

ORIGINAL

RECEIVED

JUL 7 1981

OFFICE OF THE CLERK
SUPREME COURT, U.S.

No. **89** , Original

In the Supreme Court

OF THE

United States

OCTOBER TERM 1980

STATE OF CALIFORNIA, ex rel.
STATE LANDS COMMISSION,
Plaintiff,

vs.

UNITED STATES OF AMERICA,
Defendant.

EXHIBITS IN SUPPORT OF CALIFORNIA'S MOTION FOR LEAVE TO FILE COMPLAINT; MATTERS OF WHICH JUDICIAL NOTICE IS REQUESTED

GEORGE DEUKMEJIAN

Attorney General

N. GREGORY TAYLOR

Assistant Attorney General

BRUCE S. FLUSHMAN

PATRICIA SHEEHAN PETERSON

LINUS MASOUREDIS

Deputy Attorneys General

6000 State Building

San Francisco, CA 94102

Telephone: (415) 557-1152

Attorneys for Plaintiff

State of California

EXHIBIT A



Letters thereof, returned to and filed in this Office, which have been Examined and Approved.

198
198
CERTIFIED TO BE A TRUE COPY.
John C. Park
CALIFORNIA STATE OFFICE
BUREAU OF LAND MANAGEMENT

62 027
~~64 290~~

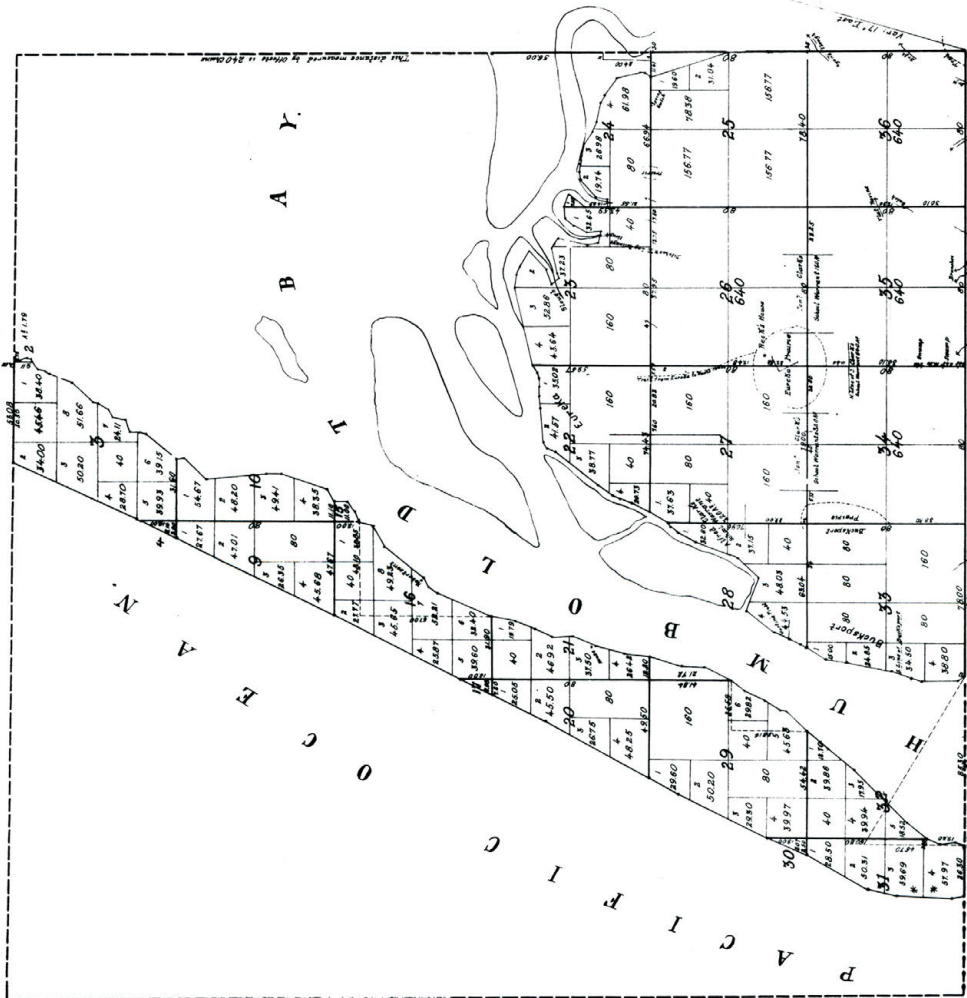
DEPARTMENT OF THE INTERIOR

Surveyor General's Office
San Francisco California
March 15th 1955

Washington, D. C. January 1, 1967.

To the
 Surveyor General California

Fractional Township N^o 5 North Range N^o 1 West of the Humboldt Meridian.



The above plat of Township N^o 5 North, Range N^o 1 West, Humboldt Meridian has been made out from and in conformity to the field notes of the under mentioned surveys thereof, returned to and filed in this Office, which have been examined and approved.

Under Date	Contract With	Work executed & exhibited	Distance Miles Sta. 1/4	Cost Dollars	Total Number of Acres 7887 1/2
April 24 th 1854	John H. Miller	North Boundary of Township N ^o 5 North	0 53 08	9 95	5 th Quarter 1854
October 18 th	J. S. Murray	East South Section Lines	0 25 30	4 60	
		Section Lines	21 17 17	264 56	
		Managers	21 25 22	325 04	
				738 82	

CERTIFIED TO BE A TRUE COPY
CALIFORNIA STATE OFFICE
BUREAU OF LAND MANAGEMENT
JUN 19 1981

Sec.	Course	Ch. Sta.	Sec.	Course	Ch. Sta.
1	N 54° E	671	21	N 50° E	1024
2	N 54° E	572	22	N 52° E	1192
3	N 54° E	500	23	N 52° E	1303
4	N 54° E	544	24	N 52° E	1408
5	N 54° E	544	25	N 52° E	1508
6	N 54° E	544	26	N 52° E	1608
7	N 54° E	544	27	N 52° E	1708
8	N 54° E	544	28	N 52° E	1808
9	N 54° E	544	29	N 52° E	1908
10	N 54° E	544	30	N 52° E	2008
11	N 54° E	544	31	N 52° E	2108
12	N 54° E	544	32	N 52° E	2208
13	N 54° E	544	33	N 52° E	2308
14	N 54° E	544	34	N 52° E	2408
15	N 54° E	544	35	N 52° E	2508
16	N 54° E	544	36	N 52° E	2608
17	N 54° E	544	37	N 52° E	2708
18	N 54° E	544	38	N 52° E	2808
19	N 54° E	544	39	N 52° E	2908
20	N 54° E	544	40	N 52° E	3008
21	N 54° E	544	41	N 52° E	3108
22	N 54° E	544	42	N 52° E	3208
23	N 54° E	544	43	N 52° E	3308
24	N 54° E	544	44	N 52° E	3408
25	N 54° E	544	45	N 52° E	3508
26	N 54° E	544	46	N 52° E	3608
27	N 54° E	544	47	N 52° E	3708
28	N 54° E	544	48	N 52° E	3808
29	N 54° E	544	49	N 52° E	3908
30	N 54° E	544	50	N 52° E	4008
31	N 54° E	544	51	N 52° E	4108
32	N 54° E	544	52	N 52° E	4208
33	N 54° E	544	53	N 52° E	4308
34	N 54° E	544	54	N 52° E	4408
35	N 54° E	544	55	N 52° E	4508
36	N 54° E	544	56	N 52° E	4608
37	N 54° E	544	57	N 52° E	4708
38	N 54° E	544	58	N 52° E	4808
39	N 54° E	544	59	N 52° E	4908
40	N 54° E	544	60	N 52° E	5008
41	N 54° E	544	61	N 52° E	5108
42	N 54° E	544	62	N 52° E	5208
43	N 54° E	544	63	N 52° E	5308
44	N 54° E	544	64	N 52° E	5408
45	N 54° E	544	65	N 52° E	5508
46	N 54° E	544	66	N 52° E	5608
47	N 54° E	544	67	N 52° E	5708
48	N 54° E	544	68	N 52° E	5808
49	N 54° E	544	69	N 52° E	5908
50	N 54° E	544	70	N 52° E	6008
51	N 54° E	544	71	N 52° E	6108
52	N 54° E	544	72	N 52° E	6208
53	N 54° E	544	73	N 52° E	6308
54	N 54° E	544	74	N 52° E	6408
55	N 54° E	544	75	N 52° E	6508
56	N 54° E	544	76	N 52° E	6608
57	N 54° E	544	77	N 52° E	6708
58	N 54° E	544	78	N 52° E	6808
59	N 54° E	544	79	N 52° E	6908
60	N 54° E	544	80	N 52° E	7008
61	N 54° E	544	81	N 52° E	7108
62	N 54° E	544	82	N 52° E	7208
63	N 54° E	544	83	N 52° E	7308
64	N 54° E	544	84	N 52° E	7408
65	N 54° E	544	85	N 52° E	7508
66	N 54° E	544	86	N 52° E	7608
67	N 54° E	544	87	N 52° E	7708
68	N 54° E	544	88	N 52° E	7808
69	N 54° E	544	89	N 52° E	7908
70	N 54° E	544	90	N 52° E	8008
71	N 54° E	544	91	N 52° E	8108
72	N 54° E	544	92	N 52° E	8208
73	N 54° E	544	93	N 52° E	8308
74	N 54° E	544	94	N 52° E	8408
75	N 54° E	544	95	N 52° E	8508
76	N 54° E	544	96	N 52° E	8608
77	N 54° E	544	97	N 52° E	8708
78	N 54° E	544	98	N 52° E	8808
79	N 54° E	544	99	N 52° E	8908
80	N 54° E	544	100	N 52° E	9008

DEPARTMENT OF THE INTERIOR,
BUREAU OF LAND MANAGEMENT,
Washington, D. C. 20240.
I hereby certify that this is a true copy
of the plat of official survey of the lands
San Francisco, California,
to which it relates on file in this office.
March 15th 1855

Surveyor General California
Recorder Douglas Land Office
John H. Miller
J. S. Murray

EXHIBIT B

Jane Evelyn Smith
Notary Public in and for said
County and State.

DESCRIPTION OF SUBJECT LAND

All that certain real property in the State of California, County of Humboldt situated in Townships 4 and 5 North, Range 1 West, Humboldt Base & Meridian ("HB&M") and particularly described as follows:

COMMENCING at the east 1/4 corner of Section 31, Township 5 North, Range 1 West HB&M, thence from said point of commencement; N 88° 01' 20" W, 1981.14 feet along the north line of U.S. Lot 3 of said Section 31, as said lot is shown on the official United States Government Township Plat, to the United States Meander Line of the Pacific Ocean as surveyed by J. S. Murray under contract dated October 18, 1854, and the TRUE POINT OF BEGINNING: Thence from said true point of beginning southerly along the shore of the Pacific Ocean with the meander lines of said Section 31 the following (3) courses:

1. S 14° 38' 54" W, 395.44 feet;
2. S 03° 38' 54" W, 1863.84 feet; and
3. S 10° 21' 06" E, 400.10 feet; to the United States Meander Corner on the Township line common to said Townships 4 and 5 North Range 1 West; thence southerly along the shore of the Pacific Ocean with the meander lines of Section 6 of Township 4 North, Range 1 West as surveyed by J. H. Miller under contract dated October 19, 1854, the following (3) courses:

1. S 08° 24' 17" W, 968.24 feet;

EXHIBIT A

2. S 01° 24' 17" W, 869.50 feet; and

3. S 11° 35' 43" E, 646.26 feet more or less to the centerline of the North Jetty at the entrance to Humboldt Bay; thence westerly along said centerline the following (6) courses:

1. N 75° 15' 58" W, 307.31 feet;

2. N 65° 00' 58" W, 431.97 feet;

3. N 52° 05' 24" W, 442.91 feet;

4. N 53° 15' 24" W, 408.72 feet;

5. N 50° 02' 05" W, 400.00 feet;

6. N 46° 08' 24" W, 1427 feet more or less to the line of mean high water of the Pacific Ocean; thence northerly along said line of mean high water to a point which bears N 88° 01' 20" W, from the true point of beginning; thence S 88° 01' 20" E, along the north line of U.S. Lot 3, of Section 31 of Township 5 North, Range 1 West produced, to the true point of beginning.

Bearings and distances are based on the State of California Coordinate System (Lambert Conformal Projection), Zone 1, derived locally from that certain map entitled "Record of Survey, Surplus Property," recorded in Book 29 of Surveys at Page 137, Humboldt County Records as surveyed by the United States Coast Guard; 12th District.

END OF DESCRIPTION

EXHIBIT C

Herman Lytle
CHIEF, BR. OF RECORDS & DATA MGT
CALIFORNIA STATE OFFICE
BUREAU OF LAND MANAGEMENT

JUN 19 1981

E. B. S.

2803

Land

Department of the Interior.

Washington D.C. 25th Aug. 1871.

Sir,

I have the honor to recommend that
Lots 3 and 4 Sec 31 T. 5 N. R. 1 W. Humboldt
California be reserved for light house pur-
poses.

This recommendation is made at the in-
stance of the Light House Board, and the
Commissioner of the General Land Office
informs me that there is no obstacle to
its reservation known to his office.

I am, Sir,

Very respectfully,

Your obt. servant

E. B. S.

Acting Secretary.

The President

25 Aug 1871.

T. S. R. I. W.

Hammer

Carlson

August 29th 1871.

Let the Land's described within
be reserved for light house
purposes, as recommended
by the Acting Secretary of
the Interior, ...

M. A. Davis
 100
 1571

Copy to R & D. Handwritten by S. 1771
in Southern Pennsylvania Do.
in St. Louis Mo. Do.

General Land Office
December 20 1889

Sir

Under reference of the 1st inst, this Office has received the Secretary of the Treasury letter to you of the 16th inst, requesting "that the necessary steps may be taken to reserve from sale, Tract Sec 6. T. 4. S. R. 1. W. Humboldt Meridian, on the Coast of California, the same being the site upon which the present Victor House at Humboldt, is situated." -

To that end we have accordingly issued instructions under this date to the proper local Offices in California, and now report to you that so far as advices have reached us there is no adverse claim.

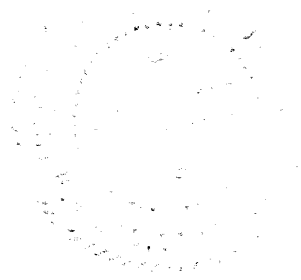
Very Respectfully
J. H. Smith
Actg. Commr.

H. J. Thompson
Secretary of the Interior

CERTIFIED TO BE A TRUE COPY

Herman J. [Signature]
CHIEF, BR. OF RECORDS & DATA MGT.
CALIFORNIA STATE OFFICE
BUREAU OF LAND MANAGEMENT

JUN 19 1981



135
 Genl. David Con-

vic to 1869

Regarding the various
 kinds of animals of the
 track and the fact of the
 same in the California

Report relative to the
 light and observation
 in California and the
 in the last of 19th 1869

over

Nov. 22 Dec. 1869

Wm. Davis

Department of the Interior
 November 24 1869.
 The following animals are
 to be introduced into
 the reservation of the
 to be of the same the
 reservation of the
 without animals.
 to be of the same the
 to be of the same the
 to be of the same the

J. H. Brown
 Secretary.

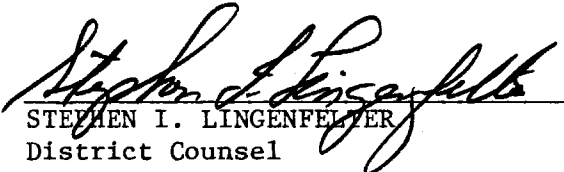
Washington, D.C.
 December 27, 1869

Approved:
 Thomas H. Buchanan

EXHIBIT D

I, Stephen I. Lingenfelter, District Counsel for the United States Army, Corps of Engineers, San Francisco District, do certify that the attached copy is a true and exact copy of the original document entitled "San Francisco District, Survey Report on Humboldt Bay, California, dated February 10, 1950, Report with Inclosures 1 & 2, Appendices I, II, & III," which original document is maintained in the District's files at 211 Main Street, San Francisco, California.

16 June 1981
Date


STEPHEN I. LINGENFELTER
District Counsel

CORPS OF ENGINEERS

U.S. ARMY

SAN FRANCISCO DISTRICT

SURVEY REPORT

ON

HUMBOLDT BAY, CALIFORNIA

DATED FEBRUARY 10, 1950

REPORT WITH INCLOSURES I & 2
APPENDICES I, II & III

SURVEY REPORT
HUMBOLDT BAY, CALIFORNIA

APPENDIX I
SHORE-LINE CHANGES

APPENDIX I
SHORE-LINE CHANGES

TABLE OF CONTENTS

<u>Paragraph</u>	<u>Subject</u>	<u>Page</u>
	PURPOSE AND SCOPE OF STUDY	1
1	Purpose of study	1
2	Area considered	1
	PART I -- PACIFIC OCEAN SHORE LINE	2
3	PRIOR REPORTS	2
	DESCRIPTION	2
4	Offshore depth changes	2
8	HISTORY OF SHORE-LINE CHANGES	3
17	WAVES	6
20	LITTORAL DRIFT	8
23	IMPROVEMENTS PROPOSED	9
24	DISCUSSION	9
29	CONCLUSIONS	11
	PART II -- EROSION OF POINT HUMBOLDT, HUMBOLDT BAY, CALIFORNIA	
30	PRIOR REPORTS	11
32	DESCRIPTION	12
33	GEOLOGY	13
35	SHORE-LINE CHANGES AT POINT HUMBOLDT AND VICINITY	13
36	COMPARISON OF HIGH-WATER LINES	14
37	ELK RIVER SPIT	14
38	DEPTH CHANGES IN HUMBOLDT BAY	15
	FIELDS LANDING CHANNEL	17
40	Fields Landing Channel in the vicinity of Buhe Spit	17

<u>Paragraph</u>	<u>Subject</u>	<u>Page</u>
41	Middle Ground Shoal	17
42	TRIBUTARY STREAMS	17
44	WAVE ACTION	18
	SOIL SAMPLES	18
45	Areas sampled	18
46	Summary of soil sampling	20
47	DREDGING IN HUMBOLDT BAY	20
48	PRIOR PROTECTIVE ACTION	20
50	DISCUSSION	21
59	CONCLUSIONS	23

LIST OF FIGURES

- Figure 1, Changes in High-Water Shore Line
- Figure 2, sheet 1 - Relative Positions of MHHW at Various
Periods, 1854-1926
- Figure 2, sheet 2 - Relative Positions of MHHW at Various
Periods, 1926-1946
- Figure 3, - Depth Changes Between Fields Landing
Channel and Elk River, 1939 and 1946
- Figure 4, - Shoaling in Fields Landing Channel,
1935 to 1937 - 1943 to 1944
- Figure 5 (44 sheets) - Comparison of Periodic Surveys of
Bar and Entrance

APPENDIX I

SHORE-LINE CHANGES

PURPOSE AND SCOPE OF STUDY

1. Purpose of study. Section 5 of the River and Harbor Act, Public Law No. 409, Seventy-fourth Congress, approved August 30, 1935, is quoted as follows: "Every report submitted to Congress in pursuance of any provision of law for preliminary examination and survey looking to the improvement of the entrance at the mouth of any river or at any inlet, in addition to other information which the Congress has directed shall be given, shall contain information concerning the configuration of the shore line and the probable effect thereon that may be expected to result from the improvement having particular reference to erosion and/or accretion for a distance of not less than ten miles on either side of the said entrance." In accordance with the law quoted above, a study has been made to determine the probable effect upon the adjacent shore line of dredging a navigation channel across a portion of the Humboldt bar and of widening and deepening the existing navigation channel between the Humboldt Bay jetties. In addition, the erosion of Point Humboldt in Humboldt Bay has been studied with a view toward reducing the shoaling of the Fields Landing Channel even though no improvement of this channel is proposed at the present time.

2. Area considered. The Pacific Ocean shore line from the mouth of the Mad River to the mouth of the Eel River, a distance of approximately 22 miles, and the interior channels in Humboldt Bay have been considered within the scope of the study. Due to the different nature of the areas considered, the study has been made in two parts; the first part considers the ocean shore line; and the second part, the erosion of Point Humboldt, Humboldt Bay.

PART I -- PACIFIC OCEAN SHORE LINE

PRIOR REPORTS

3. No prior reports on the effect of shore structures in the immediate vicinity of the entrance to Humboldt Bay have been published. However, reports of the studies of the Entrance Channel conditions are contained in the Annual Reports of the Chief of Engineers for the fiscal years 1880 to 1899.

DESCRIPTION

4. Offshore depth changes. Humboldt Bay is separated from the Pacific Ocean by two low sand spits known as the north spit and the south spit. The entrance channel, from the ocean to the Bay, lies between the ends of these spits. The north spit, which is about one-half mile wide and ten miles long, is flat and barren near the southerly end, but rises gradually to the north to heavily wooded sand dunes. The south spit is narrow, low, and barren, varying in width from 300 to 3,000 feet, and extends south about four miles to Table Bluff, a high ocean headland which marks the southern extremity of Humboldt Bay.

5. Prior to the construction of the original jetties in 1838 at Humboldt Bay, a sandy shoal area, known as the "breaker flats," extended across the seaward side of the inlet between the spits. The channel across this shoal, or bar, varied in depth and position from year to year. An early edition of United States Coast and Geodetic Survey Chart 5832, published in 1886, and based on a hydrographic survey made between 1870 and 1884, indicates that the bar was located shoreward of the 18-foot depth contour. In the vicinity of the inlet, the depth contours seaward of the 18-foot depth were farther seaward than elsewhere, but the depth contours seaward of the 30-foot depth were, in general, parallel to the shore line extended.

6. During the period of jetty construction, 1888 to 1899, the "breaker flats" disappeared and the offshore ocean depth contours, in the vicinity of the jettied entrance to Humboldt Bay, shifted seaward by varying amounts. The latest edition of Chart 5832, based on surveys made in recent years by the United States Coast and Geodetic Survey and the Corps of Engineers, shows that the crest of the bar is from 2,500 to 4,000 feet seaward of the seaward ends of the jetties. Comparison of the depth contours seaward of the entrance to the Bay, shown on the 1886 edition of Chart 5832 and the latest edition of the same chart, indicates a considerable seaward shift. For example, it is estimated that the maximum seaward movement of the 60-foot depth contour during the period from about 1877 to 1943 was 2,500 feet. In recent years, however, the bar has been relatively stable and, except for alternate seaward and shoreward movements of the bar crest, the position of the bar with relation to the jettied entrance has remained about the same.

7. The original jetties, which had a crest elevation of ± 10 to ± 12 (MLLW), deteriorated rapidly until they were almost obliterated, and, coincidentally therewith, sand accumulated in the entrance. In 1914, practically the entire length of the north jetty was below mean lower low water, and the south jetty, which in 1911 had 2,400 feet of its seaward end below water, was being rebuilt. The rebuilding of the south jetty was completed in 1916, and the north jetty was rebuilt to within 500 feet of the ultimate seaward end in 1917. Both jetties were rebuilt to a crest elevation of ± 18 (MLLW).

HISTORY OF SHORE-LINE CHANGES

8. A study of the changes in the shore line along the Pacific Ocean between the Mad River and the Bel River has been made by comparing the location of high-water shore line determined from surveys made by the United States Coast and Geodetic Survey and the Corps of Engineers. The surveys used in the comparison were made in 1854, 1870, and 1927 by the United States

Coast and Geodetic Survey, and in 1911, 1919, and 1940, by the Corps of Engineers. The changes are shown on figure 1.

9. Between 1854 and 1870, the period prior to jetty construction, there was no significant change in the position of the high-water shore line. Alternate accretion and erosion is indicated on the north spit for a distance of about five miles northerly of the present north jetty. Erosion occurred at the northerly tip of the south spit.

10. Comparison of the 1870 and 1911 surveys shows a seaward shift of the high-water shore line from the north jetty to a point about 4,200 feet north of the north jetty, the maximum seaward movement being about 1,200 feet. North from this area of accretion to the northerly limits of the 1911 survey, a 4,600-foot length of shore shows erosion, with a maximum shoreward movement of approximately 400 feet. South of the south jetty to the limits of the 1911 survey, a total distance of about 5,600 feet, accretion occurred. The maximum seaward movement of the shore line occurred on the south side of the south jetty where the shift amounted to approximately 2,400 feet. From the south jetty the movement tapered gradually to 600 feet at the southerly limit.

11. The 1919 survey delineated the shore line for only about 3,000 feet on each side of the jetties. The portion of the shore line shown by this survey is farther seaward of the 1911 position. North of the north jetty the seaward movement tapered from a maximum of 3,000 feet at the jetty to 500 feet at the northerly limit. South of the south jetty the seaward shift varied from a maximum of about 500 feet along the south side of the jetty to 300 feet at the southerly limit.

12. The 1929 position of the high-water shore line immediately north of the north jetty was about 500 feet farther seaward of the 1919 position. South from the south jetty there was a 100-foot movement shoreward along a 1,200-foot length of shore, beyond which there was no apparent change between 1919 and 1929.

13. During the period 1929 to 1940, the shore line north of the north jetty moved shoreward, tapering from about 325 feet immediately north of the jetty to zero at a point about 2,300 feet north of the jetty. North from this point for a distance of 12,000 feet, accretion is indicated, the maximum seaward movement amounting to 200 feet. Beyond this area of accretion for a distance of about 14,000 feet there was no significant difference in the 1929 and 1940 positions of the shore line, except along a 3,500-foot length where the 1940 position is shown 200 feet shoreward of the 1929 position. From the south jetty to a shore point about four miles south of the jetty, the 1940 position of the shore line is shoreward of the 1929 position by varying amounts. A maximum shoreward movement of about 400 feet occurred adjacent to the jetty.

14. The 1870 and 1929 surveys are the only two which completely delineate the shore line from the mouth of the Mad River to that of the Bel River. Comparison of these two surveys shows that the 1929 position of the shore line is farther seaward than the 1870 position for 10.5 miles of the approximately 13 miles between the north jetty and the Mad River by amounts varying from 50 to 3,800 feet. The maximum seaward movement has occurred immediately north of, and adjacent to, the north jetty. The only erosion, or shoreward movement of the high-water shore line north of the north jetty indicated during this 50-year period begins at a point about 3 miles north of the north jetty and extends for a distance of approximately 2.5 miles, the maximum shoreward movement amounting to 200 feet.

15. The 1929 position of the ocean shore line of the south spit is seaward of the 1870 position from the south jetty, where a 3,000-foot seaward movement is indicated, to a point on the shore seaward of Table Bluff, or about 4.5 miles southerly of the jetty, at which point the 1929 and 1870 positions intersect. South of this point to the mouth of the Bel River,

alternate stretches of erosion and accretion are shown. The maximum shoreward movement, of approximately 320 feet, occurred in the vicinity of the mouth of the Eel River and consisted of a shoreward migration of the Eel River Spit.

16. The net change in the position of the high-water shore line in the vicinity of the jettied entrance to Humboldt Bay during the period 1870 to 1940 is an advance seaward both north of the north jetty and south of the south jetty. This seaward movement occurred along an approximate 3-mile reach of the north spit measured from the north jetty, and varied from a maximum of 3,400 feet adjacent to the jetty to zero, 3 miles north of the jetty. South of the south jetty the seaward movement extended along a 3.5-mile reach as measured from the jetty. The maximum seaward advance of 2,600 feet occurred adjacent to the south jetty.

WAVES

17. A study of wave action in the vicinity of the Humboldt Bay jetties was made by means of refraction diagrams. The characteristics of the waves used for the diagrams are for waves occurring most frequently as shown in the Scripps Institution of Oceanography "Wave Report No. 68." The diagrams were constructed for present conditions of the bar seaward of the jetties and for an assumed condition in which the depths over the bar and areas adjacent thereto were increased to 40 feet. The refraction diagrams indicate that for present conditions waves are affected by the seaward submarine slope of the bar so that some wave convergence occurs before waves reach or pass over the bar crest. The crest of the bar produces additional convergence so that waves either break on the bar or advance toward the jettied entrance considerably higher than waves in comparable depths elsewhere. The refraction diagrams also indicate that waves advancing from any direction south of west-northwest will tend to produce upcoast littoral drift along the south and north spits.

18. Waves with a height of 10 feet or greater, occurring most frequently in the Pacific Ocean area in the vicinity of Humboldt Bay, have an average period of 9 seconds. For this period the depth over the bar, assumed as 20 feet, has little effect on the wave height so that the effect of refraction determines the height of waves seaward of the jetties. Waves having a period of from 12 seconds to 16 seconds are increased in height from 15 percent to 30 percent, respectively, by the bar. This increase is in addition to the effect of refraction.

19. Comparison of the refraction diagrams constructed for present conditions with those drawn for an assumed depth of 40 feet over the bar indicates that no appreciable reduction in the height of 9-second waves would occur with an increase in depth over the bar. The reason for this is that the seaward slope of the bar, in depths greater than 40 feet, causes wave convergence before the 40-foot depth is reached. However, the increase in depth would permit practically all 9-second waves from the northwest and the west to pass over the bar without breaking. Present depths over the bar cause northwest waves and west waves to break when the deep-water wave height is about 12 feet and 15 feet, respectively. For waves with periods of 12 seconds or greater, the comparison indicates that a bar depth of 40 feet would result in a decrease in wave height in the vicinity of the entrance channel. For example, a 12-second wave from the northwest now breaks on the bar when the deep-water wave height is about 9 feet or greater. When the depth over the bar is increased to 40 feet, 12-second northwest waves do not break on the bar. These waves are reduced in height about 12 percent at the bar and about 7 percent near the jettied entrance.

LITTORAL DRIFT

20. Surveys of Humboldt Bay Entrance Channel in its natural state (1851 to 1883) show that it was a typical migrating bar channel, shifting radially through a regular cyclical period from the north to the south, and upon reaching the southern extremity of the bar, reopening suddenly at the north end to repeat the cycle. Surveys of 1851, 1858, 1870, and 1875 show the position of the channel in various phases of the cycle. Surveys of 1881, 1882, and 1883 show the rate of annual change. Study of all the surveys over this 32-year period indicates a usual cycle of about 5 years for channel migration at this inlet. This phenomenon is a clear indication that the predominant direction of littoral drift is from north to south. A comparison of periodic surveys of the Humboldt Bar and Entrance is shown on figure 5 of this appendix.

21. With the inauguration of jetty construction in 1890, there began a series of interruptions in normal littoral transport. With each increment in length of the jetties the bar was pushed seaward. Consequent decrease in offshore depths caused the shore to advance on each side of the inlet. Interspersed with progressive lengthening of the jetties was their periodic partial destruction by storms. The periods during which the jetties functioned as important littoral barriers were relatively short and in each case ended when littoral transport was resumed in normal volume either through or around the jetties. Greater advance of the north shore as compared with the south illustrates the effect of dominance of downcoast drift during these periods when the jetties were functioning as littoral barriers. In 1917 the north jetty was rebuilt to within 500 feet of its ultimate seaward end. Based on surveys made since that time it is estimated that the annual rate of downcoast littoral drift is at least 500,000 cubic yards.

22. In 1934, a channel 35 feet deep and 500 feet wide was dredged across the bar. A study of the shoaling of this channel from October 1934 to May 1945 indicates that the average annual rate of shoaling was approximately 29,000 cubic yards during the 10½-year period. The maximum and minimum annual rates of shoaling in the channel were 113,000 cubic yards and 16,000 cubic yards, respectively.

IMPROVEMENTS PROPOSED

23. The improvements proposed for the entrance to Humboldt Bay consist of deepening and widening the Bar and Entrance Channel to a depth of 40 feet and a width of 1,600 feet at the entrance, tapered to 500 feet between the jetties as shown on the plan of improvement map, inclosure 1.

DISCUSSION

24. Except for periodic migration of the ends of the north spit and of the south spit at the inlet to Humboldt Bay, the history of shore-line changes prior to jetty construction indicates that the ocean high-water shore line in the vicinity of Humboldt Bay was geologically stable. The inlet channel varied in position and depth across the bar which, for the most part, lay shoreward of the 18-foot depth contour.

25. Since construction of the jetties in 1888, the Humboldt bar has shifted and reformed seaward of its 1870 position, and the ocean high-water shore line along the north spit has shifted seaward. The seaward advance of the north spit shore line was most pronounced upon reconstruction of the north jetty in 1917. The position of the ocean shore adjacent to the entrance to Humboldt Bay indicates that the predominant direction of littoral drift is from north to south, or downcoast. A measurement of the accretion north of the north jetty shows that the annual rate of downcoast drift is approximately 500,000 cubic yards. The shore line south of the south jetty also advanced seaward. However, it is believed that without

the effects of offshore shoaling and frequent resumption of normal transport, serious erosion of the south spit would probably have occurred.

26. The Humboldt bar is believed to be characteristic of those which form at tidal inlets, created and fed by littoral material, and serving as the path by which the littoral material makes its way around the inlet and continues its passage along the coast. The position of the Humboldt bar relative to the seaward end of the Humboldt jetties has been maintained in recent years, and this seems to be indicative of the fact that the bar has reached a state of equilibrium.

27. As stated above, the bar is now believed to be approximately stable, and the inlet between the end of the south jetty and the southeast end of the bar is stable except as the tidal range varies. Substantially all littoral drift is passing the entrance and is maintaining the south spit and downcoast shores. If the inlet is enlarged to the dimensions proposed, littoral drift will encroach on the channel and will be dredged as maintenance. Because of the very severe wave action which prevails in this coastal area, it is believed that the volume of material movement in depths more than 30 feet is much greater than exists at less exposed coastal areas. Material deposited in depths of 30 to 35 feet, at a location 3,000 to 5,000 feet south of the south jetty would, it is believed, resume normal downcoast littoral transport. If littoral material dredged from the channel is deposited in water deeper than 30 to 35 feet the material will remain, and the south spit will erode a corresponding amount.

28. Although the annual rate of downcoast littoral drift is estimated to be in the order of 500,000 cubic yards, the maximum annual shoaling rate of record during a previous attempt to dredge a channel through the bar was considerably less than 500,000 cubic yards. Depth and width of the earlier dredged channel were somewhat less than those proposed in

the improvement now being considered, and it is probable that a substantial part of the littoral material moved across the channel. Likewise, a portion of the littoral drift may be expected to move across the larger channel now being considered. On a conservative basis the annual rate of shoaling in the proposed enlarged Bar and Entrance Channel is estimated to be 400,000 cubic yards.

CONCLUSIONS

29. It is concluded that:

a. The predominant direction of littoral drift in the vicinity of Humboldt Bay is believed to be from north to south, or downcoast. The average annual rate of downcoast littoral drift is estimated to be in the order of 500,000 cubic yards.

b. The Humboldt bar is at present in equilibrium and serves as a path by which the littoral drift makes its way around the jettied inlet to maintain the south spit and downcoast shores.

c. The proposed Bar and Entrance Channel will require maintenance dredging of approximately 400,000 cubic yards annually.

d. The proposed improvement will have no harmful effect on the adjacent shore line provided the littoral material dredged as maintenance is deposited south of the entrance in a depth not greater than 30 feet.

PART II - EROSION OF POINT HUMBOLDT, HUMBOLDT BAY, CALIFORNIA

PRIOR REPORTS

30. There have been two reports on the erosion of Point Humboldt (also known as Buena Point), Humboldt Bay, California. One, dated May 31, 1929, was written in response to a letter to the Chief of Engineers from the Honorable Clarence F. Lea, Representative in Congress,

1st California District. The second report, dated March 7, 1930, was submitted in compliance with a resolution of the Committee on Commerce of the Senate, adopted December 24, 1929, which reads in part:

That the Board of Engineers for Rivers and Harbors be and is hereby requested, to review the report on Humboldt Harbor and Bay, California, submitted in House Document No. 755, Sixty-ninth Congress, Second Session, with a view to determining the effect of the jetties on the erosion of Point Humboldt, the effect of such erosion on navigable channels and the best method of shore protection;

31. The first report discussed the changes in the shore line at Point Humboldt during the period 1864 to 1929 but made no recommendations. The review report on Humboldt Harbor and Bay concluded that the construction of the jetties had accelerated the rate of erosion of Point Humboldt, but that erosion was going on before the jetties were built and would have continued had they not been constructed; that the erosion of Point Humboldt did not appear to have adversely affected the channels in the Bay to any great extent; that protective works must ultimately be built to prevent further erosion of the Point, but recommended that no modification to authorize such works be included in the project for Humboldt Harbor and Bay.

DESCRIPTION

32. Humboldt Bay and the entrance thereto are fully described in the text of the main report, in which there is also a map showing the location of Point Humboldt with reference to the entrance to the Bay (inclosure 1). Point Humboldt is a knoll on the eastern shore of Humboldt Bay directly opposite the jettied entrance to the Bay, and is about five miles south of the town of Eureka. The present height of the knoll is slightly greater than one hundred feet at the highest point. The bayward slope of Point Humboldt is steep and precipitous, its toe forming the high-water line. Shoreward of the highest point of the knoll,

the ground slopes gently and gradually into a low, flat area that has a height of about ten feet above mean lower low water. A sand spit, known locally as Burne Spit, extends southwesterly from Point Humboldt, the Spit varying in size and position from year to year.

GEOLOGY

33. The area adjacent to Point Humboldt is comprised of alluvium-filled valley floors between ridges of Pliocene marine deposits. Farther eastward, older rocks of the Franciscan formation are present. Point Humboldt is part of the Pliocene marine sediments and is made up of inter-bedded layers of fine-grained, reddish to buff-colored sandstone and blue mud rock. This formation is known to underlie the area to the east and south from the logs of wells put down in search for oil and gas. The structure of the beds indicates that there is a broad anticlinal fold whose axis trends NW-SE and in general, lies between Elk River on the north and Salmon Creek on the south. A fault follows the trend of the Salmon Creek Valley.

34. Point Humboldt is probably the last remnant of a once-more-extensive series of beds extending over the area. The flood plains adjacent to the knoll or bluff are made up of softer sedimentary rocks which have already been eroded to the grade of the present streams. The material comprising Point Humboldt is a relatively soft material, easily eroded by wave action.

SHORE-LINE CHANGES AT POINT HUMBOLDT AND VICINITY

35. A study of changes that have occurred in the shore line in the vicinity of Point Humboldt has been made by comparing the location of the high-water lines shown on United States Coast and Geodetic Survey and San Francisco District, Corps of Engineers, maps. Maps, from surveys made in 1354, 1870, and 1903 by the United States Coast and Geodetic

Survey and from surveys made in 1891, 1911, 1926, 1929, 1931, 1939-40, and 1946, by the San Francisco District, are available. These surveys were plotted to a common scale and the high-water lines are shown superposed on figure 2.

COMPARISON OF HIGH-WATER LINES

36. The position of the high-water lines shown on figure 2 indicates that during the 92-year period, 1854 to 1946, the shore line at Point Humboldt and points northeasterly and southwesterly thereof, has receded shoreward by amounts varying from 1,000 to 1,350 feet. The rate of this erosion has not been regular during equivalent intervals of time, but, except for the position of the 1903 high-water line, successive positions of the shore line at Point Humboldt are generally shown as having moved farther shoreward. The 1911 survey indicates that Buhne Spit disappeared entirely except for a small islet at the southwestern tip of the spit. The 1926 survey shows the spit to have reformed 600 to 800 feet farther shoreward than its position in 1903. During the period 1926 to 1946, Buhne Spit, beginning at a point about 900 feet southwest of the bluff, advanced bayward as much as 400 feet. It is also to be noted that during the period 1926 to 1946 the erosion of the shore line just to the northeast of the knoll, or bluff, has been much greater than during the period 1854 to 1926; a recession of 1,000 feet having occurred during the last 20 years compared with about 150 feet during the 72 years from 1854 to 1926. During the period from 1929 to 1946, it is estimated that 866,000 cubic yards of material were eroded from Point Humboldt.

ELK RIVER SPIT

37. Successive surveys made since 1911 show the formation and advance of a spit springing from shore at a point just south of the mouth of the Elk River. In the 35 years from 1911 to 1946, the spit has

advanced a distance of about 6,200 feet in a northerly direction parallel to the shore line. The 1946 survey shows the bayward tip of the spit to be about 1,400 feet wide and that its bayward edge is from 300 to 1,100 feet farther out in the Bay than it was in 1939. It is estimated that the net accretion at Elk River Spit between 1939 and 1946 amounted to 461,000 cubic yards.

DEPTH CHANGES IN HUMBOLDT BAY

33. Depth changes in Humboldt Bay in the vicinity of Point Humboldt, Buhas Spit, and Elk River Spit, were studied by comparing hydrographic surveys made in 1870, 1939-1940, and 1946. The net change in the positions of the 6-, 12-, and 13-foot depth contours in the area east of the jettied channel between Point Humboldt and Elk River Spit, between 1870 and 1939, are summarized in the following subparagraphs:

a. 6-foot depth. The 6-foot depth contour advanced shoreward along a line about 3,200 feet long extending northeasterly from a point roughly 1,000 feet west and bayward of the present shore line at Point Humboldt. The maximum shoreward movement occurred off Point Humboldt and was about 500 feet. Erosion occurred along the east edge of the present deep-water channel connecting with the Eureka and Samoa Channels. In the vicinity of the present bayward tip of Elk River Spit, the 6-foot contour moved bayward along a 4,000-foot section, the maximum movement amounting to 600 feet. A deep area, with a maximum depth of 43 feet, east of the main channel and lying between Elk River Spit and Point Humboldt is shown by the 1939 survey to be almost entirely filled, the 6-foot contour having moved northerly about 7,000 feet.

b. 12-foot depth. Except for erosion, or scour, along the east edge of the deep-water channel leading to Eureka and Samoa Channels, the 12-foot contour moved bayward, indicating deposition, in the area between Point Humboldt and Elk River.

c. 12-foot depth. Along the east side of the deep-water channel connecting with the Eureka and Samoa Channels, the 12-foot depth contour moved easterly. In the area between Point Humboldt and the Elk River, the 12-foot depth contour moved bayward.

d. The significant changes in the water area between Point Humboldt and the present position of Elk River Spit during the period from 1870 to 1940 were a widening of the deep-water channel connecting the Eureka and Samoa Channels, brought about by scour along the east edge of the channel; the filling-in of a deep area located between Point Humboldt and the present tip of Elk River Spit; and a bayward movement of the 12- and 18-foot depth curves off Point Humboldt.

39. Comparison of the 6-, 12-, 18-, and 24-foot depth contours for the 1939-1940 and 1946 surveys, as shown on figure 3, indicates that in the area between Point Humboldt and Elk River Spit, approximately opposite the entrance channel, the 6-foot to the 24-foot depth contour moved shoreward. The shoreward movement of the 6-foot depth contour was the most extensive. In two areas, one on the east side of the deep-water channel north of the entrance to the Bay, the second bayward of the northern end of Elk River Spit, the 6-foot to 24-foot depth contours have advanced bayward. In the first area, a shoal less than 6 feet in depth is shown detached from the 6-foot depth curve, and the 12-foot depth contour has moved a maximum of 300 feet along a 2,000-foot length. The corresponding movements for the 18- and 24-foot curves were 100 feet and 130 feet, respectively. In the second area, the greatest movements of the depth contours occurred near the north end of Elk River Spit. At this point, the 6-foot contour shifted 500 feet while the 12-foot and 18-foot contours moved about 150 and 200 feet, respectively. The movement of the 24-foot contour was not as pronounced and only extended over a 600-foot length. Between these two areas, along a 2,000 foot length of the east

edge of the deep-water channel, scour occurred, and the 6- to 24-foot depth contours moved easterly toward the shore. The maximum movement was 300 feet and 150 feet for the 6-foot and 24-foot depth contours, respectively. During the 6-year period, it is estimated that there was a net loss of 543,000 cubic yards of material in this area.

FIELDS LANDING CHANNEL

40. Fields Landing Channel in the vicinity of Buhne Spit. Condition surveys of the Fields Landing Channel in the vicinity of Buhne Spit were compared and studied to determine whether the spit was encroaching on the channel. The surveys selected were made after the channel was dredged and before subsequent redredging. Figure 4 is a comparison of surveys made in 1935 and 1937, and surveys made in 1943 and 1944. Both comparisons show that shoaling, or movement of the depth contours toward the channel, occurred in the vicinity of Buhne Spit. Dredging records also indicate that Fields Landing Channel has a tendency to shoal in this area from year to year. This shoal has earned the name of Buhne Spit Shoal.

41. Middle Ground Shoal. Another area of recurrent shoaling is at the entrance to the Fields Landing Channel. This area is known as Middle Ground Shoal. The tendency here is for shoaling to occur completely across the channel. This area is shown on the vicinity map on figure 4.

TRIBUTARY STREAMS

42. Three streams (Clark slough, Elk River, and Salmon Creek) enter that part of Humboldt Bay south of Gunther, or Indian, Island. Clark slough, a tidal slough, drains an area of about one square mile. Elk River and Salmon Creek drain areas of about 54 and 17 square miles, respectively. In so far as is known, no measurements have ever been made of the detritus carried into Humboldt Bay, by either Elk River or Salmon Creek, during flood periods. At one time the area drained by both streams was

extensively logged. At the present time, Elk River drains an area comprised, for the most part, of second-growth timber lands on which selective logging is now practiced. Even during flood periods, Elk River is seldom able to break through Elk River Spit. Several attempts have been made to provide a channel across Elk River Spit but the River has not been competent to maintain such a channel.

43. Salmon Creek, at present, also drains a heavily timbered region so that it would be reasonable to expect that the stream carries very little debris. The owner of land adjacent to Salmon Creek, at its mouth, has constructed catchment works in an attempt to collect the debris carried by the Creek during floods in order to build up his land. The works, consisting of levees and tide gates, have been in operation for the past five years.

WAVE ACTION

44. The eastern shore of Humboldt Bay, from Buhe Spit to Elk River Spit, is exposed to ocean waves. These waves enter Humboldt Bay through the jettied entrance channel. Aerial photographs of the Bay in the vicinity of the entrance channel show waves impinging on Point Humboldt in a manner likely to cause sand movement both to the north and to the south of the Point. The fact that Point Humboldt is still eroding indicates that the waves not only undermine the cliffs but, aided by tidal currents, also remove the material.

SOIL SAMPLES

45. Areas sampled. Mechanical analyses were made of soil samples obtained from a number of areas in Humboldt Bay. A description of the samples obtained in each of the areas is given in the following subparagraphs:

a. Elk River Spit. Samples were obtained from the upper two inches of the Elk River Spit along the length of the Spit at the mean tide line. Five of the seven samples consisted of coarse to very fine cohesionless gray sand with only a trace of shell. These samples had a median diameter of 0.25 millimeter. The remaining two samples consisted of a mixture of cohesionless gray sand and rounded gravel. The median diameter of the mixture was 0.43 millimeter. The specific gravity of each of the samples was 2.68.

b. Point Humboldt. Samples were taken from the face of the bluff and from the top of Point Humboldt. These samples consisted of a mixture of cohesionless gray and black sand, and compact, moist, bluish-gray clayey silt with bluish-gray clay pockets. The median diameters of these samples varied from 0.024 to 0.23 millimeter. Samples obtained from the top of Point Humboldt consisted of soft to compact brown clayey silt and clay with plant roots. The median diameters of the top samples varied from 0.014 to 0.035 millimeter.

c. Buhne Spit. The samples obtained from Buhne Spit were taken from the upper two inches of the Spit at the mean tide line. The samples consisted of coarse to very fine sand, gray to black in color, with a trace of shell. The median diameter of the samples was 0.25 millimeter.

d. South Spit. The samples obtained from the mean tide line along the South Spit consisted of coarse to fine gray sand with some black sand. The median diameter of the samples was 0.25 millimeter.

e. Shoals and flats. Offshore area samples were taken near Elk River Spit, Buhne Spit, and the South Spit. Except for two samples obtained in shallow water northwest of Buhne Spit, the material obtained was cohesionless gray sand, ranging from very fine to coarse, with a median diameter of from 0.25 to 0.42 millimeter. A trace of shell was

found in several samples. The samples obtained in shallow water northwest of Eureka Spit consisted of bluish-gray clayey silt and organic matter, and bluish-gray silty sand with pieces of brown shells. Grain size of both samples ranged from very fine sand to clay; median diameters varied from 0.015 to 0.025 millimeter.

46. Summary of soil sampling. With the exception of the samples obtained at Point Humboldt and in shallow water bayward of Eureka Spit, the samples consisted of sandy material with a trace of shell. In addition, the Elk River Spit samples contained some gravel. The topsoil of Point Humboldt is composed of clayey silt and organic material. The bayward face of Point Humboldt is composed of a mixture of sand and clay. On the basis of the soil sample analysis it is estimated that from 30 percent to 90 percent, or an average, say, of 50 percent, of the material composing Point Humboldt would be suitable beach material.

DREDGING IN HUMBOLDT BAY

47. The main channels to Eureka and Samoa, in the northerly part of Humboldt Bay, are relatively stable and, except for dredging to new project depths, have required very little maintenance dredging since 1930 when compared with the maintenance dredging of the Fields Landing Channel. During the period July 1943 through June 1947, a total of about 37,000 cubic yards were dredged from the Eureka and Samoa Channels, while about 556,000 cubic yards were removed from the Fields Landing Channel.

PRIOR PROTECTIVE ACTION

48. Several attempts were made to protect the low area northeast of Point Humboldt by timber bulkheads. These attempts proved unsuccessful as wave action undermined and washed out the structures. No further attempt to rebuild these bulkheads has been made since about 1935. The

Northwestern Pacific Railroad Company's right-of-way parallels the Humboldt Bay shore line, starting at a point northeast of Point Humboldt and extending to the Elk River. By the placing of random riprap and the construction of bulkheads composed of old railroad ties, this company has been able to maintain its right-of-way against wave action. The maximum weight of stone used for riprap is approximately 5 tons.

49. In 1943, Duhne Spit was subdivided and developed as a small-boat anchorage. Since then, the local property owners have been forced to protect the Bay side of the spit from wave action, and have placed miscellaneous riprap along the Bay shore.

DISCUSSION

50. There are four possible sources of the material shoaling Fields Landing Channel. These are: (a) sediment brought into the Bay by tributary streams; (b) readjustment of material within the Bay by scouring of slopes and/or erosion of banks; (c) littoral material deposited in the channels by waves and tidal currents or by winds; and, (d) material eroded from Point Humboldt. Due to the nature of the areas drained by, and the size of the streams entering, Humboldt Bay, the amount of sediment carried by these streams is considered insignificant.

51. The most marked readjustment within the Bay in recent years occurred in the shallow-water area between Point Humboldt and Elk River Spit and at the Elk River Spit. The historical change in the water area has been one of shoaling. However, during the period 1939 to 1946 there was a net loss of approximately 543,000 cubic yards of bottom material in the water area, or about 78,000 cubic yards annually. Elk River Spit has been advancing northerly since 1911, and in the period 1939 to 1946 there was an accretion of 461,000 cubic yards on the Spit, equivalent to about 66,000 cubic yards annually.

52. Littoral material may be deposited within the Bay by waves and tidal currents or by winds. The relative stability of the Humboldt bar and of the shore line of the South Spit, however, seems to indicate a fairly constant supply from littoral sources, so that any littoral materials deposited in the vicinity of the jettied channel ultimately are redeposited on the bar or move past the jettied entrance.

53. Point Humboldt has a history of erosion. In 1930 it was estimated that 2,500,000 cubic yards of material had been removed from the Point since 1854. Between 1930 and 1946, an additional 1,474,000 cubic yards were eroded. The average rate of erosion between 1939 and 1946 was approximately 124,000 cubic yards per year. Of the total amount of material eroded, it is estimated that about 50 percent is coarse enough to settle out and cause shoaling in the Bay. Therefore, Point Humboldt may be considered to have contributed about 62,000 cubic yards of shoaling material annually during the period 1939 to 1946.

54. The average annual rate of shoaling in Fields Landing Channel during the period 1940 to 1947 was about 80,000 cubic yards. The total measured losses and accretions in the vicinity of Point Humboldt are 140,000 cubic yards and 146,000 cubic yards, respectively. The close agreement between the two sums would seem to indicate that the shore line and offshore depth changes in the vicinity of Point Humboldt are local in character. It would also seem that the material shoaling Fields Landing Channel is derived either from Point Humboldt, from the water area between Point Humboldt and Elk River Spit, or from both areas.

55. It is believed that the erosion of both the offshore area near Point Humboldt and the point, itself, is due to wave action aided by tidal currents. Waves entering Humboldt Bay agitate the bottom material and then continue on to undercut the bluff and adjacent shore line. The coarser material eroded is transported by waves and currents to both

Buhne Spit and Elk River Spit. Buhne Spit is considered only a temporary repository, and waves and currents eventually carry the material to the deeper waters of the Fields Landing Channel.

56. If this analysis is correct, the shoaling of Fields Landing Channel could be materially reduced by either revetting the shore line at Point Humboldt or by a barrier groin springing from a suitable point on Buhne Spit, provided the work could be economically justified. The revetment would extend from the southerly end of the structures now protecting the railroad right-of-way to the southwest side of Point Humboldt, a distance of approximately 5,200 feet.

57. The barrier groin, springing from Buhne Spit, would extend bayward about 1,200 feet to the 12-foot depth contour. Both the revetment and the groin would stabilize the eroding shore. The groin, in addition, would impose material carried by the last remnant of the ebb flow from the north Bay which, considering the relative sizes of the north and south Bays, would continue after the flood had started both in the jet-tied entrance and in the Fields Landing Channel.

58. Although it is believed that the barrier groin would reduce the shoaling considerably in Fields Landing Channel, such an effect could not be expected immediately. In some respects the barrier groin would be an experiment and, if a 1,200-foot length of groin can be economically justified, it would be well to construct only a 600-foot length of groin initially. Should the 600-foot section prove successful, then the groin could be extended to its ultimate length.

CONCLUSIONS

59. It is concluded that:

a. The principal sources of the material shoaling Fields Landing Channel are Point Humboldt and the shallow-water area between Point Humboldt and Elk River Spit.

b. The material eroded from these sources is deposited in the Fields Landing Channel by wave and current action.

c. The shoaling of Fields Landing Channel could be materially reduced by either revetting a 5,200-foot length of the shore line of Point Humboldt or by the construction of a 1,200-foot barrier groin springing from Buhne Spit.

d. Both the revetment and the barrier groin would stabilize the eroding shore at Point Humboldt, and the groin would, in addition, impound material eroded from the shallow-water area between Elk River Spit and Point Humboldt.

e. Subject to the economic justification of the full 1,200-foot length of the barrier groin, a 600-foot length of groin should be constructed initially.

f. If the initial length of groin proves successful, the barrier groin should be extended to its ultimate length.

NOTES:

All soundings are expressed in feet and refer to Plane of Mean Lower Low Water as determined by USCE&GS.

All surveys shown hereon were made by US Engineers unless otherwise noted.

0 Contour
6' Depth Contour
18' "
30' "
36' "

Jetty Elevations shown thus: (48)

HUMBOLDT BAY

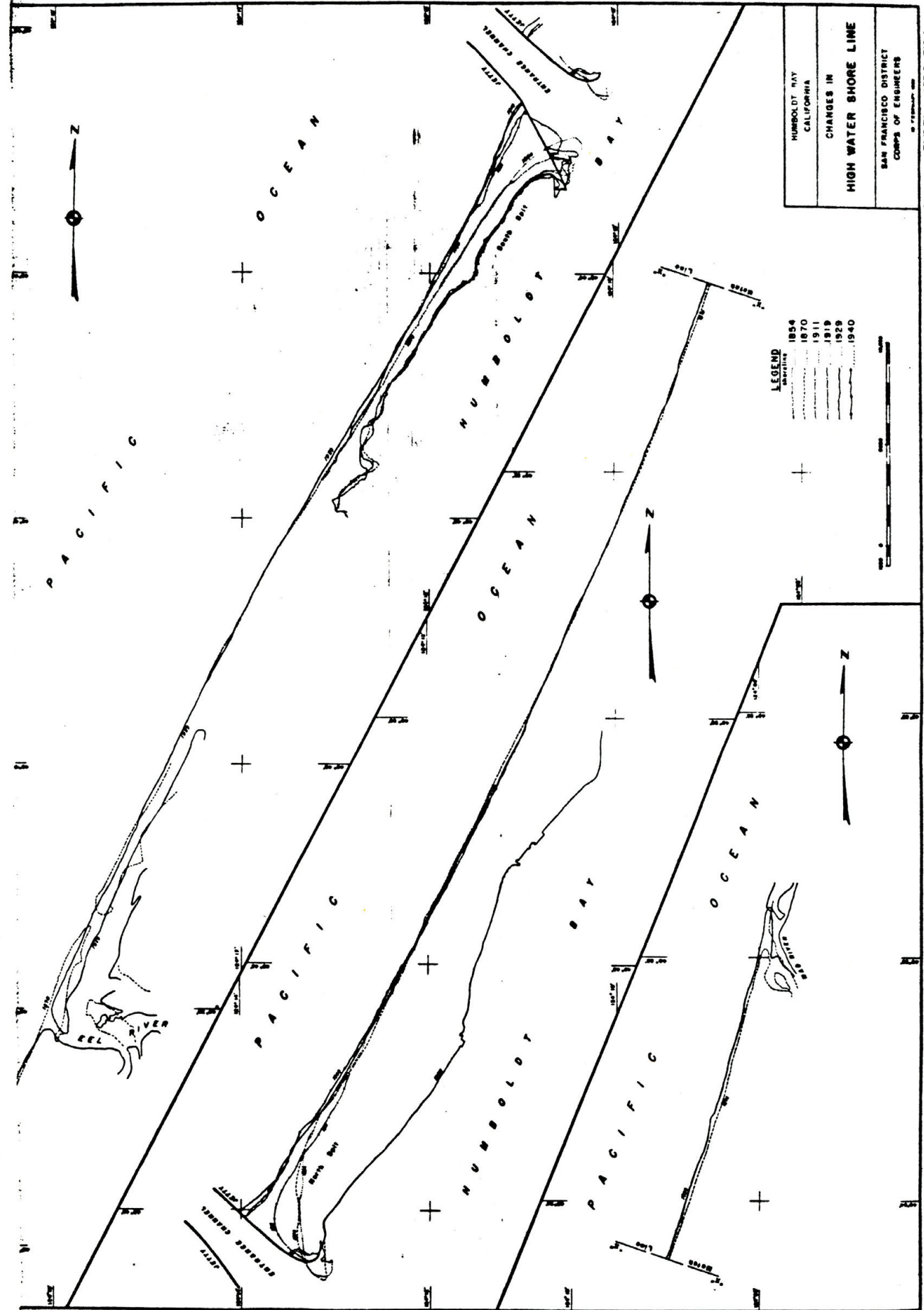
CALIFORNIA

COMPARISON OF PERIODIC SURVEYS OF BAR AND ENTRANCE



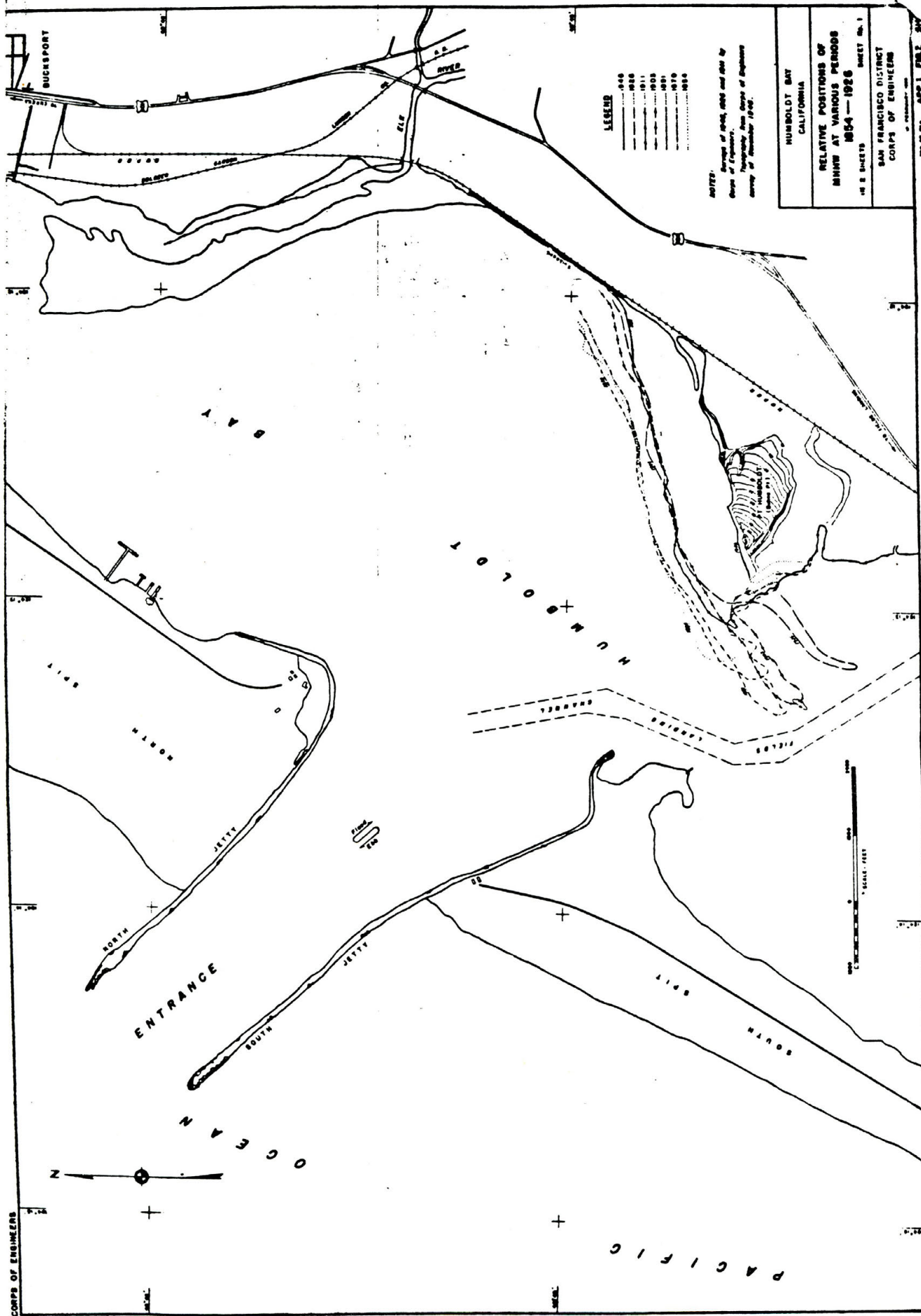
SCALE 1" = 1500'

10 FEBRUARY 1950



LEGEND
 1854
 1870
 1911
 1919
 1929
 1940

HUMBOLDT BAY
 CALIFORNIA
 CHANGES IN
 HIGH WATER SHORE LINE
 SAN FRANCISCO DISTRICT
 CORPS OF ENGINEERS
 APR 1 1951



LEGEND

—	100
—	200
—	300
—	400
—	500
—	600
—	700
—	800
—	900
—	1000
—	1100
—	1200
—	1300
—	1400
—	1500
—	1600
—	1700
—	1800
—	1900
—	2000

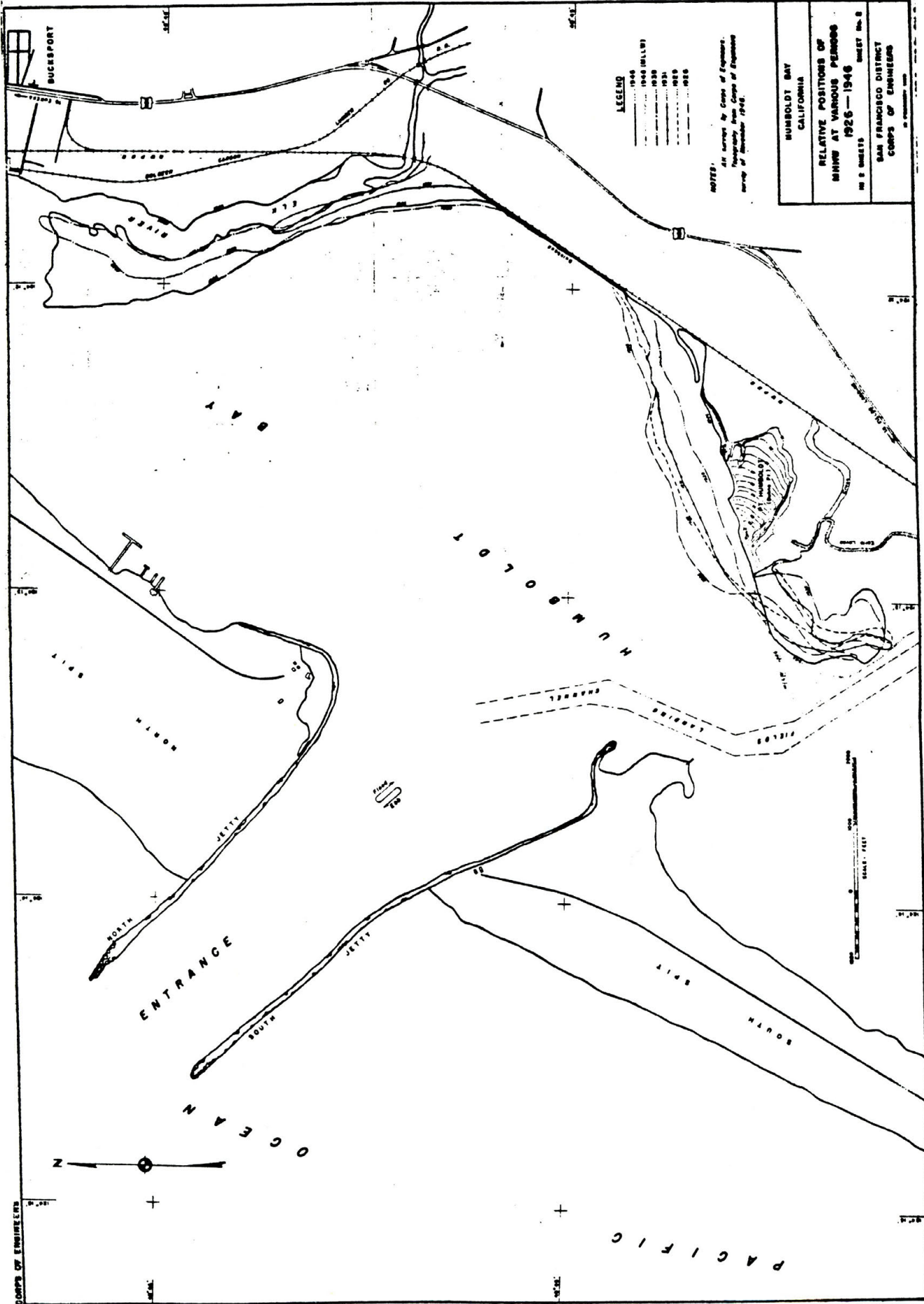
NOTES:
 Heights of 1900, 1900 and 1900 by
 Corps of Engineers.
 Topography from Corps of Engineers
 survey of November 1900.

HUMBOLDT BAY
 CALIFORNIA

RELATIVE POSITIONS OF
 MINES AT VARIOUS PERIODS
 1854—1926

14 2 SHEETS
 SAN FRANCISCO DISTRICT
 CORPS OF ENGINEERS

APP. 1, FILE 347





ENTRANCE

NORTH

SOUTH

JETTY

FLORIDA

NORTH

SOUTH

FIELDS LANDING CHANNEL

NOTES:
All surveys by Corps of Engineers.
Topography from Corps of Engineers
survey of November 1946.



DEPTH	1939	1946
5 ft	---	---
12	---	---
18	---	---
24	---	---
30	---	---

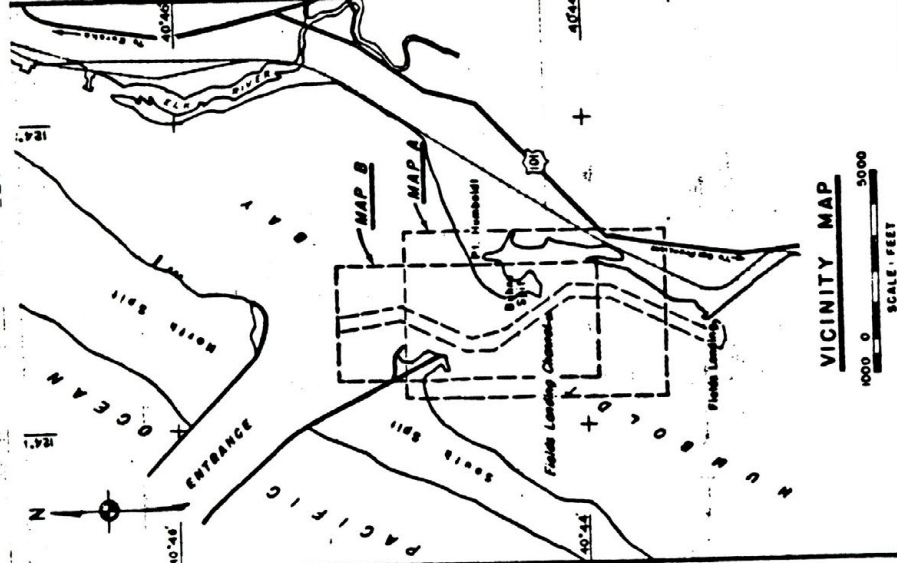
LEGEND

HUMBOLDT BAY
CALIFORNIA

DEPTH CHANGES BETWEEN
FIELDS LANDING CHANNEL
AND ELK RIVER
1939 AND 1946

SAN FRANCISCO DISTRICT
CORPS OF ENGINEERS
10 FEBRUARY 1948

APP. 1 P. 10.3



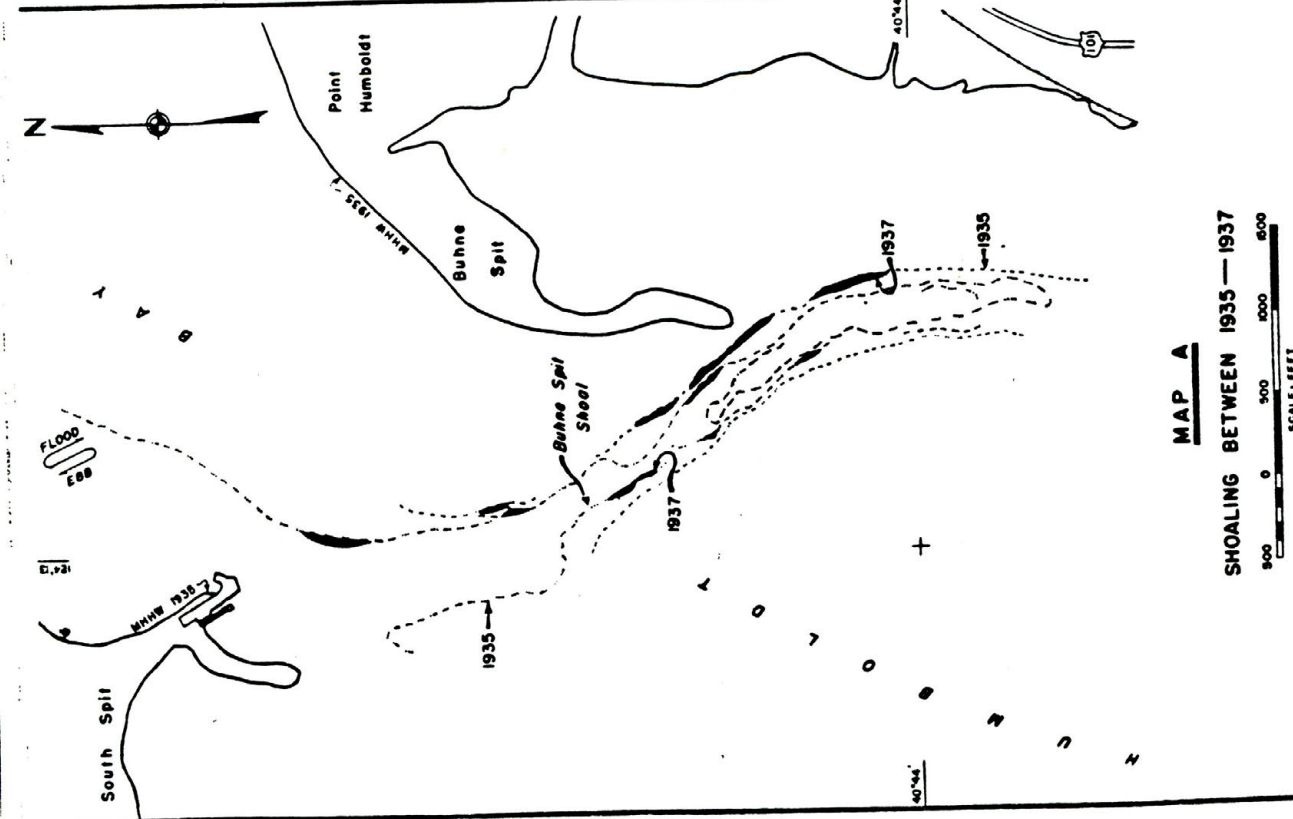
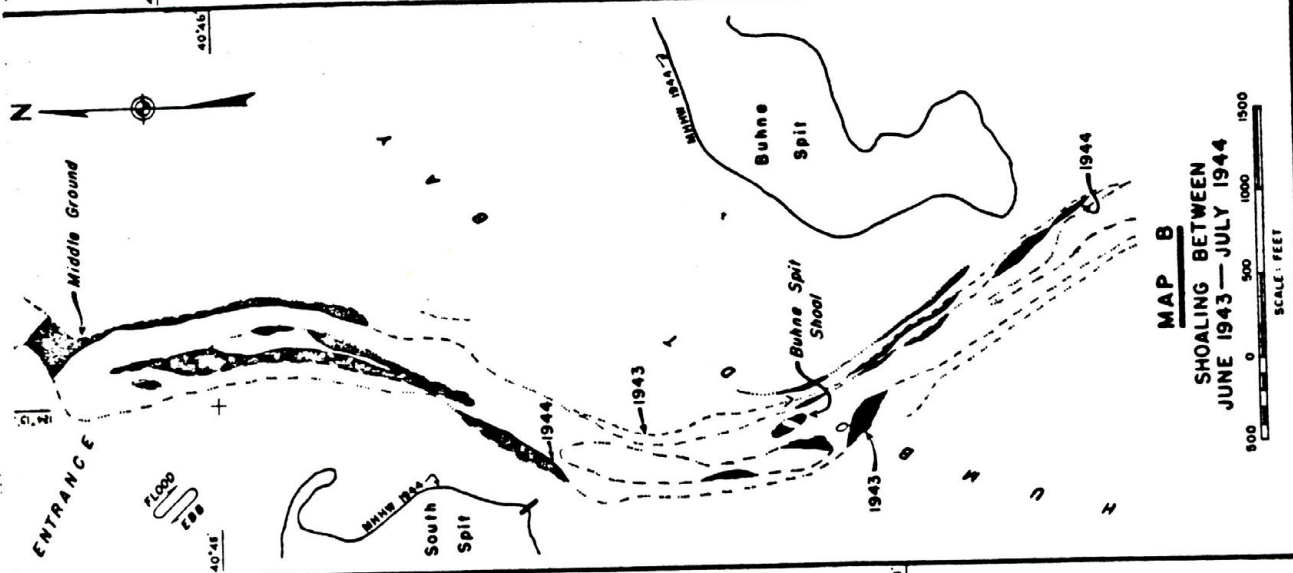
HUMBOLDT BAY
CALIFORNIA

SHOALING IN
FIELDS LANDING CHANNEL
1935 TO 1937 — 1943 TO 1944

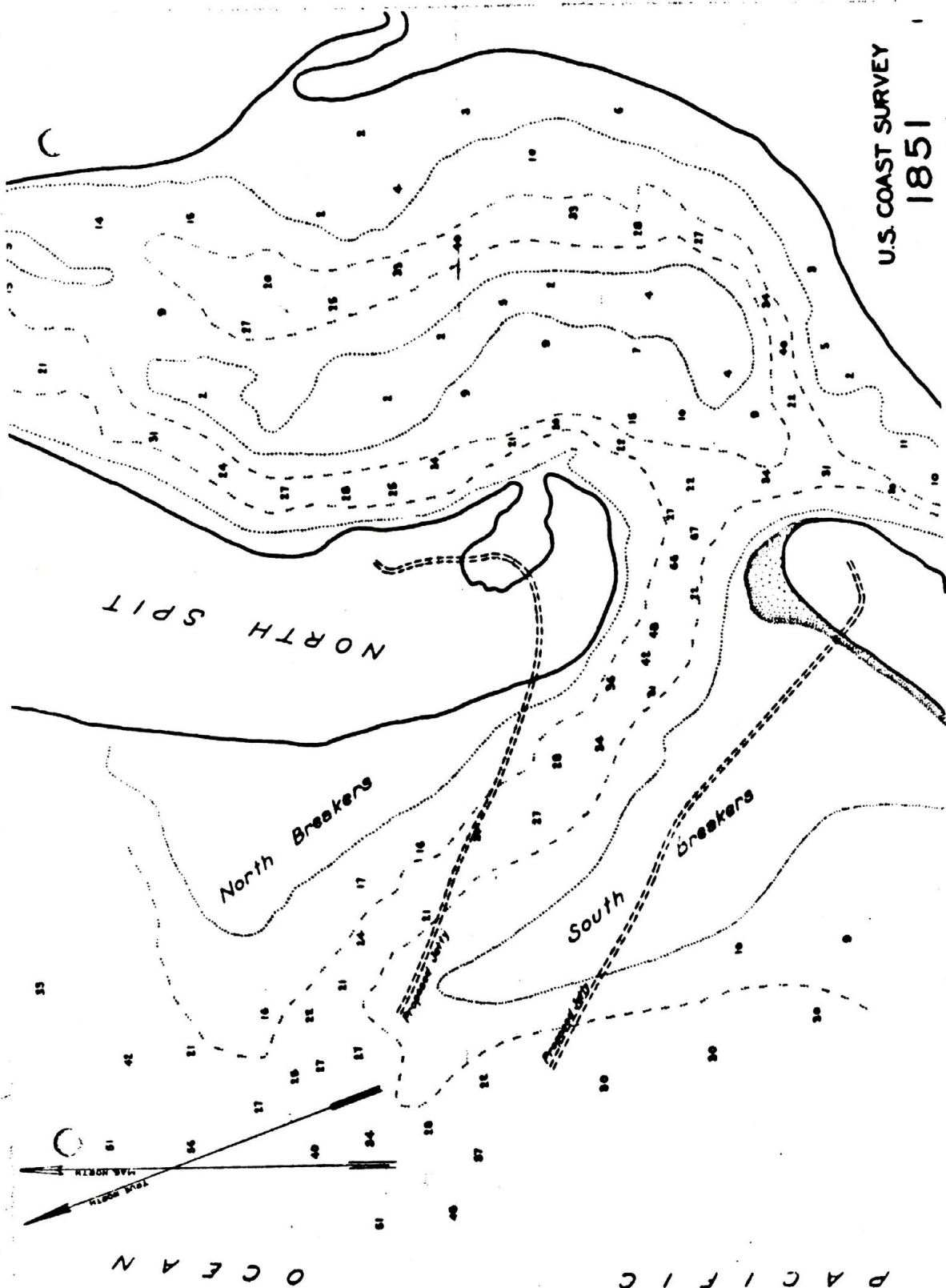
SAN FRANCISCO DISTRICT
CORPS OF ENGINEERS

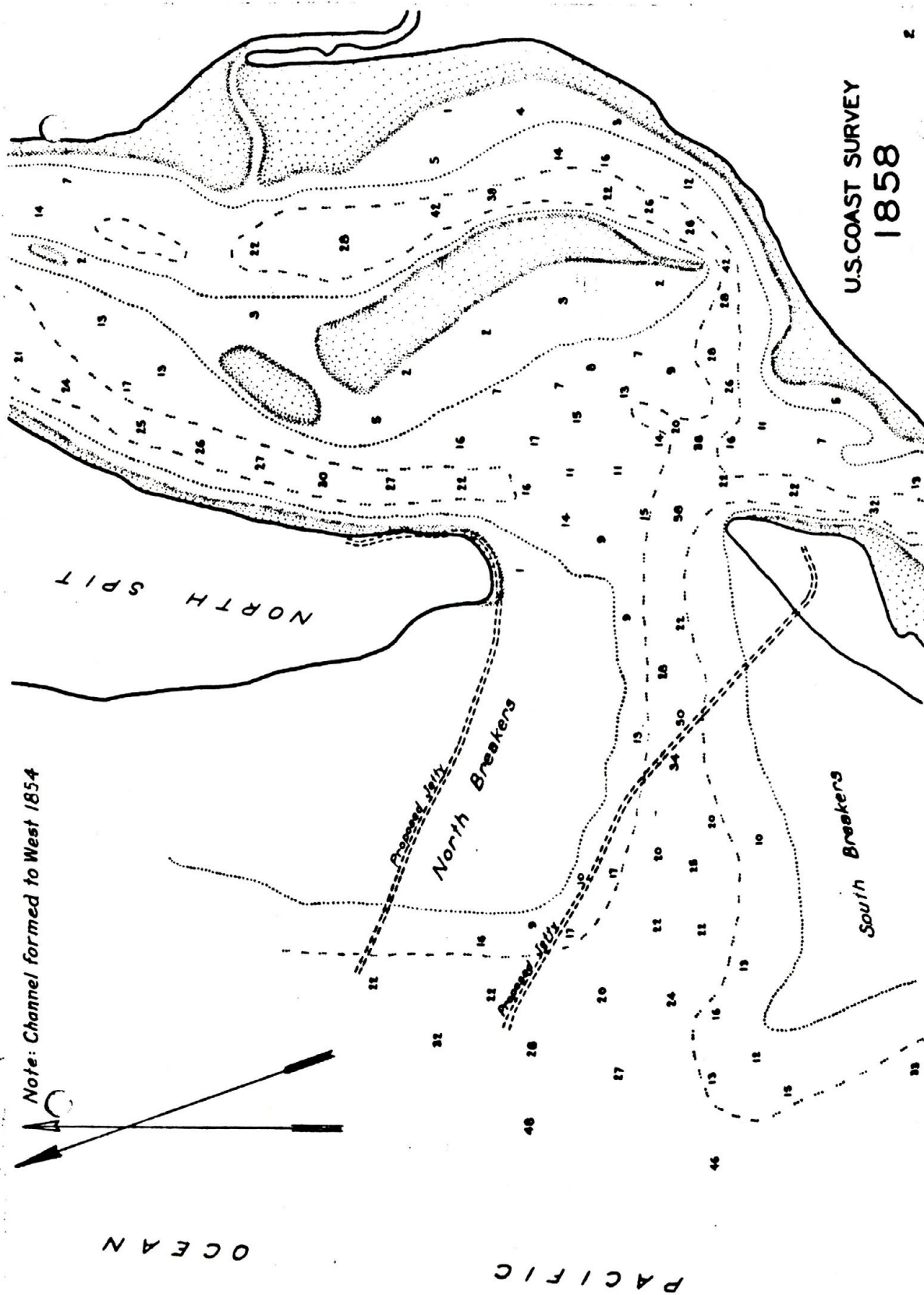
10 FEBRUARY 1945

APPJ 616

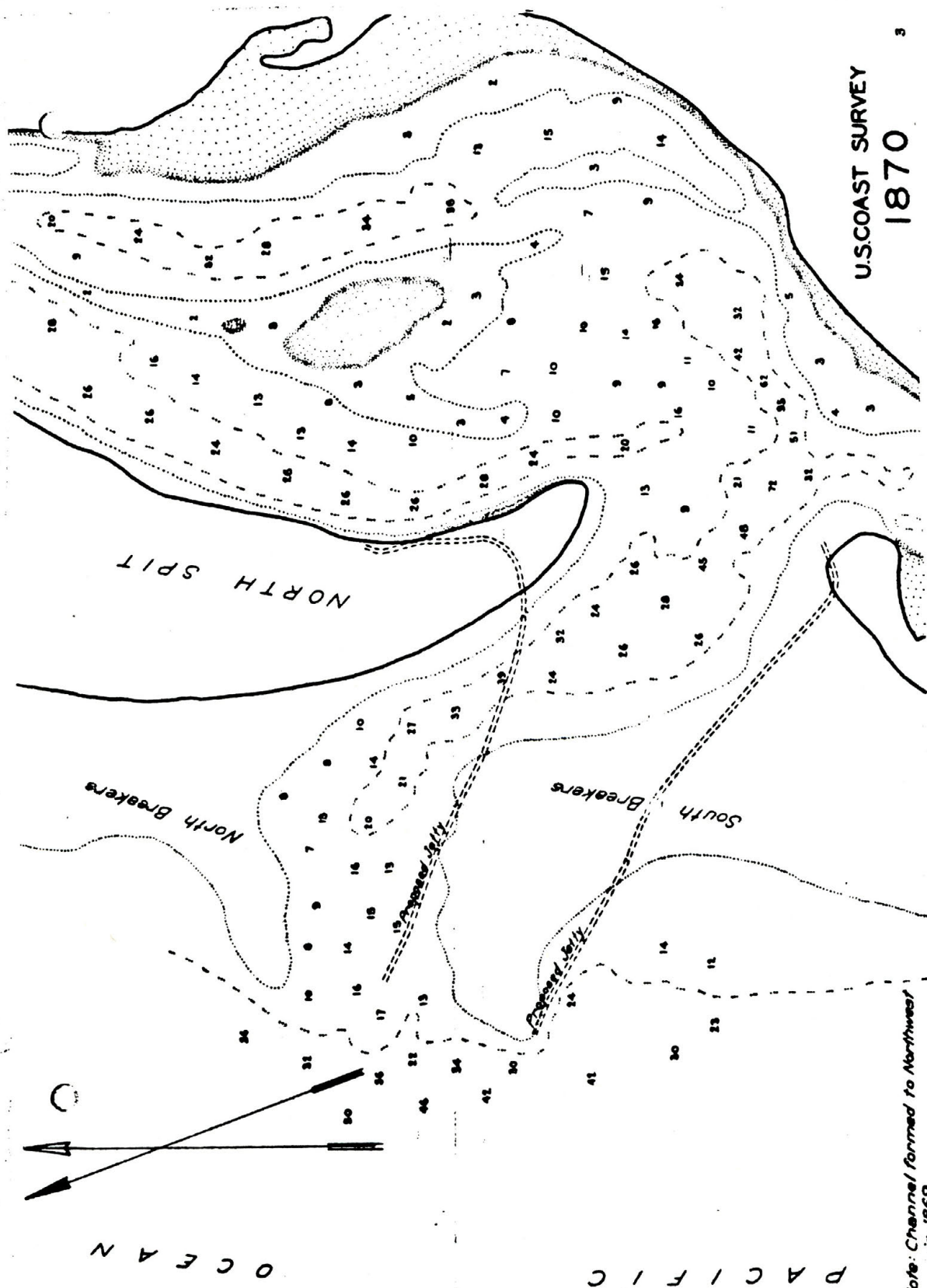


U.S. COAST SURVEY
1851





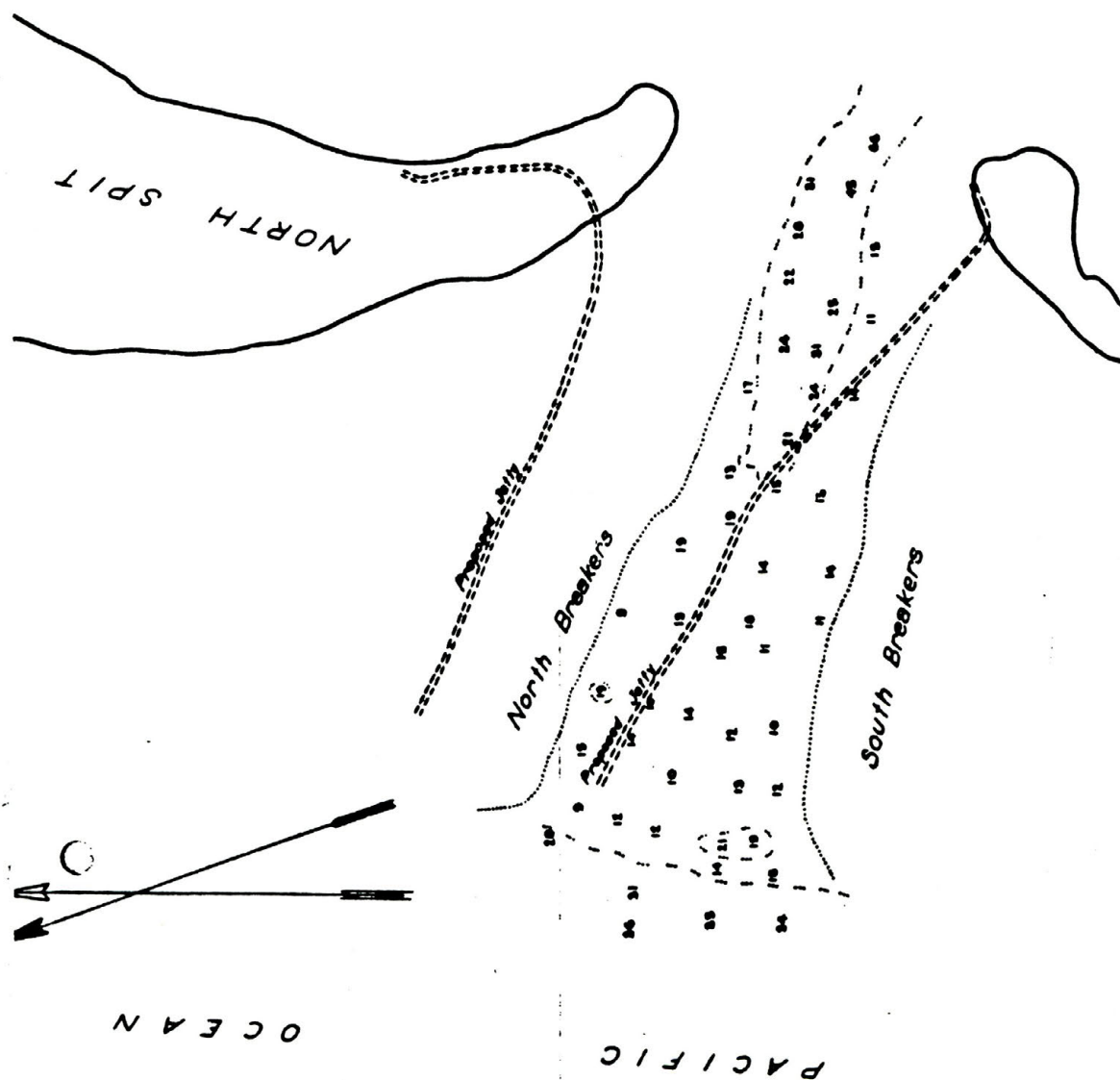
U.S. COAST SURVEY
1858

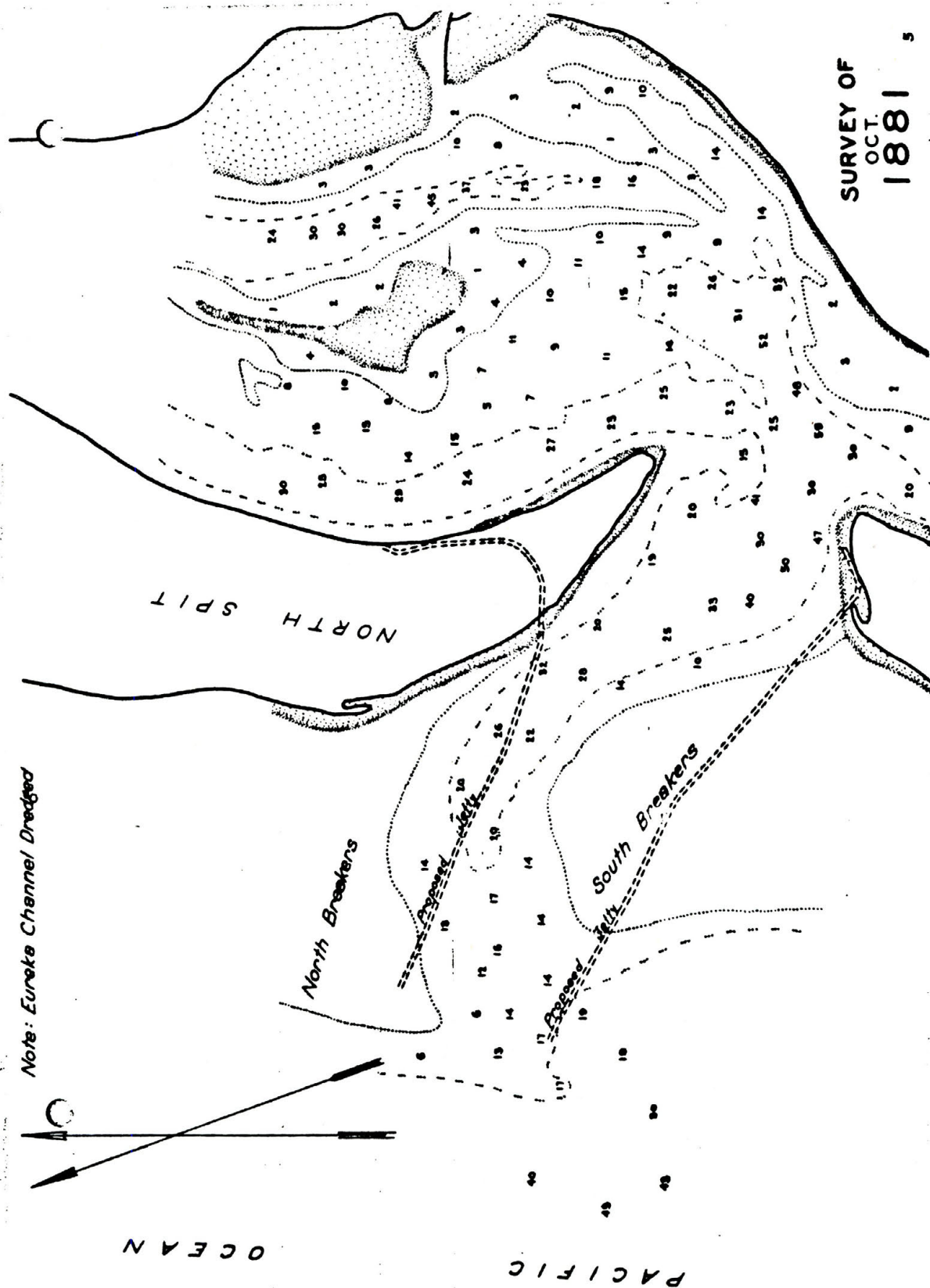


U.S. COAST SURVEY
1870

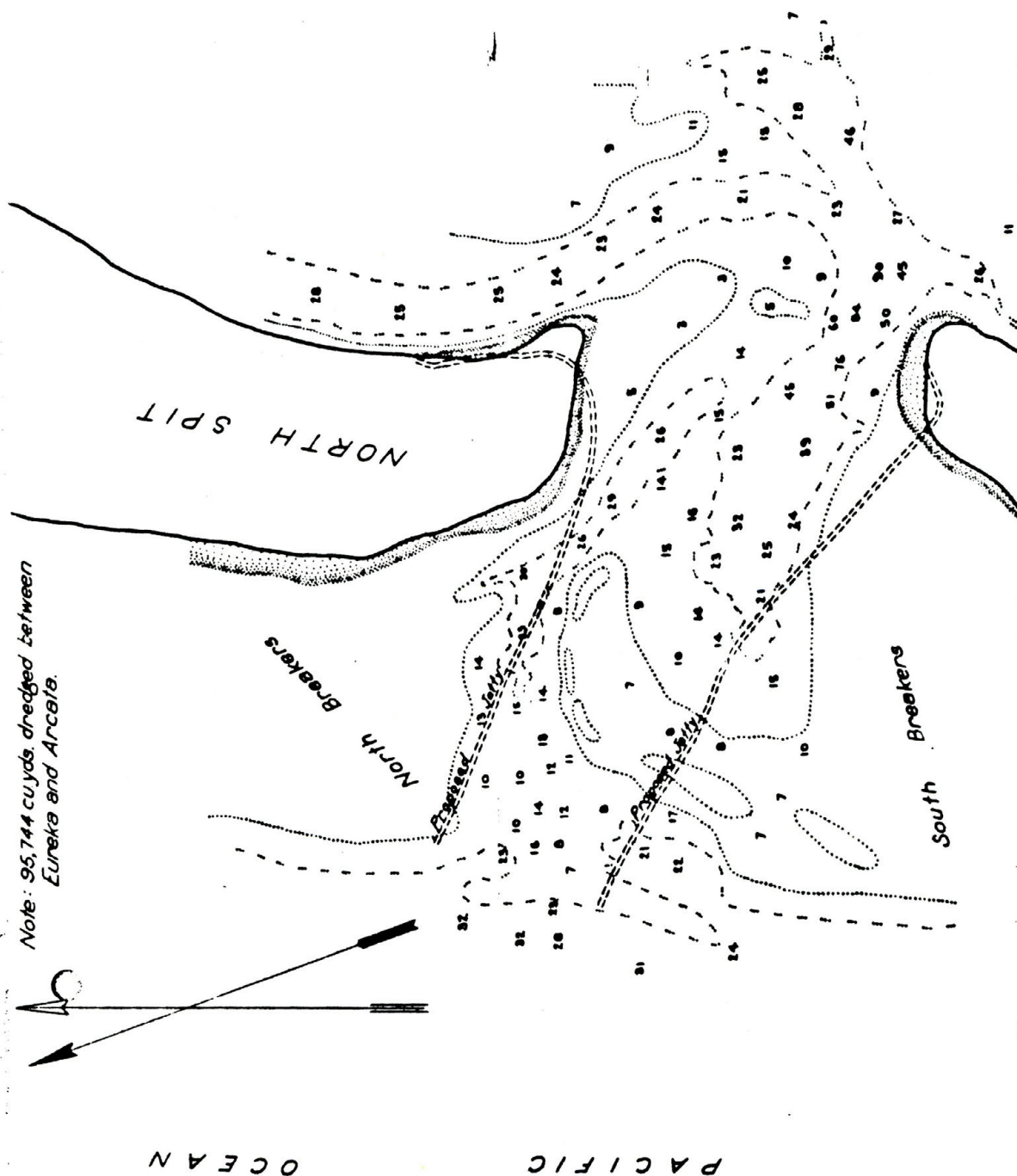
Note: Channel formed to Northwest
in 1869.

U.S. COAST SURVEY
APRIL — JUNE
1875





SURVEY OF
MAY
1882



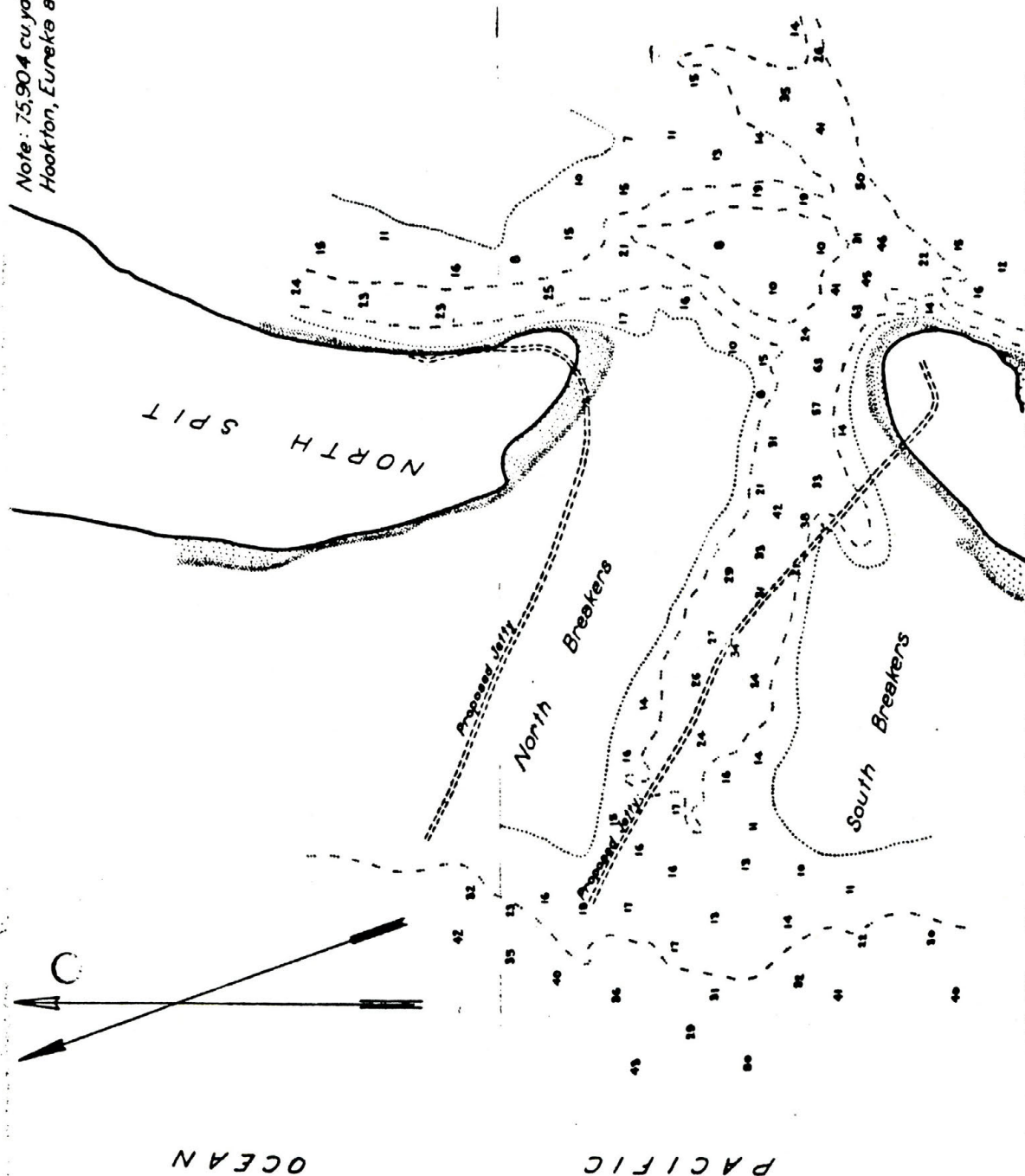
Note: 95,744 cu yds. dredged between
Eureka and Arcata.

PACIFIC OCEAN

SURVEY OF
MAY
1883

7

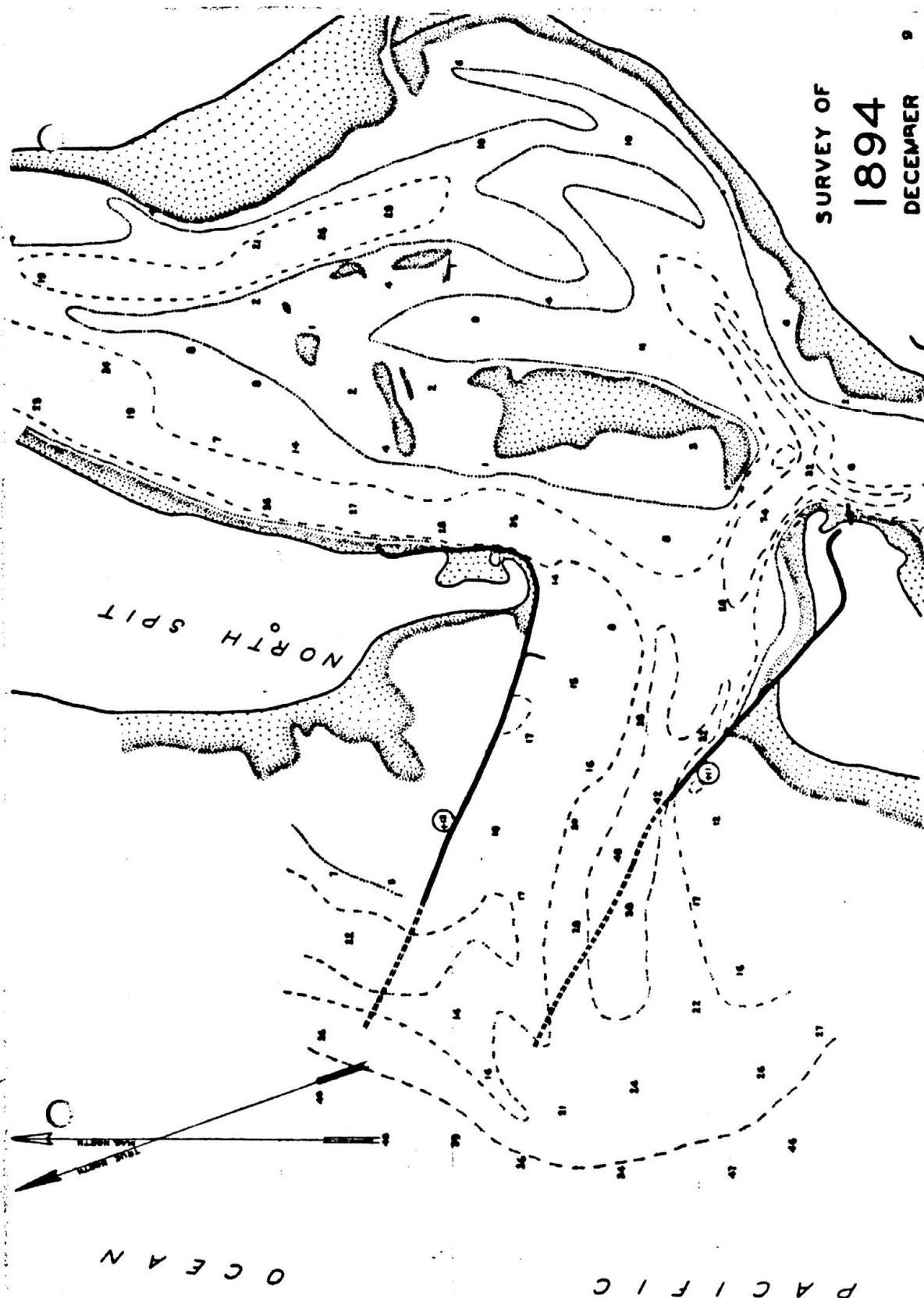
Note: 75,904 cu yds dredged between
Hookton, Eureka and Arcata Channels.



OCEAN

PACIFIC

SURVEY OF
1894
DECEMBER



SURVEY OF

1896

MAY

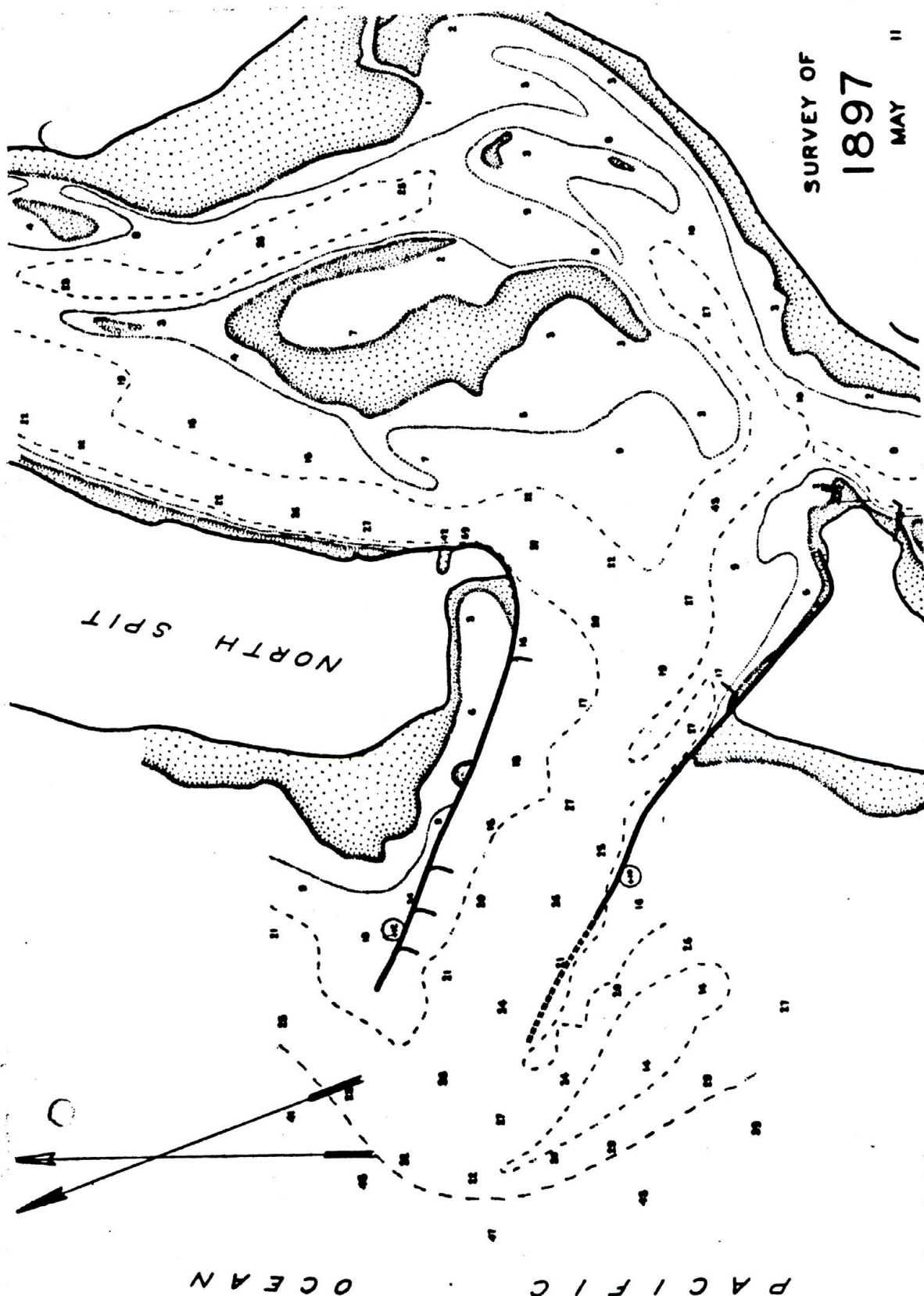
10



SURVEY OF

1897

MAY 11



SURVEY OF

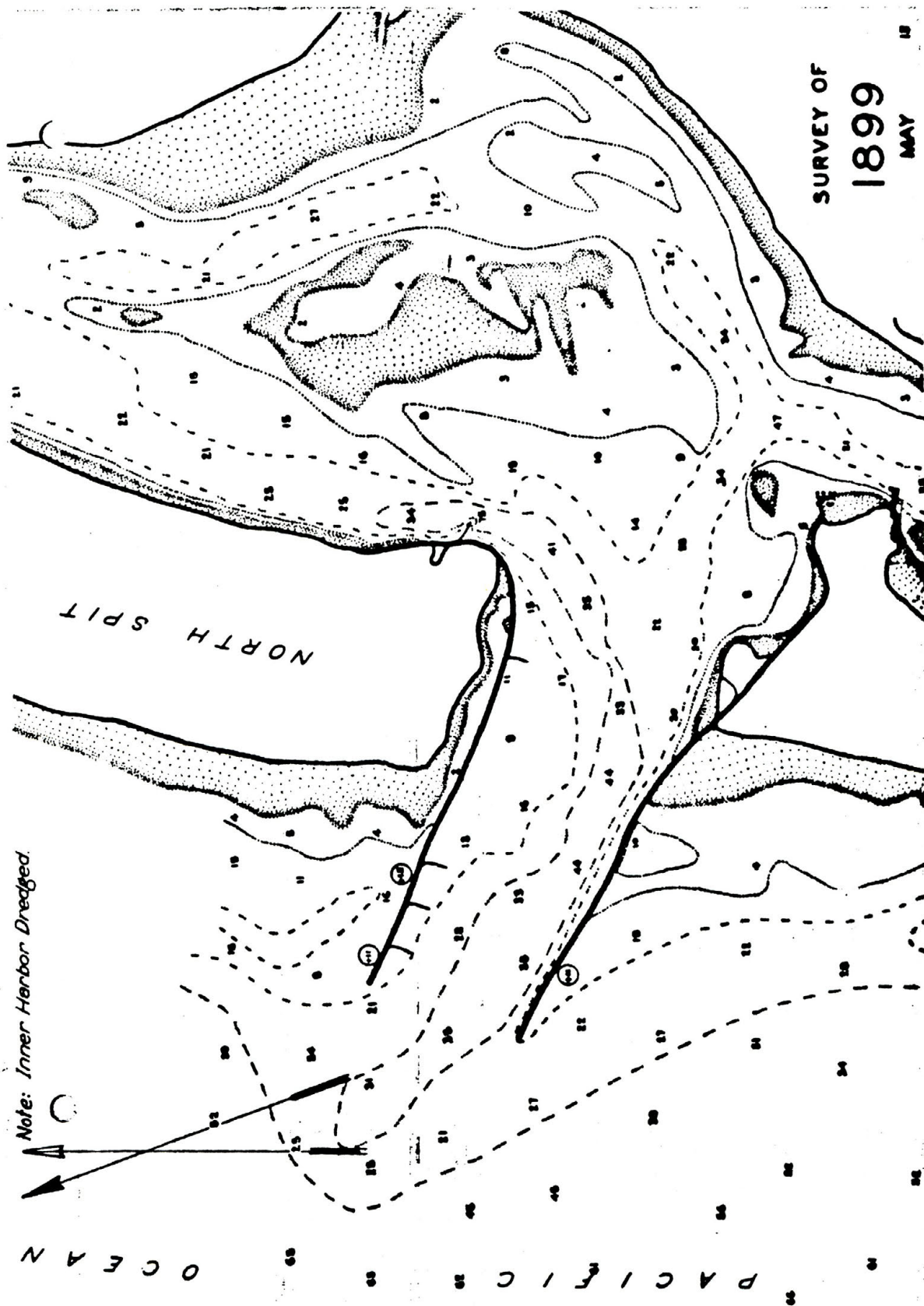
1898

MAY

12



SURVEY OF
1899
MAY

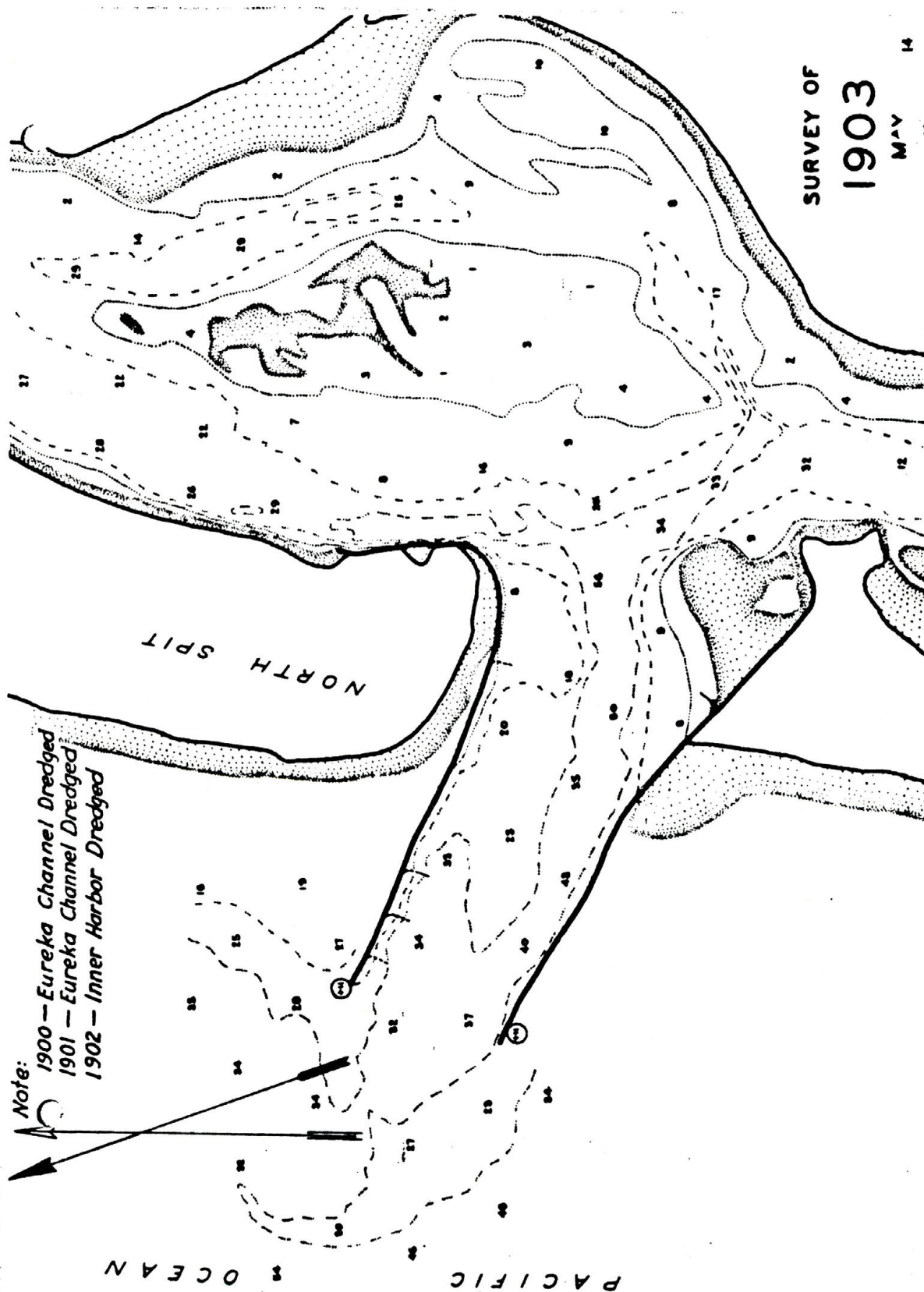


SURVEY OF

1903

MAY

14



SURVEY OF

1905

AUGUST 15



SURVEY OF

1907

AUGUST

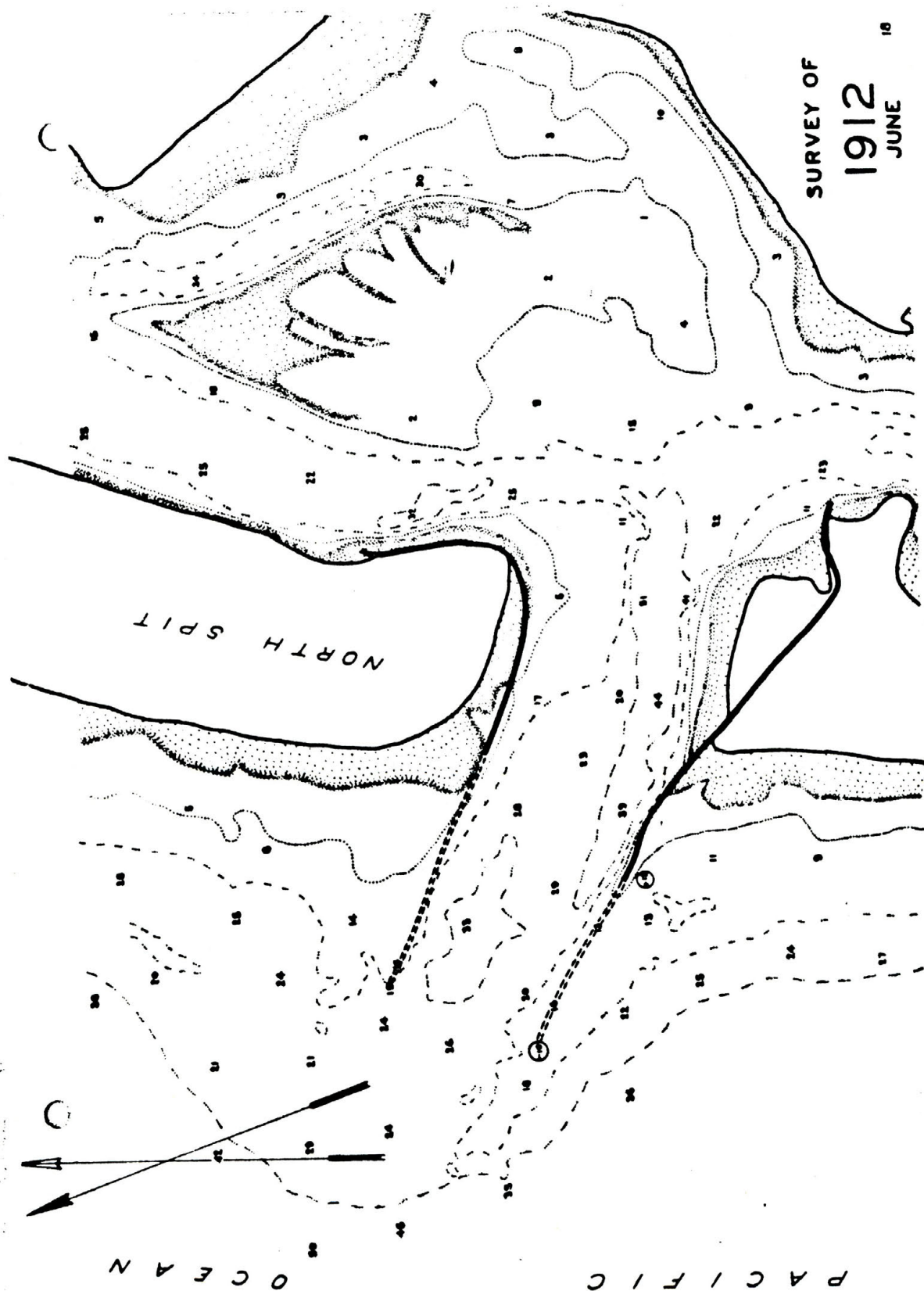
16



SURVEY OF
1911
APRIL

17

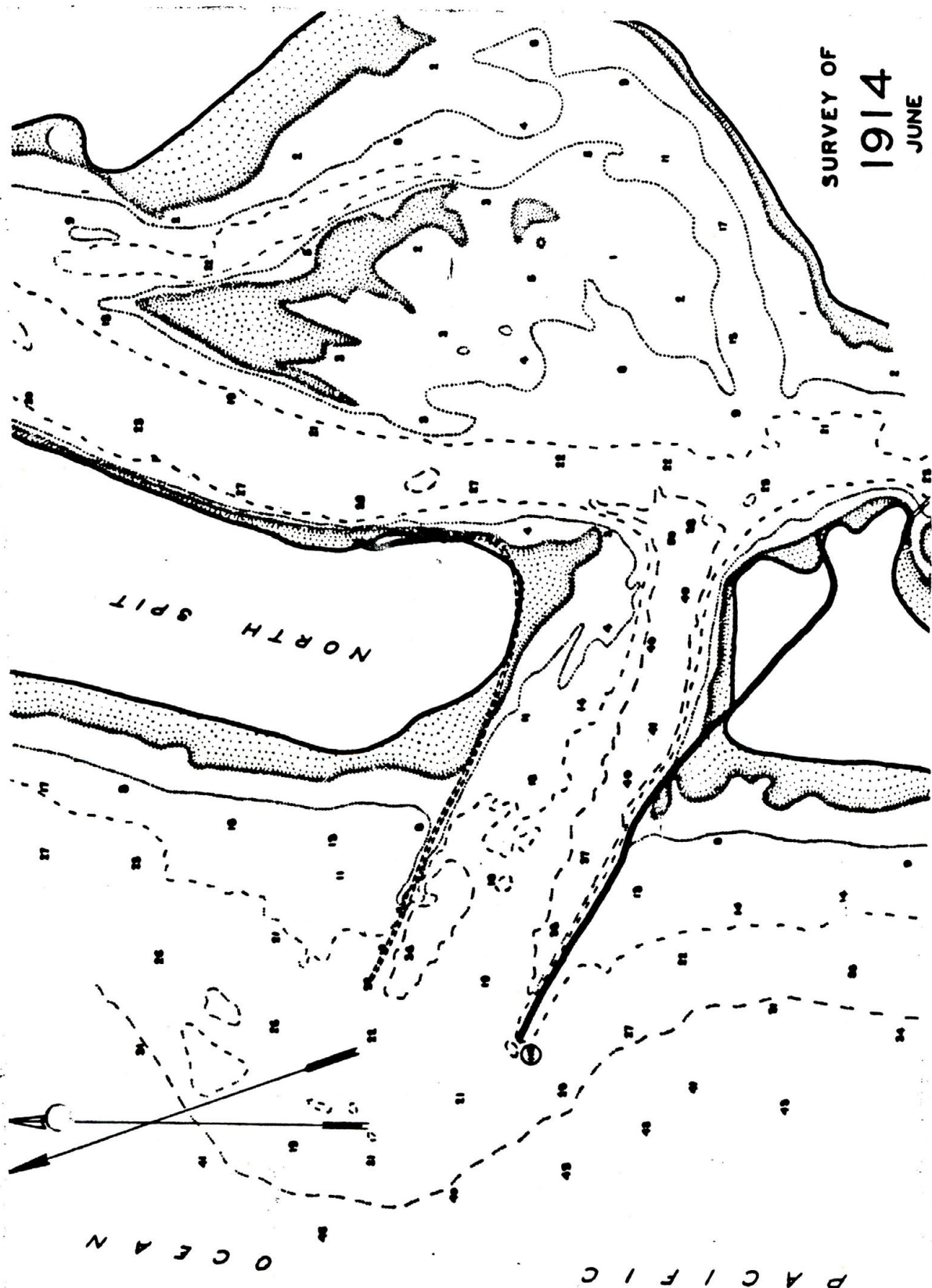




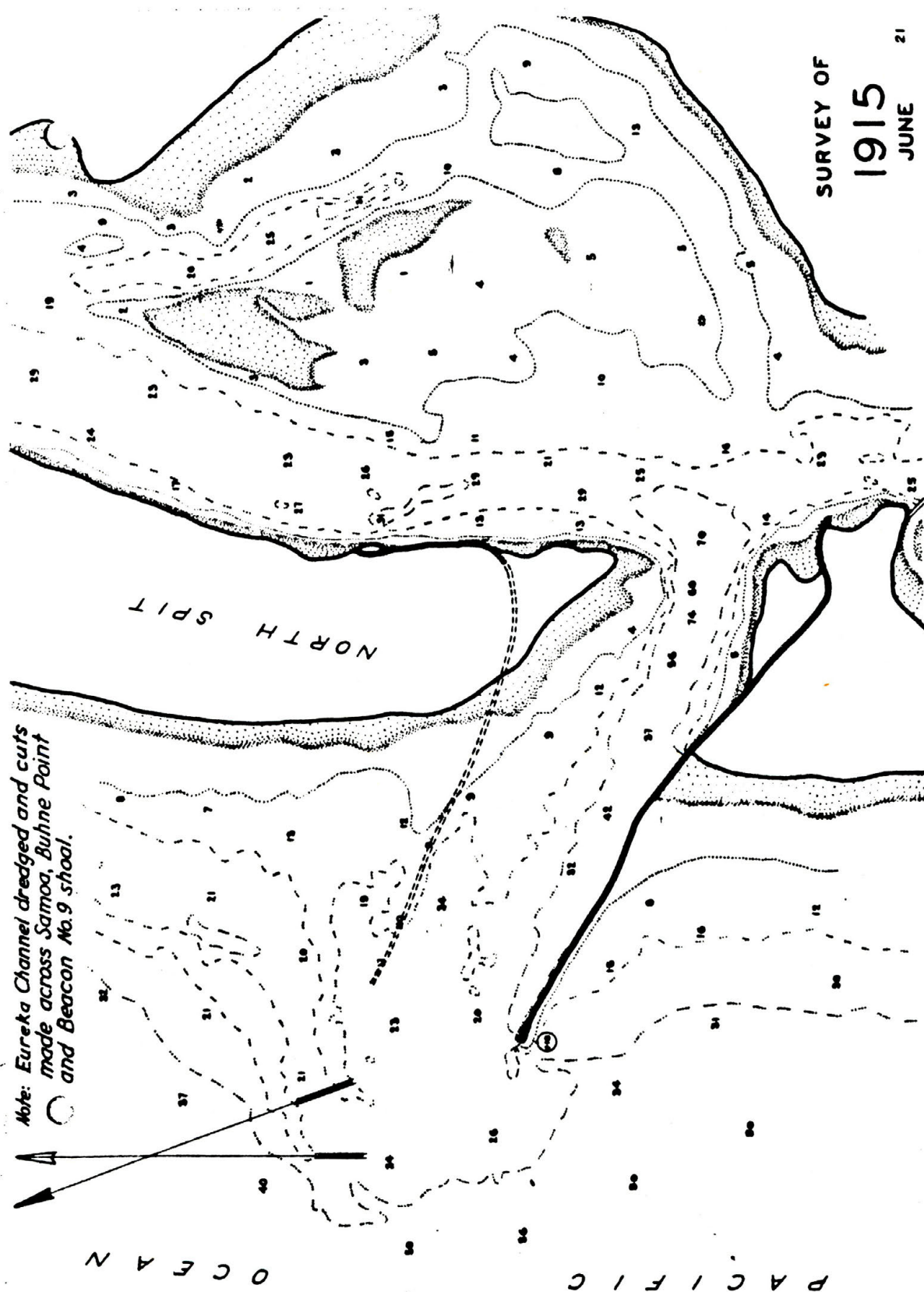
SURVEY OF
1913



SURVEY OF
1914
JUNE

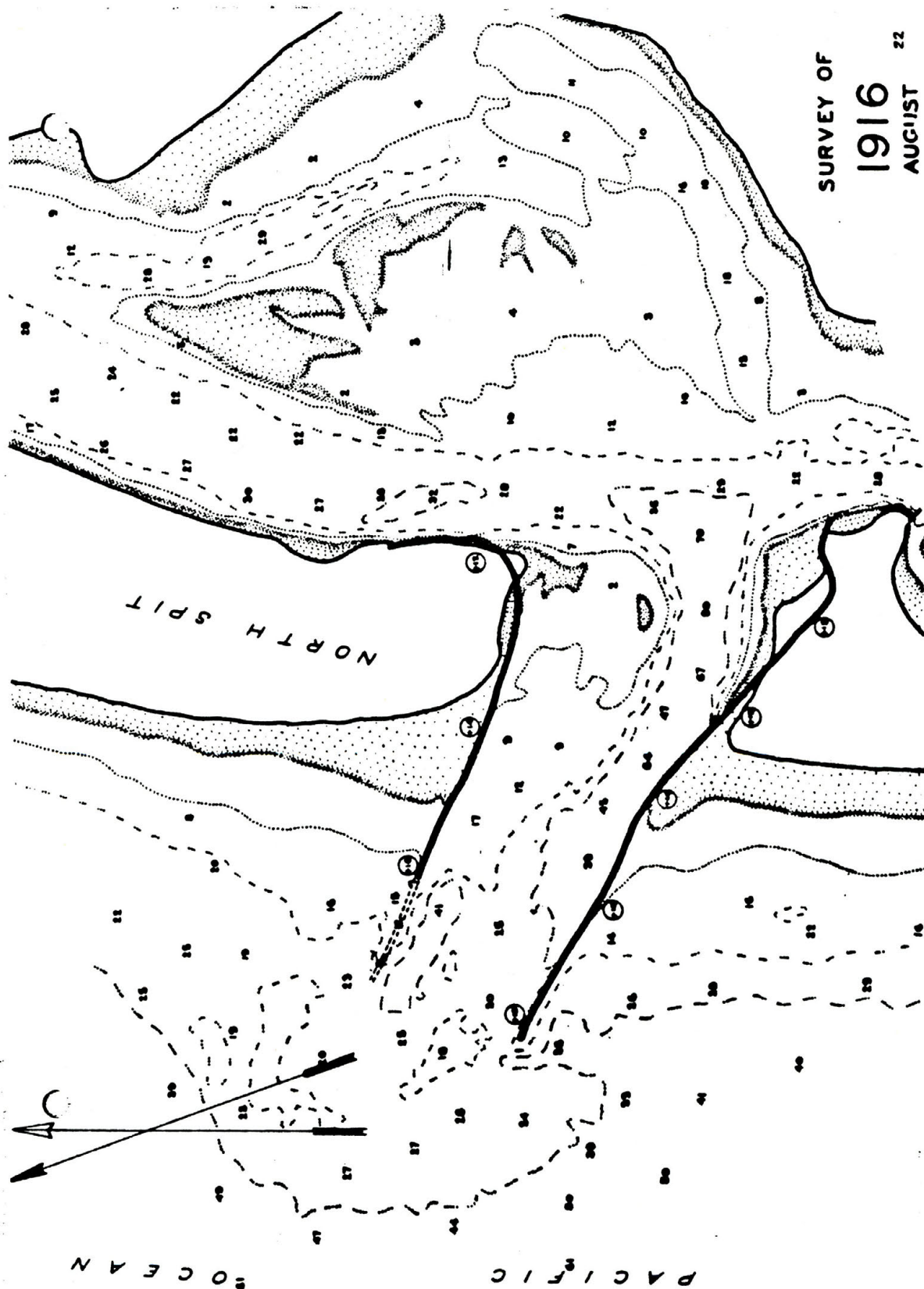


SURVEY OF
1915
JUNE 21



Note: Eureka Channel dredged and cut
made across Samoa, Buhne Point
and Beacon No. 9 shoal.

SURVEY OF
1916
AUGUST 22

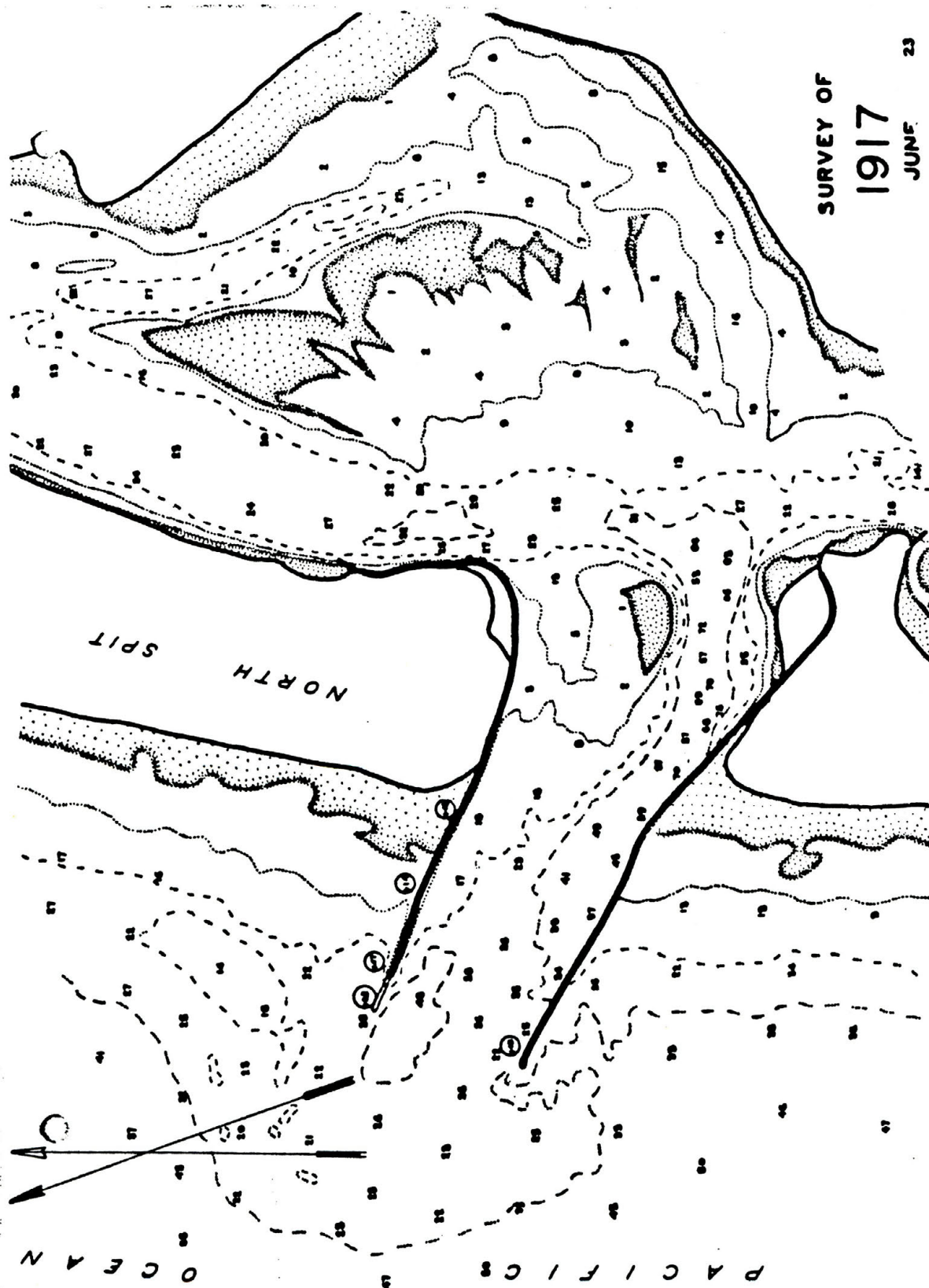


SURVEY OF

1917

JUNE

23



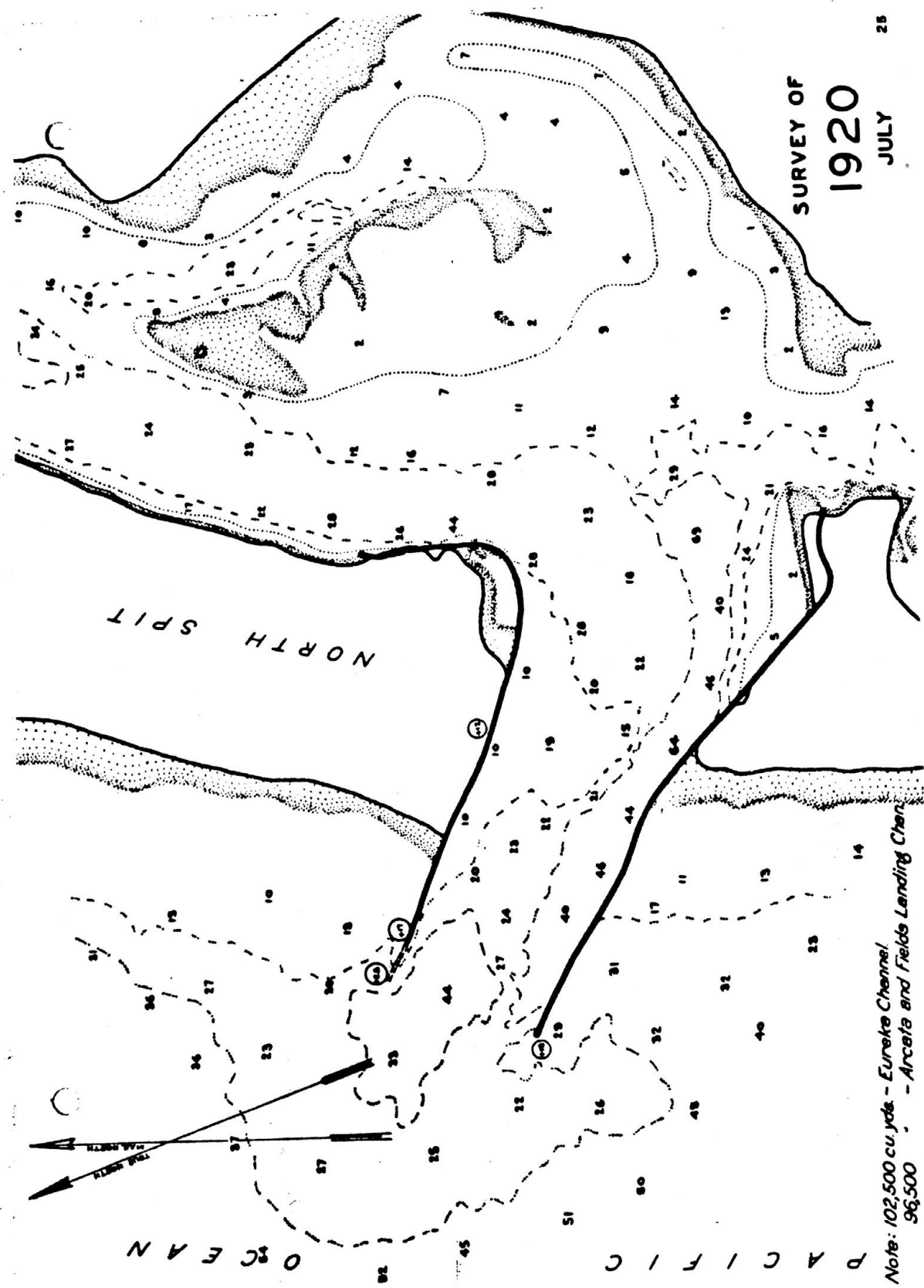
U.S.C.&G.S.
SURVEY OF

1919

24



SURVEY OF
1920
JULY



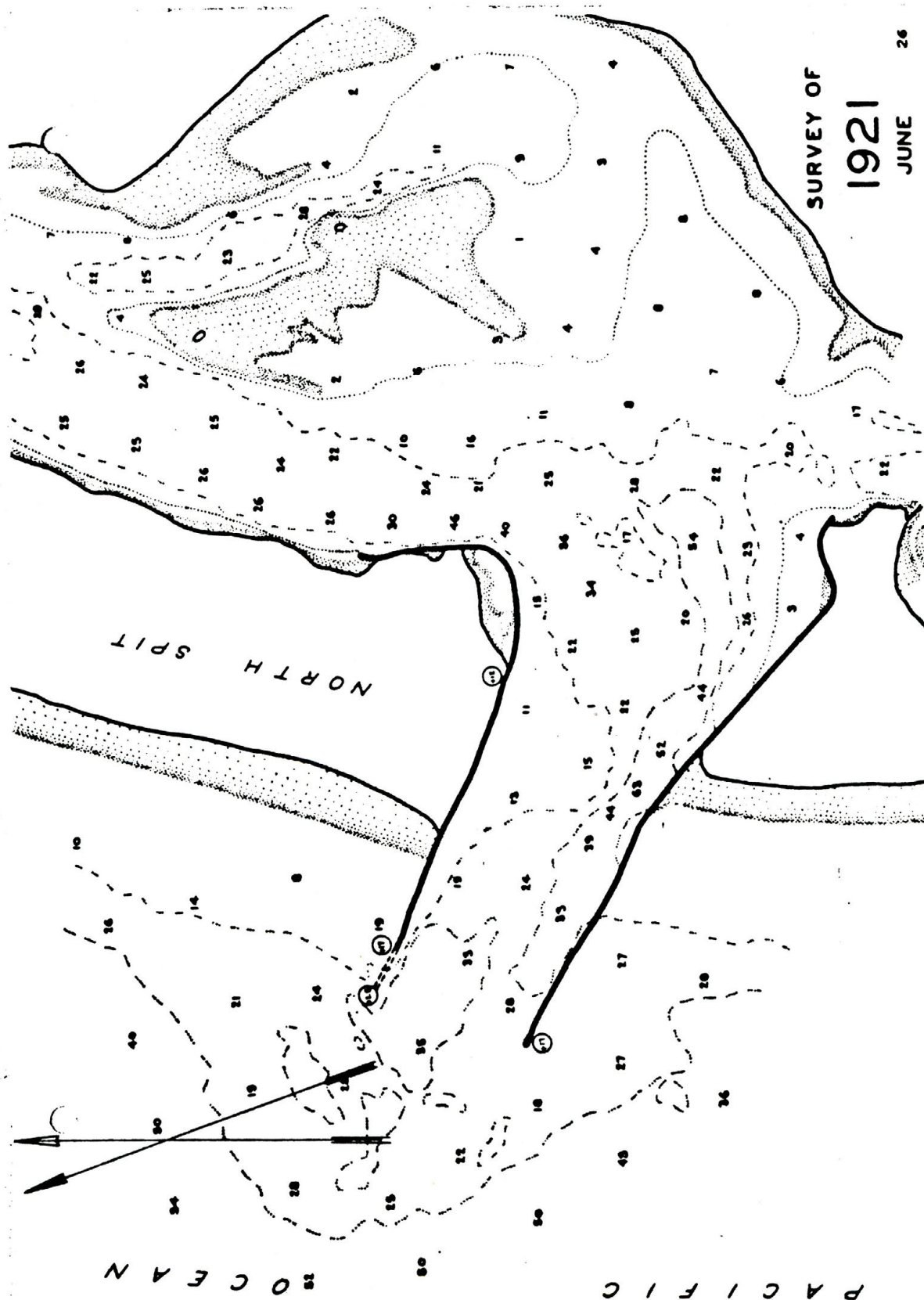
Note: 102,500 cu. yds. - Eureka Channel
96,500 - Arcata and Fields Landing Chan.

SURVEY OF

1921

JUNE

26



SURVEY OF

1922

JUNE 27

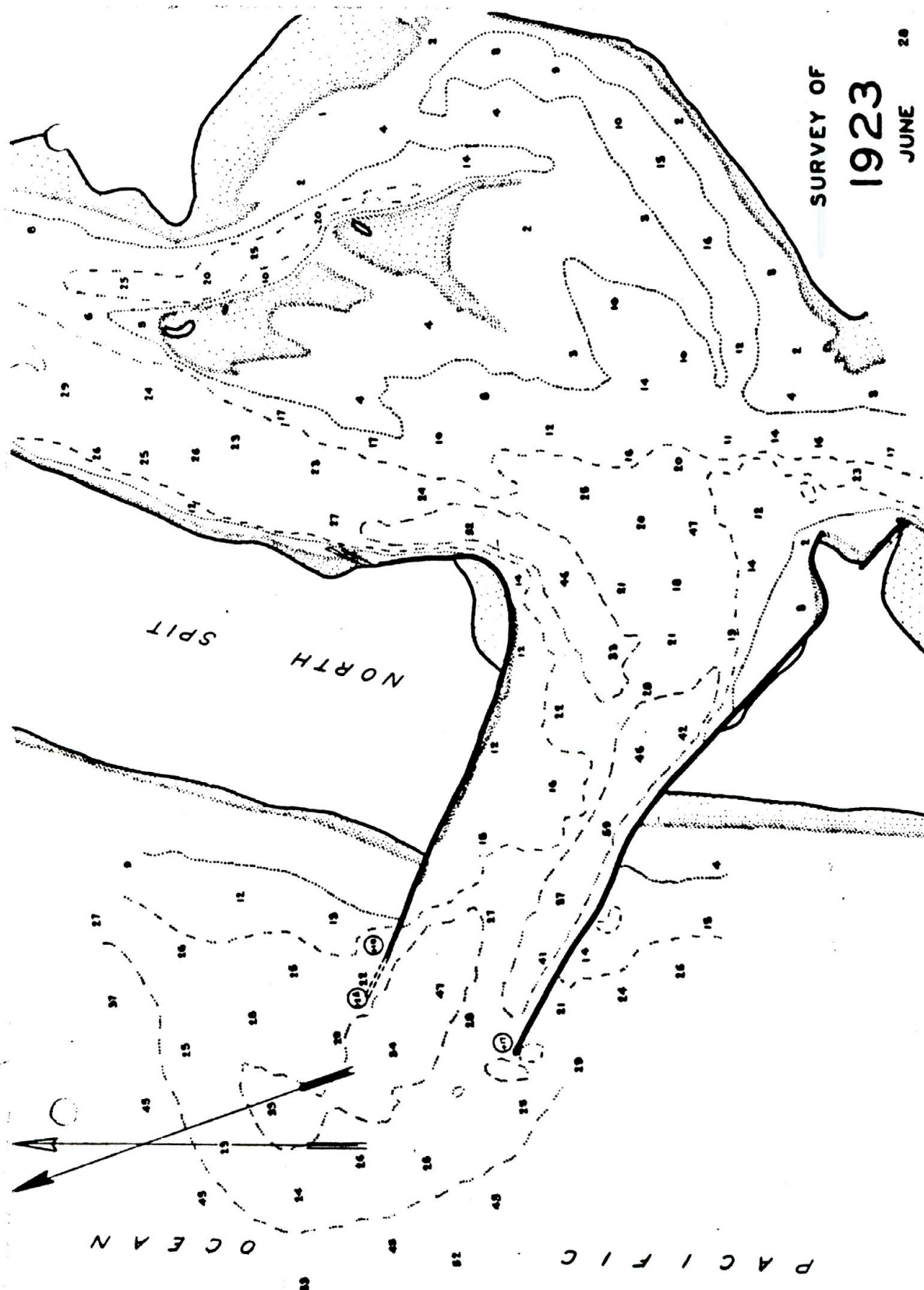


SURVEY OF

1923

JUNE

20

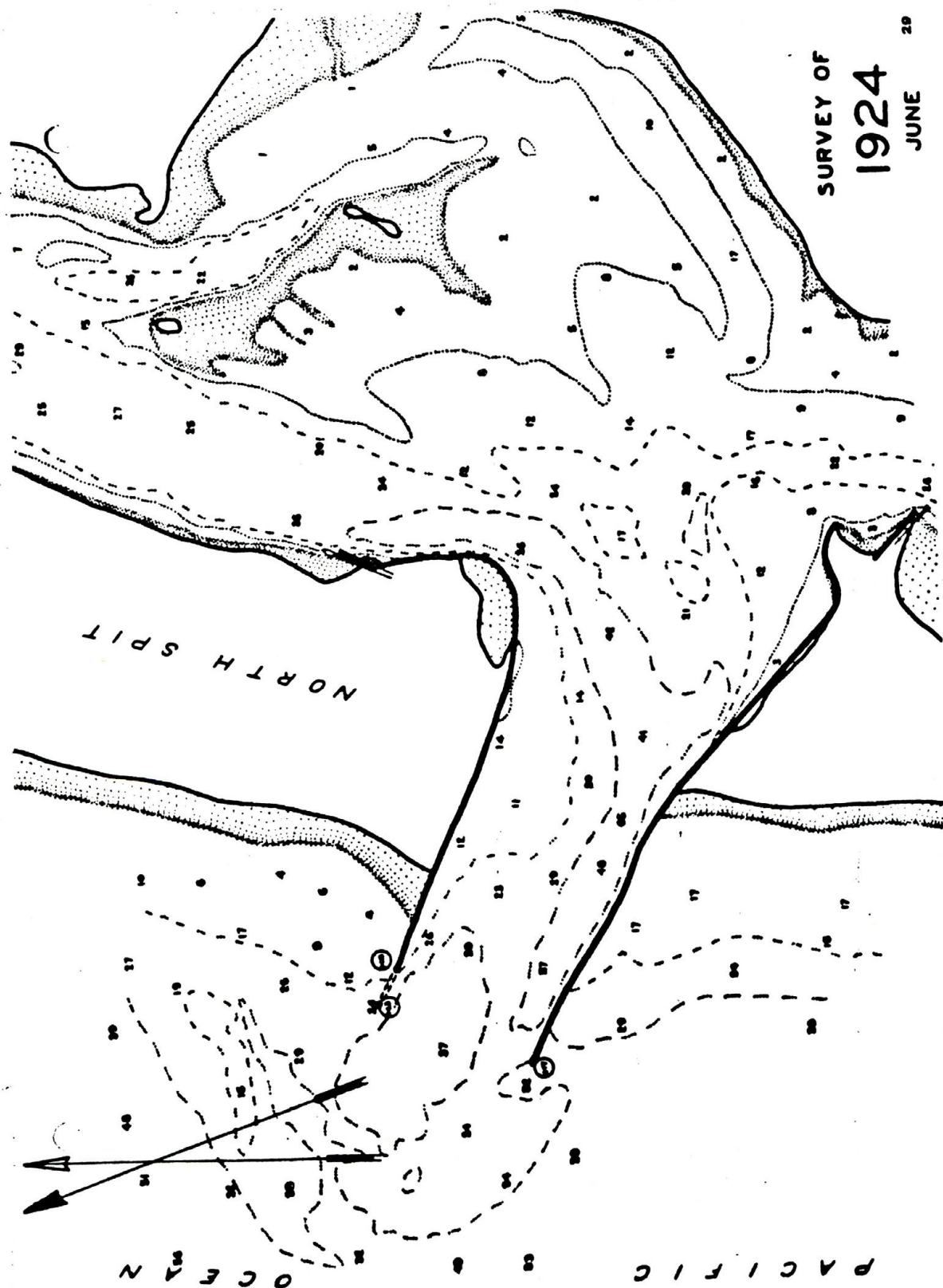


SURVEY OF

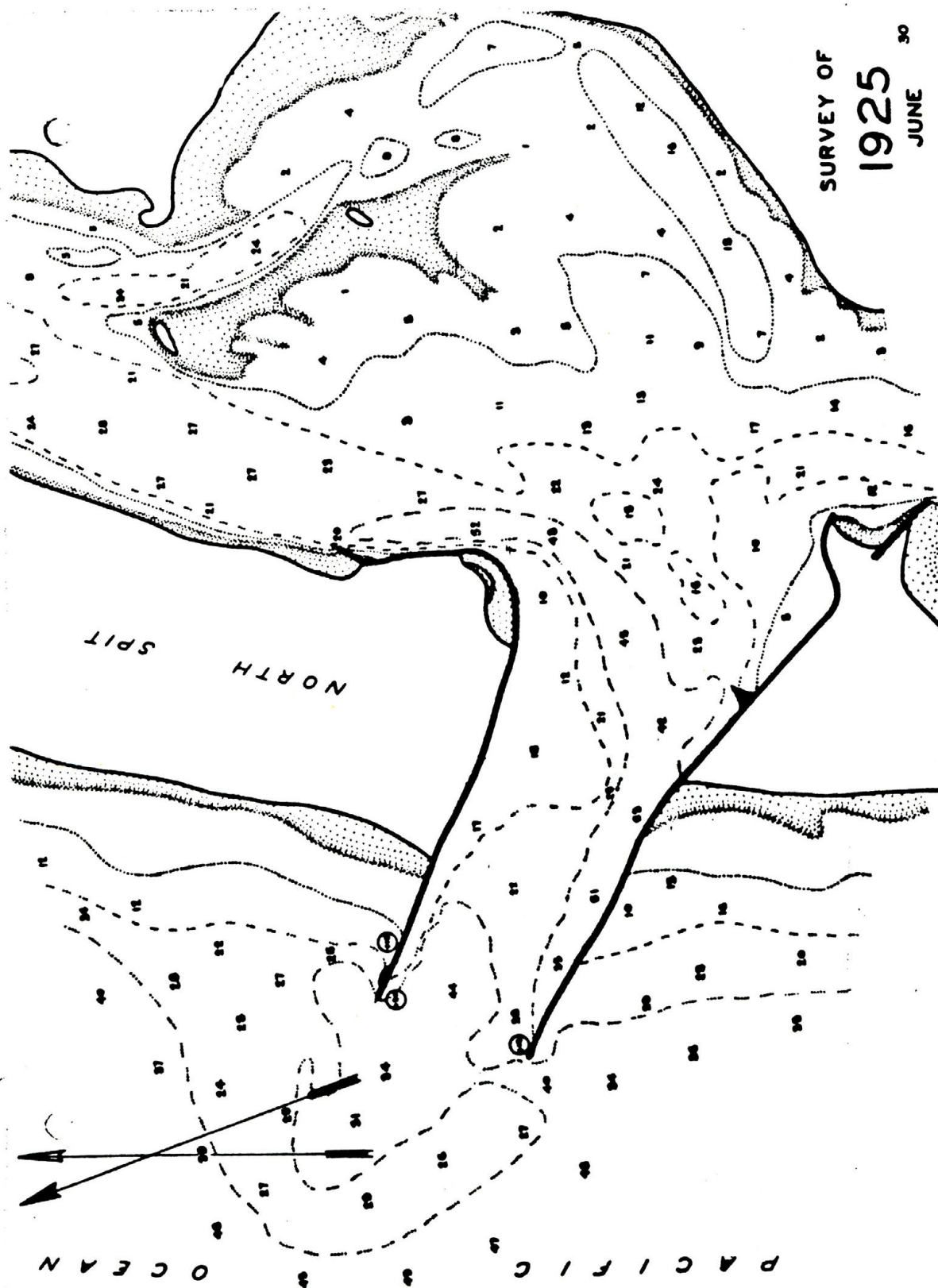
1924

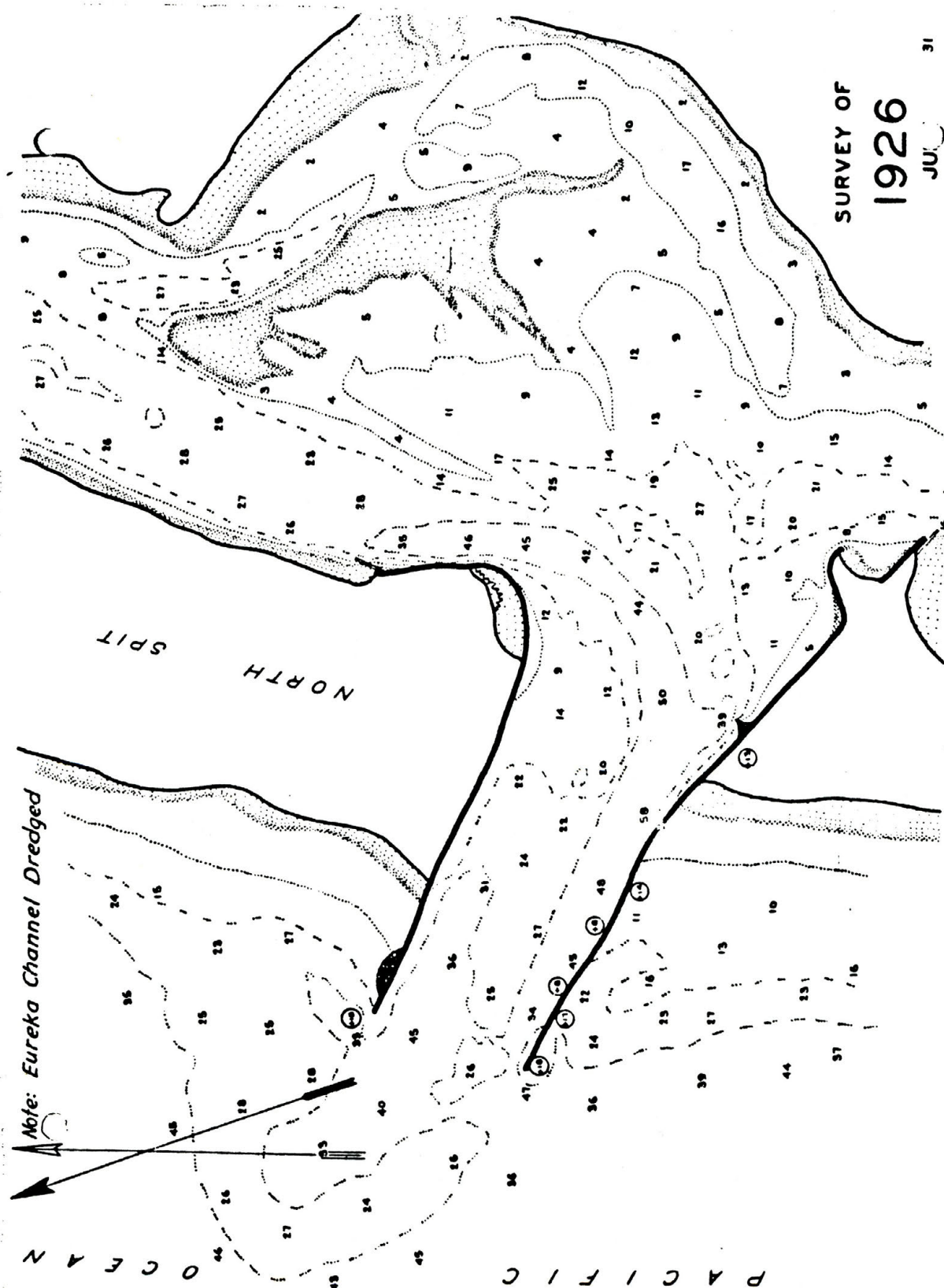
JUNE

29

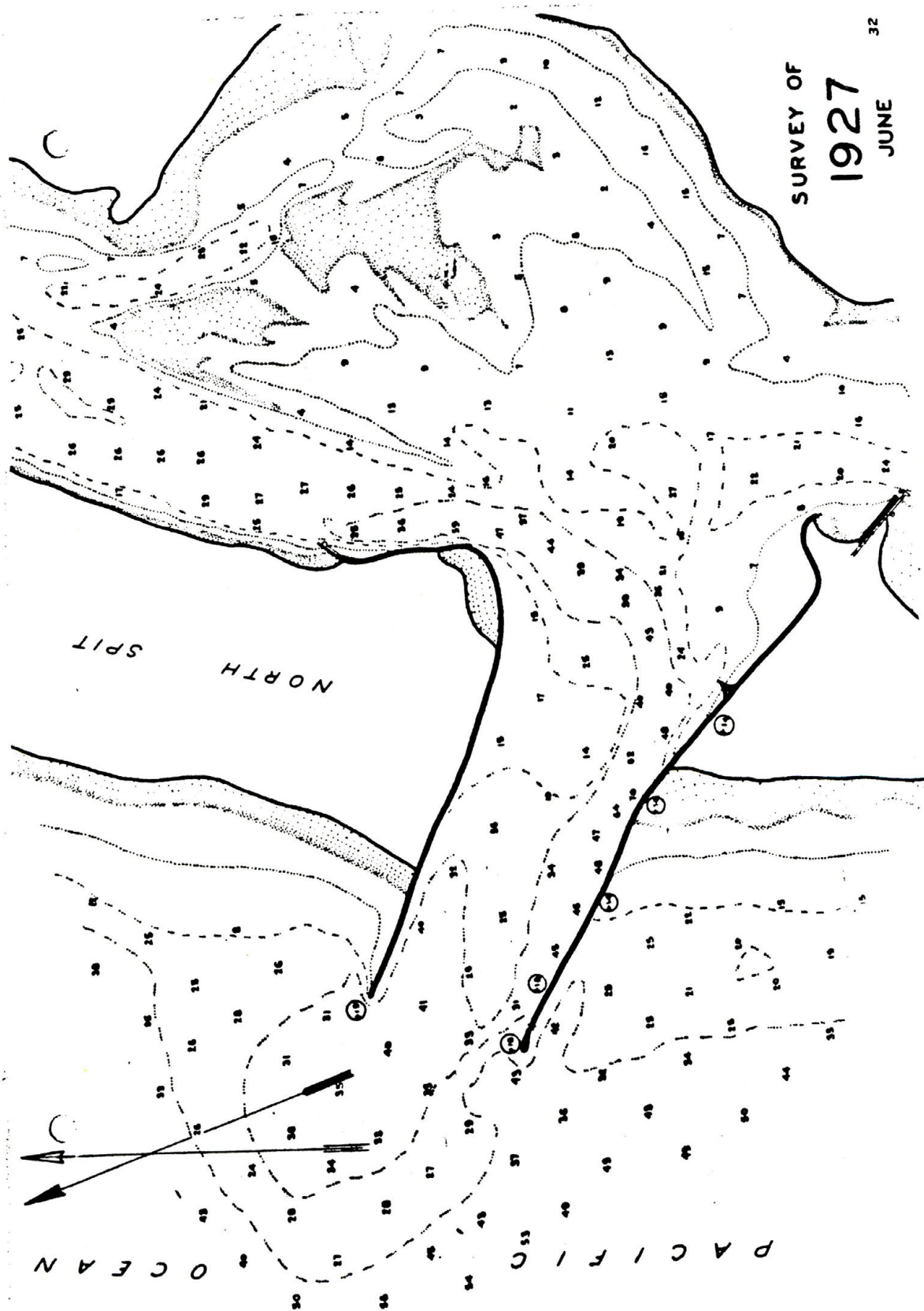


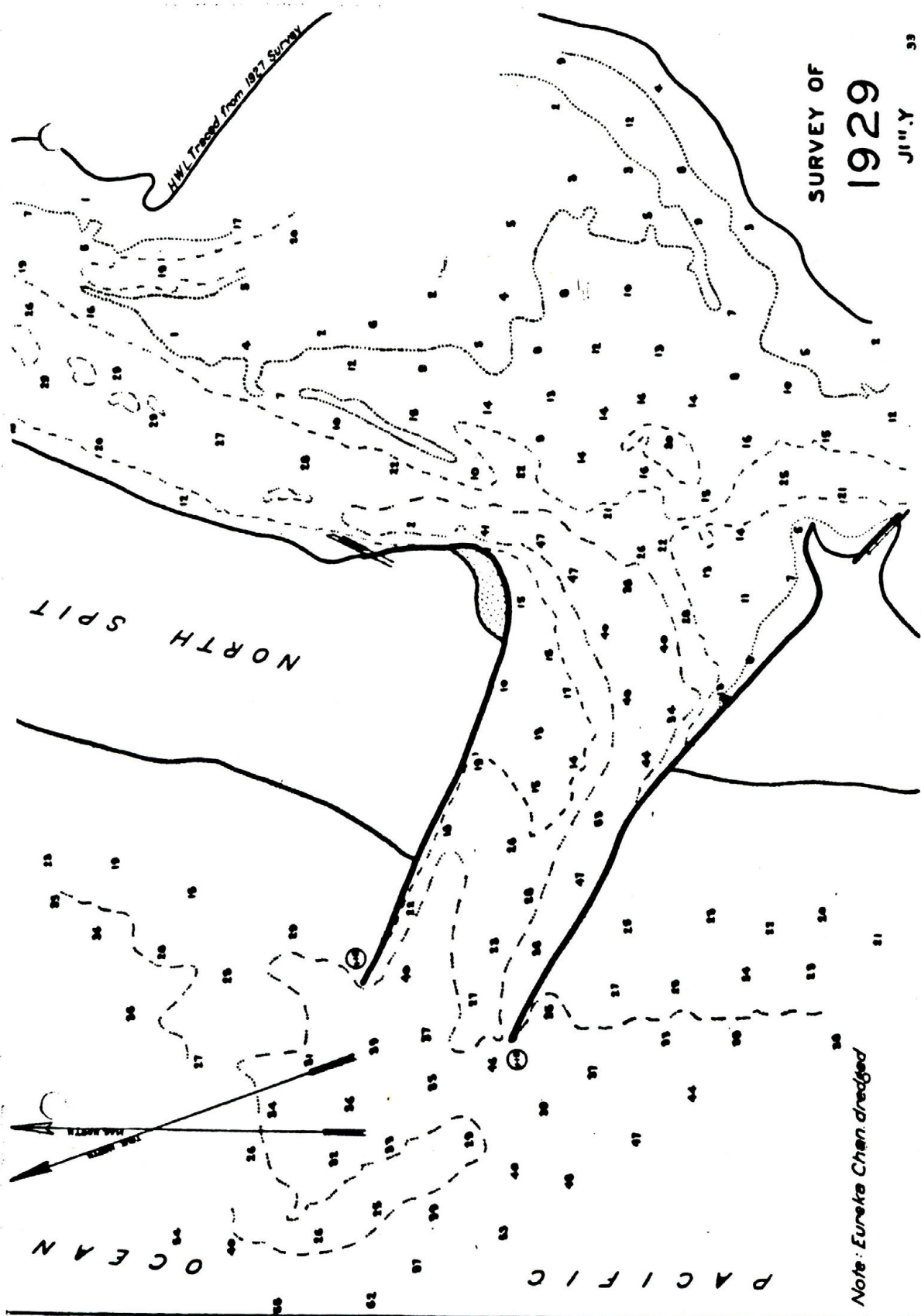
SURVEY OF
1925
JUNE 30





SURVEY OF
1927
JUNE 32





SURVEY OF
1929

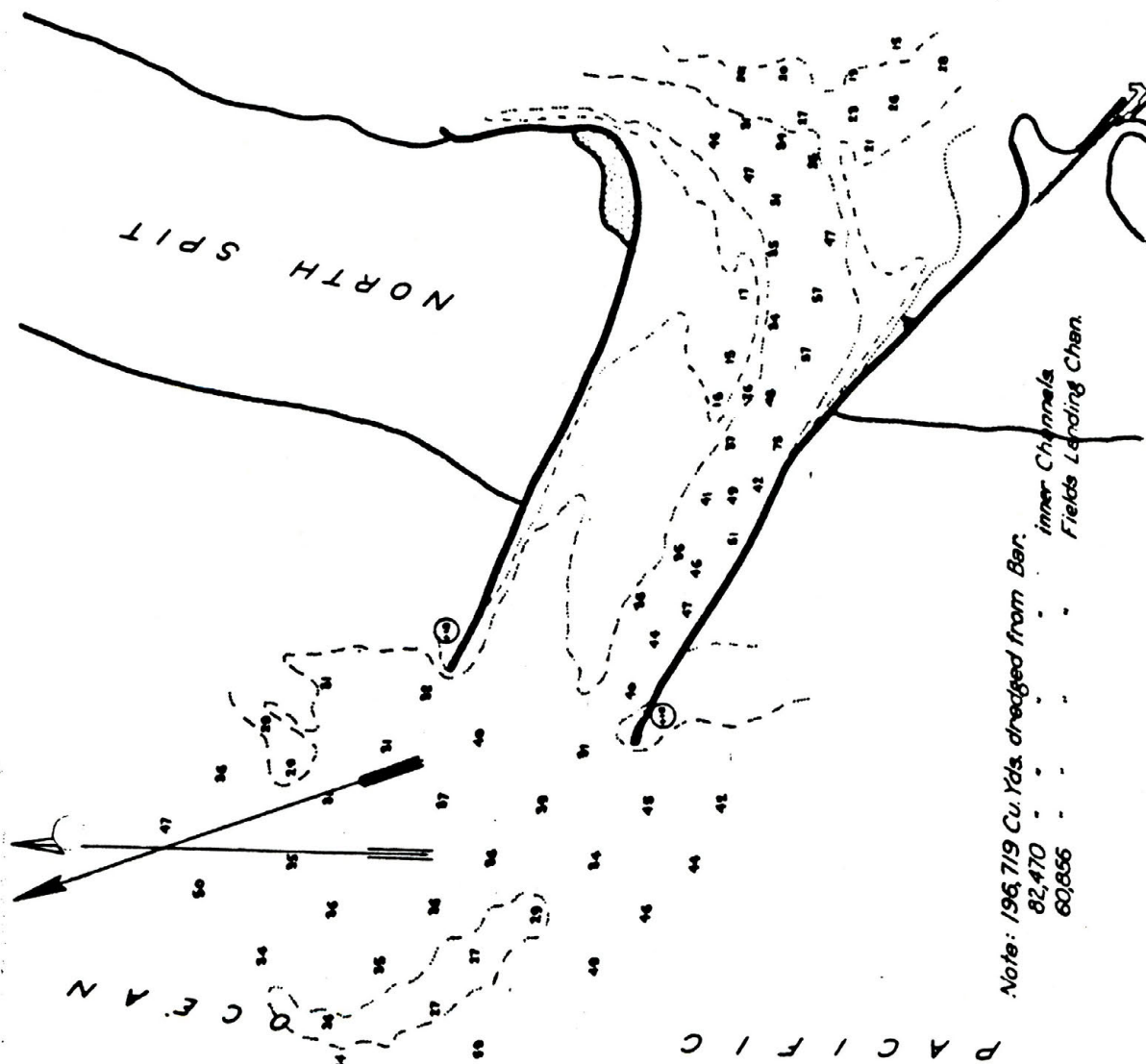
JULY 33

Note: Eureka Chan dredged



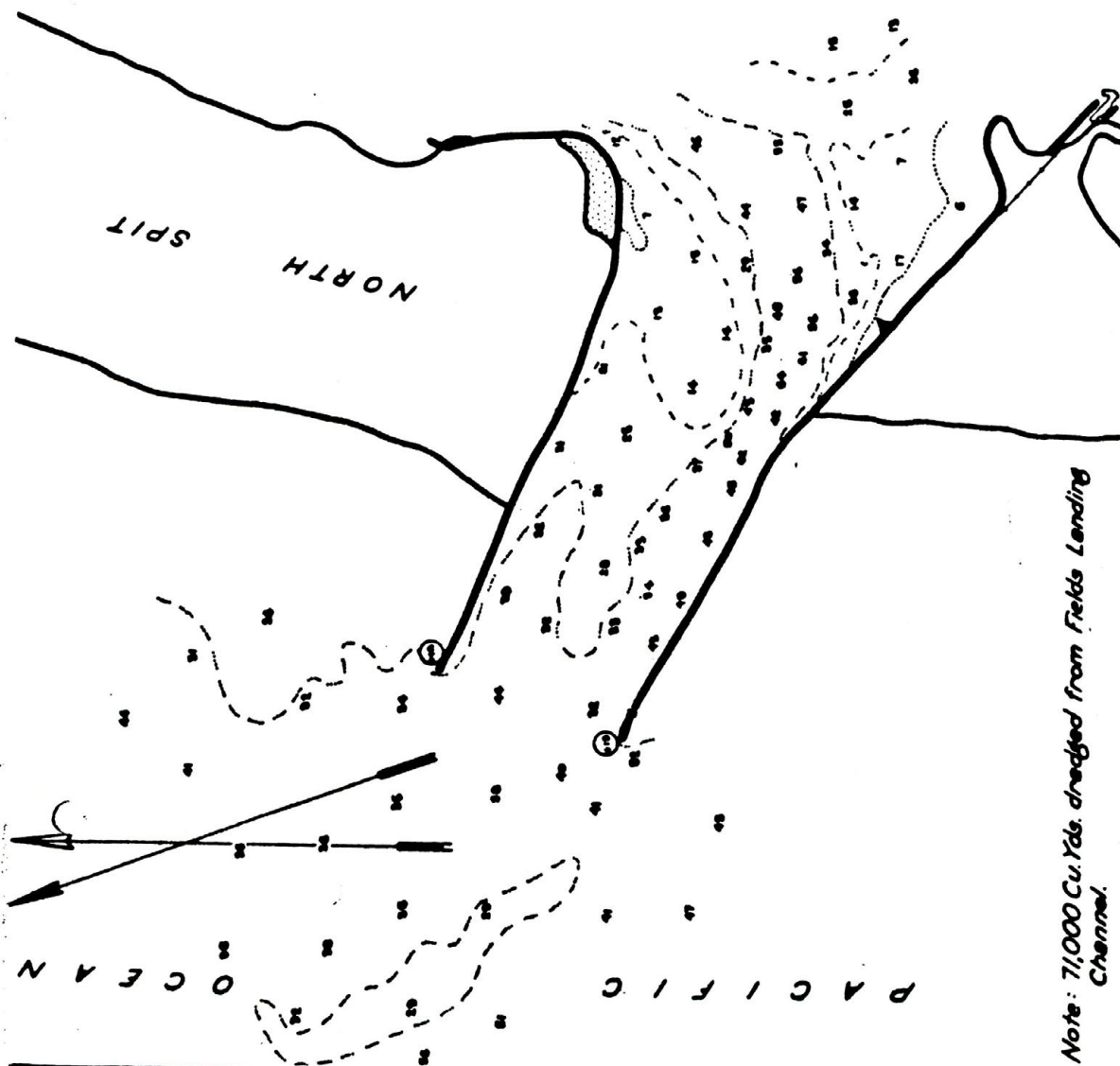
Note: 1930 - 113,674 Cu Yds dredged in all channels.
 1931 - 476,301
 1932 - 165,498

**SURVEY OF
1935
J. VE**



3

1937
OCTOBER



Note: 71,000 Cu.Yds. dredged from Fields Landing Channel.

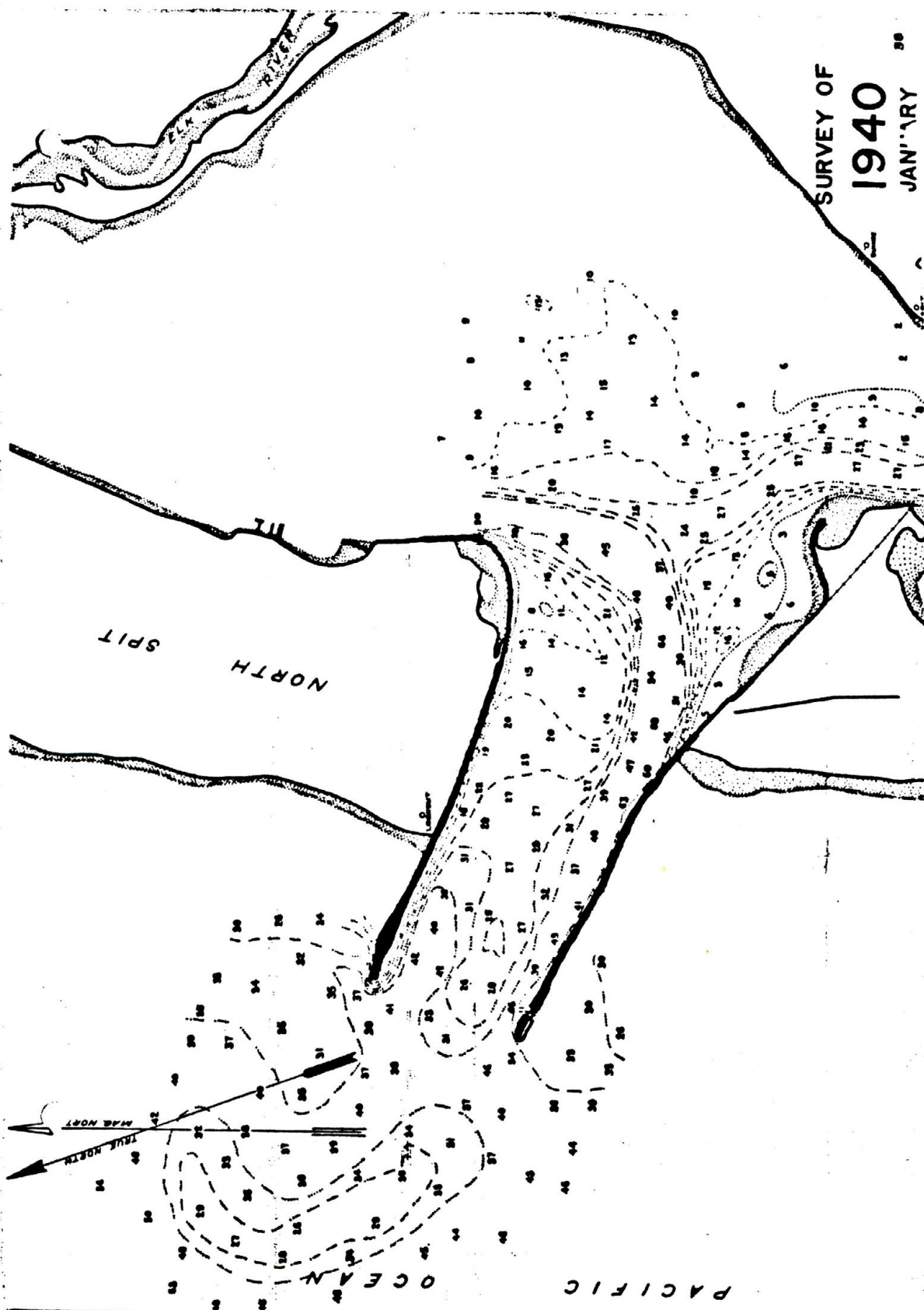


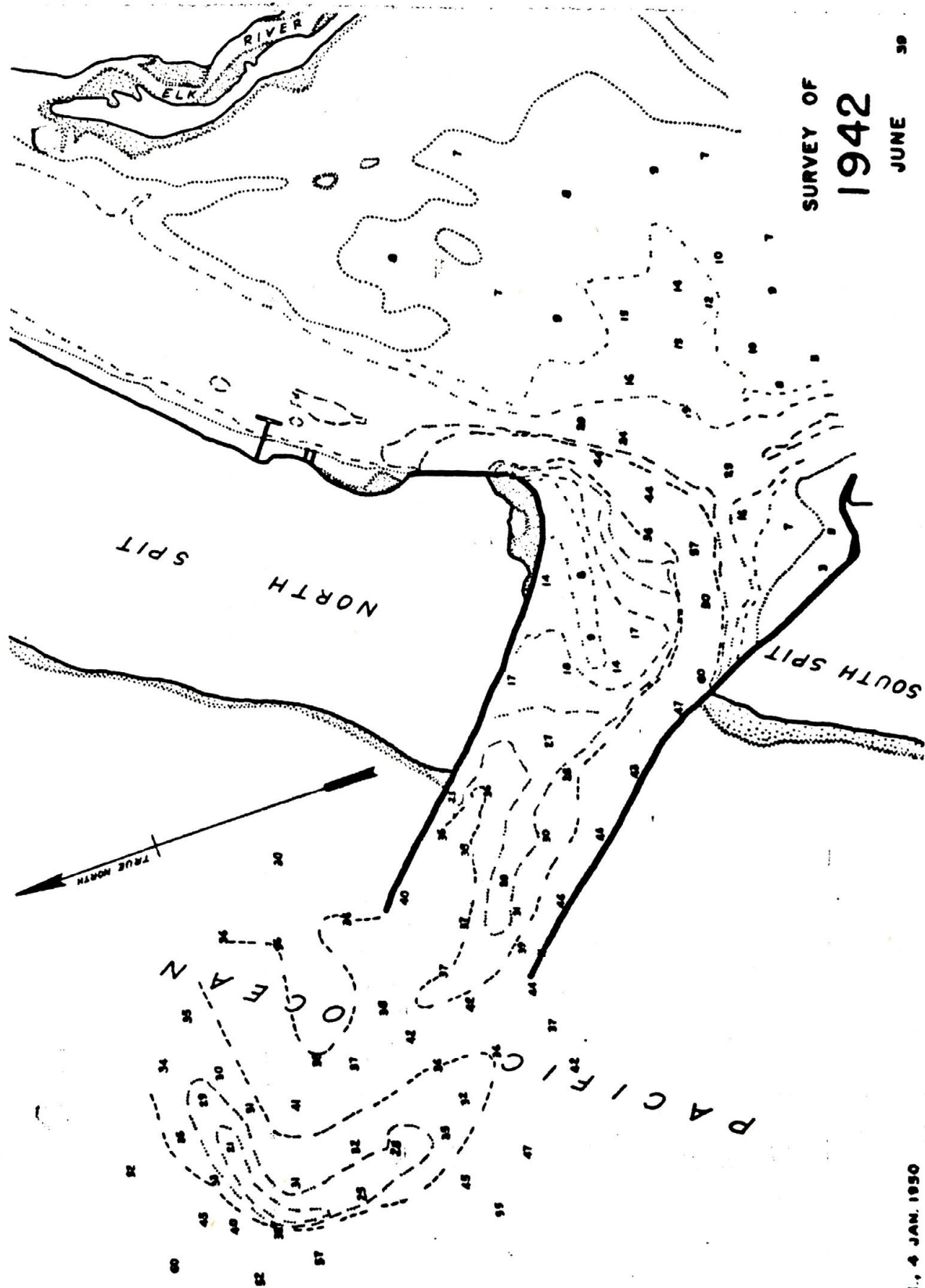
SURVEY OF

1939

JULY

57





SURVEY OF
1942

JUNE

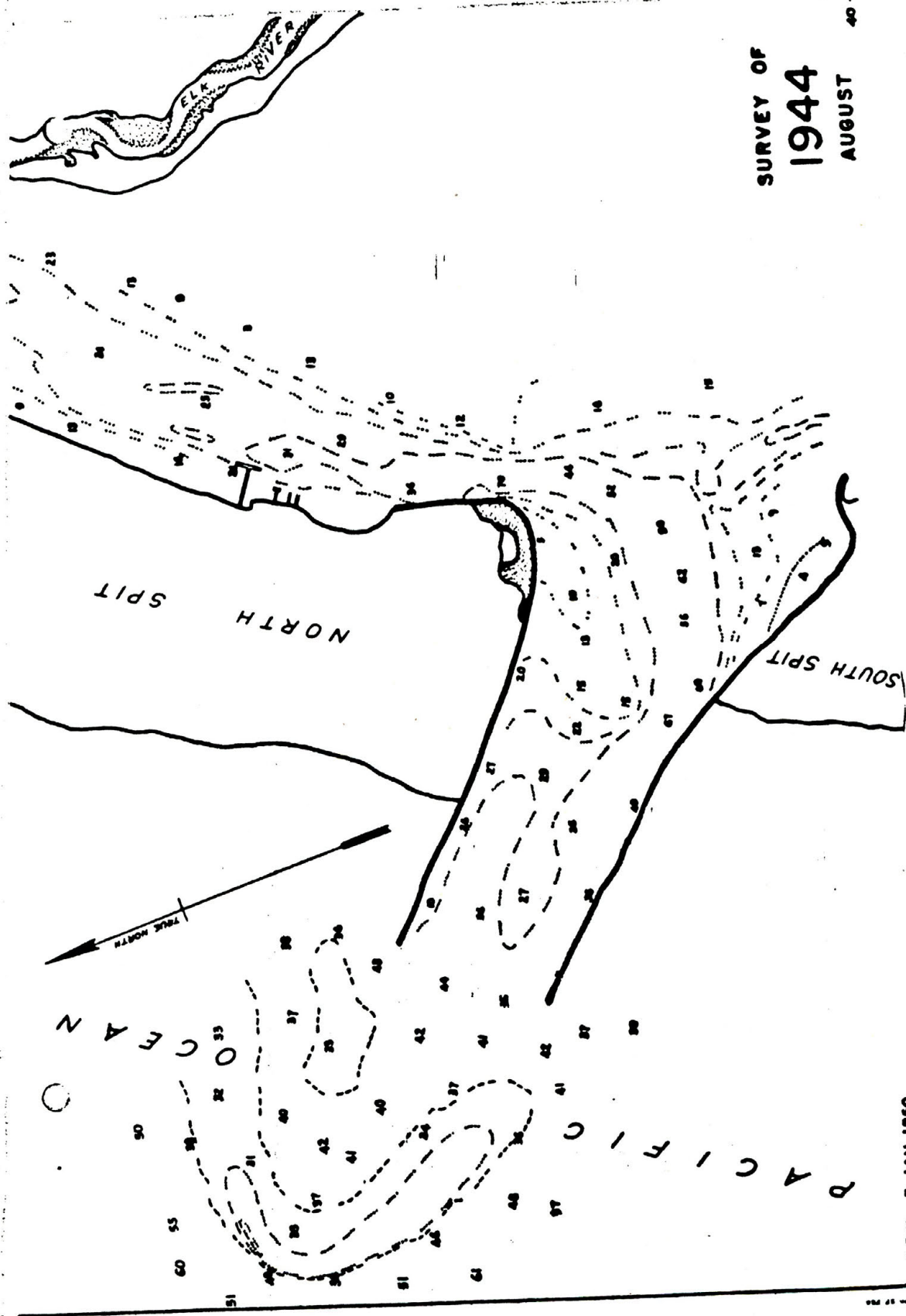
J.D.N., 4 JAN. 1950

SURVEY OF

1944

AUGUST

40

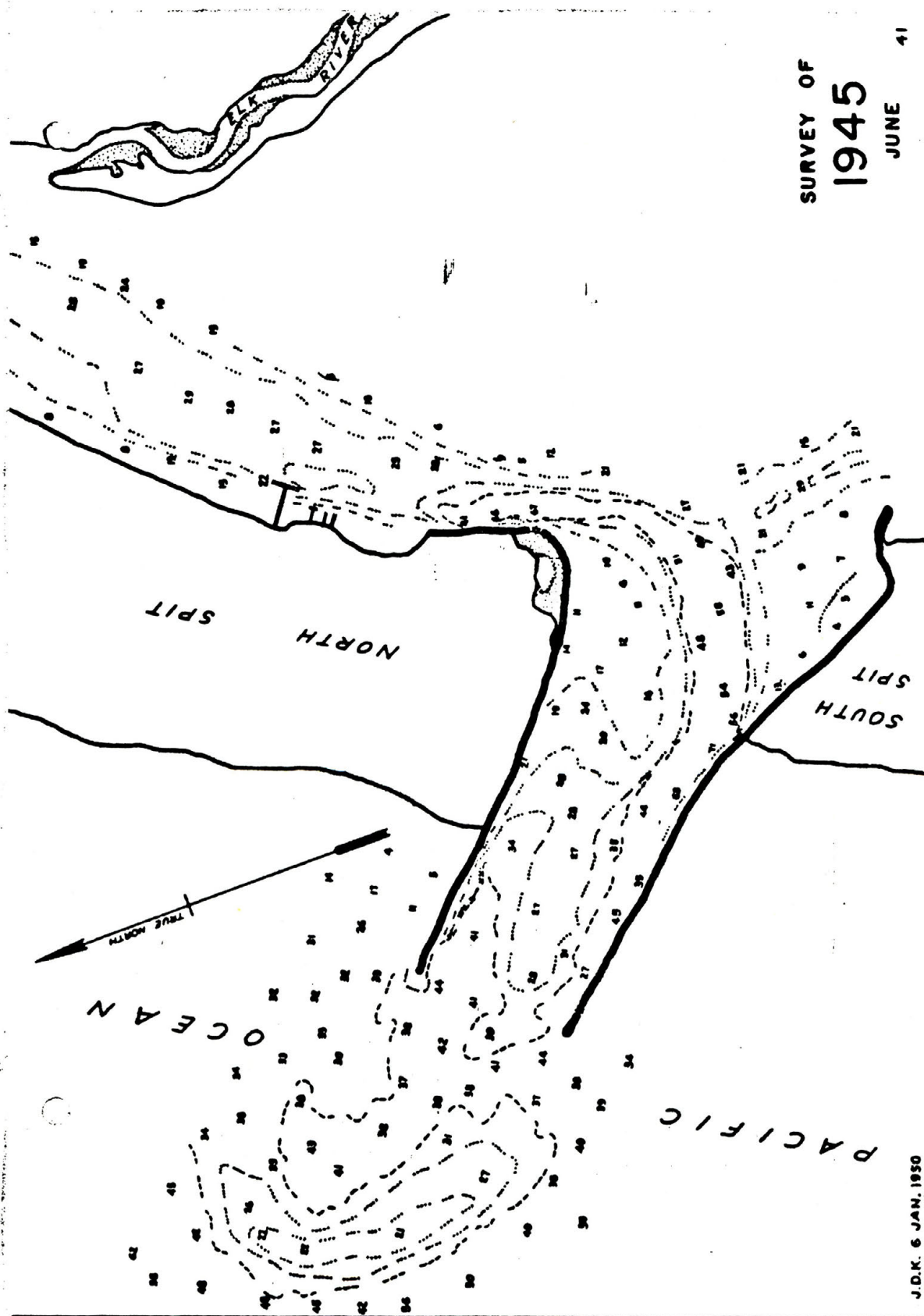


SURVEY OF

1945

JUNE

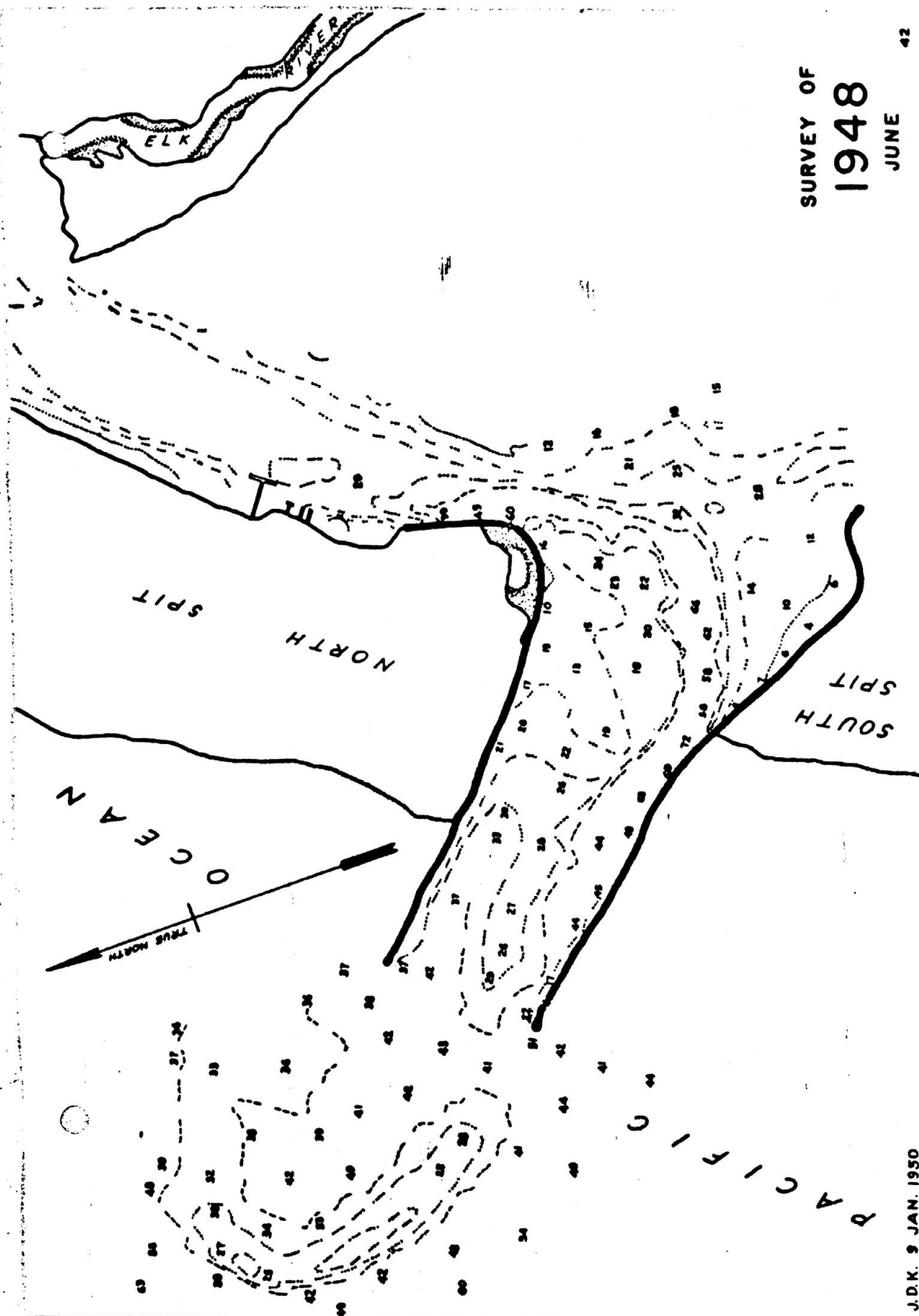
41



J.D.K. 6 JAN. 1950

SURVEY OF
1948
JUNE

42



J.D.K. 9 JAN. 1950

SURVEY OF
1949

MAY

43

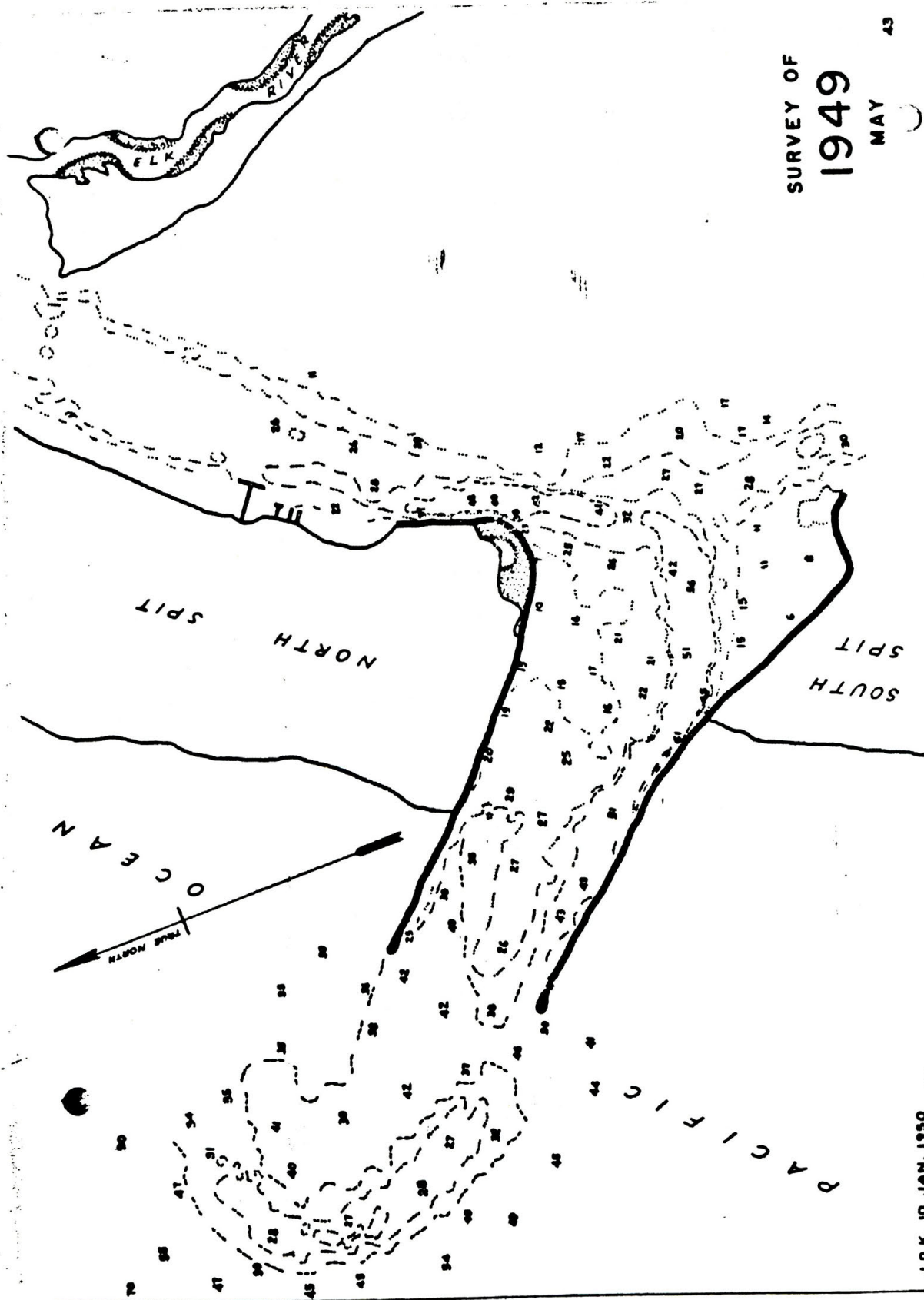


EXHIBIT E



DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

MAILING ADDRESS:

Commander (dl)
12th Coast Guard District
630 Sansome Street
San Francisco, CA 94126

11011

21 DEC 1977

State Lands Commission
Executive Office
1807 13th Street
Sacramento, California 95814

ATTN: DON REESE

Re: North Spit Humboldt Bay;
Permit for Watchtower;
Your file : W 21469

Dear Mr. Reese:

Enclosed please find the permit application and associated documents for the land adjacent to Humboldt Bay necessary for the building of a watchtower. The watchtower will be constructed, operated, and maintained by the U. S. Coast Guard. It is requested that the permit be for a period of at least 50 years in order to comply with Federal requirements concerning the making of permanent improvements on property not owned in fee by the federal government. The watchtower is being constructed in order to give the Coast Guard a higher vantage point from which to observe maritime activity on and near the Humboldt Bay Bar. This will allow the Coast Guard to more adequately conduct search and rescue operations with regards to saving life and property at sea in this hazardous area. Due to the substantial public benefits to be derived from this project, it is requested that this permit be at no cost to the Federal government.

The land requested in this permit is a square measuring 200 feet on each side, the center of which is located at coordinates 528, 985N; 1,382,575E of the State of California Coordinate System (Lambert Conformal Projection), Zone I. It is also requested that the permit include the right of access to the site of the watchtower by construction of a road for land vehicles, for use of the tidelands by amphibious vehicles, and for power and other utilities.

In order to have the watchtower in operation by the beginning of the 1978 boating season, construction must begin as soon as possible. It is therefore requested that this permit application be processed as expeditiously as possible. If you have any further questions regarding this matter, please feel free to contact either Lieutenant Commander Dennis

THE UNDERSIGNED, ACTING IN THIS BEHALF FOR THE
STATE LANDS COMMISSION, HAS HEREBY CERTIFIED,
THAT THE ANNEXED IS A WHOLE, TRUE AND CORRECT
COPY OF THE ORIGINAL RECORD COPY, CONSISTING OF
28 PARTS, ON FILE IN THE OFFICE OF THE STATE
LANDS COMMISSION, THAT SAID COPY HAS BEEN COM-
PARED BY THE UNDERSIGNED WITH THE ORIGINAL, AND
IS A CORRECT TRANSCRIPT THEREFROM.

IN WITNESS WHEREOF, THE UNDERSIGNED
HAS EXECUTED THIS CERTIFICATE AND
AFFIXED THE SEAL OF THE STATE LANDS
COMMISSION THIS 22ND DAY OF June
A.D. 1981

Anne Kiley

AM

(dl)
11011
21 DEC 1977

L. BRYANT of my legal staff at telephone number (415) 556-3256, or Mr. Robert LAABACK, my Reality Specialist, at telephone number (415) 556-5890.

Thank you very much for your assistance in this matter.

Sincerely,

A. C. WAGNER
Vice Admiral, U. S. Coast Guard
Commander, Twelfth Coast Guard District

Enclosures

STATE AND COMMERCIAL
RECEIVED
NOV 22 11 33 AM '77

STATE OF CALIFORNIA
STATE LANDS COMMISSION

100 Oceangate, Suite 300
Long Beach, CA 90802
(For extractive lease or
permit)

1807 13th Street
Sacramento, CA 95814
(For non-extractive lease
or permit)

APPLICATION FOR PERMIT OR LEASE OF STATE LANDS

(Please return to State Lands Division along with appropriate attachments)

A. APPLICATION BY:

Applicant's Name: UNITED STATES OF AMERICA
(See Item 1 and 3 of Instructions)

Telephone: 415-556-6620
(Business)

Not Applicable
(Residence)

Commander, Twelfth Coast Guard District,
Applicant's Address: 630 Sansome Street, San Francisco, California 94126

Applicant's Agent (if any): Commander, 12th Coast Guard District Telephone: 415-556-5890

Agent's Address: Same as above

B. LOCATION OF STATE LAND:

County: Humboldt Nearest City: Samoa Miles: 3.7

Sovereign Land Waterway: Pacific Ocean, Humboldt Bay Entrance Channel
Lands artificially accreted to

School Land Section, Township, Range & Meridian: Section 6, T.4N., R. 1. W.

Humboldt Meridian

C. PROPERTY LANDWARD OF WATERWAY:

Owner's Name: UNITED STATES OF AMERICA Telephone: _____

Commander, Twelfth Coast Guard District,

Owner's Address: 630 Sansome Street, San Francisco, California 94126

Upland Address or Location: Section 6, T4N, R1W, H.M.

Subdivision, Block, and Lot Number: Section 6, T4N, R1W, H.M.

Zoning: ---- Assessor's Parcel Number: ----

Number and Type of Buildings on Upland: U. S. Coast Guard Station Buildings

D. PURPOSE OF LEASE OR PERMIT:

Use of State Land: Commercial (), Industrial (), Recreational (),

Right of Way (), Mineral (), Other (X) U. S. Coast Guard Lookout Tower

(describe)

List Existing Structures on Waterway: U. S. Coast Guard Fog Signal Building, Range

Markers, North Jetty, Humboldt Harbor Project,

(CONTINUED ON REVERSE)

D. PURPOSE OF LEASE OR PERMIT: (Continued)

Date structures erected: Not Applicable

Proposed Construction Dates: Beginning April 1978 Completion May 1978

Does or will the facility produce income? No If yes, annual amount received? _____

Identify other public agencies having approval authority over your facility such as a Planning, Zoning and Building Department. Any approvals already received should be submitted with this application: None

Fifty (50) year lease is requested.

E. EXHIBITS REQUIRED (PLEASE ATTACH AND RETURN WITH THIS APPLICATION):

(SEE INSTRUCTIONS ATTACHED)

Check the following exhibits and data which you have attached to application:

1. ☐ Corporation and Partnership Data (See Item 3 of Instructions)
2. ☐ Fees (See Item 4 of Instructions)
3. ☒ Grant Deed or other Evidence of Applicant's Interest (See Item 5 of Instructions)
4. ☒ Description of State Land (See Item 6 of Instructions)
5. ☒ Plans Relating to the State Land (See Item 7 of Instructions)
6. ☒ Completed Environmental Information Form (69.3) (See Item 8 of Instructions)
7. ☒ Statewide Applicability (For Public Agencies Only. (See Item 9 of Instructions) Included with Environmental Information
8. ☐ Proof of Age, if Individual Applicant is Age 65 or Older. (See Item 2 of Instructions)

F. CERTIFICATION OF AGE:

I am 65 years of age or older and may qualify for the nominal rental charge of \$10.00/annum.

Not Applicable

Signature

G. CERTIFICATION:

All statements contained above and on the attached exhibits are true and correct to the best of my knowledge and belief and are submitted under penalty of perjury.

Applicant: U. S. Coast Guard

Applicant: _____

By: A. C. WAGNER, Vice Admiral, USCG

Date: _____

(If Agent)

Title: Commander, 12th Coast Guard District

Date: _____

INSTRUCTION SHEET FOR APPLICATION FORM 52.1
(Please do not return to State Lands Division)

Individual Data:

1. If applicant is filing as an individual, neither corporation nor partnership data is necessary.
2. Individual applicants, 65 years of age or older who apply for a structure occupying no more than 1,000 sq. ft. of permit area, may qualify for a nominal rental charge of \$10 per annum upon proof or certification of age on application.
3. Corporation and Partnership Data
 - a. If applicant is a corporation, attach a Certificate of Incorporation issued by the State of California, or a Certificate of Incorporation issued by the State of incorporation together with the certificate issued by the State of California authorizing applicant to transact business in California.
 - b. If applicant is a partnership, attach a certified copy of the partnership statement. If no partnership statement has been filed in the County in which the partnership does business, so state in your application and further give all particulars of the partnership, including names and addresses of all partners.
4. Fees
 - a. A non-refundable filing fee of \$25.00 is required of all applicants except public agencies.
 - b. Applicants for the following leases and actions which do not result in monetary rental payment to the State shall remit the following minimum expense deposit, in addition to any filing fee required by law; except where exempted from monetary rental by reason of Statewide public benefit: (See Item 9 of Instructions)

<u>Transaction</u>	<u>Minimum Non-Refundable Expense Deposit</u>
(1) Right of Way	\$350
(2) Public Agency Lease or Permit	\$450
(3) Permit for Protective Structure	\$350
(4) Any other Type Transaction not Resulting in Monetary Rental	\$300
(5) Assignment of a Lease	\$300
(6) Amendment of a Lease to Accommodate Lessee and which does not Increase the Rental	\$500
(7) Approval of Sublease	\$500
(8) Under the following conditions, applicants for certain leases that provide for monetary rental shall remit a minimum expense deposit of \$750 with their application:	

- (a) The proposed lease covers formerly leased property, and
- (b) The applicant is the immediate prior lessee, and
- (c) There is no increase in the rental rate of the new lease as compared to the prior lease.

The above-listed fees are the minimum necessary to reimburse the Commission for the cost to process typical, uncomplicated transactions. If the amount proves to be insufficient due to unusual complexities or for other reasons, additional funds will be requested. If the funds are not received within 21 days, the application may be cancelled pursuant to Section 1903.2 (b).

- c. Upon review of a complete Environmental Information Form, staff will determine the proper environmental document required, if any, and estimate the cost of processing. This fee is required and separate from any expense fee stated in 4a and 4b above.

In the event staff determines either a portion of the work or all of the work is to be done by an independent consultant, the request for payment of such costs by the applicant will be made after estimates are received from the consultant.

In all cases, the preparation of environmental documentation following the review of Form 69.3 will not begin until the Division has received payment of the estimated cost.

5. Evidence of Interest in Property Landward of Waterway

If applicant is owner of the upland, attach a copy of the acquisition documents such as the grant deed. If applicant is NOT the owner, attach a copy of a lease, permit, or other evidence of applicant's right to use the upland.

6. Description of State Land

For Commercial, Industrial and Right of Way Uses:

A written description of State land desired to be leased together with a map, or maps, and any documents from which the description was derived. Ideally, this would be a legal description of the property prepared by a licensed engineer or surveyor, tied to a monument of record.

For all Other Uses:

A map of the area should be submitted showing the measurement and size of facility on State land and the distances and bearings of lines to the facilities from property corners and boundaries. If it is determined that a more precise description or map than that initially supplied is required, the applicant will be so advised.

7. Plans Relating to the State Land

One copy each of the following plan and drawings is required:

Plot plan and elevation drawings showing the proposed structures and proposed and existing improvements - dredging, fills, bulkheading, etc.

8. Environmental Data (New Construction or Additional Construction)

All applicants are required to supply the Division with a completed environmental information form (69.3) which will enable the Division to determine whether a project is subject to the requirements of the California Environmental Quality Act. Additional data may also be required of the applicant thereafter.

For projects which may have significant effect on the environment, the Division must prepare or cause to be prepared an environmental impact report. This report can be contracted to an outside consultant at the cost of the applicant. See Section 4c concerning reimbursement of environmental fees.

9. Statewide Applicability - Public Agencies

To qualify for a lease free of a monetary rental, it is incumbent upon the public agency applicant to show in writing the Statewide public benefit of the project; otherwise, a Public Agency Lease with monetary consideration shall apply. The written statement must completely justify that no rent should be charged.

PLANS RELATING TO THE

STATE LAND REQUIRED FOR WATCHTOWER

ecv
5400

5 OCT 1977

Humboldt Bay; lookout capability

Chief, Civil Engineering Branch

Chief, Property & Logistics Branch

1. Request that all necessary land use permits be obtained for the project described below.

2. The project will encompass the placing of a 10 X 10 X 4 foot concrete slab at approximately the position shown on enclosure (1). A 58 foot steel framework tower will be erected on the slab and guyed to four 4 X 6 X 5 foot concrete deadman anchors located on a 50 foot radial from the tower. The top 8 feet of the tower will be an 8 foot high by 8 foot wide enclosure painted "International Orange", the tower framework will be grey.

3. Any question contact ENS. W. R. TROXLER, 556-6102.

(Leroy)

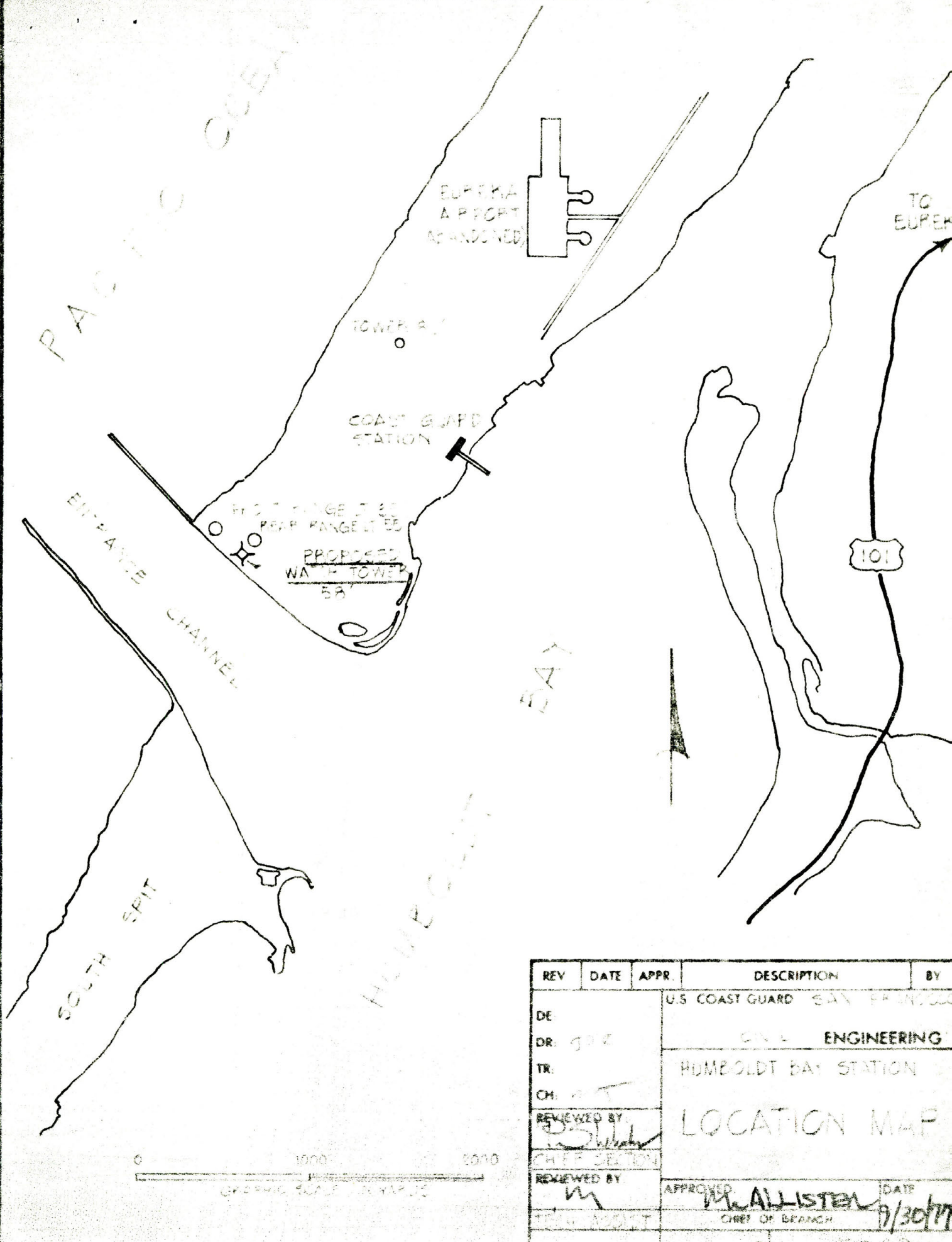
WALTER E. PETERSON
DWG 7033 - Sheet 1 of 2, Sheet 2 of 2

Encl: (1) Site Location Map

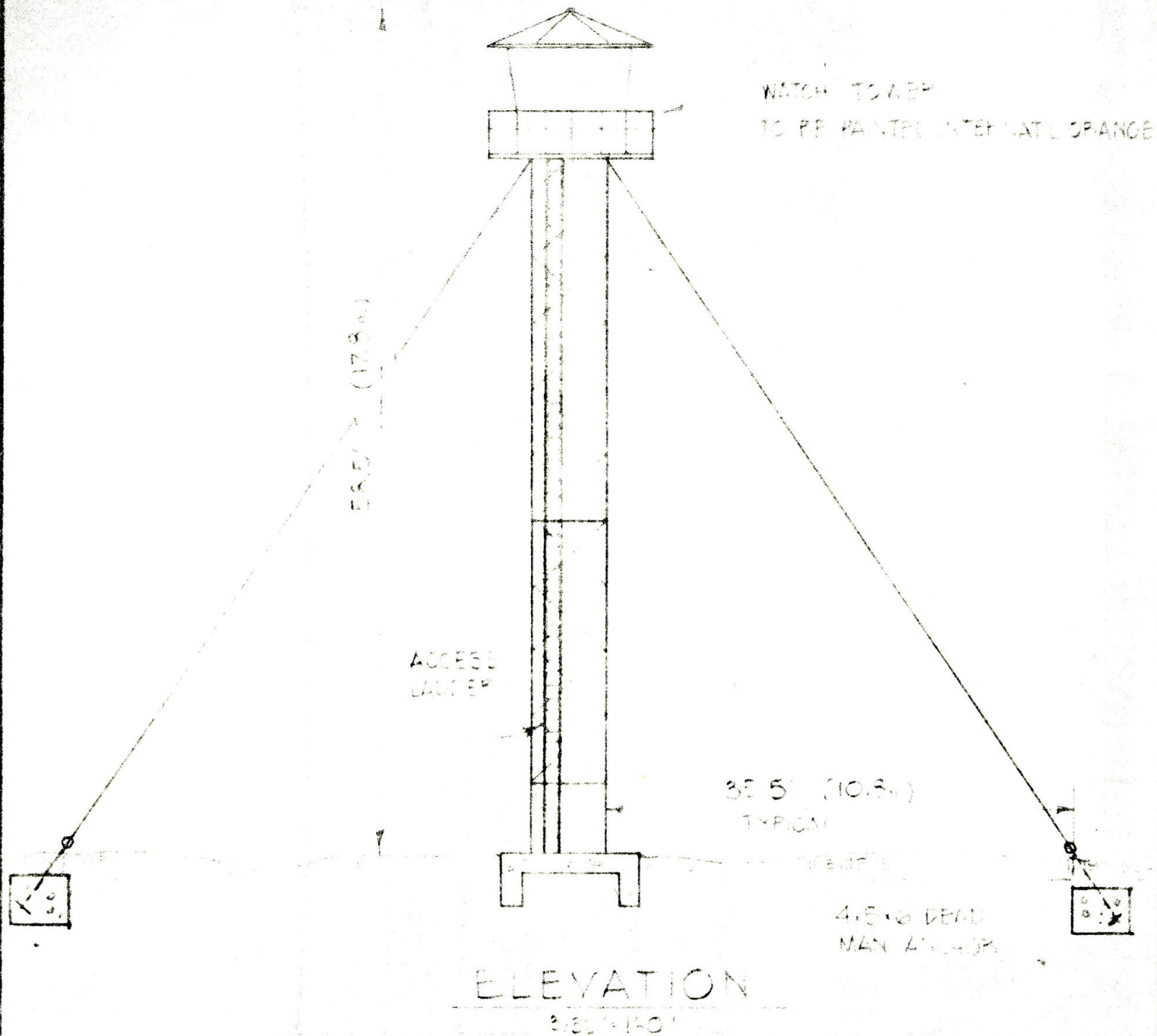
Copy to: (dl)



A - ACTION	I - INFO	F - FILE
DL	12th District Legal Office, San Francisco	RECEIVED OCT 6 '77
ASSIST DL 1		
ASSIST DL 2		
ASSIST DL 3		
ASSIST DL 4		
ASSIST DL 5		
ALL LAWYERS		
YEOMAN (S)		
SECRETARY		



REV	DATE	APPR	DESCRIPTION	BY
DE			U.S. COAST GUARD SAN FRANCISCO	
DR: JRE			CIVIL ENGINEERING	
TR:			HUMBOLDT BAY STATION	
CH: JRE			LOCATION MAP	
REVIEWED BY:				
CHIEF SECTION				
REVIEWED BY:			APPROVED	DATE
TECH. ASSIST.			M. ALLISTER	7/30/77
			CHIEF OF BRANCH	



REV.	DATE	APPR	DESCRIPTION	BY
DE	WRT		U.S. COAST GUARD SAN FRANCISCO	
DR:	g-e		CIVIL ENGINEERING	
TR			HUMPHOLT BAY STATION	
CH:				
REVIEWED BY			PROPOSED	
CHIEF/SECTION			WATCH TOWER	
REVIEWED BY				
TECH. ASSIST.				
			APPROVED M. BLUSTER CHIEF OF BRANCH	DATE 9/30/77

ENVIRONMENTAL INFORMATION
AND
INFORMATION CONCERNING STATEWIDE APPLICABILITY

DEPARTMENT OF TRANSPORTATION

U. S. COAST GUARD

ENVIRONMENTAL ASSESSMENT

PROPOSED CONSTRUCTION OF HUMBOLDT BAY

COAST GUARD STATION WATCH TOWER

Commander (dpl)
Twelfth Coast Guard District
630 Sansome Street
San Francisco, California 94126

OCTOBER, 1977



DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

MAILING ADDRESS:

Commander (dpl)
12th Coast Guard District
630 Sansome Street
San Francisco, CA 94126
16475

ENVIRONMENTAL IMPACT ASSESSMENT

I. Project Title. U. S. Coast Guard Station Humboldt Bay Watch Tower
(SCH #77070463)

II. Proposed Action.

A. Location. The Twelfth Coast Guard District proposes to construct a 58 foot (17.5 meter) high watch tower on the south western end of the Samoa Peninsula near the North Jetty at the entrance to Humboldt Bay, California (see figure 1).

B. Purpose. The watch tower will provide viewing of sea state conditions at the Humboldt Bar and vessels crossing the bar thereby contributing to navigation safety and a more rapid response to distressed or potentially distressed vessels.

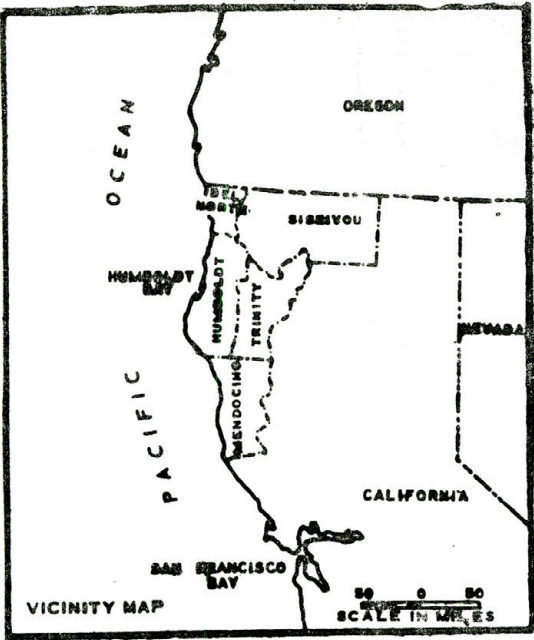
C. Description. The tower will be constructed of bolt together, galvanized steel angle iron; erected on a 10 x 10 x 4 foot (3.1 x 3.1 x 1.2 meter) concrete slab; stayed with guy wires run to deadmen; and will support a manned lookout enclosure (see figure 2). The 8 x 8 foot (2.4 x 2.4 meter) high lookout enclosure will be painted "international orange," and the tower framework will be painted gray.

D. Operation. The tower will be suitable for daylight manning only, since no electric power is available onsite. The manned lookout enclosure will be self-contained and equipped with portable radio communication gear, a chemical toilet, and self-contained space heaters. Drinking water will be furnished in portable containers. Transportation to the watch tower would be with an off-the-road, all terrain vehicle.

III. Geographic Setting.

A. Site. The proposed Coast Guard Watch Tower will be located in the backshore dune area found at the southwestern end of the Samoa Peninsula sand spit. The structure will be erected in a slight depression in the crest of the northwest trending, first line backshore dunes paralleling the North Jetty. The watch tower will be situated approximately 150 feet (45.8 meters) southwest of the existing 55 foot (16.8 meter) high entrance channel rear range marker. This navigational aid is equipped with a rotating beacon.

WATCH TOWER
SITE LOCATION



PACIFIC

N

0 METERS 1000

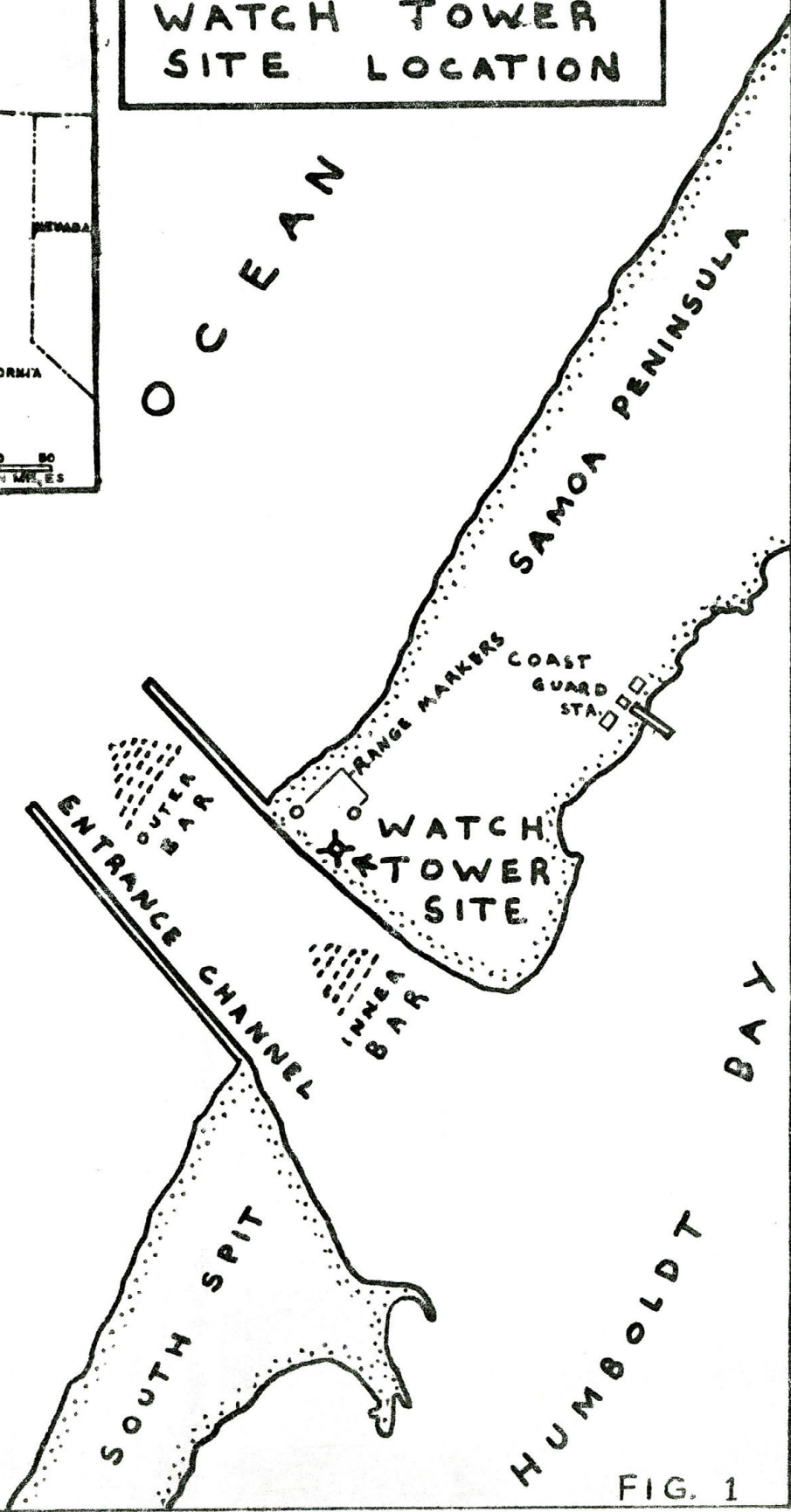
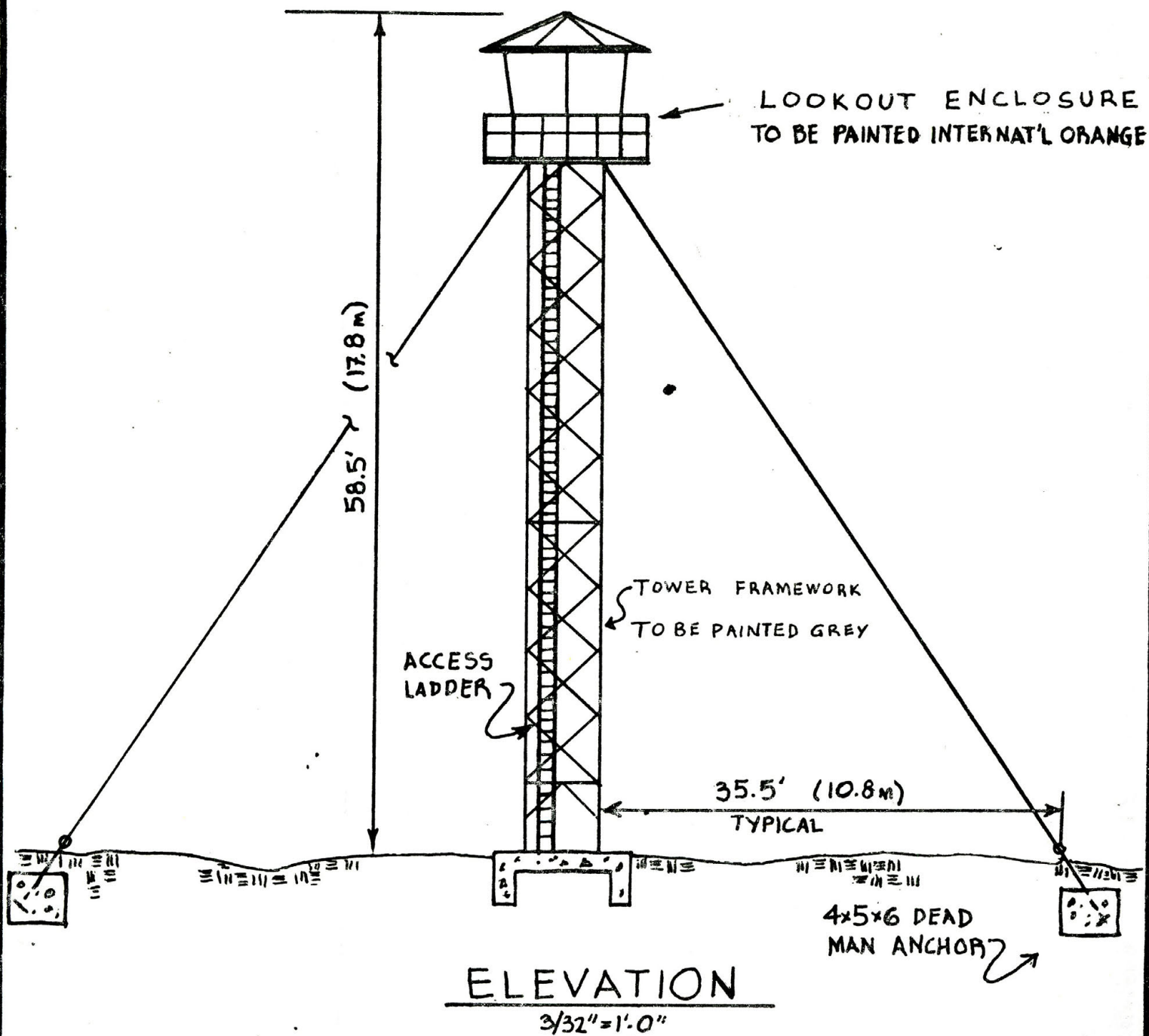


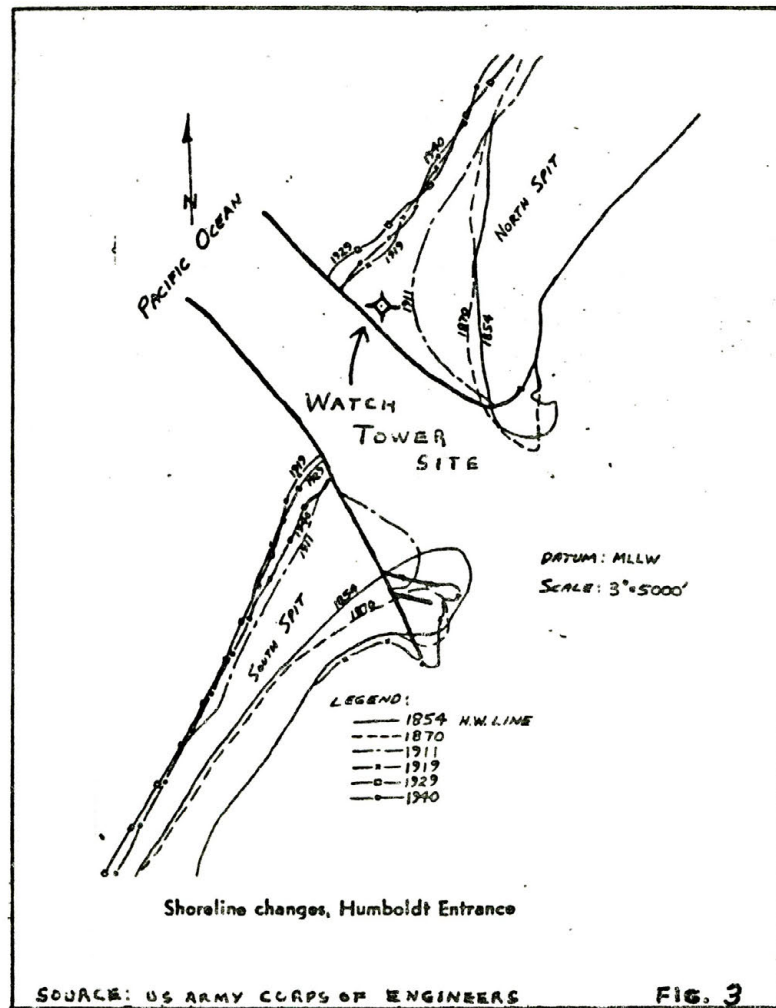
FIG. 1



HUMBOLDT BAY
USCG WATCH TOWER

ENVIRONMENTAL IMPACT ASSESSMENT CONT'D

B. Shore Processes and Shoreline Development. The watch tower site is located on an area of accreted land formed subsequent to initial construction of the North Jetty in 1889 (see figure 3).



This new land was formed as a result of the North Jetty acting as a barrier to down coast littoral sand movement. The prevailing northwest swells generate a southwest setting longshore current. This current flows through the surf zone transporting sediment (primarily sand) suspended by wave action. This suspended sediment is deposited on the upcurrent side of the North Jetty. This accretion process has created approximately 200 acres (81 hectares) of new land.

C. Exposure. The watch tower site in the backshore dune area is periodically exposed to seawater inundation from high waves overtopping the jetty during winter storms.

ENVIRONMENTAL IMPACT ASSESSMENT CONT'D

In the past, gale force southerly winds accompanied by spring tides have driven waves over the top of the jetty and the resulting wave run-up has breached the backshore dune area in this part of the Samoa Peninsula sand spit. During the winter season, "vernal pools" of standing brackish water are formed in the troughs situated between the dunes. These vernal pools result from the previously described process and normal annual precipitation -- approximately 50 inches (120 centimeters). Drainage in the depressions is generally poor. This end of the sand spit is surrounded by the sea on three sides and is frequently exposed to wind driven salt spray, mist and fog. This salt enriched environment accounts for the barrenness of the site.

D. Flora. Coastal strand vegetation at the proposed watch tower site is comprised of a limited number of plants, especially adapted to survival in this harsh environment. Climate conditions limit the type of vegetation able to colonize the watch tower site. Only extremely hardy salt tolerant plants can survive in this habitat of shifting sand, salt spray, mist, fog, and periodic sea water inundation. This plant community is made up of two plant species -- Ammophila arenaria (European Beach Grass) and Convolvulus soldanella (Beach Morning-Glory). The dominant plant is Ammophila arenaria interspersed with scattered Convolvulus soldanella. The immediate area where the concrete pad for the watch tower will be constructed is virtually barren. No rare or endangered plant species were identified at the site. A field survey of the specific site, as well as, the surrounding vicinity, was carried out by the District Environmental Impact Analyst and a Humboldt State College Research Botanist. Erysimum meziei (Menzie's Wallflower), a plant listed for consideration as a rare and endangered plant by the California Native Plant Society, was not present at the site. The back-shore dune habitat would not support this plant.

E. Fauna. The scale and nature of this project would not significantly effect any animal communities established on this part of the Samoa Peninsula.

IV. Relationship of the Proposed Action to Land Use, Politics, and Controls.

The proposed action would not conflict with land use goals and objectives stated in the Humboldt Bay Master Plan or the California Coastal Plan. The watch tower will be compatible with existing structures (navigational aids) in the immediate vicinity. These include one 35 foot (10.7 meter) high combination forward range marker/fog horn and one 55 foot (16.8 meter) high coordination rear range marker/rotating beacon.

V. Alternative Actions.

A. Three alternative actions considered included:

ENVIRONMENTAL IMPACT ASSESSMENT CONT'D

1.) No project.

2.) A 120 foot (36.6 meter) high tower providing equivalent visibility and located inland of the selected site.

3.) An unmanned tower with low light level television (LLLTV).

B. No Project. The no project alternative would not have any significant beneficial effect on environmental quality. This alternative could result in a negative impact resulting from vessel groundings and strandings, and associated release of contaminants into the marine environment. These occurrences might be prevented through the use of the watch tower.

C. High Tower. The High Tower alternative would have a greater magnitude effect on environmental quality (i.e., ground disturbances, visual impact, and construction material utilization) compared with the lower watch tower.

D. An Unmanned Tower with Low Light Level Television (LLLTV). The LLLTV alternative would have no significant beneficial effect on environmental quality compared with the selected 58 foot (17.5 meter) high manned tower. An additional negative impact associated with the unmanned tower with LLLTV is this alternative would require more electric power to operate. Further, it is unproven that this surveillance method would fulfill visibility requirements over the detection area.

VI. Probable Impacts of the Proposed Action.

A. Negative Impacts. The project will generate minor, short-term negative impacts during the 40-45 day construction interval. Construction activity would result in temporary increases in noise, as well as construction and support vehicle traffic. Visual quality of the dune area will be altered during the work phase. The 58 foot (17.5 meter) watch tower will require daily vehicle trips to support its operation. Currently, all terrain, off-the-road vehicles are proposed for this task. This will generate minor air emissions and increase ambient noise levels. The normal route of the support vehicle will be on the non-vegetated beach face parallel to the jetty. The manned watch tower will alter the visual appearance of this part of the Samoa Peninsula sand spit, but will not appreciably change the nature of the backshore dune area. In the immediate vicinity, there are two towers supporting navigation aids operated by the Coast Guard.

B. Beneficial Impacts. Beneficial impacts derived from this project include possible reduction in navigational accidents involving small craft crossing the Humboldt Bay entrance bar. This would also reduce the chance of contaminants being released into the marine environment.

ENVIRONMENTAL IMPACT ASSESSMENT CONT'D

A further benefit includes a decrease in fossil fuels consumed by Coast Guard patrol boats currently used to assess sea state conditions on the bar. A final benefit and primary purpose of this Coast Guard action is the watch tower may save lives through quicker notification and faster response by the Humboldt Bay Coast Guard Station to small craft in distress or in potential distress.

C. Historic Places. The proposed action will not effect any property listed in the National Register of Historic Places.

I. Irreversible and Irretrievable Commitment of Resources.

Energy and raw materials will be consumed in accomplishing this action. Construction materials used in the project are recyclable except for the concrete pad.

I. Conclusion.

A. The Twelfth Coast Guard District analysis of the environmental impact of this project has determined that the activity would have no significant adverse effect on the quality of the human environment. A Negative Declaration meets the requirements of the National Environmental Policy Act (P. L. 91-190).

X. References.

- Bascom, W., Waves and Beaches: The Dynamics of the Ocean Surface. Anchor Books, Double Day and Company, Inc., Garden City, New York, 1964.
- California Coastal Zone Conservation Commission, California Coastal Plan, Sacramento, California, December, 1975.
- Dawson, E. Y., Seashore Plants of Northern California. University of California Press, Berkeley and Los Angeles, 1966.
- Johnson, D. W., Shore Processes and Shoreline Development. Hafner Publishing Company, New, York, 1972. (Facsimile of the Edition of 1919)
- Munz, P. A., Shore Wildflowers of California, Oregon, and Washington. University of California Press, Berkeley, Los Angeles, and London, 1973.
- Noble, R. M., Shoreline Changes, Humboldt Bay, California, Shore and Beach. Vol. 32., No. 2., 1971.

ENVIRONMENTAL IMPACT ASSESSMENT CONT'D

- U. S. Army Engineer District, San Francisco, Humboldt Harbor and Bay, California -- Design Memorandum, No. 1., General Design. August, 1974.
- U. S. Army Engineer District, San Francisco, Humboldt Harbor and Bay, California -- Environmental Statement. August, 1976.
- U. S. Coast Guard, Twelfth District, Environmental Assessment of the Proposed Rehabilitation of Humboldt Bay Coast Guard Station, Samoa, California.
- U. S. Department of Commerce, State of California Coastal Management Program and Final Environmental Impact Statement. August, 1977.

EVIDENCE OF

U. S. COAST GUARD INTEREST

IN PROPERTY LANDWARD OF WATERWAY

: COPY :

L. N. Vol. I, P. :205:

Humboldt, Cal.

Department of the Interior,
December 24th 1859.

Respectfully submitted to the
President with the recommendation
that he approve the reservation
of the within described tract of
land for light house purposes.

Signed : J. Thompson,
Secretary.

Washington,
December 27th 1859.

Approved.
Signed : James Buchanan.

General Land Office,

December 20th 1859.

Sir:---

Under reference of the 17th inst., this office has received the Secretary of the Treasury's letter to you of the 16th inst.----requesting " That the necessary steps may be taken to reserve from sale, Fract. sec. 6, T. 4 N. R. I W. Humboldt Meridian, on the coast of California, the same being the site upon which the present light house at Humboldt is situated".---

To that end we have accordingly issued instructions under this date to the proper local offices in California, and now report to you, that so far as advices have reached us there is no adverse claim.

Very respectfully,

Yr. Obt. Servt.

: Signed : Jos. S. Wilson,

Act. Commissioner.

Hon. J. Thompson,

Secretary of the Interior.

: CCOPY :

L. R. Vol. I, P. 205.

Humboldt, Cal.

Dept. of The Interior
Decr. 17th 1859.

Resly. Refed. to the Com.
of the Genl. Land office for
immediate report.
: Signed : W. W. Lester,
Acting Ch. Clk.

Treasury Department,

December 16th 1859.

Sir:--

In accordance with the suggestions of the Light House Board, I have the honor to request that, the necessary steps may be taken to reserve from sale Frac. sec. 6 T. 4N. R. I. W. Humboldt Meridian, on the coast of California, the same being the site upon which the present light house at Humboldt is situated.---

I am

Very Respectfully

: Signed : Howell Cobb,

Secretary of the Treas

Hon. Jacob Thompson,

Secretary of The Interior.

Humboldt Harbor, Cal.

Lots 3 & 4 Sec. 31, T. 5 N. R. 1 W.

: COPY :

Acting Secretary of Interior
25 Aug. 1871.

Recommends that certain lands
in Humboldt district California be
reserved for light house purposes.

August 29th 1871.

Let the lands described
within be reserved for light house
purposes, as recommended by the Act-
ing Secretary of the Interior.

(Signed) U. S. Grant.

California files No. 30.

Department of the Interior,
Washington, D. C. 25th Aug., 1871.

Sir:---

I have the honor to recommend that Lots 3 and 4 Sec. 31, T. 5 N. R. 1 W. Humboldt California, be reserved for light house purposes.

This recommendation is made at the instance of the light House Board, and the Commissioner of the General Land Office informs me that there is no obstacle to its reservation known to his office.

I am, Sir,

Very respectfully,

Your obt. servant

Sgd. B. R. Cowen

Acting Secretary.

The President.

RECEIVED
ATTORNEY GENERAL

JUN 24 8 22 AM '81

DEPARTMENT OF JUSTICE
SAN FRANCISCO OFFICE

EXHIBIT F

THE UNDERSIGNED, ACTING IN THIS BEHALF FOR THE
STATE LANDS COMMISSION, HAS HEREBY CERTIFIED,
THAT THE ANNEXED IS A WHOLE, TRUE AND CORRECT
COPY OF THE ORIGINAL RECORD COPY, CONSISTING OF
23 PARTS, ON FILE IN THE OFFICE OF THE STATE
LANDS COMMISSION; THAT SAID COPY HAS BEEN COM-
PARED BY THE UNDERSIGNED WITH THE ORIGINAL, AND
IS A CORRECT TRANSCRIPT THEREFROM.

IN WITNESS WHEREOF, THE UNDERSIGNED
HAS EXECUTED THIS CERTIFICATE AND
AFFIXED THE SEAL OF THE STATE LANDS
COMMISSION THIS 18th DAY OF June
A.D. 1981



(916) 322-7809

May 19, 1978

W 21469

United States Department of
Transportation
Twelfth Coast Guard District
630 Sansome Street
San Francisco, CA 94126

Attention: Mr. Robert Laaback

Gentlemen:

The enclosed proposed document states the terms and
conditions of a General Permit - Public Agency use for
construction and maintenance of a watchtower on the
North spit, Samoa Peninsula, Humboldt Bay, Humboldt County.

If you find the document to be in order, execute
both copies before a Notary Public and return them to this
office together with a certified copy of the resolution
or other documents authorizing execution on behalf of
the United States Department of Transportation.

Your prompt return of the documents is appreciated.

Very truly yours,

JAMES DE LA CRUZ
Land Agent

Enclosure

JD/nyo

CERTIFIED - RETURN RECEIPT REQUESTED NO. 732649



PS Form 3811, Nov. 1976

★ GPO : 1976-C-203-456

1. The following service is requested (check one).
☐ Show to whom and date delivered25¢
☒ Show to whom, date, & address of delivery45¢
☐ RESTRICTED DELIVERY.
☐ Show to whom and date delivered85¢
☐ RESTRICTED DELIVERY.
☐ Show to whom, date, and address of delivery ..\$1.05
(Fees shown are in addition to postage charges and other fees).

2. ARTICLE ADDRESSED TO:
Department of Transportation
630 Sansome Street
San Francisco, CA 94126

3. ARTICLE DESCRIPTION:
REGISTERED NO. 732649 INSURED NO.
(Always obtain signature of addressee or agent)
I have received the article described above.
SIGNATURE ☐ Addressee ☒ Authorized agent
DATE OF DELIVERY 5/23/78 POSTMARK
5. ADDRESS (Complete only if requested)
6. UNABLE TO DELIVER BECAUSE: CLERK'S INITIALS

NO NUMBER / 732649
OR Y.C. NO.

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Department of Transportation
630 Sansome Street
San Francisco, CA 94126

POSTAGE \$

CERTIFIED FEE \$
SPECIAL DELIVERY \$
RESTRICTED DELIVERY \$
SHOW TO WHOM AND DATE DELIVERED \$
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY \$
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY \$
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY \$

CONSULT POSTMASTER FOR FEES
OPTIONAL SERVICES
RETURN RECEIPT SERVICE
TOTAL POSTAGE AND FEES \$

POSTMARK OR DATE
STATE LANDS DIVISION
1807 - 13th STREET
SAN FRANCISCO, CALIF. 95314
7MC 115-22-28

PS Form 3800, Apr. 1976

STATE OF CALIFORNIA
STATE LANDS COMMISSION

W 21469

PERMIT NO. _____

Section 1

For such consideration, specific purposes and subject to such terms, covenants, conditions, reservations, restrictions and limitations as are set forth herein: THE STATE OF CALIFORNIA, hereinafter referred to as "Lessor," acting through the State Lands Commission pursuant to Division 6 of the Public Resources Code and Title 2, Division 3 of the California Administrative Code, does hereby grant a permit to:

PERMITTEE United States Department of Transportation
Twelfth Coast Guard District

whose mail address is: _____
630 Sansome Street

San Francisco, CA 94126

for the non-exclusive use of that certain land described in Section 4 of this Agreement.

PERMIT TYPE: _____
GENERAL - PUBLIC AGENCY USE

TERM: _____ Years; _____ Months; beginning _____;
50 No May 1, 1978
ending _____; unless sooner terminated as hereinafter
April 30, 2028
provided.

COUNTY: _____
Humboldt

LAND TYPE: _____
Sovereign

STATE OF CALIFORNIA - STATE LANDS COMMISSION

PERMIT NO. _____

Section 1 (Continued)

LAND USE OR PURPOSE: Construction and maintenance of a watchtower,
utility lines and attendant road easement.

AUTHORIZED IMPROVEMENTS: Watchtower and utility lines and access
road.

LIABILITY INSURANCE: EACH OCCURRENCE

Divided Limits:
Bodily Injury \$ _____
Property Damage \$ No
OR No
Combined Single
Limit: \$ _____
No

SURETY BOND: \$ _____

No
CONSTRUCTION LIMITING DATES:

	Mo.	Day	Yr.
Beginning			
Completion	May	1,	1978

September 1, 1978

COMPOSITION OF AGREEMENT: This permit consists of the following parts all attached hereto and by reference made a part of the whole agreement:

Section 1 - Summary of basic terms, as above.

Section 2 - Special provisions amending or supplementing Section 1 or 5.

Section 3 - Consideration.

Section 4 - Land Description.

Section 5 - Standard covenants.

STATE OF CALIFORNIA - STATE LANDS COMMISSION

PERMIT NO. _____

Section 2

CHANGES IN FORM: Before the execution of this permit, the printed form was changed, revised and added to in the following manner:

1. "The issuance of this permit is not to be deemed as an admission by the Permitter or Permittee as to the boundary between the Federal and State-owned lands. This permit is being entered into by both parties without prejudice to their claims of ownership."
2. That portion of Paragraph 3, second sentence, of Section 5 is revised as follows:

"However, if the lease or permit area is not continued to be used for a government purpose, the Lessor may require the payment of a reasonable monetary rental, royalty, or other consideration."

3. That portion of Paragraph 20(a) is revised as follows:

"Whether or not a bond or insurance as described herein is required, Lessee to the extent permitted by federal law, shall indemnify, save harmless and defend, the State of California,"

4. Paragraph 21(b) is deleted in its entirety.

5. That portion of Paragraph 22, first sentence, is revised as follows:

"Lessee may terminate the agreement upon giving Lessor not less than thirty (30) days written notice prior to the date of such termination."

6. Paragraph 28 is revised as follows:

"Upon expiration or sooner termination of this lease, Lessee shall have the right to remove its property, including but not limited to structures, buildings, pipelines, machinery, facilities and fill. All such improvements to be removed shall be salvaged and removed by Lessee at Lessee's sole expense and risk within ninety (90) days after the expiration or sooner termination of this lease."

STATE OF CALIFORNIA - STATE LANDS COMMISSION

PERMIT NO. _____

Section 2 (continued)

CHANGES IN FORM: Before the execution of this permit, the printed form was changed, revised and added to in the following manner:

Lessee may offer at Lessee option, to Lessor all or a portion of the improvements existing on the property at the expiration or sooner termination of this lease. If Lessor agrees in writing to accept such improvements or any portion thereof, said improvements so accepted shall be deemed abandoned and shall become the property of the Lessor, to the extent Lessor does not elect to accept any of the proffered improvements, or to any improvements not so offered, Lessee shall remove any such improvements at Lessee sole expense and risk. In making any such removals, Lessee shall restore said leased lands as nearly as possible to the condition existing prior to erection or placement of the improvements thereupon."

STATE OF CALIFORNIA - STATE LANDS COMMISSION

PERMIT NO. _____

Section 3

CONSIDERATION: Public Health and Safety

ROYALTY: None

OTHER CONSIDERATION: None

STATE OF CALIFORNIA - STATE LANDS COMMISSION

PERMIT NO. _____

Section 4

LAND DESCRIPTION

W 21469

A parcel of State land in the County of Humboldt, State of California, situate in projected Section 6, T.4N., R.1W., H.B.M., described as follows:

COMMENCING at a point having coordinates of $X = 1,382,575$ and $Y = 528,985$, said point also being the center of said parcel; thence from said center North, 100 feet to the POINT OF BEGINNING; thence East, 100 feet; thence South, 200 feet; thence West, 200 feet; thence North, 200 feet; thence East, 100 feet to the point of beginning.

TOGETHER WITH an easement for access and utility purposes over a strip of land twenty feet (20) wide, the center line of which is described as follows:

BEGINNING at said center of the above described parcel; thence S $46^{\circ} 30'$ W, 135 feet; thence S $43^{\circ} 30'$ E, 878 feet; thence S $65^{\circ} 30'$ E, 556 feet; thence N $78^{\circ} 30'$ E, 900 feet more or less to the west line of fractional Section 6, T.4N., R.1W., H.B.M., shortening or extending the side lines to the said west line of Section 6.

The bearings, distances and coordinates of this description are based upon the California Coordinate System Zone I.

END OF DESCRIPTION

Prepared Fred T. Carey Checked RE
Reviewed H. K. Gunnecke Date 4/10/78
x/b

STATE OF CALIFORNIA - STATE LANDS COMMISSION

PERMIT NO. _____

This permit will become binding upon the State only when duly executed on behalf of the State Lands Commission of the State of California;

IN WITNESS WHEREOF, the parties hereto have executed this permit as of the date hereafter affixed.

UNITED STATES DEPARTMENT OF TRANSPORTATION
TWELFTH COAST GUARD DISTRICT

STATE OF CALIFORNIA
STATE LANDS COMMISSION

By _____

Title _____

Date: _____

The issuance of this permit was authorized
by the State Lands Commission on _____

STATE OF CALIFORNIA)
COUNTY OF _____) ss.

On this _____ day of _____, in
the year 19____ before me, _____,
a Notary Public in and for said _____;
county and state, personally appeared _____
_____, known to me to be the
_____ of the _____
_____ that executed the within
instrument, and also known to me to be the person who
executed the within instrument on behalf of the
_____ therein named
and acknowledged to me that the _____
executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand
and affixed my official seal in the _____
County of _____ the day and year in
this certificate first above written.

NOTARY PUBLIC, STATE OF CALIFORNIA

My Commission Expires _____

Section 5

STANDARD COVENANTS - STATE LANDS COMMISSION LEASE

1. AGREEMENT DEFINED: For the purposes of this lease, the terms "lease," "right of way," "easement," "permit," and "license" are interchangeable; where one term is used, it shall be deemed to include any one of the other terms, where appropriate.

2. MONETARY CONSIDERATION:

(a) Lessee agrees to pay the annual rental stated in Section 3 hereof to Lessor without deduction, delay or offset, at such place as may be designated by Lessor from time to time, in advance on or prior to the beginning date of this lease and anniversary of such beginning date during each year of the term hereof, except that Lessor, effective on each fifth anniversary of the beginning date of this lease, and at such other times as are hereinafter specified, may from time to time elect to change the amount of annual rental to be paid by Lessee hereunder. Any such change in rate shall be to the applicable rate, or by following the procedure for determining the applicable rate, of rental set forth in Title 2, California Administrative Code (now contained in Section 2006) at the time notice of any such change is given to Lessee. Such changed rate shall not become effective unless Lessor shall cause written notice of such change and of the new rate to be given to Lessee on or before ninety (90) days before the effective date of such rental rate change. Should Lessor fail to effect a change of such annual rental effective on any such fifth anniversary of the beginning date of this lease, the annual rental shall remain the same as the rental payable for each year during the immediately preceding five-year period, provided that for any years remaining before the next five-year anniversary of the beginning date of this lease the Lessor on written notice not less than ninety (90) days before the next rent becomes due, may fix a different rate of annual rental, which rate

shall be determined in the manner hereinbefore set forth, which rental at such new rate, unless thereafter changed in the manner herein provided, shall be payable each year thereafter by Lessee. Any change in the rate of rental effective on a date other than any fifth anniversary of the beginning date of this lease shall be without prejudice to Lessor's right to change said rental rate on each succeeding fifth anniversary of the beginning date of this lease as above provided. It is specifically agreed that in the event of the termination of this lease prior to its expiration date from any cause whatsoever, no portion of rental paid in advance shall be refundable.

(b) In the event that the parties to this lease are unable to agree upon a firm annual rental, quarterly royalty or other consideration at the expiration of the lease period agreed herein, and the Lessee remains in possession of the leased lands and continues to pay an interim rental, royalty or other consideration until a firm rental, royalty or other consideration is agreed upon by the parties, then at such time when the Lessee submits payment for any or all retroactive rentals, the State shall collect interest on said retroactive payments at the rate specified in Public Resources Code Section 6224. This shall not be construed as a limitation upon any other remedy which the State may have against a holdover Lessee.

(c) It is agreed by the parties hereto that any installments of rental, royalty or other monetary consideration accruing under the provisions of this lease that shall not be paid when due shall be subject to a penalty and shall bear interest at the specified rate from the date when the same was payable by the terms hereof, as provided in Public Resources Code Section 6224 and Subsection (d) of Paragraph 2 of this lease, until the same shall be paid by the Lessee.

(d) The failure to pay the rentals, royalties or other consideration specified in this lease shall subject the Lessee to a ten (10) percent penalty on the accrued and unpaid balances, for the rental, royalty or other consideration

payable after January 1, 1976.

3. ROYALTY: Lessee shall pay to Lessor, in addition to the annual rental or other consideration as stated herein, a royalty in the amount per cubic yard, per ton, or other unit of measurement as set forth in Section 3 hereof for all materials removed from the land subject to this agreement and placed on lands not owned by Lessor, if authorized herein, according to the following schedule:

Within twenty-five (25) days following the end of each quarter ending on March 31, June 30, September 30 and December 31, Lessee shall pay said royalty for all materials removed from land subject to this agreement during the preceding quarter. Each payment shall be accompanied by a detailed statement subscribed and sworn to by Lessee or his agent attesting to the accuracy of the payment.

4. OTHER CONSIDERATION: Lessee agrees to pay other consideration in the amount, method and manner as provided for in Sections 2 and 3.

5. NON-MONETARY CONSIDERATION: If a monetary rental, royalty or other consideration is not shown in Section 3 of this Agreement, the sole and entire consideration to Lessor for the within lease or permit shall be the public use, benefit, health or safety, as appropriate. However, the Lessor reserves the right to review the consideration at any time and to set a monetary rental if the State Lands Commission shall at its sole discretion determine that such action is in the best interest of the State.

6. BOUNDARIES: The description of the land in Section 4 herein has been made without a survey and without a determination of boundaries of the land subject to this agreement. This lease is not intended to constitute the establishment of the State's boundaries and is made without prejudice to any boundary claims which may be asserted in the future.

7. LAND USE: Lessee agrees to use the land described in Section 4 only for the purpose or purposes stated in Section 1 or 2 and for the

construction, operation and maintenance of the improvements listed in Sections 1 or 2, as appropriate. If such use is not commenced by Lessee on the land subject to this agreement within ninety (90) days of the beginning date of this lease or within ninety (90) days of the beginning construction limiting date, if such date is authorized in Section 1, or if such use on said land shall be discontinued for a period of ninety (90) days, this lease and the term thereof shall terminate upon notice to Lessee. No additional improvements shall be added without written consent of Lessor first had and obtained.

8. ADEQUACY OF CONSTRUCTION: All improvements shall be constructed and installed consistent with all applicable code requirements.

9. MARINA SANITARY FACILITIES: If this lease covers the operation of marinas, launching ramps or other like facilities which are used by the public, whether for profit or not, Lessee shall provide on-shore sanitary facilities.

10. FLOATING RESIDENCE: The structure authorized by this lease shall not, at any time in the future, be converted for use as a residence, nor be used for the purpose of mooring a floating residence or ark.

11. REPAIRS:

(a) Lessee shall maintain and keep in good sound repair all improvements upon the property. The removal of, or substantial alteration to, any existing structure shall not be undertaken without prior written permission of Lessor first had and obtained. The failure to obtain the written permission of the Lessor shall be grounds for termination of this lease.

(b) If at any time subsequent to the beginning date of this lease the improvements authorized herein shall fall into a state of disrepair or otherwise become an environmental or aesthetic degradation, as determined

by Lessor, then upon written notice by Lessor, Lessee shall have sixty (60) days to repair and correct the conditions cited by Lessor. Failure to comply with the written notice of Lessor shall be grounds for termination of this lease and Lessee shall at the option of the Lessor remove all structures and fill located on lands covered by this lease.

12. RIGHT OF INSPECTION: Lessor through its authorized agents shall have the right at all reasonable times to go upon lands owned by the Lessee and upon the leased land for the purpose of inspecting the land and improvements or carrying out any function required by statutes or the rules and regulations of the State Lands Commission.

13. EXISTING ENCUMBRANCES: This lease is subject to existing contracts, leases, licenses, easements, encumbrances and claims which may affect the leased land, and this lease is made without warranty by Lessor of title, quiet enjoyment, condition or fitness of the land subject to this agreement for the intended use, or any other warranty or representation whatever, except that Lessee faithfully keeping all the terms, provisions and conditions of this lease on Lessee's part to be performed, Lessor agrees not to interfere with Lessee's possession of the land subject to this agreement, except as herein may otherwise be provided.

14. RESERVATION OF NATURAL RESOURCES: Unless the use or purpose of this agreement provides otherwise, there are hereby reserved to the State all natural resources, including but not limited to, timber, minerals, sand and gravel, geothermal resources, oil, gas and hydrocarbon products in or upon the land subject to this agreement, and the right to grant in, over, and across said lands, leases to extract or remove such natural resources, as provided by law and the rules and regulations of the State Lands Commission and without compensation to the Lessee.

15. OTHER RESERVATIONS: Lessor expressly reserves the right to grant easements or crossings in, upon and under the demised premises. Nothing herein contained shall be construed as limiting the powers of the State to lease, convey or otherwise transfer or encumber, during the life of this agreement, the hereinbefore described lands subject to this agreement for any purpose whatsoever not inconsistent or incompatible with the rights or privileges granted to the Lessee by this agreement; provided, however, that nothing herein shall preclude the Lessee from excluding unauthorized persons from the lands subject to this agreement during any period where Lessee reasonably deems such exclusion necessary or desirable in connection with its authorized use of land subject to this agreement.

16. RULES AND REGULATIONS:

(a) Lessee shall observe and comply with all rules and regulations now or hereafter promulgated by any governmental agency having authority by law, including but not limited to State Water Quality Control Board, State Department of Fish and Game, U. S. Army Corps of Engineers and the State Lands Commission.

(b) Lessee recognizes and understands in accepting this lease that his interest therein may be subject to a possible Possessory Interest Tax that the city or county may impose on such interest, and that such tax payment shall not reduce any rent due the Lessor hereunder and any such tax shall be the liability of and be paid by the Lessee.

(c) Lessee covenants that all reasonable precautions will be taken to prevent pollution and contamination of the environment.

17. MODIFICATIONS AND REMOVALS: Any modifications of natural or existing features of the real property described in this lease, including but not limited to the removal of timber and other flora, which are inconsistent with the authorized uses under this lease are expressly

prohibited without the prior written consent of the Lessor.

18. ACCESS TO OTHER STATE LANDS: If the leased premises abut or adjoin any other State-owned lands which do not have a right of access for ingress and egress, Lessee shall provide adequate public vehicular and pedestrian access across, over and upon the lease premises for the benefit of said lands.

19. RIGHTS-OF-WAY:

(a) If the lease is for a right-of-way covering one or more pipelines or conduits, the property right granted herein applies only to land actually underlying the pipelines or conduits, and there is hereby granted a non-exclusive right to go into and upon the land subject to this agreement on either side of said lines or conduits and within the parcel described in Section 4 as reasonably necessary for installation, inspection and maintenance of the pipeline or conduits.

(b) Reasonable passage across and along any right of way granted by this agreement shall be reserved to the public.

20. INDEMNITY, BOND AND INSURANCE:

(a) Whether or not a bond or insurance as described herein is required, Lessee shall indemnify, save harmless and at the option of the State, defend, the State of California, its officers, agents and employees against any and all claims, demands, loss, action or liability of any kind which State of California, or any of its officers, agents or employees may sustain or incur or which may be imposed upon them or any of them arising out of or connected with the issuance of this lease, including, without in any way limiting the generality of the foregoing, any claim, demand, loss, or liability arising from any failure of title or any alleged violation of the property or contractual rights of any third person or persons in the leased lands.

(b) If so specified in Section 1 or 2, Lessee shall file with Lessor and maintain in full force and effect at all times during the term of this lease or any extension thereof, and an additional period of one hundred twenty (120) days or until the State has accepted a quitclaim deed and sufficient evidences of removal of improvements requested to be removed, whichever is longer, a good and sufficient surety bond drawn in favor of the State of California in the sum stated in Section 1 or 2 hereof, to guarantee to Lessor the faithful performance and observance by the Lessee of all of the covenants and conditions implied or specified in this lease, and which specified or implied covenants and conditions are mandatory upon and are to be kept and performed by the Lessee. Upon any increase in rental as provided in Paragraph 2, Lessor reserves the right to increase the sum of the surety bond.

(c) If so specified in Section 1 or 2, Lessee shall obtain at his own expense and keep in full force and effect during the term of this lease, for the protection of Lessee and the State in an insurance company acceptable to Lessor, comprehensive public liability insurance covering the leased premises and their surrounding area with limits of not less than the amounts stated in Section 1 or 2 hereof. The policy or policies shall specifically name the State as an insured party as to the land under lease; and the policy or policies shall specifically identify the lease by number, and a certificate or certificates of insurance must be provided by the Lessee to Lessor.

(d) Lessee agrees that the liability insurance coverage herein provided for shall be in effect at all times during the term of this lease, and until said leased land is restored as nearly as possible to the condition existing prior to erection or placement of the improvements thereupon or until Lessor, in writing, elects to accept the leased land or any portion thereof as then improved with structures, buildings, pipelines, machinery,

facilities and fills in place. If Lessor elects to accept only a portion of the leased land as then improved, Lessee's responsibility to insure the premises shall terminate as to those portions that the Lessor accepts intact, but shall continue in the remaining portions until said portions are restored as nearly as possible to the condition existing prior to the erection or placement of improvements thereupon. In the event said insurance coverage expires at any time or times during the term of this lease, Lessee agrees to provide, at least fifteen (15) days prior to said expiration date, a new certificate of insurance evidencing insurance coverage as provided for herein for a period of not less than one (1) year, or for not less than the remainder of this lease, and until the leased land is restored or until Lessor, in writing, elects to accept the leased land or any portion thereof as then improved as provided for herein. New certificates of insurance are subject to the approval of the State Lands Division, and Lessee agrees that no construction, improvements, additions, work or services shall be performed prior to the giving of such approval. In the event Lessee fails to keep in effect at all times insurance coverage as herein provided, State may, in addition to any other remedies it may have, terminate this lease upon the occurrence of such event.

21. ASSIGNMENT, TRANSFER OR SUBLETTING:

(a) Lessee shall not assign, transfer, or sublet this agreement without the prior written approval of the Commission first had and obtained. Such written approval of the assignment, transfer or sublease shall be subject to any and all conditions required by the Commission, including, without limitation by reason of specification herein, the altering, changing or amending of this lease as deemed by the Commission to be in the best interests of the State.

(b) The leasehold interest hereby described is created as an appurtenance to littoral land. The leasehold interest is not severable from the rights and interest of the Lessee in the littoral land without the express written approval of the State Lands Commission first had and obtained. Any such severance without State Lands Commission approval shall be grounds for termination of the lease by the State Lands Commission.

22. TERMINATION BY LESSEE: Lessee may terminate this agreement upon giving Lessor not less than sixty (60) days written notice prior to the date of such termination. Lessee agrees that on the day selected by lessee for termination of this agreement under this paragraph, to peaceably and quietly leave, surrender and yield up to Lessor the land subject to this agreement in good order, condition, and repair, reasonable use and wear thereof and damage by act of God and the elements excepted, and execute and deliver to Lessor a good and sufficient release of all rights under this lease. Should Lessee fail or refuse to deliver the release as aforesaid, a written notice by Lessor reciting the failure or refusal of the Lessee to execute and deliver said release as herein provided shall from the date of recordation of such notice be conclusive evidence against Lessee and all persons claiming under Lessee of the termination of this lease and any claims and rights of Lessee in the land and improvements subject to this lease. In the event Lessee elects to terminate this agreement, such termination does not release Lessee from any unpaid but accrued rent, royalty payments or equivalent consideration which may be owed to the Lessor.

23. CANCELLATION BY STATE: If this lease covers land obtained by Lessor from the United States as or in lieu of school lands, Lessor reserves the right and power to cancel this lease at any time during the term hereof upon notice in writing to the Lessee of not less than ninety (90) days next prior to

the date such cancellation shall become effective, and Lessee hereby agrees, upon receipt of such written notice, that Lessee will vacate the demised premises on or before such cancellation date.

24. TERMINATION UPON SALE OR EXCHANGE: If this is a Grazing or Agricultural Lease, such lease is terminated by Lessor upon sale or exchange of the land subject to this agreement without advance notice to the Lessee as provided for by law and by the rules and regulations of the State Lands Commission.

25. PUBLIC AGENCY PERMITS: Where the sole and entire consideration to the Lessor for the within lease shall be the public use, benefit, health and safety, Lessee agrees and covenants to notify Lessor within ten (10) days in the event any monetary charge is made to the public for use of the leased land, either directly or indirectly.

26. OIL SPILL EMERGENCY: In the event of a spill or leak of oil or other liquid pollutants into waters over State lands, Lessee shall immediately notify the State Office of Emergency Services by telephone (800) 852-7550. Lessee shall subsequently send the State Lands Division a complete written report within thirty (30) days stating the source, cause, size of spill and action taken.

27. MARINE TERMINAL/WHARF OPERATIONS: If this lease is for a marine terminal or wharf operation handling petroleum, petroleum products, or any other potential pollutant, Lessee shall provide Lessor with an approved Oil Spill Contingency Plan/Spill Prevention Control and Countermeasure Plan and a Terminal Operations Manual in the form required by Federal and State Regulations and guidelines. Lessee shall periodically review such plans and advise Lessor of any changes to such plans.

28. RESTORATION OF PREMISES: Upon expiration or sooner termination of this lease, Lessor may elect to accept the leased land or any portion thereof, as then improved with structures, buildings, pipelines, machinery, facilities and fills in place or Lessor may elect to have any such improvements or any portion thereof, removed by Lessee at Lessee's expense. All such improvements to be removed shall be salvaged and removed by Lessee at Lessee's sole expense and risk within ninety (90) days after the expiration or sooner termination of this lease. If Lessee fails to remove such improvements or portion thereof designated by Lessor, and restore the leased land as herein-after provided, within ninety (90) days after the expiration date or sooner termination of the lease or notice by Lessor of his intention to accept a portion of the premises as then improved, whichever is shorter, Lessor may remove or have removed all or a portion of the improvements and charge the expense of such removal to Lessee. In making such removals, Lessee shall restore said leased land as nearly as possible to the condition existing prior to erection or placement of the improvements thereupon.

29. HOLDING OVER: Any holding over after the expiration of the term of this lease by the Lessee, with the consent of the State, shall be construed to be a tenancy from month to month, and shall otherwise be on the terms and conditions herein specified as far as applicable with rental at the rate of 1/12 of the annual rental stated in Section 3 payable in advance on the first day of each month.

30. REPOSSESSION: In the event of failure of the Lessee to pay rental, or in the event or a breach of any of the other covenants contained within this agreement, or failure of Lessee to observe the terms, conditions, restrictions or time limitations herein contained, to be kept, performed and observed, it shall be lawful for Lessor to re-enter into and upon the demised

premises, and to remove all persons and property therefrom, and to repossess and enjoy the herein described demised premises as in the first and former estate of the State.

31. QUITCLAIM: Upon the natural expiration or termination of this lease by Lessor, in addition to any other remedy which Lessor may have, as provided by law or the terms of this lease, Lessee shall within ninety (90) days of the natural expiration or sooner termination of this lease by Lessor execute and deliver to Lessor a good and sufficient release of all rights under this lease. Should Lessee fail or refuse to deliver the release as aforesaid, a written notice by Lessor reciting the failure or refusal of the Lessee to execute and deliver said release as herein provided, shall from the date of recordation of such notice be conclusive evidence against Lessee and all persons claiming under Lessee of the termination of this lease and any claims and rights of Lessee in the lands and improvements subject to this lease.

32. RENEWAL: Lessee or his heirs or assigns, or any successor in interest thereto, shall have the right to renew this agreement for the additional periods and years stated in Section 1 hereof upon such reasonable terms and conditions as the Lessor, or any successor in interest thereto, might impose. Such option to renew must be exercised by Lessee by giving written notice to Lessor at least six (6) months prior to the termination date of the lease, or such option is waived by Lessee.

33. WAIVER OF BREACH: The waiver by Lessor of any default or breach of any term, covenant or condition shall not constitute a waiver of any other default or breach whether of the same or any other term, covenant or condition, regardless of Lessor's knowledge of such other defaults or breaches. The subsequent acceptance of monies hereunder by Lessor shall not constitute a waiver

of any preceding default or breach of any term, covenant or condition, other than the failure of Lessee to pay the particular monies so accepted, regardless of the Lessor's knowledge of such preceding default or breach at the time of acceptance of such monies, nor shall acceptance of monies after termination constitute a reinstatement, extension, or renewal of the lease or revocation of any notice or other act by Lessor.

34. NOTICES: All notices herein provided to be given shall be deemed to have been fully given when made in writing and deposited in the United States mail with postage prepaid and addressed to the principal office or headquarters of the State Lands Commission, or to the Lessee as addressed on Section 1 hereof, as appropriate.

35. CHANGES: This agreement may be terminated or the provisions changed, altered, or amended by mutual agreement of the parties hereto.

36. TIME - SUCCESSOR'S LIABILITY: Time is the essence of each and all the terms and provisions of this agreement, and the terms and provisions of this agreement shall extend to and be binding upon and inure to the benefit of the heirs, successors and assigns of the respective parties hereto; if more than one Lessee is named herein, the obligations of said parties herein contained shall be joint and several.

37. CAPTIONS: The captions of this lease are for convenience only and are not a part of this lease and do not in any way limit or amplify the terms and provisions of this lease.

38. SEVERABILITY: If any provision herein is judicially determined to be invalid, it shall be considered deleted herefrom, and shall not invalidate the remaining provisions.

1. The first part of the document is a list of names and addresses of the members of the committee. The names are listed in alphabetical order, and the addresses are listed below each name. The list includes the names of the members of the committee, the names of the members of the sub-committee, and the names of the members of the advisory committee. The addresses are listed in the same order as the names.

2. The second part of the document is a list of the names and addresses of the members of the committee. The names are listed in alphabetical order, and the addresses are listed below each name. The list includes the names of the members of the committee, the names of the members of the sub-committee, and the names of the members of the advisory committee. The addresses are listed in the same order as the names.

3. The third part of the document is a list of the names and addresses of the members of the committee. The names are listed in alphabetical order, and the addresses are listed below each name. The list includes the names of the members of the committee, the names of the members of the sub-committee, and the names of the members of the advisory committee. The addresses are listed in the same order as the names.

4. The fourth part of the document is a list of the names and addresses of the members of the committee. The names are listed in alphabetical order, and the addresses are listed below each name. The list includes the names of the members of the committee, the names of the members of the sub-committee, and the names of the members of the advisory committee. The addresses are listed in the same order as the names.

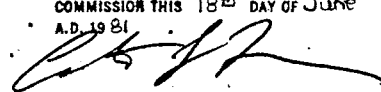
5. The fifth part of the document is a list of the names and addresses of the members of the committee. The names are listed in alphabetical order, and the addresses are listed below each name. The list includes the names of the members of the committee, the names of the members of the sub-committee, and the names of the members of the advisory committee. The addresses are listed in the same order as the names.

EXHIBIT G

THE UNDERSIGNED, ACTING IN THIS BEHALF FOR THE
STATE LANDS COMMISSION, HAS HEREBY CERTIFIED,
THAT THE ANNEXED IS A WHOLE, TRUE AND CORRECT
COPY OF THE ORIGINAL RECORD COPY, CONSISTING OF
5 PARTS, ON FILE IN THE OFFICE OF THE STATE
LANDS COMMISSION; THAT SAID COPY HAS BEEN COM-
PARED BY THE UNDERSIGNED WITH THE ORIGINAL, AND
IS A CORRECT TRANSCRIPT THEREFROM.

(916) 322-4105

IN WITNESS WHEREOF, THE UNDERSIGNED
HAS EXECUTED THIS CERTIFICATE AND
AFFIXED THE SEAL OF THE STATE LANDS
COMMISSION THIS 18th DAY OF June
A.D. 1981



July 17, 1978

✓ b/file ref.: W ~~21468~~
21469

Mr. Ed Hastey, State Director
Bureau of Land Management
E-2841 Federal Office Building
2800 Cottage Way
Sacramento, CA 95825

Dear Ed:

RE: North Spit, Humboldt Bay
S3371, S3872, 9600 (C-942)

Enclosed please find a copy of Walt Holmes' letter
of June 5, 1978 to the Coast Guard relating to lands at Samoa
Peninsula, Humboldt County and Minute Item No. 27 from the
State Lands Commission's June meeting concerning accretions
to the North Spit, Humboldt Bay.

We are now prepared to proceed with litigation as
authorized by the Commission, if no other satisfactory
resolution can be reached.

This matter has escalated to a level of considerable
concern because substantial efforts were taken by the
Commission to accommodate the construction of a watchtower
by the U. S. Coast Guard pending the ultimate clarification
of ownership of the accreted lands.

Walt's letter of June 5, indicates that a unilateral
interpretation of boundaries has been made by your agency and
will be monumented at the line of present mean high water.

The State feels that the present line of mean high
water is not a reasonable conclusion of the State/Federal
boundary. I hope that you will reconsider such action and
work with us to establish a mutually acceptable boundary for
State and Federal lands in the area.



Mr. Ed Hastey
Page 2
July 17, 1978

Please let me know at the earliest possible time
of BLM's ultimate decision in the matter.

Sincerely,

Original signed by
William F. Northrop
WILLIAM F. NORTHROP
Executive Officer

cc: U. S. Army
Corps of Engineers
Sacramento District
650 Capitol Mall
Sacramento, CA 95814
Attention: Mr. Don Osmand

Twelfth Coast Guard District
630 Sansome Street
San Francisco, CA 94126
Attention: Lt. Commander Dennis L. Bryant

Mr. Walter F. Holmes
Chief, Land and Minerals Operation
Bureau of Land Management
E-2841 Federal Office Building
2800 Cottage Way
Sacramento, CA 95825

Enclosure

JDLG/WFN/cas

bcc: J. F. Trout
L. H. Grimes
N. G. Taylor, AAG-LA (w/copy of Holmes' ltr.)
J. Rump (w/copy of Holmes' ltr.)
J. DeLaCruz



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
STATE OFFICE
BUREAU OF LAND MANAGEMENT
E-2341 FEDERAL OFFICE BLDG.
2800 COTTAGE WAY
SACRAMENTO, CA 95825

IN REPLY REFER TO

S 3871
S 3872
9600
(C-942)

Commander, U.S. Coast Guard
Comptroller, 12th Coast Guard District
Attention: Commander J.C. Beima
630 Sansome Street
San Francisco, California 94125

JUN 5 1978

Dear Commander:

Thank you for your letter of April 5, 1978, relative to your inquiry regarding the misunderstanding as to ownership of the north spit at the entrance to Humboldt Bay.

With the construction of the north jetties by the U.S. Engineers in the late 1800's, land began to accrete to the Pacific Ocean side of these jetties and since the construction has accreted to lands withdrawn under E.O. of 26 January 1867. These lands, having accreted normally, belong to the upland owner which is the Federal Government both then and now.

This normal process of accretion has moved the mean high water line of the Pacific Ocean westerly of the original meander lines and therefore, has also moved the State of California's sovereign rights to the present mean high water line. The Humboldt Bay side of the north spit has eroded westerly of the original meanders, with the possible exception of lands having been removed by dredging.

It appears that the lands with their accretion and erosion as withdrawn under E.O. of 26 January 1867 are the lands now in place. This fall, it is anticipated that a cadastral survey will be made to establish new meander lines along the Pacific Ocean and Humboldt Bay. The survey of the meanders will be made at the mean high water line. This will become the new boundary line between Federal and State lands.

We will be in contact with you upon completion of this survey.

Sincerely yours,
Walter F. Holmes

Walter F. Holmes
Chief, Lands and
Minerals Operations

cc: > State Land Division
Sacramento, CA 95814

1. The first part of the document is a list of names and addresses of the members of the committee. The names are listed in alphabetical order, and the addresses are listed below each name. The list includes the names of the members of the committee, the names of the members of the sub-committee, and the names of the members of the advisory committee. The addresses are listed in the same order as the names.

2. The second part of the document is a list of the names and addresses of the members of the committee. The names are listed in alphabetical order, and the addresses are listed below each name. The list includes the names of the members of the committee, the names of the members of the sub-committee, and the names of the members of the advisory committee. The addresses are listed in the same order as the names.

3. The third part of the document is a list of the names and addresses of the members of the committee. The names are listed in alphabetical order, and the addresses are listed below each name. The list includes the names of the members of the committee, the names of the members of the sub-committee, and the names of the members of the advisory committee. The addresses are listed in the same order as the names.

Calendar item No. 27
approved as Minute Item
27 by the State Lands
Commission by a vote of 3
D at its 6-22-78

CALENDAR ITEM

27.

6/79
W 2146^u
Rump

AUTHORIZATION FOR STAFF COUNSEL AND/OR THE OFFICE
OF THE ATTORNEY GENERAL TO TAKE ALL STEPS NECESSARY,
INCLUDING LITIGATION, TO PROTECT SOVEREIGN TITLE AT THE
NORTH SPIT ENTRANCE, SAMOA PENINSULA, HUMBOLDT BAY

At the North Spit of the Samoa Peninsula, Humboldt Bay,
considerable accretion has occurred over the years as a
result of the construction of a jetty by United States Engineers
in the late 1800's.

The Commission's staff had been negotiating a boundary
line agreement with the United States Coast Guard during
the course of processing a permit for a watchtower to be
built on the accreted lands.

The Coast Guard has subsequently informed the staff that
the Bureau of Land Management was assuming jurisdiction
as the adjoining lands have been withdrawn for lighthouse
purposes.

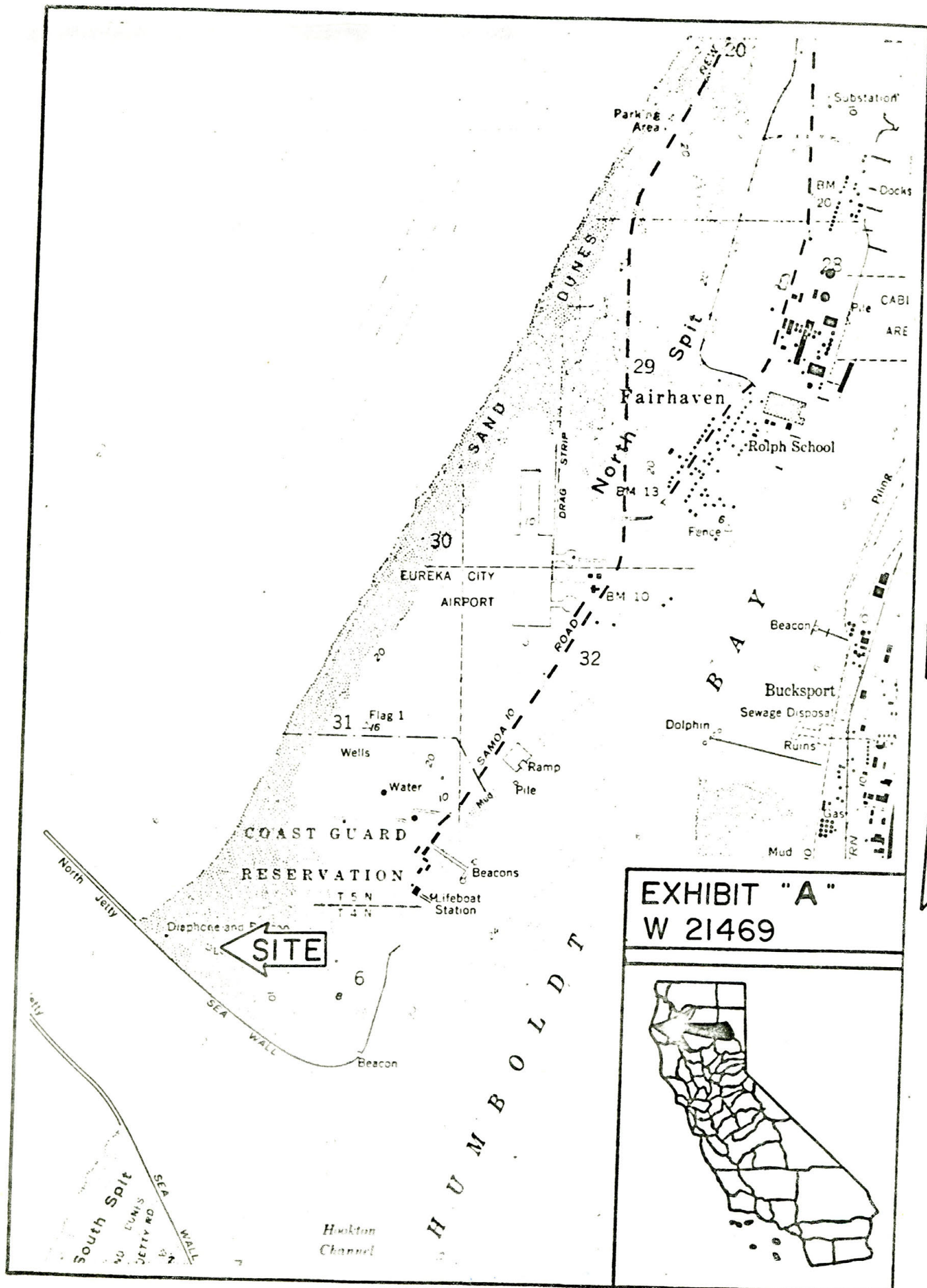
By letter of June 5, 1978, the Bureau of Land Management
claims that the accretion was natural and belongs to the
Federal government. They also state that they will survey
the present mean high water line which they contend would
be the new boundary line between the Federal and State
lands.

Studies conducted by the Commission's staff indicates that
the accretion was artificially influenced by the construction
of the jetties.

EXHIBIT: A. Location Map.

IT IS RECOMMENDED THAT THE COMMISSION AUTHORIZE STAFF COUNSEL
AND/OR THE OFFICE OF THE ATTORNEY GENERAL TO TAKE ALL STEPS
NECESSARY, INCLUDING LITIGATION, TO PROTECT SOVEREIGN TITLES
AT THE NORTH SPIT, SAMOA PENINSULA, HUMBOLDT BAY.

Attachment: Exhibit "A"



1944

EXHIBIT H



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
STATE OFFICE

Federal Office Bldg., Room E-2841
2800 Cottage Way
Sacramento, California 95825

IN REPLY REFER TO

9600
C-942

RECEIVED

JUL 2 1978

STATE LANDS COMAL

William F. Northrup
Executive Officer
State Lands Commission
1807 13th Street
Sacramento, California 95814

JUL 27 1978

Dear Bill:

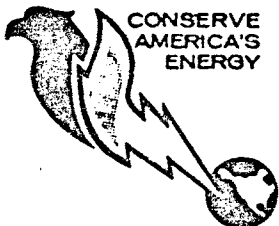
Thank you for your letter of July 17, 1978, regarding your concern over the lands accreted to the Samoa Peninsula or North Spit of Humboldt Bay.

In your letter you say "that the present mean high water is not a reasonable conclusion of the State/Federal boundary," and ask us "to reconsider such action and work with us to establish a mutually acceptable boundary."

The U. S. Supreme Court in its decision (389 US 290) Hughes vs Washington (See also 233 F. 2nd 811; 294 F. 2nd 830) and in many other such cases, quoted therein, has held that title to riparian lands vests with the adjacent upland owners. Mr. Justice Black delivered the opinion of the court, and stated in part ". . . the path to decision is indicated by our holding in Borax, Ltd. vs Los Angeles, 296 U.S. 10 (1935). In that case we dealt with the rights of a California property owner who held under federal patent, and in this instance, unlike the present case, the patent was issued after statehood. We held that

"(t)he question as to the extent of this federal grant, that is, as to the limit of the land conveyed, or the boundary between the upland and the tideland, is necessarily a federal question. It is a question which concerns the validity and effect of an act done by the United States; it involves the ascertainment of the essential basis of a right asserted under federal law." 296 U.S., at 22.

Mr. Black further states ". . . that a dispute over title to lands owned by the Federal Government is governed by federal law," and "The State has not attempted to argue that federal law gives it title to these accretions, and it seems clear to us that it could not. A long and unbroken line of decisions of this Court establishes that the grantee of land bounded by a body of navigable water acquires a right to any natural and gradual accretion formed along the shore." (emphasis added)



Save Energy and You Serve America!

Copy forwarded to:
A RCH
Date: 7/28 by 17

In view of the decision quoted above, we cannot arbitrate our previous position on this matter.

It is our understanding that the U. S. Coast Guard has approached the State to ensure that their watchtower would not be jeopardized by a potential legal action concerning title.

Sincerely yours,

Ed
Ed Hastey
State Director

THE UNDERSIGNED, ACTING IN THIS BEHALF FOR THE STATE LANDS COMMISSION, HAS HEREBY CERTIFIED, THAT THE ANNEXED IS A WHOLE, TRUE AND CORRECT COPY OF THE ORIGINAL RECORD COPY, CONSISTING OF 2 PARTS, ON FILE IN THE OFFICE OF THE STATE LANDS COMMISSION; THAT SAID COPY HAS BEEN COMPARED BY THE UNDERSIGNED WITH THE ORIGINAL, AND IS A CORRECT TRANSCRIPT THEREFROM.

IN WITNESS WHEREOF, THE UNDERSIGNED HAS EXECUTED THIS CERTIFICATE AND AFFIXED THE SEAL OF THE STATE LANDS COMMISSION THIS 18th DAY OF June A.D. 1981



