# 51465149

Form 504
Ed. June, 1928

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

State: WASHINGTON

DESCRIPTIVE REPORT
FORMAGEORITE
Hydrographic Sheet No. 44, 45 & 46.

LOCALITY

PACIFIC COAST

Approaches to Strait of Juan de

Fuca

U.S. COAST & GEODETIC 3UF VEY
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FEB 28 1932

#### DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEETS

NUMBERS - 44, 45 and 46.

WASHINGTON COAST

APPROACHES TO STRAIT OF JUAN DE FUCA

1931

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#### AUTHORITY:

Authority for this survey is contained in the Director's instructions dated April 16, 1930 and May 7, 1931.

#### SURVEY METHODS:

The work on these sheets was done using the U.S.C. & G.S.S. GUIDE. All soundings were taken with the fathometer using the red light method direct. Vertical wire soundings were taken at intervals for comparisons and to obtain temperatures and bottom specimens.

Control was furnished by visual three point fixes on either mountain peaks or other natural objects, located by triangulation, or lighthouse structures. Four small signals located by topographic methods were used to a limited extent.

The ship was run at an average speed, about ten knots, and soundings recorded on an average of once each minute, except on the shoal inshore lines north of Cape Flattery and the shoaler portions of Swiftsure Bank. Over these areas the speed was decreased and soundings recorded on an average of once each half minute.

A close development was made of Swiftsure Bank, inside the 30 fathom curve, and numerous bottom specimens taken in an attempt to find a more suitable anchorage for the Swiftsure Bank Lightship. The bottom was found to be, in the main, hard and rocky. In places where sand and gravel were indicated, it is believed that they occur only in thin layers and afford no very good holding ground.

#### DISCREPANCIES:

During the first part of the season it was found necessary to reject a few soundings in the records. At this time, in depths around 150 fathoms and over rapidly changing depths, stray flashes were easily mistaken for soundings, by the fathometer officer.

Later, this difficulty was largely overcome by changes in the adjustment of the fathometer and by the experience gained by the officers in reading it. All rejections were made by the Chief of Party in the field and the areas affected resounded.

The crossings on check lines were, in all cases, satisfactory.

#### COMPARISON WITH OLD WORK:

The hydrography on these sheets has been compared with previous surveys, and agrees with that work satisfactorily, except for the minor differences that would be shown by the present closer development.

The 100 fathom spot, shown on Chart 6102, 4.0 miles northnortheast of Waadah Island no longer exists. Current observations
were made at this point and a thorough investigation gave no indication of a depth of less than 135 fathoms.

John Armding phased have 140 fm. I was enriched in the prending record.

#### DANGERS:

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There are no dangers to navigation within the limits sounded on these sheets.

#### REMARKS:

The area sounded on these sheets would, under more favorable conditions, have been covered by one sheet of the same scale. Hower it was necessary to use the three sheets to include the necessary control for the southern and western limits of the work.

On Sheet Number 46, signal Three was used on a number of positions. This signal does not fall on the sheet. In protracting
these positions on the smooth sheet, Sheet 46 was placed on Sheet
H-5148
Number 45, the meridians and parallels carefully lined up and the
azimuth and distance of Three from Carmanah Lighthouse checked.

Sheave Number 204-H was used througout the season for wire soundings. This sheave was tested and found to be correct.

Tables of fathometer corrections and the temperature and salinity data appertaining thereto are appended to this report.

Respectfully submitted,

James. N. Jones,

Jr. H. & G. Engineer,

U.S.C. & G. SURVEY.

Respectfully forwarded, approved:

Fred. L. Peacock,

H. & G. Engineer, U.S.C. & G. Survey,

Commanding Ship GUIDE.

FATHOMETER CORRECTIONS

for

HYDROGRAPHIC

SHEETS

NUMBERS 44, 45, and 46

	MAY 25, 1931	May 26 to July		July 23 to en	
	ms) CORR.	DEPTH (fms)	CORR.	DEPTH (fm	s) CORR.
0-7	0.0	0-17 <del>2</del>	0.0	0-7.1	0.0
7-16 <del>2</del>	-0.1	17 <del>3</del> -28 <del>1</del>	- 0.1	7.1-20.1	- 0.1
16 <del>1</del> -25 <del>1</del>	- 0.2	2 <del>81</del> -371	- 0.2	20.1-29.7	- 0.2
25 <del>}-33</del> }	- 0.3	37 <del>1</del> -49	- 0.3	29.7-40.4	- 0.3
33 <del>1-412</del>	- 0.4	49 - 60	- 0.4	40.4-50.1	- 0.4
41 <del>2-</del> 50 <del>1</del>	<b>- 0.5</b>	60 - 69 <del>2</del>	- 0.5	50.1-59.0	- 0.5
50 <del>]</del> -58 <del>]</del>	- 0.6	69 <del>1</del> -783	- 0.6	59.0-68.5	- 0.6
58 <del>]-</del> 67	- 0.7	7 <del>83</del> -8 <del>61</del>	- 0.7	68.5-76.6	- 0.7
67 - 75	- 0.8	86 <del>1 94</del>	- 0.8	76.6-85.6	- 0.8
75 <b>–</b> 83	<b>- 0.9</b>	94 - 101 <del>1</del>	<b>-</b> 0.9	85.6-92.3	- 0.9
33 - 90 <del>]</del>	- 1.0	101 <del>1</del> -141	- 1.0	92.3-133.7	- 1.0
90 <del>}-</del> 97 <del>}</del>	<b>- 1.1</b>	141 - 170	-2.0	133.7	- 2.0
97 <del>]</del> -105	- 1.2				
105 - 123	- 1.0				
123 - 170	- 2.0				

NOTE: The constant correction used on these sheets is +0.3 fathoms. See special report on velocity and constant correction.

#### TIDAL NOTES

to accompany Sheets

NUMBERS 44, 45 and 46

Soundings were reduced to M.L.L.W. using tidal observations made at Tatoosh Island and Neah Bay.

Neah Bay observations were used in reducing all soundings on Sheets Numbers 44 and 46.

On Sheet Number 45, the Tatoosh Island observations were used in reducing the soundings on F, K, L, M and N days; Neah Bay observations were used to reduce soundings on all other days.

The differences in range and time of tide between the Tatoosh Island station and the Neah Bay station was found, by comparison, to be negligable.

#### TATOOSH ISLAND GAUGE:

Type: Portable automatic #131
M.L.L.W.on shaft: 4.60 feet.
L.W.I. 6.21 hours
Date of establishement - May 28, 1931.
Date dismantled - July 14, 1931

#### NEAH BAY GAUGE:

Type: Portable automatic #147
M.L.L.W. on shaft - 4.13 feet.
L.W.I. - 6.20 hours.
Date of establishement - May 14,

1931.
Date dismantled - October 10, 1931.

## $\underline{\tilde{\mathbf{S}}} \ \underline{\tilde{\mathbf{T}}} \ \underline{\tilde{\mathbf{A}}} \ \underline{\tilde{\mathbf{T}}} \ \underline{\tilde{\mathbf{I}}} \ \underline{\tilde{\mathbf{S}}} \ \underline{\tilde{\mathbf{T}}} \ \underline{\tilde{\mathbf{I}}} \ \underline{\tilde{\mathbf{C}}} \ \underline{\tilde{\mathbf{S}}}$

for

#### FIELD SHEETS - NOS. 44, 45 and 46.

SHEET NUMBER 44.

	Day	Stat.mis. of	No. of		SOUNDIN	r <b>G</b> S	
DATE	Letter	sounding line.	Pos.	VOL.	Fathometer	Wire.	
5/16/31	A	39.4	65	1	2 <b>4</b> 8	1	
5/17/31	в	43.6	84	ı	280	1	
5/22/31	Ç	16.5	32	1	91		
5/28/31	D		1	1		1	
/29/31	E	8.6	15	1	44	1	
/30/31	F	1.3	3	1	9		
/19/31	G	5.2	8	1	41		
28/31	Н	12.0	26	1	62		
7/1/31	3	1.8	8	1	29		
	TOTALS	: 128.4	243		804	4	
rea in so	quare statute :	miles for Sheet	No. 44	39.0			

SHEET NUMBER 45.

			No.				
	Day	Stat.mis. of	of		SOUNDIN	īGS	
DATE	Letter	sounding line	Pos.	WOL.	Fathometer	Wire.	·
/17/31	- A	6.0	11	1	33		
/18/31	B	33.6	86	i	184	1	<del></del>
/22/31	C	34.3	53	1	194		·····
/28/31	D	39.1	60	1	213	1	****
/29/31	£	371	56	1	212	1	<del></del>
/30/31	F	37.2	5 <b>7</b>	1	206	1	
/11/31	G	95.5	155	1 & 2	507	2	
/12/31	Н	11.4	23	2	100		
/19/31	J	29.3	50	2	185	2	
/27/31	· · K	17.7	28	2	91		
/28/31	L	22.3	31	2	110	1	
/29/31	М	36.3	52	2	194	1	
/30/31	N	10.3	14	2	50		
/1/31	ρ	86.4	138	2 & 3	524	2	·
/2/31	Q	76.8	190	3	665	2	·····
/13/31	R	29.0	39	3	176		
/14/31	,5	2.0	5	3	18	<del></del>	

CONTINUED:

## STATISTICS I Sheets Nos. 44, 45 and 45 (Continued):

	No.				<del></del>
Day Stat.m	is. of of.		SOUNDIN	GS	
DATE Letter sound in	ng line. Pos.	VOL.	Fathometer	Wire.	
.7/15/31 ≥ 10:	3.4 153	3 & 4	745	2	<del></del>
7/17/31	6.2 41	4	178		
7/28/31 v 1	8.3 24	4	123		-
9/24/31 w 10	0.3 44	4	3	41	
10/8/31 x 2	5 <b>.</b> 7 <b>5</b> 5	4	198	1	
10/9/31 Y 1	8.8 67	4	154	31	
* 1. A					

TOTALS: 817.0 1432 5063 89

Area in square statute miles for Sheet No. 45 -- 245.5

SHEET NUMBER 46.

	Day	Stat.Mis. of	No. of		SOUNDIN	igs	
DATE	Letter	sounding line	Pos.	VOL.	Fathometer .	Wire.	
6/12/31	, A	7.7	15	ı .	37	0	
3/19/31		13.8	20	1	74		
/13/31	С	7.7	12	1	41		
7/17/31	D	6.8	10	1	40		
0/8/31	E.	28.7	55	1	230		

TOTALS: 64.7 112 422

Area in square statute miles for Sheet No. 46 -- 31.2

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#### DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

#### 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. 44

REGISTER NO. 5147

State WASHINGTON
General locality PACIFIC COAST
N.W. of Cape Flattery Locality <del>Approaches to Strait of Juan de Fuca, Southeastern Part.</del>
Scale 1:40,000 Date of survey May to July 19 31
Vessel U.S.C. & G.S.S. GUIDE.
Chief of Party K. T. Adams
Surveyed by K. T. Adams, H.P. Odessey and G. L. Anderson
Protracted by J. H. Brittain
Soundings penciled by J. N. Jones
Soundings in fathoms feet
Plane of reference M.L.L.W.
Subdivision of wire dragged areas by
Inked by G. H. Streeter
Verified by G.H.S.
Instructions dated April 16, 1930 and May 7, 19 31
Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 15

#### DEPARTMENT OF COMMERCE

U. S, COAST AND GEODETIC SURVEY

### 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. 45

REGISTER NO. 5148

State WASHINGTON
General locality PACIFIC COAST
Entrance Locality Approaches to Strait of Juan de Fuce and Swiftsure Bank
Scale 1:40,000 Date of survey May to October, 19 31
Vessel U.S.C. & G.S.S. GUIDE.
Chief of Party K. T. Adams,
Surveyed by K.T. Adams, H.P. Qdessey, G.L. Anderson.
Protracted by H.J. Healy and A.N. Stewart
Soundings penciled by A.N. Stewart and J.N. Jones
Soundings in fathoms <del>feet</del>
Plane of reference M.L.L.W.
Subdivision of wire dragged areas by
Inked by J. D. Torrey
Verified by J. 7.
Instructions dated April 16, 1930 and May 7, 19 31
Remarks:
U. A GOVERNMENT OF DEPTH APPLICATION

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#### DEPARTMENT OF COMMERCE

U. S, COAST AND GEODETIC SURVEY

#### 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. 46

REGISTER NO. 5149

U S. GOVERNMENT PRINTING OFFICE: 1929

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in

1 volumes of sounding records for

HYDROGRAPHIC SHEET

5147

Locality North West of Cape Flattery, Washington Coast

Chief of Party: K. T. Adems in 1931
Plane of reference is mean lower lower

Plane of reference is mean lower low water, reading

4.1 ft. on tide staff at

Neah Bay

22.3 ft. below B. M. 3

4.6 ft. on tide staff at Tatoosh Island 22.0 ft. below B. M. 4

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.

At Chief, Division of Tides and Currents.

**\$** \$

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Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in
4 volumes of sounding records for

HYDROGRAPHIC SHEET 5148

Locality Entrance to Strait of Juan de Fuca and Swiftsure Bank, Washington Coast

Chief of Party: K. T. Adams in 1931 Plane of reference is mean lower low water, reading

4.1 ft. on tide staff at Neah Bay

22.3 ft. below B. M. 3

4.6 ft. on tide staff at Tatoosh Island 22.0 ft. below B. M. 4

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 fathims) 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.

Chief, Division of Tides and Currents.

Saul ( Whitney

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Division of Hydrography and Topography:

✓ Division of Charts:

(1)

Tide Reducers are approved in

1 volumes of sounding records for

HYDROGRAPHIC SHEET 5149

Locality Approach to Juan de Fuca Strait, Washington Coast

Chief of Party: K. T. Adams in 1931
Plane of reference is mean lower low water, reading

4.1 ft. on tide staff at Neah Bay

22.3 ft. below B. M. 3

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.

action of Tides and Currents.

AND REFER TO NO. 82-DRM

#### DEPARTMENT OF COMMERCE

#### U. S. COAST AND GEODETIC SURVEY

#### WASHINGTON

#### SECTION OF FIELD RECORDS

Review of Hydrographic Sheet No. 5147

Northwest of Cape Flattery, Washington

Surveyed in 1931 Instructions dated April 16, 1930 and May 7, 1931 (GUIDE)

.Chief of Party, K. T. Adams
Surveyed by K.T.A., Herman Odessey, G. L. Andersen
Protracted by J. H. Brittain
Soundings plotted by J. N. Jones
Verified and inked by G. H. Streeter.

- 1. The records conform to the provisions of the Hydrographic Manual and the development satisfies the specific instructions.
- 2. Soundings are consistent. Depths on cross lines are in good agreement.
- 3. Depth curves, 50 fathoms and 100 fathoms, have been drawn on the sheet.
- 4. Junctions with contemporary survey sheets will be taken up when those sheets are reviewed. A junction was made with H. 5111 on the south and H. 3895 on the east, the latter surveyed in 1916.

Comparison with H. 1845 (surveyed in 1888) shows little change has taken place since the former survey. Bottom characteristics from H. 1845 have been transferred (in purple) to H. 5147 to supplement those resulting from wire soundings.

- 5. Recommendation It is recommended that H. 5147 supersede all previous surveys for charting purposes for the area covered by this survey. No further surveys are deemed necessaty at this time.
- 6. Reviewed by R. J. Christman, June 1932.

#### Memo. by A. L. Shalowitz

Bottom characteristics - Due to a lack of bottom characteristics on the new survey (fathometer work) the advisability of carrying forward a sufficient number of characteristics from the old work was considered and with the approval of the Chief of Section they have been transferred to the new survey in color.

Sheet inspected and recommendations approved by A. L. Shalowitz.

Approved:

O.M. Solienalski Chief, Section of Field Records

Chief, Section of Field Work

## Section of Field Work

Report on H-5147
Chief of Party K. J. adama
Verified & Inhad by G. H. Streeter

Surveyed by K. J. A., H. P. Odessey Q. L. anderson Soundings plotted by J. H. Brittain Jopography inhead by J. N. Jones. Jopography inhead by G. N. S.

- 1. The records conform to the requirements of the General Sustructions with the following exceptions:

  Penciled swere too large.

  Out of four vertical costs alyon Golfon characteristic was jiven.
- 2. I he usual defeth curves can be drawn.
- 3. Geographic name were not penciled in otherwise the field plotting was complete.
- 4. The office hoftenen did not have to de ver any part 1 the dufting done by the sield Party.
- 5. The junctions with adjacent shuts are not entirely satisfactory. Sunction with H-5145 is questioned in two different places; just with J & Duncan and between 124° 52' 124° 54' and 48° 26'-48° 28'.
  - 6. The quality of the Field Enofting in good.

    Respectfully submitted,

    J. N. Streeter

AND REFER TO NO. 82-DRM

#### DEPARTMENT OF COMMERCE

#### U. S. COAST AND GEODETIC SURVEY

#### WASHINGTON

#### SECTION OF FIELD RECORDS

Review of Hydrographic Sheet No. 5148

Entrance to Strait of Juan de Fuca and Swiftsure Bank, Wash.

Surveyed in 1931

Instructions dated April 16, 1930 and May 7, 1931 (GUIDE)

Chief of Party, K. T. Adams
Surveyed by K.T.A. and H. Odessey, G. L. Andersen
Protracted by H. J. Healy, A. N. Stewart
Soundings plotted by A.N.S., J. N. Jones
Verified and inked by J. D. Torrey

- 1. The records conform to the requirements of the Hydrographic Manual.
- 2. The plan and extent of development satisfy the specific instructions.
- 3. Soundings are consistent throughout the sheet; depths on cross lines are in satisfactory agreement; a close development of Swiftsure Bank was made with numerous vertical casts supplementing the fathometer soundings and giving bottom characteristics. Additional bottom characteristics (in red) have been transferred to this sheet from H. 1845 and H. 2170.
- 4. Depth curves can be drawn satisfactorily; the 20, 50 and 100 fathom curves appear on this sheet.
- 5. Junctions with contemporary survey sheets H. 5157, H. 5147 and H. 5149 are satisfactory. The junctions with the other contemporary surveys will betaken up when those sheets are reviewed. This sheet represents the northern limit of the present project.
- 6. Comparison with old surveys Comparison of H. 5148 with H. 2170 (surveyed in 1893) and H. 1845 (surveyed in 1888) shows very little change. Swiftsure Bank shows slightly less water, due no doubt to the much closer development shown on H. 5148. As noted in paragraph 3, additional bottom characteristics have been transferred in red to supplement the ones secured from fathometer comparison soundings.
- 7. Recommendation: It is recommended that, for charting purposes, this sheet (H. 5148) supersede all previous surveys for the area covered. The 62 in lat. 48°26', long.124°56' on the present edition of chart 6102 (Sept.1918) was taken from B.A. chart 1911 (Ed. March 1915). Its existence in the location assigned to it is disproved by the present survey and it should not be carried forward on the chart.

No further surveys are deemed necessary at this time.

8. Reviewed by R. J. Christman, May 1932.

Memo. by A. L. Shalowitz

The isolated 100 fm. sounding shown on Chart 6102 in approx. latitude 48°27', long.124°34' and reported as no longer existing by the present field party (see descriptive report, page 3) is from H. 2170 (surveyed in 1893). An examination of the original sounding record (pos. 19 B, red) reveals the fact that the sounding was erroneously reduced and should have been 140 instead of 100. This corresponds very closely to the depths found in this vicinity on the new survey. An approximate note has been added to the old sheet regarding this sounding.

Sheet inspected and recommendations approved by A. L. Shalowitz

Approved:

1. ///. Yolueralske Chief, Section of Field Records

Chief, Section of Field Work

AND REFER TO NO. 82-DRM

#### DEPARTMENT OF COMMERCE

#### U. S. COAST AND GEODETIC SURVEY

#### WASHINGTON

#### SECTION OF FIELD RECORDS

Review of Hydrographic Sheet No. 5149

Approach of Strait of Juan de Fuca, Washington

Surveyed in 1931

Instructions dated April 16, 1930 and May 7, 1931 (GUIDE)

Chief of Party, K. T. Adams

Surveyed by K.T.A. and Herman Odessey

Protracted by A. N. Stewart

Soundings plotted by J. N. Jones

Verified and inked by G. H. Streeter

- 1. The records conform to the provisions of the Hydrographic Manual and the development satisfies the specific instructions.
- 2. Soundings are consistent and depths on cross lines are in good agreement. The sheet fills a gap between H. 5148 and the R.A.R. work on H. 5172. Two small sections of the 50 fathom curve appear on the sheet.
- 3. Junctions with contempoary survey sheets H. 5148 and H. 5172 are satisfactory, the latter not verified at this writing. There is no previous Coast Survey work in the area covered by H. 5149. A comparison with chart 6102 (31-10/16, Ed. 1918) shows very good agreement in depths.
- 4. Recommendation: This sheet (H. 5149) should be given preference over all other sources of information for charting purposes.

  No further surveys are deemed necessary at this time.
- 5. Reviewed by R. J. Christman, June 1932.

Sheet inspected and recommendations approved by A.L. Shalowitz

Approved:

A.M. Sohieraloki Chief, Section of Field Records

Chief, Section of Field Work

## Section of Field Work

Raport on H-5149

Chief J Party K. J. adams

Protracted by a.n. Stewart

Verified + I while by g. H. Streeter

Surveyed by K.J.a., H.P. Olessey Sounding glotted by J. n. Jones

- I. Geographic names were not penciled in otherises the records conform to the requirements of the general Instructions.
  - 2. The usual difith curre can be completely drawn.
  - 3. The field petting was completed.
  - 4. The offin droftenan did not have to droven any part of drofting done by the Field Party.
- 5. The junction with H-5148 agree very attracting with one exception. at Long 125° 06' hat 48° 34'30' a 59 pthone sunding in questioned.
- 6. Ihr quality 1 the field suffing in good.

Respectfully submitted, g. H. Streeter

may 24, 1932

## HYDROGRAPHIC SHEET No. 5!47

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

Number of positions on sheet	243
Number of positions checked	104
Number of positions revised	6.
Number of soundings recorded	808
Number of soundings revised	5
Number of signals erroneously	
plotted or transferred	سر

Date: may.	26, 1932
	gazlad H. Streeten

## HYDROGRAPHIC SHEET No. 5!49

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

Number of positions on sheet	. 1.1.2.
Number of positions checked	. 53
Number of positions revised	7
Number of soundings recorded	.422
Number of soundings revised	3
Number of signals erroneously	
plotted or transferred	

Date: May . 28, 196	3.2
Cartographer: 9 my lond	H. of treater

H-5148. Applied to Chart 6266. aug. 4, 1942. Lam.

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