

~~Additional work~~

4147a

G. G. B. SURVEY  
L. & A.  
NOV 9 1922  
Acc. No.

Form 504  
 DEPARTMENT OF COMMERCE  
 U. S. COAST AND GEODETIC SURVEY

State: *S. E. Alaska*

11-5013

DESCRIPTIVE REPORT.

*N. D.* Sheet No. *4147*

LOCALITY:

*Stephens Passage*  
*Vicinity of Pt. Hilda*  
*Vicinity of Oliver Inlet*

19*22*

CHIEF OF PARTY:  
*J. H. Hawley*

4147a

~~4147a~~

DESCRIPTIVE REPORT

to accompany Wire Drag Sheet No. 4147.a

NOV 8 12 34 PM '22

In accordance with paragraph 15 of instructions dated February 13, 1922, drag work as described below was done on sheet No. 4147.

Splits on the north shore of the passage between  $\Delta$  Jumbo and  $\Delta$  Hilda were covered. The drag caught in the northern most of these two splits when set to an effective depth of 55 feet and cleared at 45 feet. The least depth found with the lead was 91 feet. It is believed that this obstruction, as well as others found in this vicinity, is a sunken pile or similar obstruction. The southern split was covered with an effective depth of 54 ft.

On the south shore inshore dragging was done from  $\Delta$  Oliver to  $\Delta$  Rain. About midway between these two signals and 400 meters south of the range between them the drag caught at 28 feet (effective). The nature of the bottom, the fact that the bights of two drags from opposite directions came together at exactly the same point and the existence of piles inshore, are considered certain indications that this obstruction is also a sunken pile. The least sounding at this point was 51 feet.

Further work in this section was impracticable and the shoreline from  $\Delta$  Rain to Pt. Young as mentioned in the instructions referred to above, was not done.

Submitted by:

*G. C. Jones*  
*H. G. C.*

Approved by :

*J. H. Hammen*

Statistics for Sheet No. 4147

Date	Letter	Vol.	Positions	Miles	Endgs.
July 5	A	1	11	3.2	
6	B	1	24	5.0	4
7	C	1	21	4.0	1

COPY TO FIELD RECORDS.

Jan. 8, 1923.

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in  
1 volumes of sounding records for

1 " " wire drag  
1 HYDROGRAPHIC SHEET 4147<sup>g</sup>

Locality: **Stephens Passage, S. E. Alaska**

Chief of Party: **J. H. Hawley in 1922**

Plane of reference is **mean lower low water, reading**  
10.6 ft. on tide staff at **Juneau, Alaska**

~~For reduction of soundings, factory 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 each 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.

*G. Rude*

Chief, Division of Tides and Currents.

E.P.S.

ADDRESS THE DIRECTOR  
U. S. COAST AND GEODETIC SURVEY  
AND REFER TO NO.

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

SECTION OF FIELD RECORDS

Report on Wire Drag Sheet No. 4147 - a.

Surveyed in 1922.

Chief of Party: J. H. Hawley.

Surveyed by: G. C. Jones.

Protracted and Inked by: C. E. Christopherson.

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

1. The records are good and conform to the requirements of the General Instructions.
2. The extent of dragging satisfies the specific instructions with the exception that the drag should have been carried along the south shore to Point Young.
3. The least depth was not found on all shoals discovered. In the bight east of Pt. Hilda, the drag caught at 55 feet and cleared at 45. The least sounding obtained was 91 feet. The obstruction is probably a sunken pile, and as a depth of 45 feet is guaranteed it is not essential to determine the exact depth of the obstruction. However, along the south shore between  $\Delta$  Oliver and  $\Delta$  Rain the drag caught at 37 and 28 feet at practically the same spot. The least water obtained was 49 feet. Evidently the obstruction is also a sunken pile. As the drag grounded at so shallow a depth, it should have been dragged over until a clearance was obtained.
4. The overlaps are sufficient except as shown on the area and depth sheet.
5. Additional work should be done along the south shore from  $\Delta$  Rain to Pt. Young as mentioned in review of 4147. When this is done the area where 49 feet was obtained as mentioned in Paragraph 3 should also be dragged and the least water determined.
6. Reviewed by A. L. Shalowitz, January, 1923.

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. 4147 *(Additional work)*

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

General locality . . . Stephens Passage . . . . .

Locality . . . *Vicinity of Pt. Hilda - Oliver Inlet Entrance*  
~~South of Douglass Island~~ . . . . .

Chief of party . . . J.H. Hawley . . . . .

Surveyed by . . . G.C. Jones . . . . .

Date of survey . . . July 5 to 7, 1922 . . . . .

Scale . . . . . 1:40,000 . . . . .

Soundings in . . . Feet . . . . .

Plane of reference . . . Mean lower low water . . . . .

Protracted by . . . C.E.C. . . . Soundings in pencil by C.E.C. . . .

Inked by . . . C.E.C. . . . . . Verified by . . . . .

Records accompanying sheet (check those forwarded):

Des. report, \_\_\_\_\_ Tide books, \_\_\_\_\_ Marigrams, 1 Boat sheets,

1 Sounding books, 1 Wire-drag books, \_\_\_\_\_ Photographs.

Data from other sources affecting sheet . . . . .

Remarks: This title for work done in 1922. It is assumed that this work will be plotted on the original sheet in the Washington Office. The work however is completely plotted on the tracing of the original sheet to avoid loss in the mails.

Tidal readings for reduction of work were obtained on a staff at Juneau connected with old bench marks. The staff reading corresponding to the plane of reference (M.L.L.W.) is 10.6 feet.

(Additional work)

4147

C. & G. SURVEY  
L. & A.  
FEB 8 1922  
ADD NO.

(Additional work)

4147

Form 504  
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

State: *S. E. Alaska*

11-5813

DESCRIPTIVE REPORT.

*W. D.* Sheet No. *4147*

LOCALITY:

*Stephens Passage*

*Grand Island to*

*Young Bay*

*91*  
1921

CHIEF OF PARTY:

*N. H. Heck*

DESCRIPTIVE REPORT SHEET C.

Register No.4147.

A small amount of work was done on this sheet in 1920 and the sheet was returned for completion in 1921. The 1920 work has been indicated by placing the figures 1920 in green on the few days work was done that year.

Preliminary soundings were made between Point Arden and Station Rock. Owing to poor seeing several positions had to be redetermined on account of wrong objects; except for this the area most needing soundings is complete.

The relatively shoal area from Oliver Inlet to Point Young was carefully developed. The drag caught several times in an unexplained manner in this region, apparently on some piling, probably the remains of an old fish trap. It is possible that the peculiar currents of this region ~~could~~<sup>may</sup> have carried the drag wire down and made it catch at a greater depth than is indicated. It is recommended, however, that in the absence of soundings, a depth slightly less than indicated by the drag catching be considered as the actual depth on the obstruction. One line of sounding was carried along behind the sweep, chiefly for the purpose of finding the minimum depth in which the sweep could be used. The indications are that this depth is about 23 fathoms but that the wire actually slides on smooth bottom when the depth is as small as this. The original expectation was that the sweep could not be taken into depths much less than 40 fathoms.



Descriptive report Sheet C ---page 2.

The area was completed except for a small holiday east of Point Hilda. It is requested that the work along the south shore east of Point Young, be examined to see whether it approaches near enough to the shore; also the junction with Mr. Colbert's work of 1917 should be examined to see whether it is satisfactory. It is recommended that any area to be covered be furnished to Captain Hawley by tracing or bromide or that the work be completed on this sheet at the office, to avoid multiplication of sheets.

Owing to the need for keeping the depth unit the same as that for the drag, the soundings are plotted in feet.

Date Letter Length of Drag (ft)      El. Miles      No. Angles Miles      Area

5/16	A	9000	21	12	2.3	10	18	1.0	
6/1	B	10000	51	42	7.5				
8/2	C	10000	114	69	10.3	67	134	16.0	
6/3	D	10000-3000	111	60	9.9				
6/4	E	10000	30	30	2.4				
6/5	F	10000	126	72	10.1				
6/7	G	10000	63	72	6.5				
6/8	H	8000-4000	134	99	12.5	38	10	10.0	
6/9	J	4000	130	30	7.0				
6/10	K	4000	120	26	5.1	1	2		
6/11	L	4000	115	23	3.7	2	4		
6/13	M	4000	60	12	3.0	3	6		
6/14	N	10000	84	54	10.2				
7/19	P	7000-3000	45	39	2.5				
8/31	W	6000	108	105	10.0				
9/1	R	4100	66	57	6.0				
		Summary							
		No of angles....	2354						
		" " miles drag	107.0						
		" " " sags..	27.0						
		" " "	121						
		" " sq. miles	53.7						

Verification Report of Wire Drag 4147

The records of the first part of this sheet were poorly kept. In the latter part the recording was good.

All the plotting was well done and accurate. The greater amount of the work was with the sweep and its effective depth is shown on the "Hand D" sheet as 85 f.

One small split beside the one pointed out in the descriptive report was found and marked. It is at the north-western end of Stephens Passage.

The grade of paper used was very poor making good legibility of plotted soundings difficult.

Respectfully submitted

Oliver Burr

Geologist

S.A.T.

March 11, 1922.

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in

2 volumes of sounding records for ~~ix~~ and 3 vols. of wire-drag records for

HYDROGRAPHIC SHEET 4147a

Locality: Stephens Passage, S. E. Alaska

Chief of Party: H. H. Heck in 1921

Plane of reference is mean lower low water, reading

6.5 ft. on tide staff at Taku Harbor

10.5 \* \* \* \* \* Juneau, Gastineau Channel

~~For reduction of soundings~~ factory 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 each 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.

Chief, Division of Tides and Currents.

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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 on Wire Drag Sheet 4147

Surveyed in 1920 and 1921.

Chief of Party: N. H. Heck

Surveyed by: Field Party. Instructions dated March 2, 1920.

Protracted and Inked by: B. Friedenbergl, W. S. Chovan, A. M. Weber

Verified and Area and Depth Sheet by: A. Baer

1. The records conform to the requirements of the General Instructions.
2. The methods and character of operations fulfill the requirements of the General Instructions.
3. The depth and extent of dragging satisfy the specific instructions.
4. The least depth was not found on all shoals discovered. In the shoal area between Oliver Inlet and Point Young, the drag hung up but in all cases a greater depth was found than that to which the drag was set. The depths charted should be as shown on the Area and Depth sheet in pencil (See descriptive Report).
5. The supplemental hydrography is suitable for correcting the charts.
6. The overlaps are sufficient.
7. There are two splits on this sheet that should be covered when work is done in this vicinity. Also the drag should be carried closer inshore along the south shore from Oliver Inlet to Point Young. The drag should also be carried closer inshore along the north shore around Point Hilda and westward. This area is, therefore, not complete. \* See next page.

8. The field plotting was completed to the extent prescribed in the General Instructions, and none of the work had to be done over by the office draftsman.

9. Rating of work (a. Character and scope of drag operations: excellent  
(b. Field drafting; excellent.

10. Reviewed by: A. L. Shalowitz, September, 1922.

\* The two splits mentioned in #7. were covered by Hawley in July 1922. Also the area around Pt. Hilda. However, only about half of the shoreline from Oliver Inlet to Pt. Young was dragged. See review of 4147-a attached to this report.

A.L.S. (Jan. 1923)

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. 4147 (WIRE DRAG)

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

General locality . Stephens Passage . . . . .

Locality . Taku Harbor to Gastineau Channel

Chief of party . N. H. Heck . . . . .

Surveyed by . . N. H. Heck, G. C. Jones . . . . .

Date of survey . June 24 to Oct. 2, 1920 . . . . .

Scale . . . 1-40000 . . . . .

Soundings in . . Feet . . . . .

Plane of reference . . M. L. L. W. . . . . .

Protracted by B. Friedenberg soundings in pencil by B. F.

Inked by . B. F. . . . . . Verified by A. Baer . . . . .

Records accompanying sheet (check those forwarded):  
Des. report, ..... Tide books, ..... Marigrams, ..... Boat sheets,  
..... Sounding books, ..... Wire-drag books, ..... Photographs.  
Data from other sources affecting sheet . . . . .

Remarks: Field Nos. B and C.

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. 4147 (Additional work)

State S.E. Alaska

General locality Stephens Passage

Locality Grand I. to Young Bay  
*Pt.*

Chief of party N.H. Heck

Surveyed by Field Party  
~~Various officers, G.C. Jones chiefly.~~

Date of survey May to September, 1921.

Scale 1-40000

Soundings in Feet

Plane of reference M, L, L, W.

Protracted by W.J. Chovan . Soundings in pencil by A.M. Weber.

Inked by W.J. Chovan . . . . Verified by A. Baer

Records accompanying sheet (check those forwarded):

Des. report, \_\_\_\_\_ Tide books, \_\_\_\_\_ Marigrams, 2 Boat sheets,

2 Sounding books, 3 Wire-drag books, \_\_\_\_\_ Photographs.

Data from other sources affecting sheet . . . . .

Remarks:



Applied to Reconstruction of Chart 8235 2-10-40 by Chas R Bush Jr