

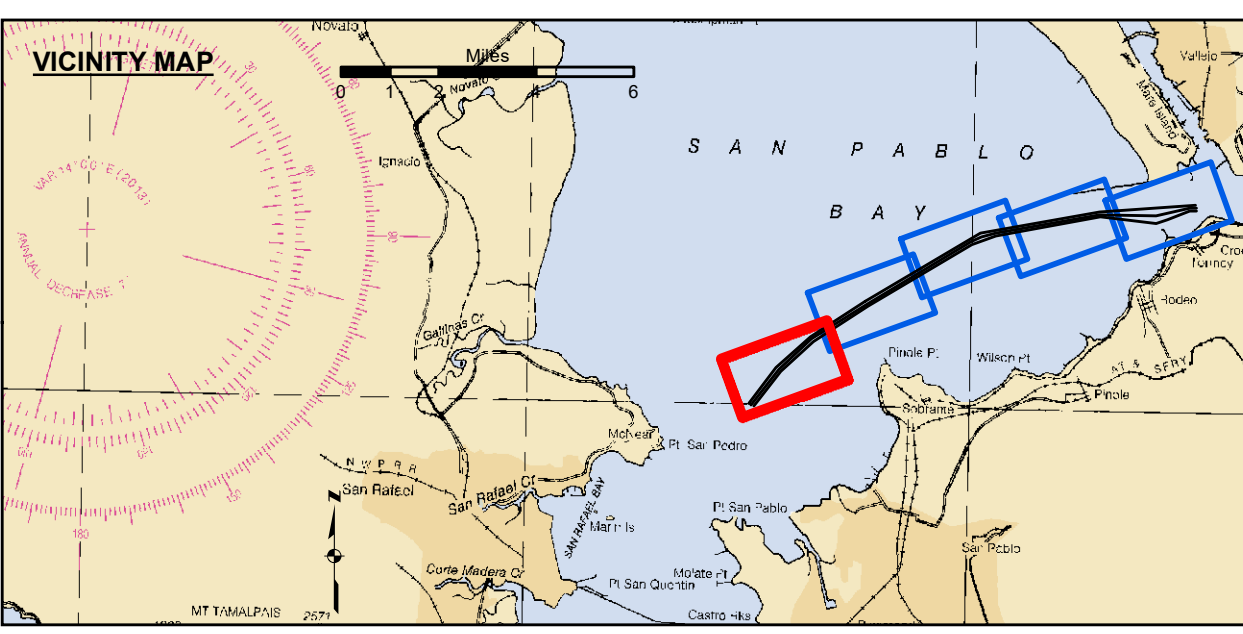
**US Army Corps of Engineers**  
 San Francisco District  
 450 Golden Gate Ave.  
 San Francisco, CA 94102

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Prepared Under the Direction of <b>KEVIN P. ARNETT</b> LT Colonel, C.E., District Engineer	Chart Date: Feb 03, 2022
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**  
 CONDITION SURVEY  
 12-18 JANUARY 2022  
 SAN PABLO BAY

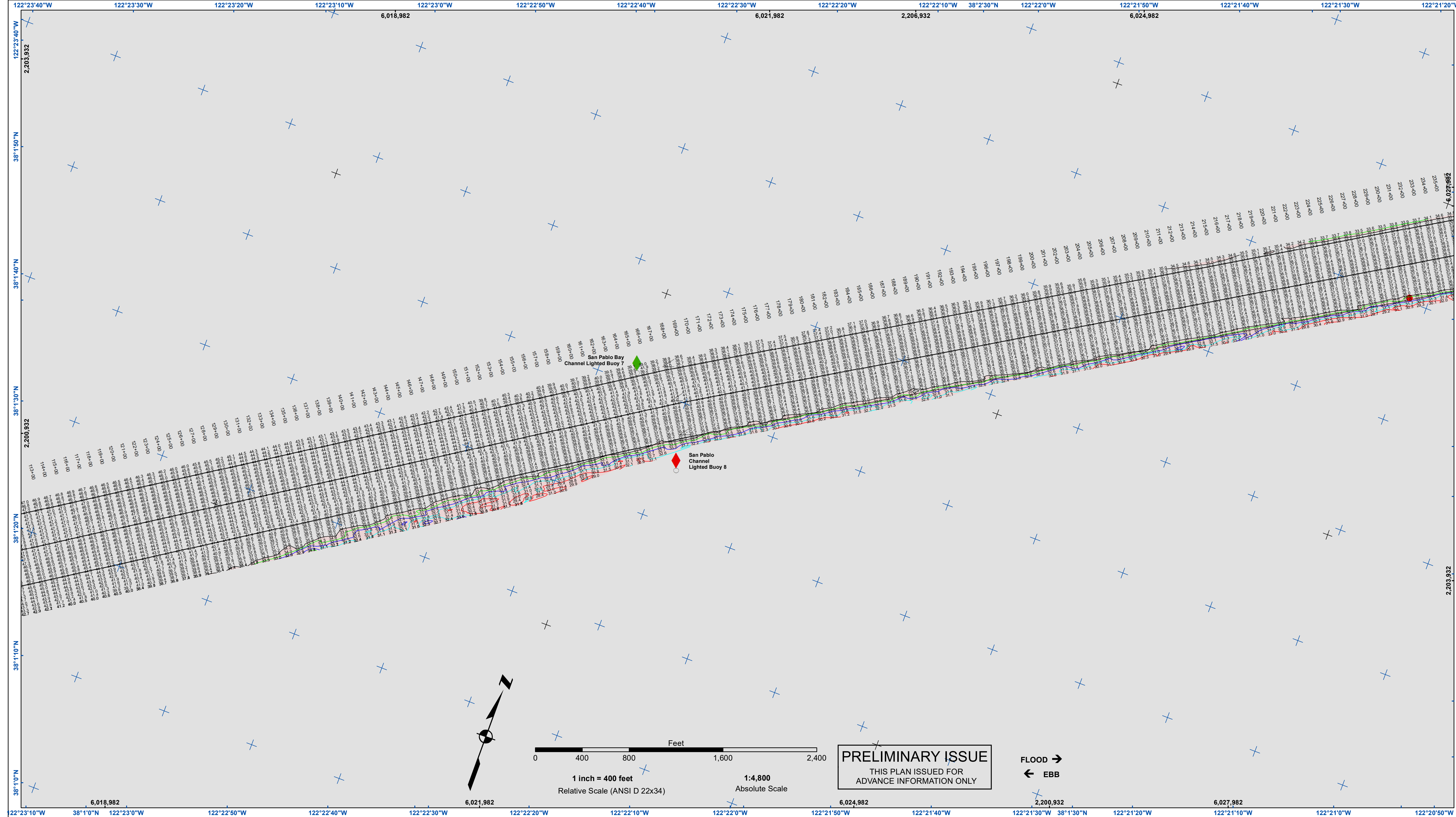
**Sheet**  
**Reference**  
**Number**  
**1 of 5**



- 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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 TIDAL EPOCH 1983-2001  
 TIDAL DATUM CONTROL STATION(S):  
 - 9415056 PINOLE POINT - JUNE 2014  
 - 9415218 MARE ISLAND - AUG 2013

HORIZONTAL CONTROL DATUM:  
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 CONTROL:  
 POINT PINOLE 4 RESET | PID: JT2895 | BM 5056 A | PID: BBCN55  
 OPUS 3/19/2020 | 9415056  
 5218 L 1976 | 5218 R 2006 | PID: BBCN57  
 PID: BBC281 | OPUS 8/11/2010 | 9415218 | 9415218  
 TIDE GAUGE:  
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 APPROX POSITION: 38° 04' 9.9" N, 122° 15' 4.4" W  
 POSITIONS AND SOUNDINGS HAVE BEEN CORRECTED USING PPK TECHNIQUES USING A CORRS NETWORK BASE STATION AT OHLN.  
 TIDE VALUES HAVE BEEN EXTRAPOLATED USING GEOD18 AND VDATUM V4.0.1.  
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 - RESON T50-R SINGLE-HEAD MULTIBEAM ECHOSOUNDER  
 - POS MV 2201 VERS5 HW2.5-12  
 - IMU TYPE 42  
 - TRIMBLE AT1675-540T5 GPS ANTENNA



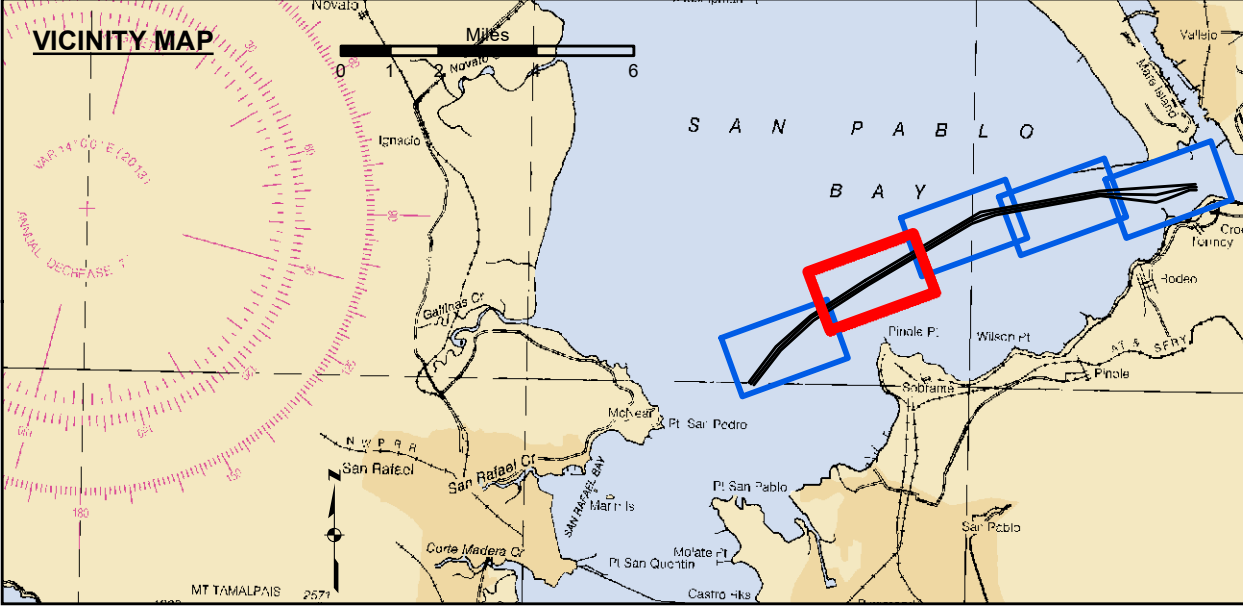
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Submitted by: Hydro Survey Team Leader	Designed by: PDT
Recommended by: Chief, Hydro Survey Section	Checked by: PDT
Approved by: Chief, Construction Branch	Drawn by: PDT

CALIFORNIA  
**SAN PABLO BAY**  
**PINOLE SHOALS**  
**CONDITION SURVEY**  
**12-18 JANUARY 2022**

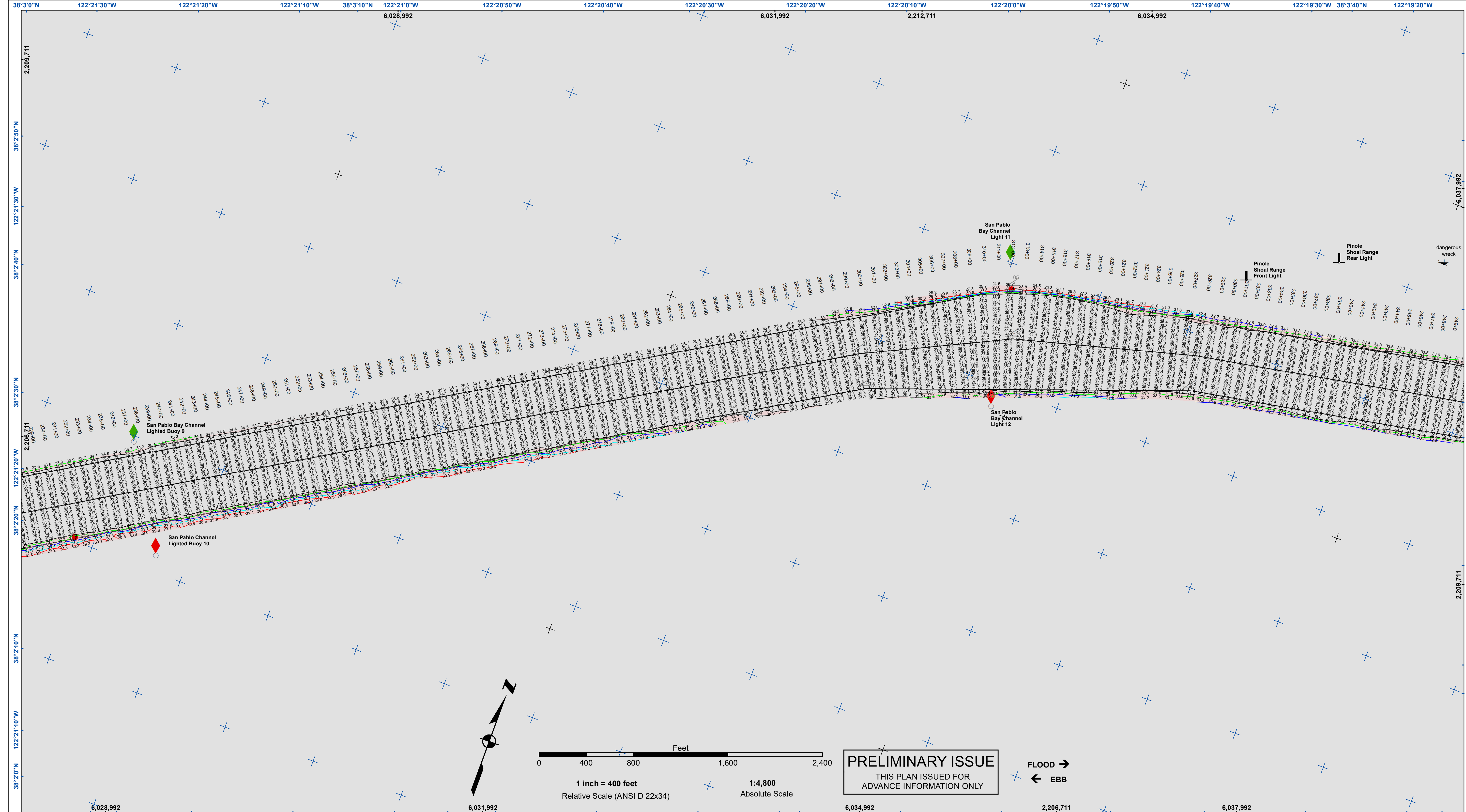
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**Number**  
**2 of 5**



- |                            |                    |           |
|----------------------------|--------------------|-----------|
| 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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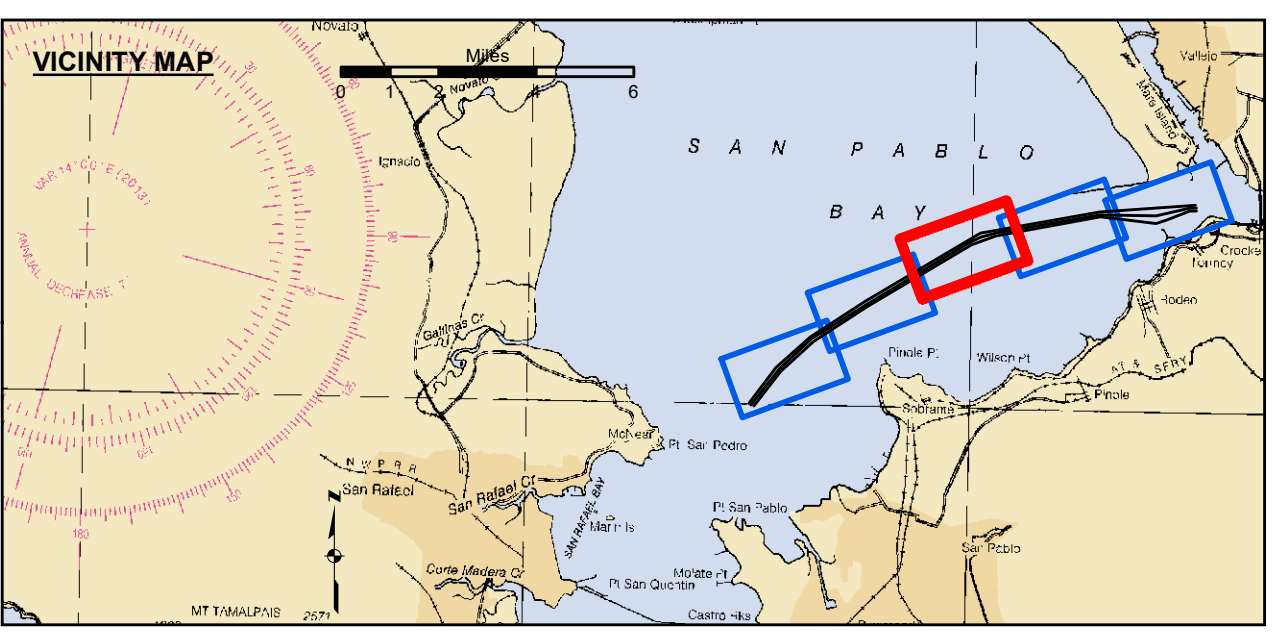
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Prepared Under the Direction of <b>LT COLONEL C.E. DISTRICT ENGINEER</b>	Surveyed By:	Chart Date:
Submitted: Hydro Survey Team Leader	Plotted By: PDT	Feb 03, 2022
Recommended: Chief, Hydro Survey Section	Checked By: PDT	Designed by:
Approved: Chief, Construction Branch	Drawn by: PDT	

CALIFORNIA  
**PINOLE SHOALS**  
 CONDITION SURVEY  
 12-18 JANUARY 2022

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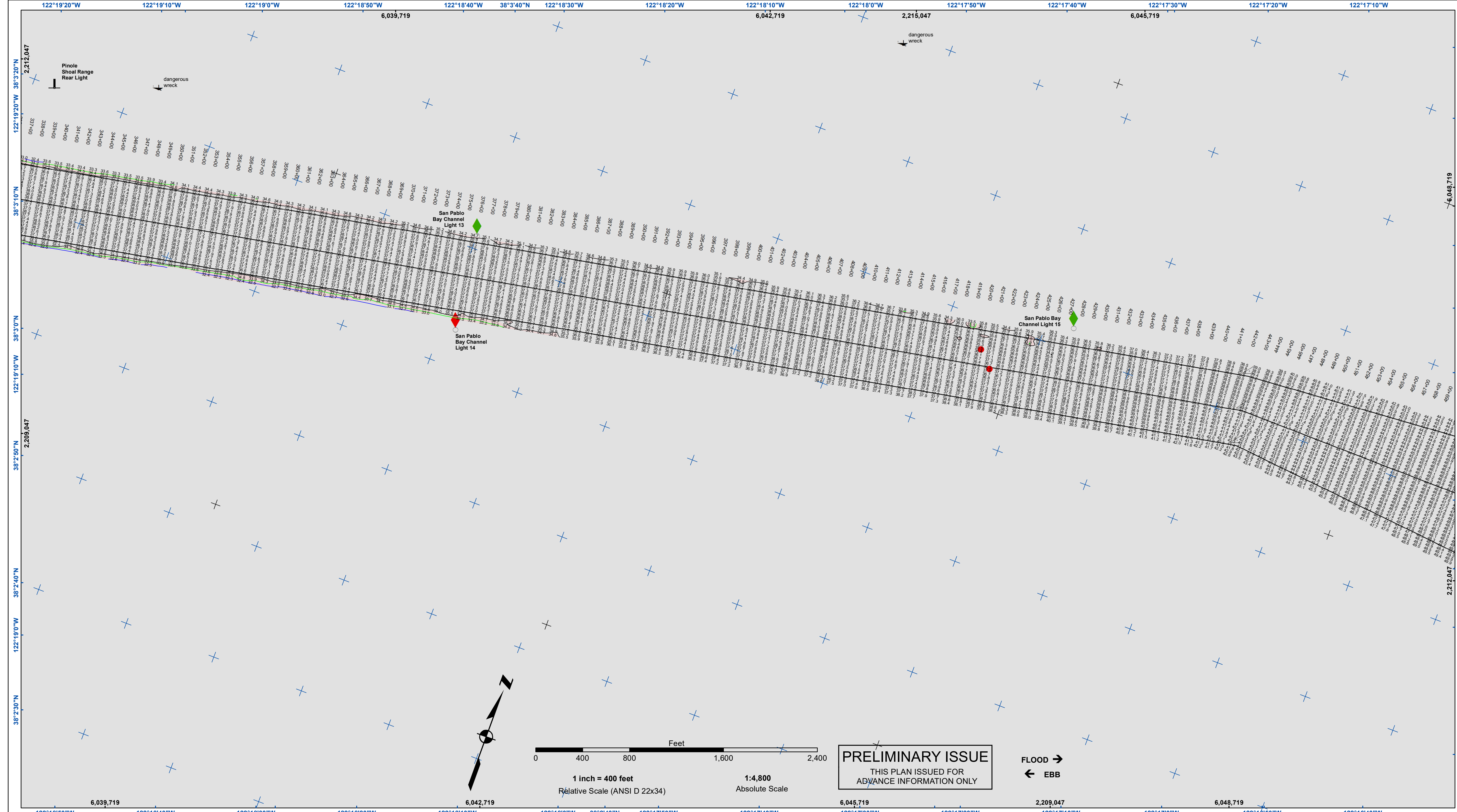


Federal Navigation Channel	Beacon, General	<b>Contours</b>
Shoaling Area	Obstruction Point	-35
Placement Area	Navigation Buoy	-34
Anchorage Area	Navigation Buoy	-33
Wreck Area	Shoalest Sounding*	-32
Submerged Wreck		-31
Angle Point		

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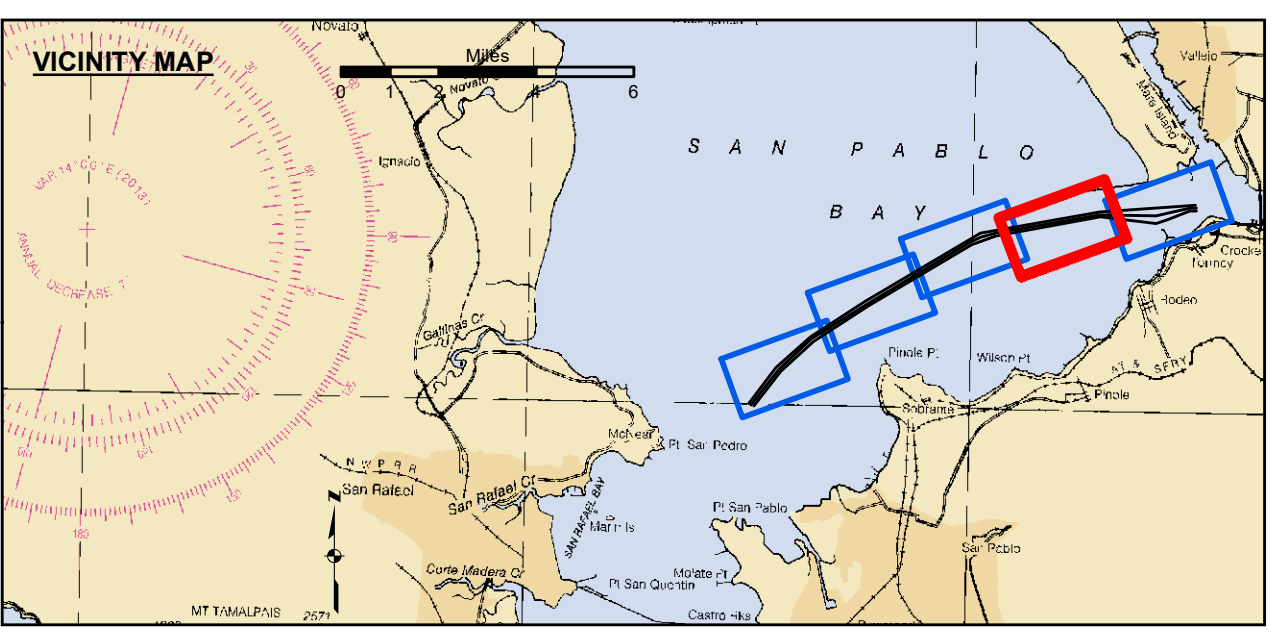
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Recommended: Chief, Hydro Survey Section	Checked by: PDT
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**CALIFORNIA**  
**SAN PABLO BAY**  
**PINOLE SHOALS**  
**CONDITION SURVEY**  
**12-18 JANUARY 2022**

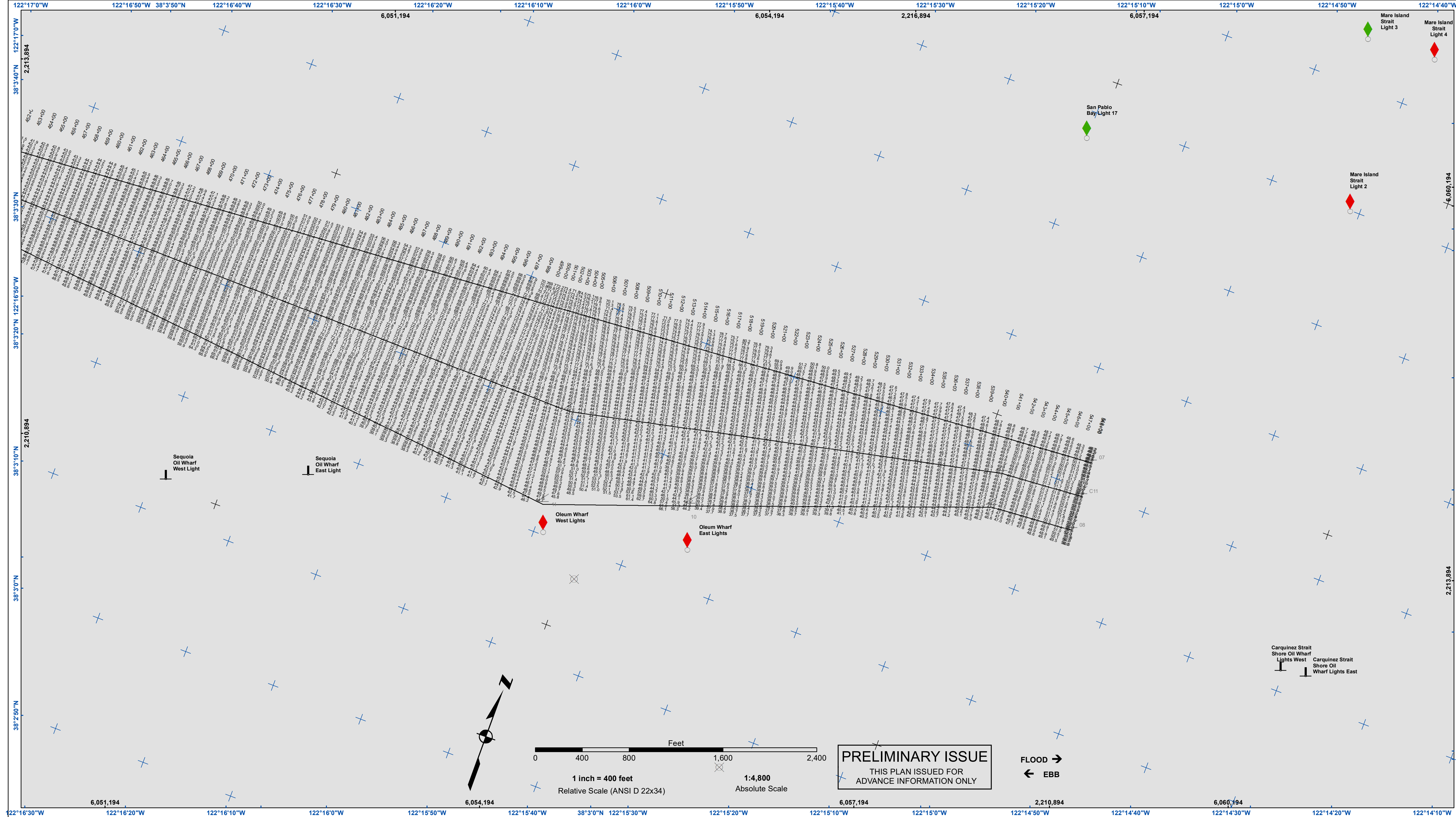
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Federal Navigation Channel	Beacon, General	<b>Contours</b>
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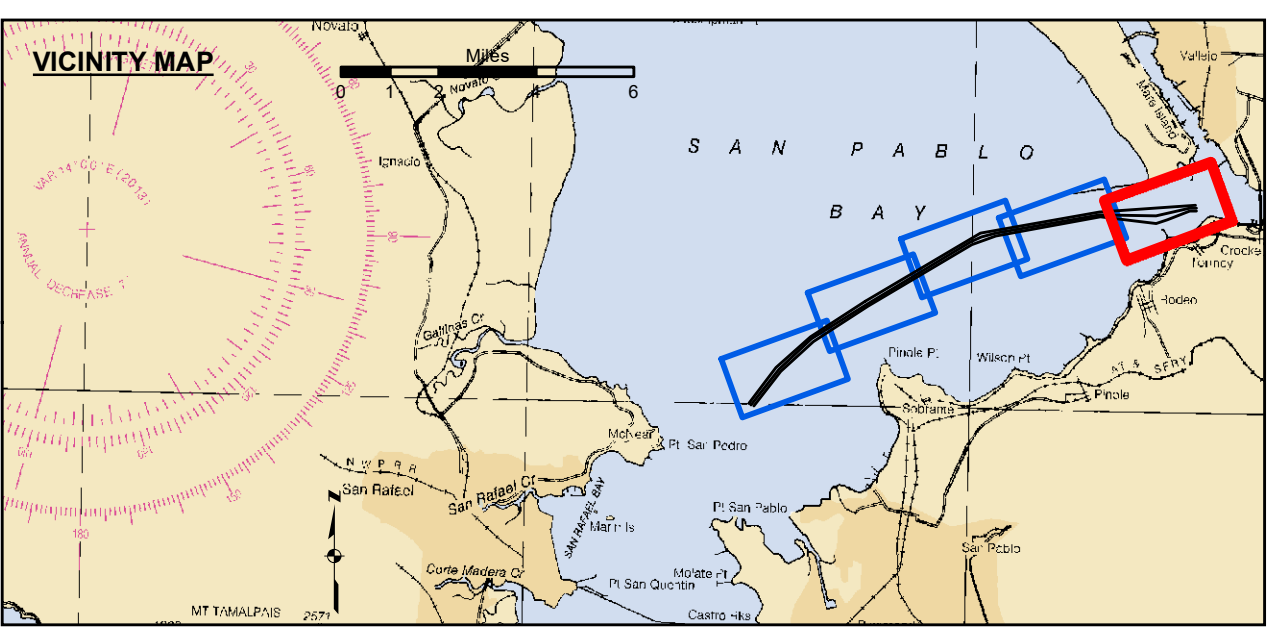
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LT COLONEL C.E. DISTRICT ENGINEER	Feb 03, 2022
Submitted:	Plotted By:
Hydro Survey Team Leader	PDT
Recommended:	Checked By:
Chief, Hydro Survey Section	PDT
Approved:	Drawn by:
Chief, Construction Branch	PDT

CALIFORNIA  
**PINOLE SHOALS**  
 CONDITION SURVEY  
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 SAN PABLO BAY

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