



2977, 2978,

2979, 2980,

2981, 2982.

Department of Commerce and Labor

COAST AND GEODETIC SURVEY.

O.H. Tittman, Superintendent.

Topo. No. 17 to 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

DESCRIPTIVE REPORT OF TERRITORY

INCLUDED IN REVISION OF TOPOGRAPHY.

MENPOCINO CO. - - - - CALIFORNIA.

August to November - - - - 1909.

2977-2981

DESCRIPTIVE REPORT OF SHEETS INCLUDED IN REVISION
OF TOPOGRAPHY MENDOCINO COUNTY, CALIFORNIA.

C. & G. SURVEY,
LIBRARY AND ARCHIVES
JAN 3 - 1910
Ass No.

Coast and Geodetic Survey Sub-office,

San Francisco, Cal. Dec. 2, 1909.

To The Superintendent,

Coast and Geodetic Survey,

Washington, D. C.

Sir:

I have the honor to submit the following report on the revision of topography on the coast of Mendocino Co. California, August to November, 1909.

Portions of five of the original sheets were included in the revision and the following report is accordingly divided into five sections which combined include that portion of the coast between Laguna Point on the North and Elk Creek on the South.

7p 2981 1. PUDDING CREEK TO LAGUNA POINT.

All work on this sheet was done with the plane table, traverse lines being run from Laguna Point, the only station recovered.

Important additions are: the wharf at Laguna Point, the village of Cleone, and the wireless station on Bald Hill. The tramway from Laguna Point through Cleone is unused and the mill (not shown) at its end is in ruins. Pudding Creek is now crossed by a bridge seventy-five feet in height, neither the old ford nor the bridge at the dam are passable. The dam has raised the surface of the water over all marshes four feet so that the line on the original sheet indicating the boundary of stream and marsh combined is now the boundary of the pond thus formed. The railroad along the South bank of Pudding Creek is shown on the next sheet

1. PUDDING CREEK TO LAGUNA POINT Con't'd.

Some rocks and breakers just North of Pudding Creek were determined during this revision and are shown in ink.

The woods line though well defined is continually changing, all timber shown is pine.

2. POINT CABRILLO TO PUDDING CREEK.

29th 2900

All work on this sheet, except the locating of a few prominent buildings South of Fort Bragg with the sextant, was done with the plane table.

At Fort Bragg and Caspar maps of mill property were transferred to the sheet after a number of prominent points were located. Township corners and lines were put on from these maps. Portions of the railroads shown in black at these two places were determined in the field; those in red were transferred from maps in possession of the lumber companies. These maps are quite accurate. At Fort Bragg a town plat was transferred to the sheet and buildings sketched in. Houses on the outskirts are shown in detail, heavy black lines indicate blocks entirely built up.

The woods line on this sheet is not well defined, all timber shown is pine.

Important additions to this sheet are: the town^s of Fort Bragg and Caspar; the railroads at each place the wharf at the former, and Pt. Cabrillo Light House. Bridges have been built to reduce grade at Hare Creek Jug Handle Creek and Mitchell's Gulch and the road changed at Caspar for the same purpose.

The South point of the reef at Fort Bragg and the rock South of the entrance were determined and are shown in ink. A line through the West gable of the mill and the fire tower passes midway between these two dangers; in thick weather the South side of the wharf is used as a range for entering this harbor. *An assisting buoy off this point is located.*

Noyo harbor is entered on the range formed by the point of woods on the North side of the river and a small white house with two dormer windows back on the hill near the race track.

Stations recovered on this sheet are: Soldier's Harbor, North Noyo, South Noyo, Caspar Point, Cabrillo, and Gordon.

3. STILLWELL POINT TO POINT CABRILLO

208-2479 ✓

All work on this sheet was done with the plane table.

The most important additions to this sheet are ; the light station at Point Cabrillo; and parts of the town of Mendocino.

Point Cabrillo Light is of the third order ; characteristic, flashing white every ten seconds ; the focal plane is eighty-four feet above mean low water . The light is displayed from a small tower on the east end of the rectangular building in which the machinery of the fog signal is located. The fog signal is a compressed air siren giving two second blasts at intervals of two and twenty four seconds. The elevation of land at light is fifty-four feet. The light and the water tower nearby were determined by triangulation. The latter is about eighty feet in height.



Point Cabrillo Light House.

Russian Gulch is the first shipping point South of Point Cabrillo; the tie yard at this place is shown and a rock and breakers off the North point determined. The owner of the yard placed a temporary buoy on a sunken rock in the harbor which was then located with the plane table. There was 15.6 feet of water on this rock at 11:00 A.M. SEPT. 22 making 11.0 ft. the depth at L.L.W. as computed from the tide tables . ✓

Mendocino ,the next point of importance , is somewhat larger than at the time of the original survey,nearly all buildings have been built since that time.Prominent points including street corners were determined and buildings sketched in , solidly built up portions are indicated by heavy black lines .

The mill at Little River is destroyed and the river filled up with the exception of a small creek in the center of the old pond. Nearly all buildings shown are new and the wharf has been extended a short distance

From Point Cabrillo to Little River the woods line is quite well defined ; South of this point most of the woods has been recently cut and burned over leaving only scattered pine and redwood.

Bridges have been built to reduce grade at Jack Peter's Gulch , Little River,and Buck Horn Creek .

Prominent landmarks on this sheet are : the light-house and water tower at Point Cabrillo,the school-house and Catholic church at Mendocino (both structures are painted white),and a barn just North of Kent triangulation station. ✓

Stations recovered are : Cabrillo,Gordon,Pine Grove,Point , and Stillwell.

Topc-2978

4. BIGHT TRIANGULATION STATION TO STILLWELL POINT.

This work was done with the plane table from Stillwell Point to Salmon Creek and from Navarro Southward; the buildings on Navarro Ridge were cut in with the sextant.

A traverse line was run from Stillwell Point South to determine the County road which has been moved back along the hills to reduce the grade. The principal points in Albion were located and a map of the Albion Lumber Co.'s used to fill in the details. The road to the interior and the railroad as far as shown in black were determined in the field. That portion of the railroad shown in red was transferred from a map of the N.W. Pacific R.R. Co. All land visible from the railroad as far as the edge of the sheet is very hilly cut over land; the road runs along the bed of the Albion River.

The hydrographic signals at Albion were located with the plane table from stations Handley and McPherson.

A rock swash just North of Albion was determined and one cut obtained to a breaker outside, the approximate position of the latter is indicated on the sheet it having been seen while searching for station Albion. It breaks in very rough weather only. The breakers off the North point of Albion were determined by several cuts with the sextant. Others off the South point of Salmon Creek were determined in the same manner; the outer of these is very prominent and is known as the "Bull Rock".

Salmon Creek or Whites-borough is nearly deserted; all timber has been cut from its watershed and the logging road and mill are destroyed. The wharf is in ruins.

Navarro is entirely deserted, the mill is burned to the ground and all buildings are in a ruinous state as they were left by the earthquake of 1906.

South of Navarro the topography differs but little from that

of the original survey.

One cut was obtained to a breaker abreast of Saddle Point and its approximate position marked on the sheet.

Prominent landmarks on this sheet are ; a white house (hydro-graphic signal Eglan) near Stillwell Point , a windmill on Navarro Ridge , the church and hall on the edge of the bluff at Albion and the pole on the wharf at that place.

A whistling buoy off Albion is determined.

Stations recovered are; Stillwell , McPherson , Handley , and Saddle Point.

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5. ELK CREEK TO CUFFEY'S COVE.

This work was nearly all done with the plane table, the sextant being used to cut in a few off-lying rocks from points below Elk Creek.

The principal additions to this sheet are the town and wharf at Greenwood and the logging railroad from the Greenwood mill out Elk Creek. This railroad runs along the edge of the bluff between Greenwood and Elk Creek in places being supported on trestles outside the upper bluff line. A dam has been built across the mouth of Greenwood Creek to form a log pond, the top of this pond is 23 ft. above high water mark.

The most prominent landmarks are: the church spire at Cuffey's Cove and the school-house at Greenwood.

Cuffey's Cove is the only station recovered.

C. M. Cade

Aid, Coast and Geodetic Survey.

Approved and respectfully submitted.

Ferdinand Westdahl

Assistant, Coast and Geodetic Survey,

Chief of Party.

RESOURCES, SHIPPING FACILITIES, POPULATION ETC. OF MENDOCINO COUNTY,
EMERACED IN REVISION OF TOPOGRAPHY.

Cleone, the upper limit of the work, was at one time a thriving village, but now it has a population of not more than Seventy five (75), and is of little importance as the valuable timber has been cut off.

The tramway from the wharf at Laguna Point is no longer in use; ties being brought to the place by wagon only. Occasional shipments are made by the Union Lumber Co. of Fort Bragg, which owns the wharf.

Formerly the Glen Blair Lumber Co. shipped from Cleone, drawing lumber over the Bald Hill Ridge, but all their product is now sent to Fort Bragg by rail now.

Fort Bragg is a flourishing town, the largest on the coast between San Francisco and Eureka, having a population of Three thousand (3,000). It is supported by lumber interests. The Union Lumber Co. has a mill at this place, cutting Forty million (40,000,000) feet per year. This Co. has built a standard gauge railroad back into the country Twenty five (25) miles, and is now bringing logs to its mill from a point on the Noyo River. One passenger train a day is run on this road and connection is made by automobile and stage with the N.W. Pacific at Willets, to which point it is proposed the railroad shall ultimately be extended.

There are now Three mills shipping their product to Fort Bragg by rail and thence by water, each having a capacity of Fifty (50) M/day. The Union Lumber Co. of this place also has control of the lumbering interests on the Ten Mile River, where no lumbering has yet been done. It is estimated that it will take not less than Fifteen (15) years at the present rate of a

cutting, to exhaust the supply tributary to the present line of the railroad. This Company is reforesting with Eucalyptus, or Blue Gum. One thousand (1,000) acres will be planted next year. At present, Seventy (75) % of the cut is Redwood, 20% Pine and 05% is hardwood.

Noyo is practically a part of Fort Bragg, the shipping facilities being controlled by the same Company. The town itself, is of no importance, it being nearly deserted, but the harbor is an excellent one: any moderate^{sized} deep sea vessel can be loaded here, while at Fort Bragg, only smaller ships can enter. The largest load ever taken out of Fort Bragg was Seven hundred fifty thousand (750,000) feet. Vessels lie alongside wharf at this pier. At Noyo they are loaded by slings and cables.

Viewed from an Agricultural stand point, the country in this vicinity is not of the best; the land where it is level enough for farming being stony. Stock raising may in time become a valuable asset of the region, however, Fort Bragg affords an excellent market for all farm products.

Lumber is shipped to all parts of the world, Mexico and Australia being recipients of the major portion exported.

Caspar, the first village South of Fort Bragg has a population of Seven hundred (700).

All the timber has been cut from the water shed of Caspar Creek and the logs are now brought by rail from the water shed of the Noyo. The capacity of the mill is One hundred M/day. Lumber schooners are loaded by slings and cables. These constitute the only type of vessels loaded here.

Between Caspar and Mendocino, there is one shipping point, Russian Gulch, at which point ties are loaded.

Mendocino, the oldest town in this revision, has a population of Twelve hundred (1200). The mill at this point saws One hundred (100) M/day. Logs

are brought to it by rail to a point Four miles up the river, from whence they are rafted down the remaining distance. About Thirty five million (35,000,000,) feet of lumber is shipped each year; of this Ten million (10,000,000) feet are in ties and posts. Two thirds of this product is sent to San Francisco and Southern California ports for redistribution. One half the ties go to Chili and Peru. Some are sent to Mexico.

There are One hundred twenty five thousand (125,000) acres in the watershed of Big River: of this, Twenty eight thousand (28,000) is cut over land, Twenty five thousand (25,000) is open land, brush, ²chemisal etc., and the remaining Seventy two thousand (72,000) acres is timbered, averaging Twenty (20) M/acre.

All large timber has been cut from the watershed of Little River. Ties are still being shipped from this point. There is a wharf here and the Str. "Sea Foam" makes weekly calls enroute from San Francisco to Mendocino.

Albion is the first shipping point South of Little River. The mill and the timber land in this vicinity are owned by the Albion Lumber Co. which has recently become the property of the Southern Pacific Co. The mill has a capacity of One hundred ten (110) M/day. Ninety (90) percent of the cut is Redwood, the balance Pine.

A railroad, part of the N.W. Pacific, runs from the coast along the Albion River Twelve (12) miles distant, then crosses to the North fork of the Navarro and continues to Wendling, Twenty two (22) miles inland. It is proposed to continue this line to connect with the main line of the above named system.

Ties are shipped from this point to Mexico; most of the lumber is sent to San Francisco and Southern California ports.

Lumber schooners are loaded while lying at the end of the wharf; larger ships are loaded by slings and cables. The S.S. Pomo makes weekly trips to San Francisco.

The major portion of the land in this vicinity is unsuited for farming. Hay and potatoes are raised in sufficient quantities to supply the local demand. Apples do very well all along the coast, but the climate is too cold and damp for other fruits. Here, as at all places in this section, the custom of burning over the land after the trees have been cut to get rid of the brush before taking out the logs, has destroyed the young timber, and laid the surface bare to erosion during the heavy rains of winter.

The village of White^Sborough is nearly deserted; all timber has been cut from the water shed of Salmon Creek, and the wharf is in ruins. The cove contains a great deal of kelp, the line of separation being quite distinct

Navarro was at one time one of the most flourishing villages on the coast, but it is now entirely deserted. The holdings of the Navarro Lumber Co. are extensive. The Company is said to have failed through mismanagement. 2

Greenwood or Elk P.O., has a population of about Five hundred (500). It shows more conspicuously from the sea than any other town on this part of the coast, being built near the high bluff North of Greenwood Creek.

The mill at this place is owned by the L.E. White Lumber Co.; it has a capacity of One hundred (100) M/day. The logs are brought to the mill by a narrow gauge railroad, running back into the country Twenty (20) miles. Twelve (12) miles from the coast it cuts from Elk Creek into the water shed of Alder Creek, from whose head waters timber is now being cut

Redwood and pine are cut at this mill; the percentage of pine being somewhat larger than at other mills in this section. From One thousand (1000) to Fifteen hundred (1500) cords of tan bark are shipped from this point each year. It is estimated that the supply tributary to this mill will last Twenty (20) years, at the present rate of cutting.

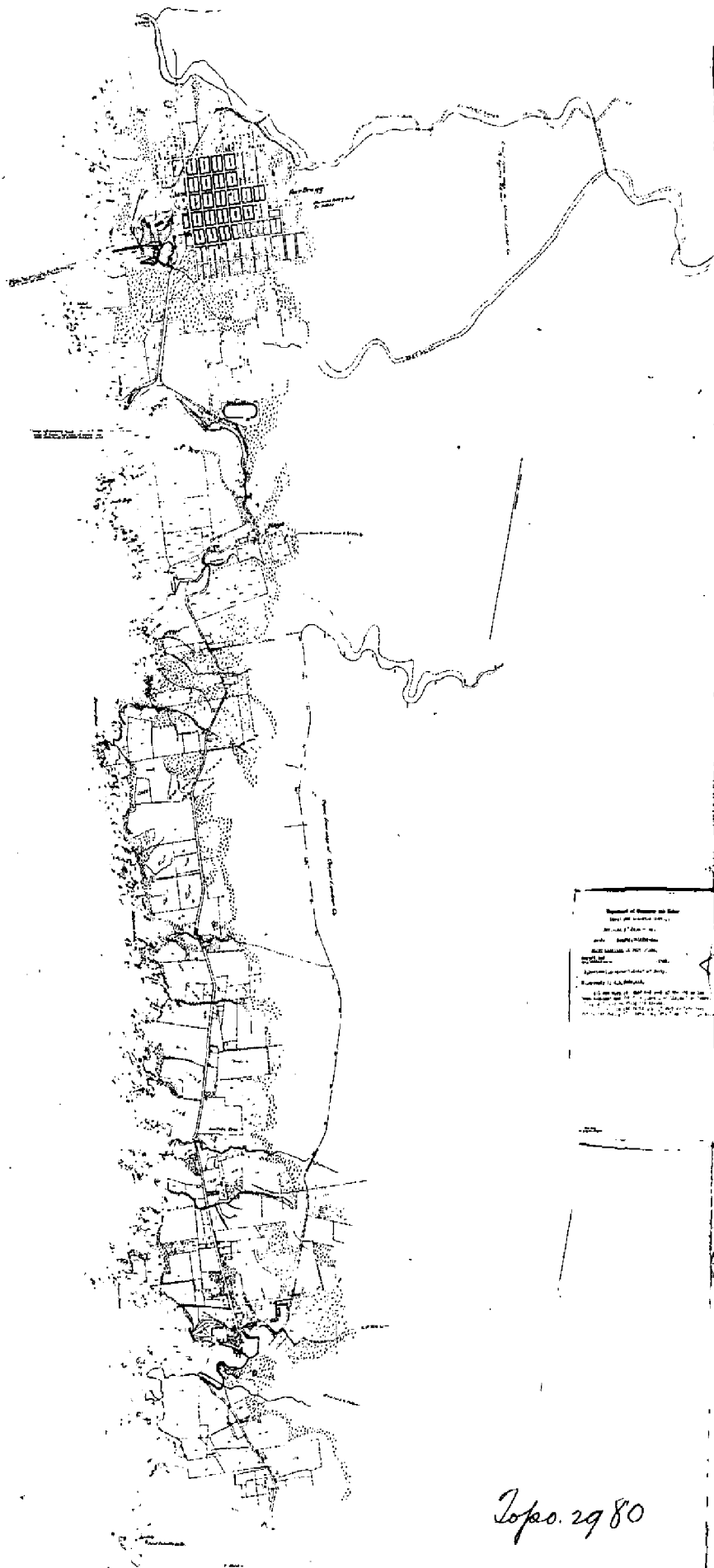
Respectfully submitted.

E. M. Cade, Aid Camp G. S.



Topographical Map of the
City of New York
and its Environs
as shown by the
United States
Geological Survey
in 1899

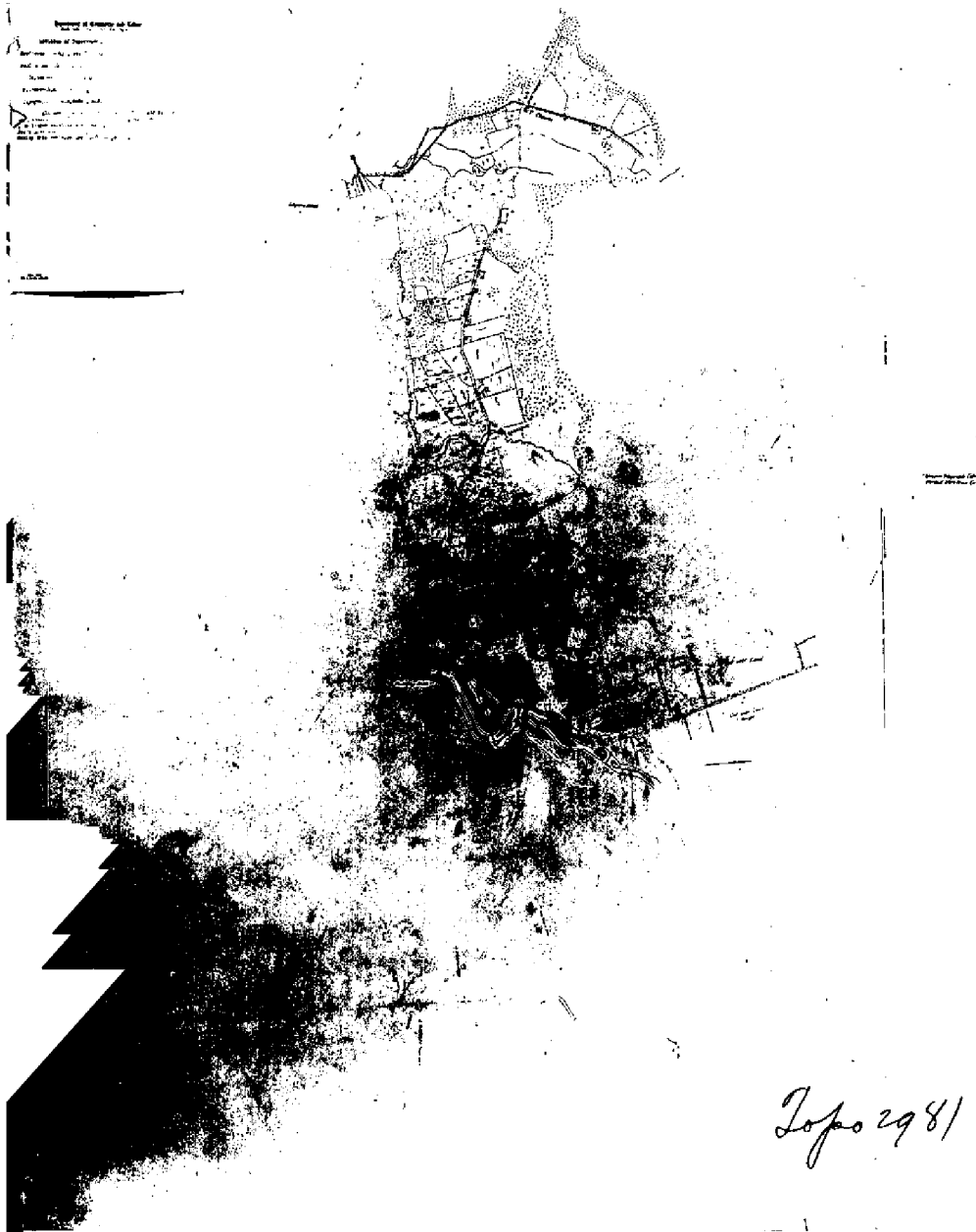
Topo. 2979



Topographical Map of the
District of Columbia
and
Adjacent Territory
Scale 1:50,000
Published by the
Geographical Institute of the
U.S. Army
Washington, D.C.
1910

Topo. 2980

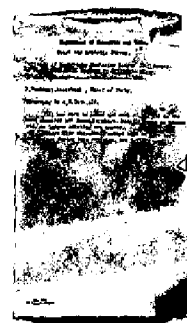
Topographic Map of the
District of Columbia
and Adjacent Areas
Scale 1:50,000
Sheet No. 1
Published by the
Geographic Board
of the District of Columbia
1981



Topo 2981

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Typo. 2977



Topo. 2978

2978^a

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DEC 24 1909

Acc. No.

Department of Commerce and Labor
COAST AND GEODETIC SURVEY

Superintendent.

State: _____

DESCRIPTIVE REPORT.

Map C Sheet No. *2978^a*

LOCALITY:

190

CHIEF OF PARTY:

Department of Commerce and Labor

COAST AND GEODETIC SURVEY

REPORT ON HYDROGRAPHY OF ALBION COVE, CALIFORNIA *Superintendent's Office*

2978^a

The Superintendent

Coast and Geodetic Survey

Washington, D. C.

SUBOFFICE
SAN FRANCISCO, CAL.

December 4, 1909

RECEIVED
BY ASSISTANT IN CHARGE
AND REFERRED TO
DEC 23 1909

See Dr

Sir:

In obedience to your instructions of October 18th, I left San Francisco on the "Pomo", steam schooner, at 6 P.M. on Nov. 6th and arrived at Albion 10 A.M. the following day, Sunday, after calling at Point Arena Cove between 6 and 7 A.M. The sea was smooth when we left San Francisco. Capt. Lilleland of the Pomo had been instructed by the Agents to render me all the assistance with men and boat needed to sound out the cove, and as Mr. Cade had been directed to have signals ready I hoped to accomplish the work and return on the same steamer on its regular sailing day, Nov. 10th. About midnight, however, a large swell from the southwest began, and the landing at Point Arena Cove was made with some difficulty. At Albion also the passengers only were landed and the steamer hauled out from the wharf to moorings in deeper water, and owing to increasing swell she was obliged to leave her moorings for the open sea before night. On the following day she came in to the wharf at high water in the afternoon and managed to discharge a part of her cargo but put to sea again in the evening. On the 9th, the swell having moderated

some, she again came in to the wharf, discharged the balance of the cargo in heavy rain, began loading lumber for return cargo, and by continuing nearly all night was loaded and ready for her return trip at 10 A.M. on Nov.13th.

It was, of course, impracticable to do any hydrography under such conditions, and I concluded to remain at Albion and await favorable weather and smooth sea. The swell continued the entire week until Nov.14th, and it rained in addition the greater part of that period. I began immediately on the day of my arrival to observe on breakers from shore, and made use of every opportunity when weather permitted during the week, especially at or near low tide, to locate all rock breakers in the vicinity; also to have a hand lead-line, borrowed from the Pomo, remarked and ready for use. The Albion Lumber Co. have a small boat hoisted at the wharf, which was placed at my disposal if I could use it, but it was too small and frail to venture out in except in very smooth sea, a condition not obtained until the Pomo arrived again in P.M. Nov.14th. I arranged with Capt.Lilleland to obtain the use of his boat and two of his men to pull for the following day if the sea continued smooth. A leadsman had been previously engaged and employed half a day to mark the leadline so as to be thoroughly familiar with the different marks.

Monday, Nov.15, turned out to be very favorable for sounding in the cove and as soon as the usual morning fog cleared away I began work. In order to make better progress I measured both angles

and steered the boat, while Mr. Cade recorded. I had not anticipated such deep water and assumed that the leadline borrowed from the Pono 17 to 18 fathoms long, would be sufficient, but found I had to end my lines some distance inside the whistling buoy on account of greater depth.

The bottom is rocky throughout, except in the vicinity of the wharf, where the river has deposited some sand and mud. The lead was frequently caught between rocks and the boat stopped to clear it. I approached the previously determined breaks as near as I dared to but could not sound over them in such a small boat and with an untrained crew, the risk being too great for the object to be gained, and the sign of sunken rock ought to be a sufficient warning to shipmasters. The water is very bold close to these outlying rocks. In my observations from ^{shore} on the breaks during heavy swell I could see ground-breaks, as distinct from rock breakers, reaching well out, almost as far as Colby Reef, to the northward of Albion, and there are also ground-breaks reaching almost out to the "Bull Rock", the local name for the furthestmost breaker off the south point of Salmon Creek, southward of Albion. Masters of steam schooners in heavy northwest weather hug the shore very closely and pass close outside of Bull Rock, but after passing the Albion whistling buoy they haul off shore so as to pass at least one-quarter mile outside of Colby Reef. The hydrographic tracing of this vicinity, on file in the suboffice, shows suspicious ground between Albion and Colby Reef, and if the hydrography of this stretch of coast in future is

extended to define the 100 fathom curve, it might be expedient to sound out this area a little closer.

The hydrography of Albion Cove was completed with this one days work, and the following day was utilized in plotting the angles to see if the ground was fairly well covered. The positions were plotted on the topographic sheet and afterwards, in the suboffice, transferred to a tracing upon which the soundings were plotted. At the request of the Albion Lumber Co. they have been furnished with a blue-print of this tracing, and the Agents of the Pomo have also been given a copy, in consideration of the help rendered by them in the execution of the work, which action, I trust, will be approved by the Superintendent. After packing up instruments and outfit for shipment on Nov.17, Mr.Cade and I left Albion for San Francisco on the Pomo at noon and arrived the following morning.

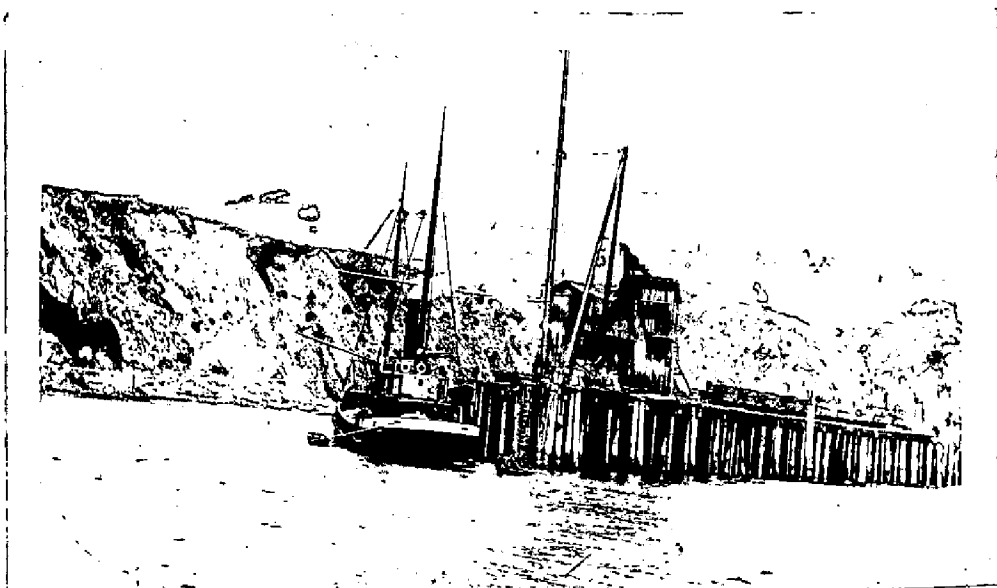
The photographs of Albion Cove herewith appended were furnished by Capt.Lilleland and illustrate the manner of loading vessels at that place. Small vessels like the Pomo, drawing when loaded not over 12 feet, lie across the end of the wharf, but moored so as not to touch it, as shown in photo.No.1, and generally load lumber for domestic ports. Larger vessels lie at moorings, as shown in photos Nos.2 & 3, in much deeper water and are loaded by means of wire-cable for foreign ports usually. The facilities at this landing could be largely improved by extending the wharf to the rock shown in photo No.2, which would be a solid point to fasten to, give increased depth alongside, and, most important of all, permit a ves-

_sel to lie alongside head to the swell and in a position to cast off her lines and proceed to sea in case a sudden increase of swell should compel her to leave. The information furnished by this survey may cause this improvement to be made in the near future.

Respectfully submitted

Ferdinand Westdahl

Assistant C. and G. Survey



No. 1



No. 2



No. 3

T-2979 applied to Chart Comp. 5711 Sept. 9, 1941. H. Mae Ewen
T-2980 " " " " " Sept. 10, 1941. H. E. E.