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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

Superintendent.

State: *Alaska*

DESCRIPTIVE REPORT.

Sheet No.

LOCALITY:

Nushagak Penin-
sula

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CHIEF OF PARTY:

W. C. Libbey

DESCRIPTIVE REPORT TO ACCOMPANY TOPOGRAPHIC
SHEET NO. *3090*. (FIELD LETTER "A"), NUSHAGAK PENINSULA,
ALASKA, SOUTHERN PART. SCALE 1 - 20 000

This sheet includes the shore line from Protection Point to Cape Constantine, and extends northward from the former to Nichols Hills and north-westward of the latter for a distance of seven miles. Off Nichols Hills it joins a topographic sheet of last season. The outside coast to north-westward of the limits of this sheet has not been surveyed.

2. The shore line from Nichols Hills to the lagoon four miles eastward of Cape Constantine was surveyed by plane table; the remainder of the shore line was run in as a sextant traverse and adjusted upon the projection by means of the connection with signals determined by triangulation. This method of survey was used on account of the fact that there are no important details and for the reason that it is rapid and requires the services of but one officer and one man. The work was done at times when a larger party could not be spared from other duties.

3. The part to westward of the Cape appears as a sub sketch. It is based upon the projection lines previously drawn upon the sheet, but is displaced three minutes in latitude, the convergence of meridians in that distance being assumed as small enough to be of no importance.

4. That part of the coast above Protection Point was described in reports connected with the work of 1909. From the Point southward for a distance of three miles the shore is low sand and shingle beach backed by a grass grown ridge of sand and debris about 8 or 10 feet higher than high water. Back of the ridge the

ground is lower, and the whole of Protection Point included between the signals Tec, Pro and Pen is a low grass covered marsh, much cut up by long narrow lagoons. Two miles from the Point, at Goon ○, is a small connection with the lagoon through which the tide ebbs and flows. Boats apparently can enter at high water with no surf.

5. Three miles from the Point the higher land that strikes across from Tec △ joins the coast again, and a low, dark, partially eroded bluff begins here and rises gradually for a distance of two miles to Wet ○. The bluff continues with some breaks for about a mile farther to Lag ○, where it turns inshore along the outlet of a lagoon and disappears. In the vicinity of Lag ○ for a short distance the bluff is eroded and steep, showing yellow in color and is noticeable from off shore. Back of Wet ○, less than 3/4 mile from shore is the 90 foot hill upon which Clump △ is located. This is the highest land on that part of the coast. Northward of Clump △ the ridge trends in a northerly direction toward Bee △ with a small increase in elevation at the latter, and there are a number of patches of alder bushes on the highest parts of the ridge.

6. Abreast of Lag ○ and 4 miles eastward of Cape Constantine is the mouth of a lagoon which at high water fills the lower part of a valley. One or two small fresh water streams discharge through the lagoon. Boats can enter the mouth excepting at low water. Immediately to westward of the lagoon, within a distance of two miles from the coast are several grass grown sand hills from 50 to 60 feet high. None is very prominent from seaward.

7. The shore line from Protection Point to the lagoon is almost straight. From here it curves gradually to and around Cape

Constantine, is then straight for about six miles to a point near the limit of the survey, where occurs a marked change in direction, toward the northward. There is no well defined point in the vicinity of Cape Constantine, such as shown upon the chart, but it is presumed that the name should be applied to the southernmost part of the land. The coast makes more to the westward than indicated by the chart, giving a greater width to the peninsula at the lower part. At Doon \odot a left tangent to a low bluff on the shore line about 5 miles distant, bore $131^{\circ} - 50'$, magnetic (from the south) and the shore is nearly straight between.

8. From the lagoon to the distant bluff mentioned in the last paragraph the shore is sandy and is, with two exceptions, all low. Six tenths mile eastward of the Cape, at Con \triangle , is a short, very noticeable, yellow, eroded bluff, a good land mark when near the shore. Two and three quarter miles westward of the Cape is a low, dark bluff about 30 or 40 feet high and perhaps half a mile long. Stan \triangle and Teen \odot are on this bluff, and triangulation should furnish height. Excepting abreast this bluff, the coast westward of Cape Constantine to the next bluff is fringed with a series of grass grown conical sand dunes, a few of which show wind erosion.

9. Back of Con \triangle the land rises slightly higher. Toward the interior from Stan \triangle there is also a gradual rise to See \triangle , about $1 \frac{1}{4}$ miles from the coast. The ridges are regular in outline, tundra covered, broken into hummocks and interspersed with ponds, and are entirely devoid of bushes or any other distinguishing features.

10. Westward of the ridge last mentioned, the coast is bordered by a very extensive belt of low land largely covered with lakes and grass grown areas, apparently marsh. Some of the ponds

have sea connection, others are fresh. Part of this land at least is built up from the sea, as sand dunes and evidences of former beaches were noted well back from the shore.

11. A characteristic feature of the beach west of the Cape is the sand bars lying parallel to the shore between high and low water lines. There are two or three of these in places that uncover at different stages of the tide. They are very nearly level, and improve the landing at certain stages, making it worse at others. Boats can land on the open coast only in smooth weather. Eastward of the Cape less surf is felt. Off the point at the western end of the sheet is a submerged bar paralleling the one shown and similar to it, which at certain stages of the tide affords a sheltered landing, the direction of approach being from eastward. At low water however, especially if there is a sea running, there is not enough water for boats to get behind the bar and at high water the sea passes over.

12. About a mile north-westward of Doon \odot there is quite a large sea connection with the interior lagoons. At low water the passage is closed to boats, but at other times they can enter, and at high water there is sufficient depth for good sized launches. The channel is narrow and curved, however, and with a sea running it might not be easy navigating.

13. The land lying between Nushagak Bay and Bristol Bay is a geographical feature that should have a name. It is called the Nushagak Peninsula in the title of this sheet.

Unalaska, Alaska.
October 3, 1910.

Respectfully submitted,

Walter Dineen

Assistant, C. & G. Survey,
Chief of Party.