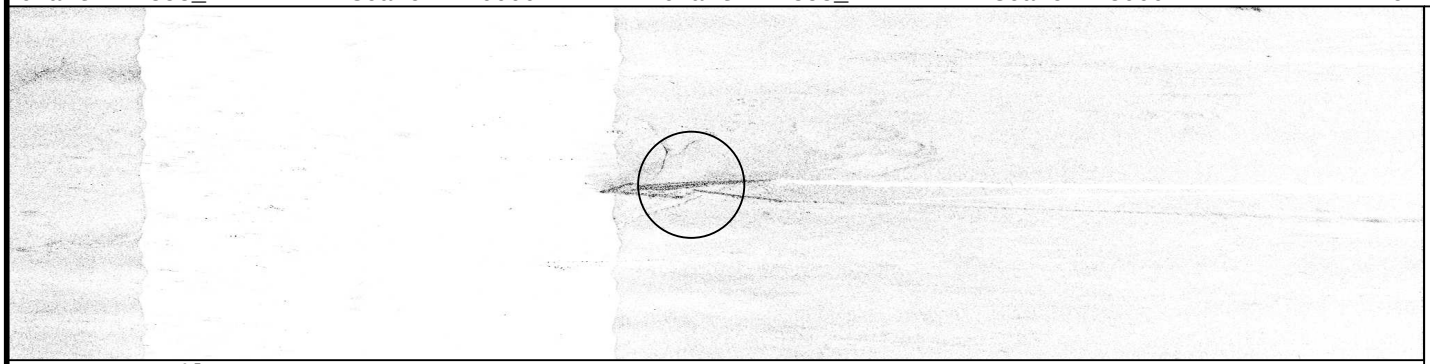


Chart: 11358_1.KAP Scale 1:8000

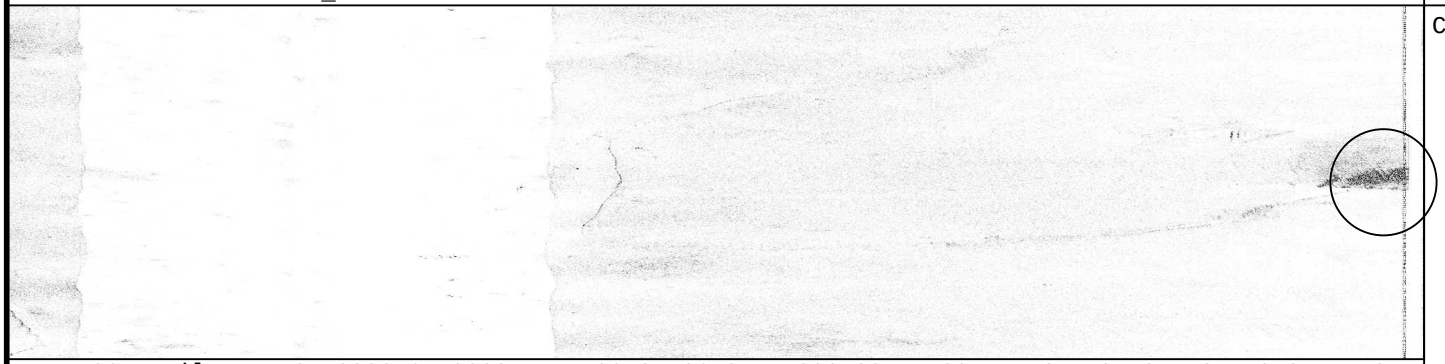


MB File: 1167144510 Scale 1:1000



ID: 1343 File: EM167_090616140200.XTF 29 04 06.35N 090 09 46.90W RNG: 14.00 HGT: 11.11 HDG: 062

COMMENT:
PLATFORM. Chart platform symbol. Owner information is not visible.



ID: 1364 File: EM167_090616172300.XTF 29 04 06.21N 090 09 47.09W RNG: 48.19 HGT: 0.01 HDG: 071

CORRELATED SS CONTACTS:

Contact	Range/Height
1167144510	14.00/11.11
1167173104	48.19/0.01
1166162021	-28.50/4.68

06/16/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0490 Least Depth: Lat: 29 04 12.98N Lon: 090 09 35.27W Ping: Beam:

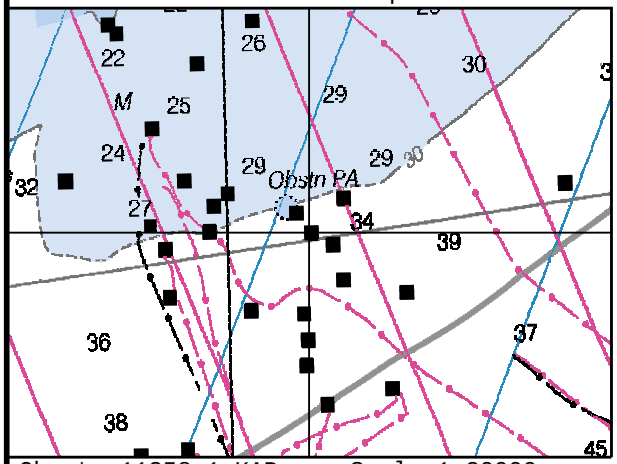


Chart: 11358_1.KAP Scale 1:20000

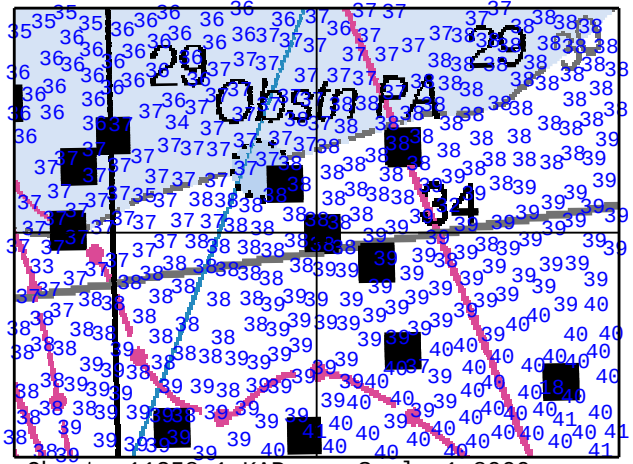
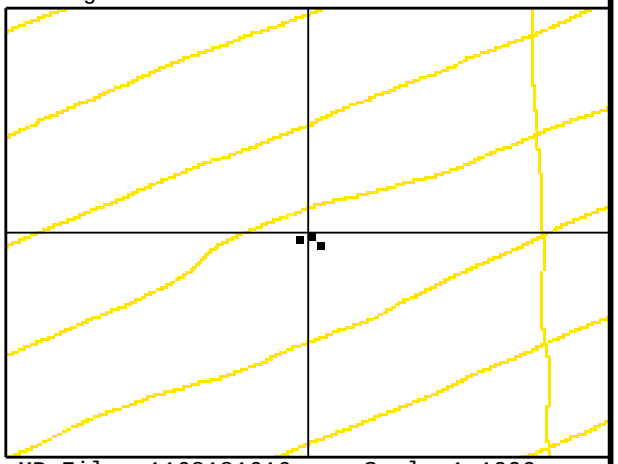
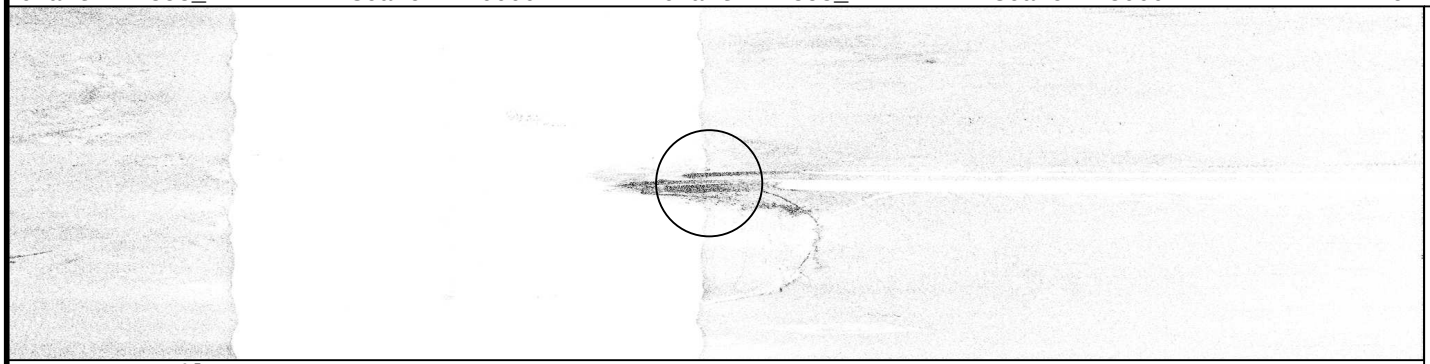


Chart: 11358_1.KAP Scale 1:8000

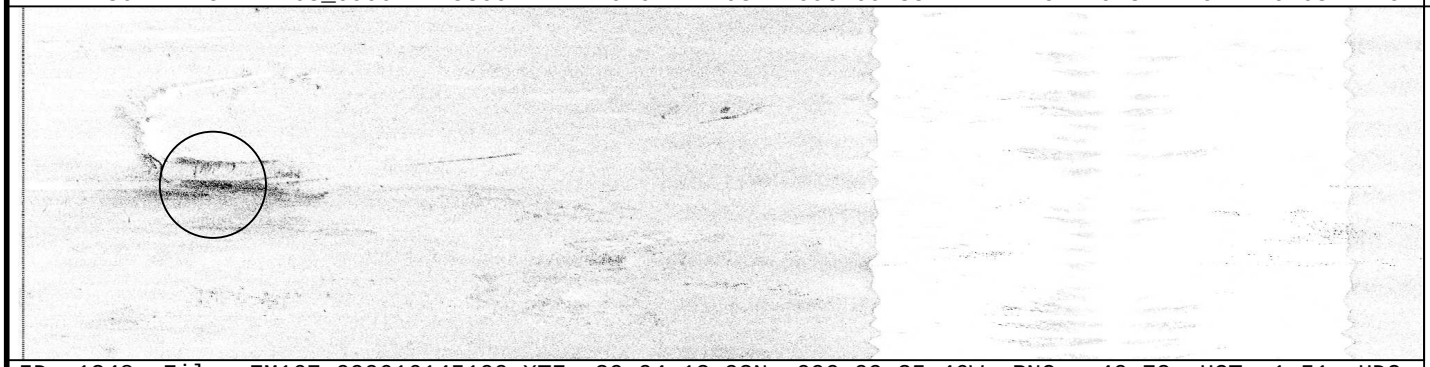


MB File: 1168181616 Scale 1:1000



ID: 1436 File: EM168_090617175800.XTF 29 04 12.98N 090 09 35.27W RNG: 10.84 HGT: 10.63 HDG: 075

COMMENT:
PLATFORM. Chart platform symbol. Owner information is not visible.



ID: 1348 File: EM167_090616145100.XTF 29 04 12.93N 090 09 35.46W RNG: -40.72 HGT: 1.51 HDG: 251

CORRELATED SS CONTACTS:

Contact	Range/Height
1168181616	10.84/10.63
1167145804	-40.72/1.51
1167173232	-38.50/1.98

06/16/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0491 Least Depth: Lat: 29 04 21.76N Lon: 090 09 24.81W Ping: Beam:

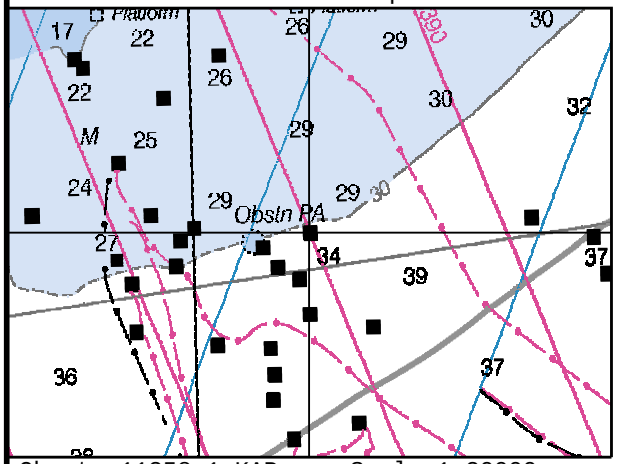


Chart: 11358_1.KAP Scale 1:20000

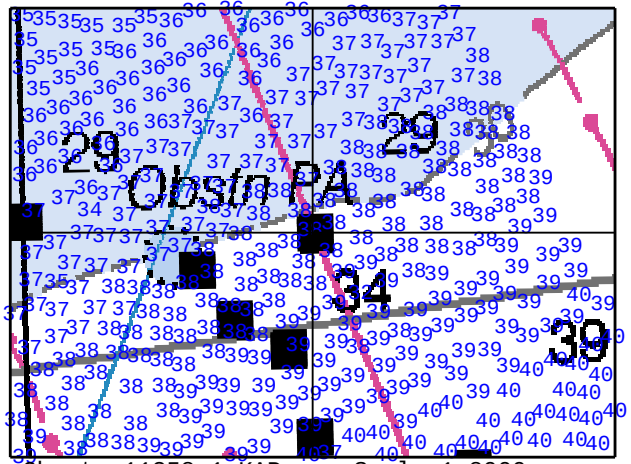
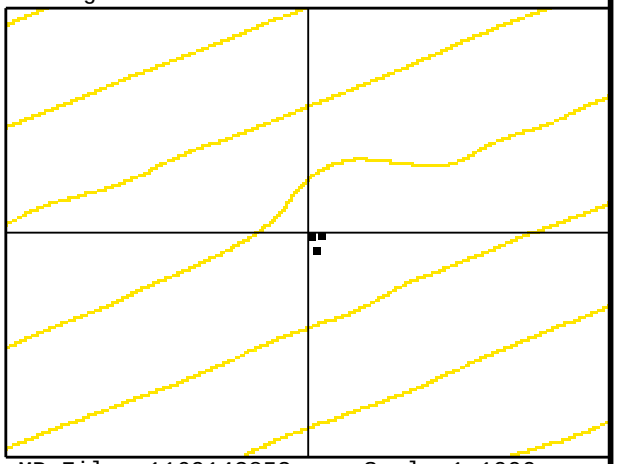
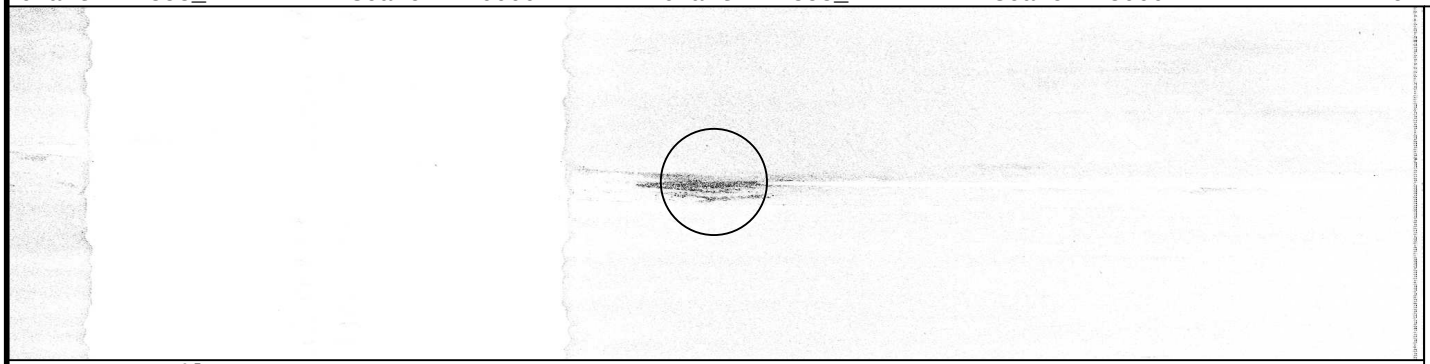


Chart: 11358_1.KAP Scale 1:8000



MB File: 1169143853 Scale 1:1000



ID: 1453 File: EM169_090618140900.XTF 29 04 21.76N 090 09 24.81W RNG: 17.41 HGT: 8.51 HDG: 043

COMMENT:
PLATFORM. Chart platform symbol. Owner information is not visible.

ID: 1225 File: EM163_090612184000.XTF 29 04 21.77N 090 09 24.65W RNG: 48.56 HGT: 0.10 HDG: 069

CORRELATED SS CONTACTS:

Contact	Range/Height
1169143853	17.41/8.51
1163191522	48.56/0.10
1167174254	32.47/3.38

06/18/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0492 Least Depth: Lat: 29 04 08.10N Lon: 090 10 19.87W Ping: Beam:

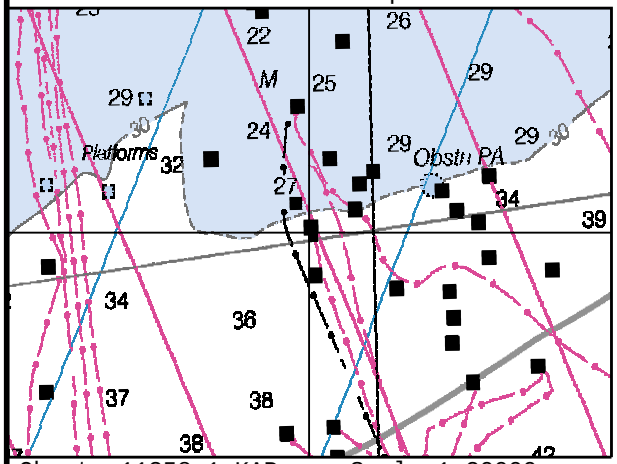


Chart: 11358_1.KAP Scale 1:20000

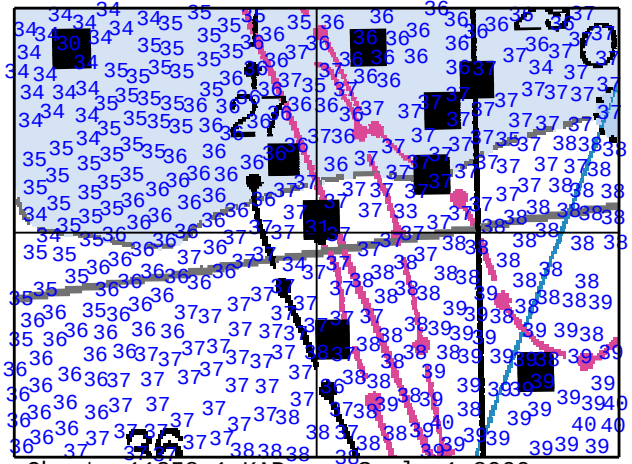
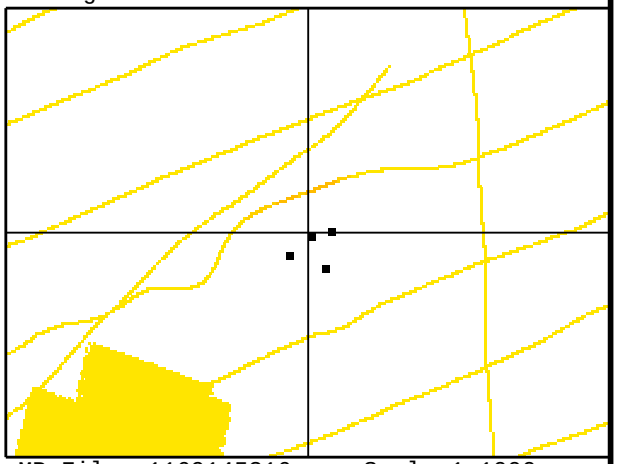
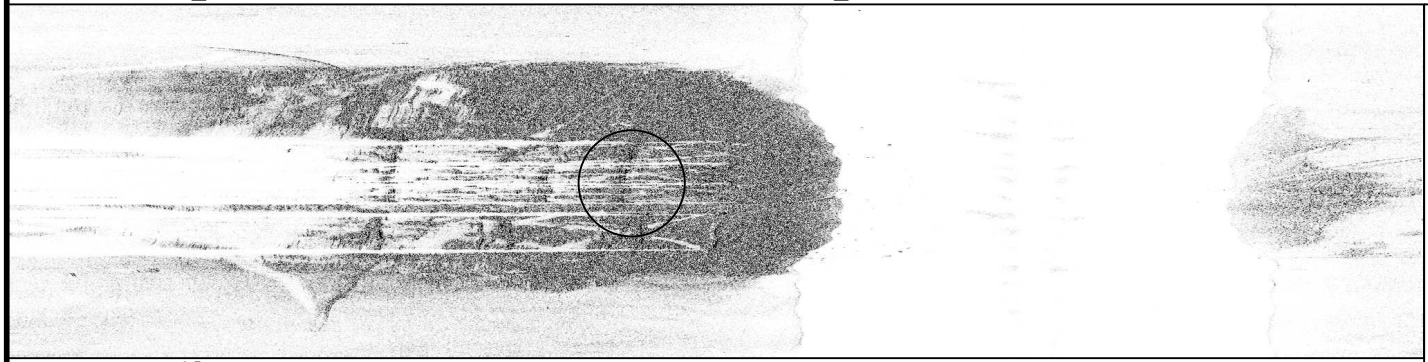


Chart: 11358_1.KAP Scale 1:8000

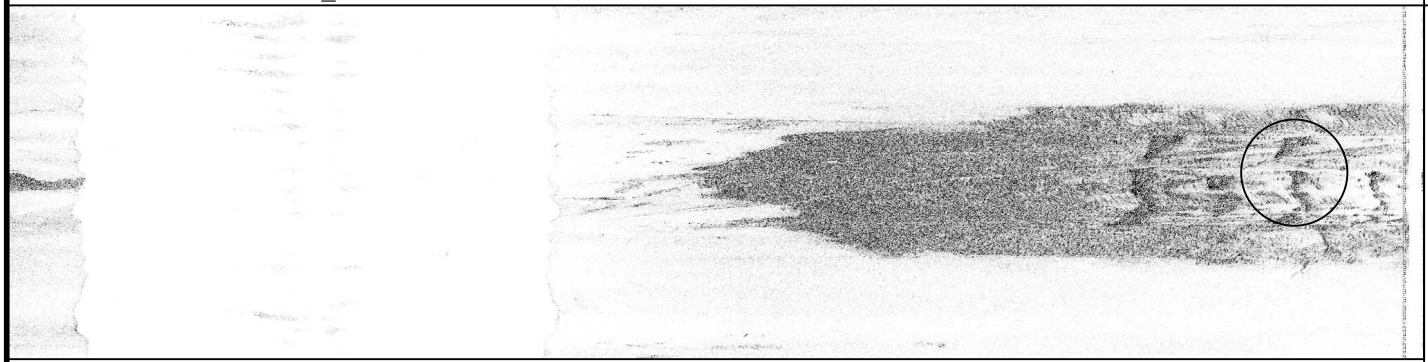


MB File: 1169145316 Scale 1:1000



ID: 1457 File: EM169_090618144200.XTF 29 04 08.10N 090 10 19.87W RNG: -18.31 HGT: 1.96 HDG: 252

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. BM 3 E 5/40".



ID: 1214 File: EM163_090612171700.XTF 29 04 08.15N 090 10 19.56W RNG: 44.16 HGT: 0.16 HDG: 073

CORRELATED SS CONTACTS:

Contact	Range/Height
1169145316	-18.31/1.96
1163174743	44.16/0.16
1176171227	30.19/1.63
1176173656	28.38/3.52

CHEVRON USA INC. 5
BM 3 E 40
06/25/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0493 Least Depth: Lat: 29 05 06.72N Lon: 090 10 36.16W Ping: Beam:

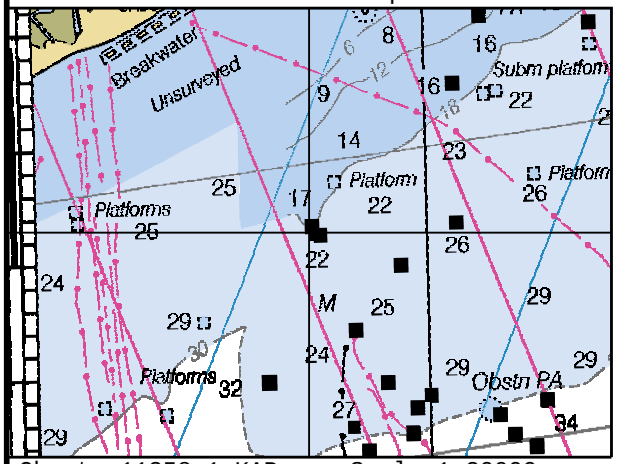


Chart: 11358_1.KAP Scale 1:20000

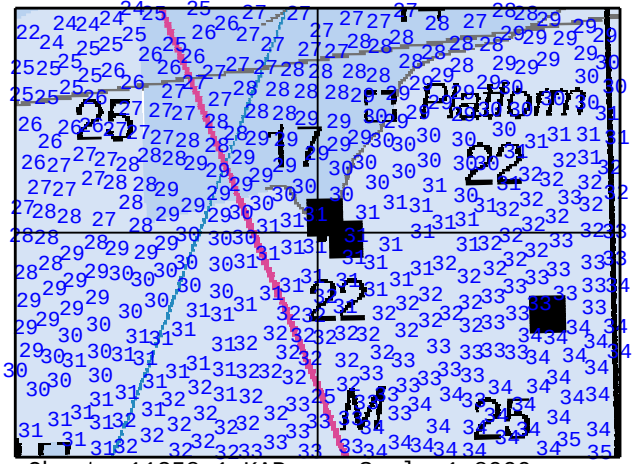
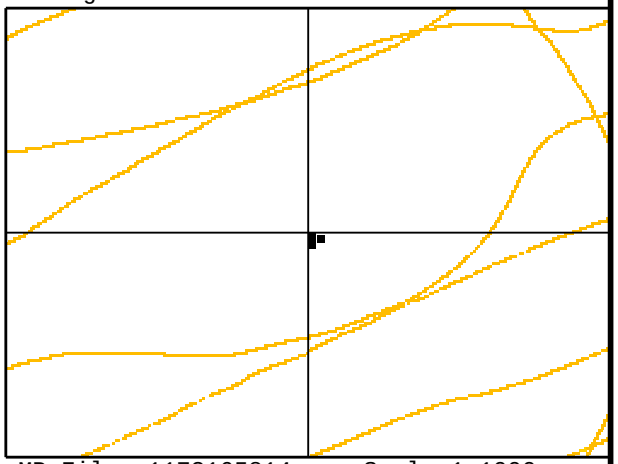
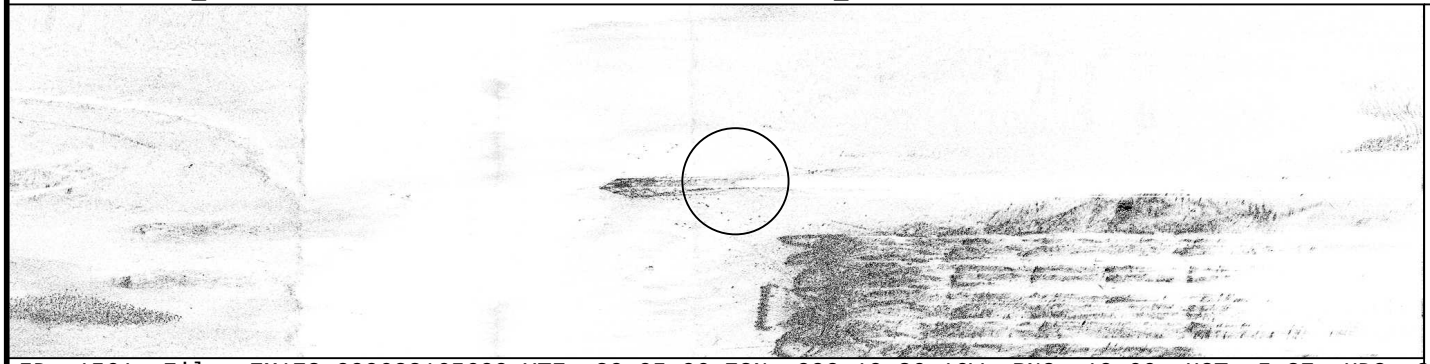


Chart: 11358_1.KAP Scale 1:8000

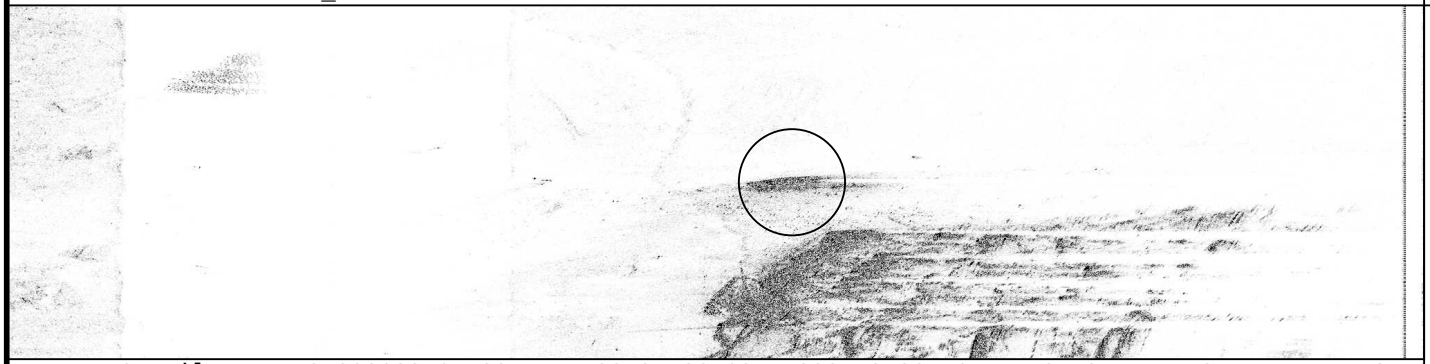


MB File: 1173165814 Scale 1:1000



ID: 1561 File: EM173_090622165600.XTF 29 05 06.72N 090 10 36.16W RNG: 10.66 HGT: 5.27 HDG: 252

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA BM 3 J 5/25" and "Chevron USA Inc. BM BLK 3 S/L 1367 J-13"



ID: 1559 File: EM173_090622164400.XTF 29 05 06.62N 090 10 36.16W RNG: 21.44 HGT: 5.17 HDG: 228

CORRELATED SS CONTACTS:

Contact	Range/Height
1173165814	10.66/5.27
1173165256	21.44/5.17
1173164348	-13.66/4.72

03/19/2009 19:13

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0494 Least Depth: Lat: 29 03 17.46N Lon: 090 10 14.12W Ping: Beam:

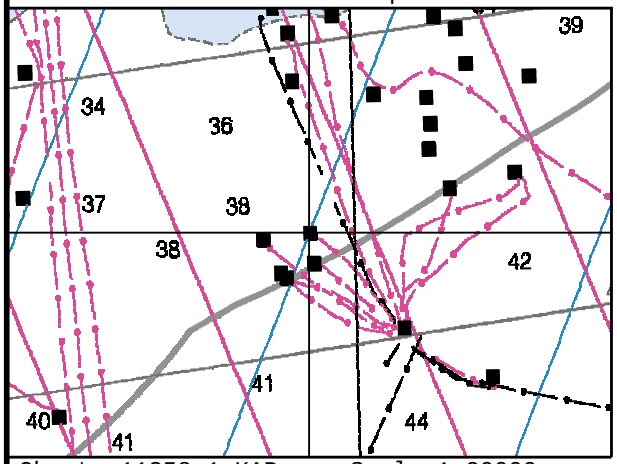


Chart: 11358_1.KAP Scale 1:20000

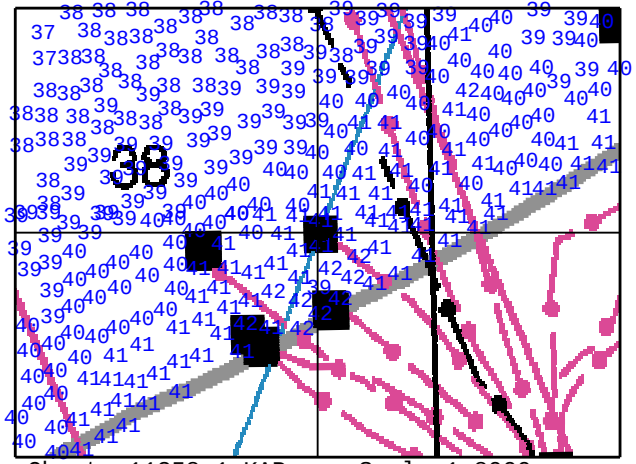
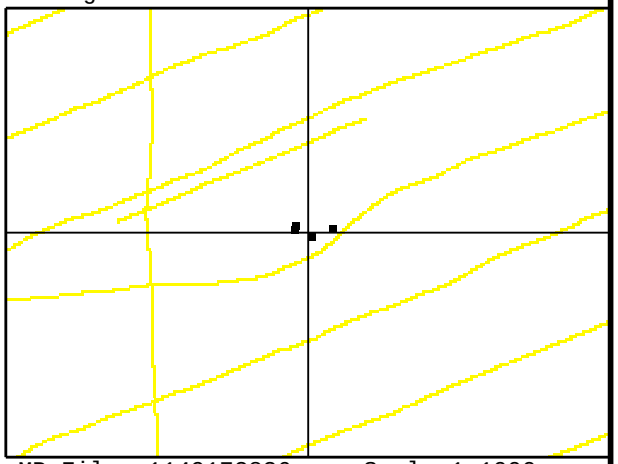
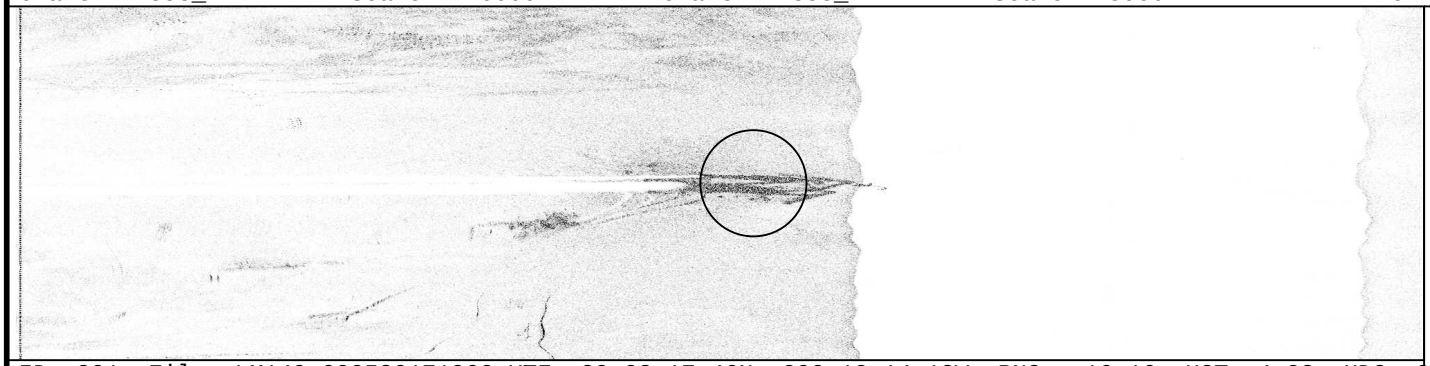


Chart: 11358_1.KAP Scale 1:8000



MB File: 1149172836 Scale 1:1000



ID: 801 File: LM149_090529171900.XTF 29 03 17.46N 090 10 14.12W RNG: -16.16 HGT: 4.03 HDG: 064

COMMENT:
PLATFORM. Chart platform symbol. "Chevron USA Inc. BM BLK 3 S/L 1367 #31 #49".

ID: 794 File: LM149_090529165400.XTF 29 03 17.55N 090 10 14.39W RNG: -39.66 HGT: 1.90 HDG: 244

CORRELATED SS CONTACTS:

Contact	Range/Height
1149172836	-16.16/4.03
1149170815	-39.66/1.90
1171160400	28.91/5.07
1164160149	-42.06/1.13

CHEVRON USA INC
B M BLK 3
S/L 1367 #31 #49
05/29/2009 17:07

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0495 Least Depth: Lat: 29 02 49.65N Lon: 090 25 59.28W Ping: Beam:

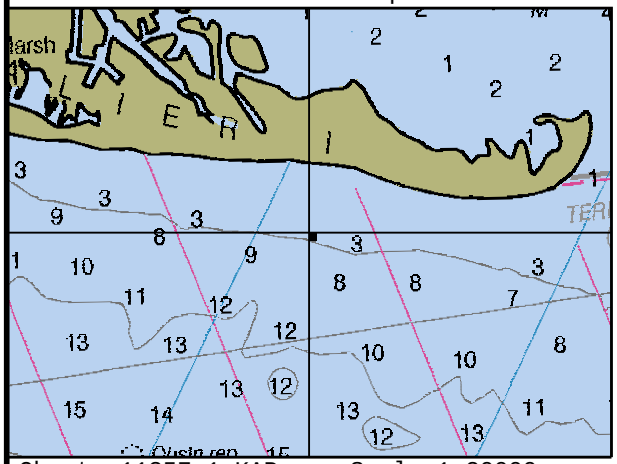


Chart: 11357_1.KAP Scale 1:20000

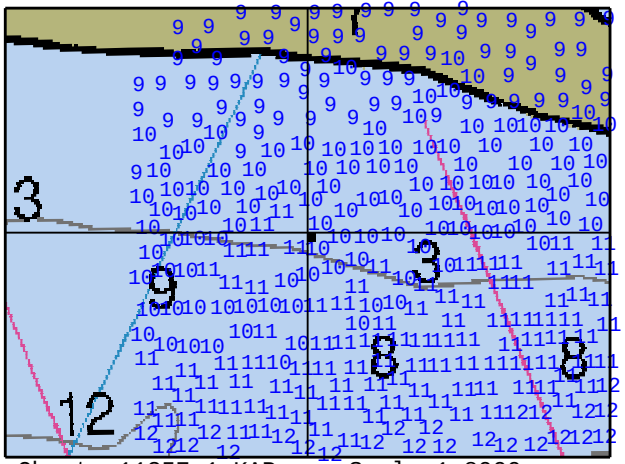
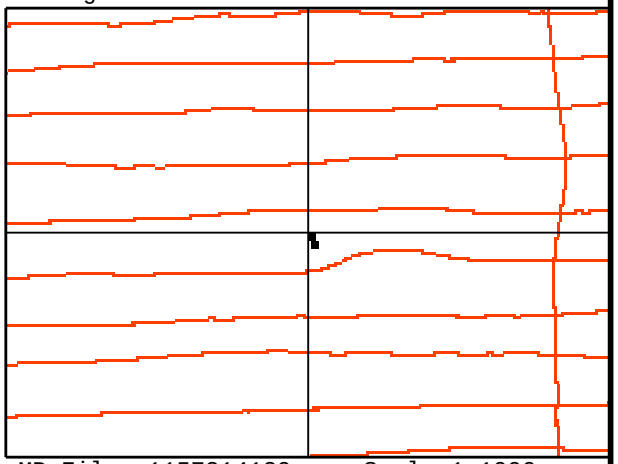
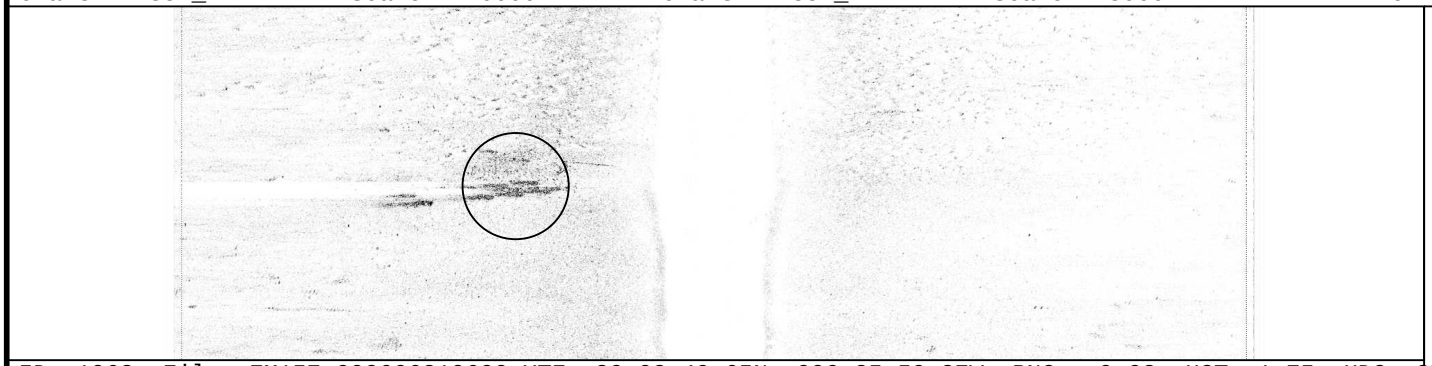


Chart: 11357_1.KAP Scale 1:8000

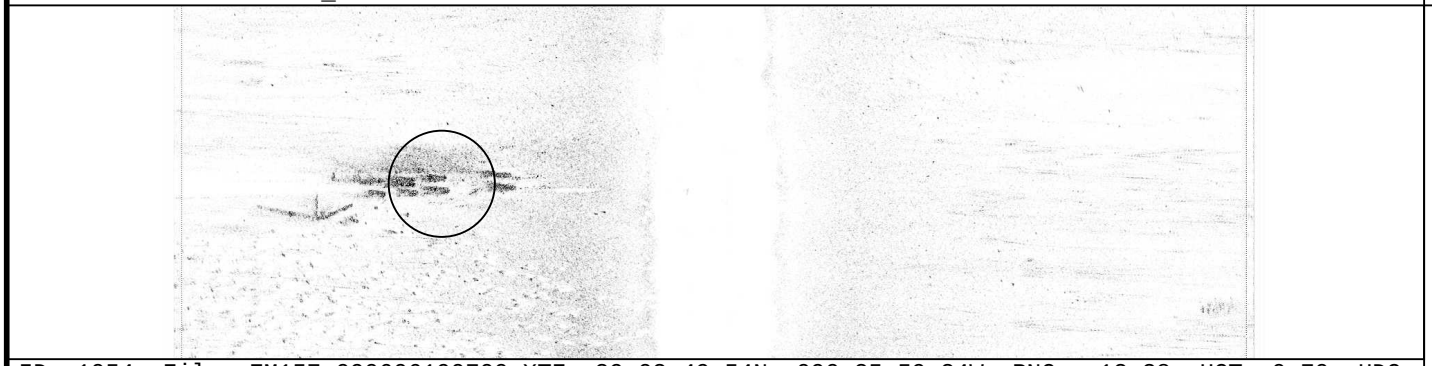


MB File: 1157214129 Scale 1:1000



ID: 1062 File: EM157_090606210600.XTF 29 02 49.65N 090 25 59.27W RNG: -9.03 HGT: 1.75 HDG: 272

COMMENT:
PLATFORM. Chart platform symbol. Owner information is not visible.



ID: 1054 File: EM157_090606190700.XTF 29 02 49.54N 090 25 59.24W RNG: -12.38 HGT: 0.70 HDG: 076

CORRELATED SS CONTACTS:

Contact	Range/Height
1157214128	-9.03/1.75
1157191123	-12.38/0.70

06/06/2009

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0503 Least Depth: Lat: 29 04 22.82N Lon: 090 10 17.68W Ping: Beam:

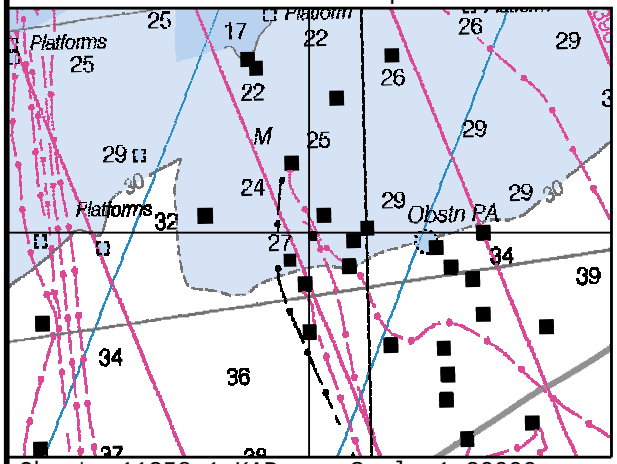


Chart: 11358_1.KAP Scale 1:20000

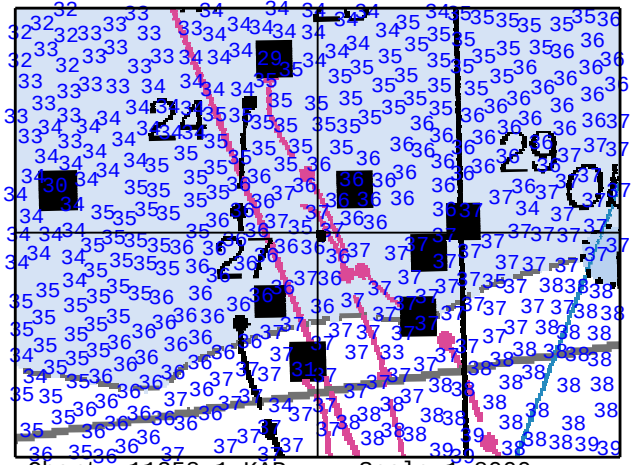
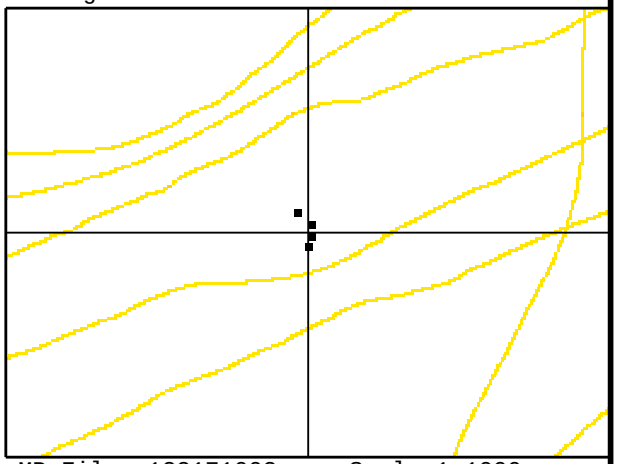


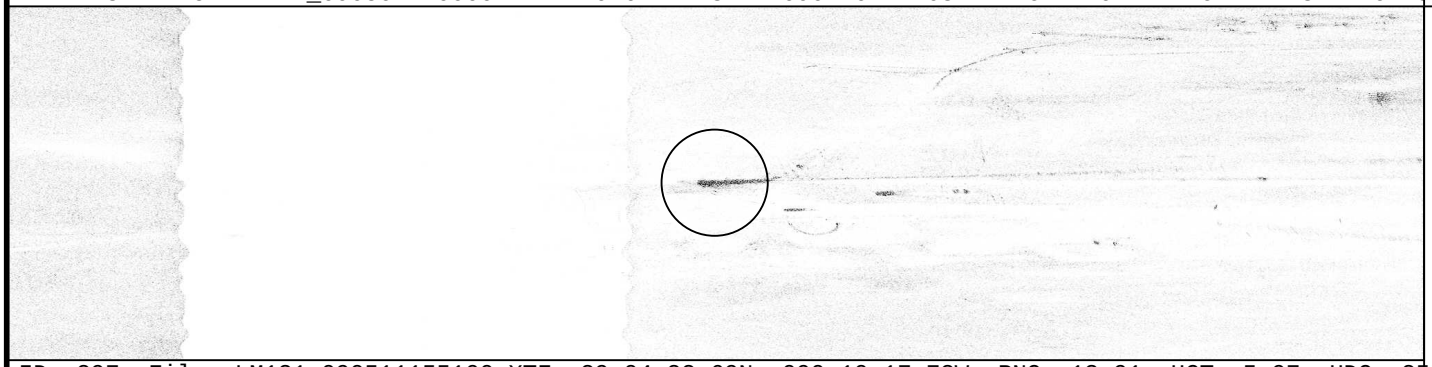
Chart: 11358_1.KAP Scale 1:8000



MB File: 122171002 Scale 1:1000

ID: 218 File: LM122_090502170000.XTF 29 04 22.82N 090 10 17.68W RNG: -40.12 HGT: 1.43 HDG: 073

COMMENT:
PLATFORM. Chart platform symbol.



ID: 297 File: LM131_090511155100.XTF 29 04 22.69N 090 10 17.73W RNG: 13.91 HGT: 5.97 HDG: 255

CORRELATED SS CONTACTS:

Contact	Range/Height
1122171001	-40.12/1.43
1131160110	13.91/5.97
1121171010	36.69/1.97
1125180002	-48.66/0.02

05/01/2009 17:07

Appendix II
Survey Features Report

5. Rocks

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0285 Least Depth: 10(ft), 3.20(m) Lat: 29 04 57.81N Lon: 090 13 32.15W Ping: 10837 Beam: 11

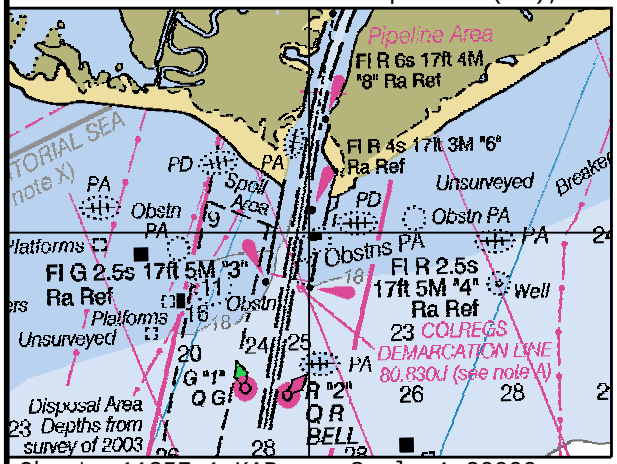


Chart: 11357_1.KAP Scale 1:20000

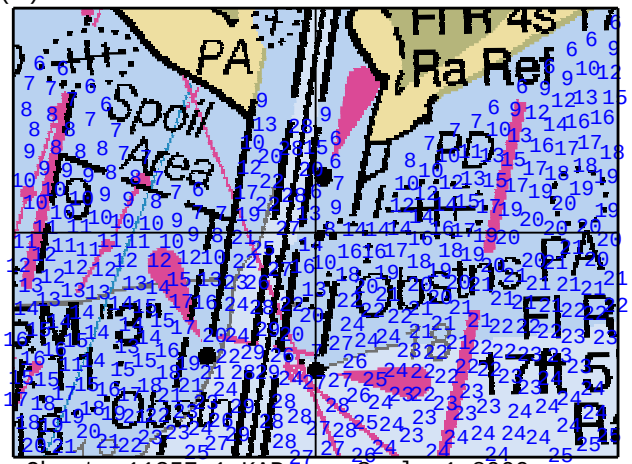
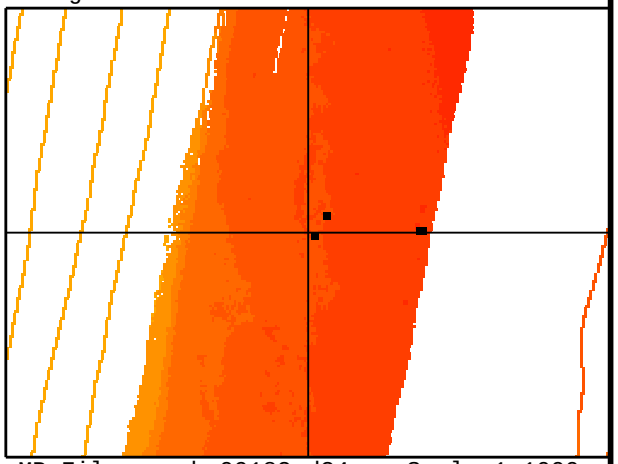
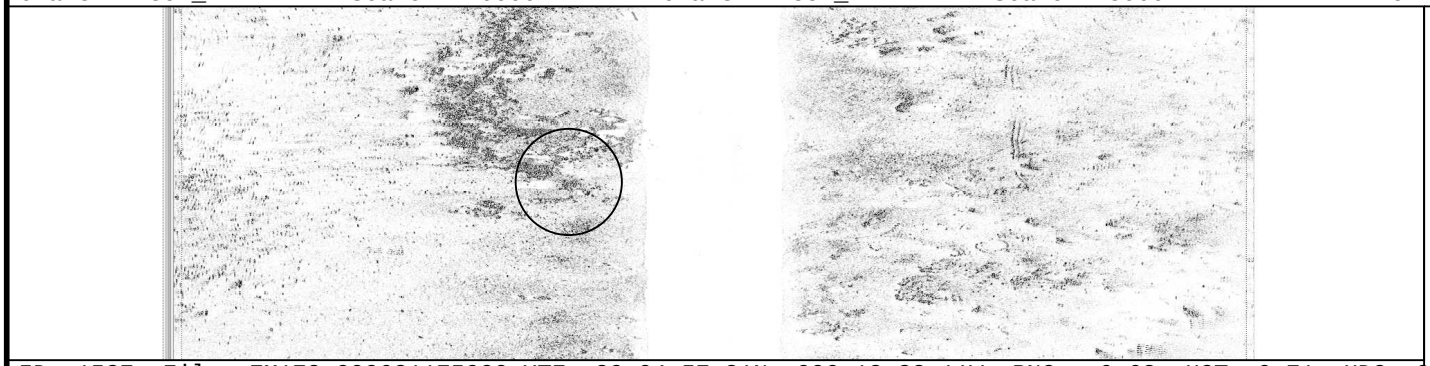


Chart: 11357_1.KAP Scale 1:8000

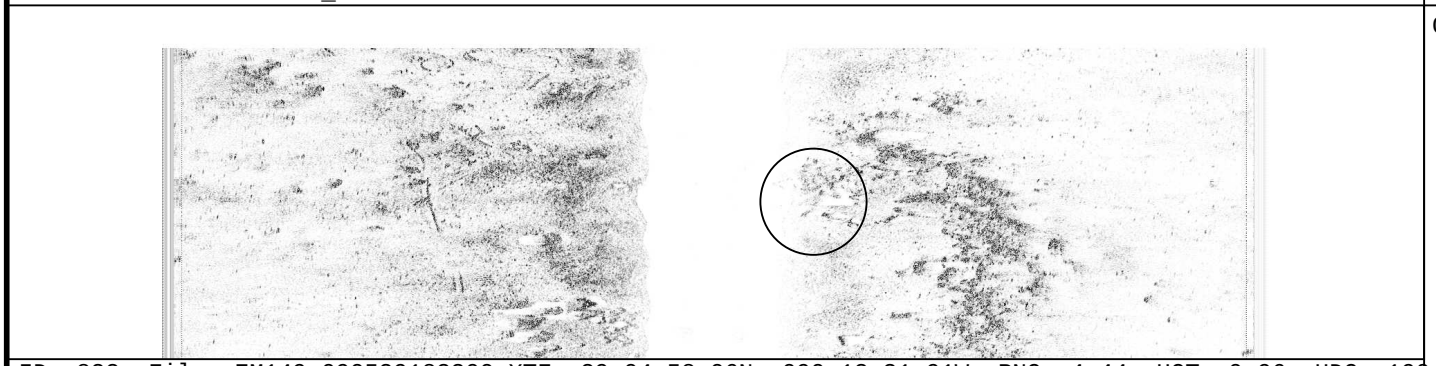


MB File: emmba09182.d34 Scale 1:1000



ID: 1537 File: EM172_090621175900.XTF 29 04 57.81N 090 13 32.11W RNG: -6.62 HGT: 0.71 HDG: 007

COMMENT:
ROCKS. No Chart. See feature 290.



ID: 822 File: EM149_090529183300.XTF 29 04 58.06N 090 13 31.91W RNG: 4.44 HGT: 0.96 HDG: 190

CORRELATED SS CONTACTS:

Contact	Range/Height
1172180222	-6.62/0.71
1149183600	4.44/0.96
1149191206	14.59/0.24
1149192304	-4.38/0.60

Appendix II
Survey Features Report

6. Wrecks

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0255 Least Depth: 38(ft), 11.70(m) Lat: 29 00 21.61N Lon: 090 20 18.63W Ping: 13216 Beam: 66

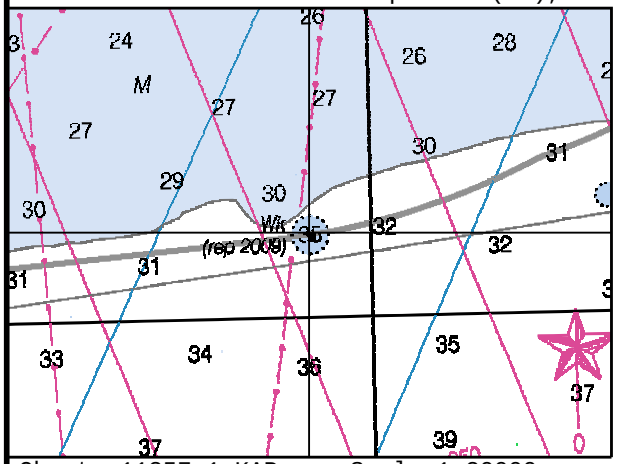


Chart: 11357_1.KAP Scale 1:20000

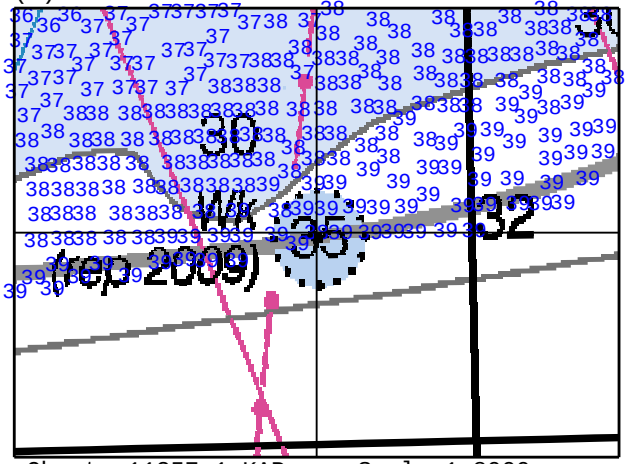
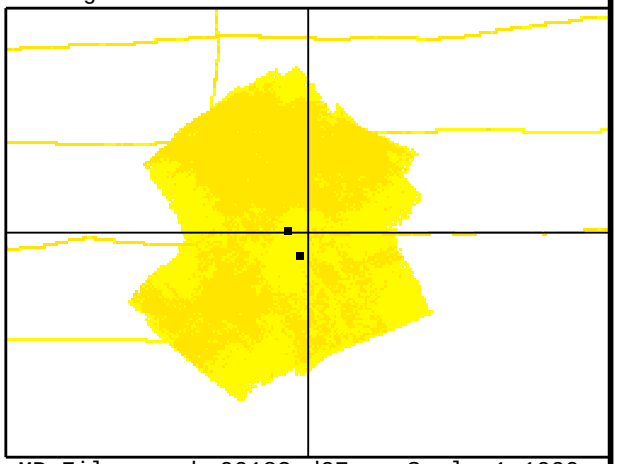
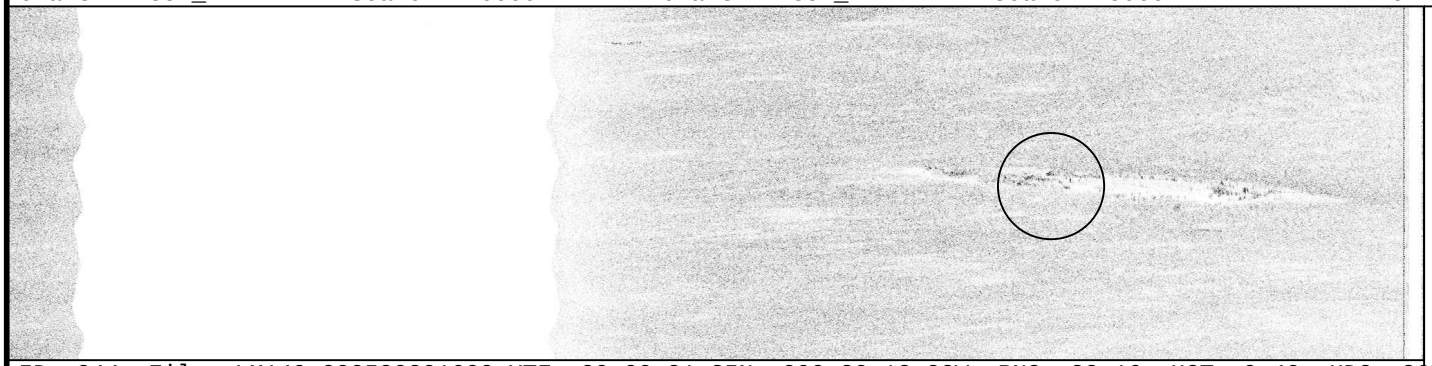


Chart: 11357_1.KAP Scale 1:8000

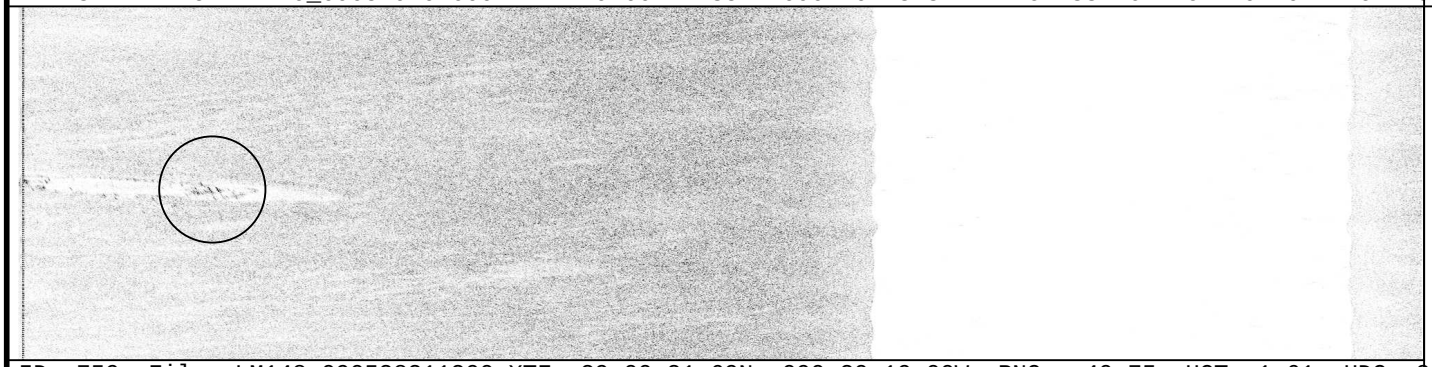


MB File: emmba09182.d07 Scale 1:1000



ID: 844 File: LM149_090529201600.XTF 29 00 21.35N 090 20 18.82W RNG: 33.16 HGT: 0.40 HDG: 267

COMMENT:
WRECK. Chart sounding. See Danger to Navigation Report #1



ID: 759 File: LM148_090528211200.XTF 29 00 21.69N 090 20 19.00W RNG: -40.75 HGT: 1.61 HDG: 268

CORRELATED SS CONTACTS:

Contact	Range/Height
1149201745	33.16/0.40
1148211710	-40.75/1.61

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0267 Least Depth: 28(ft), 8.56(m) Lat: 29 03 13.67N Lon: 090 15 21.77W Ping: 18807 Beam: 91

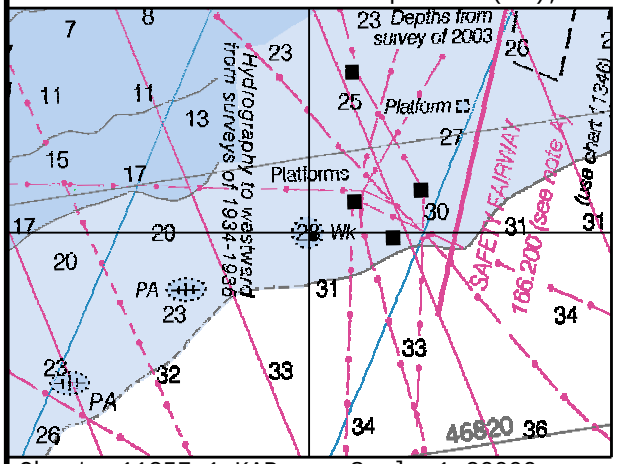


Chart: 11357_1.KAP Scale 1:20000

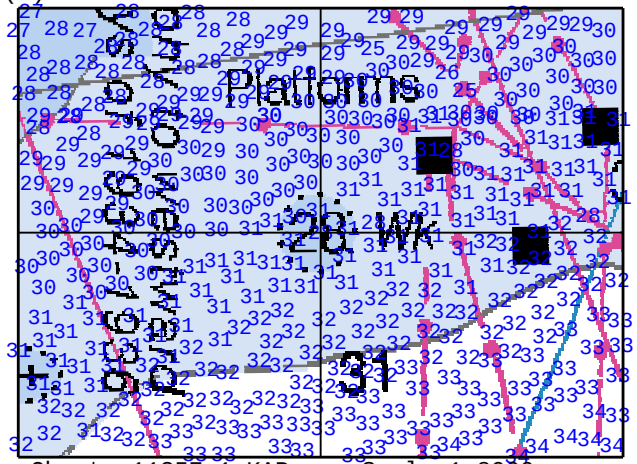
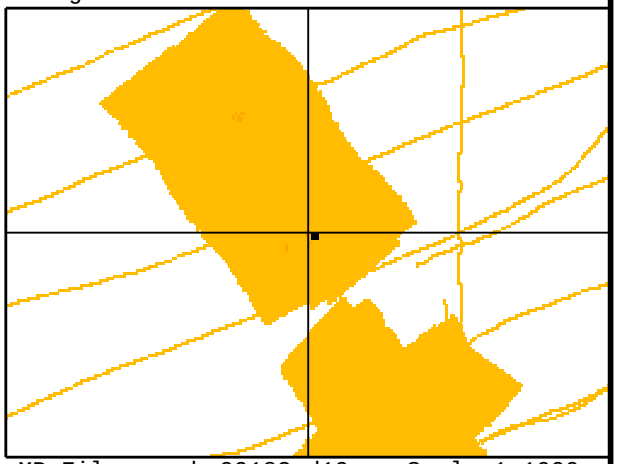
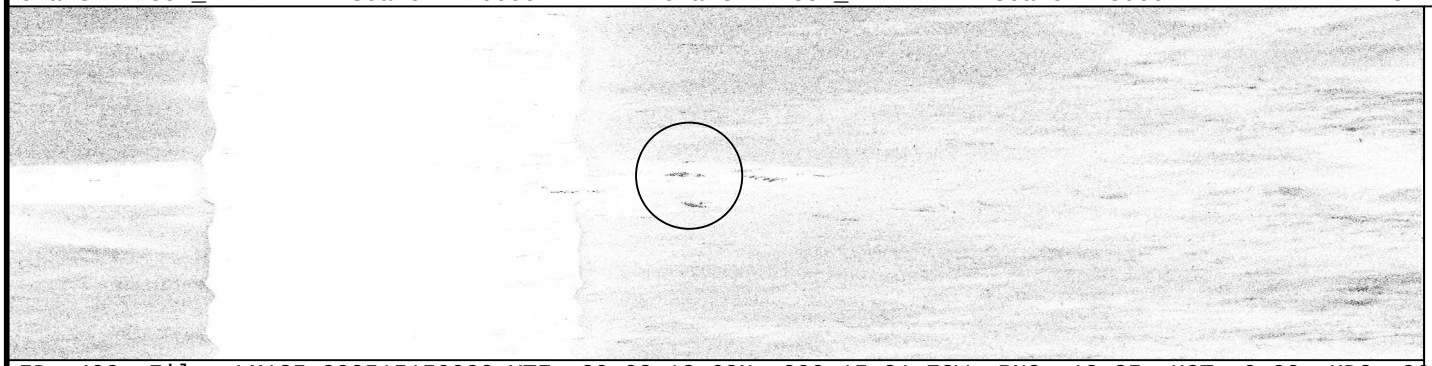


Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09182.d19 Scale 1:1000



ID: 490 File: LM135_090515150000.XTF 29 03 13.68N 090 15 21.73W RNG: 13.25 HGT: 0.90 HDG: 065

COMMENT:
WRECK. Chart sounding and label WK.

CORRELATED SS CONTACTS:

Contact	Range/Height
1135155454	13.25/0.90

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0268 Least Depth: 28(ft), 8.61(m) Lat: 29 03 15.18N Lon: 090 15 22.78W Ping: 23930 Beam: 11

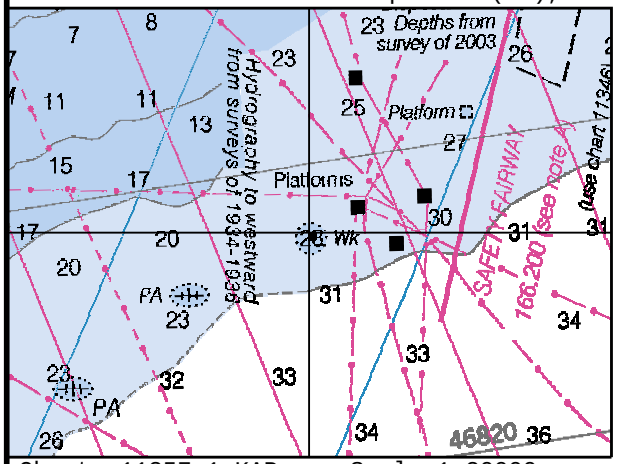


Chart: 11357_1.KAP Scale 1:20000

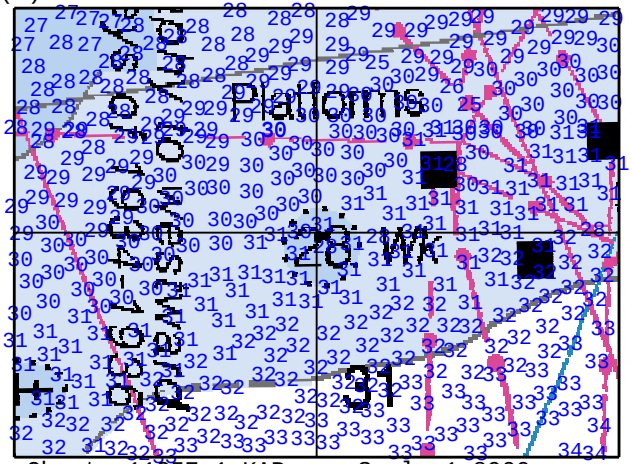
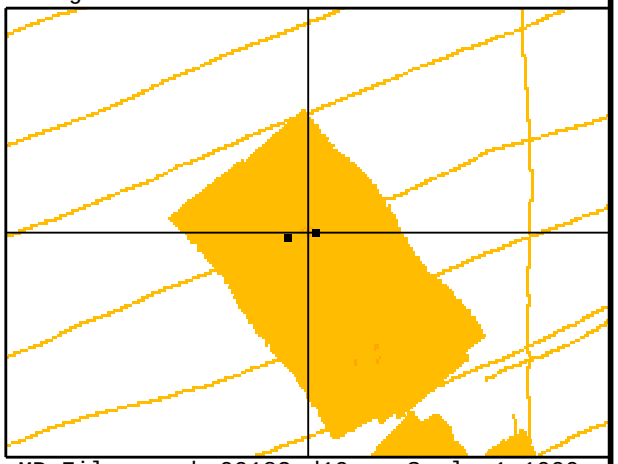
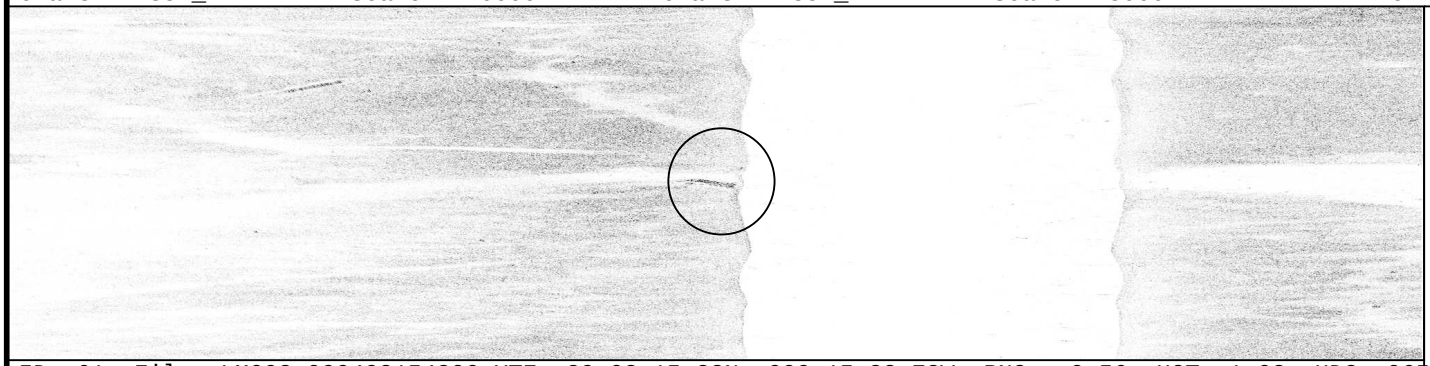


Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09182.d19 Scale 1:1000



ID: 61 File: LM093_090403154200.XTF 29 03 15.22N 090 15 22.72W RNG: -9.56 HGT: 1.02 HDG: 065

COMMENT:
WRECK. No Chart. See feature 267.

ID: 514 File: LM135_090515165200.XTF 29 03 15.17N 090 15 23.15W RNG: -44.00 HGT: 0.77 HDG: 250

CORRELATED SS CONTACTS:

Contact	Range/Height
1093162010	-9.56/1.02
1135173106	-44.00/0.77

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0277 Least Depth: 5(ft), 1.65(m) Lat: 29 04 58.39N Lon: 090 15 29.80W Ping: 19643 Beam: 68

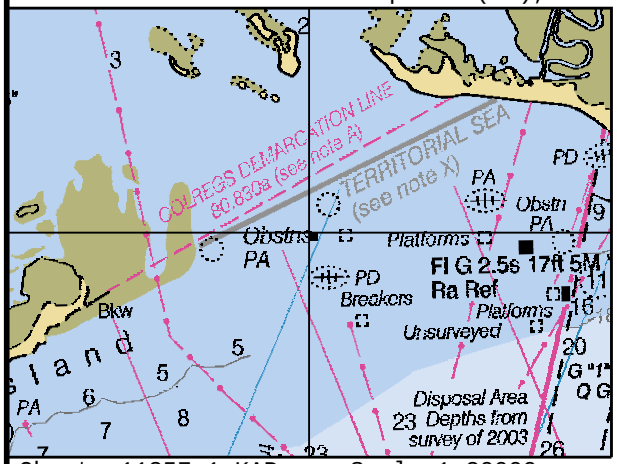


Chart: 11357_1.KAP Scale 1:20000

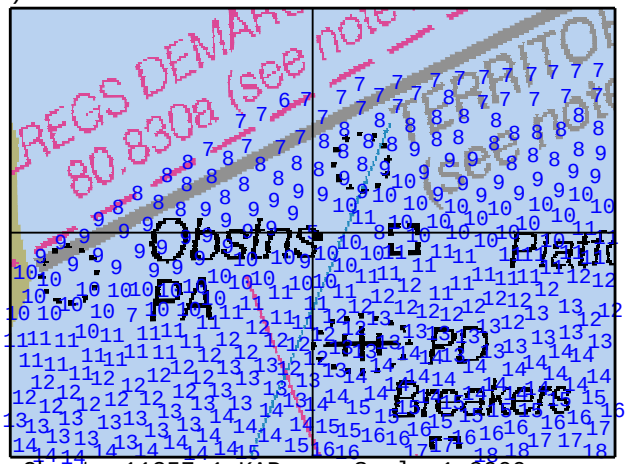
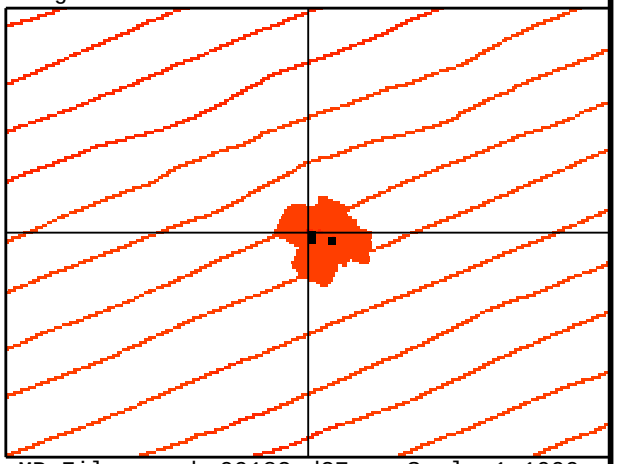


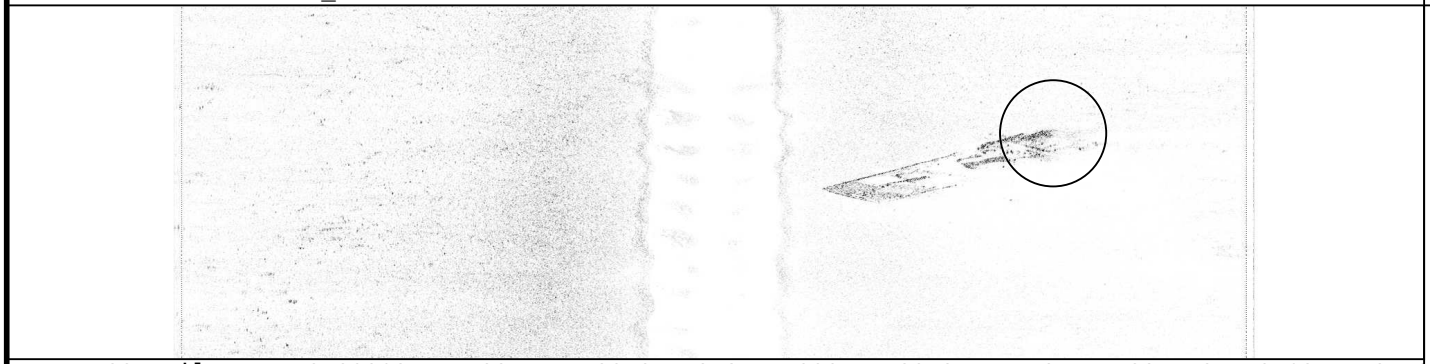
Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09182.d27 Scale 1:1000

ID: 1521 File: EM172_090621144500.XTF 29 04 58.41N 090 15 29.80W RNG: 23.78 HGT: 0.02 HDG: 069

COMMENT:
WRECK. Chart sounding and label WK.



ID: 1522 File: EM172_090621145500.XTF 29 04 58.35N 090 15 29.81W RNG: 15.28 HGT: 0.63 HDG: 249

CORRELATED SS CONTACTS:

Contact	Range/Height
1172145134	23.78/0.02
1172150101	15.28/0.63
1170202309	7.84/0.02

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0279 Least Depth: 5(ft), 1.69(m) Lat: 29 05 10.25N Lon: 090 14 37.89W Ping: 19025 Beam: 14

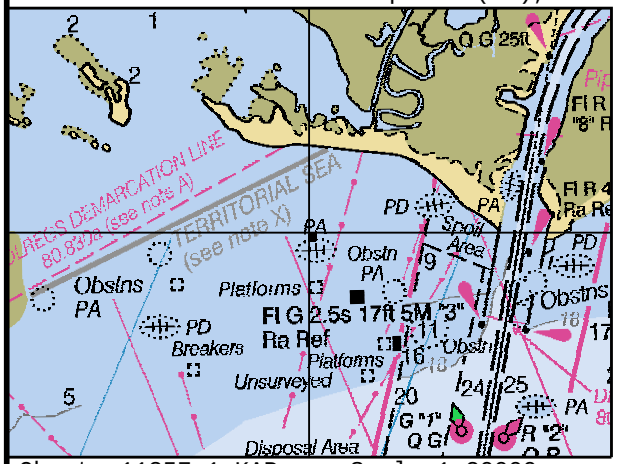


Chart: 11357_1.KAP Scale 1:20000

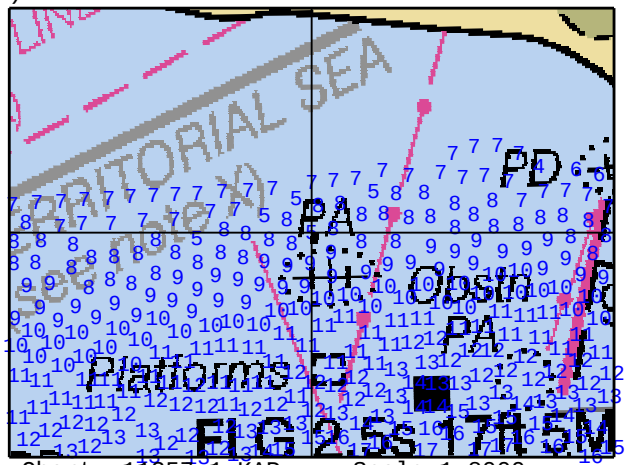
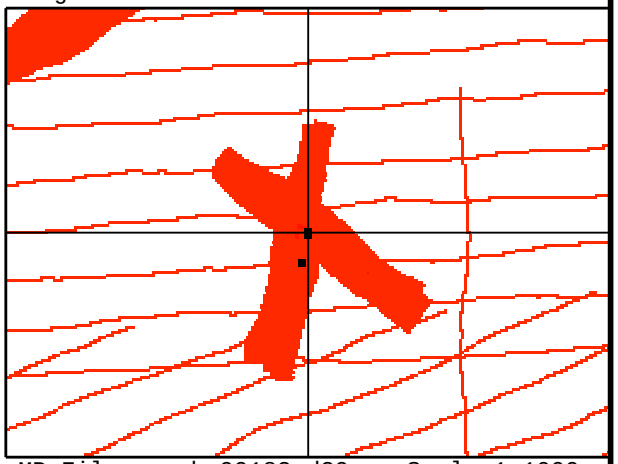


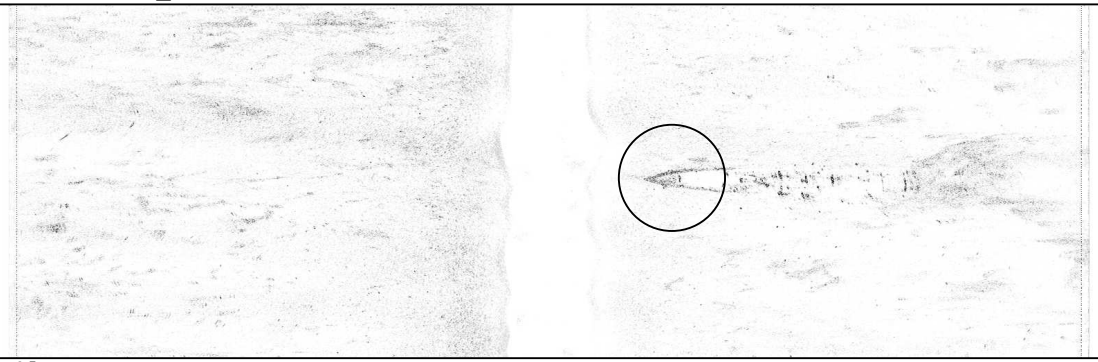
Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09182.d29 Scale 1:1000

ID: 1197 File: EM163_090612152200.XTF 29 05 10.27N 090 14 37.94W RNG: 13.03 HGT: 0.62 HDG: 271

COMMENT:
WRECK. Chart sounding and label WK.



ID: 1193 File: EM163_090612144000.XTF 29 05 10.31N 090 14 37.95W RNG: 5.50 HGT: 0.46 HDG: 091

CORRELATED SS CONTACTS:

Contact	Range/Height
1163152727	13.03/0.62
1163145007	5.50/0.46
1163150052	21.69/0.05

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0344 Least Depth: 11(ft), 3.41(m) Lat: 29 02 47.05N Lon: 090 25 05.32W Ping: 49394 Beam: 89

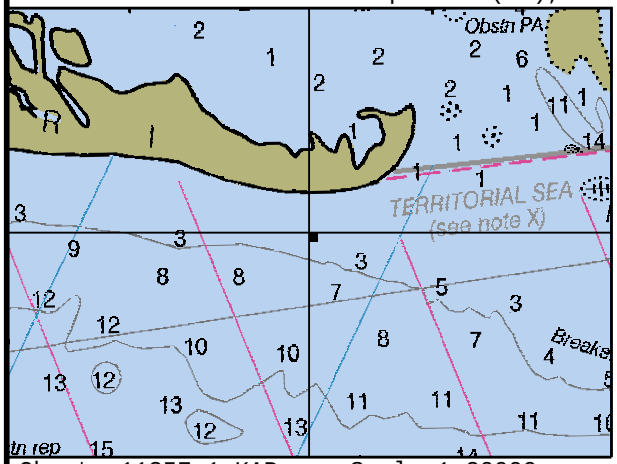


Chart: 11357_1.KAP Scale 1:20000

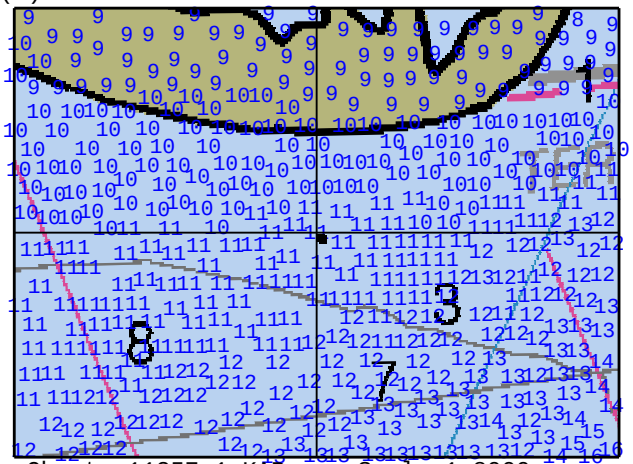
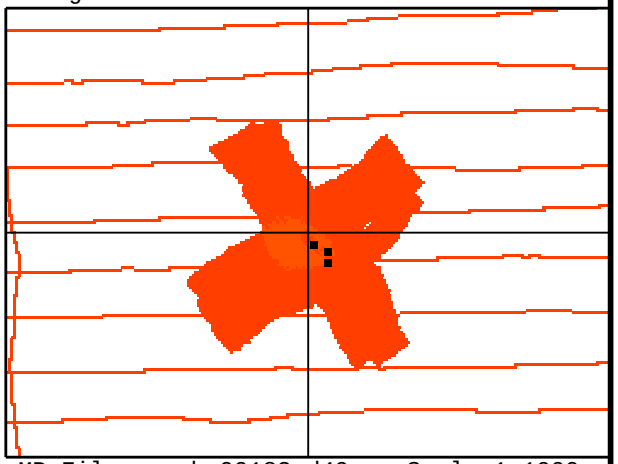


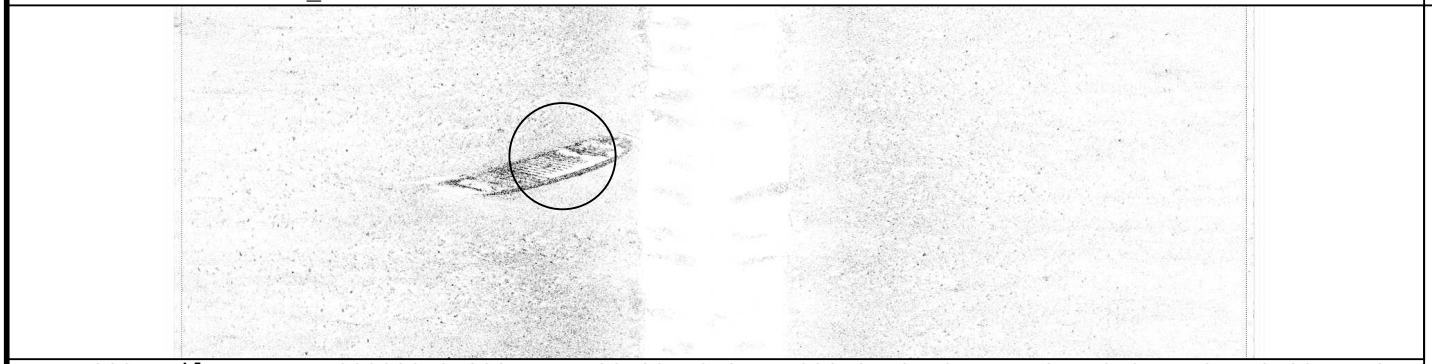
Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09183.d49 Scale 1:1000

ID: 999 File: EM157_090606121500.XTF 29 02 46.94N 090 25 05.29W RNG: 9.66 HGT: 0.32 HDG: 087

COMMENT:
WRECK. Chart sounding. See Danger to Navigation Report #3.



ID: 1000 File: EM157_090606125800.XTF 29 02 46.85N 090 25 05.07W RNG: -6.91 HGT: 0.23 HDG: 090

CORRELATED SS CONTACTS:

Contact	Range/Height
1157122715	9.66/0.32
1157130750	-6.91/0.23
1151212801	23.50/0.02

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0350 Least Depth: 37(ft), 11.31(m) Lat: 29 01 11.76N Lon: 090 16 50.25W Ping: 1933 Beam: 55

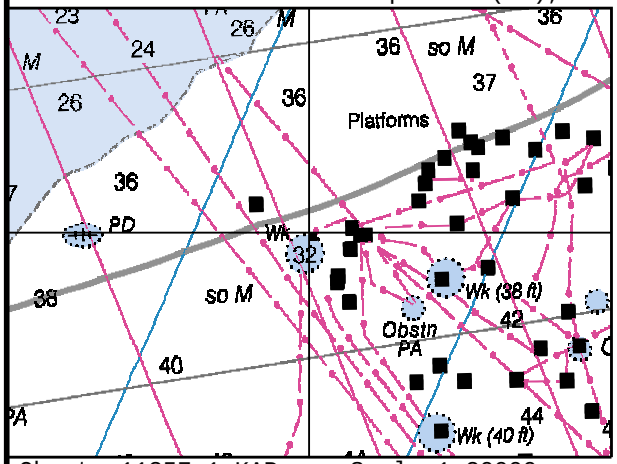


Chart: 11357_1.KAP Scale 1:20000

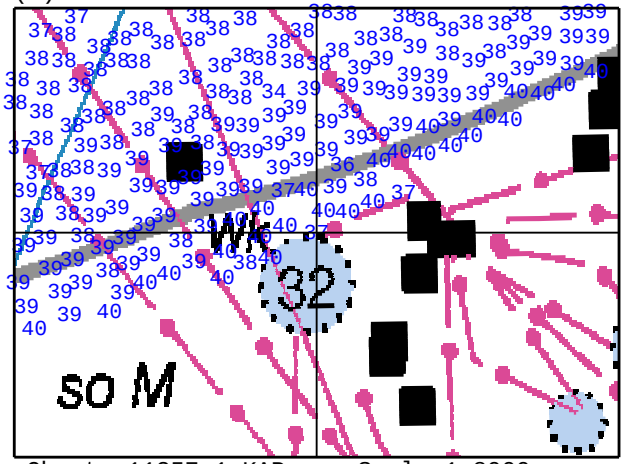
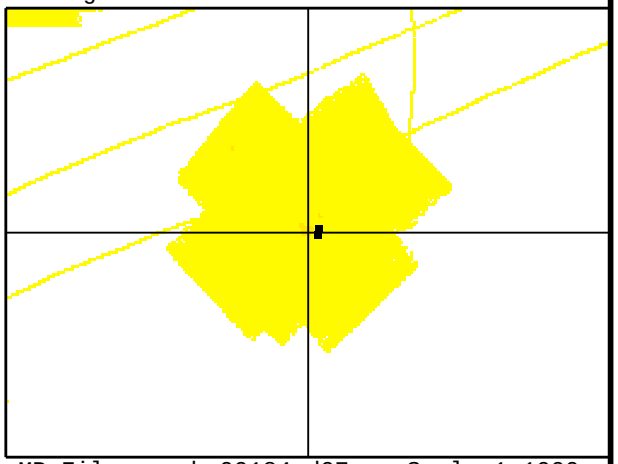


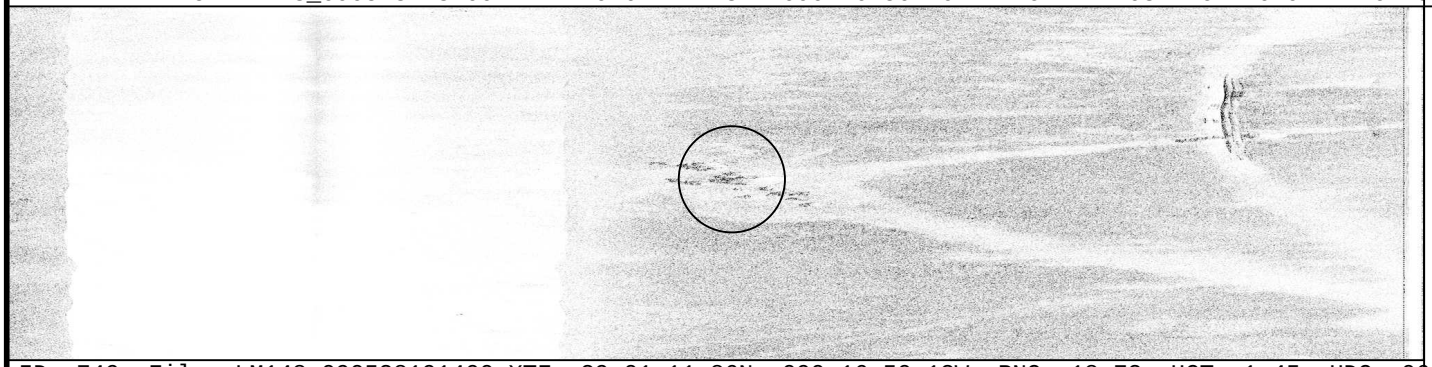
Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09184.d07 Scale 1:1000

ID: 727 File: LM148_090528173200.XTF 29 01 11.78N 090 16 50.16W RNG: -24.03 HGT: 0.92 HDG: 066

COMMENT:
WRECK. Chart sounding and label WK.



ID: 749 File: LM148_090528191400.XTF 29 01 11.86N 090 16 50.13W RNG: 18.72 HGT: 1.45 HDG: 069

CORRELATED SS CONTACTS:

Contact	Range/Height
1148173853	-24.03/0.92
1148192435	18.72/1.45

FEATURE CORRELATOR SHEET Job: H11785

Feature #: 0392 Least Depth: 24(ft), 7.50(m) Lat: 29 04 27.62N Lon: 090 13 47.79W Ping: 8310 Beam: 25

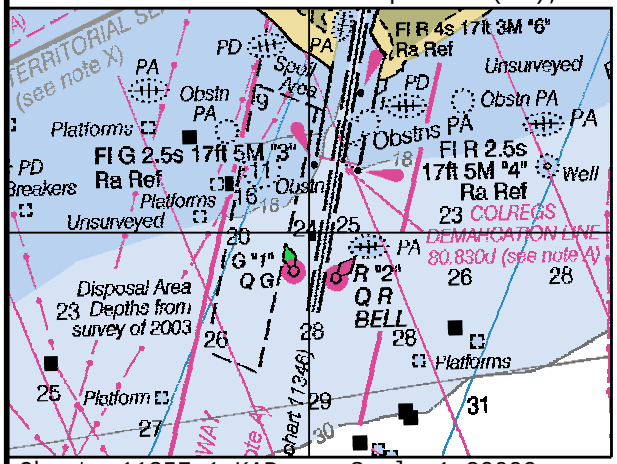


Chart: 11357_1.KAP Scale 1:20000

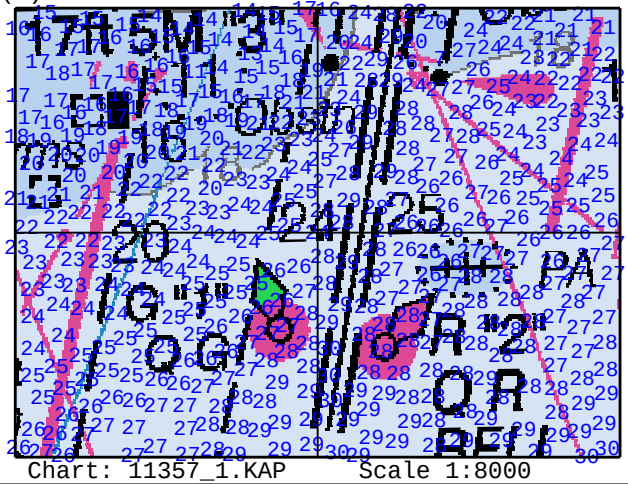
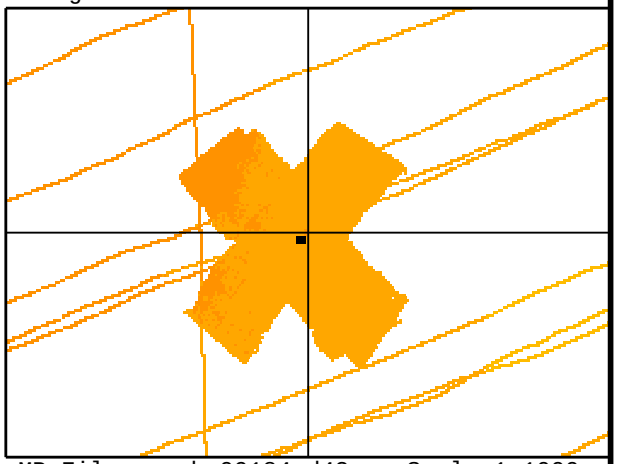


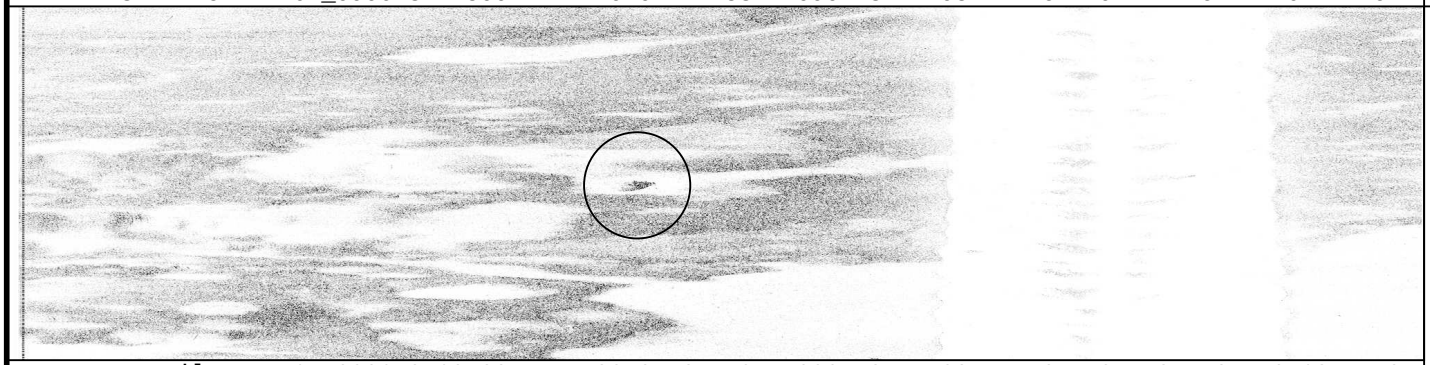
Chart: 11357_1.KAP Scale 1:8000



MB File: emmba09184.d42 Scale 1:1000

ID: 1243 File: EM164_090613171500.XTF 29 04 27.58N 090 13 47.95W RNG: -9.22 HGT: 1.67 HDG: 252

COMMENT:
WRECK. Chart sounding and label WK.



ID: 1151 File: EM161_090610160100.XTF 29 04 27.59N 090 13 47.98W RNG: -21.53 HGT: 0.63 HDG: 251

CORRELATED SS CONTACTS:

Contact	Range/Height
1164173228	-9.22/1.67
1161163659	-21.53/0.63

Pipeline Trackline Positions (NAD83)

Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)
PIPELINE 01											
29° 03' 49.05"	090° 19' 12.88"	29° 03' 15.42"	090° 18' 56.81"	29° 02' 47.85"	090° 18' 36.64"	29° 02' 18.36"	090° 18' 12.90"	29° 01' 46.68"	090° 17' 46.78"	29° 01' 18.70"	090° 17' 24.09"
29° 03' 39.20"	090° 19' 08.83"	29° 03' 14.77"	090° 18' 56.42"	29° 02' 47.08"	090° 18' 35.97"	29° 02' 17.31"	090° 18' 12.06"	29° 01' 45.61"	090° 17' 45.90"	29° 01' 18.17"	090° 17' 23.64"
29° 03' 37.35"	090° 19' 08.07"	29° 03' 14.23"	090° 18' 56.09"	29° 02' 46.73"	090° 18' 35.70"	29° 02' 16.01"	090° 18' 11.39"	29° 01' 44.49"	090° 17' 44.99"	29° 01' 16.51"	090° 17' 22.32"
29° 03' 36.12"	090° 19' 07.57"	29° 03' 06.34"	090° 18' 50.85"	29° 02' 43.58"	090° 18' 33.11"	29° 02' 14.99"	090° 18' 10.23"	29° 01' 43.30"	090° 17' 44.03"	29° 01' 15.34"	090° 17' 21.42"
29° 03' 34.30"	090° 19' 06.79"	29° 03' 05.12"	090° 18' 50.01"	29° 02' 42.44"	090° 18' 32.17"	29° 02' 13.88"	090° 18' 09.29"	29° 01' 42.31"	090° 17' 43.23"	29° 01' 14.34"	090° 17' 20.59"
29° 03' 33.79"	090° 19' 06.53"	29° 03' 04.12"	090° 18' 49.29"	29° 02' 40.30"	090° 18' 30.44"	29° 02' 12.87"	090° 18' 08.48"	29° 01' 41.17"	090° 17' 42.31"	29° 01' 13.24"	090° 17' 19.72"
29° 03' 33.05"	090° 19' 06.21"	29° 03' 03.42"	090° 18' 48.80"	29° 02' 39.29"	090° 18' 29.62"	29° 02' 11.85"	090° 18' 07.65"	29° 01' 40.07"	090° 17' 41.44"	29° 01' 12.08"	090° 17' 18.79"
29° 03' 32.55"	090° 19' 05.98"	29° 03' 02.95"	090° 18' 48.45"	29° 02' 34.85"	090° 18' 26.10"	29° 02' 10.60"	090° 18' 06.61"	29° 01' 38.93"	090° 17' 40.49"	29° 01' 10.92"	090° 17' 17.89"
29° 03' 31.90"	090° 19' 05.68"	29° 03' 02.28"	090° 18' 47.98"	29° 02' 33.72"	090° 18' 25.21"	29° 02' 09.46"	090° 18' 05.67"	29° 01' 38.05"	090° 17' 39.77"	29° 01' 10.46"	090° 17' 17.49"
29° 03' 31.38"	090° 19' 05.44"	29° 03' 01.59"	090° 18' 47.48"	29° 02' 32.79"	090° 18' 24.48"	29° 02' 04.18"	090° 18' 01.21"	29° 01' 29.06"	090° 17' 32.48"	29° 01' 09.42"	090° 17' 16.68"
29° 03' 30.09"	090° 19' 04.84"	29° 03' 01.13"	090° 18' 47.15"	29° 02' 30.45"	090° 18' 22.60"	29° 02' 01.96"	090° 17' 59.35"	29° 01' 28.00"	090° 17' 31.62"	29° 01' 08.30"	090° 17' 15.83"
29° 03' 29.66"	090° 19' 04.63"	29° 02' 59.32"	090° 18' 45.80"	29° 02' 29.24"	090° 18' 21.58"	29° 01' 59.77"	090° 17' 57.50"	29° 01' 26.99"	090° 17' 30.79"	29° 01' 07.20"	090° 17' 15.00"
29° 03' 28.90"	090° 19' 04.27"	29° 02' 57.11"	090° 18' 44.09"	29° 02' 27.10"	090° 18' 19.80"	29° 01' 56.45"	090° 17' 54.73"	29° 01' 26.13"	090° 17' 30.08"	29° 01' 06.05"	090° 17' 14.07"
29° 03' 28.24"	090° 19' 03.96"	29° 02' 56.01"	090° 18' 43.22"	29° 02' 26.03"	090° 18' 18.91"	29° 01' 55.45"	090° 17' 53.91"	29° 01' 25.21"	090° 17' 29.33"	29° 01' 04.96"	090° 17' 13.23"
29° 03' 27.12"	090° 19' 03.40"	29° 02' 54.96"	090° 18' 42.42"	29° 02' 25.03"	090° 18' 18.08"	29° 01' 53.26"	090° 17' 52.10"	29° 01' 24.40"	090° 17' 28.69"	29° 01' 04.96"	090° 17' 13.23"
29° 03' 26.49"	090° 19' 03.08"	29° 02' 53.88"	090° 18' 41.54"	29° 02' 23.85"	090° 18' 17.14"	29° 01' 52.12"	090° 17' 51.18"	29° 01' 23.65"	090° 17' 28.07"		
29° 03' 25.39"	090° 19' 02.48"	29° 02' 52.76"	090° 18' 40.63"	29° 02' 22.69"	090° 18' 16.22"	29° 01' 51.14"	090° 17' 50.37"	29° 01' 21.95"	090° 17' 26.71"		
29° 03' 24.78"	090° 19' 02.20"	29° 02' 52.25"	090° 18' 40.23"	29° 02' 21.64"	090° 18' 15.41"	29° 01' 49.96"	090° 17' 49.42"	29° 01' 21.37"	090° 17' 26.22"		
29° 03' 23.50"	090° 19' 01.47"	29° 02' 50.59"	090° 18' 38.89"	29° 02' 20.59"	090° 18' 14.63"	29° 01' 48.87"	090° 17' 48.54"	29° 01' 20.33"	090° 17' 25.39"		
29° 03' 20.04"	090° 18' 59.48"	29° 02' 50.06"	090° 18' 38.46"	29° 02' 19.36"	090° 18' 13.68"	29° 01' 47.83"	090° 17' 47.70"	29° 01' 19.26"	090° 17' 24.51"		
PIPELINE 02											
29° 01' 54.10"	090° 15' 41.98"	29° 01' 51.17"	090° 15' 36.29"	29° 01' 47.79"	090° 15' 29.37"	29° 01' 43.37"	090° 15' 19.74"	29° 01' 41.75"	090° 15' 16.41"		
29° 01' 53.29"	090° 15' 40.53"	29° 01' 49.50"	090° 15' 32.97"	29° 01' 45.01"	090° 15' 23.23"	29° 01' 42.55"	090° 15' 18.08"				
29° 01' 52.81"	090° 15' 39.60"	29° 01' 48.63"	090° 15' 31.14"	29° 01' 44.18"	090° 15' 21.50"	29° 01' 41.75"	090° 15' 16.41"				
PIPELINE 03											
29° 01' 49.19"	090° 15' 37.80"	29° 01' 47.19"	090° 15' 35.67"	29° 01' 42.40"	090° 15' 31.19"	29° 01' 39.24"	090° 15' 28.13"				
PIPELINE 04											
29° 02' 40.06"	090° 20' 29.07"	29° 01' 55.02"	090° 21' 11.64"	29° 01' 38.35"	090° 21' 26.97"	29° 01' 15.93"	090° 21' 46.08"	29° 00' 56.57"	090° 22' 01.49"	29° 00' 34.47"	090° 22' 17.92"
29° 02' 26.07"	090° 20' 40.91"	29° 01' 53.75"	090° 21' 12.83"	29° 01' 35.60"	090° 21' 29.42"	29° 01' 14.51"	090° 21' 47.29"	29° 00' 54.67"	090° 22' 02.93"	29° 00' 30.55"	090° 22' 20.76"
29° 02' 23.79"	090° 20' 42.45"	29° 01' 51.14"	090° 21' 15.26"	29° 01' 34.28"	090° 21' 30.57"	29° 01' 12.44"	090° 21' 48.98"	29° 00' 52.70"	090° 22' 04.45"	29° 00' 22.82"	090° 22' 26.17"
29° 02' 10.59"	090° 20' 56.19"	29° 01' 48.60"	090° 21' 17.63"	29° 01' 32.86"	090° 21' 31.82"	29° 01' 10.89"	090° 21' 50.20"	29° 00' 51.63"	090° 22' 05.24"	29° 00' 19.96"	090° 22' 28.20"
29° 02' 04.04"	090° 21' 02.79"	29° 01' 47.22"	090° 21' 18.87"	29° 01' 30.29"	090° 21' 34.07"	29° 01' 09.20"	090° 21' 51.56"	29° 00' 46.25"	090° 22' 09.30"	29° 00' 18.93"	090° 22' 28.81"
29° 02' 02.86"	090° 21' 03.96"	29° 01' 44.13"	090° 21' 21.74"	29° 01' 27.68"	090° 21' 36.33"	29° 01' 08.33"	090° 21' 52.27"	29° 00' 43.55"	090° 22' 11.32"	29° 00' 14.96"	090° 22' 31.48"
29° 02' 01.53"	090° 21' 05.29"	29° 01' 43.55"	090° 21' 22.26"	29° 01' 26.52"	090° 21' 37.29"	29° 01' 03.14"	090° 21' 56.38"	29° 00' 40.94"	090° 22' 13.23"	29° 00' 11.10"	090° 22' 34.05"
29° 02' 00.11"	090° 21' 06.70"	29° 01' 42.00"	090° 21' 23.71"	29° 01' 22.80"	090° 21' 40.44"	29° 01' 01.73"	090° 21' 57.51"	29° 00' 39.66"	090° 22' 14.17"	29° 00' 08.44"	090° 22' 35.80"
29° 01' 58.78"	090° 21' 08.02"	29° 01' 40.63"	090° 21' 24.92"	29° 01' 20.03"	090° 21' 42.74"	29° 01' 00.60"	090° 21' 58.36"	29° 00' 38.27"	090° 22' 15.20"		
29° 01' 57.58"	090° 21' 09.15"	29° 01' 39.49"	090° 21' 25.94"	29° 01' 18.60"	090° 21' 43.93"	29° 00' 59.18"	090° 21' 59.46"	29° 00' 35.73"	090° 22' 17.01"		
PIPELINE 05											
29° 03' 58.88"	090° 18' 28.09"	29° 03' 32.89"	090° 17' 16.88"	29° 03' 15.41"	090° 16' 59.80"	29° 02' 46.66"	090° 16' 29.32"	29° 02' 21.82"	090° 16' 07.72"	29° 01' 59.44"	090° 15' 48.03"
29° 03' 56.12"	090° 18' 17.29"	29° 03' 32.46"	090° 17' 16.31"	29° 03' 04.90"	090° 16' 49.68"	29° 02' 45.55"	090° 16' 28.34"	29° 02' 20.72"	090° 16' 06.74"	29° 01' 58.55"	090° 15' 47.27"
29° 03' 50.97"	090° 17' 55.04"	29° 03' 32.00"	090° 17' 15.68"	29° 03' 03.92"	090° 16' 48.63"	29° 02' 44.45"	090° 16' 27.33"	29° 02' 19.65"	090° 16' 05.80"	29° 01' 57.74"	090° 15' 46.60"
29° 03' 50.66"	090° 17' 53.82"	29° 03' 31.18"	090° 17' 14.56"	29° 02' 58.86"	090° 16' 42.55"	29° 02' 43.37"	090° 16' 26.36"	29° 02' 18.62"	090° 16' 04.83"	29° 01' 56.96"	090° 15' 45.91"

Pipeline Trackline Positions (NAD83)

Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)
29° 03' 50.29"	090° 17' 52.51"	29° 03' 29.72"	090° 17' 12.78"	29° 02' 57.86"	090° 16' 41.23"	29° 02' 42.25"	090° 16' 25.40"	29° 02' 17.83"	090° 16' 04.12"	29° 01' 54.84"	090° 15' 44.01"
29° 03' 48.89"	090° 17' 48.14"	29° 03' 27.79"	090° 17' 10.85"	29° 02' 56.96"	090° 16' 40.05"	29° 02' 41.27"	090° 16' 24.56"	29° 02' 17.51"	090° 16' 03.80"	29° 01' 53.68"	090° 15' 43.22"
29° 03' 46.35"	090° 17' 41.15"	29° 03' 24.38"	090° 17' 07.77"	29° 02' 55.86"	090° 16' 38.47"	29° 02' 40.10"	090° 16' 23.55"	29° 02' 16.36"	090° 16' 02.73"	29° 01' 52.62"	090° 15' 42.34"
29° 03' 46.01"	090° 17' 40.34"	29° 03' 23.41"	090° 17' 06.88"	29° 02' 54.91"	090° 16' 37.33"	29° 02' 35.72"	090° 16' 19.81"	29° 02' 15.27"	090° 16' 01.72"	29° 01' 52.06"	090° 15' 41.91"
29° 03' 45.15"	090° 17' 38.56"	29° 03' 22.93"	090° 17' 06.43"	29° 02' 54.02"	090° 16' 36.38"	29° 02' 34.72"	090° 16' 18.94"	29° 02' 13.25"	090° 15' 59.82"	29° 01' 51.55"	090° 15' 41.50"
29° 03' 44.70"	090° 17' 37.58"	29° 03' 21.96"	090° 17' 05.60"	29° 02' 52.99"	090° 16' 35.36"	29° 02' 33.71"	090° 16' 17.97"	29° 02' 12.13"	090° 15' 58.79"	29° 01' 51.03"	090° 15' 41.08"
29° 03' 44.35"	090° 17' 36.96"	29° 03' 21.25"	090° 17' 05.00"	29° 02' 52.86"	090° 16' 35.22"	29° 02' 30.43"	090° 16' 15.20"	29° 02' 10.03"	090° 15' 56.95"	29° 01' 49.84"	090° 15' 40.14"
29° 03' 35.76"	090° 17' 20.91"	29° 03' 20.77"	090° 17' 04.58"	29° 02' 51.84"	090° 16' 34.22"	29° 02' 29.32"	090° 16' 14.23"	29° 02' 06.81"	090° 15' 54.19"		
29° 03' 35.68"	090° 17' 20.78"	29° 03' 19.69"	090° 17' 03.61"	29° 02' 50.86"	090° 16' 33.22"	29° 02' 26.12"	090° 16' 11.45"	29° 02' 03.50"	090° 15' 51.46"		
29° 03' 34.83"	090° 17' 19.55"	29° 03' 18.61"	090° 17' 02.69"	29° 02' 49.85"	090° 16' 32.22"	29° 02' 24.98"	090° 16' 10.48"	29° 02' 02.37"	090° 15' 50.53"		
29° 03' 33.82"	090° 17' 18.17"	29° 03' 17.48"	090° 17' 01.69"	29° 02' 48.82"	090° 16' 31.26"	29° 02' 23.95"	090° 16' 09.57"	29° 02' 01.38"	090° 15' 49.68"		
29° 03' 33.27"	090° 17' 17.42"	29° 03' 16.44"	090° 17' 00.71"	29° 02' 47.61"	090° 16' 30.19"	29° 02' 22.95"	090° 16' 08.70"	29° 02' 00.27"	090° 15' 48.74"		
PIPELINE 06											
29° 03' 36.75"	090° 19' 52.98"	29° 03' 09.92"	090° 19' 53.61"	29° 02' 23.68"	090° 20' 01.68"	29° 01' 45.84"	090° 20' 08.85"	29° 01' 29.70"	090° 20' 11.85"	29° 00' 35.69"	090° 20' 20.31"
29° 03' 31.11"	090° 19' 52.52"	29° 03' 09.15"	090° 19' 53.76"	29° 02' 22.79"	090° 20' 01.85"	29° 01' 42.89"	090° 20' 09.85"	29° 01' 28.28"	090° 20' 12.06"	29° 00' 34.49"	090° 20' 20.52"
29° 03' 29.77"	090° 19' 52.32"	29° 03' 07.60"	090° 19' 54.09"	29° 02' 21.42"	090° 20' 02.08"	29° 01' 41.28"	090° 20' 10.14"	29° 01' 26.97"	090° 20' 12.26"	29° 00' 31.91"	090° 20' 20.94"
29° 03' 28.42"	090° 19' 52.15"	29° 03' 06.20"	090° 19' 54.32"	29° 02' 20.01"	090° 20' 02.29"	29° 01' 39.95"	090° 20' 10.36"	29° 01' 25.38"	090° 20' 12.48"	29° 00' 30.58"	090° 20' 21.22"
29° 03' 27.10"	090° 19' 52.00"	29° 03' 02.64"	090° 19' 54.99"	29° 02' 16.89"	090° 20' 02.81"	29° 01' 38.44"	090° 20' 10.63"	29° 01' 23.89"	090° 20' 12.68"	29° 00' 25.51"	090° 20' 22.48"
29° 03' 17.97"	090° 19' 52.56"	29° 03' 01.88"	090° 19' 55.10"	29° 02' 11.20"	090° 20' 03.88"	29° 01' 36.97"	090° 20' 10.85"	29° 01' 22.41"	090° 20' 12.87"	29° 00' 24.07"	090° 20' 22.99"
29° 03' 17.23"	090° 19' 52.63"	29° 02' 55.17"	090° 19' 56.59"	29° 02' 09.51"	090° 20' 04.27"	29° 01' 35.61"	090° 20' 11.01"	29° 01' 21.11"	090° 20' 13.08"	29° 00' 20.05"	090° 20' 24.17"
29° 03' 12.32"	090° 19' 53.17"	29° 02' 30.98"	090° 20' 00.16"	29° 02' 05.29"	090° 20' 04.96"	29° 01' 34.10"	090° 20' 11.14"	29° 00' 59.24"	090° 20' 16.30"		
29° 03' 11.49"	090° 19' 53.30"	29° 02' 26.57"	090° 20' 00.83"	29° 01' 50.45"	090° 20' 07.03"	29° 01' 32.68"	090° 20' 11.35"	29° 00' 43.69"	090° 20' 18.88"		
29° 03' 10.73"	090° 19' 53.46"	29° 02' 25.88"	090° 20' 01.01"	29° 01' 47.53"	090° 20' 08.05"	29° 01' 31.30"	090° 20' 11.59"	29° 00' 38.34"	090° 20' 19.92"		
PIPELINE 08											
29° 03' 23.39"	090° 15' 07.94"	29° 03' 31.34"	090° 15' 02.32"	29° 03' 49.45"	090° 14' 48.90"	29° 04' 27.16"	090° 14' 20.87"	29° 04' 36.10"	090° 14' 14.89"		
PIPELINE 09											
29° 03' 59.62"	090° 9 12.96"	29° 03' 57.17"	090° 9 09.14"	29° 03' 56.21"	090° 9 07.00"						
PIPELINE 10											
29° 05' 02.35"	090° 9 52.79"	29° 04' 49.99"	090° 9 44.90"	29° 04' 38.90"	090° 9 36.65"	29° 04' 28.85"	090° 9 28.95"	29° 04' 11.33"	090° 9 14.51"	29° 03' 57.23"	090° 9 00.04"
29° 04' 58.07"	090° 9 50.04"	29° 04' 44.78"	090° 9 42.17"	29° 04' 35.56"	090° 9 32.77"	29° 04' 24.17"	090° 9 26.33"	29° 04' 10.42"	090° 9 13.34"	29° 03' 53.83"	090° 8 58.15"
29° 04' 56.99"	090° 9 48.87"	29° 04' 42.42"	090° 9 40.98"	29° 04' 34.17"	090° 9 31.93"	29° 04' 16.68"	090° 9 19.58"	29° 04' 06.75"	090° 9 07.63"	29° 03' 52.10"	090° 8 57.31"
29° 04' 55.94"	090° 9 48.03"	29° 04' 41.01"	090° 9 40.01"	29° 04' 32.50"	090° 9 30.79"	29° 04' 14.61"	090° 9 17.66"	29° 04' 04.83"	090° 9 05.04"		
29° 04' 54.82"	090° 9 47.27"	29° 04' 39.46"	090° 9 37.56"	29° 04' 31.39"	090° 9 30.17"	29° 04' 13.42"	090° 9 16.95"	29° 03' 59.86"	090° 9 01.17"		
PIPELINE 11											
29° 05' 37.21"	090° 10 27.29"	29° 05' 32.50"	090° 10 20.54"	29° 05' 24.77"	090° 10 13.70"	29° 05' 20.87"	090° 10 08.99"	29° 05' 17.83"	090° 10 02.35"		
29° 05' 35.79"	090° 10 24.74"	29° 05' 28.29"	090° 10 16.28"	29° 05' 23.89"	090° 10 12.84"	29° 05' 20.10"	090° 10 07.03"	29° 05' 16.78"	090° 10 00.71"		
29° 05' 34.55"	090° 10 22.60"	29° 05' 27.24"	090° 10 15.29"	29° 05' 22.81"	090° 10 11.78"	29° 05' 19.30"	090° 10 05.18"	29° 05' 15.84"	090° 9 59.29"		
29° 05' 33.00"	090° 10 21.24"	29° 05' 25.91"	090° 10 14.38"	29° 05' 21.85"	090° 10 10.62"	29° 05' 18.57"	090° 10 03.50"	29° 05' 13.27"	090° 9 55.60"		
PIPELINE 12											
29° 01' 54.76"	090° 17' 57.47"	29° 01' 43.99"	090° 17' 50.53"	29° 01' 38.43"	090° 17' 46.52"	29° 01' 31.74"	090° 17' 41.32"	29° 01' 16.80"	090° 17' 32.22"	29° 01' 03.87"	090° 17' 20.63"
29° 01' 47.46"	090° 17' 52.91"	29° 01' 42.78"	090° 17' 49.76"	29° 01' 37.22"	090° 17' 45.73"	29° 01' 30.68"	090° 17' 40.50"	29° 01' 16.18"	090° 17' 31.77"	29° 01' 02.79"	090° 17' 19.40"
29° 01' 46.37"	090° 17' 52.07"	29° 01' 40.61"	090° 17' 48.05"	29° 01' 36.18"	090° 17' 45.08"	29° 01' 17.96"	090° 17' 32.91"	29° 01' 07.14"	090° 17' 23.64"		
PIPELINE 14											

Pipeline Trackline Positions (NAD83)

Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)
29° 03' 56.22"	090° 10 18.27"	29° 03' 49.59"	090° 10 17.32"	29° 03' 45.42"	090° 10 16.21"	29° 03' 39.83"	090° 10 13.42"	29° 03' 34.62"	090° 10 09.79"	29° 03' 28.04"	090° 10 03.05"
29° 03' 53.50"	090° 10 18.05"	29° 03' 48.39"	090° 10 17.05"	29° 03' 44.49"	090° 10 15.83"	29° 03' 39.17"	090° 10 13.00"	29° 03' 33.56"	090° 10 08.87"	29° 03' 26.94"	090° 10 01.62"
29° 03' 52.01"	090° 10 18.38"	29° 03' 47.23"	090° 10 16.76"	29° 03' 42.70"	090° 10 15.03"	29° 03' 36.84"	090° 10 11.42"	29° 03' 32.48"	090° 10 07.92"	29° 03' 26.09"	090° 10 00.76"
29° 03' 50.88"	090° 10 17.59"	29° 03' 47.04"	090° 10 16.71"	29° 03' 40.99"	090° 10 14.14"	29° 03' 35.81"	090° 10 10.72"	29° 03' 29.95"	090° 10 05.46"		
PIPELINE 15											
29° 02' 27.59"	090° 13' 16.74"	29° 02' 24.45"	090° 13' 13.65"	29° 02' 21.39"	090° 13' 10.50"	29° 02' 18.32"	090° 13' 07.21"	29° 02' 15.85"	090° 13' 03.77"	29° 02' 13.65"	090° 13' 01.95"
29° 02' 26.54"	090° 13' 15.77"	29° 02' 23.47"	090° 13' 12.67"	29° 02' 20.33"	090° 13' 09.45"	29° 02' 18.51"	090° 13' 06.16"	29° 02' 14.79"	090° 13' 02.93"	29° 02' 12.57"	090° 13' 01.02"
29° 02' 25.50"	090° 13' 14.78"	29° 02' 22.42"	090° 13' 11.52"	29° 02' 19.33"	090° 13' 08.38"	29° 02' 16.59"	090° 13' 04.39"	29° 02' 14.22"	090° 13' 02.41"	29° 02' 11.47"	090° 13' 00.16"
PIPELINE 16											
29° 04' 22.54"	090° 11' 06.57"	29° 04' 07.49"	090° 10 51.53"	29° 04' 01.71"	090° 10 48.14"	29° 03' 46.57"	090° 10 39.30"	29° 03' 34.80"	090° 10 22.21"		
29° 04' 19.60"	090° 11' 01.37"	29° 04' 06.50"	090° 10 50.72"	29° 04' 00.58"	090° 10 47.26"	29° 03' 44.26"	090° 10 37.77"	29° 03' 32.85"	090° 10 19.76"		
29° 04' 16.45"	090° 10 58.48"	29° 04' 05.44"	090° 10 49.91"	29° 03' 59.44"	090° 10 46.54"	29° 03' 42.13"	090° 10 36.24"	29° 03' 31.83"	090° 10 18.34"		
29° 04' 10.75"	090° 10 54.19"	29° 04' 04.18"	090° 10 49.27"	29° 03' 58.26"	090° 10 45.91"	29° 03' 39.70"	090° 10 33.02"	29° 03' 31.02"	090° 10 16.77"		
29° 04' 08.56"	090° 10 52.58"	29° 04' 02.82"	090° 10 48.77"	29° 03' 47.79"	090° 10 40.01"	29° 03' 36.16"	090° 10 24.68"	29° 03' 29.94"	090° 10 12.84"		
PIPELINE 17											
29° 03' 42.29"	090° 11' 48.72"	29° 04' 26.01"	090° 11' 47.02"	29° 05' 06.20"	090° 11' 53.08"	29° 05' 20.91"	090° 11' 49.88"				
29° 04' 01.91"	090° 11' 47.80"	29° 04' 45.14"	090° 11' 49.85"	29° 05' 14.46"	090° 11' 53.50"						
PIPELINE 18											
29° 04' 41.33"	090° 12' 19.56"	29° 04' 39.37"	090° 12' 12.37"	29° 04' 38.22"	090° 12' 07.73"	29° 04' 37.65"	090° 12' 05.05"	29° 04' 36.96"	090° 12' 00.11"		
29° 04' 40.59"	090° 12' 17.21"	29° 04' 38.77"	090° 12' 10.05"	29° 04' 37.74"	090° 12' 05.57"	29° 04' 37.19"	090° 12' 02.28"	29° 04' 36.41"	090° 12' 02.86"		
PIPELINE 19											
29° 05' 09.29"	090° 11' 04.70"	29° 05' 04.14"	090° 10 56.19"	29° 05' 01.97"	090° 10 50.18"	29° 04' 56.39"	090° 10 44.01"	29° 04' 49.57"	090° 10 37.20"		
29° 05' 08.63"	090° 11' 02.17"	29° 05' 03.13"	090° 10 54.85"	29° 05' 01.15"	090° 10 49.34"	29° 04' 55.25"	090° 10 42.51"	29° 04' 44.87"	090° 10 30.69"		
29° 05' 05.15"	090° 10 57.15"	29° 05' 02.74"	090° 10 52.66"	29° 04' 59.83"	090° 10 47.82"	29° 04' 53.02"	090° 10 39.94"				
PIPELINE 20											
29° 05' 10.86"	090° 9 22.38"	29° 05' 24.41"	090° 9 40.10"	29° 05' 35.37"	090° 9 56.15"	29° 05' 49.29"	090° 10 34.43"				
29° 05' 16.39"	090° 9 29.49"	29° 05' 33.20"	090° 9 51.81"	29° 05' 44.29"	090° 10 20.27"						
PIPELINE 21											
29° 05' 11.85"	090° 12' 20.07"	29° 05' 11.40"	090° 12' 19.59"								
PIPELINE 22											
29° 06' 00.13"	090° 10 21.40"	29° 06' 01.94"	090° 10 25.94"								
PIPELINE 23											
29° 05' 35.22"	090° 11' 35.58"	29° 05' 33.61"	090° 11' 35.59"	29° 05' 02.13"	090° 11' 35.60"	29° 04' 19.13"	090° 11' 30.20"	29° 02' 39.32"	090° 11' 18.34"		
29° 05' 34.51"	090° 11' 35.58"	29° 05' 13.11"	090° 11' 34.45"	29° 04' 42.12"	090° 11' 34.35"	29° 03' 20.15"	090° 11' 23.62"				
PIPELINE 24											
29° 03' 50.96"	090° 17' 11.80"	29° 03' 49.62"	090° 17' 12.21"	29° 03' 42.74"	090° 17' 13.27"	29° 03' 31.92"	090° 17' 12.50"				
29° 03' 50.45"	090° 17' 11.99"	29° 03' 48.54"	090° 17' 12.49"	29° 03' 34.72"	090° 17' 12.60"						
PIPELINE 25											
29° 03' 55.16"	090° 17' 05.14"	29° 03' 52.50"	090° 17' 05.49"	29° 03' 34.99"	090° 17' 03.98"	29° 03' 28.84"	090° 17' 02.69"				
PIPELINE 26											
29° 04' 23.23"	090° 15' 51.15"	29° 04' 23.10"	090° 15' 51.21"	29° 04' 22.81"	090° 15' 51.13"	29° 04' 22.39"	090° 15' 51.05"				
PIPELINE 27											
29° 05' 07.55"	090° 12' 04.21"	29° 05' 07.50"	090° 12' 04.49"								

Pipeline Trackline Positions (NAD83)

Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)
PIPELINE 28											
29° 05' 14.68"	090° 12' 10.46"	29° 05' 04.96"	090° 12' 07.99"	29° 05' 01.40"	090° 12' 06.65"	29° 04' 56.50"	090° 12' 01.00"				
29° 05' 12.43"	090° 12' 10.81"	29° 05' 03.73"	090° 12' 07.86"	29° 04' 59.67"	090° 12' 05.01"						
PIPELINE 29											
29° 04' 06.25"	090° 9 47.40"	29° 04' 04.12"	090° 9 45.57"	29° 04' 04.56"	090° 9 39.75"	29° 04' 05.95"	090° 9 36.85"	29° 04' 06.00"	090° 9 31.21"	29° 04' 01.38"	090° 9 26.65"
29° 04' 05.10"	090° 9 46.72"	29° 04' 04.11"	090° 9 42.22"	29° 04' 04.80"	090° 9 38.76"	29° 04' 06.75"	090° 9 32.71"	29° 04' 04.02"	090° 9 28.98"		
PIPELINE 30											
29° 03' 41.91"	090° 18' 58.22"	29° 03' 39.75"	090° 18' 56.62"	29° 03' 39.45"	090° 18' 56.39"						
PIPELINE 32											
29° 04' 07.20"	090° 9 40.81"	29° 04' 04.64"	090° 9 32.15"	29° 04' 01.71"	090° 9 29.11"	29° 04' 00.32"	090° 9 27.33"				
PIPELINE 33											
29° 02' 13.71"	090° 13' 29.91"	29° 02' 12.39"	090° 13' 29.58"	29° 02' 07.90"	090° 13' 28.44"						
PIPELINE 34											
29° 05' 03.75"	090° 12' 09.03"	29° 04' 45.46"	090° 12' 15.02"	29° 04' 13.10"	090° 12' 17.11"	29° 03' 31.90"	090° 12' 17.70"	29° 03' 30.05"	090° 12' 17.63"	29° 02' 36.06"	090° 12' 18.31"
29° 04' 53.04"	090° 12' 13.21"	29° 04' 32.04"	090° 12' 16.86"	29° 03' 48.43"	090° 12' 17.32"	29° 03' 31.07"	090° 12' 17.59"	29° 03' 10.92"	090° 12' 17.72"	29° 02' 17.68"	090° 12' 18.45"
PIPELINE 35											
29° 03' 42.13"	090° 10 36.24"	29° 03' 43.00"	090° 10 40.03"	29° 03' 45.48"	090° 10 42.63"	29° 03' 47.94"	090° 10 43.71"	29° 03' 48.57"	090° 10 42.16"	29° 03' 45.36"	090° 10 38.98"
29° 03' 42.60"	090° 10 37.12"	29° 03' 43.84"	090° 10 41.18"	29° 03' 46.67"	090° 10 43.51"	29° 03' 48.68"	090° 10 43.07"	29° 03' 46.30"	090° 10 39.54"	29° 03' 42.13"	090° 10 36.24"
PIPELINE 36											
29° 03' 05.60"	090° 13' 31.47"	29° 03' 04.87"	090° 13' 30.32"	29° 03' 03.81"	090° 13' 29.12"	29° 03' 02.73"	090° 13' 28.28"	29° 02' 53.61"	090° 13' 23.42"		
PIPELINE 37											
29° 04' 18.60"	090° 9 39.05"	29° 04' 14.98"	090° 9 37.89"	29° 04' 11.74"	090° 9 34.59"	29° 04' 10.70"	090° 9 33.93"	29° 04' 09.46"	090° 9 29.13"	29° 04' 08.99"	090° 9 28.35"
PIPELINE 38											
29° 04' 05.70"	090° 10 07.07"	29° 04' 05.56"	090° 10 06.58"	29° 04' 04.61"	090° 10 01.31"	29° 04' 03.17"	090° 9 56.92"				
PIPELINE 39											
29° 03' 26.09"	090° 10 00.76"	29° 03' 23.05"	090° 10 02.75"	29° 03' 17.92"	090° 10 04.02"	29° 03' 13.01"	090° 10 04.17"				
PIPELINE 40											
29° 03' 43.89"	090° 9 32.72"	29° 03' 42.21"	090° 9 31.85"	29° 03' 39.27"	090° 9 29.43"	29° 03' 37.60"	090° 9 27.42"	29° 03' 37.19"	090° 9 25.44"	29° 03' 33.94"	090° 9 19.30"
PIPELINE 41											
29° 03' 32.63"	090° 15' 08.77"	29° 03' 29.29"	090° 15' 04.96"	29° 03' 28.32"	090° 15' 04.03"	29° 03' 27.29"	090° 15' 02.82"	29° 03' 06.87"	090° 14' 40.13"	29° 02' 15.81"	090° 13' 48.59"
29° 03' 31.54"	090° 15' 07.20"	29° 03' 28.80"	090° 15' 04.47"	29° 03' 28.16"	090° 15' 03.76"	29° 03' 14.80"	090° 14' 49.04"	29° 02' 29.92"	090° 14' 06.43"	29° 02' 02.78"	090° 13' 30.15"
PIPELINE 42											
29° 02' 57.79"	090° 13' 30.29"	29° 02' 56.78"	090° 13' 29.12"	29° 02' 55.80"	090° 13' 27.99"	29° 02' 54.85"	090° 13' 26.77"	29° 02' 53.93"	090° 13' 25.31"	29° 02' 53.61"	090° 13' 23.42"
PIPELINE 43											
29° 04' 07.21"	090° 10 18.88"	29° 04' 01.08"	090° 10 16.77"	29° 03' 58.77"	090° 10 12.92"	29° 03' 56.54"	090° 10 08.28"				
29° 04' 04.24"	090° 10 19.71"	29° 03' 59.22"	090° 10 13.33"	29° 03' 58.77"	090° 10 12.92"						
PIPELINE 44											
29° 01' 55.15"	090° 17' 38.03"	29° 01' 42.64"	090° 17' 29.17"	29° 01' 20.68"	090° 17' 12.45"	29° 01' 11.24"	090° 17' 06.81"	29° 01' 09.08"	090° 17' 05.27"	29° 01' 06.79"	090° 17' 02.28"
29° 01' 46.11"	090° 17' 32.23"	29° 01' 37.50"	090° 17' 26.14"	29° 01' 12.54"	090° 17' 07.59"	29° 01' 10.11"	090° 17' 06.05"	29° 01' 07.98"	090° 17' 04.30"		
PIPELINE 45											
29° 02' 19.10"	090° 13' 38.61"	29° 02' 17.97"	090° 13' 38.10"	29° 02' 15.67"	090° 13' 36.66"	29° 02' 16.92"	090° 13' 37.00"				
PIPELINE 46											
29° 01' 26.46"	090° 16' 30.78"	29° 01' 25.87"	090° 16' 30.15"	29° 01' 25.38"	090° 16' 28.79"	29° 01' 24.46"	090° 16' 26.93"	29° 01' 23.94"	090° 16' 24.76"	29° 01' 22.89"	090° 16' 21.36"

Pipeline Trackline Positions (NAD83)

Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)
PIPELINE 47											
29° 03' 21.79"	090° 17' 19.81"	29° 03' 09.89"	090° 17' 20.84"	29° 02' 58.18"	090° 17' 19.43"	29° 02' 36.29"	090° 17' 11.68"	29° 02' 24.62"	090° 17' 00.75"		
29° 03' 15.44"	090° 17' 20.63"	29° 03' 08.38"	090° 17' 21.17"	29° 02' 40.53"	090° 17' 13.80"	29° 02' 29.21"	090° 17' 04.11"				
PIPELINE 48											
29° 04' 49.83"	090° 12' 35.56"	29° 04' 46.20"	090° 12' 38.15"	29° 04' 44.80"	090° 12' 38.91"						
PIPELINE 49											
29° 05' 24.47"	090° 11' 46.36"	29° 05' 21.69"	090° 11' 48.86"	29° 05' 20.22"	090° 11' 48.85"	29° 05' 18.63"	090° 11' 48.38"	29° 05' 18.11"	090° 11' 45.69"		
PIPELINE 50											
29° 05' 36.78"	090° 9 54.51"	29° 05' 34.04"	090° 9 55.39"	29° 05' 30.87"	090° 9 55.25"	29° 05' 22.83"	090° 9 54.40"	29° 05' 19.20"	090° 9 53.77"	29° 05' 09.54"	090° 9 52.27"
PIPELINE 51											
29° 05' 34.56"	090° 9 56.05"	29° 05' 34.04"	090° 9 55.39"	29° 05' 32.94"	090° 9 53.30"						
PIPELINE 52											
29° 02' 29.38"	090° 18' 21.22"	29° 02' 25.32"	090° 18' 17.18"	29° 02' 19.26"	090° 18' 10.09"	29° 02' 06.72"	090° 17' 58.77"				
29° 02' 28.33"	090° 18' 20.20"	29° 02' 20.19"	090° 18' 11.26"	29° 02' 18.31"	090° 18' 08.96"						
PIPELINE 53											
29° 02' 40.83"	090° 17' 59.07"	29° 02' 27.48"	090° 17' 49.14"	29° 02' 00.42"	090° 17' 27.27"	29° 01' 37.98"	090° 17' 01.71"				
29° 02' 29.70"	090° 17' 51.32"	29° 02' 16.34"	090° 17' 41.93"	29° 01' 53.34"	090° 17' 17.29"						
PIPELINE 54											
29° 04' 08.07"	090° 13' 08.72"	29° 04' 06.56"	090° 13' 06.64"	29° 04' 04.31"	090° 13' 04.92"	29° 04' 02.23"	090° 13' 04.11"				
29° 04' 07.53"	090° 13' 07.87"	29° 04' 05.42"	090° 13' 05.60"	29° 04' 03.16"	090° 13' 04.33"						
PIPELINE 55											
29° 04' 55.41"	090° 10 40.39"	29° 04' 53.25"	090° 10 39.01"	29° 04' 49.66"	090° 10 35.93"						
PIPELINE 56											
29° 04' 15.73"	090° 13' 02.37"	29° 04' 10.09"	090° 13' 03.49"	29° 04' 06.41"	090° 13' 03.88"	29° 04' 04.66"	090° 13' 03.84"	29° 04' 02.23"	090° 13' 04.11"		
PIPELINE 57											
29° 01' 34.83"	090° 21' 39.01"	29° 01' 34.25"	090° 21' 38.47"	29° 01' 32.90"	090° 21' 36.82"	29° 01' 32.66"	090° 21' 36.60"	29° 01' 31.59"	090° 21' 35.38"	29° 01' 30.93"	090° 21' 34.76"
PIPELINE 58											
29° 03' 16.14"	090° 18' 55.57"	29° 03' 13.08"	090° 18' 52.93"	29° 03' 12.05"	090° 18' 52.25"	29° 03' 07.07"	090° 18' 48.30"	29° 03' 02.11"	090° 18' 44.79"		
PIPELINE 59											
29° 04' 40.27"	090° 10 21.92"	29° 04' 36.12"	090° 10 20.97"	29° 04' 34.17"	090° 10 20.61"	29° 04' 29.96"	090° 10 21.35"				
PIPELINE 60											
29° 04' 50.18"	090° 10 14.28"	29° 04' 40.71"	090° 9 56.91"	29° 04' 35.85"	090° 9 51.81"	29° 04' 32.01"	090° 9 44.41"	29° 04' 25.20"	090° 9 28.76"		
29° 04' 46.87"	090° 10 07.19"	29° 04' 38.55"	090° 9 54.71"	29° 04' 33.46"	090° 9 48.71"	29° 04' 29.42"	090° 9 36.07"	29° 04' 21.76"	090° 9 24.81"		
PIPELINE 61											
29° 03' 31.33"	090° 13' 30.75"	29° 03' 31.60"	090° 13' 29.31"	29° 03' 31.30"	090° 13' 01.38"						
PIPELINE 62											
29° 03' 41.22"	090° 13' 19.49"	29° 03' 40.37"	090° 13' 18.98"	29° 03' 39.30"	090° 13' 18.38"	29° 03' 37.77"	090° 13' 17.88"	29° 03' 36.40"	090° 13' 17.36"		
PIPELINE 63											
29° 01' 53.02"	090° 17' 43.80"	29° 01' 51.22"	090° 17' 41.54"	29° 01' 49.23"	090° 17' 38.87"						
PIPELINE 64											
29° 02' 22.24"	090° 13' 30.28"	29° 02' 22.03"	090° 13' 29.74"	29° 02' 21.15"	090° 13' 28.16"	29° 02' 20.24"	090° 13' 26.42"	29° 02' 19.44"	090° 13' 24.74"	29° 02' 19.24"	090° 13' 24.10"
PIPELINE 65											
29° 02' 12.62"	090° 14' 07.46"	29° 02' 10.88"	090° 13' 55.24"	29° 02' 10.30"	090° 13' 52.34"						

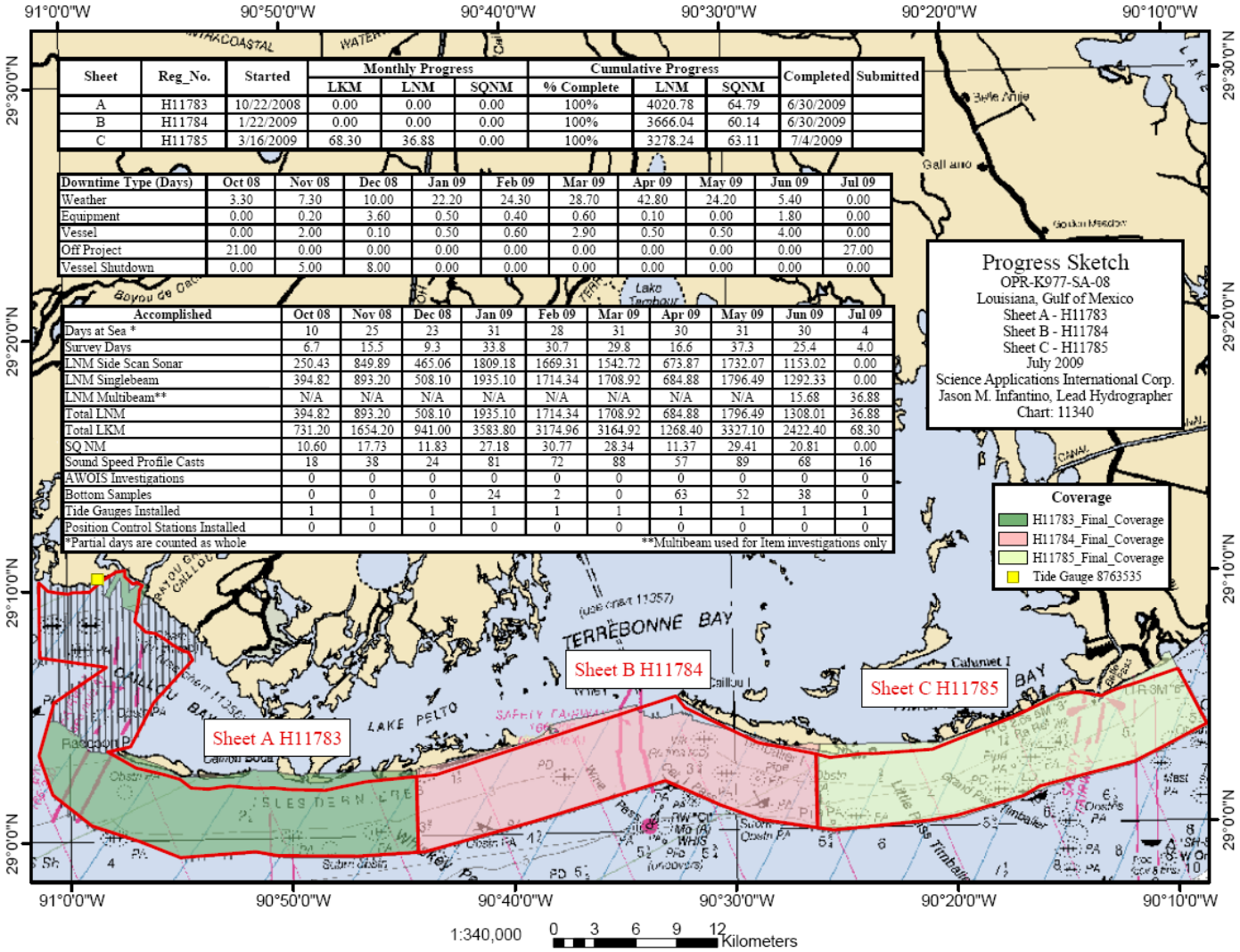
Pipeline Trackline Positions (NAD83)

Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)
PIPELINE 66											
29° 01' 33.07"	090° 15' 58.81"	29° 01' 32.91"	090° 15' 56.33"	29° 01' 32.22"	090° 15' 54.00"						
PIPELINE 67											
29° 03' 39.91"	090° 9 38.24"	29° 03' 36.73"	090° 9 36.35"								
PIPELINE 68											
29° 03' 14.89"	090° 10 27.54"	29° 03' 14.03"	090° 10 28.81"								
PIPELINE 69											
29° 01' 28.44"	090° 17' 05.82"	29° 01' 26.70"	090° 17' 01.91"	29° 01' 24.66"	090° 16' 58.36"						
PIPELINE 70											
29° 01' 29.65"	090° 16' 52.68"	29° 01' 28.94"	090° 16' 52.07"	29° 01' 26.54"	090° 16' 51.10"	29° 01' 22.01"	090° 16' 46.47"				
PIPELINE 71											
29° 01' 57.06"	090° 16' 11.32"	29° 01' 47.36"	090° 16' 02.61"	29° 01' 45.65"	090° 16' 01.17"	29° 01' 42.38"	090° 15' 58.83"	29° 01' 40.15"	090° 15' 57.36"		
29° 01' 50.56"	090° 16' 05.45"	29° 01' 46.31"	090° 16' 01.72"	29° 01' 45.31"	090° 16' 00.77"	29° 01' 41.26"	090° 15' 58.09"				
PIPELINE 72											
29° 02' 40.70"	090° 16' 13.22"	29° 02' 46.88"	090° 15' 59.55"	29° 02' 38.04"	090° 15' 43.12"	29° 02' 29.04"	090° 15' 35.75"	29° 02' 29.20"	090° 15' 28.85"		
29° 02' 46.40"	090° 16' 07.92"	29° 02' 45.88"	090° 15' 55.88"	29° 02' 35.41"	090° 15' 41.48"	29° 02' 28.90"	090° 15' 33.07"				
29° 02' 47.18"	090° 16' 03.61"	29° 02' 44.32"	090° 15' 52.57"	29° 02' 30.18"	090° 15' 37.76"	29° 02' 29.41"	090° 15' 29.53"				
PIPELINE 73											
29° 04' 37.07"	090° 10 58.37"	29° 04' 36.12"	090° 10 56.27"	29° 04' 33.59"	090° 10 52.49"	29° 04' 31.42"	090° 10 50.55"	29° 04' 30.41"	090° 10 49.92"	29° 04' 28.39"	090° 10 49.63"
PIPELINE 74											
29° 04' 46.32"	090° 10 27.28"	29° 04' 43.76"	090° 10 24.56"	29° 04' 42.84"	090° 10 24.07"	29° 04' 41.06"	090° 10 23.02"				
PIPELINE 75											
29° 04' 41.10"	090° 10 39.26"	29° 04' 40.62"	090° 10 38.91"	29° 04' 40.44"	090° 10 38.86"						
PIPELINE 76											
29° 03' 08.77"	090° 13' 11.91"	29° 03' 08.69"	090° 13' 12.26"	29° 03' 08.58"	090° 13' 13.15"						
PIPELINE 77											
29° 03' 17.67"	090° 10 22.27"	29° 03' 27.12"	090° 10 32.98"	29° 03' 34.62"	090° 10 37.36"	29° 03' 43.77"	090° 10 38.78"				
29° 03' 23.52"	090° 10 29.63"	29° 03' 33.64"	090° 10 36.58"	29° 03' 37.30"	090° 10 37.98"						
PIPELINE 78											
29° 03' 30.32"	090° 10 28.27"	29° 03' 32.03"	090° 10 30.71"	29° 03' 34.64"	090° 10 33.46"	29° 03' 37.71"	090° 10 37.12"	29° 03' 44.70"	090° 10 45.14"		
PIPELINE 79											
29° 02' 33.31"	090° 11' 33.21"	29° 02' 42.97"	090° 11' 51.35"	29° 03' 15.62"	090° 12' 58.31"	29° 03' 31.16"	090° 13' 30.32"				
PIPELINE 80											
29° 02' 26.06"	090° 11' 49.79"	29° 03' 10.63"	090° 11' 47.91"	29° 03' 52.99"	090° 11' 40.45"						
PIPELINE 81											
29° 02' 35.86"	090° 11' 24.32"	29° 03' 05.25"	090° 11' 26.67"	29° 04' 17.32"	090° 11' 33.23"	29° 04' 37.58"	090° 11' 35.41"	29° 05' 02.37"	090° 11' 36.44"	29° 05' 13.49"	090° 11' 38.10"
PIPELINE 82											
29° 04' 07.60"	090° 11' 35.07"	29° 04' 22.39"	090° 11' 35.99"	29° 04' 37.62"	090° 11' 37.71"	29° 05' 02.74"	090° 11' 39.76"				
PIPELINE 83											
29° 04' 07.31"	090° 11' 37.77"	29° 04' 14.81"	090° 11' 41.82"	29° 04' 21.58"	090° 11' 43.69"	29° 04' 31.95"	090° 11' 45.45"	29° 04' 49.59"	090° 11' 47.61"	29° 05' 02.53"	090° 11' 47.52"
PIPELINE 84											
29° 04' 38.05"	090° 11' 40.09"	29° 04' 45.77"	090° 11' 40.64"	29° 05' 00.17"	090° 11' 41.96"						
PIPELINE 85											

Pipeline Trackline Positions (NAD83)

Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)	Latitude (N)	Longitude (W)
29° 01' 38.89"	090° 15' 15.67"	29° 02' 16.04"	090° 15' 13.58"	29° 02' 44.08"	090° 15' 11.21"	29° 03' 06.37"	090° 15' 11.24"	29° 03' 23.08"	090° 15' 08.06"		
PIPELINE 86											
29° 01' 41.96"	090° 15' 06.19"	29° 03' 00.46"	090° 17' 34.57"								
PIPELINE 87											
29° 02' 16.18"	090° 12' 25.84"	29° 02' 36.60"	090° 12' 18.51"								
PIPELINE 88											
29° 02' 16.42"	090° 12' 24.07"	29° 02' 36.21"	090° 13' 11.08"	29° 03' 07.58"	090° 14' 33.90"	29° 03' 23.14"	090° 15' 06.89"				
PIPELINE 89											
29° 01' 47.00"	090° 14' 39.08"	29° 02' 02.11"	090° 14' 43.74"	29° 02' 17.80"	090° 14' 48.24"	29° 02' 33.21"	090° 14' 53.22"	29° 03' 09.69"	090° 15' 04.50"	29° 03' 22.19"	090° 15' 07.32"
PIPELINE 90											
29° 03' 23.21"	090° 15' 09.09"	29° 03' 23.95"	090° 15' 23.08"	29° 03' 29.46"	090° 17' 11.77"						
PIPELINE 91											
29° 04' 32.49"	090° 16' 13.07"	29° 04' 17.23"	090° 15' 56.91"	29° 04' 03.72"	090° 15' 40.26"	29° 03' 52.66"	090° 15' 28.38"				
PIPELINE 92											
29° 03' 24.14"	090° 15' 08.00"	29° 04' 28.51"	090° 14' 43.74"								

APPENDIX III. FINAL PROGRESS SKETCH AND SURVEY OUTLINE



Sheet	Reg_No.	Started	Monthly Progress			Cumulative Progress			Completed	Submitted
			LKM	LNM	SQNM	% Complete	LNM	SQNM		
A	H11783	10/22/2008	0.00	0.00	0.00	100%	4020.78	64.79	6/30/2009	
B	H11784	1/22/2009	0.00	0.00	0.00	100%	3666.04	60.14	6/30/2009	
C	H11785	3/16/2009	68.30	36.88	0.00	100%	3278.24	63.11	7/4/2009	

Downtime Type (Days)	Oct 08	Nov 08	Dec 08	Jan 09	Feb 09	Mar 09	Apr 09	May 09	Jun 09	Jul 09
Weather	3.30	7.30	10.00	22.20	24.30	28.70	42.80	24.20	5.40	0.00
Equipment	0.00	0.20	3.60	0.50	0.40	0.60	0.10	0.00	1.80	0.00
Vessel	0.00	2.00	0.10	0.50	0.60	2.90	0.50	0.50	4.00	0.00
Off Project	21.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.00
Vessel Shutdown	0.00	5.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Accomplished	Oct 08	Nov 08	Dec 08	Jan 09	Feb 09	Mar 09	Apr 09	May 09	Jun 09	Jul 09
Days at Sea *	10	25	23	31	28	31	30	31	30	4
Survey Days	6.7	15.5	9.3	33.8	30.7	29.8	16.6	37.3	25.4	4.0
LNM Side Scan Sonar	250.43	849.89	465.06	1809.18	1669.31	1542.72	673.87	1732.07	1153.02	0.00
LNM Singlebeam	394.82	893.20	508.10	1935.10	1714.34	1708.92	684.88	1796.49	1292.33	0.00
LNM Multibeam**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15.68	36.88
Total LNM	394.82	893.20	508.10	1935.10	1714.34	1708.92	684.88	1796.49	1308.01	36.88
Total LKM	731.20	1654.20	941.00	3583.80	3174.96	3164.92	1268.40	3327.10	2422.40	68.30
SQ NM	10.60	17.73	11.83	27.18	30.77	28.34	11.37	29.41	20.81	0.00
Sound Speed Profile Casts	18	38	24	81	72	88	57	89	68	16
AWOIS Investigations	0	0	0	0	0	0	0	0	0	0
Bottom Samples	0	0	0	24	2	0	63	52	38	0
Tide Gauges Installed	1	1	1	1	1	1	1	1	1	1
Position Control Stations Installed	0	0	0	0	0	0	0	0	0	0

*Partial days are counted as whole **Multibeam used for Item investigations only

Figure Appendix III-1. Final Progress Sketch for H11785

The Survey Outline for H11785 was delivered to the COTR, on 28 July 2009 in file H11783_H11784_H11785_Survey_Outlines.zip. The WinZip file contained a DXF format survey outline in lat/long format for import into MapInfo for each sheet surveyed. The survey outline file for Sheet C (H11785_LL_R12_07282009.dxf) is also part of this delivery. Figure Appendix III-2 demonstrates the graphical depiction of the DXF.

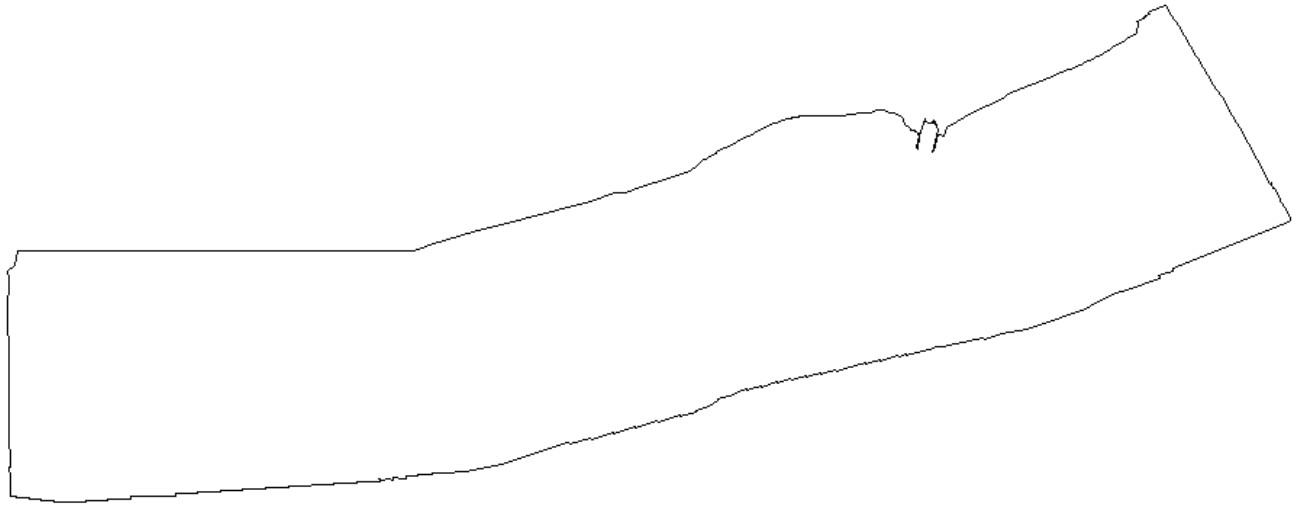


Figure Appendix III-2. Survey Outline for H11785

APPENDIX IV. TIDES AND WATER LEVELS

The on-line times for acquisition of valid hydrographic data are presented in the Abstract of Times of Hydrography, H11785.

Project: OPR-K977-SA-08
Registry No.: H11785
Contractor Name: Science Applications International Corporation
Date: 04 July 2009
Sheet Letter: C
Inclusive Dates: 16 March 2009 – 04 July 2009

Field work is complete.

Table Appendix IV-1. Abstract Times of Hydrography, H11785

Begin Date	Begin Julian Day	Begin Time	End Date	End Julian Day	End Time
03/16/2009	075	13:12:52	03/21/2009	080	15:48:19
03/30/2009	089	15:29:58	03/30/2009	089	18:28:06
04/02/2009	092	13:10:15	04/04/2009	094	15:46:30
04/08/2009	098	13:30:49	04/08/2009	098	18:46:28
04/14/2009	104	20:27:03	04/15/2009	105	18:12:11
04/20/2009	110	16:25:22	04/23/2009	113	16:40:32
04/29/2009	119	15:00:54	05/02/2009	122	20:22:50
05/05/2009	125	13:50:53	05/05/2009	125	20:06:36
05/10/2009	130	14:39:04	05/17/2009	137	17:47:59
05/23/2009	143	12:28:18	05/31/2009	151	21:35:56
06/05/2009	156	12:26:19	06/21/2009	172	16:30:27
06/23/2009	174	12:27:02	06/23/2009	174	21:44:53
06/25/2009	176	12:16:51	06/26/2009	177	16:52:22
06/30/2009	181	19:56:55	07/04/2009	185	16:54:01

Final Tide Note

Observed verified water levels were downloaded from the http://tidesandcurrents.noaa.gov/ web site for Port Fourchon, LA (8762075). Water Level correctors were prepared for each zone using the **SABER/Tools/Create Water Level Files** software. **SABER/Apply Correctors/Tides** software applied these files to the multibeam data according to the zone containing the nadir beam of each ping.

Analysis of the H11785 multibeam data in the **SABER Multi-View Editor** and in depth grids revealed minimal depth jumps across the junction of zones based on Port Fourchon, LA (8762075). A spreadsheet analysis also confirmed the adequacy of zoning correctors based on Port Fourchon, LA (8762075). The water level zoning correctors based entirely on Port Fourchon, LA (8762075) was applied to all multibeam data for H11785.

From: Evans, Rhodri E.
Sent: Monday, January 05, 2009 9:41 AM
To: Donaldson, Paul L.; Davis, Gary R.; Quintal, Rebecca T.
Cc: 'Crescent.Moegling@noaa.gov'; 'Mark.T.Lathrop@noaa.gov'
Subject: RE: Status of SAIC Task Orders

SAIC: Mark Lathrop has re-confirmed this morning that we can dispose of bottom samples on the Terrebonne Bay project after digital photography and description.

Regards, RE.

From: Evans, Rhodri E.
Sent: Monday, January 05, 2009 7:07 AM
To: 'Mark.T.Lathrop@noaa.gov'
Cc: 'Crescent.Moegling@noaa.gov'
Subject: Status of SAIC Task Orders

Mark,

The current status of Task Order #5 MARYLAND (GHJ with Modification for K) and Task Order #6 TERREBONNE BAY (Debris Mapping Sheets ABC) is as follows:

A) Maryland Sheets G, H, J and K (Task Order #5 Mod): Data Processing activity on the Task Order will continue in Newport, RI in the months ahead.

B) Debris Mapping (Task Order #6): As of yesterday 1/4/2009, we are approximately 15.73% complete (a total of 3411 km) of the total 3 sheets on the survey. In addition to the small boat (Sea Beneath) in Cocodrie, LA we have also transited the second boat (Lacey Marie) to Cocodrie, and are completing SAT today.

The survey operations were intermittent in the past week due to weather and some technical challenges (damaged bow mount due to hitting a semi-submerged wood piling and a side scan TPU problems). We expect to resume side scan survey on Sea Beneath today.

We collected 24 bottom samples yesterday. Please re-confirm that we can dispose of these after digital photography and description.

The next status report will be on Thursday, 8th January 2009. Please confirm if you will be visiting SAIC in Newport on that day as discussed previously?

Regards,
-Rod Evans.

From: Crescent Moegling [Crescent.Moegling@noaa.gov]
Sent: Tuesday, December 09, 2008 5:17 PM
To: undisclosed-recipients
Subject: Target review with OR/R and FEMA

All,

Some questions have recently come back from our partners at FEMA and OR/R regarding the target review process for your project in the Gulf of Mexico. The SOW indicates that 75 targets are required per sheet. I am sure there are instances when there are not 75 targets within a sheet and I would like to clarify that this number should encompass the entire project. That is to say, if Sheet A has 50 targets and Sheet B has 100, the budget of 150 alloted targets should be weighed between both sheets.
The reason this has come up is there may be cases when FEMA reviews your targets and would like to see a MB development on a target you didn't intend to resurvey. I have discussed this with OR/R and have concluded we will permit some guidance from FEMA once your initial assessments (post 200% SSS and pre MB developments) have been made. Here is the how the process will go:

- KR will submit a fully vetted spreadsheet of targets which have been surveyed with 200% SSS prior to MB operations. One enhancement to this process is that I would like you to indicate in this spreadsheet (in the comment field) which targets you intend to review further with MB developments.

- FEMA will review the targets and provide any feedback on additional targets they'd like to see covered with MB as well as which targets are eligible for removal. While I don't anticipate the targets that FEMA wants MB over will differ from the ones you the surveyor will choose, there may be cases where this happens and I'd like you to extend some flexibility in adding additional targets for MB investigation when necessary. If there is an instance when the total number of targets exceeds what you are alloted for your entire project please notify me and we will work with OR/R and FEMA is coming to a resolution.

Lastly I'd like to remind you that NOAA/OCS is simply providing hydrographic survey data and at no time should you be attempting to direct FEMA, OR/R or the state partners in what is eligible for removal.
While I understand that our hydrographic survey methods have explicit details for what constitutes a significant feature, FEMA does not follow that same criteria. Please keep this in mind when participating in the target review sessions.

If you have any questions please do not hesitate to contact me.

--
Crescent Moegling
NOAA Hydrographic Surveys Division
Branch Chief - Data Acquisition Control
301.713.2700 x111

Marine Science and Technology Division,
221 Third Street , Building A,
Newport RI 02840 USA .
Tel (401) 848.4783.
Mobile (401) 439.1037.
Email: evansrh@saic.com

"It never gets easier, you just go faster."
-Greg LeMond

---- Original Message -----
From: Catherine Perren <Catherine.A.Perren@noaa.gov>
To: Lepore, Christine A.
Sent: Tue Mar 18 17:18:21 2008
Subject: Request for Proposal, Hydrographic Survey Services

Ms. Lepore,

Attached is a Request for Proposal and a Statement of Work for the Hydrographic Survey Services. The due date of this proposal is April 2, 2008. If you have any questions, feel free to contact me.

Catherine

Question 12:

Section 6.3 Interim Deliverables states that "Additionally, JPGs (or photos if the feature is above the water line) of these features shall be submitted." SAIC request that TIFF images be allowed for the feature images. Please let us know if this is acceptable.

Question 13:

Attachment 13 IT Security Requirements . We have discussed this briefly in the past with you. Would you please provide guidance on how NOAA have worked in the past with contractors regarding these IT requirements, specifically where reference is made to joint COTR and Contractor actions that are to be taken.

Many thanks, RE.

From: Evans, Rhodri E.
Sent: Wednesday, March 19, 2008 9:22 AM
To: Crescent Moegling; Mark.T.Lathrop
Cc: Jeff Ferguson; Lepore, Christine A.
Subject: FW: Request for Proposal, Hydrographic Survey Services
Importance: High

Crescent and Mark,

You will see below that we have received the formal RFP for the Debris Mapping task order from your contracts office last night (I have deleted the attachments). We greatly welcome this, and thank you.

In accordance with discussions over the past several months, and specifically during our meeting on 27th February 2008 in Silver Spring , we are today writing to your contracts office formally requesting a 2 week extension to the proposal submission date. This would make the submission due 16th April 2008.

We believe that this request is reasonable given the logistic complexity of operations in this relatively remote area. We plan to have SAIC personnel and our sub-contractors visit the field area next week. We believe this to be a critical part of formulating a quality proposal.

I hope you find this request acceptable. We have some questions on the Statement of Work, and I will endeavor to forward these later today.

Many thanks, RE.

Rod Evans Ph.D.,
AVP & Marine Survey Manager,
Science Applications International Corporation,

Attachment 8 AWOIS List was not included in the SOW provided to SAIC. Please provide this information as soon as possible, as it will be required to finalize our survey plans for the proposal.

Question 7:

Section 6.2 Digital Data Files states that "The final depth information from the survey will be composed of a collection of grids or Navigation Surfaces." Please confirm if both the multibeam data collected over the 75 most significant contacts for each survey sheet and the singlebeam data collected for main scheme and cross lines should be included in the Navigation Surfaces (delivered as CARIS BASE or BAG surfaces).

Question 8:

Section 6.2 Digital Data Files also states "The DR shall discuss the uncertainty and total propagated error (TPE) of the data and describe what portions of the swath (if any) meet IHO Order 1 specifications." We assume that the accuracy requirements as defined in Section 5.1 of the NOS Specifications and Deliverables (April 2007) are applicable to this survey. This section states: "These standards apply regardless of the method of determination; whether by single beam echosounder, multibeam echosounder, lead line or diver investigation. "

Question 9:

Section 6.2.1 XYZ File states "A 5 meter XYZ file of all bathymetry will be included in the final digital submission. Position (X and Y) shall be in Lat/Long, NAD83 (DMS)." Please confirm what type of grid the XYZ file should be produced from (i.e. average, minimum, CUBE depth).

Question 10:

Section 6.2.1 XYZ File also states "Soundings shall be in meters to three decimal places." And Attachment 5 Task Order Requirements states that "Sounding data shall be acquired and recorded in meters with millimeter precision." Previous discussions about precision on other task orders have noted that precision should be to centimeter precision. Please confirm precision for both acquired bathymetry data and XYZ deliveries.

Question 11:

Section 6.2.3 S-57 Feature File states " In addition, single beam soundings will be included in the S-57 feature file portrayed at survey scale." while Section 8.2 S-57 Feature File in the NOS Specifications and Deliverables (April 2007) states that "The S-57 feature file contains all the attributed information on specific objects that cannot be portrayed in a simple depth grid." Please confirm that the singlebeam data should be included in the Navigation Surfaces (See question 7 above) (delivered as CARIS BASE or BAG surfaces) and also in the S-57 Feature file.

There are discrepancies in the SOW regarding the version of the NOS Specifications and Deliverables. Please confirm that the April 2007 version is the correct version.

Question 3:

Please clarify the sonars required for the survey: We believe it is 200% side scan with single beam and then SWMB coverage over the 75 most significant contacts for each survey sheet. The below three sections do not always list all three types of sonars required.

¨ Section 3.1 states "The Contractor shall acquire imagery data using 200% side scan sonar (SSS) and acoustic data using a shallow water multibeam sonar system. See SOW Attachment 5 for coverage requirements."

¨ Section 3.2 states "This project requires 200% SSS coverage only. Items deemed significant based on T.S. Section 6.3.2 shall be investigated with a shallow water multibeam (SWMB) sonar system. See SOW Attachment 5 for SWMB coverage requirements."

¨ Section 3.3 Single Beam Echo Sounder does not show any requirement.

¨ Attachment 5 states: "Towed Side Scan Sonar" has a requirement of "200% as defined in TS 6.1. The inshore limit shall be the 4-foot contour."; "Single Beam Echosounder" has a requirement of "Required in conjunction with SSS if SWMB is not run concurrently."; and "Shallow Water Multibeam Coverage" has a requirement of "SWMB coverage shall be obtained, such that the 75 most significant SSS contacts of each survey (H-number) have a least depth that meets the accuracy requirements defined in TS 5.1.1 and 5.1.2.

Please clarify the sonar configuration that is required.

Question 4:

Section 5.1 Bottom Sediment Samples states" In anchorages, the distance between bottom samples shall not exceed 1200 meters. The distance between samples in other areas shall not exceed 2000 meters." Whereas Attachment 5 Task Order Requirements states "As required to verify charted bottom characteristics." Please confirm bottom sample requirements.

Question 5:

Section 5.3 AWOIS Items states that "AWOIS items will be assigned for this project and all charted wrecks, rocks and obstructions shall be verified during main-scheme survey operations." Please confirm that charted wrecks, rocks and obstructions that are not also part of the 75 most significant contacts for each survey sheet, shall be verified during main scheme side scan sonar and singlebeam collection only and further, additional, coverage of the items is not required.

Question 6:

our IT folks and we've tried to explain to them several times that this never happens but they still insist this clause be included in the SOW.

Evans, Rhodri E. wrote:

Crescent and Mark,

Our team have now completed a detailed reconnaissance of the Terrebonne Bay area in Louisiana. Our proposal effort is progressing well. However, there are some issues that require additional information and clarification in order for us to complete the FFP proposal.

Please advise us at your earliest convenience on the issues discussed below, in particular details relating to tides and AWOIS items.

Thx, RE.

From: Evans, Rhodri E.
Sent: Thursday, March 20, 2008 9:39 AM
To: 'Crescent Moegling'; 'Mark.T.Lathrop'
Cc: 'Jeff Ferguson'; Lepore, Christine A.
Subject: RE: Request for Proposal, Hydrographic Survey Services
Importance: High

Crescent and Mark,

Further to our request yesterday to your contract office for a 2-week extension to the proposal deadline, we are able to advise you and are very grateful that this has been accepted and the proposal is now due on 16th April 2008. This allows us the time to visit the field area with our sub-contractors next week for reconnaissance and planning purposes.

In our initial review of the Statement of Work for the Debris Mapping task order, we have the following questions and requests for clarification. Please note that many of these issues have been discussed between us in past task orders, but we are repeating them here in order to collate the questions under one heading relating to this latest RFP:

Question 1:

Attachment 6, which contains tide information, was not included in the SOW provided to SAIC. Please provide this information as soon as possible, as it will be an integral part of our proposal response and dictate some of the activity on our reconnaissance visit to the field area next week.

Question 2:

From: Crescent Moegling [mailto:Crescent.Moegling@noaa.gov]
Sent: Friday, March 28, 2008 11:16 AM
To: Evans, Rhodri E.
Cc: Mark.T.Lathrop; Jeff Ferguson; Lepore, Christine A.
Subject: Re: Request for Proposal, Hydrographic Survey Services

Rod,

1. Attached are zone files and the tide SOW for the area you will be surveying. Please disregard the project number as this area was previously slated to be surveyed as an 'address survey backlog' project. This will be corrected in a forthcoming SOW. There is one installation requirement at Raccoon Point but if after your recon an alternative location is necessary, communicate with Manoj Samant of CO-OPS (contact info previously provided).

2. We are about to release a new Spec/Del which has changes that will not impact your requirements for the project. For now assume the version is April, 2007.

3. You are required to acquire 200% SSS with concurrent VBES or if you would like, concurrent MB. The MB is only required for the development of the 75 most significant items.

4. Follow the guidance of Section 5.1 for bottom samples. Also note these will be handed over to LSU for sediment analysis so we'll require you to keep them. I believe Patrick Fink will be picking them up when notified.

5. All charted wrecks, rocks and obstructions will be noted during mainscheme and addressed in the final report. If during mainscheme an item is found in the 200% SSS (charted or not) it will be investigated with MB to determine a least depth.

6. Also attached is a listing of AWOIS items of which there are 12.

7. VBES and MB will be included in the final navigation surface.

8. Accuracy requirements are defined in Section 5.1 of the spec/del.

9. Generate the XYZ from whatever the final deliverable surface happens to be.

10. Precision will be to centimeter.

11. VBES will be included in S-57 file and Navigation surface.

12. TIFF is acceptable.

13. This IT requirement section requires no action on either or our parts as it refers to occasions where the contractor accesses a federal network and/or data. It is a requirement from

- 14 to 30 meter depths; 1.0 meter grid resolution,
- 29 to 60 meter depths; 2.0 meter grid resolution,
- 59 to 150 meter depths; 5.0 meter grid resolution,
- deeper than 149 meter depths; 10.0 meter grid resolution.

The hydrographer may adjust these values based on the bathymetry of the survey area, the type of multibeam sonar used and other factors.

For the Terrebonne sheets we are in water depths that suggest using a 0.5 node spacing for the deliverable BAGS (max depth we see on the charts is ~40 feet). However, to meet the requirement to deliver 5m XYZ files we would have to create new grids just to generate the XYZ file from. Also since the vast majority of the data in the Terrebonne BAGs will be singlebeam (except the 75 most significant items on each sheet to be covered by multibeam), it seems that the appropriate node spacing should be no less than 1.0 meter and probably 5.0 meters is more appropriate. Therefore SAIC propose to deliver BAGs at 5 meter node resolution and will delivery 5 meter XYZ files generated from these same BAGs. Please confirm if this node spacing is acceptable.

Similar to requests that SAIC made for the Lake Borgne Debris Mapping surveys, SAIC have several requests regarding the Excel Feature Spreadsheet weekly submission, and also the Side Scan Sonar Contact List which is delivered as part of the final delivery for each sheet. Note that in both cases, SAIC are requesting to deliver the Excel Feature Spreadsheet and the Side Scan Sonar Contact List in the same manner that they were delivered for the last debris mapping survey (Lake Borgne).

1.. In both the Excel Feature Spreadsheet weekly submission and the Side Scan Sonar Contact List final deliverable, SAIC request that the Line Name (Excel Feature Spreadsheet weekly submission) and the Search Track Number (Side Scan Sonar Contact List) column not be required. The contact numbers generated by SAIC are annotated by Julian Day and time so a reviewer can always correlate a contact to a certain survey line, corresponding bathymetry file, etc. For the Excel Feature Spreadsheet weekly submission, SAIC propose to include the column in the Excel spreadsheet but populate it with “NA”. For the Side Scan Sonar Contact List, SAIC propose not including the column in the spreadsheet. Please confirm if this approach is acceptable.

2.. In the Excel Feature Spreadsheet weekly submission, SAIC request that the Target Length not be required to be the longest side and likewise that the Target Width not be required to be the shortest side. SAIC uses Isis to review side scan data. In Isis the length is always the along track dimension and the width is always the across track dimension. Therefore you can have a width measurement that is longer than the length measurement. SAIC will provide clarification and a description of contact measuring within Isis in the DAPR. Please confirm if this approach is acceptable.

Best Regards, RE.

From: Mark.T.Lathrop [Mark.T.Lathrop@noaa.gov]
Sent: Tuesday, October 21, 2008 3:25 PM
To: Evans, Rhodri E.
Cc: Crescent.Moegling@noaa.gov; Donaldson, Paul L.; Davis, Gary R.; Quintal, Rebecca T.
Subject: Re: Bottom Samples
Rod,

You may discard the bottom samples after description and photography.

Mark

Evans, Rhodri E. wrote:
Mark,

We will commence survey in Terrebonne Bay, LA tomorrow. When we start bottom sampling, please advise if we should retain the samples or discard them after description and photography?

Regards, RE.

_ Fw: Request for Proposal, Hydrographic Survey ServicesFrom: Mark.T.Lathrop [Mark.T.Lathrop@noaa.gov]
Sent: Friday, April 11, 2008 9:09 AM
To: Evans, Rhodri E.
Cc: Crescent Moegling; Lepore, Christine A.; Quintal, Rebecca T.
Subject: Re: Request for Proposal, Hydrographic Survey Services
Rod,

You can grid at a 1m resolution which will fulfill the 5m xyz requirement. The other two proposals are fine but must be addressed in your DR.

Mark

Evans, Rhodri E. wrote:
Crescent and Mark,

Regarding your responses below, we have one item that we would like clarification on and we also have two additional questions.

For item number 9 below: We will be generating BAG surfaces for each sheet. According to Section 5.1.1.3. Gridded Data Specifications in the April 2007 S&D which states:

An example distribution of grid resolution;
- 0 to 15 meter depths; 0.5 meter grid resolution,

CORRESPONDENCE

From: Evans, Rhodri E.
Sent: Thursday, August 28, 2008 1:25 PM
To: Quintal, Rebecca T.; Infantino, Jason
Cc: Donaldson, Paul L.; Davis, Gary R.
Subject: FW: Sharepoint posting requirements

-----Original Message-----
From: Crescent Moegling [mailto:Crescent.Moegling@noaa.gov]
Sent: Thursday, August 28, 2008 1:19 PM
To: undisclosed-recipients
Subject: Sharepoint posting requirements

All,

To clarify what gets posted to the sharepoint for the J977/K977 marine debris projects:

1. A contact spreadsheet by sheet (H number) that contains target information for items surveyed with 200% SSS and thoroughly vetted and correlated. This will provide a more meaningful product to the FEMA folks doing the eligibility determinations.

2. 200% coverage polygon (to be posted weekly).

I will be providing an addendum to your SOW sometime next week for your records.

Thanks,

--
Crescent Moegling
NOAA Hydrographic Surveys Division
Branch Chief - Data Acquisition Control
301.713.2700 x111

Subject:
Re: Up-to-date imagery
From:
Tim Blackford <Tim.Blackford@noaa.gov>
Date:
Wed, 06 Oct 2010 12:16:50 -0400
To:
"norris.a.wike" <Norris.A.Wike@noaa.gov>
CC:
Jonathan Neuhaus <Jonathan.Neuhaus@noaa.gov>, Richard T Brennan <Richard.T.Brennan@noaa.gov>, Edward Owens <Edward.Owens@noaa.gov>, Ward Kyle <Kyle.Ward@noaa.gov>

Norris,
The most up to date orthoimagery for this area was collected between May and June of this year in response to the BP oil leak, and is available for download from the USGS Hazards Data Distribution System (HDDS). I've never used the site myself, but it seems that it no longer requires you to have Google Earth, so you should be able to download the imagery:
http://hdds.usgs.gov/hdds2/

If you need updated shoreline, then you should know that we compiled and released new shoreline for this area this year. It is available on the NOAA Shoreline Data Explorer (which unfortunately is down at the moment, but should be back up within the hour):
http://www.ngs.noaa.gov/newsys_ims/shoreline/index.cfm

As I said in August, AHB should not be requesting orthos and/or shoreline directly from RSD. The procedure that has been worked out requires you to go through Kyle Ward in HSD-Ops for these requests. I have cc'd Kyle on this email, and he can update you on the latest procedures.

-Tim

norris.a.wike wrote:
>
> I am writing to request the most up-to-date orthoimagery for Louisiana, Gulf of Mexico, vicinity of Caillou Bay UTM Zone 15 to Timbalier Bay UTM Zone 15. I will need imagery for the coastal areas from LON 90-08-00 to LON 91-03-00. The coordinates of the surveys are as follows:
>
> NW Lat 29-14-00 Long 91-02-00
> NE Lat 29-08-30 Long 90-08-00
> SE Lat 28-59-00 Long 90-08-00
> SW Lat 28-59-00 Long 91-02-00
>
> Thank you for you help with this request. Please let me know via e-mail or phone at 757-441-6586 (x102) when this orthoimagery will be available for use.
>
> Norris A. Wike, Cartographer
> Atlantic Hydrographic Branch

JD	Sample Number	Bottom Sample Position (NAD83)		Observed Bottom Type	Depth of Bottom Sample (m)	Depth Uncert. (m)	Charted Bottom Type within 1000 m radius					
		Latitude (N)	Longitude (W)				11352	11340	11357	11358	11346_1	11346_2
173	C-BS-23	29° 03’ 06.0”	090° 16’ 17.3”	gyCy	9.2	0.30						M; M
173	C-BS-22	29° 02’ 41.6”	090° 17’ 25.3”	gyCy	9.7	0.30						M; SM
173	C-BS-21	29° 02’ 18.7”	090° 18’ 34.2”	gyCy	9.93	0.30			M			
173	C-BS-20	29° 01’ 53.9”	090° 19’ 43.5”	gysftCy	10.08	0.30						
173	C-BS-47	29° 03’ 13.7”	090° 21’ 39.9”	gyM S	4.54	0.30						
173	C-BS-37	29° 02’ 58.4”	090° 19’ 32.9”	gyM	7.96	0.30			M			
173	C-BS-36	29° 03’ 22.4”	090° 18’ 25.0”	gyM S Sh	7.59	0.30			M			M
173	C-BS-33	29° 04’ 33.4”	090° 14’ 54.7”	gyCy Sh	5.72	0.30						
173	C-BS-32	29° 04’ 58.1”	090° 13’ 49.0”	gyM S	2.93	0.30						
176	C-BS-8	29° 03’ 13.6”	090° 13’ 01.9”	gyCy	10.78	0.30						
176	C-BS-7	29° 03’ 37.6”	090° 11’ 53.5”	gyCy	10.74	0.30						
176	C-BS-29	29° 06’ 10.1”	090° 10’ 23.7”	gyCy	6.10	0.30						h
176	C-BS-30	29° 05’ 46.7”	090° 11’ 31.8”	gyS Cy Sh	4.09	0.30						
176	C-BS-31	29° 05’ 22.5”	090° 12’ 40.7”	gyS Cy Sh	3.08	0.30						

It is recommended that the bottom type charted be updated where necessary based on the information collected during the latest survey. Charted bottom type recorded in table above reprsents all charted bottom types for each chart within a 1000 meters radius of each bottom sample position.

BOTTOM COMPOSISTION

There were 49 bottom samples taken to verify the bottom types charted for H11785. Table Appendix V-1**Error! Reference source not found.** compares information for each sample collected to the charted bottom type. A photograph of each bottom sample is provided in the Appendix_V_Files folder.

Table Appendix V-1. H11785 Bottom Sample Characteristics

JD	Sample Number	Bottom Sample Position (NAD83)		Observed Bottom Type	Depth of Bottom Sample (m)	Depth Uncert. (m)	Charted Bottom Type within 1000 m radius					
		Latitude (N)	Longitude (W)				11352	11340	11357	11358	11346_1	11346_2
094	C_BS-43	29° 01’ 38.1”	090° 26’ 15.0”	fneS	6.48	0.30			M			
094	C_BS-42	29° 00’ 57.0”	090° 25’ 15.5”	M	9.10	0.30			M			
094	C_BS-44	29° 02’ 02.0”	090° 25’ 05.8”	fneS	4.89	0.29						
151	C-BS-12	29° 01’ 38.4”	090° 17’ 37.7”	gyCy	11.42	0.30						M
151	C-BS-13	29° 01’ 13.7”	090° 18’ 46.8”	brCy	11.35	0.30						
151	C-BS-14	29° 00’ 49.6”	090° 19’ 53.8”	brCy syM	11.52	0.30						
151	C-BS-15	29° 00’ 26.9”	090° 21’ 05.0”	brCy	11.82	0.30						
151	C-BS-16	29° 01’ 06.3”	090° 22’ 01.5”	gyCy brM	10.16	0.30						
151	C-BS-40	29° 01’ 46.1”	090° 22’ 59.1”	brCy brkSh	8.36	0.30			S			
151	C-BS-39	29° 02’ 11.9”	090° 21’ 51.0”	gyM	8.46	0.30			S			
151	C-BS-46	29° 02’ 50.8”	090° 22’ 49.2”	fneS brkSh	4.43	0.30						
157	C-BS-18	29° 00’ 17.4”	090° 24’ 17.7”	brM Cy	10.99	0.30						
157	C-BS-17	29° 00’ 41.8”	090° 23’ 08.3”	brM Si Cy	10.51	0.30						
157	C-BS-19	29° 01’ 32.9”	090° 20’ 52.8”	brCy	10.01	0.30	M		M			
157	C-BS-10	29° 02’ 26.6”	090° 15’ 19.6”	brCy M	11.01	0.30						so M
157	C-BS-11	29° 02’ 02.1”	090° 16’ 28.3”	brCy	11.24	0.30			M; so			S

JD	Sample Number	Bottom Sample Position (NAD83)		Observed Bottom Type	Depth of Bottom Sample (m)	Depth Uncert. (m)	Charted Bottom Type within 1000 m radius					
		Latitude (N)	Longitude (W)				11352	11340	11357	11358	11346_1	11346_2
									M			
157	C-BS-41	29° 01’ 22.3”	090° 24’ 08.7”	M brkSh Cy	8.59	0.30	M					
158	C-BS-45	29° 02’ 27.3”	090° 23’ 57.5”	brfneS brkSh	4.38	0.30						
158	C-BS-49	29° 02’ 41.1”	090° 26’ 04.2”	brfneS	3.32	0.30						
172	C-BS-34	29° 04’ 09.9”	090° 16’ 06.3”	gyCy	6.72	0.30						SM; S
172	C-BS-35	29° 03’ 46.1”	090° 17’ 15.6”	gyCy Sh	7.07	0.30			M			S; S; S
172	C-BS-38	29° 02’ 31.7”	090° 20’ 41.0”	gyCy	8.02	0.30						
173	C-BS-48	29° 03’ 07.2”	090° 24’ 50.1”	gyM S Sh	2.89	0.29						
173	C-BS-9	29° 02’ 48.7”	090° 14’ 05.0”	gyCy	10.89	0.30						
173	C-BS-1	29° 02’ 09.5”	090° 13’ 12.4”	gyCy	12.32	0.30						
173	C-BS-2	29° 02’ 33.5”	090° 12’ 02.9”	gyCy	12.26	0.30						
173	C-BS-3	29° 02’ 57.7”	090° 10’ 55.7”	gyCy	12.42	0.30						
173	C-BS-4	29° 03’ 21.1”	090° 09’ 47.3”	gyCy S	12.53	0.30						
173	C-BS-5	29° 04’ 25.6”	090° 09’ 35.4”	gyM	11.50	0.30						h
173	C-BS-6	29° 04’ 01.7”	090° 10’ 43.6”	gyCy	11.0	0.30						M
173	C-BS-28	29° 05’ 05.8”	090° 10’ 33.8”	gyM	9.6	0.30				M		Sy M; Sy; M; h;
173	C-BS-27	29° 04’ 42.0”	090° 11’ 42.2”	gyCy	9.0	0.30						
173	C-BS-26	29° 04’ 17.9”	090° 12’ 51.2”	gyCy Sh	8.8	0.30					M	
173	C-BS-25	29° 03’ 53.7”	090° 13’ 59.7”	gyCy	9.0	0.30						
173	C-BS-24	29° 03’ 29.8”	090° 15’ 09.0”	gyCy	9.3	0.30						

JD	Sample Number	Bottom Sample Position (NAD83)		Observed Bottom Type	Depth of Bottom Sample (m)	Depth Uncert. (m)	Charted Bottom Type within 1000 m radius					
		Latitude (N)	Longitude (W)				11352	11340	11357	11358	11346_1	11346_2
173	C-BS-23	29° 03’ 06.0”	090° 16’ 17.3”	gyCy	9.2	0.30						M; M
173	C-BS-22	29° 02’ 41.6”	090° 17’ 25.3”	gyCy	9.7	0.30						M; SM
173	C-BS-21	29° 02’ 18.7”	090° 18’ 34.2”	gyCy	9.93	0.30			M			
173	C-BS-20	29° 01’ 53.9”	090° 19’ 43.5”	gysftCy	10.08	0.30						
173	C-BS-47	29° 03’ 13.7”	090° 21’ 39.9”	gyM S	4.54	0.30						
173	C-BS-37	29° 02’ 58.4”	090° 19’ 32.9”	gyM	7.96	0.30			M			
173	C-BS-36	29° 03’ 22.4”	090° 18’ 25.0”	gyM S Sh	7.59	0.30			M			M
173	C-BS-33	29° 04’ 33.4”	090° 14’ 54.7”	gyCy Sh	5.72	0.30						
173	C-BS-32	29° 04’ 58.1”	090° 13’ 49.0”	gyM S	2.93	0.30						
176	C-BS-8	29° 03’ 13.6”	090° 13’ 01.9”	gyCy	10.78	0.30						
176	C-BS-7	29° 03’ 37.6”	090° 11’ 53.5”	gyCy	10.74	0.30						
176	C-BS-29	29° 06’ 10.1”	090° 10’ 23.7”	gyCy	6.10	0.30						h
176	C-BS-30	29° 05’ 46.7”	090° 11’ 31.8”	gyS Cy Sh	4.09	0.30						
176	C-BS-31	29° 05’ 22.5”	090° 12’ 40.7”	gyS Cy Sh	3.08	0.30						

It is recommended that the bottom type charted be updated where necessary based on the information collected during the latest survey. Charted bottom type recorded in table above reprsents all charted bottom types for each chart within a 1000 meters radius of each bottom sample position.

H11785 COMPILATION LOG

General Survey Information	
REGISTRY No.	***H11785***
PROJECT No.	***OPR-K977-SA-08***
FIELD UNIT	***SAIC***
DATE OF SURVEY	***March 16, 2009, to July 4, 2009***
LARGEST SCALE CHART	***11346, 2nd. Ed., 20090401***
SOUNDING UNITS	***Feet***
COMPILER	***Norris Wike***
Source Grids	**File Name**
	h11785_1_of_9.bag h11785_2_of_9.bag h11785_3_of_9.bag h11785_4_of_9.bag h11785_5_of_9.bag h11785_6_of_9.bag h11785_7_of_9.bag h11785_8_of_9.bag h11785_9_of_9.bag
Surfaces	**File Name**
Combined	***H11785_4M_Combined.hns***
Interpolated TIN	***H11785_8M_InterpTIN.hns***
Shifted Interpolated TIN	***H11785_8M_InterpTIN_shifted.hns***
Final HOBs	**File Name**
Survey Scale Soundings	***H11785_SS.hob,***
Chart Scale Soundings	***H11785_CS.hob***
Contour Layer	***H11785_Contours.hob***
Feature Layer	***H11785_Features.hob***
Meta-Objects Layer	***H11785_MetaLayers.hob***
Blue Notes	***H11785_BlueNotes.hob***
ENC Retain	***H11785_ENC_Retain.hob***
Bottom Samples	***H11785_BottomSamples.hob***
Shoreline Construction	***H11785_Shoreline_Construction.hob***

Meta-Objects Attribution	
Acronym	**Value**
M_COVR	
CATCOV	***1***
SORDAT	***20090704***
SORIND	***US,US,graph,H11785***
M_QUAL	
CATZOC	***6***
INFORM	***M/V Sea Beneath MI7826BK, F/V Lacey Marie LA 6708FC***
POSACC	***10***
SORDAT	***20090704***
SORIND	***US,US,graph,H11785***
SUREND	***20090704***
SURSTA	***20090316***
DEPARE	
DRVALV 1	***-1.0 ft***
DRVALV2	***46.0 ft***
SORDAT	***20090704***
SORIND	***US,US,graph,H11785***

M_CSCL	
C_SCALE	***40000***
SORDAT	***20090704***
SORIND	***US,US,graph,H11785***
M_CSCL	
C_SCALE	***80000***
SORDAT	***20090704***
SORIND	***US,US,graph,H11785***

SPECIFICATIONS:

I. COMBINED SURFACE:
   a. Number of ESAR Final Grids: ***9***
   b. Resolution of Combined (m): ***4M***

II. SURVEY SCALE SOUNDINGS (SS):
   a. Radius
   b. Shoal biased
   c. Use Single-Defined Radius (mm at Map Scale):
      i. Radius Value (m): ***NA***
      ii. Or use a Sounding Space Range Table (if applicable): ***H 11785_SS_SSR.txt***

0	***3.658***	***0.8***
3.6581	***5.486***	***1.0***
5.4861	***9.144***	***1.2***
9.1441	***18.288***	***1.4***

   d. Queried Depth of All Soundings
      i. Minimum: ***2.362 ft***
      ii. Maximum: ***44.2257 ft***

III. INTERPOLATED TIN SURFACE:
   a. Resolution (m): ***8M***
   b. Linear
   c. Shifted value: *[-0.229m (feet), (≤ 10 fathoms)]*
      [-1.372m (fathoms), (> 10 fathoms)]

IV. CONTOURS:
   a. Use a Depth List: ***H11785_depth_curves_list.txt***
   b. Line Object: DEPCNT
   c. Value Attribute: VALDCO

V. FEATURES:
   a. Total Number of Features: ***106***
   b. Number of Insignificant Features: ***33***

VI. CHART SURVEY SOUNDINGS (CS):
   a. Number of ENC CS Soundings: ***515***
   b. Radius
   c. Shoal biased
   d. Use Single-Defined Radius: m on the ground
      i. Radius Value (m): ***NA***
      ii. Or use a Sounding Space Range Table (if applicable): ***H 11785_CS_SSR.txt***

0	***3.6580***	***200***
3.65801	***9.1440***	***250***
9.14401	***18.2880***	***350***

   e. Filter: Interpolated != 1
   f. Number Survey CS Soundings: ***730***

VII. Notes:

ATLANTIC HYDROGRAPHIC BRANCH
H-CELL REPORT to ACCOMPANY
SURVEY H11785 (2009)

This H-Cell Report has been written to supplement and/or clarify the original Descriptive Report. Sections in this report refer to the corresponding sections of the Descriptive Report.

B. DATA ACQUISITION AND PROCESSING

B.2. QUALITY CONTROL

H-Cell

The AHB source depth grid for the survey's nautical chart update product entailed the field's original 1m grids. These grids were combined at 4 meter resolution. The survey scale soundings were created from the combined surface using the sounding space range table process. Refer to the Compilation Log above for exact values used for this process. A TIN was created from the survey scale soundings from which an interpolated surface was generated. The chart scale soundings were selected from the filtered interpolated surface using a Sounding Spacing Ranges table at the 1:20,000, 1:40,000 and 1:80000 chart scales. The chart scale selected soundings are a subset of the survey scale selected soundings. The surface model was referenced when selecting the chart scale soundings, to ensure that the selected soundings portrayed the bathymetry within the common area.

Depth contours were created from a shifted interpolated TIN surface of 8m resolution and the contours were then derived from the interpolated and non-interpolated nodes. Therefore, using this method the contours are in harmony with the SS and CS soundings while maintaining the chart equivalent contour values as whole integers. The depth contours are being 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 components (Stand Alone HOB files (SAHOB)) are detailed in the Compile Log attached to the Descriptive Report. The SAHOB files included depth areas (DEPARE), depth contours (DEPCNT), sounding selections (SOUNDG), features (BOYSPP, OBSTN, OFSPLT, PILPNT, SBDARE, UWTROC, WRECKS), Meta objects (M_COVR, M_QUAL, M_CSCL), and cartographic Blue Notes ($CSYMB).

All of the components with the exception of the survey scale sounding selection and depth contours were inserted into one feature layer (including the Bluenotes, as dictated by Hydrographic Technical Directive 2008-8), and this layer was exported into S-57 format in order to create the H-Cell deliverable. Similarly, the survey scale sounding selection and depth contours were exported into S-57 format separately, and then both S-57 files were processed in CARIS HOM to convert the metric units to feet. The final products are two S-57 files, in Lat/Lon NAD-83, one that contains the

Chart soundings, all the Features, Meta objects, and Bluenotes (H11785_CS.000), and one that contains the survey scale sounding selection and depth contours (H11785_SS.000). Finally, quality assurance checks were made utilizing CARIS S-57 Composer version 2.1 validation checks and DKART INSPECTOR version 5.

H11785 CARIS H-Cell final deliverables include the following products:

H11785_CS.000	1:20,000 Scale	H11785 H-Cell with Chart Scale Selected Soundings
H11785_SS.000	1:20000 Scale	H11785 Survey Scale Selected Soundings

Junctions

Survey H11785 has a junction with survey H11784 (2009) to the west. Present survey soundings compare within 1 foot with H11784 (2009).

DATA PROCESSING

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

CARIS HIPS/SIPS version 6.1 SP2, HF 1-8
CARIS Bathy DataBASE version 3.0 HF 1, 3, 5
CARIS S-57 Composer version 2.1 HF 1-4
DKART INSPECTOR, version 5.0 Build 732 SP1
CARIS HOM ENC 3.3 SP3 HF 1-8

C. HORIZONTAL AND VERTICAL CONTROL

The Hydrographer makes adequate mention of all water level and vertical datum adjustments in the Descriptive Report and Horizontal and Vertical Control Report submitted with this project.

The horizontal control used for this survey's data acquisition and H-Cell compilation is based upon the North American Datum of 1983 (NAD83), UTM projection zone 15.

D. RESULTS AND RECOMMENDATIONS

CHART COMPARISON

11346 (2nd. Edition, Apr. /09)
Port Fourchon and Approaches
Corrected through NM 09/11/2010
Corrected through LNM 08/03/2010
Scale 1:20,000 & 1:40,000

11357 (40th. Edition, Jun. /09)
Timbalier and Terrebonne Bays
Corrected through NM 09/11/2010
Corrected through LNM 09/03/2010
Scale 1:80,000

ENC Comparison **US5LA26M**

Port Fourchon and Approaches
Edition 17
Application Date 2010-06-22
Issue Date 2010-07-30
Chart 11346

US4LA29M

Timbalier and Terrebonne Bays
Edition 11
Application Date 2009-10-22
Issue Date 2010-07-07
Chart 11357

Hydrography

The charted hydrography originates with prior surveys and requires no further consideration. The hydrographer makes adequate chart comparisons in section "D" and Appendix 1 of the Descriptive Report. The following should be noted:

An uncharted ***Obstruction*** with a depth of ***25 ft*** in Latitude 29°04'49.63"N, Longitude 090°10'35.94"W was located by the present survey. It is recommended that an ***Obstruction*** with a depth of ***25 ft*** in Latitude 29°04'49.63"N, Longitude 090°10'35.94"W be charted. Add 25 Obstn and danger curve.

ADDITIONAL RESULTS

An email was sent to NGS.Shoreline.Request@noaa.gov requesting the most recent RSD orthoimagery for this project area. A response from Tim Blackford indicated that new shoreline has just been flown. The RSD photogrammetric project 2010_Oilspill_GulfofMexico_AERIAL_NOAA_MOSAIC has coverage over the entire survey area. The project numbers are LA0801A and LA0801B. With the new shoreline data collected the updates to the shoreline are included in this H-Cell deliverable. The final shoreline corrections are deferred to MCD Update Services Branch for charting.

Revise Shorelne
Revise Shorelne
Delete charted feature.
Delete charted feature.
4
12
7
9
21
22
23
23
25
East Timbal
Breakers

MISCELLANEOUS

Chart compilation was done by Atlantic Hydrographic Branch personnel, in Norfolk, Virginia. Compilation data will be forwarded to Marine Chart Division, 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.

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 BASE Cell File or the Blue Notes should be retained as charted. Refer to the Descriptive Report for further recommendations by the hydrographer.

APPROVAL SHEET
H11785 (2009)

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 Evaluation Report.

All final products have undergone a comprehensive reviews 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: 2011.01.10 06:41:38 -05'00'

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.

Richard T. Brennan
I am approving this document
2010.12.29 17:18:29 -05'00'

Approved: _____

Richard T. Brennan
Commander, NOAA
Chief, Atlantic Hydrographic Branch

Digitally signed by Mark Lathrop
DN: cn=Mark Lathrop, o=NOAA, ou=HSD, email=mark.t.lathrop@noaa.gov, c=US
Reason: AWOIS/Surf Check
Date: 2011.01.13 10:54:25 -05'00'