

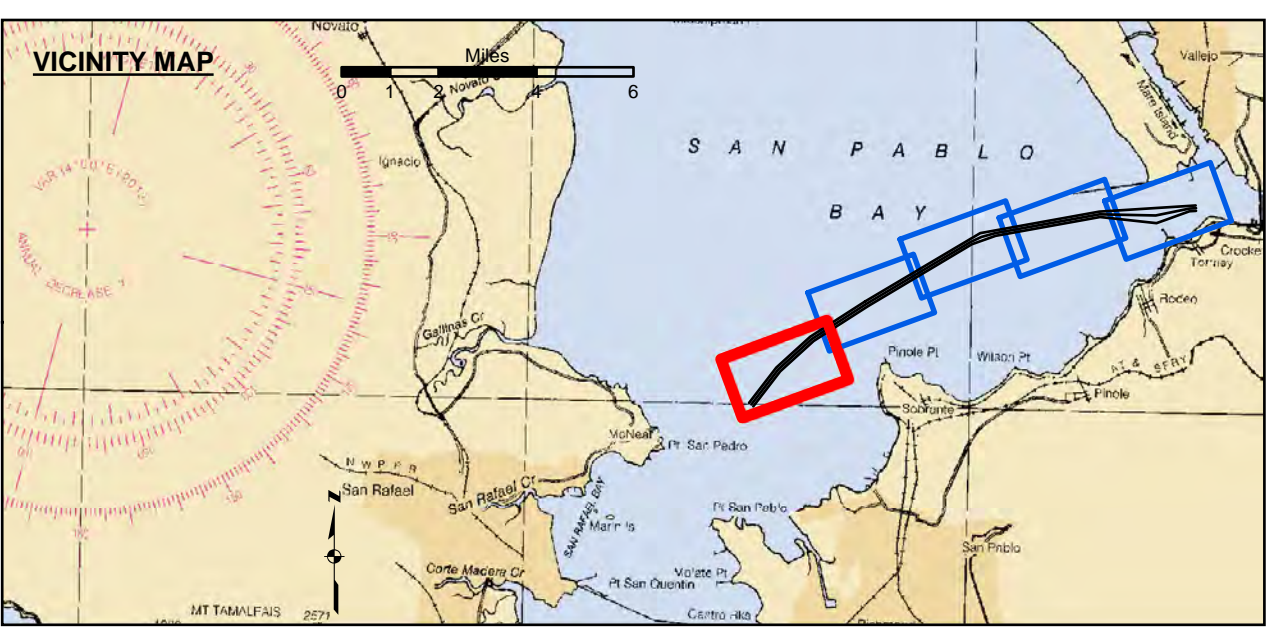
**US Army Corps of Engineers**  
 San Francisco District  
 1455 Market Street  
 San Francisco, CA 94103

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Prepared Under the Direction of	Chart Date	Nov 28, 2017
LT COLONEL J. RAYFIELD	Designed by:	
Submitted by:	Plotted by:	PDT
Hydro Survey Team Leader	Checked by:	PDT
Recommended by:	Drawn by:	PDT
Chief, Hydro Survey Section	Approved by:	
Chief, Construction Branch		

CALIFORNIA  
**PINOLE SHOALS**  
 POST-DREDGE SURVEY  
 14-17 NOVEMBER 2017

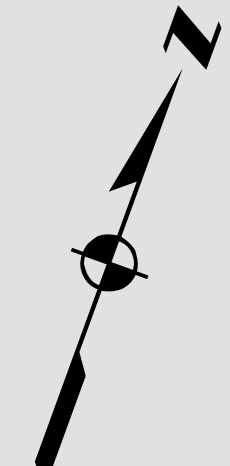
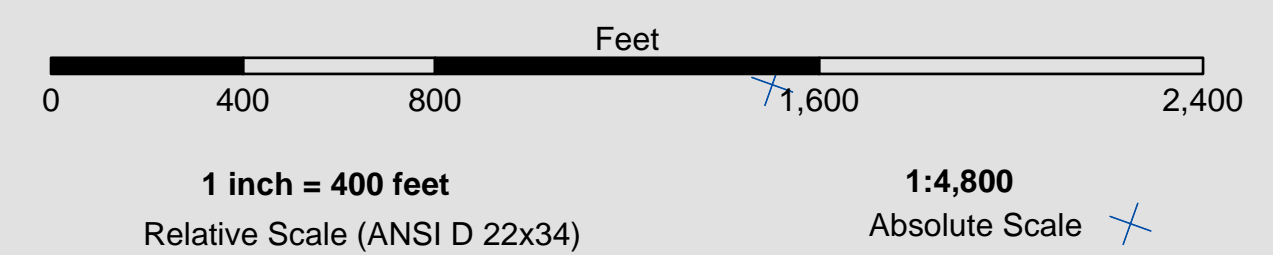
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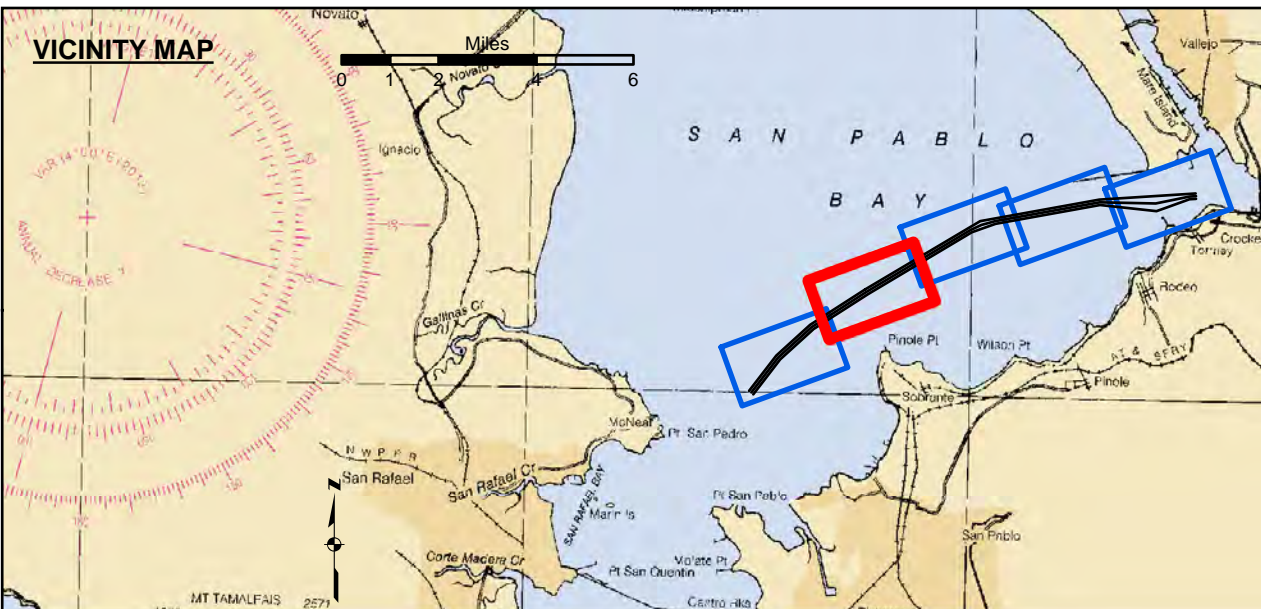
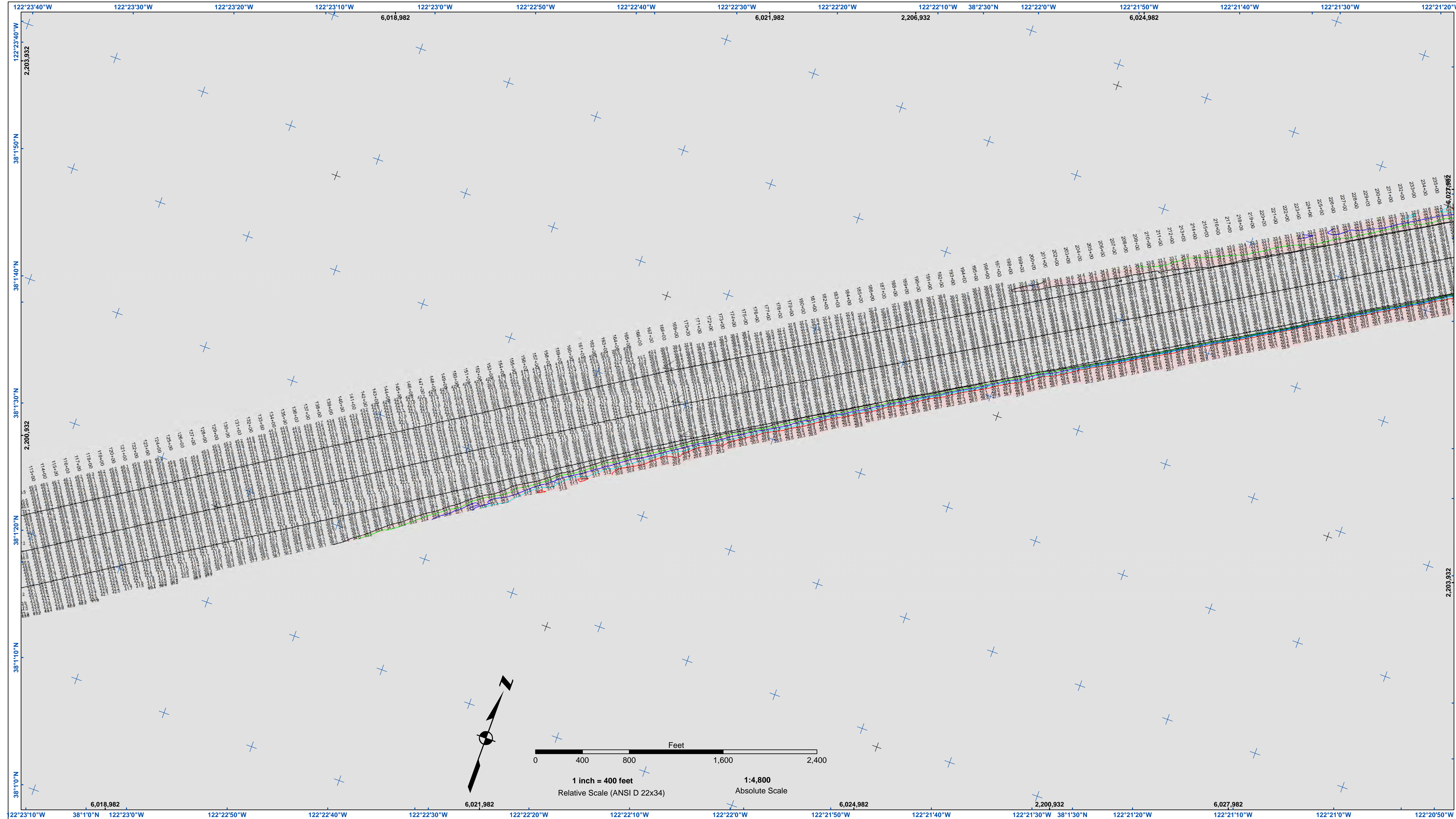
Federal Navigation Channel	Beacon, General	Countours
Shoaling Area	Obstruction Point	-35
Placement Area	Navigation Buoy	-34
Anchorage Area	Navigation Buoy	-33
Wreck Area	Shoalest Sounding*	-32
Submerged Wreck		-31
Angle Point		

**NOTES:**  
 HORIZONTAL COORDINATE SYSTEM:  
 NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE III. DISTANCE UNITS IN U.S. SURVEY FEET.  
 VERTICAL DATUM:  
 SOUNDINGS ARE SHOWN IN FEET AND INDICATE DEPTHS BELOW MEAN LOWER LOW WATER.  
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 SURVEYED BY THE CORPS OF ENGINEERS.  
 THE PROJECT DEPTH IS -35 FEET AT MLLW.  
 PLANE GRID AND COORDINATES ARE BASED ON LAMBERT PROJECTION, NAD 83, ZONE III CALIFORNIA AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY THE NATIONAL OCEAN SURVEY.  
 HORIZONTAL GPS CONTROL:  
 COAST GUARD D-BEACON  
 VERTICAL CONTROL:  
 BENCHMARK "5059 C" (1976) USC&GS DISK. ELEV. 34.75 MLLW, NAVD 88 DATUM  
 TIDE GAUGE LOCATED AT POINT PINOLE PIER  
 BENCHMARK "5218 L" (1976) USC&GS DISK. ELEV. 11.00 MLLW, NAVD 88 DATUM  
 TIDE GAUGE LOCATED AT MARE ISLAND PIER 35.







Federal Navigation Channel	Beacon, General	Countours
Shoaling Area	Obstruction Point	-35
Placement Area	Navigation Buoy	-34
Anchorage Area	Navigation Buoy	-33
Wreck Area	Shoalest Sounding*	-32
Submerged Wreck		-31
Angle Point		

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 NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE III. DISTANCE UNITS IN U.S. SURVEY FEET.

VERTICAL DATUM:  
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HORIZONTAL GPS CONTROL:  
 COAST GUARD D-BEACON

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 BENCHMARK: "5059 C" (1976) USC&GS DISK. ELEV. 34.75 MLLW, NAVD 88 DATUM  
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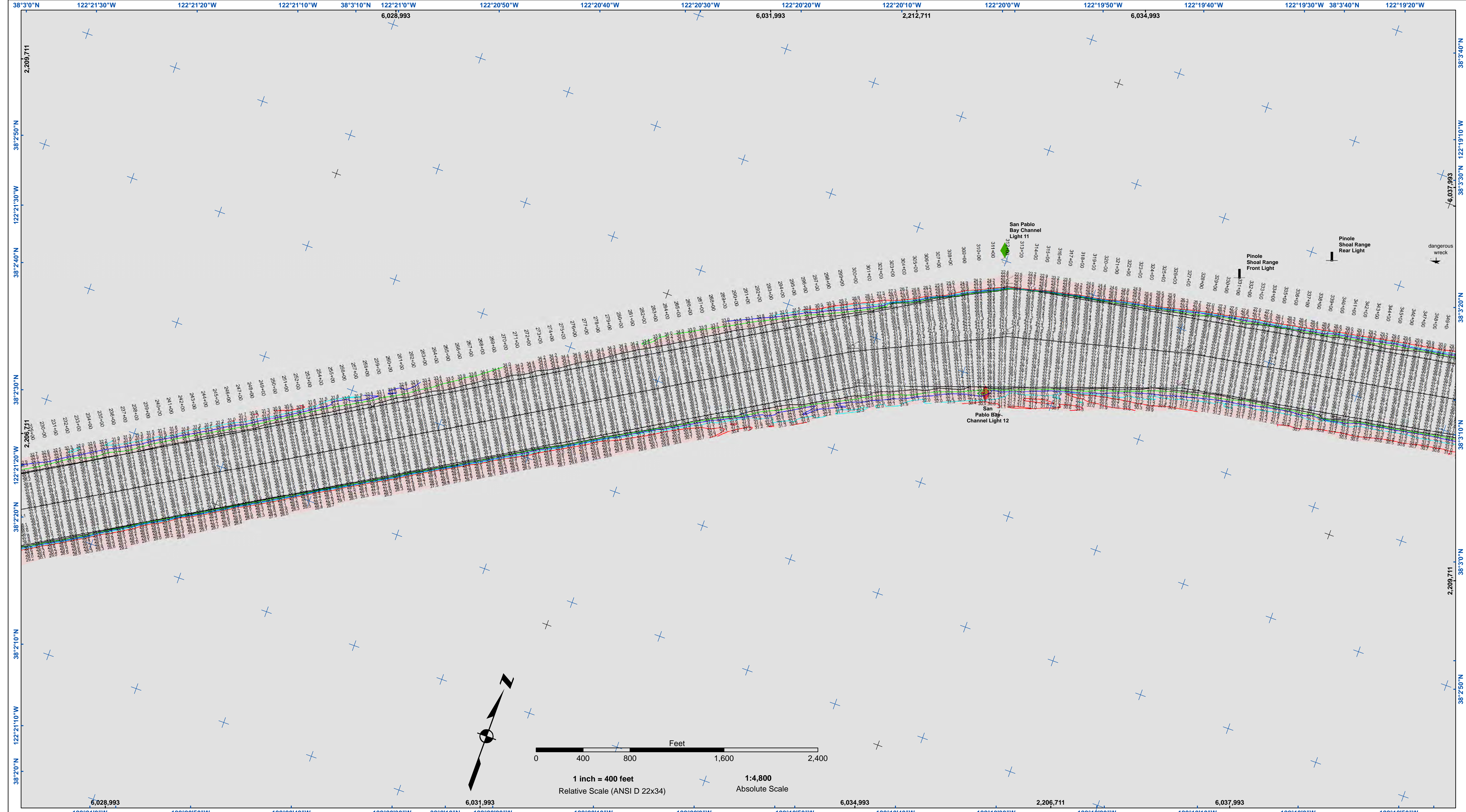
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Prepared Under the Direction of <b>TRAVIS J. RAYFIELD</b> LT COLONEL, C.E., DISTRICT ENGINEER	Chart Date: Nov 28, 2017
Submitted: Hydro Survey Team Leader	Designed by: PDT
Recommended: Chief, Hydro Survey Section	Plotted By: PDT
Approved: Chief, Construction Branch	Checked By: PDT
	Drawn by: PDT

CALIFORNIA  
**PINOLE SHOALS**  
 POST-DREDGE SURVEY  
 14-17 NOVEMBER 2017

**Sheet Reference Number**  
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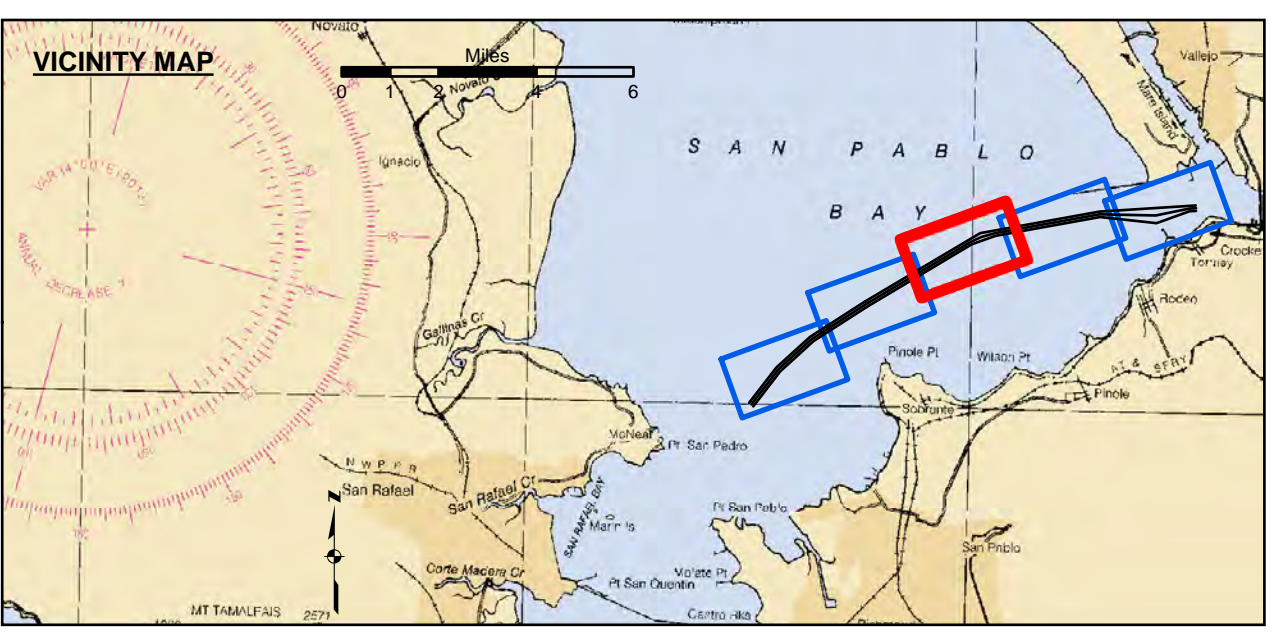


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Prepared Under the Direction of <b>LT COLONEL C.E. DISTRICT ENGINEER</b> TRAVIS J. RAYFIELD	Chart Date: Nov 28, 2017
Submitted: Hydro Survey Team Leader	Designed by: PDT
Recommended: Chief, Hydro Survey Section	Drawn by: PDT
Approved: Chief, Construction Branch	PDT

CALIFORNIA  
**PINOLE SHOALS**  
 POST-DREDGE SURVEY  
 14-17 NOVEMBER 2017



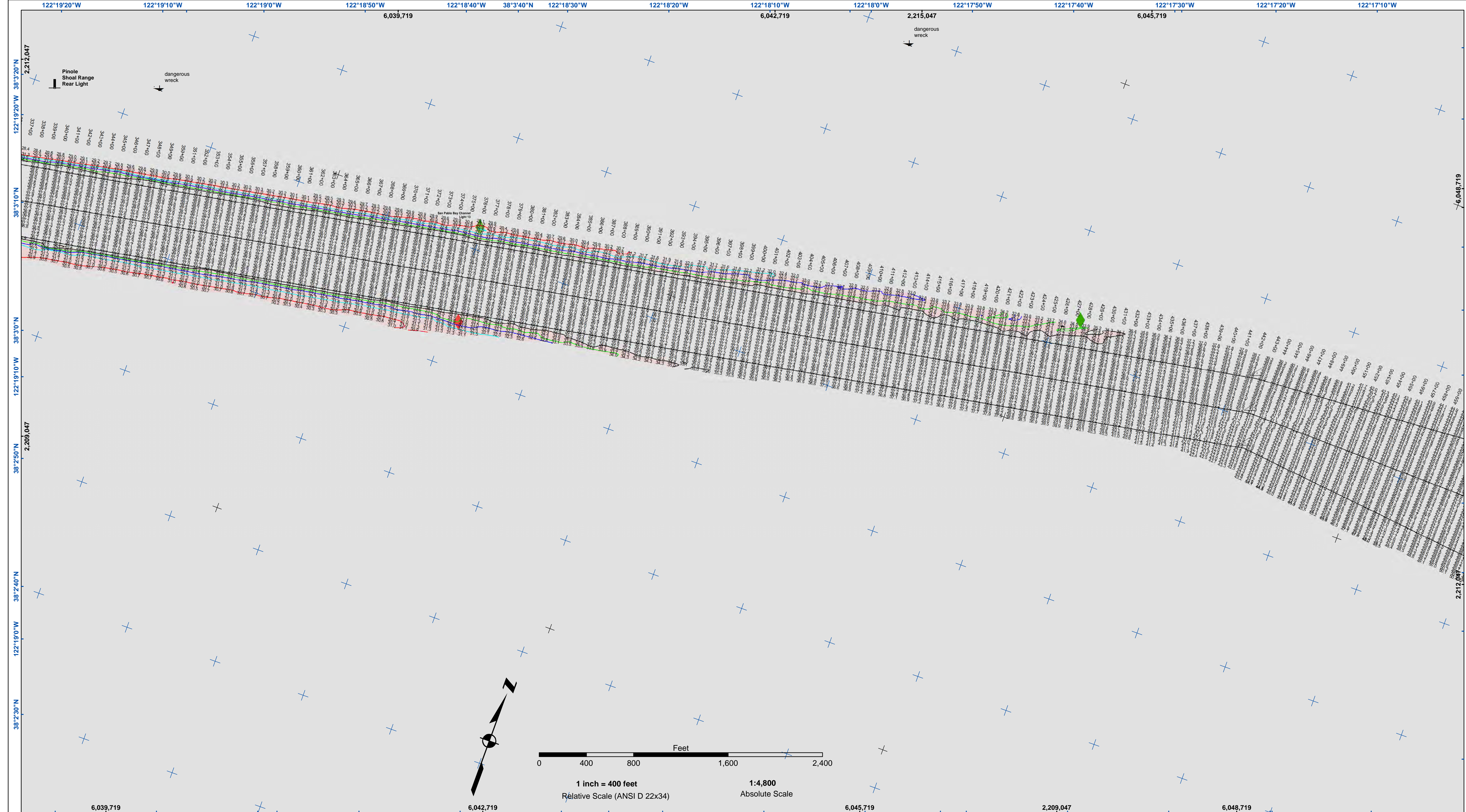
Federal Navigation Channel	Beacon, General	<b>Contours</b>
Shoaling Area	Obstruction Point	-35
Placement Area	Navigation Buoy	-34
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Wreck Area	Shoalest Sounding*	-32
Submerged Wreck		-31
Angle Point		

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 HORIZONTAL GPS CONTROL:  
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 BENCHMARK: "5059 C" (1978) USC&GS DISK, ELEV. 34.75 MLLW, NAVD 88 DATUM  
 TIDE GAUGE LOCATED AT POINT PINOLE PIER  
 BENCHMARK: "2218 L" (1976) USC&GS DISK, ELEV. 11.00 MLLW, NAVD 88 DATUM  
 TIDE GAUGE LOCATED AT MARE ISLAND PIER 35.

**Sheet Reference Number**  
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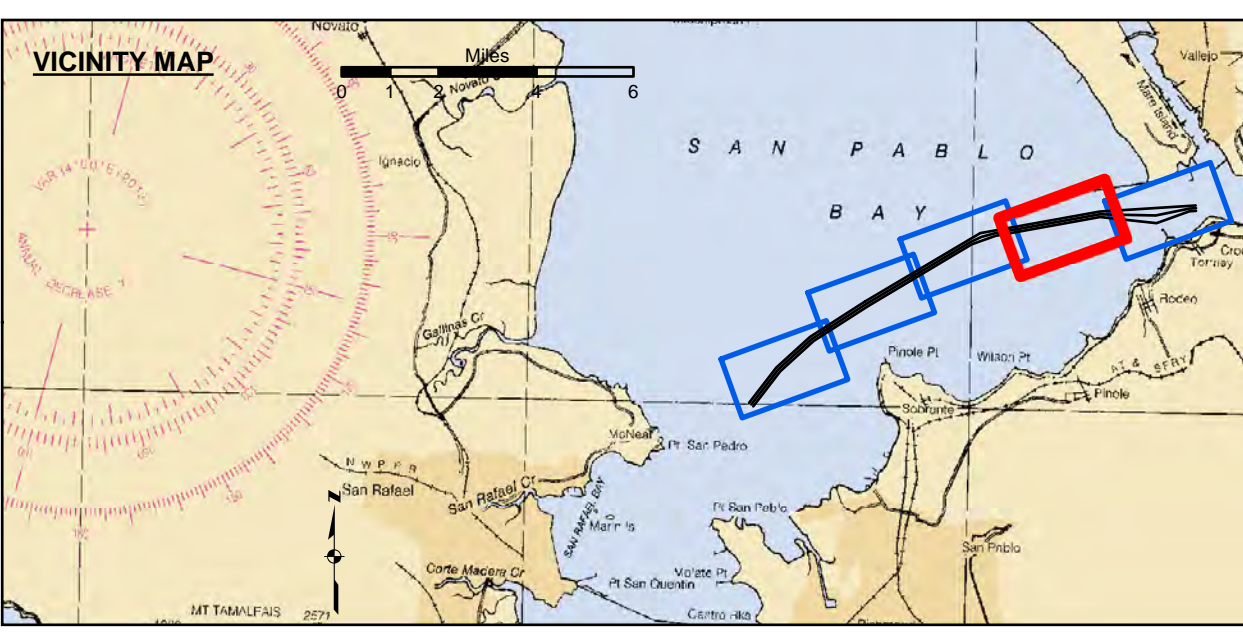


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Submitted: Hydro Survey Team Leader	Designed by: PDT
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CALIFORNIA  
**PINOLE SHOALS**  
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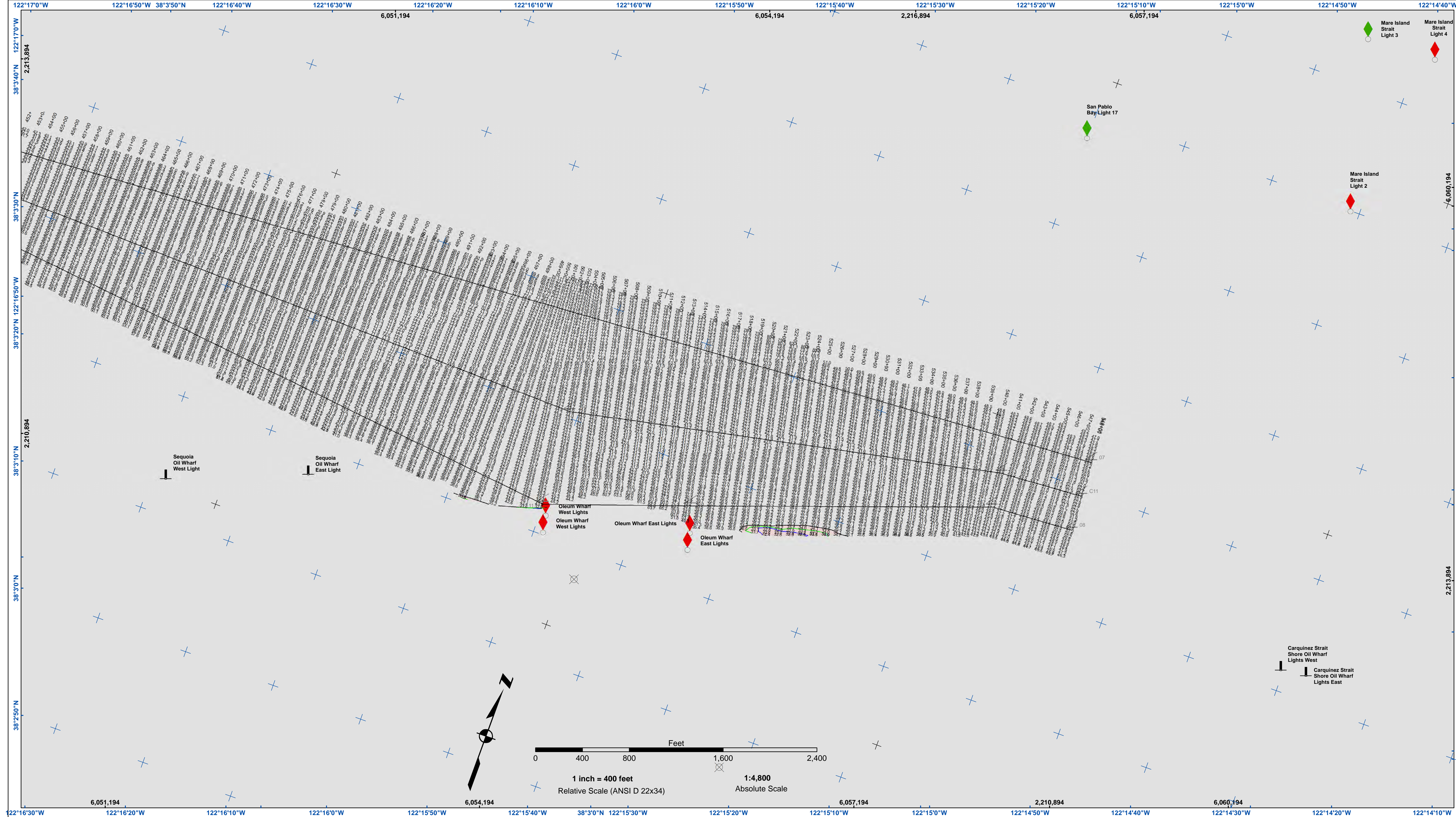
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|----------------------------|--------------------|-----------------|
| Federal Navigation Channel | Beacon, General    | <b>Contours</b> |
| Shoaling Area              | Obstruction Point  | -35             |
| Placement Area             | Navigation Buoy    | -34             |
| Anchorage Area             | Navigation Buoy    | -33             |
| Wreck Area                 | Shoalest Sounding* | -32             |
| Submerged Wreck            |                    | -31             |
| Angle Point                |                    |                 |

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**Sheet Reference Number**  
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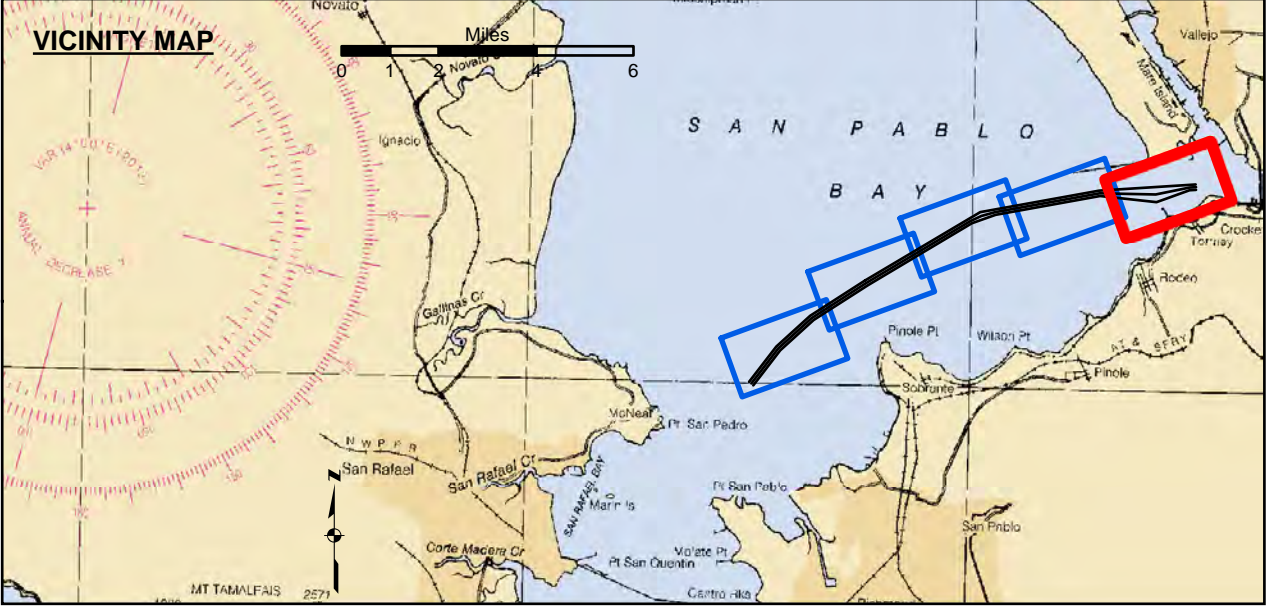
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Chart Date:	Nov 28, 2017
Designed by:	PDT
Drawn by:	PDT
Checked by:	PDT
Approved:	Chief, Construction Branch
Surveyed By:	Plotted By:
Flatted By:	PDT
Checked By:	PDT

CALIFORNIA  
**PINOLE SHOALS**  
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 14-17 NOVEMBER 2017

**Sheet Reference Number**  
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- Federal Navigation Channel
- Shoaling Area
- Placement Area
- Anchorage Area
- Wreck Area
- Submerged Wreck
- Angle Point
- Beacon, General
- Obstruction Point
- Navigation Buoy
- Navigation Buoy
- Shoalest Sounding\*
- Countours
- 35
- 34
- 33
- 32
- 31

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