

831  
SHA  
1910  
H

# 2911WD

C. & G. SURVEY  
LIBRARY AND ARCHIVE  
NOV 2 1910  
AGE No.

Diag. Chart No. 1203-2

Department of Commerce and Labor  
COAST AND GEODETIC SURVEY

O. H. Tittmann.  
*Superintendent.*

State: Maine.

## DESCRIPTIVE REPORT.

Hydrographic *Sheet No. 2911*

LOCALITY:

East Penobscot Bay.

1910

CHIEF OF PARTY:

Assistant N. H. Heck.

# 2911WD

1910 - Hyd Sht. 2911.

4.

29. An 11 ft. spot	289°	610 M.
30. A 12 ft. spot	287°	570 M.
31. A 16 ft. spot	259°	1050 M.

32 To the Southward and Eastward of the line joining (27 26) and (31) is shoal water. There is a 12 ft. spot between (19) and (24), and another one 40 M. S. W. by W. of (27). The channel is manifestly impassible at mean low water, for vessels drawing more than 12 feet.

SOUNDINGS independent of Drag work also revealed a shoal lying farther to the Eastward in the Thoroughfare, with the following shoalest spots:

32. A 17 ft. spot with the following bearings from -		
Deer Id. Thorofare Lt.	52°	1140 M.
Burnt Cove	196°	1590 M.
33. A 20 ft. spot -		
Deer Id. Thorof. Lt.	43°	1190 M.
Burnt Cove	200°	1520 M.

#### PLANE TABLE WORK.

Plane table work was also done, to redetermine the shore line on Crotch Island in the vicinity of the brick stack previously mentioned, and also to determine the location of the steamboat wharf at Stonington. The results of this work appears on the sheet. It should be noted that the ledge marked by the stone beacon in this part of the Thoroughfare, but shown on the chart to be well to the Southward of the beacon, actually extends beyond it and out into the channel from it. The black buoy, "S 13", practically marks the Northern limit of this ledge, lying just a little outside of it.

## DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SHEET

NO. 2911.

\*\*\*\*\*

Work of Wire Drag Party of N. H. Heck, Assistant.. Season of 1910.

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The work done this year on this sheet was practically confined to the area lying south of a line joining Robinson's Point Light with Coombs Hill, and this area was practically finished. The Northern limit of the work indicates the progress made on this sheet. Nearly all the work was done with two launch drags, the 3850 ft. drag two launch drag being used considerably, as well as the customary shorter lengths.

THE FOLLOWING SHOALS WERE FOUND: (Bearings true unless otherwise stated, and distances in Meters or Nautical Miles.)

OFF CALDERWOOD'S POINT:

1. A shoal with a least depth of <sup>18</sup>~~20~~ ft., bearing 120° from "Der". Distance, 1800 M. This shoal is about 120 M. in diameter, and has from 4 to 5 fathoms over most of it.
2. A pinnacle with a least depth of 26 ft., bearing 100° from "Der". Distance 1460 M.
3. A shoal with an average depth of 6 1/2 fathoms, and a least depth of 29 ft. about 120 M. in diameter. Bearing from "Der": 130°; distance, 1250 M.

NEAR THE MIDDLE OF THE BAY.

4. A shoal with <sup>least</sup>~~an~~ average-depth of 35 ft., about ~~100~~ 30 M. in diameter, with about 10 fathoms all around. Bearing from Saddleback Light, 345°. Distance, 1640 M.
5. A large shoal with a least depth of 33 ft.: about 120 M. in diameter, with about 6 fathoms over it. Bearings and distances, from:

Robinsons Pt. Lt.	257°	2.8 Miles.
Saddleback Lt.	13°	2.4 "

6. (Two large boulders with 31 and 33 feet least depth, respectively, were found on the charted 7 fathom shoal in Lat.  $44^{\circ}03'.6$ , Long.  $68^{\circ}42'.3$ . Bearings and distances to the 31 ft. spot follow; the 33 ft. spot lies 180 M. to the Northward.

	$262^{\circ}$	
Robinsons Pt. Lt.	$262^{\circ} \ 252^{\circ}$	2.4 Miles.
Saddleback Lt.	$\dots \ 19^{\circ}$	2.9 "

7. The charted  $4 \frac{1}{2}$  fathom spot in Lat.  $44^{\circ}03'.1$ , Long.  $68^{\circ}42'.0$ , was found to be more extensive than charted. 27 ft. was found about 150 M. east of it, and 31 ft. 120 M. S. S. W. (mag.) of it.

OFF ISLE AU HAUT THOROUGHFARE.

That part of the Bay lying to the eastward of about Long.  $68^{\circ}41'.5$ , and between Lats.  $44^{\circ}03'.0$  and  $44^{\circ}04'.3$  was found to be full of shoals and pinnacles, as follows:

8. A 14 foot pinnacle bearing  $90^{\circ}$ , distant 200 M. from Kimballs Rock.

9. A shoal with least depth of 30 ft., and about 150 M. long in an east and west direction. Bearings and distances from -

Robinsons Pt. Lt.	$278^{\circ}$	1.8 Miles.
Saddleback Lt.	$26^{\circ}$	3.7 "

10. An extensive ridge with a least depth of 18 ft., some 600 M. to the southward of 9. It runs about ~~east-and-west-(mag.)~~ E. by N. and W. by S. (mag.): is about 250 M. long and 100 M. wide, and has from 3 to 5 fathoms over most of it.

Robinsons Pt. Lt.	$267^{\circ}$	1.6 Miles.
Saddleback Lt.	$29^{\circ}$	3.4 "

11. A large shoal with a least depth of 18 ft., some 450 M. to the southward of 9

(10). It is about 230 M. in diameter, with less than 4 fathoms over most of it.

Robinsons Pt. Lt.	$259^{\circ}$	1.7 Miles
Saddleback Lt.	$30^{\circ}$	3.2 "

12. A shoal with a least depth of 26 ft., a little to the eastward of (9) & (10).

It is about 200 M. long in an east and west direction, with 6 fathoms over most of it.

Robinsons Pt. Lt.	$262^{\circ}$	1.5 Miles.
Saddleback Lt.	$32^{\circ}$	3.4 "

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3.

13. A shoal with a least depth of 25 ft., 50 M. in Diameter. Bearings from -  
Robinsons Pt. Lt. 271° 2030 M.
14. A shoal with a least depth of 28 ft., 20 M. in Diameter. Bearings from -  
Robinsons Pt. Lt. 261° 2180 M.
15. The 4 fathom spot charted in Lat. 44°03.2', Long. 68°40.8' was found to  
extend about 200 Meters in a N. by E. (mag.) direction, 26 ft. least depth  
being found there.
16. A Shoal with least depth of 27 ft. was found . Bearing & distance from -  
Robinsons Pt. Lt. 250° 670 M.
17. A pinnacle with least depth of 25 ft. was found off Moore's Head. Bearing  
and distance from -  
Robinsons Pt. Lt. 211° 2120 M.
18. A shoal with least depth of 34 ft., 20 M. in diameter. Bearing & distance from  
Robinsons Pt. Lt. 237° 900 M.

IN DEER ISLAND THOROUGHFARE.

SOUNDINGS, without the use of the drag, were made in Deer Island Thoroughfare,  
between Crotch and Moose Islands. The Following are the principal shoals  
found. Bearings and distances from "Chim", a tall brick stack on Crotch Island

19. A 9 ft. spot 270° 955 M.
20. An 8 ft. spot 281° 700 M.
21. An 8 ft. spot 290° 680 M.
22. A 10 ft. spot 310° 640 M.
23. A 14 ft. spot 267° 1180 M.

~~24--A~~ To the Northward and Westward of the line of the joining these spots  
(15 to 19) is mostly shoal water, with 5, 6, and 7 feet least depths.

24. An 11 ft. spot 266° 910 M.
25. A 10 ft. spot 267° 750 M.
26. A 10 ft. spot ~~277~~ 272° 600 M.
27. ~~49~~ A 9 ft. spot, 40 meters long in a N. and S. direction,  
280° 630 M.
28. A 10 ft. spot 281° 580 M.

U. & G. SURVEY,  
LIBRARY AND ARCHIVES  
NOV 21 1910  
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HYDROGRAPHIC SHEET

NUMBER 8911

\*\*\*\*\*

WORK OF THE WIRE DRAG PARTY OF ASSISTANT N. H. HECK 1910

\*\*\*\*\*

Work begun, 1910, September 14th: ended,

\*\*\*\*\*

Personall of Party, 1910.

\*\*\*\*\*

N. H. Heck, Assistant, Chief of Party.  
Geo. Olsen, Watch Officer, Operating Drag No. 1.  
Jean H. Hawley, Assistant, and  
Jas. A. Smith, Aid, Operating Drag No. 2.

\*\*\*\*\*

Officers Besides Those Mentioned Above:

L. M. Fisher, Aid.  
D. M. Kyle, Aid.  
E. E. Reese, Aid.  
P. S. Donnell, Aid.

\*\*\*\*\*

TIDE GAUGE at Stonington, Maine.

	Staff Reading.	Above M. L. W.
Highest Tide Observed ---	14.2	12.2
Lowest Tide Observed ----	0.1	- 1.9

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2011

STATISTICS to ACCOMPANY HYDROGRAPHIC SHEET  
2911.

Work of Wire Drag Party of Assistant N. H. Heck, Season of 1910.  
DRAG NUMBER ONE.

"Francis Eaton", Guiding, & "Helen Margaret", End L.		"Katherine", Guiding, & "Sokokis", End Launch.	
Date, 1910.	Letter. Vol. Angles. Sdgs. Miles. D.L.	Date, 1910.	Letter. Vol. Angles. Sdgs. Miles. D.L.
Sept. 14	a 1 95 0 8.50 5600	Sept. 15	1 360 1 8.50 5600
" 15	b 1 66 0 2.75 3850	" 21	1 1
" 21	c 1 80 0 2.75 3850	" 23	
" 23	d 1 66 0 2.25 3850	Oct. 5	1 150 10 2.75 2000
Oct. 5	e 1 0 33 0.00 ---	" 8	1 36 1 1.00 2000
" 8	f 1 161 2 3.80 3850	" 13	
" 13	g 1 0 0 0.00 ---	" 15	
" 15	h 1 328 2 7.80 3150	" 17	1 276 3 3.75 2800
" 17	j 2 251 4 3.75 2000	" 18	1 252 4 4.25 1600
" 18	k 2 231 3 2.75 2000	" 22	2 294 3 4.60 2000
" 22	l 2 264 3 6.00 1200	" 25	2 240 2 2.50 1600
" 25		" 26	2 42 0 1.00 2000
TOTALS		TOTALS	

Number of Square Miles:  
Grand Totals:  
Days -  
Volumes -  
Angles -  
Miles Drag Line -  
Soundings: Number -  
Soundings: Angles -

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V.E.C.  
Dec. 8, 1910.

HYDROGRAPHIC SHEET 2911.

*J. E. Dineen*  
*AS*  
*12/8/10*

East Penobscot Bay, Maine, by Asst. N. H. Heck  
in 1909 and 1910.

TIDES.

	North Haven	Vinalhaven		Stonington
	1909 ft.	1909	1910 ft.	1910 ft.
Mean low water, or plane of reference on staff	2.0	2.5	2.0	2.0
Lowest tide observed " "	-0.4	0.0	-0.5	-0.3
Highest " " " "	13.4	14.2	13.7	14.2
Mean range of tide	9.5	9.4	9.4	9.7

Coast and Geodetic Survey  
- DEC 8 1910  
TIDAL DIVISION

Hyd Sheet No 2911

Mar. 10, 1910.

The work on this sheet has been verified  
and found correct. All soundings were taken  
during the season of 1909 on this area.

The records were left in a satisfactory  
manner.

H. R. Simmons

VEC  
Nov. 2, 1911

HYDROGRAPHIC SHEET 2911.

East Penobscot Bay, Maine, by Assistant N. H. Heck,  
in 1909, 1910, and 1911.

TIDES.

	North Haven	Vinalhaven	Stonington	
	1909	1909	1910	1910 1911
	ft.	ft.	ft.	ft. ft.
Mean low water, or plane of reference on staff	2.0	2.5	2.0	2.0 2.7
Lowest tide observed " "	-0.4	0.0	-0.5	-0.3 0.3
Highest " " " "	13.4	14.2	13.7	14.2 14.9
Mean range of tide	9.5	9.4	9.4	9.7 9.7

Coast and Geodetic Survey  
NOV 2 1911  
TIDAL DIVISION

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S.H.A.  
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1909

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DEC 4 - 1909  
Acc No.

Department of Commerce and Labor  
COAST AND GEODETIC SURVEY

O. H. Tittmann  
Superintendent.

State: Maine

DESCRIPTIVE REPORT.

Hyd. Sheet No. 2911

LOCALITY:

East Penobscot Bay, Saddleback  
Ledge

20,000

1909

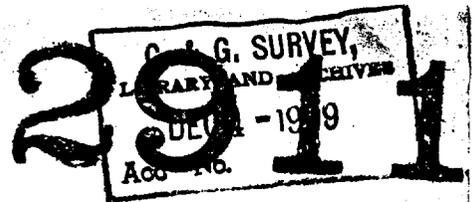
CHIEF OF PARTY:

N. H. Heck, Assistant

2911

DESCRIPTIVE REPORT HYD. SHEET 2911

Area in East Penobscot Bay, Maine.



The work on Sheet 2911 is a continuation of that of previous seasons. No shoals were found. The amount of navigation of Ilse au Haut and East Penobscot Bay has increased rapidly, as Stonington, Deer Isle, has become an important granite shipping point.

MAINE PENOBSCOT BAY

AREA COVERED BY WIRE DRAG PARTY

N. H. HECK, ASSISTANT CHIEF OF PARTY

GEO. OLSEN, W. O. OPERATING DRAG 1

CLEM L. GARNER, AID OPERATING DRAG 2

September, 3- September, 4, 1909.

Scale 1/20000

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OFFICERS IN ADDITION TO THOSE ABOVE

Jean H. Hawley, L. W. Smith, C. Y. Harger, Aids

T. L. Warner, R. P. Strough, L. F. Walsh, Deck Officers

Tide Gauges

Vinalhaven, Me. M.L.W. on T.G. 2.5' (for other data see office records)

North Haven, Me. " " " 2.0' " " " " " "

100

STATISTICS FOR HYD. SHEET 2911

EAST PENOBSCOT BAY, MAINE.

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Drag 1 Launch FRANCIS EATON, Guiding launch, ADELAIDE, End launch.

\*\*\*\*\*

Date 1909	letter	vol.	angles	soundings	miles	length drag	depth
Sept. 3	a	1	156	0	6.5	2000 ft.	
4	b	1	42	0	1.5	2000 ft.	
			-----		-----		
			198		8.0		

Drag 2 Launch KATHERINE, Guiding launch, ADELAIDE, En'd launch.

\*\*\*\*\*

Sept. 3	a	1	60	0	1.0	2000 ft.	
			-----		-----		
			60		1.0		

Total Angles	258
Soundings	0
Miles	9
Area	2.6 Square Miles.

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PLANE TABLE POSITIONS

Station	Latitude	secs in m	Longitude	secs in M	Remarks
Der	44° 04'	295	68° 46'	1260	Very prominent tree east side of Vinal Haven Island

Determined partly by plane table and partly by theodolite cuts plotted graphically.

For positions of other new plane table stations used as signals on this sheet see sheet 10

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SHA  
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Department of Commerce and Labor  
COAST AND GEODETIC SURVEY

U. S. COAST AND GEODETIC SURVEY  
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NOV 20 1907  
Acc. No.

*O. F. Tuttleman*

Superintendent.

State: *Maine*

DESCRIPTIVE REPORT.

*Hydr* Sheet No. *2911*

LOCALITY:

*Isle au Haut Bay,  
Kinball's Island  
to Merchants Row*

1907

CHIEF OF PARTY:

*N. H. Hecox*

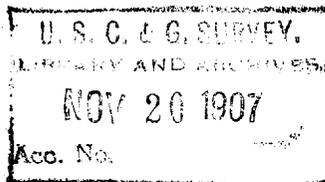
2911

# 2911

# 1

## DISCRIPTIVE REPORT

SHEET # 7 bis



Submitted by N. H. Heck, Ass't C. & G. Survey

1 The work on this sheet continues that for sheet #2831 and covers the area on Merchants Row and part of Isle au Haut Bay.

2 The length of drag used varied from 1000 ft. to 500 ft. Owing to the small amount of open area and the large number of uncharted shoals it was found that the use of a 600 ft. with 2 launches or a 500 ft. drag with 2 launches gave the best results.

3 As this sheet is expected to be taken into the field again it is respectfully requested that no colored border be put around the work.

4 Entering Merchants Row from the eastward a greater portion of the Row was completed with the exception of an area northwest of Ewe Island and the several splits in the work caused in most cases by numerous lobster pots. Uncharted shoals were found as follows: (1/4 mile east of Barter's Island Ledge 2 shoals with respective depths of 33 ft. and 34 ft. 1/4 mile south west of George's Head Island a shoal with 37 ft. 1/4 mile south east of Farrell's Island a shoal with 35ft. 1/2 mile west by north from Ewe Island a shoal with 33 ft. 1/2 mile west of Sparrow Island a shoal with 30 ft.) 1/4 mile north west of Bay Ledge spindle a shoal with 30 ft. 1/2 mile west by south of Bay Ledge spindle a shoal with 35 ft. 300 meters east of Kimball's Rock a shoal with 14 1/2 ft.

5. In plotting the soundings on this sheet the depths were expressed in feet in all cases.

6. In figuring the overlap of lines a thorough consideration

of the relation between the paths of the ends of the drag and the paths of the launches is necessary. When the launches are at full distance the necessary overlap is about 40 meters. When the launches are close together the end of the drag is outside of the launch. These considerations have been given careful(1) attention.

VEC  
Nov. 17, 1911

HYDROGRAPHIC SHEET 2911.

East Penobscot Bay, Maine, by Assistant  
N.H. Heck, in 1909, 1910, and 1911.

TIDES.

	North Haven 1909 ft.	Vinalhaven 1909 ft.	Stonington 1910 ft.	Stonington 1910 ft.	Stonington 1911 ft.	South Brooksville 1911 ft.
Mean low water, or plane of reference on staff	2.0	2.5	2.0	2.0	2.7	1.0
Lowest tide observed " "	-0.4	0.0	-0.5	-0.3	0.3	-2.3
Highest " " " "	13.4	14.2	13.7	14.2	14.9	13.3
Mean range of tide	9.5	9.4	9.4	9.7	9.7	10.5

(This is to take place of note furnished Nov. 2, 1911). Tidal Div.

Coast and Geodetic Survey  
NOV 17 1911  
TIDAL DIVISION

Department of Commerce and Labor

C. & G. SURVEY,  
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NOV 10 1911  
Acc. No.

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Hyd. equivalents sheet 2911

- ⊙ Bab Hyd. sig. Babbidges I.
- △ Bald Bald I. '11
- ⊙ Bart Barters Ledge spin
- △ Bear Ho. chy. Bear Id.
- △ Cal Jesse Caldewoods chy.
- △ Chan Channel Rock En.
- △ chim Cretch Id. chy.
- △ church Isle au Haut ch. sp.
- △ Coo Coombs Hill
- ⊙ cup. cupola , barn Deer Isle
- △ Dart tree Stoddards I. 1910
- △ Deer Deer Id. Thoro L. H.
- ⊙ Der tree Calderwoods Pt. '10
- ⊙ D D in DIRIGE side of Butter Id.
- △ Dow Widows I. cupola
- ⊙ Down N gable small ho. Downfall
- △ Eagle Eagle I. L. H.
- △ Fish Signal pole near North Fox
- ⊙ Flat W. Gable ho. flat roof Dunhams Pt.
- ⊙ Green Chy. Green ho. Deer Isle
- △ Grey NE gable ho. Babbidges I.
- △ Geose Goose rocks L. H.
- △ Lena St. Helena
- ⊙ Mill Pavilion cupola Isle au Haut
- △ Pass Compass Id. '11
- △ Ram Channel Rock En.
- ⊙ Round Pole round Id.

*For statistics of 1911 work see  
Description Reports for 1911*

Department of Commerce and Labor

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C. & G. SURVEY  
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- △ Rob Robinsons Rpt. L. H.
- △ Russ Russ Id.
- Spin Bay Ledge Spindle
- Spire Stonington Cong. ch. sp.
- Spoon Rockpile Spoon Ledge
- △ Set Sunset ch. sp '10
- Stack Moose id. black stack
- △ Steep W. Stonington ch. sp. '10
- △ Stone Stonington Water tower '10
- Tip Highest point northermost of Barred Ids.
- White E. gable school ho., Eagle I.

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C. & G. SURVEY  
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NOV 10 1911  
Acc. No.

Department of Commerce and Labor  
COAST AND GEODETIC SURVEY

O. H. Tittmann,  
*Superintendent.*

State: MAINE.

## DESCRIPTIVE REPORT.

HYDROGRAPHIC *Sheet No. 2911*

LOCALITY:

EAST PENOBSCOT BAY.

1911

CHIEF OF PARTY:

N. H. Heck, Assistant.

2911

HYDROGRAPHIC SHEET NUMBER 2911, from Kimball's Island to Compass  
Island, and Widow's Island to Crotch Island.

Scale 1/20,000

WORK OF THE WIRE DRAG PARTY DURING THE SEASON OF 1911, from  
May 31, 1911, to Oct. , 1911.

\*\*\*\*\*

N.H. Heck, Assistant, Chief of Party.  
George Olsen, W.O.; Operating Drag No. 1.  
D.M. Kyle, Aid, Operating Drag No. 2.

\*\*\*\*\*

Officers besides those mentioned above.

M.L. Button, Aid.  
H.L. Cotton, Aid.  
H.E. Lutz, Aid.  
J.A. Daniels, Aid.  
G.C. Mattison, Aid.  
H.T. Kelsh, D.C.

\*\*\*\*\*

TIDE GAUGE AT STONINGTON; MAINE; AND AT SOUTH  
BROOKSVILLE; MAINE.

At Stonington, Maine, on T. Warren's Wharf.

Plane of reference.	Guage reading.....	2.7
Lowest tide observed...	" "	.....1.4
Highest tide observed	" "	.....13.1

At South Brooksville, Maine.

Plane of reference.	Guage reading... <sup>1.0</sup> <sub>3</sub> ...	
Lowest tide observed	" "	... <sup>0</sup> <sub>3</sub> ...
Highest tide observed.	" "	...14.9

\*  
Statistics sheet No. 2911.  
Drag No. 1

Date 1911	Letter	Volume	Angles	Miles	Drag lgth	Soundings Number	Angles
May 31	a	1	90	3	2000	2	7
June 2	b	1	216	3	600-400	14	37
3	c	1	150	4	1500	6	12
5	d	1	180	4	1050	6	12
6	e	1	144	3.2	1200	2	4
7	f	1	270	7.0	2000	12	24
8	g	2	168	4.0	1200	5	10
9	h	2	234	5.25	2800	2	4
10	j	2	156	4.5	2000	0	0
16	k	2	126	2	2000	2	4
17	l	2	276	8.75	20000	1	2
19	m	3	240	6.5	2000	1	2
20	n	3	168	4	1200	0	0
22	o	3	198	4	2000	2	4
24	p	3	144	3.75	2000	1	2
26	q	3	192	4	1200-1400	5	10
27	r	4	42	1.5	400	0	0
28	s	4	34	1	1200	0	0
July 1	t	4	216	3.75	1000	6	12
3	u	4	24	.25	1200	2	4
5	v	4	192	7.35	2000	2	4
6	w	4	204	5.5	1200	1	2
7	x	5	162	2.75	1200	8	166
8	y	5	252	5.25	1000	5	10
10	z	5	258	7.75	1400-1500	1	2
11	a'	5	258	6.75	2000	0	0
12	b'	6	174	4.5	2800	0	0
13	c'	6	180	3.75	2000	4	8
14	d'	6	270	4.5	1200	1	2
15	e'	6	198	2.5	1200	1	2
17	e'	-	-	-	-	2	4
18	f'	6	-	-	-	10	18
27	j'	7	112	4.33	12000	1	2
28	k'	7	80	4	12000	0	0
31	l'	7	348	8.5	1400	1	2
Aug. 1	m'	7	204	4	1400	1	2
2	n'	7	96	2	1000	1	2
3	o'	8	180	3.5	1000	3	8
4	p'	8	246	3.75	1200	6	12
5	q'	8	228	4	800	4	8
10	r'	8	198	3	1000	1	2
11	s'	8	228	4	1000	4	8
18	t'	9	270	8	1200	0	0
19	u'	9	30	0.5	600	1	2
24	v'	9	204	5	1200	3	6
26	w'	9	108	3	500	4	8
30	x'	9	42	1	800	0	0
Oct. 2	y'	10	126	3	1600	0	0
16	z'	10	186	3.2	1800	0	0
26	a''	10	240	3	1600	4	8
27	b''	10	144	2	1400	0	0
			8589	149		135	288

Statistics Sheet No. 2911.

Drag No. 2.

Date: 1911:	Letter.	Volume.	Angles.	Miles.	Drag lgth.	Soundings.	
						Number.	Angles.
July 7	x	1	66	1	1750	1	2
8	y	1	180	3	2000	4	8
10	z	1	204	4	1750	8	16
11	a'	1	222	3.5	1750	2	4
* 12	b'	1	288	4.5	2800	0	0
13	c'	2	50	0.75	1750	1	2
14	d'	2	222	4.25	1500	6	12
15	e'	2	138	2.5	1500	3	6
18	f'	2	78	1.25	1050	8	16
19	g'	2	216	2	1050	4	8
21	h'	2	228	4	1500	1	2
27	i'	3	141	5	12000	-	-
28	k'	3	162	4	12000	1	2
31	l'	3	396	8.75	2800	-	-
Aug. 1	m'	3	204	4.5	2800	-	-
			<u>2795</u>	<u>50.0</u>		<u>39</u>	<u>78</u>

Sheets

Total  
 Angles 11,856  
 Soundings 174  
 miles 252.  
 sq. miles 91

Descriptive Report.  
Sheet No. 2911  
1911.

C. & G. SURVEY  
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During the season of 1911, the area not previously covered was completely dragged.

This area includes the greater part of East Penobscot Bay south of Eagle Island, Merchants' Row, western end of Deer Isle Thorofare, eastern end of Fox Island Thorofare, and the channel between East and West Penobscot Bays north of North Haven Island.

A large number of shoals were found and the operation was very slow and tedious as in many places all of the readily dragged area was covered in previous seasons.

The object thruout was to complete all the important channels especially those recommended in the recent edition of the Coast Pilot, parts 1, and 2.

Large number of shoals were found many of which have been previously reported for publication in the Weekly Notice to Mariners, and now appear on the charts.

All distances are given in meters, depth in feet at M.L.W., and directions are magnetic.

East Penobscot Bay.

The central portion of the bay was found to have no shoals less than 36 feet in depth. A 12000 foot drag was first successfully used in this bay. In the vicinity of the charted shoals and near the shore, less than 36 feet was found in many cases.

Off the shore of Vinalhaven Island between Smith's Island and Fox Island  
Thorofare.

North-east of Coombs Hill, pinnacles with depths of 33, 26 and 35 feet  
were found. These are of small extent.

Off the north-east shore of Calderwood's Neck, a ridge was found ex-  
tending off shore with a least depth of 13 1/2 feet going off  
to 31 feet to the south-east and 18 ft. to the north-east.

Another small ledge was found with a least depth of 21 ft. N.NE. from  
this one.

Fox Island Thorofare. Eastern approach.

Off the north end of Calderwood's Point 23 ft. was found farther off shore  
than previously charted.

An extensive rocky area was developed to the SW of Babbidges' Island. The  
westernmost has a least depth of 15 ft. with 28 ft. 240 meters west.  
Pinnacles with 29 and 31 ft. were found to the eastward of this ledge  
about 650 meters E and ESE respectively. A ridge extends N.NE-S.SW  
125 meters long with depths 37-41 ft. lies 1200 meters SE of the mid-  
dle of Babbidges Island.

East Penobscot Bay.

Babbidges Island to Eagle Island Light House.

No shoal was found south of Bald Island, a depth of 36 ft. being tak-  
en nearly to the shore.

East and NE of Bald Island several shoals were found to have less  
depth than charted.

Pinnacles with depths of 36, 26, and 23 ft. were found at distances and directions from the Triangulation Station on Bald Island as follows; - 1050M. ENE, 400M. E, 1380M. E1/2S.

A depth of 32 ft. was found off Eastern Porcupine. The charted ridge extending from Eagle Island to the H.S. buoy was found to have less depth than charted with 12 ft. on shoal near buoy and a depth of 17-20 ft. on ridge.

A ridge with a least depth of 33 ft. extends NNE-SSW, 125 meters long, lies 680 meters east from H.S. buoy.

A pinnacle with 32 ft. least depth was found 38 meters south of H.S. buoy.

#### Dunham's Point to Deer Isle ~~Thorofare~~.

A depth of 31 ft. was found 550 meters SSW of the outer end of Dunham's Point, and 36 ft. 1280 meters in the same direction. 35 ft. was found a little outside of Sheep Head Island Ledge. Between Sellers Rock and the 18 ft. spot charted a considerable shoal area with depth 33 to 36 ft. was developed.

#### Deer Isle Thorofare to Kimball's Island.

A ridge with 14-17 ft. was found east of the Brown Cow. To the SW of Outer Scrag a ridge was developed with 14 to 25 ft. at points shown. 31 and 35 ft. shoals were found south from Outer Scrag Ledge and 30 ft. 31 ft. east of Outer Scrag Ledge. The channel approaching to Merchant's Row from the south was found to have a ridge on its western side with a least depth of 11 and 12 ft. and a depth of 35 ft. between these.

Pinnacles with 28, 20, and 19 ft. were found between Channel Rock Beacon and Kimball's Island where greater depths were charted. The charted ledge south of Hardwood's Island was developed and depths of 17 to 31 ft. were found.

Merchant's Row.

Barter I.  
Entrance to Bartlett's Ledge Spindle.

Between Mark Island and Scraggy Island a ridge NNE-SSW with depth 18-24 ft. was found in mid-channel, a small ridge with 26-28 ft. and 28 ft., east of Scraggy Island, also 30 ft., west of this island.

A depth of 32 ft. was found NW of Sparrow Island Ledge and a ledge with 19-24 ft. NE of Sparrow Island. Otherwise 36 ft. or more was found between Sparrow and Scraggy Island.

A ledge with 15 to 22 ft. was found SW of Sparrow Island Ledge and one with 25-30 ft. SE of Sparrow Island.

Four flat rocky ledges of small extent were found between Sparrow Island and Georges Head Island with depths of 28 and 29 ft.

A depth of 30 ft. was found 1050 meters WNW from Bartlett's Ledge *Barter I.* Spindle. The ledge itself was found to extend to the west, a dry ledge being found 150 meters from the spindle, with 29 ft. just outside.

Channel from Merchant's Row to Stonington.

A ledge with 20-26 ft. was found east of John's Island, and 20-29 ft. west of Georges Head Island.

A ledge with 13-16 ft. was found 80 meters west of S-4, a depth of

20-25 ft. was found just east of shore of Crotch Island.

The channel in the vicinity of S-2 buoy was developed and a depth of 13-19 ft. was found as shown, and 17 ft. was found east of S-0.

Deer Isle Thorofare.

Depths of 11-21 were found on the north side of channel opposite S-15. South of Yellow Rock Flat Ledges with depths 10 1/2 to 15 ft. and 12 ft. east of the same rock. These in addition to soundings made in 1910 give a good idea of the channel and indicate the amount of work necessary for improvement of channel at this point which has been under discussion. A depth of 9 1/2 ft. was found between the S-13 and HS buoys on Crotch Id. bar.

The shoal and arrangement of buoys east of the Stonington wharf are shown. The channel between the middle black buoys with a safe depth of 10 ft. at M.L.W. and that inside the north buoy with 10 ft. are much used by vessels approaching the wharf. There is a least depth of 2 1/3 ft. on the kelp ledge about 10 meters in diameter between S-14 and S-5 and 1/2 ft. on a sunken kelp ledge between the other black buoys.

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Method of plotting the drag depth.

<u>Color</u>	<u>Depth</u>
Green.....	Less than 10 ft.
Brown.....	10-20
Blue.....	20-30
Red.....	30-40

Channel north of North Haven Id.

An effective depth of 25 feet was taken through this channel north of Bald Id. and Oak Id. Numerous shoals were found.

A ridge 150 m. long (NNE-SSW) 20 m. wide lies with center about 400 m. SW'ly from SW point of Eagle Id. with depths 25-26 ft.

A ridge 100m by 20 m (NNE-SSW) lies 450 meters NNE from high part of Grass ledge with 27-28 ft.

A pinnacle rock with 32 ft. lies 520 m Ne from Grass Ledge .

A depth of 21 ft. was found about 1200 m. NE'ly from NE point Oak Id. It is an extension of the shoal to the northward.

A 14 ft. pinnacle lies 600 m NE'ly from Spoon Ledge.

A ridge (NNE-SSW) 100m by 30m lies 1100m NW'ly from Spoon Ledge. with 31-33 ft.

A ridge 150 m. long with 25-32 ft. (NNE-SSW) lies 620 meters W'ly from Spoon Ledge

A pinnacle with 30 ft. lies 1700 m WxN from Spoon ledge, and one with 32 ft. 1900 NW'ly from same ledge.

A shoal patch with a least depth of 11ft. lies 1600 m. SW'ly from Spoon Ledge. A depth of 21 ft. was found 150 m. ENE'ly from 11 ft. spot.

MAINE.

East Penobscot Bay,  
and Deer Isle Thorofare.

PLANE TABLE POSITIONS.

N. H. Heck, 1911.

Object and Description.	Lat.	D.M.	Long.	D.P.	Remarks.
"Flat", Dunham's Point, on Deer Isle.	44°13'	696	68°43'	1150	House chimney on a per- manent cottage with flat roof.
"White", Eagle Island.	44°12'	1246	68°46'	894	East gable of white school house.
"Spoon", Spoon Ledge.	44°12'	92	68°49'	929	A rock pile.
"Down", The Downfall.	44°10'	1459	68°48'	527	North gable of small house.
"Green", Deer Isle.	44°09'	700	68°39'	194	Chimney on a green house on Deer Isle opposite Russ Island.
"Cup", Deer Isle.	44°09'	824	68°39'	165	Cupola on a barn near "Green".