

6045

U. S. COAST & GEODETIC SURVEY
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Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. A. Patton, Director

State: California

DESCRIPTIVE REPORT

Topographic
Hydrographic

Sheet No. D 6045

LOCALITY

South Pacific Coast

Purisima Point

1933

CHIEF OF PARTY

O. W. Swainson, H. & G. Engineer.

U. S. GOVERNMENT PRINTING OFFICE: 1931

6045

DESCRIPTIVE REPORT TO ACCOMPANY
TOPOGRAPHIC SHEET NO. "D" .

Vicinity of Purissima Point, California.
Latitude $34^{\circ} 43'$ to $34^{\circ} 47'$

U.S.C. & G.S.S. PIONEER

O. W. SWAINSON, CMDG.

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. This topography was done during the month of November, 1933.

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.

Plane table traverses were run between these stations with the following errors of closure and methods of adjustment:

△ Packard to △ Rancheria - Short 7 meters in distance. Out 3 meters in orientation. Traverse adjusted by running back and rechecking cuts from both ends.

△ Rancheria to △ Purissima Point-2 - Long 2 meters. Flat for orientation. Traverse adjusted by cuts from △ Purissima Pt.-2.

△ Purissima Pt.-2. to △ Prominent - Traverse checked flat.

Offlying rocks and prominent land features were located by cuts. Short supplementary traverses were run wherever necessary to determine the railroad location. Elevations of prominent points were determined and contours checked from a form line standpoint.

GENERAL DESCRIPTION

From △ Packard to △ Purissima Pt.-2 the coast line consists of low vertical cliffs, 20 to 50 feet in elevation of which about 20 feet is dark ledge rock, and of extensive offlying reefs and rocks interspersed with short stretches of sand beach. The high water line follows mainly the base of the cliff or adjacent thereto. From △ Packard to the trees immediately north of topographic station GAB, the top of the cliff is a dark brown sandy soil, this terrain covered with grass and gradually sloping up to the railroad. Between the edge of the cliff and the road skirting the cliff are short stretches of low, grassy sand dunes. From the railroad, the ground slopes up more precipitously to the mesa above. From topographic station GAB to topographic station TAG, these low grassy dunes skirt the cliff and rise to chaparral covered dunes continuing to the railroad. From topographic station TAG to topographic station GET, are an extensive group of broad, flat bare dunes immediately back of the cliff, gradually rising to the rougher chaparral covered dunes.

△ Purissima Pt.-2 is located on a low projecting islet and reef reaching a maximum elevation of 8 feet. This islet consists of brown and black ledge rock of rough character spotted with innumerable boulders. The reef encompassing the islet is an unbroken projection of mainland ledge rock.

From △ Purissima Pt.-2 to △ Prominent-2, the cliff disappears, being replaced by low grassy dunes immediately back of the sand beach. Extending out from the sand beach are frequent stretches of close in reefs and some isolated rocks. Opposite the larger stretches of reefs are loose boulders evidently washed up on the beach from these reefs. From the low grassy dunes gradually rise the higher chaparral covered dunes. East of the railroad is generally a broad mesa, broken up by an occasional wash. The eucalyptus trees along the east side of the railroad as wind breaks form a prominent land feature.

CHANGES IN COAST LINE

From △ Packard to topographic station GAB near Old Lompoc Landing, the old survey shows the approximate form of the section with considerable variation in the location of any individual feature. This makes comparison with any degree of certainty difficult. The offlying rocks, reefs, high water line and cliff line shown on the old topographic sheet should be removed and indicated in accordance with the new survey.

Lompoc Landing no longer exists except as a name. The buildings and piers should be removed from the old topographic sheet. Just north of the old landing is an extensive reef which should be changed as indicated.

Minor changes in cliff line and high water line occur from the old landing to topographic station INK. Also note new offlying rocks and reefs. Just south of topographic station INK is a bight extending back 60 meters from the point indicated on the old topographic sheet.

North of topographic station INK the cliff is back about 50 meters.

Note new rocks north to Purissima Pt. and changes in extent of reefs at Purissima Point.

Northward to topographic station POD are minor variations in high water line.

From topographic station POD to just north of topographic station TALL the high water line has built up to throw it out approximately 40 meters. Thence to the end of topographic sheet "D", minor variations occur in the high water line.

Note change in contours at the railroad.

About 300 meters north of Rancheria is a grassy dune and 100 foot contour not shown on the old topographic sheet.

Just north thereof note the change in the 100 foot contour on the bare dunes. Changes in the bare dunes is further evidenced by the fact that Beach (Old) is indicated on the old topographic sheet as being 55 feet in elevation, whereas the new survey shows this point as having an elevation of 42 feet.

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

LANDMARKS

The several lines of trees are generally visible from all directions, stand out from the surrounding terrain, and should be charted.


MISCELLANEOUS

Southern Pacific Railroad added.

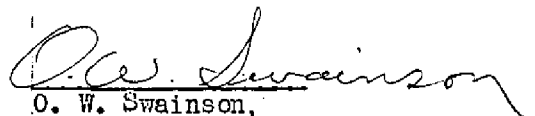
Variable road@Packard to Lompoc Landing is of temporary nature and location and will be replaced by new county road. The road over the dunes is impassable by auto in the soft sand. It consists merely of ruts in the sand. All the old roads crossing the railroad have been fenced off.

STATISTICS

Shore line	6.5 statute miles.
Area	7.0 square statute miles.
S.P.R.R.	4.8 statute miles.
Road	2.0 statute miles.


Harold Clarke,
Topographer.

Approved and forwarded:


O. W. Swainson,
H. & G. Engineer,
Commanding PIONEER.

Recoverable Plane Table Positions

Item	Latitude		DP meters	Longitude		DM meters	Remarks
	°	'		°	'		
Block Signal #3004	34	42	1326	120	35	1288	
		Back	523		Back	238	
Mile Post #300	34	43	253	120	35	1433	
		Back	1596		Back	93	
Block Signal #2995	34	43	1079	120	36	293	Elevation 130' Base.
		Back	770		Back	1233	
Mile Post 299	34	43	1744	120	36	391	
		Back	105		Back	1135	
NW Corner Bldg. near Lompoc Landing	34	43	1736	120	36	1290	
		Back	113		Back	236	
NW Corner and End County Road fence.	34	43	383	120	36	678	Elevation 26' Top.
		Back	1466		Back	848	
Block Signal #2988	34	44	144	120	36	485	Elevation 150' Base
		Back	1705		Back	1041	
CUT	34	44	877	120	36	1077	Elevation 185' Base (Blk. Sig. #2983)
		Back	972		Back	449	
Mile Post #298	34	44	1249	120	36	1242	
		Back	600		Back	284	
Block Signal #2978	34	44	1627	120	36	1226	West side of track.
		Back	222		Back	300	
Block Signal #2970	34	45	959	120	36	733	West side of track.
		Back	890		Back	793	
Block Signal #2966	34	45	1552	120	36	721	
		Back	297		Back	805	
Water Tank	34	44	1800	120	36	1515	Elevation 250' Top
		Back	49		Back	11	Galv. Corrugated Iron 15' high.

Non-recoverable Positions

Station	Latitude	Longitude	Remarks
	° '	° '	
Port	34 42	120 36	Elevation 35'
Fog	34 43	120 36	
Gin	34 43	120 36	
Wy	34 43	120 36	
Pole	34 43	120 36	
Mis	34 43	120 36	
Gab	34 43	120 36	
Bar	34 44	120 36	
Aim	34 44	120 37	
Cor	34 44	120 37	Elevation 37'
Ce	34 44	120 37	
Duk	34 44	120 37	
Tag	34 44	120 37	
Ink	34 44	120 37	
Spot	34 45	120 37	
Get	34 45	120 37	
Bum	34 45	120 38	
Tier	34 45	120 38	
Key	34 45	120 38	
Pod	34 45	120 37	
Tall	34 46	120 37	
Dirt	34 46	120 37	
Ark	34 46	120 37	
Do	34 46	120 37	

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REG. NO. 6045

TOPOGRAPHIC TITLE SHEET

Acc. No. _____

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 DREGISTER NO. 6045State CaliforniaGeneral locality Pacific CoastLocality Purisima PointScale 1:10,000 Date of survey November, 19 33Vessel U.S.C. & G.S.S. PIONEERChief of Party O. W. SwainsonSurveyed by H. ClarkeInked by H. ClarkeHeights in feet above MHW to ground to tops of trees~~Contours approximate contour~~ Form line interval 100' feetInstructions dated November 18, 1932, 19

Remarks: _____

Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. 6045 (1933)

Purissima Point, Pacific Coast, California

Surveyed: November, 1933

Instructions dated: Nov. 18, 1932 (PIONEER), April 4, 1932 (GUIDE)

Plane Table Survey

Aluminum Mounted

Chief of Party - O. W. Swainson.

Surveyed by - H. Clarke.

1. Condition of Records.

The records conform to the requirements of the Topographic Manual in every respect.

2. Compliance with Instructions for the Project.

The survey complies with the instructions.

3. Junction with Contemporary Surveys.

Satisfactory junction was made with T-4851 (1933) on the south and with T-6046 (1933) on the north.

4. Comparison with Prior Surveys.

a. T-1555 a & b (1879).

A comparison of this survey with the present survey shows small discrepancies in the high water line, but the difference is in no case greater than 25 meters and is probably due to a different interpretation of the high water line. The changes in the bare sand dunes are fully covered in the Descriptive Report. There is considerable discrepancy in the offlying rocks and reefs. However, all of the rocks of the old survey are verified or reefs are shown outside of the former locations, with the exception of a rock awash in lat. $34^{\circ}45.85'$, long. $122^{\circ}38.15'$, which is not verified on the present survey. It is very likely that this rock does not exist in view of the fact that rocks which bare only 1 foot at MLLW are located in the immediate vicinity. For that reason it is not carried forward but will be finally disposed of in the hydrographic review of this area.

Rock awash
found on Hydro.
within 60m.
See Rev. H-5742
(1934), par. 6 b.

5. Field Drafting.

The field inking of the survey is good.

6. Additional Field Work Recommended.

The survey is complete and no additional field work is required.

7. Superseding Old Surveys.

Insofar as the topography included on the present survey is concerned, it supersedes the following surveys for charting purposes:

T-1555 a & b (1879).

8. Reviewed by - A. F. Jankowski, March, 1935.

Examined and approved:

C. K. Green, *C. K. Green*
Chief, Section of Field Records.

L. O. Lobert
Chief, Division of Charts.

F. S. Borden
Chief, Section of Field Work.

G. H. de
Chief, Division of H. & T.

Applied to drawing of Chart 5302 - Mar. 25, 1936 - JFW.
" " " " 5202 " 1936 L.M.J.

Appl to drawing new chart 5281 10-28-63 RKD