APPENDIX H

CHARLESTON HARBOR POST 45
BENEFICIAL USE OF DREDGED MATERIAL
SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT
CHARLESTON, SOUTH CAROLINA

Side Scan Sonar Results for Additional Hardbottom Habitat Identification in Charleston Entrance Channel

30 September 2016
Geophysical Survey of Area C; Charleston Harbor Entrance Channel

Provided for:

US Army Corps of Engineers
USACE Wilmington District
Attn: Trevor Lancaster
69 Darlington Ave
Wilmington, NC 28403

Provided by:

geodynamics
310 A Greenfield Dr.
Newport, NC 28570

As part of a requested preliminary data product per SOW Section 9.5, provided on: June 9, 2016
# Data Summary

## Project Information

<table>
<thead>
<tr>
<th>Project</th>
<th>Charleston Harbor Entrance Channel – Geophysical Survey</th>
</tr>
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<tbody>
<tr>
<td>Contract</td>
<td>W912PM-16-D-0002</td>
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<tr>
<td>Survey Location</td>
<td>Section EC13 – EC14; Area C</td>
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<tr>
<td>Survey Dates</td>
<td>May 24, 2016</td>
</tr>
<tr>
<td>Surveyors</td>
<td>Ben Sumners, Kristin Hughes</td>
</tr>
<tr>
<td>Captain</td>
<td>Kurt Baker</td>
</tr>
</tbody>
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## Equipment

<table>
<thead>
<tr>
<th>Survey Vessel</th>
<th>RV Benthalos: 30 ft Armstrong Catamaran, Twin Yamaha 300 Motors</th>
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</thead>
<tbody>
<tr>
<td>Sonar</td>
<td>Edgetech 4200 300/600 kHz, EM2040c-D</td>
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<tr>
<td>Frequency/Range</td>
<td>600 kHz / 50 m Range (100 m swath)</td>
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<td>Positioning</td>
<td>Trimble SPS DGPS</td>
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<tr>
<td>Layback Calculation</td>
<td>Manual Corrected Layback – HYPACK Driver</td>
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<td>Acquisition Software</td>
<td>Discover (JSF format), SIS</td>
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<tr>
<td>Processing Software</td>
<td>SonarWiz 6 v6.04.0008, ESRI ArcGIS 10.3, FMGeocoder Toolbox 7.5.1</td>
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## Products Delivered

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<thead>
<tr>
<th>Delivery Format</th>
<th>ESRI ArcGIS 10.3</th>
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<tr>
<td>Spatial Reference</td>
<td>NAD83 2011 South Carolina Int. Ft.</td>
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<td>Ecology_reef_habitat_area</td>
<td>SDSFIE polyline feature class indicating areas of potential hard bottom</td>
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<tr>
<td>SeabedArea</td>
<td>SDSFIE feature class polygonal area of the “bottom of water body”, in this instance indicating areas of high/medium/low reflectance</td>
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<td>C_sss.tif</td>
<td>8-bit 1-band GeoTIFF of side scan sonar intensity translated in 0 – 255 pixels, 0.2 ft resolution</td>
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<tr>
<td>C_bkstr</td>
<td>Raster grid of normalized backscatter from EM2040c-D</td>
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<tr>
<td>Layer Files</td>
<td>Layer files displaying optimized views for respective datasets</td>
</tr>
<tr>
<td>Images</td>
<td>Basic maps for viewing and presentation</td>
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Synopsis

Abstract
This hydrographic survey was conducted roughly 12 nautical miles (NM) from the inlet to Charleston Harbor at a ~0.43 NM area between channel sections EC-13 and EC-14, referred to as “Area C”. Within this Task Order, “Area C” was the only site to have side scan sonar (SSS) data collected. SSS data was collected at 125 ft spaced lines at a 160 ft range using the 600 kHz frequency from an Edgetech 4200 sonar. Per SOW, this dataset was dictated to be processed and delivered as soon as possible. To provide the most thorough interpretations within a timely manner, multibeam bathymetry, backscatter reflectivity, and sub-bottom profiles were processed to a preliminary phase to provide reference material to delineate areas of “potential hardbottom”. As processing continues and correlations progress, these delineations may be subject to change.

Digitization
The areas initially digitized as potential hardbottoms, or reef_habitat_area per SDSFIE Feature Class (v2.6), represent features interpreted as outcrops, rock ledges, or exposed substrate. While these areas represent specific sites of potential hardbottoms, other portions of the surficial geology may present semi-indurated areas of seafloor, as noted by trawl/dredge scar features imprinted upon bedform features, mostly in the NW third of the survey area. This leaves question to the mobility vs. induration of the observed bedform features, and whether these areas that appear to be indurated or semi-indurated should be classified as “potential hardbottom”. To address the generally high reflectivity of these areas, an interpretation of the reflectivity for the area was generated from SSS imagery, with assistance from backscatter reflectivity. A SeabedArea SDSFIE Feature Class was generated to denote areas of high, medium and low reflectivity. While areas of low reflectivity (lower dB/darker) are expected to have a (potentially thin) sediment veneer, areas of high reflectivity (higher dB/brighter) should be considered as potentially indurated to semi-indurated substrate. Further research and investigation of the current hydrographic datasets and CORPS provided information should improve the understanding of observed features and may cause reason to adjust these initial assessments. In the event that changes are made, USACE will be contacted as soon as possible. It should also be noted additional ground truth
data at specific areas based upon these datasets would be critical for a full seabed interpretation.
Figure 1. Mosaic of SSS with contacts/targets and areas of potential hardbottom digitized.
Figure 2. Mosaic of backscatter intensity showing reflectance (white is higher reflectance, i.e., more coarse than darker areas).
# Report Area C-SSS Target Report

Generated on 6/9/2016 20:09:34

Report file: Area C-SSS Target Report.docx

Contacts in the report:

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<th>Longitude</th>
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### CH45 - Area C - Side Scan Sonar Survey - Contact/Target Report

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- Sonar Time at Target: 5/24/2016 19:26:19
- Click Position:
  32.6503163946 -79.6563405699 (WGS84)
  (X) 2413558.03 (Y) 299952.26 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 141.65 Int. ft
- Fish Height: 21.49 Int. ft
- Heading: 313.690 Degrees
- Line Name: 20160524192136

Dimensions and attributes
- Target Width: 17.28 Int. ft
- Target Height: 0.26 Int. ft
- Target Length: 52.12 Int. ft
- Target Shadow: 1.76 Int. ft
- Description: dredge scars
Feature0002
- Sonar Time at Target: 5/24/2016 19:27:46
- Click Position
  32.6514876725 -79.6587363525 (WGS84)
  (X) 2412815.15 (Y) 300368.78 (Projected Coordinates)
- Map Projection: SC83F
- Range to target: 133.04 Int. ft
- Fish Height: 21.64 Int. ft
- Heading: 317.890 Degrees
- Line Name: 20160524192136

Dimensions and attributes
- Target Width: 38.42 Int. ft
- Target Height: 0.00 Int. ft
- Target Length: 89.73 Int. ft
- Target Shadow: 0.00 Int. ft
- Description: depression with pockmarks inside and dredge scars surrounding
Feature0003
- Sonar Time at Target: 5/24/2016 19:10:55
- Click Position
  32.6513270935 -79.6587830108 (WGS84)
  (X) 2412801.55 (Y) 300310.18 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 74.18 Int. ft
- Fish Height: 22.37 Int. ft
- Heading: 318.800 Degrees
- Line Name: 20160524190527

Dimensions and attributes
- Target Width: 9.89 Int. ft
- Target Height: 0.00 Int. ft
- Target Length: 0.00 Int. ft
- Target Shadow: 0.00 Int. ft
- Description: dredge scars
Feature0005
- Sonar Time at Target: 5/24/2016 19:10:01
- Click Position 32.6502196435 -79.6575855265 (WGS84)
  (X) 2413175.33 (Y) 299912.08 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 105.48 Int. ft
- Fish Height: 22.66 Int. ft
- Heading: 318.500 Degrees
- Line Name: 20160524190527

Dimensions and attributes
- Target Width: 0.00 Int. ft
- Target Height: 0.29 Int. ft
- Target Length: 865.06 Int. ft
- Target Shadow: 1.41 Int. ft
- Description: likely low relief hard outcrops

Pre-Deliverable Item
Feature0006
- Sonar Time at Target: 5/24/2016 19:08:32
- Click Position
  32.6490813605 -79.6551751980 (WGS84)
  (X) 2413922.54 (Y) 299507.63 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 102.16 Int. ft
- Fish Height: 22.81 Int. ft
- Heading: 321.000 Degrees
- Line Name: 20160524190527

Dimensions and attributes
- Target Width: 0.00 Int. ft
- Target Height: 0.37 Int. ft
- Target Length: 481.06 Int. ft
- Target Shadow: 1.75 Int. ft
- Description: potential rock outcrops

Pre-Deliverable Item
Feature0007
- Sonar Time at Target: 5/24/2016 19:06:28
- Click Position
  32.6474220898 -79.6518087409 (WGS84)
  (X) 2414966.51 (Y) 298917.50 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 127.02 Int. ft
- Fish Height: 23.83 Int. ft
- Heading: 315.600 Degrees
- Line Name: 20160524190527

Dimensions and attributes
- Target Width: 0.00 Int. ft
- Target Height: 0.51 Int. ft
- Target Length: 372.73 Int. ft
- Target Shadow: 2.84 Int. ft
- Description: potential rock outcrops and pockmarks
Feature0008
- Sonar Time at Target: 5/24/2016 19:05:34
- Click Position
  32.6467114690 -79.6503530308 (WGS84)
  (X) 2415417.92 (Y) 298664.83 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 120.11 Int. ft
- Fish Height: 24.12 Int. ft
- Heading: 319.190 Degrees
- Line Name: 20160524190527

Dimensions and attributes
- Target Width: 0.00 Int. ft
- Target Height: 0.61 Int. ft
- Target Length: 112.12 Int. ft
- Target Shadow: 3.18 Int. ft
- Description: ledge - potential outcrop
Feature0009

- Sonar Time at Target: 5/24/2016 18:43:30
- Click Position
  32.6504498622 -79.6586040816 (WGS84)
  (X) 2412860.76 (Y) 299991.76 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 75.14 Int. ft
- Fish Height: 23.68 Int. ft
- Heading: 117.700 Degrees
- Line Name: 20160524184323

Dimensions and attributes

- Target Width: 0.00 Int. ft
- Target Height: 0.42 Int. ft
- Target Length: 0.00 Int. ft
- Target Shadow: 1.43 Int. ft
- Description: potential outcrop area
Feature0010
- Sonar Time at Target: 5/24/2016 18:44:06
- Click Position
  32.6500304044 -79.6575580536 (WGS84)
  (X) 2413184.68 (Y) 299843.35 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 87.13 Int. ft
- Fish Height: 21.34 Int. ft
- Heading: 109.390 Degrees
- Line Name: 20160524184323

Dimensions and attributes
- Target Width: 0.00 Int. ft
- Target Height: 0.42 Int. ft
- Target Length: 0.00 Int. ft
- Target Shadow: 1.81 Int. ft
- Description: potential outcropping area
Feature0011
- Sonar Time at Target: 5/24/2016 18:44:07
- Click Position
  32.6500353205 -79.6575037954 (WGS84)
  (X) 2413201.35 (Y) 299845.35 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 96.49 Int. ft
- Fish Height: 21.20 Int. ft
- Heading: 113.100 Degrees
- Line Name: 20160524184323

Dimensions and attributes
- Target Width: 0.00 Int. ft
- Target Height: 0.00 Int. ft
- Target Length: 0.00 Int. ft
- Target Shadow: 0.00 Int. ft
- Description: potential outcrops
Feature0013

- Sonar Time at Target: 5/24/2016 19:23:36
- Click Position 32.6488005855 -79.6515142619 (WGS84)
- (X) 2415050.60 (Y) 299420.17 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 98.69 Int. ft
- Fish Height: 23.54 Int. ft
- Heading: 317.100 Degrees
- Line Name: 20160524192136

Dimensions and attributes

- Target Width: 0.00 Int. ft
- Target Height: 0.00 Int. ft
- Target Length: 0.00 Int. ft
- Target Shadow: 0.00 Int. ft
- Description: pockmarks
**Feature0014**
- Sonar Time at Target: 5/24/2016 19:10:29
- Click Position
  32.6506130784 -79.6582919198 (WGS84)
  (X) 2412956.06 (Y) 300052.39 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 87.72 Int. ft
- Fish Height: 22.37 Int. ft
- Heading: 318.690 Degrees
- Line Name: 20160524190527

**Dimensions and attributes**
- Target Width: 11.31 Int. ft
- Target Height: 0.00 Int. ft
- Target Length: 0.00 Int. ft
- Target Shadow: 0.00 Int. ft
- Description: trawl/dredge scars

Pre-Deliverable Item
Feature0016
- Sonar Time at Target: 5/24/2016 18:58:23
- Click Position
  32.6507890799 -79.6594735434 (WGS84)
  (X) 2412591.57 (Y) 300111.69 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 181.86 Int. ft
- Fish Height: 21.78 Int. ft
- Heading: 101.890 Degrees
- Line Name: 20160524185813

Dimensions and attributes
- Target Width: 0.00 Int. ft
- Target Height: 0.00 Int. ft
- Target Length: 0.00 Int. ft
- Target Shadow: 0.00 Int. ft
- Description: bedform features of unkown induration
Feature0017
- Sonar Time at Target: 5/24/2016 19:09:38
- Click Position
  32.6500411966 -79.6568444488 (WGS84)
  (X) 2413404.25 (Y) 299850.13 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 51.17 Int. ft
- Fish Height: 22.95 Int. ft
- Heading: 323.890 Degrees
- Line Name: 20160524190527

Dimensions and attributes
- Target Width: 3.13 Int. ft
- Target Height: 0.56 Int. ft
- Target Length: 32.38 Int. ft
- Target Shadow: 1.39 Int. ft
- Description: depression, potential outcrop

Pre-Deliverable Item
**Feature0018**
- Sonar Time at Target: 5/24/2016 19:10:11
- Click Position
  32.6503455950 -79.6578729511 (WGS84)
  (X) 2413086.27 (Y) 299956.75 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 112.28 Int. ft
- Fish Height: 22.51 Int. ft
- Heading: 320.600 Degrees
- Line Name: 20160524190527

**Dimensions and attributes**
- Target Width: 0.00 Int. ft
- Target Height: 0.00 Int. ft
- Target Length: 0.00 Int. ft
- Target Shadow: 0.00 Int. ft
- Description: depression and feature and trawl/dredge scars

Pre-Deliverable Item
Feature0019

- Sonar Time at Target: 5/24/2016 19:08:31
- Click Position: 32.6490954624 -79.6551020471 (WGS84)
  (X) 2413944.98 (Y) 299513.05 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 86.25 Int. ft
- Fish Height: 22.95 Int. ft
- Heading: 320.690 Degrees
- Line Name: 20160524190527

Dimensions and attributes

- Target Width: 0.00 Int. ft
- Target Height: 0.61 Int. ft
- Target Length: 27.48 Int. ft
- Target Shadow: 2.45 Int. ft
- Description: ledge feature
**Feature0020**
- Sonar Time at Target: 5/24/2016 19:06:28
- Click Position
  32.6474430763 -79.6517809922 (WGS84)
  (X) 2414974.95 (Y) 298925.25 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 116.37 Int. ft
- Fish Height: 23.83 Int. ft
- Heading: 314.690 Degrees
- Line Name: 20160524190527

**Dimensions and attributes**
- Target Width: 0.00 Int. ft
- Target Height: 0.00 Int. ft
- Target Length: 0.00 Int. ft
- Target Shadow: 0.00 Int. ft
- Description: group of depressions

Pre-Deliverable Item
Feature0021
- Sonar Time at Target: 5/24/2016 19:05:33
- Click Position 32.6467109691 -79.6503130864 (WGS84) (X) 2415430.22 (Y) 298664.81 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 114.32 Int. ft
- Fish Height: 25.29 Int. ft
- Heading: 319.190 Degrees
- Line Name: 20160524190527

Dimensions and attributes
- Target Width: 0.00 Int. ft
- Target Height: 0.67 Int. ft
- Target Length: 39.40 Int. ft
- Target Shadow: 3.18 Int. ft
- Description: ledge feature
**Feature0022**
- Sonar Time at Target: 5/24/2016 18:58:57
- Click Position
  32.6502039920 -79.6585033897 (WGS84)
  (X) 2412892.91 (Y) 299902.72 (Projected Coordinates)
- Map Projection: SC83F
- Range to target: 131.28 Int. ft
- Fish Height: 21.78 Int. ft
- Heading: 118.000 Degrees
- Line Name: 20160524185813

**Dimensions and attributes**
- Target Width: 0.00 Int. ft
- Target Height: 0.73 Int. ft
- Target Length: 12.28 Int. ft
- Target Shadow: 4.61 Int. ft
- Description: hole feature and trawl/dredge scars over bedform features
Feature0023

- Sonar Time at Target: 5/24/2016 19:46:36
- Click Position
  32.6485083403 -79.6569604372 (WGS84)
  (X) 2413375.80 (Y) 299292.02 (Projected Coordinates)
- Map Projection: SC83F
- Range to target: 87.72 Int. ft
- Fish Height: 22.22 Int. ft
- Heading: 110.500 Degrees
- Line Name: 20160524194433

Dimensions and attributes

- Target Width: 0.00 Int. ft
- Target Height: 0.16 Int. ft
- Target Length: 0.00 Int. ft
- Target Shadow: 0.66 Int. ft
- Description: small ledge feature

Pre-Deliverable Item
Feature0024
- Sonar Time at Target: 5/24/2016 19:47:32
- Click Position
  32.6474271844 -79.6557652959 (WGS84)
  (X) 2413748.75 (Y) 298903.49 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 83.04 Int. ft
- Fish Height: 21.78 Int. ft
- Heading: 110.000 Degrees
- Line Name: 20160524194433

Dimensions and attributes
- Target Width: 0.00 Int. ft
- Target Height: 0.00 Int. ft
- Target Length: 0.00 Int. ft
- Target Shadow: 0.00 Int. ft
- Description: group of depressions/holes

Pre-Deliverable Item
Feature0025
- Sonar Time at Target: 5/24/2016 19:17:55
- Click Position 32.6461898575 -79.6525058487 (WGS84) (X) 2414757.80 (Y) 298466.43 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 102.92 Int. ft
- Fish Height: 22.08 Int. ft
- Heading: 114.000 Degrees
- Line Name: 20160524191247

Dimensions and attributes
- Target Width: 4.73 Int. ft
- Target Height: 0.62 Int. ft
- Target Length: 5.04 Int. ft
- Target Shadow: 3.03 Int. ft
- Description: group of depressions/holes
Feature0026
- Sonar Time at Target: 5/24/2016 19:13:32
- Click Position
  32.6501164819 -79.6590368656 (WGS84)
  (X) 2412729.14 (Y) 299868.75 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 129.53 Int. ft
- Fish Height: 21.34 Int. ft
- Heading: 119.890 Degrees
- Line Name: 20160524191247

Dimensions and attributes
- Target Width: 0.00 Int. ft
- Target Height: 0.85 Int. ft
- Target Length: 35.29 Int. ft
- Target Shadow: 5.42 Int. ft
- Description: ledge feature
Feature0027

- Sonar Time at Target: 5/24/2016 19:41:14
- Click Position:
  - 32.6499969975, -79.6566911610 (WGS84)
  - (X) 2413451.64, (Y) 299834.66 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 75.44 Int. ft
- Fish Height: 22.51 Int. ft
- Heading: 322.600 Degrees
- Line Name: 20160524193005-SS-PU

Dimensions and attributes

- Target Width: 0.00 Int. ft
- Target Height: 0.71 Int. ft
- Target Length: 27.65 Int. ft
- Target Shadow: 2.56 Int. ft
- Description: ledge feature

Pre-Deliverable Item
### Feature0028
- **Sonar Time at Target**: 5/24/2016 19:42:19
- **Click Position**
  - WGS84: 32.6505195878,-79.6587728057
  - Projected Coordinates: (X) 2412808.50 (Y) 300016.45
- **Map Projection**: SC83IF
- **Range to Target**: 72.51 Int. ft
- **Fish Height**: 22.22 Int. ft
- **Heading**: 318.390 Degrees
- **Line Name**: 20160524193005-SS-PU

### Dimensions and attributes
- **Target Width**: 0.00 Int. ft
- **Target Height**: 0.73 Int. ft
- **Target Length**: 142.26 Int. ft
- **Target Shadow**: 2.59 Int. ft
- **Description**: scalloped ledge feature
Feature0029
- Sonar Time at Target: 5/24/2016 19:34:02
- Click Position 32.6461867320 -79.6540018142 (WGS84) (X) 2414297.39 (Y) 298459.29 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 79.53 Int. ft
- Fish Height: 23.10 Int. ft
- Heading: 113.290 Degrees
- Line Name: 20160524193005-SS-PU

Dimensions and attributes
- Target Width: 0.00 Int. ft
- Target Height: 0.00 Int. ft
- Target Length: 0.00 Int. ft
- Target Shadow: 0.00 Int. ft
- Description: shadow, appears to be a hole/depression

Pre-Deliverable Item
Feature0030
- Sonar Time at Target: 5/24/2016 19:30:49
- Click Position
  32.6486227665 -79.6592233801 (WGS84)
  (X) 2412678.78 (Y) 299324.61 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 101.17 Int. ft
- Fish Height: 20.47 Int. ft
- Heading: 113.200 Degrees
- Line Name: 20160524193005-SS-PU

Dimensions and attributes
- Target Width: 0.00 Int. ft
- Target Height: 0.47 Int. ft
- Target Length: 46.71 Int. ft
- Target Shadow: 2.44 Int. ft
- Description: ledge feature
Feature0031
- Click Position
  32.6472436143 -79.6492773456 (WGS84)
  (X) 2415746.47 (Y) 298862.75 (Projected Coordinates)
- Map Projection: SC83F
- Range to target: 48.83 Int. ft
- Fish Height: 23.98 Int. ft
- Heading: 315.800 Degrees
- Line Name: 20160524192136

Dimensions and attributes
- Target Width: 0.00 Int. ft
- Target Height: 0.77 Int. ft
- Target Length: 15.67 Int. ft
- Target Shadow: 1.82 Int. ft
- Description: small ledge feature
**Feature0032**
- Sonar Time at Target: 5/24/2016 18:55:21
- Click Position
  - 32.6503468368 -79.6568292048 (WGS84)
  - (X) 2413407.50 (Y) 299961.38 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 80.11 Int. ft
- Fish Height: 22.66 Int. ft
- Heading: 316.600 Degrees
- Line Name: 20160524185124

**Dimensions and attributes**
- Target Width: 0.00 Int. ft
- Target Height: 0.10 Int. ft
- Target Length: 58.16 Int. ft
- Target Shadow: 0.36 Int. ft
- Description: hole and shallow ledge
Feature0034
- Sonar Time at Target: 5/24/2016 18:44:23
- Click Position
  32.6498134095 -79.6570529191 (WGS84)
  (X) 2413341.17 (Y) 299766.43 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 92.98 Int. ft
- Fish Height: 22.66 Int. ft
- Heading: 114.200 Degrees
- Line Name: 20160524184323

Dimensions and attributes
- Target Width: 0.00 Int. ft
- Target Height: 0.50 Int. ft
- Target Length: 0.00 Int. ft
- Target Shadow: 2.14 Int. ft
- Description: outcrop-ledge feature

Pre-Deliverable Item
Feature0035
- Sonar Time at Target: 5/24/2016 18:44:25
- Click Position
  32.6498793701 -79.6569435322 (WGS84)
  (X) 2413374.52 (Y) 299790.86 (Projected Coordinates)
- Map Projection: SC83IF
- Range to target: 130.70 Int. ft
- Fish Height: 21.93 Int. ft
- Heading: 114.100 Degrees
- Line Name: 20160524184323

Dimensions and attributes
- Target Width: 0.00 Int. ft
- Target Height: 0.18 Int. ft
- Target Length: 72.34 Int. ft
- Target Shadow: 1.07 Int. ft
- Description: outcrop-ledge feature