3904

Diag. Cht. No. 8201-2

Department of Commerce and Labor

COAST AND GEODETIC SURVEY

E. Lester Jones

Superintendent.

State: S.E. Alaska

DESCRIPTIVE REPORT.

Hyd. Sheet No. 3904

LOCALITY:

S. End Kashevarof Passage.
Clarence Strait to
Exchange Cove

1916

CHIEF OF PARTY:

John A. Daniels.

11—4645

3904

Form 537
11—5812

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 3 3904.

State . . S.E.Alaska. . . . . .

General locality . . Clarence Strait . . . . . .

Locality . . S. End Kashevarof Passage . . . . . .

Chief of party . . John AA.Daniels, Assistant . . . . . .

Surveyed by . John A.Daniels, H.R.Bartlett . . . . . .

Date of survey July 12 to July 27, 1916 . . . . . .

Scale I-20000 . . . . . .

Soundings in . . . . Feet . . . . . .

Plane of reference . . Mean Lower Low Water . . . . . .

Protracted by V.A.E., W.K.D. . . . . Soundings in pencil by V.A.E. . .

Inked by V.A.E. . . . . Verified by A.L.Shalowater.

Records accompanying sheet (check those forwarded):

Des. report ✓, ... Tide books, ... Marigrams, .1. Boat sheets ✓,

.1. Sounding books ✓, ... Wire-drag books ✓, ... Photographs.

Data from other sources affecting sheet . . . . . .

Remarks:

D E S C R I P T I V E R E P O R T

To Accompany

HYDROGRAPHIC SHEET ~~A~~ 3904

S. E. A L A S K A

S, End Kashevarof Passage

From Clarence Strait To Exchange Cove

Surveyed under instructions of the Superintendent Dated

Feb.26, 1916

Wire Drag Party No. 3 Season of 1916

John A. Daniels, Assistant; Chief of Party

The area covered by the Wire Drag on this sheet is very irregular. It includes a small area east of the Triplets not covered on 3793 and then passes between Coffman Island and the Triplets. The main ship channel into Lake Bay was dragged and the main part of the Passage from Coffman Island to the Middle Islands.

The Drag was carried to within ¼ mile of headlands where possible. The hand lead was used to detect shoaling water.

The signals used on this sheet were all located by the Str. Patterson in 1916 with the exception of Coff, Blash, Key, and Bluff, which were located in 1915 by this party.

A depth of about fifty feet was verified where possible but the nature of the bottom and rapidly changing tides rendered this difficult. In the case of the channel into Lake Bay, a depth of thirty feet was verified.

A depth of forty to fifty feet may be carried as far as West Islands but it would require careful navigation. There are numerous shoals in various parts of the Passage. Many of these range from six to eight fathoms, and are not dangerous to small vessels.

The more important dangers are as follows;

29 foot rock about two miles N. E. of Coffman Island

18 foot rock close to Beck Island and on North side of channel

26 foot rock about ¼ mile East of Bush Rock

Extensive Shoal and rocky area about one mile S. W. of Blashke Island with least water of twenty four feet.

Extensive shoal area on north side of entrance to Whale Passage with least water of thirty two feet.

A reef with thirty three feet on the west side of Channel between Blashke Island and Thorne Island.

All dangers appearing on this sheet were reported in advance notice from the Seattle Office dated November 6, 1916, except the eight foot sounding at the Southern end of the Kashevarof Islands and about 1.2 miles(Nautical) north west of Rose Rock. This shoal is of considerable extent and was sounded over by this party although no drag was taken over it. It was heavily marked by kelp and is the same shoal reported by Str. Patterson on July 10, 1916 giving 12 feet at M.L.L.W. and on September 6, 1916 giving two feet at M.L.L.W.

The short drag was used exclusively on this sheet owing to strong currents and shoal water. In case of drag grounding and sounding being obtained the drag was then hooked to clear obstruction four to ~~eight~~ six feet except in case of very shoal rocks or in important channels.

Weather conditions were generally good. Rain hindered on some occassions but very little wind and no fog was experienced.

In all cases unless specially noted in the record one foot was deducted for lift of drag when hook up was less than sixty feet and two feet when the hook up was sixty feet or over.

The plotting of this sheet was done by W. K. Doolittle, aid and V. A. Endersby D. O. An the inking was done entirely by Mr. Endersby .

Two splits, located 1½ miles north west of Bush Rock, developed in the smooth sheet plotting.

They wwre caused by incorrect computation of distance in the field which was not noted on the boat sheet and there was no chance to cover them later.

The shoreline was taken from 1916 topographic sheets of Ctr Patterson except Coffman Island which was taken from Topographic sheet B of this party 1916.

Respectfully Submitted

H. Rae Bartlett

Assistant Coast and Geodetic Survey

Approved

John A. Daniels

Assistant Coast and Geodetic Survey

S TATISTICS TO ACCOMPANY HYDROGRAPHIC SHEET 3(S.KASHEVAROF)

Date		Day Letter	Vol. No.	Linear Miles	Angles	Sdg. Vol.	Sdgs.	Angles
July	12	A	1	6.0	230	1	4	11
	13	B	1	6.0	161	-	-	-
	14	C	1	7.7	231	1	3	6
	15	D	1	3.0	127	1	9	18
	18	E	1	4.5	158	-	-	-
	19	F	1	1.9	87	1	5	11
	20	G	1	4.3	180	1	8	16
	21	H	1&2	7.6	230	1	3	6
	22	J	2	5.0	132	1	4	8
	25	K	2	6.6	247	1	1	3
	25	L	2	11.9	377	1	2	4
	26	M	2	9.3	430	1	9	18
	27	N	2&3	7.0	494	1	3	6
Total		13	3	80.8	3084	1	51	107

VEC
Aug.15,1917

J.A.D.
C.P.S.
HCG

HYDROGRAPHIC SHEET 3904.

Kashevarof Passage, Clarence Strait, Alaska, by party of J. A. Daniels in 1916.

TIDES.

	Lake Bay Feet.
Mean lower low water, or plane of reference on staff	2.9
Mean range of tide	13.6

DIRECTOR
ADDRESS THE [redacted]
U. S. COAST AND GEODETIC SURVEY

AND REFER TO NO.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

April 1, 1921.

To: The Chief of the Section of Field Records.

From: A. L. Shalowitz

Subject: Verification of Hydrographic Sheet 3904.

The records for this sheet were in very good shape and in a general way adhered to the General Instructions for Field Work. T he records, however, did not include notes relative to the beginning and ending of lines. The direction of the bight of the drag at the beginning of a strip was also omitted in most cases. Where the drag was lifted over a shoal area no notes were made in the record as to the time of "drag up" and "drag down". In these cases there was nothing to do but to accept the smooth sheet plotting. Notes should have been made in the record whenever strong currents or winds were encountered that hindered the manipulation of the drag, in order that the office could more intelligently interpret a dragged strip. This is especially true of the dragged strip from 60 N to 79 N.

From 36 N to 38 N near the far buoy, the smooth sheet shows a small area dragged to a depth of 21 ft. No data could be found in the records to cover this, so it was omitted from the final tracing.

The plotting work was fairly good. A few changes were made in some of the depth diagrams. At position 24 L the smooth sheet disclosed a split. In checking this it was found that the line from 20 L to 25 L was plotted wrong. It appeared that the boat position for one location was used as a basis for plotting the buoy positions for another location. In making the corrections the split was eliminated. There is only a small overlap shown on the smooth sheet, but it is very probable that there was actually a greater overlap since the signal to reverse was not given until five minutes after position 22.

At position 51 M the smooth sheet shows the drag as straight between positions. There is no note in the record to indicate the direction of the bight of the drag. It was therefore assumed that the bight was <u>not</u> to the eastward. If the smooth sheet plotting is accepted then there is a very small overlap at 45 M. It is possible, however, that in the manouvering of the drag from 49 M to 51 M there was actually a greater overlap than shown.

The verification of the sheet disclosed two splits, both of which are covered in the Chief of Party's Report.

A. L. Shalowitz
H.& T. Draftsman.

E.P.E.

ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY

AND REFER TO No. 9-DRM

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
WASHINGTON

SECTION OF FIELD RECORDS.

Report of Wire Drag Sheet No. 3904 Surveyed in 1916.

Chief of Party: J. A. Daniels Surveyed by J.A.Daniels and H.R. Bartlett. Instructions dated Feb. 26, 1916.

Protracted by V.A. Endersby and W.K. Doolittle. Inked by V.A. Endersby

Verified and Area and Depth Sheet by A. L. Shalowitz.

1. The depth and extent of dragging satisfy the specific instructions.

2. The least water was found on all shoals discovered. It should be noted, however, that the difference between the least water found on a shoal and the final depth to which the shoal was dragged is often as great as 6 feet. It would seem that this difference could be reduced especially in critical depths.

3. The supplemental hydrography is suitable for correcting the charts.

4. The overlaps are sufficient except in the few places as shown on the Area and Depth Sheet.

5. There are two splits on this sheet which should be dragged when opportunity affords. Otherwise the area outlined has been well covered.

6. It is to be noted that the Area and Depth Sheet shows a very narrow strip dragged to an effective depth of 32 feet in the channel leading in to Lake Bay. For navigational purposes, this is too narrow to be of any value, hence we are not justified in saying the channel is safe to a depth of 30 feet as noted in the descriptive report. Care should have been taken to drag a much wider strip to an effective depth of 30 feet.

7. Reviewed by A. L. Shalowitz August, 1922.