4964

Diag. Cht. No. 8202-2

Form 504
Ed. June, 1928

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

State: ALASKA

DESCRIPTIVE REPORT

~~Topographic~~
Hydrographic } Sheet No. 12 4964

LOCALITY

Stephens Passage
South of Taku Inlet

Taku Inlet

S. E. Alaska.

19 29

CHIEF OF PARTY

E. W. Eickelberg

U. S. GOVERNMENT PRINTING OFFICE: 1928

4964

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SHEET

FIELD NO. 12

SPECIAL SURVEY FOR POWER CABLE CROSSING

MOUTH OF TAKU INLET

ALASKA

1929

INSTRUCTIONS: This work was done in accordance with Instructions dated February 19th,1929, and after consulting the District Forester regarding location, extent, and spacing of sounding lines.

EXTENT: This survey extends from a section about one mile wide centering on Bishop Point, to a section about 2-1/2 miles wide on the opposite shore with the development of a section immediately south of Cooper Point to determine the possibility of an approach in that section.

SURVEY METHODS: For the control of this Survey, Triangulation Station established by W. M. Scaife in 1929, and Plane Table Stations located by J. C. Partington at the time of the Survey, were used. Soundings were taken from Wire Drag Tender # 1, using a power driven Sounding Machine.

It was desired to find a place of crossing for the power cable, where with the exception of the first few hundred feet immediately off the beach, it would be in soft bottom for its entire length, and have no grade greater than twenty per cent. It was also desired to have its approaches in an area protected from floating ice bergs.

Soundings were spaced considerably closer than is usual in this depth of water and bottom specimens were taken on every sounding. At first a snapper type specimen cup was used, but it was found that good results and a saving of time could be obtained by arming the lead with Tallow. For the majority of the work the latter method was used, and the lead was cleaned and armed for each sounding.

Due to wind and currents, and the great depth of the water, it was very difficult to space the soundings evenly.

GENERAL DESCRIPTION: The shores of the Inlet are very steep, too steep in most cases to permit laying the cable. For this reason several sites were investigated under the direction of the District Forester and Mr. Kinney, engineer for the Pulp and Paper Company.

The bottom of most of the inlet is composed of a soft glacial silt which was considered ideal for imbedding the cable.

After completion of the sounding, the boat sheet was examined by Engineers of the Forestery Service and of the Paper and Pulp Company, and photographs were made of the boat sheet for their immediate use.

TIDES: Reducers for this sheet are from readings on a plane Tide Staff at Juneau.

Respectfully submitted,

T. B. Reed,
Jr. Hydrographic and Geodetic Engr.

Approved and forwarded,

E. W. Eickelberg,
Chief of Party, C. & G. S.

TIDE DATA

TO ACCOMPANY HYDROGRAPHIC SHEET FIELD NO. 12

PLANE TIDE STAFF AT JUNEAU, ALASKA

Location of Staff

Latitude : 58° 18'
Longitude: 134° 25'

Plane of reference is M.L.L.W.	= 2.6 feet on Staff.
Highest Tide observed	= 19.1 feet on Staff, July 9, 1929.
Lowest Tide observed	= 5.6 feet below 0 on the Staff, July 8, 1929.

STATISTICS

TO ACCOMPANY HYDROGRAPHIC SHEET, FIELD NO. 12

Total number of Positions	= 1016
Total number of Soundings	= 1017
Total number of Statute Miles of Sounding Lines	= 78.0

REPORT OF PLOTTING OF SMOOTH HYDROGRAPHIC SHEET # 12

BOTTOM CHARACTERISTICS: That part of the bottom composed of glacial silt is recorded as "gl." SILT. No such definition is given in the Hydrographic Manual, Page 158, and there characteristics are plotted on the smooth sheet as grey mud, "gy M".

POSITIONS AND SOUNDINGS REQUIRING SPECIAL ATTENTION:

Topographic Signals shown on the Boat Sheet were plotted before the traverse from which they were located was adjusted, which accounts for the different positions of Topographic Signals and some of the Soundings as shown on Smooth Sheet and Boat Sheet.

POSITION 33 a and POSITION 15 g:

The 12 fathom sounding on Position 33 a, is very close to, and outside of the 20 fathom sounding on Position 15 g.

33 a, is taken on signals across the inlet, while 15 g, is taken on signals very close to.33 a should be rejected, and 15 g, accepted as correct.

POSITION 153 j : A 62 fathom sounding on this position comes very close to a 54 fathom sounding on Position 149 j, and to a 56 fathom sounding on Position 32 k. No error has been found in Position 153 j, or in the sounding on that position.

Respectfully submitted,

B. G. Jones

B. G. Jones,
Jr. Hydrographic & Geodetic Engr.

APPROVAL SHEET

TO ACCOMPANY HYDROGRAPHIC SHEET, FIELD NO. 12

Sheet and records have been examined and are approved.

E. W. Eickelberg,
Chief of Party, C. & G. S.

Section of Tidal Currents

March 29, 1930

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET 4964

Locality: Southeast Alaska (Mouth of Taku Inlet)

Chief of Party: E. W. Eickelberg in 1929
Plane of reference is mean lower low water, reading
2.6 ft. on tide staff at Juneau
ft. below B. M.

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

Rcw

Chief, Division of Tides and Currents.

Section of Field Records

Sheet No H 4964
Surveyed in 1929
Chief of Party - C. W. Eickelberg
Surveyed by - T. B. Reed
Protracted by B. G. Jones
Soundings plotted by B. G. Jones
Verified and Inked by - G. C. McGlasson

1. The records conform to the requirements of the general instructions.
2. The plan and character of development fulfill the requirements of general instructions.
3. The usual depth curves can be completely drawn within the limits of the sheet.
4. The field plotting was completed to the extent prescribed in general instructions.
5. The office draftsmen did not have to do over any part of drafting done by field party, except as noted on statistic sheet.
6. The junction with adjacent sheets are satisfactory.

Respectfully submitted,

G. C. McGlasson

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 11-WSW

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

August 21, 1930.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4964

Entrance to Taku Inlet, Alaska

Surveyed in 1929

Instructions dated February 19, 1929 (Explorer)

Machine Soundings

Chief of Party, E. W. Eickelberg.

Surveyed by T. B. Reed.

Protracted and plotted by B. G. Jones.

Verified and inked by G. C. McGlasson.

1. The records conform to the requirements.

2. The plan, character and extent of the survey satisfy the general and specific instructions.

3. Practically no cross lines were run. In general, adjacent lines agree well.

4. The information is sufficient for completely drawing the usual depth curves, except those very close inshore.

5. There are no junctions except with H. 4771, surveyed in 1927 and the old hydrographic sheets. The depths check very well with these.

6. The usual amount of field plotting was well done by the field party.

7. Character and scope of surveying--very good. Soundings are spaced much closer than is usual in these depths and bottom specimans were obtained at each sounding. In every case where the bottom characteristic is shown as grey mud on the smooth sheet, it is recorded as glacial silt in the records. There are no dangers or unusual features within the limits of this work.

8. No additional work is recommended.

9. Reviewed by R. L. Johnston, April 25, 1930.

Approved:

A. M. Sobieralski
Chief, Section of Field Records (CHARTS)

T. S. Borden
Chief, Section of Field Work (H. & T.)

Form 537
11—5812

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4964

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 12

REGISTER NO. 4964

State ALASKA

General locality TAKU INLET - Stephens Passage

Locality ~~MOUTH~~ Entrance OF TAKU INLET

Scale 1:10,000 Date of survey July 5 to July 18, 1929

Vessel EXPLORER

Chief of Party E. W. EICKELBERG

Surveyed by T. B. REED

Protracted by B. G. JONES

Soundings penciled by B. G. JONES

Soundings in fathoms ~~FEET~~

Plane of reference M. L. L. W.

Subdivision of wire dragged areas by

Inked by B. G. JONES

Verified by ~~B. G. JONES~~ E.W. Eickelberg.

Instructions dated February 19, 1929

Remarks: Special Survey for Power Cable Crossing
Data accompanying this sheet:
Topographic Sheet Field Letter "E"
2 vols. sounding records.
Boat Sheet, Field No. 12.
1 vol Tide observations.

11-WSW

August 21, 1930.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4964

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Surveyed in 1929

Instructions dated February 19, 1929 (Explorer)

Machine Soundings

Chief of Party, E. W. Eickelberg.

Surveyed by T. B. Reed.

Protracted and plotted by B. G. Jones.

Verified and inked by G. C. McGlasson.

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8. No additional work is recommended.

9. Reviewed by R. L. Johnston, April 25, 1930.

Approved:

Chief, Section of Field Records (CHARTS)

Chief, Section of Field Work (H. & T.)

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. H4964

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	1016
Number of positions checked	473
Number of positions revised	23
Number of soundings recorded	1017
Number of soundings revised	27
Number of signals erroneously plotted or transferred	0

Date: 4-21-30

Cartographer: A.C. McGlasson

Applied to Reconstruction of Chart 8235 2-28-40 C R B Jr.