DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton, Director

State: California

DESCRIPTIVE REPORT
Topographic Sheet No. F 4812

LOCALITY

Pacific Coast.
El Jarro Point to Big Gulch.

1932

CHIEF OF PARTY
Fred L. Peacock
DESCRIPTIVE REPORT
to accompany
TOPOGRAPHIC SHEET FIELD NO. F
Project No. 101
Coast of California
U.S.C. & G.S.S. GUIDE
1932

INSTRUCTIONS: Instructions for the topography on this sheet are dated April 4, 1932.

ORGANIZATION OF PARTY: The topographic party consisted of one officer and three men. The party based at the town of Pescadero for a part of the time and at the City of Santa Cruz for the remainder. A truck was used for transportation.

LIMITS: This sheet consists of a resurvey of the area adjacent to the shoreline between Latitude 37° 01.5 and Latitude 37° 06.7.

GENERAL DESCRIPTION OF COAST: The shoreline on this sheet consists of bluffs of varying heights and slopes. From the south end of the sheet to the mouth of Scotts Creek the bluffs rise nearly vertically and the foot of the bluff coincides with the High Water Line. Scotts Creek forms a wide break in the bluff. During the greater part of the year there is little water in the creek and its mouth is blocked by a sand bar. Northward from Scotts Creek to Latitude 37° 04.4 the bluffs are steep and the foot of the bluff coincides with the High Water Line. From Latitude 37° 04.4 north to the mouth of Waddell Creek in Big Gulch, there is a strip of sand beach below the bluffs. Big Gulch forms a wide break in the bluffs. Waddell Creek in Big Gulch is a small stream with a sand bar blocking its mouth during the greater part of the year. The north side of Big Gulch is very steep and the bluffs to the north are very prominent. They are whitish in color and rise to a height of nearly 400 feet. These bluffs are composed of soft material are rapidly breaking down.

From the south end of the sheet to Scotts Creek there is a bench sloping back to the hills. This bench is all under cultivation. From Scotts Creek north to Big Gulch the hills come directly to the edge of the bluffs. These hills are not very steep except just south of Big Gulch and the greater part is under cultivation or used as pasture land. North of Big Gulch the hills are very steep and partially wooded, as is the area directly south of Big Gulch.
LANDMARKS: The bluffs just north of Big Gulch are very prominent and should be mentioned in the Coast Pilot. There are no other landmarks on this sheet.

CHARACTER OF CONTROL: Control for this survey was furnished by second order triangulation executed in 1931 by Lieutenant C. D. Meany. The stations are plotted on the North American 1927 Datum. The adjusted positions of the stations were used.

SURVEY METHODS: Only standard survey methods were used. Setup positions were all determined by traverse, using three point fixes as checks whenever possible. All features which were not rodded in were located by three or more cuts. Separate traverses were run in locating the road excepting that portion of the road north of Big Gulch which was located at the same time as the shoreline. Sunken rocks were located by cuts to the breakers or boiling caused by them. Notes are placed on the sheet indicating that the positions are approximate. In estimating the elevations of offlying rocks and of rocks awash a curve drawn from the predicted tides was used to determine the stage of the tide.

74860

On Sheet Field Letter E, directly to the north of this sheet, no control was available east of A Evo and it was found necessary to run a traverse on two sheets. A traverse was run from \( \triangle \) Evo, orienting on \( \triangle \) Gill Derrick, eastward to Topographic Station Nei on Sheet E. On this sheet, a traverse was run northward from \( \triangle \) Grey, orienting on \( \triangle \) Evo and closing on Topographic Station Nei. The closing error was then distributed proportionately over the two traverses. Both traverses were run and the adjustment made before any detail was rodded in.

That portion of the road between Big Gulch and \( \triangle \) Grey was located by a traverse from \( \triangle \) Grey northward and closed on Topographic Station Shed.

CLOSING ERRORS OF TRAVERSES AND METHOD OF ADJUSTMENT: All traverses closed within the allowable limit of four meters per mile of traverse and they were adjusted by distributing the error proportionately over the traverse.

<table>
<thead>
<tr>
<th>Traverse</th>
<th>Error in Meters</th>
<th>Distance Azimuth</th>
<th>Length of Traverse Statute Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \triangle ) Evo to ( \triangle ) Grey. . . .</td>
<td>-3</td>
<td>3</td>
<td>5.4</td>
</tr>
<tr>
<td>( \triangle ) Grey to ( \triangle ) Ocean. . . .</td>
<td>-6</td>
<td>5</td>
<td>4.1</td>
</tr>
<tr>
<td>( \triangle ) Ocean to ( \triangle ) Jaro. . . .</td>
<td>-3</td>
<td>2</td>
<td>1.3</td>
</tr>
<tr>
<td>( \circ ) Shed to ( \triangle ) Grey, Road</td>
<td>-2</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>Traverse . . .</td>
<td>-2</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>( \triangle ) Grey to ( \triangle ) Jaro, Road Traverse</td>
<td>-5</td>
<td>23</td>
<td>7.0</td>
</tr>
</tbody>
</table>

* See second paragraph under SURVEY METHODS.
GEOGRAPHIC NAMES: In Latitude 37° 06', Longitude 122° 16.5 the creek is shown as Waddel Creek on the Geological Survey map of this area and signpost at the bridge crossing the creek uses the name "Waddel Creek". The valley through which the creek flows is shown as Big Quich on the Coast Survey chart. Both names are shown on the sheet.

CHANGES IN THE COASTLINE: Due to the difficulty in determining the correct datum for transferring the work on the bermides of the old sheets no good comparison could be made of the old and new shoreline.

From the south end of the sheet to Latitude 37° 04.5 the surf acts directly on the foot of the bluffs and they are slowly being broken down. The recession of the shoreline due to this breaking down appears to be small. This was verified by residents in this vicinity.

COMPARISON WITH AERIAL PHOTOGRAPHS: Aerial photographs for this area were available and were closely examined. A large number of the features located on the topographic sheet are easily recognizable on the photographs and if the photographs are to be reduced there are a sufficient number of points easily recognizable on both. The photographs were also closely examined and compared with the topographic sheet in order to pick up any errors or omissions.

COMPARISON WITH HYDROGRAPHIC SHEET FIELD NO. 6: The hydrographer and topographer collaborated in comparing the hydrographic and topographic sheets. The rocks awash located on the topographic sheet were all too close inshore for the hydrographer to attempt to verify their positions. The sunken rocks on the topographic sheet just north on Latitude 37° 04' were inshore from the inner hydrographic line. The soundings gave indications of the existence of these rocks. The remainder of the rocks were too close inshore for the hydrographer to attempt to verify.

JUNCTIONS: Satisfactory junctions were made with Topographic Sheet Field Letter B on the north and G on the south.

MISCELLANEOUS: Several red circles indicating topographic stations are shown on the sheet having no names. These stations were temporary stations located but not used by the hydrographer. The circles had been inked before it was learned that the hydrographer had not used them, so they were left on the sheet.
A list of recoverable topographic stations located accompanies this report. Form No. 524, Description of Hydrographic or Topographic Station was filled out for each of these stations and are forwarded with the sheet.

Respectfully submitted,

W. C. Applequist
H. C. Applequist, Aid,

Respectfully forwarded,
approved:

F. H. Hardy,
H. & G. Engineer, C. & G. S.,
Commanding Ship GUIDE.
STATISTICS

to accompany

TOPOGRAPHIC SHEET FIELD LETTER F

Project No. 101
Coast of California
U.S.C. & G.S.S. GUIDE
1932

DATE FIELD WORK BEGAN
August 18, 1932

DATE FIELD WORK WAS COMPLETED
September 19, 1932

NUMBER OF DAYS OF FIELD WORK
13

STATUTE MILES OF SHORELINE
9.2

STATUTE MILES OF ROAD
12.5

AREA IN SQUARE STATUTE MILES
8.4

NUMBER OF RECOVERABLE HYDROGRAPHIC
STATIONS LOCATED
5
LIST OF TOPOGRAPHIC STATIONS

to accompany

TOPOGRAPHIC SHEET FIELD LETTER F

Project No. 101
Coast of California
U.S.C. & G.S.S. GUIDE
1932

<table>
<thead>
<tr>
<th>Hydrographic Name</th>
<th>Object and Description</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bil</td>
<td>West gable of white house</td>
<td>Center</td>
</tr>
<tr>
<td>Tall</td>
<td>Tallest tank at General Petroleum Co. plant</td>
<td>Center</td>
</tr>
<tr>
<td>Gab</td>
<td>West gable of white barn</td>
<td>Center</td>
</tr>
<tr>
<td>Tank</td>
<td>Southeast of two whitewashed water tanks, Big Gulch</td>
<td>Center</td>
</tr>
<tr>
<td>Tuf</td>
<td>Standard Hydrographic Station Disc.</td>
<td></td>
</tr>
</tbody>
</table>
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

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

Field Letter ...."E"......

REGISTER NO.

State..........................California..................................................

General locality............Pacific Coast...........................................

Locality......................El Jorro Point to Big Sulch..........................

Scale......................1:10,000........Date of survey........September, 1932

Vessel........................U.S.C. & G.S.S. Guide...........................

Chief of Party..............Fred. L. Peacock.................................

Surveyed by..................H. C. Applequist................................

Inked by......................H. C. Applequist................................

Heights in feet above M. N. W. to ground X X X X X X X X X X X X X X X X X

Contour Approximate contour interval 20 feet

Instructions dated............April 4, 1932.................................

Remarks:..........................................................
REVIEW OF TOPOGRAPHIC SURVEY No. 4812

Title (Par. 56) O.R.

Chief of Party H.L. Peacey

Surveyed by H.C. Applegate

Instructions dated April 4, 1932

Surveyed in Sept. 1932

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) Yes

2. The character and scope of the survey satisfy the instructions. Yes

3. The control and closures of traverses were adequate. (Par. 12, 29.) Yes

4. The amount of vertical control that the Manual specifies for -contours-formlines- was accomplished. (Par. 18, 19, 20, 21, 22, 23.) Yes

5. The delineation of -contours-formlines- is satisfactory. (Par. 49, 50.) Yes

6. There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.) No maps submitted

7. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.) No marsh or mangrove. High water line adequate.

8. The representation of low water lines, reefs, coral reefs and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41.) Yes

9. Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.) Yes

10. The span, draw and clearance of bridges are shown. (Par. 16c.) No bridges within this area.

11. Locations and elevations of summits are given. (Par. 19, 51.) Yes

12. The tree line was shown on mountaine. (Par. 16c.)

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.
13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.)

Yes

14. The descriptive report also contains additional information required in aero-topography relative to type of photography, method of compilation and type of ground control.

Yes

15. The descriptions of recoverable stations and references to shore line were accomplished on Form 524. (Par. 29, 30, 57, 67 except scaling of DMs and DPs, 68.)

Yes

16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) No prominent landmarks with exception of bluffs north of Big Creek. Form 567 not filled out.

Yes

17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.)

Yes

18. The geographic datum of the sheet is North American 1927 and the reference station is correctly noted. (Par. 34.)

Yes

19. Junctions with contemporary surveys are adequate. The junction on the north with T-4800 is adequate. The sheet which joins on the south has not yet been received.

Yes

20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.)

Yes

21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.)

Quality good

22. No additional surveying is recommended.

None recommended

23. The Chief of Party inspected and approved the sheet and the descriptive report after review by H. C. Applegate.

24. Remarks: Survey considered very good. The contours shown in pencil were transferred from the survey of 1830 to 1845. The contours in red are the old contours which have been modified in some places, with occasional check elevations.

Reviewed in office by H. C. Johnson.

Examined and approved:

C. E. Gun
Chief, Section of Field Records

J. W. Pattee
Chief, Division of Charts

L. C. Grobert
Chief, Section of Field Work

R. W. Kline
Chief, Division of Hyd. and Top.