

6806

U. S. COAST & GEODETIC SURVEY  
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DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

## DESCRIPTIVE REPORT

Topographic }  
Hydrographic } Sheet No. B

State Washington

LOCALITY

Grays Harbor

South Bay

1934

CHIEF OF PARTY

L. D. Graham

U. S. GOVERNMENT PRINTING OFFICE 102221

DEPARTMENT OF COMMERCE  
U.S. COAST AND GEODETIC SURVEY

6804

REG. NO.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. B

REGISTER NO.

State Washington

General locality Grays Harbor

Locality South Bay

Scale 1/10,000 Date of survey March, 1940

Vessel DISCOVERER

Chief of party L. D. Graham

Surveyed by G. W. Moore

Inked by G. W. Moore

Heights in feet above None to ground to tops of trees

Contour, Approximate contour, Form line interval None feet

Instructions dated W.M.S. 4/13/39 W.M.S. 6/26/39, 1939  
G.L.B. 9/30/39

Remarks:



Grays Harbor -- South Bay, Washington.

Project HT 235

AUTHORITY

This survey was authorized by INSTRUCTIONS dated 4-13-39, and SUPPLEMENTAL INSTRUCTIONS dated 6-26-39, issued to W. M. Scaife, and SUPPLEMENTAL INSTRUCTIONS transferring this project to the Ship DISCOVERER, dated 9-30-39.

COAST LINE

South Bay is all protected water, and the area within this sheet is practically all marsh along the shore. The hills or uplands begin to rise about 3 or 4 hundred meters behind the shore. In general where the tree line begins the hills begin. Generally the mean high water line is quite definite, there being an abrupt drop of three or four feet right at the line. The hills are covered with a heavy growth of pine and cedar trees. Between Bay City and Laidlaw there is a highway bridge about 0.6 nautical mile in length. Over the main channel there is a draw span. Fastened to the center of the north side of the draw is ~~South~~ Bay Range, front that shows to the northward. South east of the bridge, about 675 meters is South Bay Range, Rear mounted upon a group of piling. Both ranges are large diamond shaped targets. They were located by triangulation cuts and the azimuth between them scaled from the sheet and found to be ~~127 degrees 50 minutes true~~ <sup>142  $\frac{1}{2}$  degrees true</sup>. There are numerous spar buoys marking the main channel north of the bridge. <sup>Buoys located on H-6646 (1940)</sup>

<sup>Black Stack Bay City Sardine Factory 1940</sup>

The Pilchard Plant at Bay City is distinctive. It is a large red building set on a wharf projecting out over the water. The peak roof of the main building is painted black and the stack projects up through



its north slope. The stack was located by triangulation and is considered to be a landmark.

#### LANDMARKS

Stack, Pilchard Plant - Bay City: A black steel stack about 3 feet in diameter projecting out of the north slope of the roof to Pilchard Plant at Bay City. The stack is about 30 feet tall and is the only one in the vicinity.

Weight: The concrete counterweight to the draw span of the highway bridge between Bay City and Laidlaw.

Prong: A large cedar snag at the source of Beardslee Slough. The northwest prong of the snag is about 20 feet higher than the southeast one. The base of the snag is 50 feet in circumference.

High: A large cedar snag on the bluff overlooking South Bay about 790 meters south southeast of triangulation station Beards.

Barn: The east gable of a large peaked roof barn about 570 meters southwest of triangulation station Dike. The barn is the largest one in the vicinity. The haymow of the barn projects above the adjoining sheds about 20 feet. There is a smaller hip-roofed barn just southeast of the barn used as a landmark.

#### HORIZONTAL CONTROL

The control consisted of a second-order arc of triangulation measured in 1940, and a supplemental arc of graphic triangulation extended up Beardslee Slough.

#### TRAVERSE:

Only one traverse was run. It extended between topographic stations Pete and Mill. Topographic stations Burnt and Lump were located by rod readings. The table was set up at Pete topographic station, and oriented on triangulation station Island and a line was drawn through topographic station Mill. Two skip setups were used for extending



the distance from Pete to Mill. No adjustments were made as the traverse was not run back and there was no control to tie in to at Mill.

#### GRAPHIC TRIANGULATION

Topographic station Ley was located by cuts from triangulation stations Beards and Island, and checked by 3 point fix on Beards, Island and Mudden. Topographic stations Fence and Line were located from Beards - Ley, Pete and Karl from Fence and Line. Orientation for the most part was from Island. In a number of places distances were checked by direct rod readings. The closing errors were not perceptable on the sheet so no adjustment was necessary.

#### AUXILLIARY SURVEYING METHODS

Standard topographic methods were used throughout this work.

#### FORM LINES

Instruction did not call for form lines.

#### MARSH

Where the plane of the mean high water line intersects the land on fast ground the mean high water line is shown as a heavy line between rod reading points. Where the plane of the mean high water line intersects the land at the marsh with a definite break it is shown as a fine line between rod reading points. Where the marsh is broken up, and there is no definite line of demarkation, the marsh is shown by symbol only. Where the marsh symbol extends out beyond the mean high water line, the marsh there has a gradual slope and the mean high water line is shown as a fine line between rod reading points along the edge of the vegetation that shows above mean high water.

#### INCOMPLETE WORK

The sheet is complete from the north down to a line between,



triangulation stations Swamp and Mudden. Additional work is needed south and east of the above mentioned line. The reason this was not completed was through lack of time. This sheet is not large enough to cover the area south and east of Swamp and Mudden. If that work were to be placed on this sheet a large insert would be necessary. The numerous spar bouys north of the bridge were not located. <sup>Located on H-6646 (1740)</sup> The effort made to cut them in was unsuccessful because of their long scopes, and changing tides and winds.

#### STANDARD PRACTICE

Standard practice was used throughout this survey. The sheet was worked upon during the months of January, February and March when weather permitted.

#### LIST OF NAMES

Names that have been previously used upon Coast Survey charts were checked by inquiry in the field and are shown in ink on the sheet.

No new names were assigned by field officers.

Several well established local names were determined in the field, they are shown in pencil in their respective places on the sheet. Dempsey Creek branches off to the northeast from the source of Beardslee Slough. Barlow Creek the larger of the two branches off the source of Beardslee Slough to the eastward. Kingfisher Creek branches off to the southeastward from about the center of the south shore of Beardslee Slough. Mallard Slough runs northward into South Bay almost directly south of Bay City. Grass Island is the comparatively large, grass covered, marsh island at the northwest corner of the sheet. Except for the locations of Dempsey and Barlow Creeks these names were agreed upon as the local name in common usage by the following persons:

Mr. R. McDonald, Ocosta, Washington  
Mr. William Peterson, Ocosta, Washington  
Mr. F. T. Workman, Ocosta, Washington.



Mr. Workman said the names Dempsey Creek and Barlow Creek should be interchanged. Benson's Office Supply Company of Aberdeen, Washington have published a logging map of the territory and their maps agree with Mr. Workman. It is recommended that the names be retained as shown on the topographic sheet. *(which agrees with USGS and VSE. usage) L.H.* ✓

#### PHOTOGRAPHS

No photographs are included in the report. ✓

#### COAST LINE

Practically all the coast line not shown as a heavy line is subject to considerable change because it is very soft and underlain by a bed of mud as indicated by the mud flats that bare at low water. ✓

#### TIDE GAGE

A tide gage was operated at the southwest corner of the main dock of the Pilchard Plant at Bay City. *Tide gage not shown on topog. sheet*

#### LOW WATER LINE

The low water line was rodged in along the north shore from the Pilchard Plant to <sup>Swamp</sup> and up Beardslee Slough to its source. The positions of the mouths of the small channels were for the most part sketched in. The low water lines on both sides of the channel were rodged in from 400 meters north of the bridge to a point even with the northernmost part of Grass Island. On the south side of the main channel from South Bay Range Rear eastward the main low water line was rodged in to Longitude 124° 02' 30". The mouths of the three channels were located. All the rest of the low water line on the sheet was sketched. ✓

#### TREE LINE

The tree line shown was for the most part sketched using a few sparsely spaced rod readings. ✓



## LIST OF PLANE TABLE POSITIONS

Name	Latitude		Meters	Longitude		Meters	Remarks
Duck	46	52	28	124	02	344	
Line	46	52	85	124	02	00	
Fence	46	52	43	124	02	355	
Karl	46	52	518	124	01	1044	
Pete	46	52	663	124	01	1270	
Peterson	46	52	683	124	02	13	Chimney
Prong	46	52	736	124	02	00	Snag
Dempsey	46	52	856	124	01	972	
Jim	46	52	1017	124	01	787	
Lump	46	52	521	124	01	545	
Burnt	46	52	477	124	01	232	
Mill	46	52	366	124	00	1251	
Ley	46	51	1485	124	02	617	
High	46	51	1234	124	02	405	
All	46	51	1037	124	02	295	
Done	46	51	862	124	02	209	
Game	46	51	776	124	02	1172	Game preserve post
Shake	46	51	113	124	02	1070	
Rod	46	51	916	124	03	633	Black & White banded rod
Green	46	51	1405	124	03	189	Chimney
Chim	46	51	1357	124	03	529	Chimney
Weight	46	51	1500	124	04	140	Counterweight
Hop	46	51	1445	124	04	198	Hopper
Bole	46	50	1791	124	03	556	Range Target (for local use)
Pipe	46	50	1558	124	03	811	Stove pipe of house
Rot	46	50	1501	124	03	313	Rotten snag
Peak	46	50	727	124	04	1172	E. gable of barn
Barn	46	50	568	124	04	913	E. gable of barn
Way	46	50	466	124	04	944	N. gable of house
Pole	46	51	1004	124	05	51	Dressed power line pole

How  
W.B. 1941

MISCELLANEOUS

The bridge between Bay City and Laidlow is wooden pile construction except for the two concrete piers that hold the single bascule draw span. The horizontal clearance of this span was measured and found to be 103 feet and it has a vertical clearance of 6 feet at mean high water when closed.

The words "Old Ship" on the sheet refer to the heavy line extending out from shore and the line represents the wreck of the hull of a large ship that is just as long as the line and in that position.

The word "Boat" on the sheet refers by an arrow to a point which is at the center of a small cabin launch that has been cast ashore at this point.

The "Barge" is indicated in its true position and size by the small rectangle. The barge is about 3 feet thick.

The limits of the oyster bed are not drawn because the bed was not definitely located. The lettering "Oyster Bed" is in its approximate position.

DIFFICULTIES

The mud on the south and west sides of the bay is very soft making walking upon it extremely difficult. For this reason most of the topography was done using a skiff and an outboard motor. Considerable rain necessitated great loss of time and effort.

STATISTICS

Shore line	56.7	Statute miles
Area	3	Square statute miles
Roads	4	Statute miles
Leves	3	Statute miles

Respectfully Submitted

Approved and Forwarded

*L. D. Graham*  
L. D. Graham  
Commanding Officer  
Ship DISCOVERER

*Glenn W. Moore*  
Glenn W. Moore  
Aid U.S.C. & G.S.



6806 9

DIVISION OF CHARTS

SURVEYS SECTION

REVIEW OF TOPOGRAPHIC SURVEY

REGISTER NO. 6806

Field No. B

Washington, Grays Harbor, South Bay  
Surveyed March 1940, Scale 1:10,000  
Instructions dated April 13, June 26 and September 30, 1939

Plane Table Survey

Aluminum Mounted

Chief of Party - L. D. Graham  
Surveyed by - G. W. Moore  
Inked by - G. W. Moore  
Reviewed by - R. H. Carstens, May 21, 1942  
Inspected by - H. R. Edmonston

1. Adjoining Sheets

This sheet satisfactorily joins T-6807 (1940) on the north. The project survey to the southeast has not been made.

2. Comparison with Prior Surveys

T- 821 (1860)	1:20,000
T-3044 (1909-10)	1:20,000
T-3155 (1911)	1:10,000

These surveys cover the entire area of the present survey. There are slight differences in the position of the high water line on the west side of South Bay, around the marsh grass islands to the south of the highway bridge and in Beardslee Slough. These differences are due probably to the growth of marsh grass and to the interpretation of the high water line. There is a difference of 140m. in the position of the tree line in Lat.  $46^{\circ}50.3'$ , Long.  $124^{\circ}04.5'$  between the 1911 survey and the present survey. The present location should be accepted because of the more ample control. The highway bridge and the dock at Bay City have been built since the earlier surveys. The present survey should supersede these surveys in the common area.

3. Comparison with Chart 6195

a. Topography



A chart drawing, to which this survey was applied, was used in the comparison. All new topographic corrections were taken from this survey.

b. Aids to Navigation

The position of fixed aids to navigation agrees with the charted position. The floating aids to navigation were located on H-6646 (1940).

4. Condition of Survey

Satisfactory except that described topographic stations were not so indicated on the sheet.

5. Compliance with Instructions for the Project

Satisfactory.

6. Additional Field Work Recommended

None within the area completed. The survey should be extended southeastward from  $\Delta$  Mudden and  $\Delta$  Swamp to the head of small boat navigation.

7. Superseded Surveys

T- 821 (1860)	in part
T-3044 (1909-10)	" "
T-3155 (1911)	" "

Examined and approved:

*Robert W. Knapp*  
Chief, Surveys Section

*J. S. Borden*  
Chief, Division of Charts

*Fred. L. Peacock*  
Chief, Section of Hydrography

*W. H. Wade*  
Chief, Division of Coastal  
Surveys

## Remarks.

## Decisions

1		468240
2		"
3		"
4		"
5		"
6		469240
7		468240
8		"
9		"
10	O.K. for this sheet but omit french 6195	"
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GEOGRAPHIC NAMES  
Survey No. **T6806**

GEOGRAPHIC NAMES											
Survey No. T6806											
Name on Survey											
	A,	B,	C,	D	E	F	G	H	K		
<u>Barlow Creek</u> ✓											1
<u>Bay City</u>											2
<u>Beardslee Slough</u>											3
<u>Dempsey Creek</u> ✓											4
<u>Grass Island</u> ✓											5
<u>Grays Harbor</u>											6
<u>Kingfisher Creek</u> ✓											7
<u>Mallard Slough</u> ✓											8
<u>South Bay</u>											9
<u>Laidlaw</u>											10
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Names underlined in red approved

by L. Heck on 8/18/41

M 234



# MEMORANDUM

## IMMEDIATE ATTENTION

SURVEY  
DESCRIPTIVE REPORT  
~~PHOTOSTATIC~~

~~No. 11~~

No. T **T6806**

received Mar. 28, 1941  
registered Apr. 8, 1941  
verified  
reviewed  
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
25	✓	HBL	Pages 1 and 2
26			
30			
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62			
63			
82			
83			
88			
90			

RETURN TO

82	T. B. Reed
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✓ 7/30/42