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

State: California

DESCRIPTIVE REPORT
Topographic Hydrographic Sheet No. F 6047

LOCALITY
Southern California Coast
Schumann Canyon to Mt. Lowe

1934

CHIEF OF PARTY
DESCRIPTIVE REPORT
TO ACCOMPANY TOPOGRAPHIC SHEET NO. F
Point Sal South  California Coast
Latitude 34° 51' to 34°

U.S.C. & G.S.S. PIONEER  O. W. SWAINSON, CMDC.

AUTHORITY

This work was done in accordance with instructions dated November 18, 1932, to the Commanding Officer of the PIONEER, for Project No. 120, and also those dated April 4, 1932, to the Commanding Officer of the GUIDE, Project No. 101. The topography was done during the month of January, 1934.

CONTROL

The control was established by cuts on triangulation points located previously by F. G. Johnson in 1933 at an approximate maximum distance of two miles along the coast line. Traverses were run between these stations with the following errors of closure:

\[ \bigtriangleup \text{Schumann, 1933, to\ A\ Lion's Head, 1933} \quad \text{Short 5 meters in distance Traverse adjusted proportionally.} \]

\[ \bigtriangleup \text{Lion's Head, 1933, to\ A\ Reef-2, 1933} \quad \text{Flat.} \]

\[ \bigtriangleup \text{Reef-2, 1933, to\ A\ Cliff, 1933} \quad \text{Flat.} \]

Offlying rocks and backlying land features were located by cuts. Elevations of prominent peaks and knolls were determined and contours checked from a form line standpoint.

GENERAL DESCRIPTION

This section is characterized by a sharp rock cliff line of varying height with extensive rock and reef patches offlying and steep grassy slopes back of the cliff, rising to Mount Lospe, the top of the range.

From \bigtriangleup \text{Schumann} northward about 1000 meters the coast line consists of broad sand beach extending about 50 meters back of the high water line, where a narrow stretch of low grassy dunes mark the end of the beach. Back of these low dunes is a band of bare sand.

Continuing northward, the sand beach is broken up by several reefs mostly outcropping below the high water line. At the inshore edge of the beach about fifty meters back of the high water line is a low rock cliff topped with sandy loam, the cliff being about 40 feet in elevation. The area between the cliff line and the road is under cultivation, these cultivated fields being broken up by two extensive canyons south of \bigtriangleup \text{Lion's Head}. 
About 500 meters south of ▲ Lion's Head is an extensive reef which is at the head of the northernmost canyon where the cliff increases to about 70 feet elevation. At points between these two canyons the base of the cliff is the high water line and there are many offlying rocks.

▲ Lion's Head is on a rocky knoll, elevation 456 feet, about 150 meters back of the cliff line. The cliff line is from 75 to 100 feet in height, very steep, and composed almost entirely of dark rock with a topping of sandy loam. The high water line is on a beach of boulders and lies very close to the base of the cliff.

About 350 meters west of ▲ Lion's Head, just north of a projecting point in the cliff line, a close-in reef starts and continues for about 800 meters with the high water line on boulders adjacent to the base of the cliff. The top of the cliff is broken by many indentations caused by erosion and at the center of the reef is a small canyon.

About 1300 meters southeast of ▲ Reef-2 the high water line starts to follow the base of the cliff, which rises with little break to the road. It rises therefrom to a rocky knoll, 221 feet in elevation. Just northeast of this knoll are many offlying rocks and several extensive rock islets of a maximum height of about 20 feet. The cliff line consists of many points and small, deep bights, some of the bights having narrow sand or gravel beaches with the high water line thereon adjacent to the cliff.

▲ Reef-2 is located on the southwest corner of a broad, flat section of cultivated land and marks the location of an extensive offlying reef and several rocks offlying about 450 meters.

From ▲ Reef-2 to ▲ Cliff is a stretch of sand beach with high water line about 60 meters from the base of the cliff. The cliff is about 90 feet in elevation, composed of a low rock base and a brown sandy soil above. There are two canyons extending back from the cliff line, the southernmost marking the location of a series of farm buildings and shade trees at the road.

▲ Cliff is located on a knoll at the top of the cliff, about 210 feet elevation. The cliff from about 300 meters southeast of ▲ Cliff northward is high dark rock with the high water line on a beach of boulders adjacent to the base of the cliff. There are several rocks offlying this point.

The road is improved gravel and marks the inshore edge of the flat section of land lying between the road and the cliff and also the base of the steep grassy slopes up to the ridge and Mount Lospe. At ▲ Cliff the road branches, one branch leading to the old landing and the other ascending abruptly the slopes to the top of the ridge and thence to Guadalupe.

About 900 meters north of ▲ Lion's head is a sharp rock peak (topographic station TIP) which is 466 feet elevation, the last 50 feet being bare white and of slender proportion. Just north thereof is a rock cliff of which the east portion is red in color.
Between \( \triangle \) Substitute and \( \triangle \) Lospe is an outcropping of white and light buff colored stratified rock. The top of this range of mountains, about 1630 feet elevation, is a narrow flat grassy ridge, the easterly portion of the ridge being the highest, 1637 feet elevation, and having scattered pine trees thereon.

A fine black line is used to indicate the bank at the edge of the low grassy dunes, the bank being very abrupt.

**LANDMARKS**

1. **Lion's Head** This knoll, resembling in shape the frame of a lion and having a bare rock outcropping on the southeastern end, corresponding to the head of the lion, is marked by \( \triangle \) Lion's Head, 1933, elevation 456 feet. Being visible from the northwest, west, and south, and being known by the above name in this section, this knoll should be charted.

2. **Trees** These trees near the top of the range, Mount Lospe, are very conspicuous against the grass and sky background, stand out very prominently. The most westerly tree (topographic station Tree) is about 30 meters south of the highest point on the range, 1637 feet elevation. These trees are visible from all directions and should be charted.

**CHANGES IN COAST LINE**

North of \( \triangle \) Schumann the high water line moves offshore approximately 80 meters.

From about 1000 meters north of \( \triangle \) Schumann to \( \triangle \) Reef-2, the shore line and cliff line shown on the old topographic sheets preserves roughly the form of that indicated on the new sheet, checking with the new sheet at isolated points, but showing considerable discrepancy in the location of individual features.

North of \( \triangle \) Reef-2, the high water line moves offshore from none to 40 meters.

Off \( \triangle \) Cliff the cliff line preserves the approximate form of that shown on the old sheet, but varies in location, moving offshore 10 to 50 meters.

The rocks and reefs indicated on the old topographic sheet check with the new sheet only in isolated spots, a great profusion of rocks and reefs and islets shown on the new topographic sheet not being indicated on the old.

It is recommended that the location of the coast line and offlying rocks as indicated on Topographic Sheet F be substituted for locations given by the old survey.

The contours indicated on the old topographic sheet are substantially correct with the exception of the 100 foot contour which has been changed in red on the new sheet.
Note the topographic station TIP, a peak not indicated on the old topographic sheet and also contour changes just north thereof.

Note change in 200 foot contour at "Cliff" and also at topographic station "OUT.

Note change in 400 foot contour at "Lion's Head.

Note the addition of a 1634 foot elevation peak south of topographic station "TREE" and the accompanying 1600 foot contour.

Note the changed elevations of "Lospe, 1875, and "Substitute, 1878, and the added elevation of 1637 feet, the highest point on the range just north of topographic station "TREE."

The streams above the road as indicated on the new sheet in black ink were transferred from the old topographic sheet and the locations checked by alidade cuts, but not by traverses up these streams.

The extensive buildings at "Cliff" indicated on the old topographic sheet no longer exist and should be removed, as should those east of topographic station "TANK."

Note the location of the improved road and of the cultivated fields in contrast to the grassy slopes as indicated on the new sheet.

STATISTICS

<table>
<thead>
<tr>
<th>Description</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shore line</td>
<td>6.8 statute miles.</td>
</tr>
<tr>
<td>Area</td>
<td>6.5 square statute miles.</td>
</tr>
<tr>
<td>Road</td>
<td>4.0 statute miles.</td>
</tr>
</tbody>
</table>

Signed:

Harold Clarke,
Topographer.

Approved and forwarded:

O. W. Swainson,
R. & G. Engineer,
Commanding PIONEER.
<table>
<thead>
<tr>
<th>Item</th>
<th>Latitude</th>
<th>DM</th>
<th>Longitude</th>
<th>DP</th>
<th>Eleva-</th>
<th>Remarks</th>
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</thead>
<tbody>
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<td>meters</td>
<td></td>
<td>meters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROOF</td>
<td>34 51</td>
<td>210</td>
<td>120 35</td>
<td>908</td>
<td>194'</td>
<td>NW Gable of Barn</td>
</tr>
<tr>
<td></td>
<td>Back</td>
<td>1539</td>
<td>Back 616</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIP</td>
<td>34 52</td>
<td>1116</td>
<td>120 37</td>
<td>240</td>
<td>466'</td>
<td>Bare, white tipped peak.</td>
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<tr>
<td></td>
<td>Back</td>
<td>668</td>
<td>Back 1284</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROCKY PEAK</td>
<td>34 52</td>
<td>1518</td>
<td>120 37</td>
<td>661</td>
<td>509'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Back</td>
<td>331</td>
<td>Back 836</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TANK</td>
<td>34 53</td>
<td>159</td>
<td>120 37</td>
<td>1336</td>
<td>194'</td>
<td>Corrugated iron tank- 25' dia. 15' high.</td>
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<tr>
<td></td>
<td>Back</td>
<td>1690</td>
<td>Back 186</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GAB</td>
<td>34 53</td>
<td>337</td>
<td>120 37</td>
<td>1450</td>
<td>25'</td>
<td>25' above grnd.</td>
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<tr>
<td></td>
<td>Back</td>
<td>1512</td>
<td>Back 74</td>
<td></td>
<td></td>
<td>W. Gable of barn</td>
</tr>
<tr>
<td>TREE</td>
<td>34 53</td>
<td>1000</td>
<td>120 35</td>
<td>1223</td>
<td>1650</td>
<td>(Approx.)</td>
</tr>
<tr>
<td></td>
<td>Back</td>
<td>849</td>
<td>Back 301</td>
<td></td>
<td></td>
<td>Lone West Tree.</td>
</tr>
<tr>
<td>WEST END</td>
<td>34 52</td>
<td>849</td>
<td>120 37</td>
<td>975</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rubble Wall</td>
<td>Back</td>
<td>1000</td>
<td>Back 549</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PIN</td>
<td>34 52</td>
<td>1082</td>
<td>120 37</td>
<td>1451</td>
<td>35'</td>
<td>Rock pinnacle.</td>
</tr>
<tr>
<td></td>
<td>Back</td>
<td>767</td>
<td>Back 73</td>
<td></td>
<td></td>
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Non-recoverable Plane Table Positions - Sheet F

<table>
<thead>
<tr>
<th>Item</th>
<th>Latitude $^\circ$'</th>
<th>Longitude $^\circ$'</th>
</tr>
</thead>
<tbody>
<tr>
<td>EX</td>
<td>34 50</td>
<td>120 36</td>
</tr>
<tr>
<td>PERT</td>
<td>34 51</td>
<td>120 36</td>
</tr>
<tr>
<td>SHAF</td>
<td>34 51</td>
<td>120 36</td>
</tr>
<tr>
<td>BLAC</td>
<td>34 51</td>
<td>120 36</td>
</tr>
<tr>
<td>A</td>
<td>34 51</td>
<td>120 36</td>
</tr>
<tr>
<td>RED</td>
<td>34 51</td>
<td>120 36</td>
</tr>
<tr>
<td>SLAT</td>
<td>34 52</td>
<td>120 36</td>
</tr>
<tr>
<td>RIM</td>
<td>34 52</td>
<td>120 37</td>
</tr>
<tr>
<td>COR</td>
<td>34 52</td>
<td>120 37</td>
</tr>
<tr>
<td>MUT</td>
<td>34 52</td>
<td>120 37</td>
</tr>
<tr>
<td>POY</td>
<td>34 52</td>
<td>120 37</td>
</tr>
<tr>
<td>TRI</td>
<td>34 52</td>
<td>120 37</td>
</tr>
<tr>
<td>OUT</td>
<td>34 52</td>
<td>120 37</td>
</tr>
<tr>
<td>BAN</td>
<td>34 52</td>
<td>120 37</td>
</tr>
<tr>
<td>PO</td>
<td>34 52</td>
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<tr>
<td>UM</td>
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<td>120 38</td>
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<tr>
<td>FLAG</td>
<td>34 53</td>
<td>120 38</td>
</tr>
<tr>
<td>HAIR</td>
<td>34 53</td>
<td>120 38</td>
</tr>
</tbody>
</table>
LANDMARKS FOR CHARTS

Str. PIONEER, Long Beach, Calif.

February 1, 1934.

SUPERINTENDENT, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted:

O. W. Swainson,

Chief of Party.

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>Position</th>
<th>Method of determination</th>
<th>Charts affected</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Latitude</td>
<td>Longitude</td>
<td>Datum</td>
</tr>
<tr>
<td></td>
<td>D. M. meters</td>
<td>D. P. meters</td>
<td></td>
</tr>
<tr>
<td>Lion's Head</td>
<td>34 52</td>
<td>312 120 39 0.5</td>
<td>1927 Triang.</td>
</tr>
<tr>
<td>Tree</td>
<td>34 55</td>
<td>1000 120 35 1523</td>
<td>1927 Topogr.</td>
</tr>
</tbody>
</table>

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.
LANDMARKS

TOPOGRAPHIC SHEET NO. F.

(1) Lion's Head - This knoll, resembling in shape the figure of a lion and having a bare rock outcropping on the southeastern end, corresponding to the head of the lion, is marked by Lion's Head, 1933, elevation 456 feet. Being visible from the northwest, west, and south, and being known by the above name in this section, this knoll should be charted.

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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. 6C47

State: California

General locality: Pacific Coast

Locality: Schumann Canyon to Mt. Loara

Scale: 1:10,000 Date of survey: January 1934

Vessel: U.S.C. & G.S. PIONEER

Chief of Party: O. M. Lawton

Surveyed by: Harold Clarke

Inked by: Harold Clarke

Heights in feet above M.D. to ground to contour Approximate contour Form line interval 100 feet

Instructions dated: November 18, 1932

Remarks: 

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES
MAY 7, 1934

Acc. No. 6C47
REVIEW OF TOPOGRAPHIC SURVEY No. 60147

Title (Par. 56) Schumann Canyon to Mt. Lopez

Chief of Party O.W. Swainson Surveyed by H. Clarke Inked by H. Clarke

Ship Pioneer Instructions dated Nov. 14, 1832 Surveyed in January 1934

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

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

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

4. The amount of vertical control that the Manual specifies for contours-formlines was accomplished. (Par. 18, 19, 20, 21, 22, 23.) Check elevations taken and corrections made to old contours where necessary.

5. The delineation of contours-formlines is satisfactory. (Par. 49, 50.) Corrections to old contours made in part. In most cases old contours were adequate.

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.) Films attached & Descriptive Report showing part of the area of this sheet.

7. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.)

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.)

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

See reverse side

10. The span, draw and clearance of bridges are shown. (Par. 16c.)

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

12. The tree line was shown on mountains. (Par. 16g.)

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.
Paragraph 9

The comparison and changes between the present survey and previous surveys T1055 (1867) and T1595 (1879) are exceptionally well discussed in the paragraph "Changes in Coast Line" of the Descriptive Report.

T1055 (1867)

The detail of the present survey is much more dependable than that on T1055. In general there is good agreement but rocks are more carefully shown on the present survey.

T1595 (1879)

The same may be said about this survey as T1867. Although the general conformity of the shore line is the same the present survey is much more in detail with far better control.

T6047 supersedes T1055 (1867) and T1595 (1879) in part.

Chart 5302

Whereas the chart 5302 shows mostly a sand beach for the area covered by T6047 the shore is mostly a rocky reef formation.
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.)

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

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.) 8 cards submitted.

16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.)

17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) No indication of having checked declinamre.

18. The geographic datum of the sheet is N.A. 1877 (Adjusted) and the reference station is correctly noted. (Par. 34.)

19. Junctions with contemporary surveys are adequate.
   - Joint T 6270 (1934) on the North
   - Joint T 6046 (1933) on the South.

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

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.)

22. No additional surveying is recommended.

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

24. Remarks:

Reviewed in office by    May 29, 1936
Chas. R. Bush Jr.

Examined and approved:

[Signatures]

Chief, Section of Field Records
L. F. Green

Chief, Section of Field Work
Fred L. Peacock

Chief, Division of Charts
H. W. Duff

Chief, Division of Hyd. and Top.