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DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: California

DESCRIPTIVE REPORT

Topographic
Hydrographic

Sheet No. c 4851

LOCALITY

Pacific Coast

Point Pedernales to Santa

Inez River

1933

CHIEF OF PARTY

O. W. Swainson.

U. S. GOVERNMENT PRINTING OFFICE: 1929.

4851

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

REG. NO.

4851

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 110REGISTER NO. 4851State CaliforniaGeneral locality Pacific CoastLocality Point Pedernales to Santa Inez RiverScale 1:10,000 Date of survey October, 19 33Vessel U.S.C. & G.S.S. PIONEERChief of Party O. W. Swainson,Surveyed by H. Clarke,Inked by H. Clarke,Heights in feet above M H W to ground ~~to tops of trees~~~~Contours Approximate contours~~ Form line interval 100 feetInstructions dated November 18, 1932, 19

Remarks:

DESCRIPTIVE REPORT

TO ACCOMPANY TOPOGRAPHIC SHEET NO. C.

Vicinity of Pt. Pedernales North, California Coast.
Latitude $34^{\circ} 36'$ to $34^{\circ} 43'$ N.

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. The topography was done during the month of October, 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. Traverses were run between these stations along with the following errors of closure:

Traverse	Distance	Orientation	Remarks
Δ Promontory to Δ Edgir	30 m. long	Flat	Due to shrinkage of sheet.
Δ Edgir to Δ Bear Valley ₂	Flat	Flat	- - -
Δ Bear Valley ₂ to Δ Surf	2 m. long	13 m.	Due to sheet distortion.
Δ Surf to Δ Packard	Flat	Flat	- - -

The traverse from Δ Promontory to Δ Edgir was checked and adjustments made by applying shrinkage error to rod readings and adjusting each set up accordingly. The traverse from Δ Bear Valley₂ to Δ Surf was check back to Δ Bear Valley₂ by means of a supplementary traverse along the railroad, checking flat on Δ Bear Valley₂. Both traverses were then adjusted proportionally.

Offlying rocks and backlying land features were located by cuts, with the exception of the Pine Trees which were located by a supplementary traverse. Wherever possible, elevations of prominent peaks and knolls were determined and contour lines were checked from a form line standpoint.

GENERAL DESCRIPTION

In general, this section is characterized by a sharp cliff line of varying heights with the railroad immediately back thereof, followed by chapparal covered sand dunes and then grassy slopes up the higher peaks and ridges. Δ Promontory is located on a rocky knoll 150 feet in height. The cliff line

Immediately north thereof to Honda Creek is approximately 50 feet in height, with flat grassy land rising to the railroad. Extending out about 150 meters from two points on this cliff line are two extensive patches of offlying rocks. The cliff is composed of white ledge rock of sedimentary nature and of dark brown sandy soil. The High Water line is on the sand adjacent to the base of cliff except at the two points, where it follows the base of the cliff. The mouth of Honda Creek, about 200 meters wide, is a flat sand beach with the railroad bridge about 150 meters back of the high water line. North of Honda Creek the cliff line gradually increases in height from approximately 50 feet to 190 feet 900 meters north of Δ Edgir, the base of the cliff being the high water line except for a stretch of about 600 meters just south of Δ Edgir where it lies on the sand adjacent to the cliff. The cliff is again characterized by vertical white rock ledges approximately 30 feet in height, the remainder being a brown, sandy soil. The rocky ledges are in the process of disintegration in many places. There are four points of offlying rocks, the northernmost off topographic station SUB being the most extensive. From about 900 meters north of Δ Edgir to Δ Bear Valley₂, the cliff line lessens gradually in height to about 50 feet, the High Water Line leaves the cliff, being approximately 75 meters away at Δ Bear Valley₂, and follows an undulating line to Δ Surf. It is to be noted that Δ Edgir and Δ Bear Valley₂ are located on high dunes, chapparal covered. The cliff line north from Δ Bear Valley₂ increases in height to 125 feet and then decreases to approximately 40 feet about 1600 meters north of Δ Bear Valley₂. At this point, the cliff line disappears entirely into the low, grassy sand dunes which start out from the base of the cliff about 600 meters south. These dunes continue up to and finally terminate at the south end of the Santa Inez River Railroad bridge. After a 100 meter gap the cliff comes along fairly uniformly, being composed entirely of brown, sandy soil. The more or less undulating high water line approximately parallels the cliff to Δ Surf. The dunes back of the cliff line disappear about 500 meters south of Δ Surf and the railroad follows the edge of the cliff. The highway leading from Lompoc to Surf runs along a sharp rock cliff just north of Surf. About 200 meters north of Surf, both cliffs die away and the mouth of the Santa Inez River Basin is low lying land breaking out into a broad sand beach, broken up by low dunes west of the railroad and the railroad fills and bridge across the river itself.

The Santa Inez River in appearance is virtually a small lake with piers of timber poles and decking, used for small pleasure boats. At the south end of the bridge and east of the railroad fill is a small settlement called Ocean Park, which is not visible from the sea.

North of the Santa Inez River, the broad sand beach with its now straight high water line is closely backed by a band of low grassy dunes. Between these dunes and the railroad is a marsh.

Starting about 800 meters north of Δ White Barn, South Peak, the cliff which is here about 25 feet high, and formed of dark, decomposing ledge rock, extends to Δ Packard. Extending from this cliff are numerous rocks and continuous reefs. Back of the cliff are grassy slopes extending up to an extensive mesa.

LANDMARKS

(1) Δ Promontory - This marks a rock knoll of 150 feet elevation, rising to a sharp peak, 100 feet higher than the surrounding terrain. This knoll is visible from the south, west, and north, and should be charted.

(2) Honda Creek, S. P. R. R. Bridge- This bridge, about 110 feet in height, with its supporting network of steel piers and deep girders is visible from the south and west especially, and should be charted.

(3) The extensive group of pine trees opposite Honda Railroad Station and laid out in an intricate pattern of straight lines to serve as wind breaks are very prominent objects against the grassy background, can be seen from the north, south, and west and should be charted.

The group of eucalyptus trees laid out in the form of an L north of Δ Wiser is conspicuous from the north, south, and west and should be charted.

(4) Large, low, black Oil Tank- This tank, while rising to only about 20 feet above the ground at its peak is about 40 feet in diameter, of steel plates, marks roughly the end of the railroad activity at Surf; and though it may be obscured by the freight cars at times, should be charted.

(5) Surf high, black Water Tank- This tank, of wood construction, is the highest prominent object at Surf, is visible from the north, south, and west and should be charted. South of this tank about 15 meters is a black standpipe slightly lower than this tank.

(6) Santa Inez Railroad Bridge- This bridge, 32 feet in height, of girder construction with numerous piers, stands out from its foreground of sand beach and water and its background of water, is visible from the north, south, and west and should be charted. This marks the North end of the railroad activity at Surf, the sidings and Y being between the bridge and the oil tank.

CHANGES IN COAST LINE

Rocks - Note new rocks awash offlying the two rock patches between Δ Promontory and South side of Honda Creek.

The two rocks off point 400 meters north of Honda Creek are part of the cliff.

Note new position of rocks awash off Topographic Station KUS.

Note new rocks awash and sunken rock off Topographic Station SUB

Note rocks located 600 meters north of Δ Edgir, new location and new rocks inshore.

Note location of new rocks north of Topographic Station Ban, and offlying Topographic Station ROD.

Note reef offlying Δ White Barn, S. Peak, and Δ Packard.

All rocks shown outside the High Water Line on the old topographic sheets should be removed and indicated in accordance with the new survey. No evidence could be found of the few shown on the old and not on the new sheet.

HIGH WATER LINE AND CLIFF

Cliff north of Honda Creek to Topographic Station GRO washed back approximately 30 meters except at the points.

Cliff Topographic Station GRO to Δ Edgir washed back approximately 50 meters.

Base of cliff line Δ Edgir to approximately 1000 meters north of Δ Bear Valley moves seaward 20 to 40 meters but the top coincides approximately with the new survey.

High water line immediately north of Δ Edgier moves offshore about 30 meters and then approximates the old High Water Line to about 400 meters north of Δ Bear Valley₂.

From this point to the Santa Inez River the High Water Line moves offshore 30 to 50 meters. Note grassy dunes at base of cliff not shown on old topographic sheet.

Note changes in Santa Inez River and also change of lake shown north thereof to marsh.

High Water Line Santa Inez River to Topographic Station BAN moves offshore about 20 meters.

Cliff Topographic Signal BAN to Δ Packard washed back 10 to 50 meters.

CONTOURS

Note 100 foot and 200 foot contour changes and correction north Honda Creek to topo sta SUB.

Note 100 foot and 200 foot contour changes along railroad north to Block Signal No. 3037.

Note 300 foot contour change near Δ Wiser.

The elevations marked in red were determined in the process of this survey.

The old contours were checked by inspection and these determined elevations were apparently correct except where altered as shown in red.

MISCELLANEOUS

Southern Pacific Railroad added.

Paved road from Lompoc to Surf and poor variable road north of Santa Inez River added. This latter road is being replaced by a new county road from Lompoc, shown on topographic sheet "D".

Adjacent to road from Lompoc to Surf is a rock cliff as indicated. Roads of Surf are all dead end roads, of changeable location and no improvements, mostly ruts in sand. There is no means of getting south of Honda Creek with any kind of vehicle by any road.

Mile posts 305 and 308, not being visible from offshore were not encircled in red.

STATISTICS

Shore Line	10 statute miles.
Area	7 square statute miles.
S. P. R. R.	9 statute miles.
Road	2.5 statute miles.

Field work executed and
report written by:

H. Clarke
H. Clarke, Topographer

Approved and forwarded:

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

PLANE TABLE POSITIONS
RECOVERABLE

Item	Latitude	DM	Longitude	DP	Height	Remarks
Block Signal #3085	34° 36'	+340 m	120° 38'	+ 289 m.		
Block Signal West Side #3082	34 36	1100	120 38	87		
Mile Post 308	34 36	1310	120 38	5		
Block Signal West Side #3074	34 37	468	120 37	1271		
Block Signal #3068	34 37	1137	120 37	991		
Block Signal #3065	34 37	1716	120 37	734		
Mile Post 306	34 38	610	120 37	442		
Block Signal #3060	34 38	718	120 37	398		
Mile Post 305	34 39	156	120 36	1254		
Block Signal #3042	34 39	1396	120 36	775		
Block Signal West Side #3032	34 40	792	120 36	415		
Mile Post 303	34 40	1202	120 36	469		
Block Signal West Side #3028	34 40	1532	120 36	438		
Oil Tank (TANK)	34 40	1578	120 36	401		
Surf Station (STA)						
Block Signal	34 40	1776	120 36	366		
Block Signal (SIGN) #3026	34 41	1113	120 36	325		
House Ventilator (VENT)	34 41	145	120 36	338	55 ft.	Approx. Apex of 4 hipped roof- larg est house of group.
Block Signal (SWITCH) West Side #3020	34 41	824	120 35	1505		
Block Signal #3016	34 41	1523	120 35	1156		
Block Signal (RAIL) #3011	34 42	519	120 35	1149		
Block Signal #3004	34 42	1326	120 35	1289		
Fence Corner (FENCE)	34 41	238	120 36	321	10 ft.	
Base Pipe Culvert (HO)	34 37	1576	120 37	886	10 ft.	

PLANE TABLE POSITIONS
UNRECOVERABLE

Item	Scaled Latitude	Scaled Longitude	Adjusted Latitude	Adjusted Longitude
In	34°36' 622m	120°38' 482m	34°36' 627m.	120°38' 483 m.
Sad	34 36 768	120 38 420	34 36 774	120 38 421
Bri	34 36 1004	120 38 277	34 36 1012	120 38 278
Sta	34 36 1418	120 38 207	34 36 1430	120 38 207
Sq	34 36 1528	120 38 175	34 36 1540	120 38 175
Soc	34 36 1658	120 38 42	34 36 1671	120 38 42
Rum	34 37 109	120 37 1455	34 37 110	120 37 1460
Kus	34 37 290	120 37 1391	34 37 292	120 37 1396
Gro	34 37 475	120 37 1362	34 37 479	120 37 1366
Not used.	34 37 771	120 37 1158	34 37 777	120 37 1161
Sub	34 37 814	120 37 1251	34 37 821	120 37 1254
Mix	34 37 992	120 37 1123	34 37 999	120 37 1126
Bla	34 37 1281	120 37 955	34 37 1291	120 37 958
Cul	34 37 1598	120 37 850	34 37 1559	120 37 852
Low	34 38 337	120 37 664	34 38 340	120 37 665
Cliff	34 38 861	120 37 494	34 38 869	120 37 495
White	34 38 1161	120 37 322	34 38 1171	120 37 323
New	34 38 1367	120 37 236	34 38 1378	120 37 237
Kick	34 38 1634	120 37 127	34 38 1646	120 37 127
Toe	34 39 34	120 37 42	34 39 34	120 37 42
Bath	34 39 290	120 36 1456	34 39 292	120 36 1460
Tub	34 39 555	120 36 1381	34 37 560	120 36 1384
Red	34 39 823	120 36 1295	34 39 830	120 36 1298

Unrecoverable Plane Table Positions
Continued

Item	Scaled Latitude		Scaled Longitude		Adjusted Latitude		Adjusted Longitude	
		m.		m.		m.		m.
Strip	34°39'	1064	120°36'	1212	34°39'	1072	120°36'	1215
Mut	34 39	1311	120 36	1134	34 39	1322	120 36	1137
Ray	34 39	1587	120 36	1050	34 39	1599	120 36	1053
Do	34 40	51	120 36	951	34 40	52	120 36	954
Can	34 40	270	120 36	876	34 40	273	120 36	879
Dog	34 40	592	120 36	775	34 40	598	120 36	778
Slat	34 40	867	120 36	700	34 40	876	120 36	702
Pole	34 40	1117	120 36	612	34 40	1128	120 36	614
Flag	34 40	1308	120 36	567	34 40	1322	120 36	568
Three	34 41	547	120 36	227	34 41	552	120 36	228
Dune	34 41	1181	120 35	1517	34 41	1191	120 35	1525
House	34 41	1555	120 36	53	34 41	1569	120 36	53
Cat	34 42	175	120 35	1494	34 42	177	120 35	1501
Ban	34 42	513	120 35	1423	34 42	518	120 35	1430
Rod	34 42	943	120 36	34	34 42	953	120 36	34
Ben	34 42	1319	120 36	269	34 42	1333	120 36	270

LANDMARKS

" (1) Promontory - This marks a rock knoll of 150 feet elevation, rising to a sharp peak, 100 feet higher than the surrounding terrain. This knoll is visible from the south, west, and north, and should be charted.

(2) Honda Creek - S. P. R. R. Bridge - This bridge, about 110 feet in height, with its supporting network of steel piers and deep girders is visible from the south and west especially, and should be charted.

" (3) The extensive group of pine trees opposite Honda Railroad Station and laid out in an intricate pattern of straight lines to serve as wind breaks is a very prominent object against the grassy background, can be seen from the north, south, and west, and should be charted.

" (4) The group of eucalyptus trees laid out in the form of an L north of Δ Wieser is conspicuous from the north, south, and west, and should be charted.

✓ (4) Large low black Oil Tank - This tank, while rising only about 20 feet above the ground at its peak is about 40 feet in diameter, of steel plates, marks roughly the end of the railroad activity at Surf, and though it may be obscured by the freight cars at times, should be charted.

✓ (5) The Black Water Tank at Surf is on a high supporting steel framework and is conspicuous.

✓ (6) Santa Inez Railroad Bridge - This bridge, 32 feet in height, of girder construction with numerous piers, stands out from its foreground of sand beach and water and its background of water, is visible from the north, south, and west, and should be charted. This marks the north end of the railroad activity at Surf, The sidings and Y being between the bridge and the oil tank.

Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. 4851 (1933)

Point Pedernales to Santa Inez River, Pacific Coast, California

Surveyed: October, 1933 (PIONEER)

Instructions dated: November 8, 1932

Plane Table Survey

Cloth 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, with the following exceptions:

- a. Scaled one-half meter distances were not laid off for distortion checking.

2. Compliance with Instructions for the Project.

The survey complies with the instructions.

3. Junction with Contemporary Surveys.

Satisfactory junctions were made with T-4865 (1933) and T-6045 (1933).

4. Comparison with Prior Surveys.

a. T-1520 (1877).

A comparison of this survey with the present survey shows good agreement in general features. All of the rocks shown on the prior survey were verified except for a sunken rock off Pt. Pedernales, which is being carried forward in red. The present survey shows a few rocks near shore which were not located on the previous survey.

b. T-1555 (1879).

The shoreline common to the surveys is a straight stretch of beach with no marked changes in shoreline. The new survey shows a rock group in lat. $34^{\circ}42.5'$ which was not located on the old survey. Other differences are some filling in Santa Inez River and new construction and improvements.

5. Field Drafting.

The field inking of the survey is satisfactory.

6. Additional Work Recommended.

The survey is complete and no additional work is necessary.

7. Superseding Prior Surveys.

Within the area covered the new survey will supersede the following for charting purposes:

T-1520 (1877) in part.

T-1555 (1879) " "

8. Reviewed by - A. F. Jankowski, February 4, 1935.

Examined and approved:

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

K. T. Adams
Acting Chief, Division of Charts.

Paul D. Brown
Chief, Section of Field Work.

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

*Applied to drawing of chart 5302 - Mar. 26, 1936 - JAW,
" " " " 5202 - Mar 1936 R.M.Z*

Applied to drawing of new chart 5281 10-28-63 RKO