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# 3181

Diagram No. 8502-1

Department of Commerce and Labor  
COAST AND GEODETIC SURVEY

*O. N. Tittmann*  
Superintendent.

State: *Alaska*

## DESCRIPTIVE REPORT.

Hyd. Sheet No. *3181*

LOCALITY:

*Kushagak Bay -  
Western Part -  
Nichols Hills to  
River*

1909

CHIEF OF PARTY:

*H. C. Librell*

C. & G. SURVEY,  
LIBRARY AND ARCHIVES  
JUL 27 1910  
Acc. No.

# 3181

For general report, see 945 SX 1909 II acc. No. 64227.

# 3181

DEPARTMENT OF COMMERCE AND LABOR

Coast and Geodetic Survey

O.H.Tittmann, Sup't.

U. S. COAST AND GEODETIC SURVEY,  
LIBRARY AND ARCHIVES  
JUL 27 1910  
Acc No.

Hydrographic Sheet No. 3181  
(Field Sheet No. 5)

Nushagak Bay, Western Part, Nichols Hills To Riv  $\odot$  ,  
ALASKA

Steamer EXPLORER

Assistant Walter C. Dibrell, Chief of Party

Begun.....: July 30

Completed...: August 14

1909

SCALE 1 - 20 000

Hydrography in charge of A. R. Hunter, Watch Officer

Positions and Soundings plotted on boat sheet by

A. R. Hunter, Watch Officer.

Projection by P.C. Whitney, Ass't. & A.C. Baldwin, Aid.

Positions plotted on smooth sheet by A.C. Baldwin, Aid.

Soundings (x day and z day) plotted on smooth sheet by

W. B. Dunning, Aid.

# 1818

Hydrographic Sheet # .....

"5"

U. S. SURVEY,  
LIBRARY AND ARCHIVES

JUL 27 1910

Acc. No.

OBSERVERS

A. R. Hunter, Watch Officer

R. H. Hawkes, Surgeon

W. B. Dunning, Aid

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RECORDERS

William Duker, Wr. 2 cl.

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LEADSMEN

Emil Moen, Q.M. 1st cl.

B. Ramberg, " " 2nd "

John Hanson, " " " "

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TIDE OBSERVER

Ed. Callaway, Seaman

Tide gauge at Clark's Point

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC  
SHEET NO. 5 (FIELD NO. 5), NUSHAGAK BAY, ALASKA, WESTERN  
PART, NICHOLS HILLS NORTHWARD TO RIV  $\odot$  .

SCALE 1 - 20 000

RECEIVED  
JUL 26 1913  
HYDROGRAPHIC

This sheet shows a portion of the hydrographic development along the western side of the outer part of Nushagak Bay. The soundings cover an area about 5 miles long and from 4 1/2 to 5 1/2 miles wide. The work joins sheet #3 on the northern side and #4 on the eastern and southern sides.

2. On account of lack of time the sheet is transmitted incomplete. All of the positions and about one third of the soundings have been plotted.

3. The field work was done with motor launch #38. It is all hand lead work. The lines are approximately normal to the shoreline and are spaced about 300 meters apart.

4. On the lower part of the sheet the depth is regular and shoals gradually from the outer ends of the lines toward the shore. The depth here is practically all three fathoms or less at low water. The north<sup>ea</sup>stern part of the sheet is crossed obliquely by the channel leading out from the Igushik River. This part of the sheet has not been plotted and the original records have been forwarded to the office at the time this report is written, so it cannot be stated what depth is found in the channel. It is believed, however, that the portion on this sheet will carry about four fathoms at low water.

5. On the western side of the channel mentioned in last paragraph the water is shoal to the shore. On the eastern side is a

2.

narrow ridge forming the terminus of the large flat extending southward from the low peninsula lying on the eastern side of the Igushic River. The ridge ends a short distance below the north-eastern corner of the soundings shown on this sheet, and a small patch somewhere near the margin of the work was observed to bare at the low tides.

Respectfully submitted,



Assistant, C. & G. Survey,

Chief of Party.

To the Superintendent,

Coast and Geodetic Survey,

Washington, D. C.

Unalaska, Alaska, May 16, 1910.

# 3181

Hydrographic Sheet #.....

## STATISTICS

U. S. SURVEY,  
SOUNDINGS AND ANGLES  
111 2 71910  
Acc. No.

1909 Date	Vol.	Let	Miles Stat.	Sdgs.	Angles	Boat
July 30	11	<i>a</i>	34.0	841	222	Launch
Aug. 5	11	<i>f</i>	17.5	491	126	"
" 11	11	<i>a'</i>	12.0	330	88	"
" 12	12	<i>b'</i>	29.5	654	188	"
" 14	12	<i>c'</i>	44.0	1005	274	"
5	2	5	137.0	3321	898	

AREA 26.5 Sq. Stat. Miles

V.E.C.  
Aug. 2, 1910.

HYDROGRAPHIC SHEET NO. 3181

Nushagak Bay, Nichols Hills to River, Alaska, by  
Asst. W. C. Dibrell, in 1909.

TIDES.

	Clark Point ft.
Mean lower low water, or plane of reference on staff	1.9
Lowest tide observed " "	-0.2
Highest " " " "	24.0
Mean range of tide	15.2

Coast and Geodetic Survey

AUG 31 1910

TIDAL DIVISION.

Hyd. Sheet No 3181

Oct 4 1910

As the depths over this area are very irregular  
it would have much better to have used a system  
of lines crossed perpendicular to each other.

The records were kept in a clear and satisfactory  
manner.

H. L. Simons