

4838

Diag. Cht. Nos. 8502-2 & 8552

Form 804

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

E. Lester Jones., Director

State: Alaska

DESCRIPTIVE REPORT

Topographic } Sheet No. 12 4838
Hydrographic }

LOCALITY

Kenai Peninsula

Two Arm Bay

1928

CHIEF OF PARTY

R.R. Lukens

GOVERNMENT PRINTING OFFICE

4838

DESCRIPTIVE REPORT
to accompany
Hydrographic Sheet No. 4836, Two Arm Bay, Kenai Peninsula,
S.W. Alaska

Str. SURVEYOR

R.R. Lukens, Chief of Party

Director's instructions dated Feb. 18, 1928.

GENERAL DESCRIPTION:

The shoreline on this sheet is rocky and rises abruptly from the water's edge. The hills back of the coast are rugged and form a series of peaks which are rocky and bare of vegetation. Harris Pt. on the west side of the entrance to Harris Bay, is rocky and rises to a height of 1080 feet. Three small rocky islets lie just south of the point. The outer islet is the most conspicuous and is 78 feet high. Triangulation station REEF is located on this islet.

Sandy Bay is a small body of water which indents the coast about one mile. The bay is open to S.E. weather and is usually rough and choppy, but in northerly weather it is smooth and affords a good anchorage with sandy bottom.

Marmot Pt. three and one-half miles S.W. of Harris Pt. is rocky and rises to a height of 1334 feet. A series of peaks and ridges run in a northerly direction to the high snow covered peaks about five miles inland. Marmot Pt. forms the east side of the entrance to Two Arm Bay.

The ^{north} arm of Two Arm Bay is about two miles wide at Marmot Pt. and gradually narrows to a width of one-half mile at the head of the arm. The ^{east} arm is the larger of the two and it extends about five miles in a general N by W direction from Marmot Pt. The shores are rocky and steep and the slopes of the hills are covered with a moderate growth of spruce trees. This body of water is well protected and is smooth in practically all weather. The best anchorage is on the north side of the sand spit along the east shore about 1 mile from the head of the bay. The holding ground is indifferent on account of the rocky bottom.

Bear Pt. divides the ^{west} arm from the west arm of Two Arm Bay. It is steep and rocky and two rocky islets lie just south of the point.

The west arm of Two Arm Bay is about one-half mile wide and indents the coast two miles. This arm is not as well protected from S.E. weather as the ^{west} arm but it is usually calm near its head. The east side of this arm is mostly a shingle beach and the west side is rocky. The ground on both sides rises abruptly to heights of from one thousand to two thousand feet. Vessels may anchor near the head of this arm in 20 fathoms with indifferent holding ground. Small craft may anchor on the west side of the head of this arm.

Cloudy Pt. forms the west side of the entrance to Two Arm Bay. It is rocky and rises to a height of 1808 feet at its summit. The east shore of this point is a rock wall about one thousand feet high. The peak is usually covered with hanging clouds except in very clear weather.

SURVEY METHODS:

The sounding was done from the SURVEYOR'S 30 ft. launch No. 4, which was equipped with a sounding machine driven by a shaft connected to the launch engine. The sounding wire was led over a registering sheave placed above the drum of the machine and the wire lead from this sheave over another sheave at the outboard end of the sounding boom. The boom projected about two feet beyond the beam of the launch and was located on the starboard quarter. Stranded wire and a 25 lb. lead were used.

During the course of the work the registering sheave was tested at zero each time the lead was hauled in for a bottom sample. It was found that the sheave was seldom in error more than one foot when the bottom of the lead was at the water's surface and when necessary the proper correction was applied to the sounding before it was recorded. In depths greater than 15 fathoms the sounding machine was used and in lesser depths hand lead soundings were taken.

REEFS and DANGERS to NAVIGATION:

All rocks and reefs are shown on the hydrographic sheet. No offshore dangers were found.

TIDES:

A portable automatic tide gauge was set up at topographic station SAR and operated from July 20 to Sept. 17, 1928. The datum for reducing soundings was obtained by simultaneous comparison with the tides at Seward Alaska. All soundings were reduced from the marigrams at Two Arm Bay.

Respectfully submitted

J. C. Partington
J. H. & G. E.

Approved and Forwarded,

R. P. Lukens
Chief of Party

Sheet & records inspected
R. P. L.

STATISTICS

Date	Day	Volume	Positions	Soundings	Miles	Boat
Aug.20, 1928	a	1	38	93	5.5	launch 74
Aug.21	" b	1	40	103	6.9	" "
Aug.25	" c	1	106	270	21.5	" "
Aug.27	" d	1	88	215	17.5	" "
Aug.30	" e	1&2	75	176	16.7	" "
Sept 1	" f	2	12	28	1.7	" "
Sept 4	" g	2	32	109	3.7	" "
Sept 5	" h	2	46	144	8.4	" "
Sept 6	" j	2	59	181	11.4	" "
Sept 7	" k	2	62	310	11.7	" "
Sept 10	" l	3	91	332	19.5	" "
Sept 12	" m	3	29	61	6.0	" "
Sept 13	" n	3	21	56	5.0	" "
Sept 14	" p	3	105	278	20.5	" "
Totals			804	2356	156.0	

E.A.L.

(For files Section of Field Records) ✓

Division of Hydrography and Topography:

March 6, 1929

Division of Charts:

Tide Reducers are approved in
volumes of sounding records for

3

HYDROGRAPHIC SHEET 4838

Locality: Two Arm Bay, S. W. Alaska

Chief of Party: R. R. Lukens in 1928

Plane of reference is Mean lower low water, reading
1.9 ft. on tide staff at Two Arm Bay, Alaska
1.9 ft. below B. M.
~~xxxxxxxxxxxx~~

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.

Paul C. WHELAN

Chief, Division of Tides and Currents.

Section of Field Records

Report on Sheet No. 4838

Chief of Party R.R. Likens

Contracted by P.L. Bernstein

Verified & Inked by J.W. Walker

Surveyed in 1928

Surveyed by J.C. Partington

Soundings plotted by

P.L. Bernstein

The sounding records were neatly kept and were complete.

The protracting was very good. Only two positions were found off.

The soundings were carefully plotted and the time intervals were carefully adhered to.

The sheet was clean and the work was legible.

The drafting conformed to General Instruction.

Some rocks were not transferred from the topo sheet and some rocks shown on the boat sheet were also not transferred to the smooth sheet. Also some rocks indicated in the records were not plotted on the smooth sheet. These were all transferred to the smooth sheet by the office verifier.

Reviewed by

Date

Respectfully submitted

J.W. Walker

Mar. 19, 1929

Section of Field Records
Report on Hyd. Sheet No. 4838
Two Arm Bay, Kenai Peninsular, Alaska.
Surveyed in 1928

Instructions dated Feb. 18, 1928 (Surveyor)

Chief of Party - R. R. Lukens

Surveyed by - J. C. Partington

Protracted and plotted by - P. L. Bernstein

Verified and inked by - J. T. Walker

1. The sounding records conform to the requirements.
2. The plan and character of the development conforms to the requirements of the General Instructions.
3. The plan and extent of the survey satisfy the specific instructions.
4. No cross lines were run, but the general agreement of soundings is good.
5. The information is sufficient for drawing the usual depth curves.

6. The junction with H. 4838 is satisfactory. The junction with H. 4836, the off shore sheet, is also satisfactory. There is no contemporary inshore work, south of Cloudy Point.
7. The usual amount of field plotting was very well done, by the field party, except for the failure to indicate rocks from the Tops. sheet, boatsheet and sounding records.
8. The character and scope of the survey is very good.
9. Additional work within these limits is not necessary.

Reviewed by P. L. Johnston

March, 1929.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

C. & G. SURVEY
L. & A.
~~FEB 25 1922~~
Acc. No.

REG. NO. 4838

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. 12

REGISTER NO. 4838

State S.W. Alaska

General locality Kensi Peninsula ✓

Locality Two Arm Bay ✓

Scale 1:20,000 Date of survey August and September, 1928

Vessel SURVEYOR

Chief of Party R.R. Lukens

Surveyed by J.C. Partington

Protracted by P.L. Bernstein

Soundings penciled by P.L. Bernstein

Soundings in fathoms feet

Plane of reference Mean lower low water

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated February 18, 1928

Remarks:

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 4838

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

Number of positions on sheet . . . 804
Number of positions checked . 144
Number of positions revised . . . 2
Number of soundings recorded . 2356
Number of soundings revised . . . 35
Number of signals erroneously
plotted or transferred 0

Date: - March 19, 1929 - - - - -

Cartographer: - J Walker - - - - -

Lat 59-38
Long 150-00