

3973

Diag. Ch. No. 8551-2

Form 504

U. S. COAST AND GEODETIC SURVEY  
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey *Hydrographic*  
Field No. .... Office No. *3973*

LOCALITY

State *Alaska*  
General locality *Prince William*  
Locality *Sound et*

1947

CHIEF OF PARTY

*E. E. Smith*

LIBRARY & ARCHIVES

DATE .....

3973

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. **3973**

State **ALASKA**

General locality **PRINCE WILLIAM SOUND.**

Locality **PORT NELLIE JUAN.**

Chief of party **E.E. SMITH**

Surveyed by **PARTY OF STR. TAKU**

Date of survey **JULY AND AUGUST 1917**

Scale **1/20,000**

Soundings in *Fathoms*

Plane of reference

Protracted by **W.H. Overshiner** Soundings in pencil by *Kennard.*

Inked by *J.T. Torrey* Verified by *J.D. Torrey*

Records accompanying sheet (check those forwarded):

Des. report,  Tide books, 1 Marigrams, 1 Boat sheets,

4 Sounding books, \_\_\_\_\_ Wire-drag books, \_\_\_\_\_ Photographs.

Data from other sources affecting sheet

Positions of triangulation stations in triangulation data.  
Positions of other signals in list of plane table positions  
accompanying topographic sheet covering the same area.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

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U. S. Coast and Geodetic Survey.

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Locality PORT HELIZE JUAN.

Chief of party B. E. SMITH

Surveyed by PARTY OF STR. TAKU

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Soundings in . . . . .

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accompanying topographic sheet covering the same area.**

3973

U. & G. SURVEY  
L. & A.  
NOV 25 1917  
Acc No. *22*

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SHEET NO. 3973

*Nellie*

McCLURE BAY AND ENTRANCE TO PORT JUAN

PRINCE WILLIAM SOUND

ALASKA

EXECUTED BY PARTY OF

STEAMER TAKU

JULY AND AUGUST 1917

E. E. Smith Chief of Party.

3973

ORIGINAL.

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SHEET NO. \_\_\_\_\_

Mc CLURE BAY AND ENTRANCE TO PORT NELLIE JUAN,

PRINCE WILLIAM SOUND,

ALASKA.

Superintendent,  
Coast and Geodetic Survey,  
Washington, D.C.

Sir:

Pursuant to the Regulations, I have the honor to submit the following report on a hydrographic sheet surveyed by the complement of the Str. TAKU in July and August, 1917. The area covered by the soundings requires very little description. The waters are clear and deep and free from hidden dangers. In general the shores may be followed very close to.

In the deep water all soundings are made with a piano wire passing over a registering sheave. No tubes were used. The shoal work is with the hand lead. An automatic tide gauge was placed at the cannery wharf in Mc Clure Bay.

#### PORT NELLIE JUAN.

The first reach of Port Nellie Juan increases in depth from two hundred fathoms in the mouth to four hundred and fifty fathoms a short way past the entrance to Mc Clure Bay. A few ledges show close to the shore on the south side of the entrance but the deep water extends close up to them and also passes close to Applegate Island on the opposite side.

On either side of the entrance to Culross Passage are islets or rocks which may be safely approached. On the west side the outerward ones are wooded. This group is connected by a sand bar at low tide.

A mile west of Culross Passage is a small bay behind some islands. A reef between the islands and the mainland cuts it into two parts. The eastern part seems safe for small boats, avoiding on entering a sunken rock 50 meters off the island. This was not sounded as there was no engine for the launch. Neither engine of the Taku would back and only on rare occasions would both run at once. So the vessel could not be taken into places where she could not be extricated when required.

The western part of the bay offers anchorage for small vessels in the middle a short way past the end of the island. Reefs were seen close to the island side.

The other bays on the west side of the first reach of Port Nellie will permit the entrance of small launches only.

On the east side, at the southern end of the work a small island inclosed deep water behind it. The Taku anchored here a time or two in eighteen fathoms mud bottom with scant swinging room off the tiny islet near the head of the little bay. No less water was found in it. It is not a good anchorage being open to Prince William Sound and requiring too great a scope of chain in windy weather to swing clear the shores. The island practically closes up the head of the bay. Off the north end of the island indications of a reef were found but no dangers could be discovered on development.

In the bight between Stations Juan and Port a vessel may anchor in twenty to twenty five fathoms with about five hundred yards swinging room. This is the only place found where moderately large vessels could anchor. Outside of the distance named the depth increases rapidly. The southern of the two indentations about this anchorage has a wide, even, gravel flat at its head which goes bare at low tide and offers an excellent place for docking such vessels as the tide will float.

#### Mc Clure Bay

This bay is eighty to a hundred fathoms deep and is clear and free from hidden dangers. The shores are steep to. There is anchorage in twenty five fathoms mud bottom, near the head of the bay proper.

The small islands on the east side of the entrance may be approached closely. In searching the locality indications of a deep ledge were found but nothing of possible danger to vessels giving the island a berth of a hundred and fifty yards. Immediately north of the island and between it and the near shore are rocks and ledges but none extend out into the fairway.

A cannery of the Copper River Packing Company is located in a small bay about a mile south of the islet mentioned above. The wharf is situated at the north entrance point in such a way that ships run straight to their berth without turning in the bay leaving the stern of the usual passenger steamer about in line between the entrance points. On casting off, the vessel backs directly out into McClure Bay.

As the soundings in the bay were made in such weather that a boat sheet could not be used and the soundings on the smooth sheet had not been plotted when forwarded to the Office, I have not seen the plotted soundings. The bay is small. There is not holding ground or swinging room for any but small craft.

There is a rock just inside the bay near the south side. It was never seen exposed though there was about a foot of water over it at the low tide. On the north side near the east end of the cannery buildings just ahead of a ship as she lay at dock and not far off is another rock which is covered about a foot at low tide. Some claim to have seen it exposed. The two rocks are shown on the large scale insert. No other obstructions are known. When twilight falls the company maintains a light on the water tank at the west end of the cannery buildings.

The upper part of the eastern arm at the head of McClure Bay is foul. Vessels requiring little swinging room may anchor in the entrance to this arm in eighteen fathoms, mud bottom.

The west arm is clear in the middle with no difficult danger and offers anchorage in depths of fifteen to twenty fathoms to vessels not requiring a great swinging radius. The shelter is perfect. Perhaps vessels of three hundred tons could find anchorage here though there would be none to much room for a vessel of that size to manoeuvre.

In sounding during the season the TAKU has had to approach very close to the shore as there was no launch available for work in close quarters. The two engines being so seldom in working order at once the sounding lines along the shore were obtained <sup>running in</sup> by the direction that would bring the working engine next to the shore. The engine would not back nor would the vessel turn toward the side containing the working engine in a reasonable time but it would answer the opposite helm promptly.

Little or no kelp was seen on the working ground.

At the entrance to Port Nellie Juan on the south side the land slopes up to a ridge of hills while across the bay it drops abruptly from a rounded knob, 1550 feet high, in a bare bluff to the shore. Applegate Island at the foot of the bluff is flat and wooded.

The only coast pilot note required is to give the shore a berth of two hundred yards and pass westward of the two islet in the entrance to McClure Bay.

Small floating ice was seen in small pieces at the southern end of the work. The head of McClure Bay freezes over but as far as the records extend the bay containing the cannery does not freeze over.

The snow fall in this vicinity is very heavy. The people who arrived in February to build the cannery claim that eighteen feet of snow fell on a cleared space there after.

There are two or three prospectors in Culross Passage and a prospect at Culross bay which is being worked. No natives live in the vicinity.

Some people who climbed a hill at the head of McClure Bay report a series of lakes in extension of the west arm of McClure Bay reaching well over toward Blue Fiord. There is a lake at the head of the bay on which the cannery is located whose limits are fairly well known but the ones north and south of it were reported late in the season and were not seen by any officers of the party.

The topographer says the contours which can be seen do not contradict the reports.

Respectfully,

*E. E. Smith*  
Jr. H. & G. Engr.  
Comdg. U. S. S. MATCHLESS.



STATISTICS SHEET NO. \_\_\_\_\_

Date 1917	Letter	Volume	Positions	Soundings	Miles, statute	Vessels
July 30	A.	I	8	8	1.5	Taku
31	B.	I	57	57	13	Taku
August 1	C.	I	58	58	16	Taku
2	D.	I	53	53	15	Taku
3	E.	I	52	52	13	Taku
4	F.	I	54	54	16.2	Taku
6	G.	I	87	185	17	Taku
7	H.	II	10	10	2.5	Taku
9	J.	II	27	28	10.3	Taku
10	K.	II	81	164	18.8	Taku
11	L.	II	97	174	13	Taku
13	M.	II	55	168	10	Taku
14	N.	II	43	126	6.5	Taku
17	P.	III	43	62	7	Taku
20	Q.	IV	2	2	.25	Skiff
21	R.	IV	79	100	2.75	Skiff
22	S.	IV	12	27	.25	Skiff
Total.....			818	1328	163.05	

ADDRESS  
U. S. COAST AND GEODETIC SURVEY  
WASHINGTON, D. C.

REFER TO No. 5-VEC

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

March 5, 1918

CHARTS (10)

Chief, Division of Hydrog. & Topog.

Chief, Division of Charts:

*Liberty*  
with descriptive report  
Hydrographic sheet No. 3973

Drawing Section.

Tidal reductions have been approved in  
4 volumes of sounding records for

HYDROGRAPHIC SHEET 3973

Port Nellie Juan, Prince William Sd., Alaska.  
E.E.Smith in 1917

Plane of reference is  
Mean lower low water, reading

9.1 ft. on tide staff at Nellie Juan  
Cannery, McClure Bay, Alaska.

*L. P. Study*

Acting Chief, Section of  
Tides and Currents.

Hydrographic Sheet No. 3973.  
Port Nellie Juan, Prince William Sound.  
Alaska.

Sheet protracted by field party and where verified found to be accurately performed.

Platting done in this office by Mr. Kennard and although done by a new man and not accustomed to this class of work the platting was well done, but few errors being found.

The survey is good although many no bottom soundings are recorded, this necessarily leaves some of the curves in question.

The position figures are too large and too close to the position. The day letter is also placed at each position; this is not necessary and not according to "General Instructions". Also in many cases the signal name is in black and therefore difficult to find when mixed in with soundings.

John D. Torrey  
7/9/19.

In the west branch, head of McClure Bay several positions were numbered in error. Rocks awash near Applegate Is. were in error because of error in one position on sdg line

RHC 10/24/1958